



FLUID POWER CATALOGUE

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Leading supplier of hydraulic, pneumatic and pipeline components

- Next Day Dispatch
- Trade Counter Available Monday - Friday
- Hose & Connector Solutions - Supplied Individually or as Bespoke Assembly Packages
- Power & Hand Tools, Engineering Consumables, PPE, and Safety Products
- Discount Structures & Online Ordering Available
- Internal Technical & On-site Engineering Support

Flotec has over 25 years' experience supplying a wide variety of products and services to many industries, including: Rail, Plant Hire, Food Manufacturing, Recycling, Agriculture & Automotive.

From its purpose built 12,000 square foot unit in Loughborough, Flotec is ideally situated to support the UK with over 10,000 product items.

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- Complete bespoke kit packages
- Route optimisation assistance
- On-site hose management surveys/reports
- Stock profile maintenance
- Full Safe hydraulics training and certification



Our products always meet and exceed the latest EN and ISO regulations standards

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We offer industry leading brands and expertly engineered solutions for all your **Fluid Power** needs.



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SECTION 1

1.01 Hydraulic Hose & Inserts

- Hydraulic Hose Range
- Breaker Hose Assemblies, Hose Ferrules
- Hose Connectors
- Interlock Hose Connectors
- Stainless Steel Ferrules
- Stainless Steel Adaptors & Hose Fittings
- Push Style Hose System
- Reusable Fittings

ET PRO PH

6-41



1.02 Hose Retention, Sleeves & Cleaning

- Retention Systems
- Protective Hose Sleeves
- Hose & Pipe Cleaning Kits
- Service Plugs

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42-51



1.03 Hydraulic Threaded Adaptors & Flanges

- Adaptors
- ORFS
- JIC & High Pressure Adaptors
- Stainless Steel Adaptors
- 316 Precision Instrumentation Pipe Fittings
- 10,000 psi 316 Stainless Steel Adaptors
- 37° JIC Stainless Steel Flare Fittings
- SAE Flanges

BURNETT & HILLMAN HYDRAULIC ADAPTOR UK MANUFACTURER ICR 500 PANAM

52-108

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1.04 Hydraulic Seals & Caps

- Seals, Plastic Caps & Plugs

ET PRO

109-114



1.05 Hydraulic Compression Fittings

- Component Parts
- Male Stud Couplings
- Male Stud Elbows & Reducing Bushes
- Tube to Tube Couplings
- Banjo Couplings
- Welding Couplings
- Adjustable Stud Couplings
- Swivel Couplings
- Female Stud & Gauge Couplings
- Reducing Couplings
- Din 2353 Body Only Fittings
- Flange Couplings
- Valves
- Standpipe Adaptors
- High Pressure Metric Tube Couplings
- Imperial Compression Fittings
- 316 Stainless Steel Tube Fittings
- Stainless Steel Component Parts
- 316 Stainless Steel Twin Ferrule Tube Fittings (Imperial & Metric)

ET PRO Dimple Valve ICR BETABITE HYDRAULICS

115-178

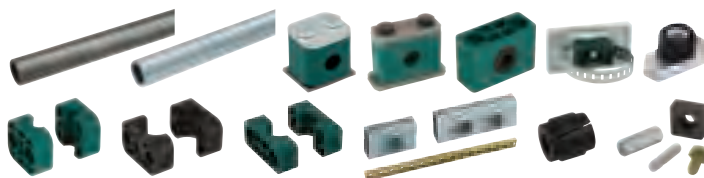


1.06 Tubes & Clamps

- Hydraulic Tubing (Imperial & Metric)
- Hydraulic Tube Clamps & Accessories
- Pipe Clamping Systems

RSB Parker

179-201



1.07 Valves, Pumps & Motors

- CETOP Directional Control Valves
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- Hydraulic Directional Control Valves
- System Stack Valves
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- Industrial Vane Pumps
- Hydraulic Piston Pumps
- Gear Pumps
- Gear Motors
- Hand Pumps
- Control Valves

ET PRO VICKERS Roquet

202-237

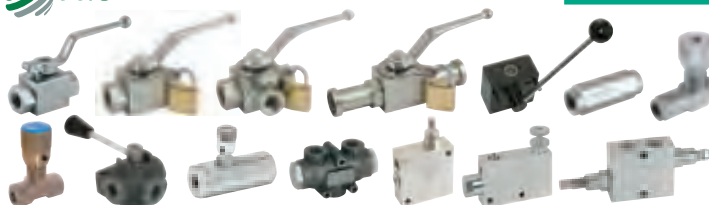


1.08 Hydraulic Threaded Valves

- Hydraulic Ball Valves
- Non-return Valves
- Flow Control Valves
- Stainless Steel Hydraulic Valves
- Needle Valves
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- Threaded Hydraulic Valves

ET PRO

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1.09 Test, Flow Filtration & Cooling

- Hydraulic Filtration
- High Pressure Hydraulic Filtration
- Flow Metering
- Hydraulic Accessories
- Hydraulic Pressure Gauges
- Test Point Couplings
- Hydraulic Oil Coolers

ET PRO Parker spradow LPFI

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1.10 Lifting Equipment, Spill & Oils

- Hydraulic Cylinders
- Hydraulic Pumps
- Hydraulic Cylinder Kits
- Hydraulic Tooling & Lifting Accessories
- Bottle Jacks
- Toe Jacks
- Spill Absorbents
- Chemical Spill Absorbents
- Spill Kits, Spill Trays
- Drain Cover, Drum Pallets
- Absorbent Dispensing Station

ET PRO BVA

274-284



HYDRAULIC HOSE RANGE



EN853-1, DIN20022 (Exceeds SAE 100R1AT)

Application:

Medium pressure hydraulic applications

Specification:

DIN 20022, EN853 – 1 Exceeds 100 R1AT

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: 1 single steel wire braid

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

NB: For air above 17 bar, the hose cover must be pin-pricked

Available per 1 metre

Smooth cover available on request

Working Temperature:
-40°C to +100°C



EN853-1 DIN 20022 - 2" - 51MM

1 Wire, 100 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R1AT-03-100	3/16"	12.5	250	90	1000
100R1AT-04-100	1/4"	14.1	225	100	900
100R1AT-05-100	5/16"	15.7	215	115	850
100R1AT-06-100	3/8"	18.1	180	130	720
100R1AT-08-100	1/2"	21.4	160	180	640
100R1AT-10-100	5/8"	24.5	130	200	520
100R1AT-12-100	3/4"	28.5	105	240	420
100R1AT-16-100	1"	36.6	88	300	350

Tech Sheet 5001

1 Wire, 40 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R1AT-20-40	1.1/4"	44.8	63	420	250
100R1AT-24-40	1.1/2"	52	50	500	200
100R1AT-32-40	2"	65.9	40	630	160

Tech Sheet 5001

Technical Data

Hydraulic Hose, EN853, DIN20022, SAE100R1AT

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	FT3 Type Ferrule	Swage Dia. in mm	mm	mm	mm	mm
100R1AT-03	4.7	3/16	250	3625	1000	14503	3.54	90	FT3-12-03CF	15	2.89	3.05	2.80	2.93
100R1AT-04	6.3	1/4	225	3260	900	13050	3.94	100	FT3-12-04CF	17.8	3.86	3.67	3.67	3.45
100R1AT-05	8	5/16	215	3120	850	12325	4.53	115	FT3-12-05CF	20.5	5.29	5.11	5.11	4.91
100R1AT-06	10	3/8	180	2610	720	10440	5.12	130	FT3-12-06CF	21.6	6.78	6.42	6.42	6.13
100R1AT-08	12.5	1/2	160	2320	640	9280	7.09	180	FT3-12-08CF	24	9.21	8.86	8.86	8.4
100R1AT-10	16	5/8	130	1885	520	7540	7.87	200	FT3-12-10CF	28.7	12.09	11.59	11.59	10.99
100R1AT-12	19	3/4	105	1520	420	6090	9.45	240	FT3-12-12CF	31.3	14.46	13.91	13.91	13.31
100R1AT-16	25	1	88	1280	350	5075	11.81	300	FT3-12-16CF	41	18.89	18.29	18.29	17.68
100R1AT-20	31.5	1.1/4	63	910	250	3625	16.54	420	FT3-12-20CF	48.5	25.4	24.69	24.69	23.8
100R1AT-24	38	1.1/2	50	725	200	2900	19.69	500	FT3-12-24CF	58.5	31.4	30.6	30.6	29.8
100R1AT-32	51	2	40	580	160	2320	24.8	630	FT3-12-32CF	70	41.4	40.6	40.6	30.8

EN853-2, DIN20022 (Exceeds SAE 100R2AT)

Application:

Medium pressure hydraulic applications

Specification:

DIN 20022, EN853-2, exceeds SAE100 R2AT

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: 2 single steel wire braids

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

NB: For air above 17 bar, the hose cover must be pin-pricked

Available per 1 metre

Smooth cover available on request

Working Temperature:
-40°C to +100°C



EN853 - 2 - DIN20022 - 51 mm - S

2 Wire, 100 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R2AT-03-100	3/16"	14.1	415	90	1650
100R2AT-04-100	1/4"	15.7	400	100	1600
100R2AT-05-100	5/16"	17.3	350	115	1400
100R2AT-06-100	3/8"	19.7	330	130	1320
100R2AT-08-100	1/2"	23.0	275	180	1100
100R2AT-10-100	5/8"	26.2	250	200	1000
100R2AT-12-100	3/4"	30.1	215	240	850
100R2AT-16-100	1"	38.9	165	300	650

Tech Sheet 5002

2 Wire, 40 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R2AT-20-40	1.1/4"	49.6	125	420	500
100R2AT-24-40	1.1/2"	56.0	90	500	360
100R2AT-32-40	2"	68.6	80	630	320

Tech Sheet 5002

Technical Data

Hydraulic Hose, EN853, DIN20022, SAE100R2AT

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	FT3 Type Ferrule	Swage Dia. in mm				
100R2AT-03	4.7	3/16	415	6019	1650	23931	3.54	90	FT3-12-03CF	16.4	2.89	3.05	2.80	2.93
100R2AT-04	6.3	1/4	400	5800	1600	23200	3.94	100	FT3-12-04CF	18.1	3.86	3.67	3.67	3.45
100R2AT-05	8	5/16	350	5075	1400	20300	4.53	115	FT3-12-05CF	19.7	5.29	5.11	5.11	4.91
100R2AT-06	10	3/8	330	4785	1320	19140	5.12	130	FT3-12-06CF	22.1	6.78	6.42	6.42	6.13
100R2AT-08	12.5	1/2	275	3990	1100	15950	7.09	180	FT3-12-08CF	24.6	9.21	8.86	8.86	8.4
100R2AT-10	16	5/8	250	3625	1000	14500	7.87	200	FT3-12-10CF	28.2	12.09	11.59	11.59	10.99
100R2AT-12	19	3/4	215	3120	850	12325	9.45	240	FT3-12-12CF	32.5	14.46	13.91	13.91	13.31
100R2AT-16	25	1	165	2390	650	9425	11.81	300	FT3-12-16CF	40.3	18.89	18.29	18.29	17.68
100R2AT-20	31.5	1.1/4	125	1810	500	7250	16.54	420	FT3-12-20CF	51.5	25.4	24.69	24.69	23.8
100R2AT-24	38	1.1/2	90	1305	360	5220	19.69	500	FT3-12-24CF	59.7	31.4	30.6	30.6	29.8
100R2AT-32	51	2	80	1160	320	4640	24.8	630	FT3-12-32CF	73.4	41.4	40.6	40.6	30.8

HYDRAULIC HOSE RANGE



Compact Hydraulic Hose, EN857-1SC

1 Wire Compact Hose

Application:

Medium pressure hydraulic applications with space constraints and greater flexibility is required

Specification:

EN857 - 1SC

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: 1 single steel wire braid

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

NB: For air above 17 bar, the hose cover must be pin-pricked

Available per 1 metre

Smooth cover available on request

Working Temperature:
-40°C to +100°C



1SC-04 - EN 857 - 1SC / DN06 - 1

1 Wire, 100 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
1SC-04-100	1/4"	13.5	225	75	900
1SC-06-100	3/8"	16.9	180	90	720
1SC-08-100	1/2"	20.4	160	130	640
1SC-12-100	3/4"	26.7	105	180	420

Tech Sheet 5003

Technical Data

1 Wire Compact Hose, EN857- 1SC

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	FR79 Type Ferrule	Swage Dia. in mm	mm	mm	mm	mm
1SC-04	6.3	1/4	225	3260	900	13050	2.95	75	FR79-04	14.7	3.86	3.67	3.67	3.45
1SC-06	10	3/8	180	2610	720	10440	3.54	90	FR79-06	19	6.78	6.42	6.42	6.13
1SC-08	12.5	1/2	160	2320	640	9280	5.12	130	FR79-08	23.3	9.21	8.86	8.86	8.40
1SC-12	19	3/4	105	1520	420	6090	7.09	180	FR79-12	30.8	14.46	13.91	13.91	13.31



For full range of Danfoss Waltech couplings see pages 115-137

Compact Hydraulic Hose, EN857-2SC

2 Wire Compact Hose

Application:

Medium pressure hydraulic applications with space constraints and greater flexibility is required

Specification:

EN857 – 2SC

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: 2 single steel wire braids

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

NB: For air above 17 bar, the hose cover must be pin-pricked

Available per 1 metre

Smooth cover available on request

Working Temperature:
-40°C to +100°C



2 Wire, 100 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
2SC-04-100	1/4"	14.2	400	75	1600
2SC-06-100	3/8"	18.3	330	90	1320
2SC-08-100	1/2"	21.5	275	130	1100
2SC-12-100	3/4"	28.6	215	200	860
2SC-16-100	1"	36.6	165	250	660

Tech Sheet 5004

Technical Data

2 Wire Compact Hose, EN857- 2SC

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	F2SC Type Ferrule	Swage Dia. in mm	mm	mm	mm	mm
2SC-04	6.3	1/4	400	5800	1600	23200	2.95	75	F2SC-04	17.6	3.86	3.67	3.67	3.45
2SC-06	10	3/8	330	4785	1320	19140	3.54	90	F2SC-06	20.5	5.29	5.11	5.11	4.91
2SC-08	12.5	1/2	275	3990	1100	15950	5.12	130	F2SC-08	24.3	6.78	6.42	6.42	6.13
2SC-12	19	3/4	214	3120	860	12470	7.86	200	F2SC-12	31.5	9.20	8.86	8.86	8.40
2SC-16	25	1	165	2390	660	9570	9.84	250	F2SC-16	39	18.89	18.29	18.29	17.68



For Fire Sleeves
see pages 44-45



HYDRAULIC HOSE RANGE



MSHA Approved, EN853, DIN20022 (Exceeds SAE 100R2AT)

2 Wire Compact Hose

Application:

Medium pressure hydraulic applications were MSHA approval and certification is required

Specification:

MSHA Approved, DIN 20022, EN853 – 2SN, exceeds SAE100 R2AT

Construction:

Inner tube: oil resistant synthetic rubber (NBR)
Reinforcement: 2 single steel wire braids
Outer cover: MSHA approved oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

NB: For air above 17 bar, the hose cover must be pin-pricked

Available per 1 metre
Smooth cover available on request

Working Temperature:
-40°C to +100°C



MSHA - EN853-2 - DIN 20022 - E

2 Wire, 100 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
MSHAR2AT-04-100	1/4"	15.7	400	100	1600
MSHAR2AT-06-100	3/8"	19.7	330	125	1320
MSHAR2AT-08-100	1/2"	23.1	275	180	1100

Tech Sheet 5015

2 Wire, 50 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
MSHAR2AT-12-50	3/4"	30.2	215	240	850
MSHAR2AT-16-50	1"	38.9	165	300	650

Tech Sheet 5015

Technical Data

Hydraulic Hose, MSHA R2AT

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	FT3 Type Ferrule	Swage Dia. in mm	mm	mm	mm	mm
MSHAR2AT-04	6.3	1/4	400	5800	1600	23200	3.94	10	FT3-12-04CF	19.1	3.86	3.67	3.67	3.45
MSHAR2AT-06	10	3/8	330	4785	1320	19140	5.12	130	FT3-12-06CF	22	6.78	6.42	6.42	6.13
MSHAR2AT-08	12.5	1/2	275	3990	1100	15950	7.09	180	FT3-12-08CF	24.5	9.21	8.86	8.86	8.40
MSHAR2AT-12	19	3/4	215	3120	850	12325	9.45	240	FT3-12-12CF	32	14.46	13.91	13.91	13.31
MSHAR2AT-16	25	1	165	2390	650	9425	11.81	300	FT3-12-16CF	41	18.89	18.29	18.29	17.68
MSHAR2AT-20	31.5	1.1/4	125	1810	500	7250	16.54	420	FT3-12-20CF	51.5	25.40	24.69	24.69	23.8
MSHAR2AT-24	38	1.1/2	90	1305	360	5220	19.69	500	FT3-12-24CF	59.7	31.40	30.60	30.60	29.90
MSHAR2AT-32	51	2	80	1160	320	4640	24.80	630	FT3-12-32CF	73.4	41.40	40.60	40.60	30.80

Multi Spiral, EN856-4SP

Standard hydraulic adaptors do not adhere to the working pressure of multi spiral hose. Please use KR500 Hydraulic Adaptors for high pressure and multi spiral applications.

Application:

High pressure hydraulic applications

Specification:

EN856-4SP

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: 4 high tensile steel spirals

Outer cover: oil and weather resistant synthetic rubber

NB: External skive required

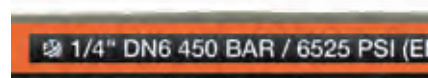
Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

Available per 1 metre

Smooth cover available on request

Working Temperature:
-40°C to +100°C



40 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
4SP-04-40	1/4"	18.7	450	150	1800
4SP-06-40	3/8"	22.2	445	180	1780
4SP-08-40	1/2"	25.4	415	230	1660
4SP-10-40	5/8"	29.0	350	250	1400
4SP-12-40	3/4"	33.0	350	300	1480
4SP-16-40	1"	40.9	280	340	1120
4SP-20-40	1.1/4"	52.4	210	460	840
4SP-24-40	1.1/2"	58.8	185	560	740
4SP-32-40	2"	71.4	165	660	660

Tech Sheet 5006

Technical Data

Multi Spiral Hydraulic Hose, EN856-4SP

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Swaging Dimensions		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Skive Length JMF56 in mm	Skive Length JMF57 in mm	Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	JMF57 Type Ferrule	Swage Dia. in mm	mm	mm	External	External	mm	mm
4SP-04	6.3	1/4	450	6525	1800	26100	5.91	150								
4SP-06	10	3/8	445	6450	1780	25810	7.09	180	JMF57-06CF	23	6.78	6.42	27	—	6.42	6.13
4SP-08	12.5	1/2	415	6020	1660	24070	9.06	230	JMF57-08CF	26.5	9.21	8.86	28	32	8.86	8.40
4SP-10	16	5/8	350	5075	1400	20300	9.84	250	JMF57-10CF	29.7	12.09	11.59	33	—	11.59	10.99
4SP-12	19	3/4	350	5075	1480	21460	11.81	300	JMF57-12CF	34	14.46	13.91	32	40	13.91	13.31
4SP-16	25	1	280	4060	1120	16240	13.39	340	JMF57-16CF	43	18.89	18.29	42	48	18.29	17.68
4SP-20	31.5	1.1/4	210	3045	840	12180	18.11	460	JMF57-20CF	53	25.40	24.69	48	55	24.69	23.80
4SP-24	38	1.1/2	185	2680	740	10730	22.05	560	JMF57-24CF	60.5	31.40	30.60	60	68	30.60	29.80
4SP-32	51	2	165	2390	660	9570	25.98	660	JMF57-32CF	74.5	41.40	40.60	61	73	40.60	30.80

HYDRAULIC HOSE RANGE



Multi Spiral, EN856-4SH

Application:

High pressure hydraulic applications, for use with interlock fittings

Specification:

EN856-4SH

Construction:

Inner tube: oil resistant synthetic rubber (NBR)
Reinforcement: 4 high tensile steel spirals
Outer cover: oil and weather resistant synthetic rubber

NB: External and internal skive required

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

° Working Temperature:

-40°C to +100°C



3/4" DN19 420 BAR / 6090 PSI (E)

40 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
4SH-12-40	3/4"	33.0	420	280	1680
4SH-16-40	1"	39.9	380	340	1520

Tech Sheet 5007

Technical Data

Multi Spiral Hydraulic Hose, EN856-4SH

Part Number	Size		Working Pressure		Burst Pressure		Bend Radius		Tail ID Top Tolerance	Tail ID Bottom Tolerance	Swaging Dimensions		Skive Length in mm		Swaged No Go	Swaged Go
	mm	inch	bar	psi	bar	psi	Inch	mm	mm	mm	JMF4SH Type Ferrule	Swage Dia. in mm	Internal	External	mm	mm
4SH-12	19	3/4	420	6090	1680	24360	11.02	280	14.46	13.91	JMF4SH-12CF	35.1	16	43	13.91	13.31
4SH-16	25	1	380	5510	1520	22040	13.39	340	18.89	18.29	JMF4SH-16CF	43.4	18	59	18.29	17.68

Other sizes available on request.

A minimum order quantity will apply. Lead times will be given at point of enquiry



For full range of Hydraulic QRC's see pages 289-320

Thermoplastic, SAE 100R7

100R7 Hose

Application:

Thermoplastic hose with perforated cover for use on medium pressure hydraulic applications.

Specification: SAE100 R7

Construction:

Inner tube: thermoplastic elastomer

Reinforcement: 2 single textile yarn braids

Outer cover: high abrasion resistant polyurethane

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, lubricating oils, solvent and gas transfer

Available per 1 metre

Working Temperature:

-40°C to +100°C.



75 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R7-03-75	3/16"	10.8	210	75	840
100R7-04-75	1/4"	13.0	210	100	840
100R7-05-75	5/16"	15.1	175	115	700
100R7-06-75	3/8"	17.0	155	125	620
100R7-08-75	1/2"	20.7	140	175	560

Tech Sheet 5011

25 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R7-03-25	3/16"	10.8	210	75	840
100R7-04-25	1/4"	13.0	210	100	840
100R7-05-25	5/16"	15.1	175	115	700
100R7-06-25	3/8"	17.0	155	125	620
100R7-08-25	1/2"	20.7	140	175	560

Tech Sheet 5011

Twin Line Thermoplastic, SAE 100R7

100R7 Twin Hose

Application:

Thermoplastic hose with perforated cover for use on medium pressure hydraulic applications.

Specification: SAE100 R7

Construction:

Inner tube: thermoplastic elastomer

Reinforcement: 2 single textile yarn braids

Outer cover: high abrasion resistant polyurethane

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, lubricating oils, solvent and gas transfer

Available per 1 metre

Working Temperature:

-40°C to +100°C.



75 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R7-04-75-TWIN	1/4"	13.0	210	100	840
100R7-05-75-TWIN	5/16"	15.1	175	115	700
100R7-06-75-TWIN	3/8"	17.0	155	125	620
100R7-08-75-TWIN	1/2"	20.7	140	175	560

Tech Sheet 5011

25 Metre Coils

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R7-04-25-TWIN	1/4"	13.0	210	100	840
100R7-05-25-TWIN	5/16"	15.1	175	115	700
100R7-06-25-TWIN	3/8"	17.0	155	125	620
100R7-08-25-TWIN	1/2"	20.7	140	175	560

Tech Sheet 5011

Technical Data

Thermoplastic, SAE 100R7

Part Number	Size			OD	Working Pressure			Burst Pressure			Bend Radius	Weight	Swaging Dimensions	
	mm	inch	SAE		mm	Mpa	psi	bar	Mpa	psi			bar	mm
100R7-03	5	3/16"	-3	10.8	20.7	3000	210	82.7	12000	840	75	0.046	100R7-03	12.25
100R7-04	6.3	1/4"	-4	13	20.7	3000	210	82.7	12000	840	100	0.057	100R7-04	14.7
100R7-05	8	5/16"	-5	15.1	17.2	2500	175	68.9	10000	700	115	0.069	100R7-05	17
100R7-06	10	3/8"	-6	17	15.5	2250	155	62.1	9000	620	125	0.095	100R7-06	19.4
100R7-08	12.5	1/2"	-8	20.7	13.8	2000	140	55.2	8000	560	175	0.141	100R7-08	23.8

HYDRAULIC HOSE RANGE



Oil Suction & Delivery Hose

Application:

General low pressure suction and delivery applications

Construction:

Inner tube: oil resistant synthetic rubber (NBR)

Reinforcement: woven textile yarn braids with a suitable spiral of steel to prevent collapse under vacuum

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, lubricating oils, air and water

Available per 1 metre

**Working Temperature:**

-40°C to +100°C

**Maximum Working Pressure:**

10 bar



100R4 - 3/4" OIL SUCTION & DE

10 Metre Coils

0303	ID mm	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R4-19-10	19	31	10	125	30
100R4-25-10	25	38	10	150	30
100R4-32-10	32	46	10	200	30
100R4-38-10	38	52	10	255	30
100R4-51-10	51	64	10	300	30
100R4-64-10	64	81	10	355	30
100R4-76-10	76	93	10	460	30
100R4-89-10	89	109	10	530	30
100R4-102-10	102	122	10	610	30
100R4-115-10	115	135	10	625	30
100R4-127-10	127	148	10	750	30
100R4-152-10	152	180	10	960	30

Tech Sheet 5012

20 Metre Coils

0303	ID mm	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R4-19-20	19	31	10	125	30
100R4-25-20	25	38	10	150	30
100R4-32-20	32	46	10	200	30
100R4-38-20	38	52	10	255	30
100R4-51-20	51	64	10	300	30
100R4-64-20	64	81	10	355	30
100R4-76-20	76	93	10	460	30
100R4-89-20	89	109	10	530	30
100R4-102-20	102	122	10	610	30
100R4-127-20	127	148	10	750	30
100R4-152-20	152	180	10	960	30

Tech Sheet 5012

40 Metre Coils

0303	ID mm	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R4-19-40	19	31	10	125	30
100R4-25-40	25	38	10	150	30
100R4-32-40	32	46	10	200	30
100R4-38-40	38	52	10	255	30
100R4-51-40	51	64	10	300	30

Tech Sheet 5012

Technical Data

Oil Suction & Delivery Hose, 100R4

Part Number	Size	ID mm	OD mm	Working Pressure		Burst Pressure		Vacuum Pressure bar	Bend Radius mm	Weight gr/m
	Inch			bar	psi	bar	psi			
100R4-19	3/4"	19	30	10	145	30	450	-0.92	90	600
100R4-25	1"	25.4	35	10	145	30	450	-0.92	110	650
100R4-32	1.1/4"	32	42	10	145	30	450	-0.92	140	835
100R4-38	1.1/2"	38	48	10	145	30	450	-0.92	170	1050
100R4-51	2"	50.8	61	10	145	30	450	-0.92	250	1495
100R4-64	2.1/2"	63.5	74	10	145	30	450	-0.92	310	2010
100R4-76	3"	76.2	87	10	145	30	450	-0.92	380	2337
100R4-89	3.1/2"	90	102	10	145	30	450	-0.92	450	2940
100R4-102	4"	101.6	115	10	145	30	450	-0.92	510	3440
100R4-127	5"	127	145	10	145	30	450	-0.92	650	6195
100R4-152	6"	152	170	10	145	30	450	-0.92	752	7050

1/2" EN853-2 Breaker Hoses

Comprising of 2 x 6 metre clamped together lengths of high quality 1/2" EN853-2 hydraulic hose, complete with 1/2" BSPP male end fittings.



1/2" BSPP Male x Male, 6 Metre

0400

BH08-08M08M-06MT

Tech Sheet 20002

Comprising of 2 x 9 metre clamped together lengths of high quality 1/2" EN853-2 hydraulic hose, complete with 1/2" BSPP male end fittings.



1/2" BSPP Male x Male, 9 Metre

0400

BH08-08M08M-09MT

Tech Sheet 20002

Comprising of 2 x 6 metre clamped together lengths of high quality 1/2" EN853-2 hydraulic hose, complete with 2 sets of flat face QRCs.



Flat Face Quick Release Couplings, 6 Metre

0400

BH08-08Q08P-06MT

Tech Sheet 20002

Other lengths available on request

Comprising of 2 x 9 metre clamped together lengths of high quality 1/2" EN853-2 hydraulic hose, complete with 2 sets of flat face QRCs.



Flat Face Quick Release Couplings, 9 Metre

0400

BH08-08Q08P-09MT

Tech Sheet 20002

Leader hoses comprising of 2 x 0.5 metre clamped together lengths of high quality 1/2" EN853-2 hydraulic hose, complete with 1 set of flat face QRCs one end and 1/2" BSPP males the other.



Leader Hose, Flat Face QRC x 1/2" BSPP Male, 0.5 Metre

0400

BH08-08Q08M-.5MT

Tech Sheet 20002

HYDRAULIC HOSE FERRULES



Ferrules



R1AT & R2AT Dual, Non-skive

0309	To Suit Hose ID
FT3-12-03CF	3/16"
FT3-12-04CF	1/4"
FT3-12-05CF	5/16"
FT3-12-06CF	3/8"
FT3-12-08CF	1/2"
FT3-12-10CF	5/8"
FT3-12-12CF	3/4"
FT3-12-16CF	1"
FT3-12-20CF	1.1/4"
FT3-12-24CF	1.1/2"
FT3-12-32CF	2"

Tech Sheet 3152



2SC

0309	To Suit Hose ID
F2SC-04	1/4"
F2SC-06	3/8"
F2SC-08	1/2"
F2SC-12	3/4"
F2SC-16	1"

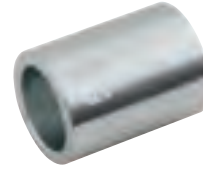
Tech Sheet 3152



4SP Multi Spiral

0309	To Suit Hose ID
JMF57-06CF	3/8"
JMF57-08CF	1/2"
JMF57-10CF	5/8"
JMF57-12CF	3/4"
JMF57-16CF	1"
JMF57-20CF	1.1/4"
JMF57-24CF	1.1/2"
JMF57-32CF	2"

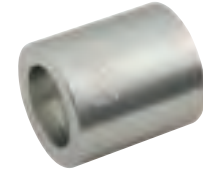
Tech Sheet 3152



R7, R8 & 1SC

0309	To Suit Hose ID
FR79-03	3/16"
FR79-04	1/4"
FR79-05	5/16"
FR79-06	3/8"
FR79-08	1/2"
FR79-12	3/4"

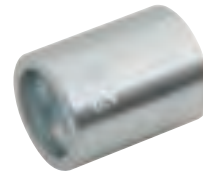
Tech Sheet 3152



R4

0309	To Suit Hose ID
R4F2-12	3/4"
R4F2-16	1"
R4F2-20	1.1/4"
R4F2-24	1.1/2"
R4F2-32	2"

Tech Sheet 3152



PTFE, Smooth & Convuluted Bore

0309	To Suit Hose ID
PTFEF-03	3/16"
PTFEF-04	1/4"
PTFEF-05	5/16"
PTFEF-06	3/8"
PTFEF-08	1/2"
PTFEF-10	5/8"
PTFEF-12	3/4"
PTFEF-16	1"

Tech Sheet 3152



4SH

0309	To Suit Hose ID
JMF4SH-12CF	3/4"
JMF4SH-16CF	1"

Tech Sheet 3152

Go/No Go Gauge

Hydraulic hose collapse mandrels are used to check if the ferrules have collapsed enough after swaging. By placing this mandrel inside the fittings orifice after swaging, if it is not possible to push all the way through, the ferrule has been swagged enough. If it is still possible to push the mandrel all the way through, the ferrule needs swaging more.



Collapse Mandrel

0499	To Suit Hose ID
HOSEMAND-14	1/4"
HOSEMAND-38	3/8"
HOSEMAND-12	1/2"
HOSEMAND-58	5/8"
HOSEMAND-34	3/4"
HOSEMAND-1	1"

For all swage guide settings
see Tech Sheets.

BSP

Hexavalent chromium free plating



**Male,
60° Cone Inserts, BSPP**

0309	Thread	To Suit Hose ID
BM0203CF	1/8"	3/16"
BM0204CF	1/8"	1/4"
BM0403CF	1/4"	3/16"
BM0404CF	1/4"	1/4"
BM0405CF	1/4"	5/16"
BM0406CF	1/4"	3/8"
BM0604CF	3/8"	1/4"
BM0605CF	3/8"	5/16"
BM0606CF	3/8"	3/8"
BM0608CF	3/8"	1/2"
BM0804CF	1/2"	1/4"
BM0806CF	1/2"	3/8"
BM0808CF	1/2"	1/2"
BM0810CF	1/2"	5/8"
BM1008CF	5/8"	1/2"
BM1010CF	5/8"	5/8"
BM1208CF	3/4"	1/2"
BM1210CF	3/4"	5/8"
BM1212CF	3/4"	3/4"
BM1612CF	1"	3/4"
BM1616CF	1"	1"
BM2016CF	1.1/4"	1"
BM2020CF	1.1/4"	1.1/4"
BM2420CF	1.1/2"	1.1/4"
BM2424CF	1.1/2"	1.1/2"
BM3232CF	2"	2"



**Swivel Female,
60° Cone Inserts, BSPP**

0309	Thread	To Suit Hose ID
BF0203CF	1/8"	3/16"
BF0204CF	1/8"	1/4"
BF0206CF	1/8"	3/8"
BF0403CF	1/4"	3/16"
BF0404CF	1/4"	1/4"
BF0405CF	1/4"	5/16"
BF0406CF	1/4"	3/8"
BF0604CF	3/8"	1/4"
BF0605CF	3/8"	5/16"
BF0606CF	3/8"	3/8"
BF0608CF	3/8"	1/2"
BF0804CF	1/2"	1/4"
BF0805CF	1/2"	5/16"
BF0806CF	1/2"	3/8"
BF0808CF	1/2"	1/2"
BF1008CF	5/8"	1/2"
BF1010CF	5/8"	5/8"
BF1208CF	3/4"	1/2"
BF1210CF	3/4"	5/8"
BF1212CF	3/4"	3/4"
BF1612CF	1"	3/4"
BF1616CF	1"	1"
BF2016CF	1.1/4"	1"
BF2020CF	1.1/4"	1.1/4"
BF2420CF	1.1/2"	1.1/4"
BF2424CF	1.1/2"	1.1/2"
BF3232CF	2"	2"



**Female 45°,
60° Cone Inserts, BSPP**

0309	Thread	To Suit Hose ID
BF024503CF	1/8"	3/16"
BF024504CF	1/8"	1/4"
BF044503CF	1/4"	3/16"
BF044504CF	1/4"	1/4"
BF044505CF	1/4"	5/16"
BF064504CF	3/8"	1/4"
BF064505CF	3/8"	5/16"
BF064506CF	3/8"	3/8"
BF064508CF	3/8"	1/2"
BF084506CF	1/2"	3/8"
BF084508CF	1/2"	1/2"
BF084510CF	1/2"	5/8"
BF104505CF	5/8"	5/16"
BF104508CF	5/8"	1/2"
BF104510CF	5/8"	5/8"
BF124508CF	3/4"	1/2"
BF124510CF	3/4"	5/8"
BF124512CF	3/4"	3/4"
BF164516CF	1"	1"
BF204520CF	1.1/4"	1.1/4"
BF244524CF	1.1/2"	1.1/2"
BF324532CF	2"	2"



**Female 90° Compact,
60° Cone Inserts, BSPP**

0309	Thread	To Suit Hose ID
BF0490C04CF	1/4"	1/4"
BF0690C06CF	3/8"	3/8"
BF0890C08CF	1/2"	1/2"
BF1290C12CF	3/4"	3/4"
BF1690C16CF	1"	1"



**Female Swept 90°,
60° Cone Inserts, BSPP**

0309	Thread	To Suit Hose ID
BF029003CF	1/8"	3/16"
BF029004CF	1/8"	1/4"
BF049003CF	1/4"	3/16"
BF049004CF	1/4"	1/4"
BF049005CF	1/4"	5/16"
BF049006CF	1/4"	3/8"
BF069004CF	3/8"	1/4"
BF069005CF	3/8"	5/16"
BF069006CF	3/8"	3/8"
BF069008CF	3/8"	1/2"
BF089006CF	1/2"	3/8"
BF089008CF	1/2"	1/2"
BF109008CF	5/8"	1/2"
BF109010CF	5/8"	5/8"
BF129008CF	3/4"	1/2"
BF129010CF	3/4"	5/8"
BF129012CF	3/4"	3/4"
BF169012CF	1"	3/4"
BF169016CF	1"	1"
BF209016CF	1.1/4"	1"
BF209020CF	1.1/4"	1.1/4"
BF249020CF	1.1/2"	1.1/4"
BF249024CF	1.1/2"	1.1/2"
BF329032CF	2"	2"

HYDRAULIC HOSE CONNECTORS



BSP

Hexavalent chromium free plating

Flat Faced, Female Inserts,
BSPP

0309	Thread	To Suit Hose ID
BFF0404CF	1/4"	1/4"
BFF0406CF	1/4"	3/8"
BFF0604CF	3/8"	1/4"
BFF0605CF	3/8"	5/16"
BFF0606CF	3/8"	3/8"
BFF0608CF	3/8"	1/2"
BFF0806CF	1/2"	3/8"
BFF0808CF	1/2"	1/2"
BFF1008CF	5/8"	1/2"
BFF1010CF	5/8"	5/8"
BFF1208CF	3/4"	1/2"
BFF1210CF	3/4"	5/8"
BFF1212CF	3/4"	3/4"
BFF1612CF	1"	3/4"
BFF1616CF	1"	1"
BFF2020CF	1.1/4"	1.1/4"
BFF2424CF	1.1/2"	1.1/2"
BFF3232CF	2"	2"

Flat Faced, Female Swept 45° Elbow,
BSPP

0309	Thread	To Suit Hose ID
BFF044504CF	1/4"	1/4"
BFF064506CF	3/8"	3/8"
BFF084508CF	1/2"	1/2"
BFF124512CF	3/4"	3/4"
BFF164516CF	1"	1"

Flat Faced, Female Swept
90° Elbow, BSPP

0309	Thread	To Suit Hose ID
BFF049004CF	1/4"	1/4"
BFF069006CF	3/8"	3/8"
BFF089008CF	1/2"	1/2"
BFF129012CF	3/4"	3/4"
BFF169016CF	1"	1"

Female O-Ring Face,
60° Cone Inserts, BSPP

0309	Thread	To Suit Hose ID
BF0404CF-OR	1/4"	1/4"
BF0604CF-OR	3/8"	1/4"
BF0606CF-OR	3/8"	3/8"
BF0806CF-OR	1/2"	3/8"
BF0808CF-OR	1/2"	1/2"
BF1008CF-OR	5/8"	1/2"
BF1010CF-OR	5/8"	5/8"
BF1212CF-OR	3/4"	3/4"
BF1616CF-OR	1"	1"

Taper Male Inserts,
BSPT

0309	Thread	To Suit Hose ID
BMT0203CF	1/8"	3/16"
BMT0204CF	1/8"	1/4"
BMT0403CF	1/4"	3/16"
BMT0404CF	1/4"	1/4"
BMT0405CF	1/4"	5/16"
BMT0406CF	1/4"	3/8"
BMT0604CF	3/8"	1/4"
BMT0605CF	3/8"	5/16"
BMT0606CF	3/8"	3/8"
BMT0608CF	3/8"	1/2"
BMT0806CF	1/2"	3/8"
BMT0808CF	1/2"	1/2"
BMT0810CF	1/2"	5/8"
BMT1010CF	5/8"	5/8"
BMT1208CF	3/4"	1/2"
BMT1210CF	3/4"	5/8"
BMT1212CF	3/4"	3/4"
BMT1612CF	1"	3/4"
BMT1616CF	1"	1"
BMT2016CF	1.1/4"	1"
BMT2020CF	1.1/4"	1.1/4"
BMT2420CF	1.1/2"	1.1/4"
BMT2424CF	1.1/2"	1.1/2"
BMT3224CF	2"	1.1/2"
BMT3232CF	2"	2"

BURNETT & HILLMAN
HYDRAULIC ADAPTOR UK MANUFACTURER

For Hydraulic Adaptors
see pages 52-81



JIC

Hexavalent chromium free plating



JIC 37° Male Inserts

0309	Thread	To Suit Hose ID
JM0403CF	7/16"	3/16"
JM0404CF	7/16"	1/4"
JM0504CF	1/2"	1/4"
JM0505CF	1/2"	5/16"
JM0604CF	9/16"	1/4"
JM0605CF	9/16"	5/16"
JM0606CF	9/16"	3/8"
JM0608CF	9/16"	1/2"
JM0805CF	3/4"	5/16"
JM0806CF	3/4"	3/8"
JM0808CF	3/4"	1/2"
JM1006CF	7/8"	3/8"
JM1008CF	7/8"	1/2"
JM1010CF	7/8"	5/8"
JM1012CF	7/8"	3/4"
JM1208CF	3/4"	1/2"
JM1210CF	1.1/16"	5/8"
JM1212CF	1.1/16"	3/4"
JM1216CF	1.1/16"	1"
JM1412CF	1.3/16"	3/4"
JM1416CF	1.3/16"	1"
JM1612CF	1.5/16"	3/4"
JM1616CF	1.5/16"	1"
JM2016CF	1.5/8"	1"
JM2020CF	1.5/8"	1.1/4"
JM2420CF	1.7/8"	1.1/4"
JM2424CF	1.7/8"	1.1/2"
JM3232CF	2.1/2"	2"



JIC 37° Swivel Female Inserts

0309	Thread	To Suit Hose ID
JF0403CF	7/16"	3/16"
JF0404CF	7/16"	1/4"
JF0406CF	7/16"	3/8"
JF0503CF	1/2"	3/16"
JF0504CF	1/2"	1/4"
JF0505CF	1/2"	5/16"
JF0506CF	1/2"	3/8"
JF0604CF	9/16"	1/4"
JF0605CF	9/16"	5/16"
JF0606CF	9/16"	3/8"
JF0805CF	3/4"	5/16"
JF0806CF	3/4"	3/8"
JF0808CF	3/4"	1/2"
JF1006CF	7/8"	3/8"
JF1008CF	7/8"	1/2"
JF1010CF	7/8"	5/8"
JF1012CF	7/8"	3/4"
JF1208CF	1.1/16"	1/2"
JF1210CF	1.1/16"	5/8"
JF1212CF	1.1/16"	3/4"
JF1216CF	1.1/16"	1"
JF1412CF	1.3/16"	3/4"
JF1416CF	1.3/16"	1"
JF1612CF	1.5/16"	3/4"
JF1616CF	1.5/16"	1"
JF2016CF	1.5/8"	1"
JF2020CF	1.5/8"	1.1/4"
JF2420CF	1.7/8"	1.1/4"
JF2424CF	1.7/8"	1.1/2"
JF3232CF	2.1/2"	2"



JIC 37° Female Swept Elbow Inserts

0309	Thread	To Suit Hose ID
JF049003CF	7/16"	3/16"
JF049004CF	7/16"	1/4"
JF059003CF	1/2"	3/16"
JF059004CF	1/2"	1/4"
JF059005CF	1/2"	5/16"
JF059006CF	1/2"	3/8"
JF069004CF	9/16"	1/4"
JF069005CF	9/16"	5/16"
JF069006CF	9/16"	3/8"
JF089005CF	3/4"	5/16"
JF089006CF	3/4"	3/8"
JF089008CF	3/4"	1/2"
JF109006CF	7/8"	3/8"
JF109008CF	7/8"	1/2"
JF109010CF	7/8"	5/8"
JF109012CF	7/8"	3/4"
JF129008CF	1.1/16"	1/2"
JF129010CF	1.1/16"	5/8"
JF129012CF	1.1/16"	3/4"
JF129016CF	1.1/16"	1"
JF149012CF	1.3/16"	3/4"
JF149016CF	1.3/16"	1"
JF169012CF	1.5/16"	3/4"
JF169016CF	1.5/16"	1"
JF209016CF	1.5/8"	1"
JF209020CF	1.5/8"	1.1/4"
JF249020CF	1.7/8"	1.1/4"
JF249024CF	1.7/8"	1.1/2"
JF329032CF	2.1/2"	2"

JIC 37° Female Swept Elbow Inserts

0309	Thread	To Suit Hose ID
JF044503CF	7/16"	3/16"
JF044504CF	7/16"	1/4"
JF054504CF	1/2"	1/4"
JF054505CF	1/2"	5/16"
JF054506CF	1/2"	3/8"
JF064504CF	9/16"	1/4"
JF064505CF	9/16"	5/16"
JF064506CF	9/16"	3/8"
JF084506CF	3/4"	3/8"
JF084508CF	3/4"	1/2"
JF104506CF	7/8"	3/8"
JF104508CF	7/8"	1/2"
JF104510CF	7/8"	5/8"



JIC 37° Female Compact 90° Elbow Inserts

0309	Thread	To Suit Hose ID
JF0490K04CF	7/16"	1/4"
JF0690K04CF	9/16"	1/4"
JF0690K06CF	9/16"	3/8"
JF0890K06CF	3/4"	3/8"
JF0890K08CF	3/4"	1/2"
JF1090K08CF	7/8"	1/2"
JF1090K10CF	7/8"	5/8"
JF1290K12CF	1.1/16"	3/4"
JF1690K16CF	1.5/16"	1"



HYDRAULIC HOSE CONNECTORS



Metric Light Series

Hexavalent chromium free plating



Metric Male 24° Cone Seat, L Series, DIN 3853

0309	Thread	To Suit Hose ID	Size
HMML03-M12CF	M12 x 1.5	3/16"	6L
HMML04-M12CF	M12 x 1.5	1/4"	6L
HMML04-M14CF	M14 x 1.5	1/4"	8L
HMML04-M16CF	M16 x 1.5	1/4"	10L
HMML04-M18CF	M18 x 1.5	1/4"	12L
HMML05-M14CF	M14 x 1.5	5/16"	8L
HMML05-M16CF	M16 x 1.5	5/16"	10L
HMML05-M18CF	M18 x 1.5	5/16"	12L
HMML05-M22CF	M22 x 1.5	5/16"	15L
HMML06-M16CF	M16 x 1.5	3/8"	10L
HMML06-M18CF	M18 x 1.5	3/8"	12L
HMML06-M22CF	M22 x 1.5	3/8"	15L
HMML08-M18CF	M18 x 1.5	1/2"	12L
HMML08-M22CF	M22 x 1.5	1/2"	15L
HMML08-M26CF	M26 x 1.5	1/2"	18L
HMML10-M22CF	M22 x 1.5	5/8"	15L
HMML10-M26CF	M26 x 1.5	5/8"	18L
HMML10-M30CF	M30 x 2	5/8"	22L
HMML12-M26CF	M26 x 1.5	3/4"	18L
HMML12-M30CF	M30 x 2	3/4"	22L
HMML16-M36CF	M36 x 2	1"	28L
HMML20-M45CF	M45 x 2	1.1/4"	35L
HMML24-M45CF	M45 x 2	1.1/2"	35L
HMML24-M52CF	M52 x 2	1.1/2"	42L



Metric Female 24° Cone Seat, L Series with O-Ring, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMFL03-M12CF	M12 x 1.5	3/16"	6L
HMFL04-M12CF	M12 x 1.5	1/4"	6L
HMFL04-M14CF	M14 x 1.5	1/4"	8L
HMFL04-M16CF	M16 x 1.5	1/4"	10L
HMFL04-M18CF	M18 x 1.5	1/4"	12L
HMFL06-M16CF	M16 x 1.5	3/8"	10L
HMFL05-M16CF	M16 x 1.5	5/16"	10L
HMFL06-M18CF	M18 x 1.5	3/8"	12L
HMFL06-M22CF	M22 x 1.5	3/8"	15L
HMFL08-M22CF	M22 x 1.5	1/2"	15L
HMFL08-M26CF	M26 x 1.5	1/2"	18L
HMFL10-M26CF	M26 x 1.5	5/8"	18L
HMFL10-M30CF	M30 x 1.5	5/8"	22L
HMFL12-M30CF	M30 x 2	3/4"	22L
HMFL12-M36CF	M36 x 2	3/4"	28L
HMFL16-M36CF	M36 x 2	1"	28L
HMFL20-M45CF	M45 x 2	1.1/4"	35L
HMFL24-M52CF	M52 x 2	1.1/2"	42L



90° Metric Female 24° Cone Seat, L Series with O-Ring, DIN 3853

0309	Thread	To Suit Hose ID	Size
HMFL0390-M12CF	M12 x 1.5	3/16"	6L
HMFL0490-M12CF	M12 x 1.5	1/4"	6L
HMFL0490-M14CF	M14 x 1.5	1/4"	8L
HMFL0490-M16CF	M16 x 1.5	1/4"	10L
HMFL0490-M18CF	M18 x 1.5	1/4"	12L
HMFL0590-M18CF	M18 x 1.5	5/16"	12L
HMFL0690-M16CF	M16 x 1.5	3/8"	10L
HMFL0690-M18CF	M18 x 1.5	3/8"	12L
HMFL0890-M22CF	M22 x 1.5	1/2"	15L
HMFL0890-M26CF	M26 x 1.5	1/2"	18L
HMFL1090-M26CF	M26 x 1.5	5/8"	18L
HMFL1090-M30CF	M30 x 2	5/8"	22L
HMFL1290-M26CF	M26 x 1.5	3/4"	18L
HMFL1290-M30CF	M30 x 2	3/4"	22L
HMFL1690-M36CF	M36 x 2	1"	28L
HMFL2090-M45CF	M45 x 2	1.1/4"	35L
HMFL2490-M52CF	M52 x 2	1.1/2"	42L



45° Metric Female 24° Cone Seat, L Series with O-Ring, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMFL03-45-M12CF	M12 x 1.5	3/16"	6L
HMFL04-45-M12CF	M12 x 1.5	1/4"	6L
HMFL04-45-M14CF	M14 x 1.5	1/4"	8L
HMFL04-45-M16CF	M16 x 1.5	1/4"	10L
HMFL05-45-M16CF	M16 x 1.5	5/16"	10L
HMFL05-45-M18CF	M18 x 1.5	5/16"	12L
HMFL06-45-M16CF	M16 x 1.5	3/8"	10L
HMFL06-45-M18CF	M18 x 1.5	3/8"	12L
HMFL08-45-M22CF	M22 x 1.5	1/2"	15L
HMFL08-45-M26CF	M26 x 1.5	1/2"	18L
HMFL10-45-M26CF	M26 x 1.5	5/8"	18L
HMFL12-45-M30CF	M30 x 2	3/4"	22L
HMFL16-45-M36CF	M36 x 2	1"	28L
HMFL20-45-M45CF	M45 x 2	1.1/4"	35L
HMFL24-45-M52CF	M52 x 2	1.1/2"	42L

Standpipe, L Series



0309	OD mm	To Suit Hose ID
HSSP04-06CF	6	1/4"
HSSP04-08CF	8	1/4"
HSSP06-10CF	10	3/8"
HSSP06-12CF	12	3/8"
HSSP06-15CF	15	3/8"
HSSP08-15CF	15	1/2"
HSSP08-18CF	18	1/2"
HSSP10-18CF	18	5/8"
HSSP10-22CF	22	5/8"
HSSP12-22CF	22	3/4"
HSSP16-28CF	28	1"
HSSP20-35CF	35	1.1/4"
HSSP24-42CF	42	1.1/2"



45° Standpipe, L Series

0309	OD mm	To Suit Hose ID
HSP04-45-06CF	6	1/4"
HSP05-45-08CF	8	5/16"
HSP06-45-08CF	8	3/8"
HSP05-45-10CF	10	5/16"
HSP06-45-10CF	10	3/8"
HSP06-45-12CF	12	3/8"
HSP06-45-15CF	15	3/8"
HSP08-45-15CF	15	1/2"
HSP08-45-18CF	18	1/2"
HSP10-45-18CF	18	5/8"
HSP10-45-22CF	22	5/8"
HSP12-45-22CF	22	3/4"
HSP16-45-28CF	28	1"
HSP20-45-35CF	35	1.1/4"

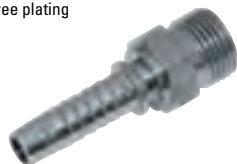


90° Standpipe, L Series

0309	OD mm	To Suit Hose ID
HSP04-90-06CF	6	1/4"
HSP04-90-08CF	8	1/4"
HSP06-90-10CF	10	3/8"
HSP06-90-12CF	12	3/8"
HSP08-90-15CF	15	1/2"
HSP08-90-18CF	18	1/2"
HSP10-90-18CF	18	5/8"
HSP12-90-22CF	22	3/4"
HSP16-90-28CF	28	1"
HSP20-90-35CF	35	1.1/4"

Metric Heavy Series

Hexavalent chromium free plating



Metric Male 24° Cone Seat, S Series, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMMS03-M16CF	M16 x 1.5	3/16"	8S
HMMS04-M14CF	M14 x 1.5	1/4"	6S
HMMS04-M16CF	M16 x 1.5	1/4"	8S
HMMS04-M18CF	M18 x 1.5	1/4"	10S
HMMS05-M18CF	M18 x 1.5	5/16"	10S
HMMS05-M20CF	M20 x 1.5	5/16"	12S
HMMS06-M18CF	M18 x 1.5	3/8"	10S
HMMS06-M20CF	M20 x 1.5	3/8"	12S
HMMS06-M22CF	M22 x 1.5	3/8"	14S
HMMS06-M24CF	M24 x 1.5	3/8"	16S
HMMS08-M24CF	M24 x 1.5	1/2"	16S
HMMS10-M30CF	M30 x 2	5/8"	20S
HMMS12-M30CF	M30 x 2	3/4"	20S
HMMS12-M36CF	M36 x 2	3/4"	25S
HMMS16-M36CF	M36 x 1.5	1"	25S
HMMS16-M42CF	M42 x 2	1"	30S
HMMS20-M42CF	M42 x 2	1.1/4"	30S
HMMS20-M52CF	M52 x 2	1.1/4"	38S
HMMS24-M52CF	M52 x 2	1.1/2"	38S



Metric Female 24° Cone Seat, S Series, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMFS03-M16CF	M16 x 1.5	3/16"	8S
HMFS04-M14CF	M14 x 1.5	1/4"	6S
HMFS04-M16CF	M16 x 1.5	1/4"	8S
HMFS04-M18CF	M18 x 1.5	1/4"	10S
HMFS05-M18CF	M18 x 1.5	5/16"	10S
HMFS05-M20CF	M20 x 1.5	5/16"	12S
HMFS06-M16CF	M16 x 1.5	3/8"	8S
HMFS06-M18CF	M18 x 1.5	3/8"	10S
HMFS06-M20CF	M20 x 1.5	3/8"	12S
HMFS06-M22CF	M22 x 1.5	3/8"	14S
HMFS08-M24CF	M24 x 1.5	1/2"	14S
HMFS08-M24CF	M24 x 1.5	1/2"	16S
HMFS08-M30CF	M30 x 2	1/2"	20S
HMFS10-M24CF	M24 x 1.5	5/8"	16S
HMFS10-M30CF	M30 x 2	5/8"	20S
HMFS12-M30CF	M30 x 2	3/4"	20S
HMFS12-M36CF	M36 x 2	3/4"	25S
HMFS16-M36CF	M36 x 2	1"	25S
HMFS16-M42CF	M42 x 2	1"	30S
HMFS20-M52CF	M52 x 2	1.1/4"	38S
HMFS24-M52CF	M52 x 2	1.1/2"	38S



90° Metric Female 24° Cone Seat, S Series, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMFS0390-M16CF	M16 x 1.5	3/16"	8S
HMFS0490-M14CF	M14 x 1.5	1/4"	6S
HMFS0490-M16CF	M16 x 1.5	1/4"	8S
HMFS0490-M18CF	M18 x 1.5	1/4"	10S
HMFS0490-M20CF	M20 x 1.5	1/4"	12S
HMFS0590-M18CF	M18 x 1.5	5/16"	10S
HMFS0590-M20CF	M20 x 1.5	5/16"	12S
HMFS0690-M18CF	M18 x 1.5	3/8"	10S
HMFS0690-M20CF	M20 x 1.5	3/8"	12S
HMFS0690-M22CF	M22 x 1.5	3/8"	14S
HMFS0890-M24CF	M24 x 1.5	1/2"	16S
HMFS1090-M24CF	M24 x 1.5	5/8"	16S
HMFS1090-M30CF	M30 x 2	5/8"	20S
HMFS1290-M30CF	M30 x 2	3/4"	20S
HMFS1290-M36CF	M36 x 2	3/4"	25S
HMFS1690-M36CF	M36 x 2	1"	25S
HMFS1690-M42CF	M42 x 2	1"	30S
HMFS2090-M52CF	M52 x 2	1.1/4"	38S
HMFS2490-M52CF	M52 x 2	1.1/2"	38S



45° Metric Female 24° Cone Seat, S Series, DIN 3865

0309	Thread	To Suit Hose ID	Size
HMFS03-45-M16CF	M16 x 1.5	3/16"	8S
HMFS04-45-M14CF	M14 x 1.5	1/4"	6S
HMFS04-45-M16CF	M16 x 1.5	1/4"	8S
HMFS04-45-M18CF	M18 x 1.5	1/4"	10S
HMFS05-45-M18CF	M18 x 1.5	5/16"	10S
HMFS05-45-M20CF	M20 x 1.5	5/16"	12S
HMFS06-45-M20CF	M20 x 1.5	3/8"	12S
HMFS06-45-M22CF	M22 x 1.5	3/8"	14S
HMFS08-45-M24CF	M24 x 1.5	1/2"	16S
HMFS10-45-M30CF	M30 x 2	5/8"	20S
HMFS12-45-M30CF	M30 x 2	3/4"	20S
HMFS12-45-M36CF	M36 x 2	3/4"	25S
HMFS16-45-M36CF	M36 x 2	1"	25S
HMFS16-45-M42CF	M42 x 2	1"	30S
HMFS20-45-M52CF	M52 x 2	1.1/4"	38S
HMFS24-45-M52CF	M52 x 2	1.1/2"	38S

Standpipe, S Series



0309	OD mm	To Suit Hose ID
HSSP04-10CF	10	1/4"
HSSP06-14CF	14	3/8"
HSSP08-16CF	16	1/2"
HSSP10-20CF	20	5/8"
HSSP12-20CF	20	3/4"
HSSP12-25CF	25	3/4"
HSSP16-25CF	25	1"
HSSP16-30CF	30	1"
HSSP20-38CF	38	1.1/4"



45° Standpipe, S Series

0309	OD mm	To Suit Hose ID
HSSP04-45-08CF	8	1/4"
HSSP04-45-10CF	10	1/4"
HSSP04-45-12CF	12	1/4"
HSSP05-45-12CF	12	5/16"
HSSP06-45-14CF	14	3/8"
HSSP08-45-14CF	14	1/2"
HSSP08-45-16CF	16	1/2"
HSSP10-45-16CF	16	5/8"
HSSP10-45-20CF	20	5/8"
HSSP12-45-20CF	20	3/4"
HSSP12-45-25CF	25	3/4"
HSSP16-45-25CF	25	1"
HSSP16-45-30CF	30	1"
HSSP16-45-38CF	38	1"
HSSP20-45-30CF	30	1.1/4"
HSSP20-45-38CF	38	1.1/4"



90° Standpipe, S Series

0309	OD mm	To Suit Hose ID
HSSP04-90-08CF	8	1/4"
HSSP04-90-10CF	10	1/4"
HSSP06-90-14CF	14	3/8"
HSSP08-90-16CF	16	1/2"
HSSP10-90-20CF	20	5/8"
HSSP12-90-20CF	20	3/4"
HSSP12-90-25CF	25	3/4"
HSSP16-90-25CF	25	1"
HSSP16-90-30CF	30	1"

HYDRAULIC HOSE CONNECTORS



ORFS

Hexavalent chromium free plating



ORFS Male (O-Ring Face)

0309	Thread	To Suit Hose ID
ORFSM0404CF	9/16"	1/4"
ORFSM0604CF	11/16"	1/4"
ORFSM0605CF	11/16"	5/16"
ORFSM0606CF	11/16"	3/8"
ORFSM0806CF	13/16"	3/8"
ORFSM0808CF	13/16"	1/2"
ORFSM1008CF	1"	1/2"
ORFSM1010CF	1"	5/8"
ORFSM1208CF	1.3/16"	1/2"
ORFSM1210CF	1.3/16"	5/8"
ORFSM1212CF	1.3/16"	3/4"
ORFSM1612CF	1.7/16"	3/4"
ORFSM1616CF	1.7/16"	1"
ORFSM2020CF	1.11/16"	1.1/4"
ORFSM2424CF	2"	1.1/2"



ORFS Female 45° Elbow Inserts

0309	Thread	To Suit Hose ID
ORFSF044504CF	9/16"	1/4"
ORFSF064504CF	11/16"	1/4"
ORFSF064505CF	11/16"	5/16"
ORFSF064506CF	11/16"	3/8"
ORFSF084506CF	13/16"	3/8"
ORFSF084508CF	13/16"	1/2"
ORFSF104508CF	1"	1/2"
ORFSF104510CF	1"	5/8"
ORFSF104512CF	1"	3/4"
ORFSF124508CF	1.3/16"	1/2"
ORFSF124510CF	1.3/16"	5/8"
ORFSF124512CF	1.3/16"	3/4"
ORFSF164512CF	1.7/16"	3/4"
ORFSF164516CF	1.7/16"	1"
ORFSF204520CF	1.11/16"	1.1/4"
ORFSF244524CF	2"	1.1/2"



ORFS Female Insert

0309	Thread	To Suit Hose ID
ORFSF0404CF	9/16"	1/4"
ORFSF0604CF	11/16"	1/4"
ORFSF0605CF	11/16"	5/16"
ORFSF0606CF	11/16"	3/8"
ORFSF0806CF	13/16"	3/8"
ORFSF0808CF	13/16"	1/2"
ORFSF1008CF	1"	1/2"
ORFSF1010CF	1"	5/8"
ORFSF1012CF	1"	3/4"
ORFSF1208CF	1.3/16"	1/2"
ORFSF1210CF	1.3/16"	5/8"
ORFSF1212CF	1.3/16"	3/4"
ORFSF1612CF	1.7/16"	3/4"
ORFSF1616CF	1.7/16"	1"
ORFSF2020CF	1.11/16"	1.1/4"
ORFSF2424CF	2"	1.1/2"



ORFS Female 90° Elbow Insert

0309	Thread	To Suit Hose ID
ORFSF049004CF	9/16"	1/4"
ORFSF069004CF	11/16"	1/4"
ORFSF069005CF	11/16"	5/16"
ORFSF069006CF	11/16"	3/8"
ORFSF089006CF	13/16"	3/8"
ORFSF089008CF	13/16"	1/2"
ORFSF109008CF	1"	1/2"
ORFSF109010CF	1"	5/8"
ORFSF109012CF	1"	3/4"
ORFSF129008CF	1.3/16"	1/2"
ORFSF129010CF	1.3/16"	5/8"
ORFSF129012CF	1.3/16"	3/4"
ORFSF169012CF	1.7/16"	3/4"
ORFSF169016CF	1.7/16"	1"
ORFSF209016CF	1.11/16"	1"
ORFSF209020CF	1.11/16"	1.1/4"
ORFSF249024CF	2"	1.1/2"

Banjos

Hexavalent chromium free plating



BSPP Banjo Bolts

0309	Thread
BB02CF	1/8"
BB04CF	1/4"
BB06CF	3/8"
BB08CF	1/2"
BB10CF	5/8"
BB12CF	3/4"
BB16CF	1"



BSPP Banjo Inserts

0309	To Suit Bolt Thread	To Suit Hose ID
B0203CF	1/8"	3/16"
B0204CF	1/8"	1/4"
B0403CF	1/4"	3/16"
B0404CF	1/4"	1/4"
B0405CF	1/4"	5/16"
B0406CF	1/4"	3/8"
B0604CF	3/8"	1/4"
B0605CF	3/8"	5/16"
B0606CF	3/8"	3/8"
B0608CF	3/8"	1/2"
B0806CF	1/2"	3/8"
B0808CF	1/2"	1/2"
B1008CF	5/8"	1/2"
B1010CF	5/8"	5/8"
B1210CF	3/4"	5/8"
B1212CF	3/4"	3/4"
B1612CF	1"	3/4"
B1616CF	1"	1"

Metric Banjo Bolts

0309	Thread
BBJM-10-15	M10 x 1.0
BBJM-12-15	M12 x 1.5
BBJM-14-15	M14 x 1.5
BBJM-16-15	M16 x 1.5
BBJM-18-15	M18 x 1.5
BBJM-20-15	M20 x 1.5
BBJM-22-15	M22 x 1.5
BBJM-26-15	M26 x 1.5
BBJM-30-15	M30 x 1.5



Metric Banjo Inserts

0309	To Suit Bolt Thread	To Suit Hose ID
BJM-03-10	M10 x 1.0	3/16"
BJM-03-12	M12 x 1.5	3/16"
BJM-04-10	M10 x 1.5	1/4"
BJM-04-12	M12 x 1.5	1/4"
BJM-04-14	M14 x 1.5	1/4"
BJM-05-14	M14 x 1.5	5/16"
BJM-05-16	M16 x 1.5	5/16"
BJM-05-18	M18 x 1.5	5/16"
BJM-06-14	M14 x 1.5	3/8"
BJM-06-16	M16 x 1.5	3/8"
BJM-06-18	M18 x 1.5	3/8"
BJM-06-22	M22 x 1.5	3/8"
BJM-08-16	M16 x 1.5	1/2"
BJM-08-18	M18 x 1.5	1/2"
BJM-08-22	M22 x 1.5	1/2"
BJM-10-22	M22 x 1.5	5/8"
BJM-10-26	M26 x 1.5	5/8"
BJM-12-22	M22 x 1.5	3/4"
BJM-12-26	M26 x 1.5	3/4"
BJM-16-30	M30 x 1.5	1"

NPT



Male Inserts

0309	Thread	To Suit Hose ID
NPTM0203CF	1/8"	3/16"
NPTM0204CF	1/8"	1/4"
NPTM0403CF	1/4"	3/16"
NPTM0404CF	1/4"	1/4"
NPTM0405CF	1/4"	5/16"
NPTM0406CF	1/4"	3/8"
NPTM0604CF	3/8"	1/4"
NPTM0605CF	3/8"	5/16"
NPTM0606CF	3/8"	3/8"
NPTM0608CF	3/8"	1/2"
NPTM0805CF	1/2"	5/16"
NPTM0806CF	1/2"	3/8"
NPTM0808CF	1/2"	1/2"
NPTM0810CF	1/2"	5/8"
NPTM0812CF	1/2"	3/4"
NPTM1208CF	3/4"	1/2"
NPTM1210CF	3/4"	5/8"
NPTM1212CF	3/4"	3/4"
NPTM1616CF	1"	1"
NPTM1620CF	1"	1.1/4"
NPTM2016CF	1.1/4"	1"
NPTM2020CF	1.1/4"	1.1/4"
NPTM2424CF	1.1/2"	1.1/2"
NPTM3232CF	2"	2"

Hose Joint



Equal

0309	To Suit Hose ID
HJ0404CF	1/4"
HJ0505CF	5/16"
HJ0606CF	3/8"
HJ0808CF	1/2"
HJ1010CF	5/8"
HJ1212CF	3/4"
HJ1616CF	1"

Complete banjo fitting sets require self centering bonded seals, see page 110

HYDRAULIC HOSE CONNECTORS



SAE 3000 PSI (3K)

Hexavalent chromium free plating



Straight Flanges

0309	Flange ND	To Suit Hose ID
HFL3-08-08CF	1/2"	1/2"
HFL3-08-12CF	3/4"	1/2"
HFL3-10-12CF	3/4"	5/8"
HFL3-12-12CF	3/4"	3/4"
HFL3-12-16CF	1"	3/4"
HFL3-16-16CF	1"	1"
HFL3-16-20CF	1.1/4"	1"
HFL3-20-20CF	1.1/4"	1.1/4"
HFL3-20-24CF	1.1/2"	1.1/4"
HFL3-24-24CF	1.1/2"	1.1/2"
HFL3-24-32CF	2"	1.1/2"
HFL3-32-32CF	2"	2"

90° Flanges



0309	Flange ND	To Suit Hose ID
HFL390-08-08CF	1/2"	1/2"
HFL390-08-12CF	3/4"	1/2"
HFL390-12-12CF	3/4"	3/4"
HFL390-12-16CF	1"	3/4"
HFL390-16-16CF	1"	1"
HFL390-16-20CF	1.1/4"	1"
HFL390-20-20CF	1.1/4"	1.1/4"
HFL390-20-24CF	1.1/2"	1.1/4"
HFL390-24-24CF	1.1/2"	1.1/2"
HFL390-24-32CF	2"	1.1/2"
HFL390-32-32CF	2"	2"

45° Flanges



0309	Flange ND	To Suit Hose ID
HFL345-12-12CF	3/4"	3/4"
HFL345-16-12CF	3/4"	1"
HFL345-16-16CF	1"	1"
HFL345-16-20CF	1.1/4"	1"
HFL345-20-20CF	1.1/4"	1.1/4"
HFL345-20-24CF	1.1/2"	1.1/4"
HFL345-24-24CF	1.1/2"	1.1/2"
HFL345-24-32CF	2"	1.1/2"
HFL345-32-32CF	2"	2"

SAE 6000 PSI (6K)



Straight Flanges

0309	Flange ND	To Suit Hose ID
HFL6-08-08CF	1/2"	1/2"
HFL6-12-12CF	3/4"	3/4"
HFL6-12-16CF	1"	3/4"
HFL6-16-16CF	1"	1"
HFL6-16-20CF	1.1/4"	1"
HFL6-20-20CF	1.1/4"	1.1/4"
HFL6-20-24CF	1.1/2"	1.1/4"
HFL6-24-24CF	1.1/2"	1.1/2"
HFL6-32-32CF	2"	2"

90° Flanges



0309	Flange ND	To Suit Hose ID
HFL690-08-08CF	1/2"	1/2"
HFL690-08-12CF	3/4"	1/2"
HFL690-12-12CF	3/4"	3/4"
HFL690-12-16CF	1"	3/4"
HFL690-16-16CF	1"	1"
HFL690-16-20CF	1.1/4"	1"
HFL690-20-20CF	1.1/4"	1.1/4"
HFL690-20-24CF	1.1/2"	1.1/4"
HFL690-24-24CF	1.1/2"	1.1/2"
HFL690-32-32CF	2"	2"

45° Flanges



0309	Flange ND	To Suit Hose ID
HFL645-08-08CF	1/2"	1/2"
HFL645-08-12CF	3/4"	1/2"
HFL645-12-12CF	3/4"	3/4"
HFL645-12-16CF	1"	3/4"
HFL645-16-16CF	1"	1"
HFL645-16-20CF	1.1/4"	1"
HFL645-20-20CF	1.1/4"	1.1/4"
HFL645-20-24CF	1.1/2"	1.1/4"
HFL645-24-24CF	1.1/2"	1.1/2"
HFL645-32-32CF	2"	2"

Split Flange Half

Sold as Halves



3000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH3001	1/2"	M8 x 25	5/16" x 1.1/4"
FH3002	3/4"	M10 x 30	3/8" x 1.1/4"
FH3003	1"	M10 x 30	3/8" x 1.1/4"
FH3004	1.1/4"	M10 x 35	7/16" x 1.1/2"
FH3005	1.1/2"	M12 x 35	1/2" x 1.1/2"
FH3006	2"	M12 x 35	1/2" x 1.1/2"
FH3007	2.1/2"	M12 x 40	1/2" x 1.1/2"
FH3011	5"	M16 x 50	5/8" x 2"

Tech Sheet 1626

Sold as Halves



6000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH6001	1/2"	M8 x 30	5/16" x 1.1/4"
FH6002	3/4"	M10 x 35	3/8" x 1.1/2"
FH6003	1"	M12 x 45	-
FH6013	1"	-	7/16" x 1.1/4"
FH6004	1.1/4"	M14 x 50	-
FH6044	1.1/4"	-	1/2" x 1.3/4"
FH6005	1.1/2"	M16 x 55	5/8" x 2"
FH6006	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1626

Bolts, washers and O-rings are not included and must be purchased separately, see page 108

Standard hydraulic adaptors do not adhere to the working pressure of multi spiral hose. Please use KR500 Hydraulic Adaptors for high pressure and multi spiral applications. See pages **82-84**

Ferrule



4SH

0309	To Suit Hose ID
JMF4SH-12CF	3/4"
JMF4SH-16CF	1"

Tech Sheet 3152



For **Hydraulic Test Kits** see page **272**

BSPP



Female

0309	Thread	To Suit Hose ID
JMBSPF-12-12CF	3/4"	3/4"
JMBSPF-16-12CF	1"	3/4"
JMBSPF-16-16CF	1"	1"
JMBSPF-20-16CF	1.1/4"	1"



Male

0309	Thread	To Suit Hose ID
JMBSPM-12-12CF	3/4"	3/4"
JMBSPM-16-12CF	1"	3/4"
JMBSPM-16-16CF	1"	1"
JMBSPM-20-16CF	1.1/4"	1"



45° Elbow

0309	Thread	To Suit Hose ID
JMBSPF45-12-12CF	3/4"	3/4"
JMBSPF45-16-12CF	1"	3/4"
JMBSPF45-16-16CF	1"	1"
JMBSPF45-20-16CF	1.1/4"	1"



90° Elbow

0309	Thread	To Suit Hose ID
JMBSPF90-12-12CF	3/4"	3/4"
JMBSPF90-16-12CF	1"	3/4"
JMBSPF90-16-16CF	1"	1"
JMBSPF90-20-16CF	1.1/4"	1"

JIC



Female

0309	Thread	To Suit Hose ID
JMJICF-17-12CF	1.1/16"	3/4"
JMJICF-21-12CF	1.5/16"	3/4"
JMJICM-21-16CF	1.5/16"	1"
JMJICF-26-16CF	1.5/8"	1"



Male

0309	Thread	To Suit Hose ID
JMJICMM-17-12CF	1.1/16"	3/4"
JMJICMM-21-12CF	1.5/16"	3/4"
JMJICMM-21-16CF	1.5/16"	1"
JMJICMM-26-16CF	1.5/8"	1"



45° Elbow

0309	Thread	To Suit Hose ID
JMJICF45-17-12CF	1.1/16"	3/4"
JMJICF45-21-12CF	1.5/16"	3/4"
JMJICF45-21-16CF	1.5/16"	1"
JMJICF45-26-16CF	1.5/8"	1"



90° Elbow

0309	Thread	To Suit Hose ID
JMJICF90-17-12CF	1.1/16"	3/4"
JMJICF90-21-12CF	1.5/16"	3/4"
JMJICF90-21-16CF	1.5/16"	1"
JMJICF90-26-16CF	1.5/8"	1"

INTERLOCK HOSE CONNECTORS



Metric Heavy



Male

0309	Thread	To Suit Hose ID
JMDKOSM-26-12CF	25S-36 x 2	3/4"
JMDKOSM-42-16CF	30S-42 x 2	1"



Female

0309	Thread	To Suit Hose ID
JMDKOSF-36-12CF	25S-36 x 2	3/4"
JMDKOSF-42-16CF	30S-42 x 2	1"



45° Elbow

0309	Thread	To Suit Hose ID
JMDKOS45-36-12CF	25S-36 x 2	3/4"
JMDKOS45-42-16CF	30S-42 x 2	1"



90° Elbow

0309	Thread	To Suit Hose ID
JMDKOS90-26-12CF	25S-36 x 2	3/4"
JMDKOS90-42-16CF	30S-42 x 2	1"

ORFS



Female

0309	Thread	To Suit Hose ID
JMORFSF1212CF	1.3/16"	3/4"
JMORFSF1616CF	1.7/16"	1"



45° Elbow

0309	Thread	To Suit Hose ID
JMORFSF451212CF	1.3/16"	3/4"
JMORFSF451616CF	1.7/16"	1"



90° Elbow

0309	Thread	To Suit Hose ID
JMORFSF901212CF	1.3/16"	3/4"
JMORFSF901616CF	1.7/16"	1"

Poclain Style Flange



Male

0309	Flange ND	To Suit Hose ID
JMPOCM-12-12CF	3/4"	3/4"
JMPOCM-16-16CF	1"	1"



Female

0309	Flange ND	To Suit Hose ID
JMPOCF-12-12CF	3/4"	3/4"
JMPOCF-16-16CF	1"	1"



For PPE
see pages 1750-1760

CAT Style Flange



Straight

0309	ND	To Suit Hose ID
JMCAT12-12CF	3/4"	3/4"
JMCAT16-12CF	1"	3/4"
JMCAT16-16CF	1"	1"
JMCAT20-16CF	1.1/4"	1"

Tech Sheet 10047



45° Elbow

0309	ND	To Suit Hose ID
JMCAT4512-12CF	3/4"	3/4"
JMCAT4516-12CF	1"	3/4"
JMCAT4516-16CF	1"	1"
JMCAT4520-16CF	1.1/4"	1"

Tech Sheet 10047



90° Elbow

0309	ND	To Suit Hose ID
JMCAT9012-12CF	3/4"	3/4"
JMCAT9016-12CF	1"	3/4"
JMCAT9016-16CF	1"	1"
JMCAT9020-16CF	1.1/4"	1"

Tech Sheet 10047

SAE 3000 PSI Flange



Straight

0309	ND	To Suit Hose ID
JMFL3-12-12CF	3/4"	3/4"
JMFL3-16-12CF	1"	3/4"
JMFL3-16-16CF	1"	1"
JMFL3-20-16CF	1.1/4"	1"



45° Elbow

0309	ND	To Suit Hose ID
JMFL345-12-12CF	3/4"	3/4"
JMFL345-16-12CF	1"	3/4"
JMFL345-16-16CF	1"	1"
JMFL345-20-12CF	1.1/4"	1"



90° Elbow

0309	ND	To Suit Hose ID
JMFL390-12-12CF	3/4"	3/4"
JMFL390-16-12CF	1"	3/4"
JMFL390-16-16CF	1"	1"
JMFL390-20-16CF	1.1/4"	1"

SAE 6000 PSI Flange



Straight

0309	ND	To Suit Hose ID
JMFL6-12-12CF	3/4"	3/4"
JMFL6-16-12CF	1"	3/4"
JMFL6-16-16CF	1"	1"
JMFL6-20-16CF	1.1/4"	1"



45° Elbow

0309	ND	To Suit Hose ID
JMFL645-12-12CF	3/4"	3/4"
JMFL645-16-12CF	1"	3/4"
JMFL645-16-16CF	1"	1"
JMFL645-20-12CF	1.1/4"	1"



90° Elbow

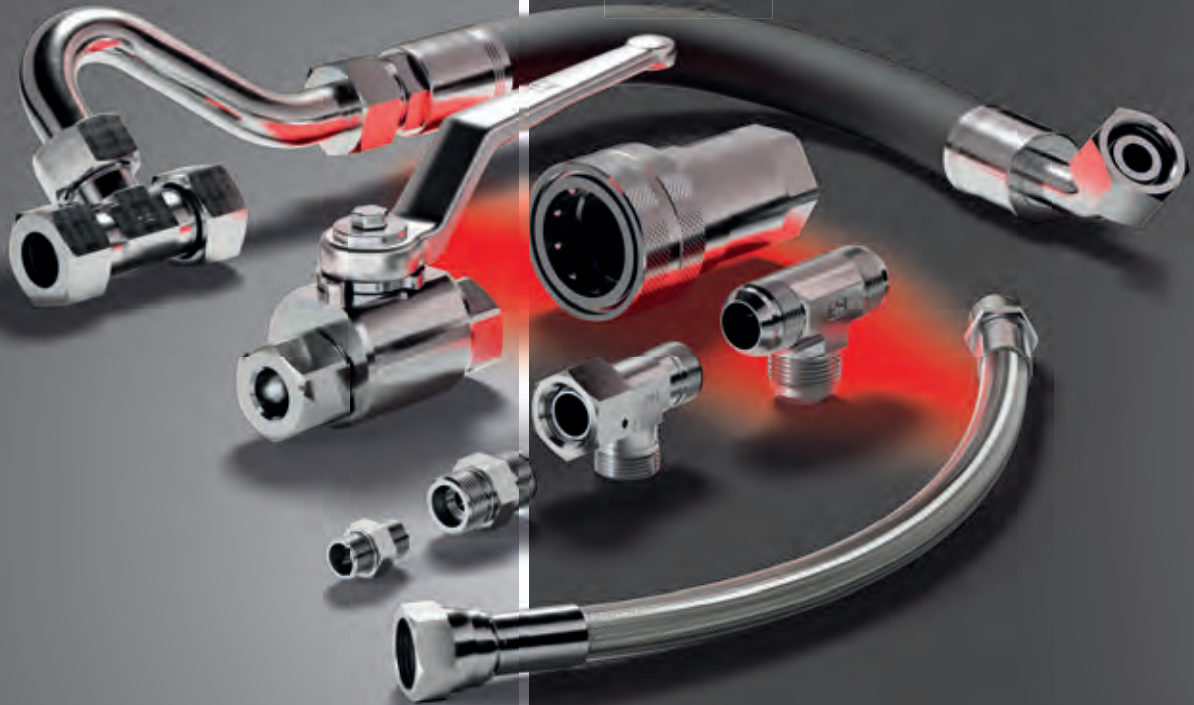
0309	ND	To Suit Hose ID
JMFL690-12-12CF	3/4"	3/4"
JMFL690-16-12CF	1"	3/4"
JMFL690-16-16CF	1"	1"
JMFL690-20-16CF	1.1/4"	1"



For **Split flanges**
see page **24**



EDELSTAHL / STAINLESS STEEL
VERBINDUNGSTECHNIK
FLUID CONNECTORS



**SINCE
1982**
**STAINLESS
STEEL
CONNECTORS
FROM
PH.**

HYDRAULIC HOSE COUPLINGS AND
COMPRESSION FITTINGS MADE FROM
STAINLESS STEEL AISI 316 TI **ONLY.**

WHY PH?

HIGHEST PRECISION
WIDE RANGE OF PRODUCTS
STANDARDS AND NORMS
MAXIMUM AVAILABILITY
TRACEABILITY 100 %
TYPE APPROVALS

HYDRAULIC STAINLESS STEEL FERRULES

stainless
steel



Ferrules

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



R1AT Non-skive

0044	To Suit Hose ID
SFR1-05	3/16"
SFR1-06	1/4"
SFR1-08	5/16"
SFR1-10	3/8"
SFR1-12	1/2"
SFR1-16	5/8"
SFR1-20	3/4"
SFR1-25	1"
SFR1-31	1.1/4"
SFR1-38	1.1/2"
SFR1-51	2"

Tech Sheet 60587

EN857-1SC Non-skive

0044	To Suit Hose ID
SFR1-06SC	1/4"
SFR1-08SC	5/16"
SFR1-10SC	3/8"
SFR1-12SC	1/2"

Tech Sheet 60587



R2AT Non-skive

0044	To Suit Hose ID
SFR2-05	3/16"
SFR2-06	1/4"
SFR2-08	5/16"
SFR2-10	3/8"
SFR2-12	1/2"
SFR2-16	5/8"
SFR2-20	3/4"
SFR2-25	1"
SFR2-31	1.1/4"
SFR2-38	1.1/2"
SFR2-51	2"

Tech Sheet 60588

EN857-2SC Non-skive

0044	To Suit Hose ID
SFR2-06SC	1/4"
SFR2-08SC	5/16"
SFR2-10SC	3/8"
SFR2-12SC	1/2"
SFR2-16SC	5/8"
SFR2-20SC	3/4"
SFR2-25SC	1"

Tech Sheet 60587



R1AT & R2AT Dual, Non-skive

0044	To Suit Hose ID
SFR3-06	1/4"
SFR3-08	5/16"
SFR3-10	3/8"
SFR3-12	1/2"
SFR3-16	5/8"
SFR3-20	3/4"
SFR3-25	1"

Tech Sheet 60587



PTFE, Smooth Bore

0044	To Suit Hose ID
SFPTFE-05	3/16"
SFPTFE-06	1/4"
SFPTFE-08	5/16"
SFPTFE-10	3/8"
SFPTFE-12	1/2"
SFPTFE-16	5/8"
SFPTFE-20	3/4"
SFPTFE-25	1"

Tech Sheet 60586



PTFE, Convoluted Bore

0044	To Suit Hose ID
SCFPTFE-06	1/4"
SCFPTFE-08	5/16"
SCFPTFE-10	3/8"
SCFPTFE-12	1/2"
SCFPTFE-16	5/8"
SCFPTFE-20	3/4"
SCFPTFE-25	1"

Tech Sheet 60585



For Full range of Hydraulic Hose
see pages 6-14



HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



BSP

Male Inserts, BSPP



0044	Thread	To Suit Hose ID
SMI05-14	1/4"	3/16"
SMI06-18	1/8"	1/4"
SMI06-14	1/4"	1/4"
SMI06-38	3/8"	1/4"
SMI06-12	1/2"	1/4"
SMI08-14	1/4"	5/16"
SMI08-38	3/8"	5/16"
SMI08-12	1/2"	5/16"
SMI10-14	1/4"	3/8"
SMI10-38	3/8"	3/8"
SMI10-12	1/2"	3/8"
SMI12-38	3/8"	1/2"
SMI12-12	1/2"	1/2"
SMI12-34	3/4"	1/2"
SMI16-12	1/2"	5/8"
SMI16-58	5/8"	5/8"
SMI16-34	3/4"	5/8"
SMI20-34	3/4"	3/4"
SMI20-1	1"	3/4"
SMI25-1	1"	1"
SMI25-34	3/4"	1"
SMI25-114	1.1/4"	1"
SMI31-114	1.1/4"	1.1/4"
SMI31-112	1.1/2"	1.1/4"
SMI38-112	1.1/2"	1.1/2"
SMI51-2	2"	2"

Tech Sheet 60593

Male Inserts, BSPT



0044	Thread	To Suit Hose ID
AGRK-1/8-DN05	1/8"	3/16"
AGRK-1/8-DN06	1/8"	1/4"
AGRK-1/4-DN05	1/4"	3/16"
AGRK-1/4-DN06	1/4"	1/4"
AGRK-1/4-DN10	1/4"	3/8"
AGRK-1/4-DN08	1/4"	5/16"
AGRK-3/8-DN06	3/8"	1/4"
AGRK-3/8-DN08	3/8"	5/16"
AGRK-3/8-DN10	3/8"	3/8"
AGRK-3/8-DN12	3/8"	1/2"
AGRK-1/2-DN10	1/2"	3/8"
AGRK-1/2-DN12	1/2"	1/2"
AGRK-1/2-DN19	1/2"	3/4"
AGRK-3/4-DN12	3/4"	1/2"
AGRK-3/4-DN16	3/4"	5/8"
AGRK-3/4-DN19	3/4"	3/4"
AGRK-3/4-DN25	3/4"	1"
AGRK-1-DN19	1"	3/4"
AGRK-1-DN25	1"	1"
AGRK-11/4-DN31	1.1/4"	1.1/4"
AGRK-11/2-DN38	1.1/2"	1.1/2"
AGRK-2-DN51	2"	2"

Tech Sheet 60589

Swivel Female Inserts, BSPP



0044	Thread	To Suit Hose ID
SFI05-18	1/8"	3/16"
SFI05-14	1/4"	3/16"
SFI06-18	1/8"	1/4"
SFI06-14	1/4"	1/4"
SFI06-38	3/8"	1/4"
SFI06-12	1/2"	1/4"
SFI08-14	1/4"	5/16"
SFI08-38	3/8"	5/16"
SFI08-12	1/2"	5/16"
SFI10-14	1/4"	3/8"
SFI10-38	3/8"	3/8"
SFI10-12	1/2"	3/8"
SFI12-38	3/8"	1/2"
SFI12-12	1/2"	1/2"
SFI12-58	5/8"	1/2"
SFI16-12	1/2"	5/8"
SFI16-58	5/8"	5/8"
SFI16-34	3/4"	5/8"
SFI20-12	1/2"	3/4"
SFI20-34	3/4"	3/4"
SFI20-1	1"	3/4"
SFI20-114	1.1/4"	3/4"
SFI25-1	1"	1"
SFI25-34	3/4"	1"
SFI25-114	1.1/4"	1"
SFI31-1	1"	1.1/4"
SFI31-114	1.1/4"	1.1/4"
SFI31-112	1.1/2"	1.1/4"
SFI38-112	1.1/2"	1.1/2"
SFI38-2	2"	1.1/2"
SFI51-2	2"	2"

Tech Sheet 60592

Female Swept 90° Inserts, BSPP



0044	Thread	To Suit Hose ID
SEI05-14	1/4"	3/16"
SEI05-18	1/8"	3/16"
SEI06-18	1/8"	1/4"
SEI06-14	1/4"	1/4"
SEI06-38	3/8"	1/4"
SEI08-14	1/4"	5/16"
SEI08-38	3/8"	5/16"
SEI10-14	1/4"	3/8"
SEI10-38	3/8"	3/8"
SEI10-12	1/2"	3/8"
SEI12-38	3/8"	1/2"
SEI12-12	1/2"	1/2"
SEI12-58	5/8"	1/2"
SEI16-12	1/2"	5/8"
SEI16-58	5/8"	5/8"
SEI16-34	3/4"	5/8"
SEI20-34	3/4"	3/4"
SEI20-1	1"	3/4"
SEI25-1	1"	1"
SEI25-114	1.1/4"	1"
SEI31-114	1.1/4"	1.1/4"
SEI31-112	1.1/2"	1.1/4"
SEI38-112	1.1/2"	1.1/2"
SEI38-2	2"	1.1/2"
SEI51-2	2"	2"

Tech Sheet 60591

Female Swept 45° Inserts, BSPP



0044	Thread	To Suit Hose ID
DKR-1/8-45-DN05	1/8"	3/16"
DKR-1/8-45-DN06	1/8"	1/4"
DKR-1/4-45-DN05	1/4"	3/16"
DKR-1/4-45-DN06	1/4"	1/4"
DKR-1/4-45-DN08	1/4"	5/16"
DKR-1/4-45-DN10	1/4"	3/8"
DKR-3/8-45-DN06	3/8"	1/4"
DKR-3/8-45-DN08	3/8"	5/16"
DKR-3/8-45-DN10	3/8"	3/8"
DKR-3/8-45-DN12	3/8"	1/2"
DKR-1/2-45-DN10	1/2"	3/8"
DKR-1/2-45-DN12	1/2"	1/2"
DKR-1/2-45-DN16	1/2"	5/8"
DKR-5/8-45-DN12	5/8"	1/2"
DKR-5/8-45-DN16	5/8"	5/8"
DKR-3/4-45-DN12	3/4"	1/2"
DKR-3/4-45-DN16	3/4"	5/8"
DKR-3/4-45-DN19	3/4"	3/4"
DKR-1-45-DN19	1"	3/4"
DKR-1-45-DN25	1"	1"
DKR-11/4-45-DN25	1.1/4"	1"
DKR-11/4-45-DN31	1.1/4"	1.1/4"
DKR-11/2-45-DN31	1.1/2"	1.1/4"
DKR-11/2-45-DN38	1.1/2"	1.1/2"
DKR-2-45-DN38	2"	1.1/2"
DKR-2-45-DN51	2"	2"

Tech Sheet 60590

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless steel



JIC 37°

Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



Male Inserts

0044	Thread	To Suit Hose ID
AGJ-7/16-DN05	7/16"	3/16"
AGJ-7/16-DN06	7/16"	1/4"
AGJ-1/2-DN05	1/2"	3/16"
AGJ-1/2-DN06	1/2"	1/4"
AGJ-1/2-DN08	1/2"	5/16"
AGJ-9/16-DN05	9/16"	3/16"
AGJ-9/16-DN06	9/16"	1/4"
AGJ-9/16-DN08	9/16"	5/16"
AGJ-9/16-DN10	9/16"	3/8"
AGJ-3/4-DN10	3/4"	3/8"
AGJ-3/4-DN12	3/4"	1/2"
AGJ-7/8-DN10	7/8"	3/8"
AGJ-7/8-DN12	7/8"	1/2"
AGJ-7/8-DN16	7/8"	5/8"
AGJ-11/16-DN12	1.1/16"	1/2"
AGJ-11/16-DN16	1.1/16"	5/8"
AGJ-11/16-DN19	1.1/16"	3/4"
AGJ-15/16-DN19	1.5/16"	3/4"
AGJ-15/16-DN25	1.5/16"	1"
AGJ-15/8-DN25	1.5/8"	1"
AGJ-15/8-DN31	1.5/8"	1.1/4"
AGJ-17/8-DN31	1.7/8"	1.1/4"
AGJ-17/8-DN38	1.7/8"	1.1/2"
AGJ-21/2-DN38	2.1/2"	1.1/2"
AGJ-21/2-DN51	2.1/2"	2"

Tech Sheet 60594



Female Swivel Inserts

0044	Thread	To Suit Hose ID
DKJ7/16-DN05	7/16"	3/16"
DKJ7/16-DN06	7/16"	1/4"
DKJ1/2-DN05	1/2"	3/16"
DKJ1/2-DN06	1/2"	1/4"
DKJ1/2-DN08	1/2"	5/16"
DKJ9/16-DN05	9/16"	3/16"
DKJ9/16-DN06	9/16"	1/4"
DKJ9/16-DN08	9/16"	5/16"
DKJ9/16-DN10	9/16"	3/8"
DKJ9/16-DN12	9/16"	1/2"
DKJ3/4-DN06	3/4"	1/4"
DKJ3/4-DN08	3/4"	5/16"
DKJ3/4-DN10	3/4"	3/8"
DKJ3/4-DN12	3/4"	1/2"
DKJ3/4-DN16	3/4"	5/8"
DKJ3/4-DN19	3/4"	3/4"
DKJ7/8-DN10	7/8"	3/8"
DKJ7/8-DN12	7/8"	1/2"
DKJ7/8-DN16	7/8"	5/8"
DKJ7/8-DN19	7/8"	3/4"
DKJ11/16-DN12	1.1/16"	1/2"
DKJ11/16-DN16	1.1/16"	5/8"
DKJ11/16-DN19	1.1/16"	3/4"
DKJ11/16-DN25	1.1/16"	1"
DKJ15/16-DN16	1.5/16"	5/8"
DKJ15/16-DN25	1.5/16"	1"
DKJ15/8-DN25	1.5/8"	1"
DKJ15/8-DN31	1.5/8"	1.1/4"
DKJ17/8-DN31	1.7/8"	1.1/4"
DKJ17/8-DN38	1.7/8"	1.1/2"
DKJ21/2-DN38	2.1/2"	1.1/2"
DKJ21/2-DN51	2.1/2"	2"

Tech Sheet 60597



Female Swept 90° Inserts

0044	Thread	To Suit Hose ID
DKJ7/16-90-DN05	7/16"	3/16"
DKJ7/16-90-DN06	7/16"	1/4"
DKJ1/2-90-DN05	1/2"	3/16"
DKJ1/2-90-DN06	1/2"	1/4"
DKJ1/2-90-DN08	1/2"	5/16"
DKJ9/16-90-DN05	9/16"	3/16"
DKJ9/16-90-DN06	9/16"	1/4"
DKJ9/16-90-DN08	9/16"	5/16"
DKJ9/16-90-DN10	9/16"	3/8"
DKJ3/4-90-DN10	3/4"	3/8"
DKJ3/4-90-DN12	3/4"	1/2"
DKJ7/8-90-DN10	7/8"	3/8"
DKJ7/8-90-DN12	7/8"	1/2"
DKJ7/8-90-DN16	7/8"	5/8"
DKJ11/16-90-DN12	1.1/16"	1/2"
DKJ11/16-90-DN16	1.1/16"	5/8"
DKJ11/16-90-DN19	1.1/16"	3/4"
DKJ15/16-90-DN19	1.5/16"	3/4"
DKJ15/16-90-DN25	1.5/16"	1"
DKJ1.5/8-90-DN25	1.5/8"	1"
DKJ15/8-90-DN31	1.5/8"	1.1/4"
DKJ17/8-90-DN31	1.7/8"	1.1/4"
DKJ17/8-90-DN38	1.7/8"	1.1/2"
DKJ21/2-90-DN38	2.1/2"	1.1/2"
DKJ21/2-90-DN51	2.1/2"	2"

Tech Sheet 60596



Female Swept 45° Inserts

0044	Thread	To Suit Hose ID
DKJ-7/16-45-DN06	7/16"	1/4"
DKJ-1/2-45-DN06	1/2"	1/4"
DKJ-1/2-45-DN08	1/2"	5/16"
DKJ-9/16-45-DN06	9/16"	1/4"
DKJ-9/16-45-DN08	9/16"	5/16"
DKJ-9/16-45-DN10	9/16"	3/8"
DKJ-3/4-45-DN10	3/4"	3/8"
DKJ-3/4-45-DN12	3/4"	1/2"
DKJ-7/8-45-DN10	7/8"	3/8"
DKJ-7/8-45-DN12	7/8"	1/2"
DKJ-7/8-45-DN16	7/8"	5/8"
DKJ-1116-45-DN12	1.1/16"	1/2"
DKJ-1116-45-DN16	1.1/16"	5/8"
DKJ-1116-45-DN19	1.1/16"	3/4"
DKJ-1516-45-DN19	1.5/16"	3/4"
DKJ-1516-45-DN25	1.5/16"	1"
DKJ-15/8-45-DN25	1.5/8"	1"
DKJ-15/8-45-DN31	1.5/8"	1.1/4"
DKJ-17/8-45-DN31	1.7/8"	1.1/4"
DKJ-17/8-45-DN38	1.7/8"	1.1/2"
DKJ-21/2-45-DN38	2.1/2"	1.1/2"
DKJ-21/2-45-DN51	2.1/2"	2"

Tech Sheet 60595



For Hose & Pipe Cleaning
see page 49

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



Metric Light Series



**Metric Male 24° Cone Seat,
L Series DIN 2353**

0044	Thread	To Suit Hose ID
CEL-06-DN05	M12 x 1.5	3/16"
CEL-06-DN06	M12 x 1.5	1/4"
CEL-08-DN05	M14 x 1.5	3/16"
CEL-08-DN06	M14 x 1.5	1/4"
CEL-10-DN06	M16 x 1.5	1/4"
CEL-10-DN08	M16 x 1.5	5/16"
CEL-10-DN10	M16 x 1.5	3/8"
CEL-12-DN06	M18 x 1.5	1/4"
CEL-12-DN08	M18 x 1.5	5/16"
CEL-12-DN10	M18 x 1.5	3/8"
CEL-12-DN12	M18 x 1.5	1/2"
CEL-15-DN10	M22 x 1.5	3/8"
CEL-15-DN12	M22 x 1.5	1/2"
CEL-18-DN12	M26 x 1.5	1/2"
CEL-18-DN16	M26 x 1.5	5/8"
CEL-18-DN19	M26 x 1.5	3/4"
CEL-22-DN16	M30 x 2	5/8"
CEL-22-DN19	M30 x 2	3/4"
CEL-28-DN19	M36 x 2	3/4"
CEL-28-DN25	M36 x 2	1"
CEL-35-DN31	M45 x 2	1.1/4"
CEL-42-DN38	M52 x 2	1.1/2"

Tech Sheet 60598



**Metric Female 24° Cone Seat,
L Series with O-Ring, DIN 2353**

0044	Thread	To Suit Hose ID
DKOL-06-DN05	M12 x 1.5	3/16"
DKOL-06-DN06	M12 x 1.5	1/4"
DKOL-08-DN05	M14 x 1.5	3/16"
DKOL-08-DN06	M14 x 1.5	1/4"
DKOL-08-DN08	M14 x 1.5	5/16"
DKOL-08-DN10	M14 x 1.5	3/8"
DKOL-10-DN06	M16 x 1.5	1/4"
DKOL-10-DN08	M16 x 1.5	5/16"
DKOL-10-DN10	M16 x 1.5	3/8"
DKOL-10-DN12	M16 x 1.5	1/2"
DKOL-12-DN06	M18 x 1.5	1/4"
DKOL-12-DN08	M18 x 1.5	5/16"
DKOL-12-DN10	M18 x 1.5	3/8"
DKOL-12-DN12	M18 x 1.5	1/2"
DKOL-15-DN06	M22 x 1.5	1/4"
DKOL-15-DN08	M22 x 1.5	5/16"
DKOL-15-DN10	M22 x 1.5	3/8"
DKOL-15-DN12	M22 x 1.5	1/2"
DKOL-15-DN16	M22 x 1.5	5/8"
DKOL-18-DN10	M26 x 1.5	3/8"
DKOL-18-DN12	M26 x 1.5	1/2"
DKOL-18-DN16	M26 x 1.5	5/8"
DKOL-18-DN19	M26 x 1.5	3/4"
DKOL-22-DN12	M30 x 2	1/2"
DKOL-22-DN16	M30 x 2	5/8"
DKOL-22-DN19	M30 x 2	3/4"
DKOL-22-DN25	M30 x 2	1"
DKOL-28-DN16	M36 x 2	5/8"
DKOL-28-DN19	M36 x 2	3/4"
DKOL-28-DN25	M36 x 2	1"
DKOL-35-DN25	M45 x 2	1"
DKOL-35-DN31	M45 x 2	1.1/4"
DKOL-42-DN31	M52 x 2	1.1/4"
DKOL-42-DN38	M52 x 2	1.1/2"

Tech Sheet 60601



**90° Metric Female 24° Cone Seat,
L Series with O-Ring, DIN 2353**

0044	Thread	To Suit Hose ID
DKOL-06-90-DN05	M12 X 1.5	3/16"
DKOL-06-90-DN06	M12 x 1.5	1/4"
DKOL-08-90-DN06	M14 x 1.5	1/4"
DKOL-08-90-DN08	M14 x 1.5	5/16"
DKOL-10-90-DN08	M16 x 1.5	1/4"
DKOL-10-90-DN08	M16 x 1.5	5/16"
DKOL-10-90-DN10	M16 x 1.5	3/8"
DKOL-12-90-DN06	M18 x 1.5	1/4"
DKOL-12-90-DN08	M18 x 1.5	5/16"
DKOL-12-90-DN10	M18 x 1.5	3/8"
DKOL-12-90-DN12	M18 x 1.5	1/2"
DKOL-15-90-DN10	M22 x 1.5	3/8"
DKOL-15-90-DN12	M22 x 1.5	1/2"
DKOL-18-90-DN12	M26 x 1.5	1/2"
DKOL-18-90-DN16	M26 x 1.5	5/8"
DKOL-22-90-DN16	M30 x 2	5/8"
DKOL-22-90-DN19	M30 x 2	3/4"
DKOL-28-90-DN19	M36 x 2	3/4"
DKOL-28-90-DN25	M36 x 2	1"
DKOL-35-90-DN31	M45 x 2	1.1/4"
DKOL-42-90-DN38	M52 x 2	1.1/2"

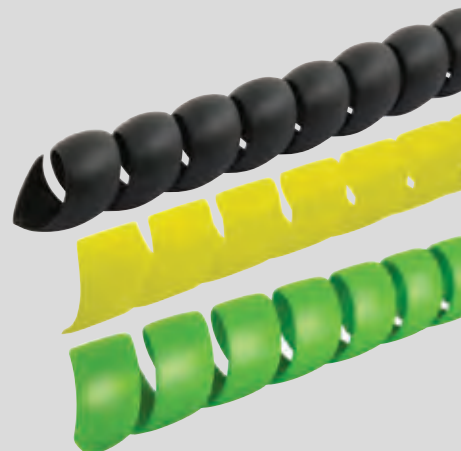
Tech Sheet 60600



**45° Metric Female
24° Cone Seat,
L Series with O-Ring, DIN 2353**

0044	Thread	To Suit Hose ID
DKOL-06-45-DN05	M12 x 1.5	3/16"
DKOL-06-45-DN06	M12 x 1.5	1/4"
DKOL-08-45-DN05	M14 x 1.5	3/16"
DKOL-08-45-DN06	M14 x 1.5	1/4"
DKOL-08-45-DN08	M14 x 1.5	5/16"
DKOL-10-45-DN06	M16 x 1.5	1/4"
DKOL-10-45-DN08	M16 x 1.5	5/16"
DKOL-10-45-DN10	M16 x 1.5	3/8"
DKOL-12-45-DN06	M18 x 1.5	1/4"
DKOL-12-45-DN08	M18 x 1.5	5/16"
DKOL-12-45-DN10	M18 x 1.5	3/8"
DKOL-12-45-DN12	M18 x 1.5	1/2"
DKOL-15-45-DN10	M22 x 1.5	3/8"
DKOL-15-45-DN12	M22 x 1.5	1/2"
DKOL-18-45-DN12	M26 x 1.5	1/2"
DKOL-18-45-DN16	M26 x 1.5	5/8"
DKOL-22-45-DN16	M30 x 2	5/8"
DKOL-22-45-DN19	M30 x 2	3/4"
DKOL-28-45-DN19	M36 x 2	3/4"
DKOL-28-45-DN25	M36 x 2	1"
DKOL-35-45-DN31	M45 x 2	1.1/4"
DKOL-42-45-DN38	M52 x 2	1.1/2"

Tech Sheet 60599



**For Polypropylene
Protective Hose Sleeves**
see pages 47-48

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless steel



Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)

Metric Heavy Series



Metric Male 24° Cone Seat, S Series DIN 2353

0044	Thread	To Suit Hose ID
CES-06-DN06	M14 x 1.5	1/4"
CES-08-DN06	M16 x 1.5	1/4"
CES-10-DN06	M18 x 1.5	1/4"
CES-10-DN08	M18 x 1.5	5/16"
CES-10-DN10	M18 x 1.5	3/8"
CES-12-DN08	M20 x 1.5	5/16"
CES-12-DN10	M20 x 1.5	3/8"
CES-14-DN08	M22 x 1.5	5/16"
CES-14-DN10	M22 x 1.5	3/8"
CES-16-DN10	M24 x 1.5	3/8"
CES-16-DN12	M24 x 1.5	1/2"
CES-20-DN12	M30 x 2	1/2"
CES-20-DN16	M30 x 2	5/8"
CES-20-DN19	M30 x 2	3/4"
CES-25-DN19	M36 x 2	3/4"
CES-25-DN25	M36 x 2	1"
CES-38-DN31	M52 x 2	1.1/4"
CES-30-DN25	M42 x 2	1"

Tech Sheet 60602



Metric Female 24° Cone Seat, S Series, DIN 2353

0044	Thread	To Suit Hose ID
DKOS-06-DN05	M14 x 1.5	3/16"
DKOS-06-DN06	M14 x 1.5	1/4"
DKOS-08-DN05	M16 x 1.5	3/16"
DKOS-08-DN06	M16 x 1.5	1/4"
DKOS-08-DN08	M16 x 1.5	5/16"
DKOS-08-DN10	M16 x 1.5	3/8"
DKOS-10-DN06	M18 x 1.5	1/4"
DKOS-10-DN08	M18 x 1.5	5/16"
DKOS-10-DN10	M18 x 1.5	3/8"
DKOS-12-DN06	M20 x 1.5	1/4"
DKOS-12-DN08	M20 x 1.5	5/16"
DKOS-12-DN10	M20 x 1.5	3/8"
DKOS-12-DN12	M20 x 1.5	1/2"
DKOS-14-DN08	M22 x 1.5	5/16"
DKOS-14-DN10	M22 x 1.5	3/8"
DKOS-16-DN06	M24 x 1.5	1/4"
DKOS-16-DN08	M24 x 1.5	5/16"
DKOS-16-DN10	M24 x 1.5	3/8"
DKOS-16-DN12	M24 x 1.5	1/2"
DKOS-16-DN16	M24 x 1.5	5/8"
DKOS-20-DN10	M30 x 2	3/8"
DKOS-20-DN12	M30 x 2	1/2"
DKOS-20-DN16	M30 x 2	5/8"
DKOS-20-DN19	M30 x 2	3/4"
DKOS-25-DN12	M36 x 2	1/2"
DKOS-25-DN16	M36 x 2	5/8"
DKOS-25-DN19	M36 x 2	3/4"
DKOS-25-DN25	M36 x 2	1"
DKOS-30-DN19	M42 x 2	3/4"
DKOS-30-DN25	M42 x 2	1"
DKOS-38-DN25	M52 x 2	1"
DKOS-38-DN31	M52 x 2	1.1/4"
DKOS-50-DN38	M68 x 2	1.1/2"

Tech Sheet 60605

90° Metric Female 24° Cone Seat, S Series with O-Ring, DIN 2353



0044	Thread	To Suit Hose ID
DKOS-06-90-DN06	M14 x 1.5	1/4"
DKOS-08-90-DN06	M16 x 1.5	1/4"
DKOS-08-90-DN08	M16 x 1.5	5/16"
DKOS-10-90-DN06	M18 x 1.5	1/4"
DKOS-10-90-DN08	M18 x 1.5	5/16"
DKOS-10-90-DN10	M18 x 1.5	3/8"
DKOS-12-90-DN06	M20 x 1.5	1/4"
DKOS-12-90-DN08	M20 x 1.5	5/16"
DKOS-12-90-DN10	M20 x 1.5	3/8"
DKOS-12-90-DN12	M20 x 1.5	1/2"
DKOS-14-90-DN10	M22 x 1.5	3/8"
DKOS-16-90-DN10	M24 x 1.5	3/8"
DKOS-16-90-DN12	M24 x 1.5	1/2"
DKOS-20-90-DN12	M30 x 2	1/2"
DKOS-20-90-DN16	M30 x 2	5/8"
DKOS-20-90-DN19	M30 x 2	3/4"
DKOS-25-90-DN19	M36 x 2	3/4"
DKOS-25-90-DN25	M36 x 2	1"
DKOS-30-90-DN19	M42 x 2	3/4"
DKOS-30-90-DN25	M42 x 2	1"
DKOS-38-90-DN25	M52 x 2	1"
DKOS-38-90-DN31	M52 x 2	1.1/4"

Tech Sheet 60604



45° Metric Female 24° Cone Seat, S Series with O-Ring, DIN 2353

0044	Thread	To Suit Hose ID
DKOS-06-45-DN06	M14 x 1.5	1/4"
DKOS-08-45-DN06	M16 x 1.5	1/4"
DKOS-08-45-DN08	M16 x 1.5	5/16"
DKOS-10-45-DN06	M18 x 1.5	1/4"
DKOS-10-45-DN08	M18 x 1.5	5/16"
DKOS-10-45-DN10	M18 x 1.5	3/8"
DKOS-12-45-DN06	M20 x 1.5	1/4"
DKOS-12-45-DN08	M20 x 1.5	5/16"
DKOS-12-45-DN10	M20 x 1.5	3/8"
DKOS-12-45-DN12	M20 x 1.5	1/2"
DKOS-14-45-DN10	M22 x 1.5	3/8"
DKOS-16-45-DN10	M24 x 1.5	3/8"
DKOS-16-45-DN12	M24 x 1.5	1/2"
DKOS-20-45-DN12	M30 x 2	1/2"
DKOS-20-45-DN16	M30 x 2	5/8"
DKOS-20-45-DN19	M30 x 2	3/4"
DKOS-25-45-DN19	M36 x 2	3/4"
DKOS-25-45-DN25	M36 x 2	1"
DKOS-30-45-DN19	M42 x 2	3/4"
DKOS-30-45-DN25	M42 x 2	1"
DKOS-38-45-DN25	M52 x 2	1"
DKOS-38-45-DN31	M52 x 2	1.1/4"

Tech Sheet 60603



For **Hose Retention System**
see pages 42-43

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

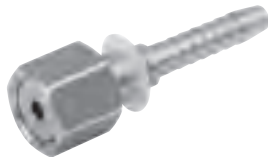


ORFS



Male (O-Ring Face) Inserts

0044	Thread	To Suit Hose ID
ORFSM0404SS	9/16"	1/4"
ORFSM0606SS	11/16"	3/8"
ORFSM0808SS	13/16"	1/2"
ORFSM1010SS	1"	5/8"
ORFSM1212SS	1.3/16"	3/4"
ORFSM1616SS	1.7/16"	1"
ORFSM2020SS	1.11/16"	1.1/4"
ORFSM2424SS	2"	1.1/2"
Tech Sheet 60610		



Female Swept 90° Elbow Inserts

0044	Thread	To Suit Hose ID
ORFSF049004SS	9/16"	1/4"
ORFSF069004SS	11/16"	1/4"
ORFSF069005SS	11/16"	5/16"
ORFSF069006SS	11/16"	3/8"
ORFSF089006SS	13/16"	3/8"
ORFSF089008SS	13/16"	1/2"
ORFSF109010SS	1"	5/8"
ORFSF109012SS	1"	3/4"
ORFSF129012SS	1.7/16"	3/4"
ORFSF169012SS	1.7/16"	3/4"
ORFSF169016SS	1.7/16"	1"
ORFSF209020SS	1.11/16"	1.1/4"
ORFSF209024SS	2"	1.1/2"
Tech Sheet 60609		



Female Swept 45° Elbow Inserts

0044	Thread	To Suit Hose ID
ORFSF044504SS	9/16"	1/4"
ORFSF064504SS	11/16"	1/4"
ORFSF064505SS	11/16"	5/16"
ORFSF064506SS	11/16"	3/8"
ORFSF084506SS	13/16"	3/8"
ORFSF084508SS	13/16"	1/2"
ORFSF104510SS	1"	5/8"
ORFSF104512SS	1"	3/4"
ORFSF124512SS	1.7/16"	3/4"
ORFSF164516SS	1.7/16"	1"
ORFSF204520SS	1.11/16"	1.1/4"
ORFSF204524SS	2"	1.1/2"
Tech Sheet 60608		

Female Inserts

0044	Thread	To Suit Hose ID
ORFSF0404SS	9/16"	1/4"
ORFSF0604SS	11/16"	1/4"
ORFSF0605SS	11/16"	5/16"
ORFSF0606SS	11/16"	3/8"
ORFSF0806SS	13/16"	3/8"
ORFSF0808SS	13/16"	1/2"
ORFSF1008SS	1"	1/2"
ORFSF1010SS	1"	5/8"
ORFSF1012SS	1"	3/4"
ORFSF1208SS	1.3/16"	1/2"
ORFSF1210SS	1.3/16"	5/8"
ORFSF1212SS	1.7/16"	3/4"
ORFSF1612SS	1.7/16"	3/4"
ORFSF1616SS	1.7/16"	1"
ORFSF2020SS	1.11/16"	1.1/4"
ORFSF2424SS	2"	1.1/2"
Tech Sheet 60607		

Jet Wash Female



M22 x 1.5

0044	To Suit Hose ID
DKO-KA-DN06	1/4"
DKO-KA-DN08	5/16"
DKO-KA-DN10	3/8"
DKO-KA-DN12	1/2"
Tech Sheet 60627	

Banjos



Bolt, Metric

0044	Thread
HS-M10X1	M10 x 1
HS-M12X1.5	M12 x 1.5
HS-M14X1.5	M14 x 1.5
HS-M16X1.5	M16 x 1.5
HS-M18X1.5	M18 x 1.5
HS-M22X1.5	M22 x 1.5
HS-M26X1.5	M26 x 1.5
Tech Sheet 60606	

Bolt, Imperial

0044	Thread
HS-G1/8	1/8"
HS-G1/4	1/4"
HS-G3/8	3/8"
HS-G1/2	1/2"
HS-G3/4	3/4"
Tech Sheet 60606	



Inserts, Metric/Imperial

0044	Thread	Thread	To Suit Hose ID
RGN-10-DN06	M10 x 1	1/8"	1/4"
RGN-10-DN08	M10 x 1	1/8"	5/16"
RGN-12-DN06	M12 x 1.5	-	1/4"
RGN-12-DN08	M12 x 1.5	-	5/16"
RGN-14-DN06	M14 x 1.5	-	1/4"
RGN-1/4-DN06	-	1/4"	1/4"
RGN-14-DN08	M14 x 1.5	-	5/16"
RGN-14-DN10	M14 x 1.5	-	3/8"
RGN-16-DN08	M16 x 1.5	3/8"	5/16"
RGN-16-DN10	M16 x 1.5	3/8"	3/8"
RGN-16-DN12	M16 x 1.5	3/8"	1/2"
RGN-18-DN10	M18 x 1.5	-	3/8"
RGN-1/2-DN10	-	1/2"	3/8"
RGN-1/2-DN12	-	1/2"	1/2"
RGN-18-DN12	M18 x 1.5	-	1/2"
RGN-22-DN12	M22 x 1.5	-	1/2"
RGN-22-DN16	M22 x 1.5	-	5/8"
RGN-26-DN19	M26 x 1.5	3/4"	3/4"
Tech Sheet 60611			

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless steel



Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



Standpipes



Straight, L Series

0044	OD mm	To Suit Hose ID
BEL-06-DN05	6	3/16"
BEL-06-DN06	6	1/4"
BEL-08-DN05	8	3/16"
BEL-08-DN06	8	1/4"
BEL-08-DN08	8	5/16"
BEL-10-DN08	10	5/16"
BEL-10-DN10	10	3/8"
BEL-12-DN10	12	3/8"
BEL-12-DN12	12	1/2"
BEL-15-DN10	15	3/8"
BEL-15-DN12	15	1/2"
BEL-18-DN12	18	1/2"
BEL-18-DN16	18	5/8"
BEL-22-DN16	22	5/8"
BEL-22-DN19	22	3/4"
BEL-28-DN25	28	1"
BEL-35-DN31	35	1.1/4"
BEL-42-DN38	42	1.1/2"

Tech Sheet 60615

Straight, S Series

0044	OD mm	To Suit Hose ID
BES-06-DN05	6	3/16"
BES-06-DN06	6	1/4"
BES-08-DN06	8	1/4"
BES-08-DN08	8	5/16"
BES-10-DN06	10	1/4"
BES-10-DN08	10	5/16"
BES-10-DN10	10	3/8"
BES-12-DN06	12	1/4"
BES-12-DN08	12	5/16"
BES-12-DN10	12	3/8"
BES-12-DN12	12	1/2"
BES-14-DN10	14	3/8"
BES-16-DN12	16	1/2"
BES-20-DN12	20	1/2"
BES-20-DN16	20	5/8"
BES-20-DN19	20	3/4"
BES-25-DN19	25	3/4"
BES-25-DN25	25	1"
BES-30-DN25	30	1"
BES-38-DN31	38	1.1/4"

Tech Sheet 60616

Straight, Imperial

0044	OD	To Suit Hose ID
BE-14-DN06	1/4"	1/4"
BE-516-DN08	5/16"	5/16"
BE-38-DN10	3/8"	3/8"
BE-12-DN12	1/2"	1/2"
BE-58-DN16	5/8"	5/8"
BE-34-DN19	3/4"	3/4"
BE-1-DN25	1"	1"
BE-114-DN31	1.1/4"	1.1/4"
BE-112-DN38	1.1/2"	1.1/2"

Tech Sheet 60612



Swept 90°, L Series

0044	OD mm	To Suit Hose ID
BEL-06-90-DN05	6	3/16"
BEL-06-90-DN06	6	1/4"
BEL-08-90-DN06	8	1/4"
BEL-10-90-DN06	10	1/4"
BEL-10-90-DN08	10	5/16"
BEL-10-90-DN10	10	3/8"
BEL-12-90-DN08	12	5/16"
BEL-12-90-DN10	12	3/8"
BEL-12-90-DN12	12	1/2"
BEL-15-90-DN12	15	1/2"
BEL-18-90-DN16	18	5/8"
BEL-22-90-DN19	22	3/4"
BEL-28-90-DN25	28	1"
BEL-35-90-DN31	35	1.1/4"
BEL-42-90-DN38	42	1.1/2"

Tech Sheet 60614

Swept 90°, S Series

0044	OD mm	To Suit Hose ID
BES-06-90-DN05	6	3/16"
BES-06-90-DN06	6	1/4"
BES-08-90-DN06	8	1/4"
BES-10-90-DN06	10	1/4"
BES-10-90-DN08	10	5/16"
BES-10-90-DN10	10	3/8"
BES-12-90-DN08	12	5/16"
BES-12-90-DN10	12	3/8"
BES-14-90-DN10	14	3/8"
BES-16-90-DN12	16	1/2"
BES-20-90-DN16	20	5/8"
BES-25-90-DN19	25	3/4"
BES-30-90-DN25	30	1"
BES-38-90-DN31	38	1.1/4"

Tech Sheet 60614



Swept 45°, L Series

0044	OD mm	To Suit Hose ID
BEL-06-45-DN05	6	3/16"
BEL-06-45-DN06	6	1/4"
BEL-08-45-DN06	8	1/4"
BEL-10-45-DN06	10	1/4"
BEL-10-45-DN08	10	5/16"
BEL-10-45-DN10	10	3/8"
BEL-12-45-DN08	12	5/16"
BEL-12-45-DN10	12	3/8"
BEL-15-45-DN12	15	1/2"
BEL-18-45-DN16	18	5/8"
BEL-22-45-DN19	22	3/4"
BEL-28-45-DN25	28	1"
BEL-35-45-DN31	35	1.1/4"
BEL-42-45-DN38	42	1.1/2"

Tech Sheet 60613

Swept 45°, S Series

0044	OD mm	To Suit Hose ID
BES-06-45-DN05	6	3/16"
BES-06-45-DN06	6	1/4"
BES-08-45-DN06	8	1/4"
BES-10-45-DN06	10	1/4"
BES-10-45-DN08	10	5/16"
BES-10-45-DN10	10	3/8"
BES-12-45-DN08	12	5/16"
BES-14-45-DN10	14	3/8"
BES-16-45-DN12	16	1/2"
BES-20-45-DN16	20	5/8"
BES-25-45-DN19	25	3/4"
BES-30-45-DN25	30	1"
BES-38-45-DN31	38	1.1/4"

Tech Sheet 60613



For Hose & Assemblies
see page 15

HYDRAULIC STAINLESS STEEL ADAPTORS & HOSE FITTINGS

stainless steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



SAE 3000 psi (3k)



Straight Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-DN12	1/2"	1/2"
SFL3-1/2-DN16	1/2"	5/8"
SFL3-3/4-DN12	3/4"	1/2"
SFL3-3/4-DN16	3/4"	5/8"
SFL3-3/4-DN19	3/4"	3/4"
SFL3-1-DN19	1"	3/4"
SFL3-1-DN25	1"	1"
SFL3-11/4-DN25	1.1/4"	1"
SFL3-11/4-DN31	1.1/4"	1.1/4"
SFL3-11/2-DN31	1.1/2"	1.1/4"
SFL3-11/2-DN38	1.1/2"	1.1/2"
SFL3-2-DN38	2"	1.1/2"
SFL3-2-DN51	2"	2"

Tech Sheet 60618



90° Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-90-DN12	1/2"	1/2"
SFL3-1/2-90-DN16	1/2"	5/8"
SFL3-3/4-90-DN12	3/4"	1/2"
SFL3-3/4-90-DN16	3/4"	5/8"
SFL3-3/4-90-DN19	3/4"	3/4"
SFL3-1-90-DN19	1"	3/4"
SFL3-1-90-DN25	1"	1"
SFL3-114-90-DN25	1.1/4"	1"
SFL3-114-90-DN31	1.1/4"	1.1/4"
SFL3-112-90-DN31	1.1/2"	1.1/4"
SFL3-112-90-DN38	1.1/2"	1.1/2"
SFL3-2-90-DN38	2"	1.1/2"
SFL3-2-90-DN51	2"	2"

Tech Sheet 60620



45° Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-45-DN12	1/2"	1/2"
SFL3-1/2-45-DN16	1/2"	5/8"
SFL3-3/4-45-DN12	3/4"	1/2"
SFL3-3/4-45-DN16	3/4"	5/8"
SFL3-3/4-45-DN19	3/4"	3/4"
SFL3-1-45-DN19	1"	3/4"
SFL3-1-45-DN25	1"	1"
SFL3-114-45-DN25	1.1/4"	1"
SFL3-114-45-DN31	1.1/4"	1.1/4"
SFL3-112-45-DN31	1.1/2"	1.1/4"
SFL3-112-45-DN38	1.1/2"	1.1/2"
SFL3-2-45-DN38	2"	1.1/2"
SFL3-2-45-DN51	2"	2"

Tech Sheet 60619

SAE 6000 psi (6k)



Straight Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-DN12	1/2"	1/2"
SFS6-1/2-DN16	1/2"	5/8"
SFS6-3/4-DN12	3/4"	1/2"
SFS6-3/4-DN16	3/4"	5/8"
SFS6-3/4-DN19	3/4"	3/4"
SFS6-1-DN19	1"	3/4"
SFS6-1-DN25	1"	1"
SFS6-11/4-DN25	1.1/4"	1"
SFS6-11/4-DN31	1.1/4"	1.1/4"
SFS6-11/2-DN31	1.1/2"	1.1/4"
SFS6-11/2-DN38	1.1/2"	1.1/2"
SFS6-2-DN38	2"	1.1/2"
SFS6-2-DN51	2"	2"

Tech Sheet 60618



90° Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-90-DN12	1/2"	1/2"
SFS6-1/2-90-DN16	1/2"	5/8"
SFS6-3/4-90-DN12	3/4"	1/2"
SFS6-3/4-90-DN16	3/4"	5/8"
SFS6-3/4-90-DN19	3/4"	3/4"
SFS6-1-90-DN19	1"	3/4"
SFS6-1-90-DN25	1"	1"
SFS6-114-90-DN25	1.1/4"	1"
SFS6-114-90-DN31	1.1/4"	1.1/4"
SFS6-112-90-DN31	1.1/2"	1.1/4"
SFS6-112-90-DN38	1.1/2"	1.1/2"
SFS6-2-90-DN38	2"	1.1/2"
SFS6-2-90-DN51	2"	2"

Tech Sheet 60620



45° Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-45-DN12	1/2"	1/2"
SFS6-1/2-45-DN16	1/2"	5/8"
SFS6-3/4-45-DN12	3/4"	1/2"
SFS6-3/4-45-DN16	3/4"	5/8"
SFS6-3/4-45-DN19	3/4"	3/4"
SFS6-1-45-DN19	1"	3/4"
SFS6-1-45-DN25	1"	1"
SFS6-114-45-DN25	1.1/4"	1"
SFS6-114-45-DN31	1.1/4"	1.1/4"
SFS6-112-45-DN31	1.1/2"	1.1/4"
SFS6-112-45-DN38	1.1/2"	1.1/2"
SFS6-2-45-DN38	2"	1.1/2"
SFS6-2-45-DN51	2"	2"

Tech Sheet 60619



Split Flanges

0044	Flange Size	Bolt Type Metric	Bolt Type UNC
FLH-3-1/2	1/2"	M8 x 25	5/16" x 1.1/4"
FLH-3-3/4	3/4"	M10 x 30	3/8" x 1.1/4"
FLH-3-1	1"	M10 x 30	3/8" x 1.1/4"
FLH-3-1.1/4	1.1/4"	M10 x 30	7/16" x 1.1/2"
FLH-3-1.1/2	1.1/2"	M12 x 35	1/2" x 1.1/2"
FLH-3-2	2"	M12 x 35	1/2" x 1.1/2"

Tech Sheet 60617

Split Flanges

0044	Flange Size	Bolt Type Metric	Bolt Type UNC
FLH-6-1/2	1/2"	M8 x 30	5/16" x 1.1/4"
FLH-6-3/4	3/4"	M10 x 35	3/8" x 1.1/4"
FLH-6-1	1"	M12 x 45	-
FLH-6-1.1/4	1.1/4"	M14 x 50	-
FLH-6-1.1/2	1.1/2"	M16 x 55	5/8" x 2"
FLH-6-2	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 60617



Sold as halves, two halves required for each flange insert.

Sold as halves, two halves required for each flange insert.

Bolts, washers and O-rings are not included and must be purchased separately



PUSH STYLE HOSE SYSTEM

This range of quality hose and fittings has been designed and tested to fully comply to the specification of our SAE 100R6 hose.

The self grip style tail eliminates the requirement for swaged ferrules.

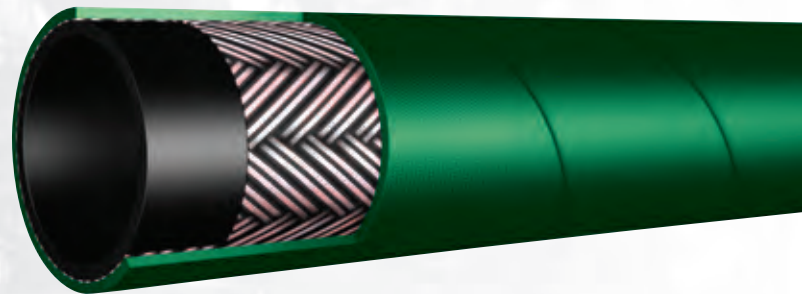
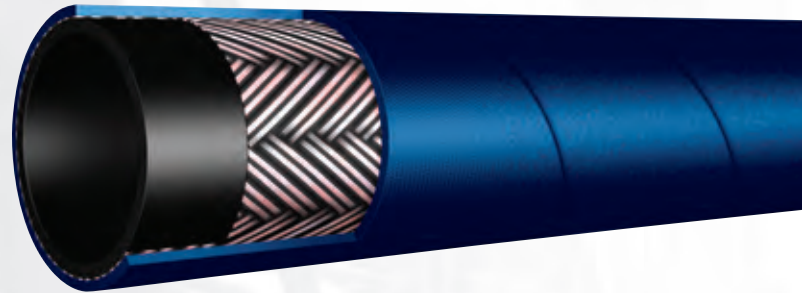
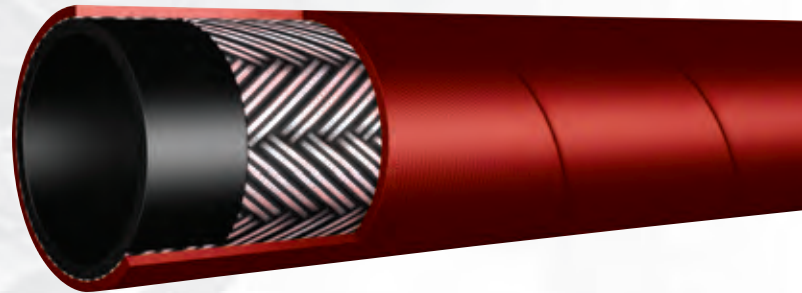
Hoses are available in a range of four colours, with standard end configurations of Metric DIN 2523, BSPP and JIC with A3C plated steel (other thread types and materials available upon request).

BENEFITS OF PUSH STYLE SYSTEM:


- High quality, complete low pressure hose system
- Fittings fully reusable
- No tooling required for assembly
- Fittings available in steel (stainless steel and brass available upon request)
- Static conducting hose available upon request
- System suitable for use with hydraulic oil, water, compressed air and water glycol based fluids at low pressure

FOUR COLOURS AS STANDARD FOR:

- Easy identification
- Identification of a particular medium by colour selected
- Colour-coded maintenance intervals



100R6-04-50 - EN854 - SAE 100R6 - 1/4" - 06MM -

 **Working Temperature:**
-40°C to +100°C.

 **Maximum Working Pressure:**
28 bar

HYDRAULIC HOSE RANGE



Oil Return/Fuel Hose SAE 100R6

100R6 Hose

Application:

Low pressure hydraulic applications, for use with push style fittings. See page 40

Specification:

SAE100 R6, exceeds EN854

Construction:

Inner tube: oil resistant synthetic rubber (Nbr)

Reinforcement: 1 single textile yarn braid

Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

Available per 1 metre

Working Temperature:
-40°C to +100°C.

50 Metre Coils, Black

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-04-50	1/4"	13.5	28	65	112
100R6-05-50	5/16"	15.1	28	75	112
100R6-06-50	3/8"	16.7	28	75	112
100R6-08-50	1/2"	20.6	28	100	112
100R6-10-50	5/8"	23.8	24	125	98

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25 Metre Coils, Black

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-12-25	3/4"	27.8	21	150	84
100R6-16-25	1"	32.5	20	205	80

Page Tech Sheet 5010

50 Metre Coils, Red

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-04-R-50	1/4"	13.5	28	65	112
100R6-06-R-50	3/8"	16.7	28	75	112
100R6-08-R-50	1/2"	20.6	28	100	112

Page Tech Sheet 5010

25 Metre Coils, Red

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-12-R-25	3/4"	27.8	21	150	84
100R6-16-R-25	1"	32.5	20	205	80

Page Tech Sheet 5010



100R6-04-50 - EN854 - SAE 100R6



100R6-04-50 - EN854 - SAE 100R6

Oil Return/Fuel Hose SAE 100R6

100R6 Hose

Application:

Low pressure hydraulic applications, for use with push style fittings. See page 40

Specification:

SAE100 R6, exceeds EN854

Construction:

Inner tube: oil resistant synthetic rubber (NBR)
Reinforcement: 1 single textile yarn braid
Outer cover: oil and weather resistant synthetic rubber

Recommended Fluids:

Hose suitable for petroleum based hydraulic oil and water-glycol based fluids, air and water

Available per 1 metre

° Working Temperature:

-40°C to +100°C

50 Metre Coils, Blue

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-04-B-50	1/4"	13.5	28	65	112
100R6-06-B-50	3/8"	16.7	28	75	112
100R6-08-B-50	1/2"	20.6	28	100	112

Page Tech Sheet 5010

25 Metre Coils, Blue

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-12-B-25	3/4"	27.8	21	150	84
100R6-16-B-25	1"	32.5	20	205	80

Page Tech Sheet 5010



100R6-04-50 - EN854 - SAE 100R6

50 Metre Coils, Green

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-04-G-50	1/4"	13.5	28	65	112
100R6-06-G-50	3/8"	16.7	28	75	112
100R6-08-G-50	1/2"	20.6	28	100	112

Page Tech Sheet 5010



100R6-04-50 - EN854 - SAE 100R6

25 Metre Coils, Green

0303	ID	OD mm	Max Pressure Bar	Bend Radius mm	Burst Pressure Bar
100R6-12-G-25	3/4"	27.8	21	150	84
100R6-16-G-25	1"	32.5	20	205	80

Page Tech Sheet 5010

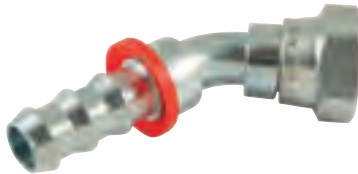
PUSH STYLE HOSE SYSTEM

BSPP



Female

0309	Thread	To Suit Hose ID
PSBF0404CF	1/4"	1/4"
PSBF0606CF	3/8"	3/8"
PSBF0808CF	1/2"	1/2"
PSBF1212CF	3/4"	3/4"
PSBF1616CF	1"	1"



45° Elbow

0309	Thread	To Suit Hose ID
PSBF044504CF	1/4"	1/4"
PSBF064506CF	3/8"	3/8"
PSBF084508CF	1/2"	1/2"
PSBF124512CF	3/4"	3/4"
PSBF164516CF	1"	1"



90° Elbow

0309	Thread	To Suit Hose ID
PSBF049004CF	1/4"	1/4"
PSBF069006CF	3/8"	3/8"
PSBF089008CF	1/2"	1/2"
PSBF129012CF	3/4"	3/4"
PSBF169016CF	1"	1"

Metric Light



Female

0309	Thread	To Suit Hose ID
PSMFL06-04CF	6L (M12 x 1.5)	1/4"
PSMFL08-04CF	8L (M14 x 1.5)	1/4"
PSMFL10-06CF	10L (M16 x 1.5)	3/8"
PSMFL12-06CF	12L (M18 x 1.5)	3/8"
PSMFL15-08CF	15L (M22 x 1.5)	1/2"
PSMFL22-12CF	22L (M30 x 2.0)	3/4"



45° Elbow

0309	Thread	To Suit Hose ID
PSMFL06-45-04CF	6L (M12 x 1.5)	1/4"
PSMFL08-45-04CF	8L (M14 x 1.5)	1/4"
PSMFL10-45-06CF	10L (M16 x 1.5)	3/8"
PSMFL12-45-06CF	12L (M18 x 1.5)	3/8"
PSMFL15-45-08CF	15L (M22 x 1.5)	1/2"
PSMFL22-45-12CF	22L (M30 x 2.0)	3/4"



90° Elbow

0309	Thread	To Suit Hose ID
PSMFL06-90-04CF	6L (M12 x 1.5)	1/4"
PSMFL08-90-04CF	8L (M14 x 1.5)	1/4"
PSMFL10-90-06CF	10L (M16 x 1.5)	3/8"
PSMFL12-90-06CF	12L (M18 x 1.5)	3/8"
PSMFL15-90-08CF	15L (M22 x 1.5)	1/2"
PSMFL22-90-12CF	22L (M30 x 2.0)	3/4"

JIC



Female

0309	Thread	To Suit Hose ID
PSJF0404CF	7/16"	1/4"
PSJF0606CF	9/16"	3/8"
PSJF0808CF	3/4"	1/2"
PSJF1212CF	1.1/16"	3/4"



45° Elbow

0309	Thread	To Suit Hose ID
PSJF044504CF	7/16"	1/4"
PSJF064506CF	9/16"	3/8"
PSJF084508CF	3/4"	1/2"
PSJF124512CF	1.1/16"	3/4"



90° Elbow

0309	Thread	To Suit Hose ID
PSJF049004CF	7/16"	1/4"
PSJF069006CF	9/16"	3/8"
PSJF089008CF	3/4"	1/2"
PSJF129012CF	1.1/16"	3/4"

Designed and tested to work to the full specification of the 100R6 hose.

Mild Steel Reusable Fittings



BSPP Male

0300	To Suit Hose ID	Thread
2024-8746	1/4"	1/4"
2024-8761	3/8"	3/8"
2024-8779	1/2"	1/2"
2024-8787	5/8"	5/8"
2024-8795	3/4"	3/4"
2024-8803	1"	1"



BSPP Female

0300	To Suit Hose ID	Thread
2024-8811	1/4"	1/4"
2182-7985	1/4"	3/8"
2182-7977	3/8"	1/4"
2024-8829	3/8"	3/8"
2182-7993	3/8"	1/2"
2024-8837	1/2"	1/2"
2024-8845	5/8"	5/8"
2024-8852	3/4"	3/4"
2024-8860	1"	1"



BSPP Female, 45° Elbow

0300	To Suit Hose ID	Thread
2182-8009	1/4"	1/4"
2024-8944	3/8"	3/8"
2024-8951	1/2"	1/2"
2024-8969	5/8"	5/8"
2182-8025	1"	1"



BSPP Female, 90° Elbow

0300	To Suit Hose ID	Thread
2024-8878	1/4"	1/4"
2024-8886	3/8"	3/8"
2024-8894	1/2"	1/2"
2024-8902	5/8"	5/8"
2024-8910	3/4"	3/4"
2024-8928	1"	1"



BSPP, Female Compact 90° Elbow

0300	To Suit Hose ID	Thread
2182-8033	1/4"	1/4"
2182-8041	3/8"	3/8"
2182-8058	1/2"	1/2"



JIC, Male

0300	To Suit Hose ID	Thread
2036-7330	1/4"	1/2"
2036-7355	3/8"	9/16"
2182-8215	1/2"	7/8"
2182-8223	3/4"	1.1/16"
2182-8231	1"	1.5/16"



JIC, Female

0300	To Suit Hose ID	Thread
2036-7405	1/4"	7/16"
2182-8173	1/4"	1/2"
2036-7413	1/4"	9/16"
2036-7439	3/8"	9/16"
2036-7447	3/8"	3/4"
2036-7454	1/2"	3/4"
2182-8181	1/2"	7/8"
2182-8199	3/4"	1.1/16"
2182-8207	1"	1.5/16"



JIC, Female 90° Elbow

0300	To Suit Hose ID	Thread
2036-7504	1/4"	7/16"
2036-7520	1/4"	9/16"
2182-8249	3/8"	9/16"
2182-8256	3/8"	3/4"
2036-7538	1/2"	3/4"
2182-8272	1/2"	7/8"
2036-7579	3/4"	1.3/16"
2182-8280	3/4"	1.1/16"
2182-8306	1"	1.5/16"

Stainless Steel Reusable Inserts

stainless steel



Swivel Female Insert, BSPP

0044	To Suit Hose ID	Thread
RU0404FSS	1/4"	1/4"
RU0606FSS	3/8"	3/8"
RU0808FSS	1/2"	1/2"
RU1616FSS	1"	1"

Mild Steel Reusable Ferrules



R1AT Non-skive

0300	To Suit Hose ID
2028-5078	1/4"
2028-5086	3/8"
2028-5094	1/2"
2028-5102	5/8"
2028-5110	3/4"
2028-5128	1"



R2AT Non-skive

0300	To Suit Hose ID
2024-8993	1/4"
2024-9009	3/8"
2024-9017	1/2"
2024-9025	5/8"
2024-9033	3/4"
2024-9041	1"



R1A Skive

0300	To Suit Hose ID
2182-8066	1/4"
2182-8074	3/8"
2182-8082	1/2"
2182-8108	1"



R2A Skive

0300	To Suit Hose ID
2182-8116	1/4"
2182-8124	3/8"
2182-8132	1/2"
2182-8140	3/4"
2182-8157	1"

Stainless Steel Reusable Sockets

stainless steel



R1AT, Reusable Socket

0044	To Suit Hose ID
R1-04SS	1/4"
R1-06SS	3/8"
R1-08SS	1/2"
R1-16SS	1"



RETENTION SYSTEM FOR PRESSURE HOSES

Prevent whipping of a pressurised hose in the event of the hose separating from its fitting



Suitable for various applications, including:

- DIN and BSP Fittings
- JIC Fittings
- SAE Flanges

- Protects both the operator and components
- Recommended by the International Hydraulic Safety Authority - the world leader in hydraulic safety training
- Suitable for all kinds of flexible hose
- Tested protection: compliant with EN 853, EN 854, EN 855, EN 856, EN 857, SAE J517

How it works...



1: Disengagement:

A hose disengages from its ferrule.



2: Release/venting of pressure

The pressurised oil exits from the hose and the release of energy results in the hose gaining considerable velocity, triggering a hazardous "whip effect" which is very dangerous to anyone or anything in its vicinity.



Step 3: Restraint

This is where the Stopflex system gets into operation: the stainless steel cable is tensioned and restrains the hose, preventing it from 'whipping'. The plate cuts into the rubber of the hose, to ensure that the clamp remains firmly attached. The hose clamp and plate absorb the force released from the travel of the flexible hose. This critical step occurs within just a few seconds.

Retention System for Pressure Hoses



To suit DIN & BSP Fittings

0466	To Suit	Diameter mm	Length mm
STOPFUDIN145	8L - 1/4"	14.5	300
STOPFUDIN17	8S - 10L - 3/8"	17	300
STOPFUDIN185	10S - 12L	18.5	300
STOPFUDIN205	12S	20.5	300
STOPFUDIN225	14S - 15L - 1/2"	22.5	300
STOPFUDIN245	16S - 5/8"	24.5	300
STOPFUDIN265	18L - 3/4"	26.5	300
STOPFUDIN305	20S - 22L	30.5	300
STOPFUDIN34	1"	34	450
STOPFUDIN365	25S - 28L	36.5	450
STOPFUDIN425	30S - 1.1/4"	42.5	450
STOPFUDIN455	35L	45.5	450
STOPFUDIN49	1.1/2"	49	450
STOPFUDIN525	38S - 42L	52.5	450
STOPFUDIN60	2"	60	450

Tech Sheet 60137



To suit JIC Fittings

0466	To Suit	Diameter mm	Length mm
STOPFUJIC115	7/16"	11.5	300
STOPFUJIC132	1/2"	13.2	300
STOPFUJIC148	9/16"	14.8	300
STOPFUJIC195	3/4"	19.5	300
STOPFUJIC228	7/8"	22.8	300
STOPFUJIC275	1.1/16"	27.5	300
STOPFUJIC307	1.3/16"	30.7	300
STOPFUJIC34	1.5/16"	34	450
STOPFUJIC415	1.5/8"	41.5	450
STOPFUJIC48	1.7/8"	48	450
STOPFUJIC64	2.1/2"	64	450

Tech Sheet 60137



To suit SAE Flanges

0466	To Suit	Diameter mm	Length mm
STOPFUSAE085	1/2" - 3000 psi	8.5	300
STOPFUSAE105	3/4" - 1.1/4" 3000 psi, 3/4" 6000 psi	10.5	450
STOPFUSAE125	1.1/2" - 2" 3000 psi, 1" 6000 psi	12.5	450
STOPFUSAE145	1.1/4" - 6000 psi	14.5	450
STOPFUSAE165	1.1/2" - 6000 psi	16.5	450
STOPFUSAE205	2" - 6000 psi	20.5	450

Tech Sheet 60137

To suit Various Applications



0466	To Suit	Diameter mm	Length mm
STOPFUVARIE	Large Plate	13	450
STOPFUVARIES	Small Plate	13	450

Tech Sheet 60137



Hose Band

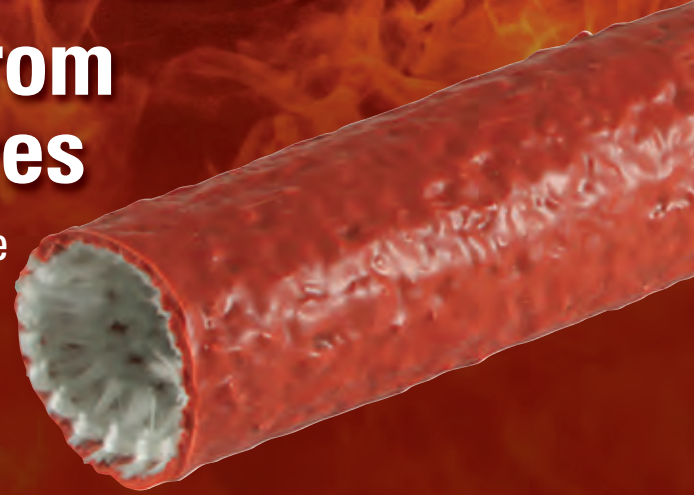
0466	Minimum Diameter mm	Maximum Diameter mm	Thread
STOPFA11115	11	11.5	M6
STOPFA12125	12	12.5	M6
STOPFA13135	13	13.5	M6
STOPFA1415	14	15	M6
STOPFA1617	16	17	M6
STOPFA1718	17	18	M6
STOPFA1819	18	19	M6
STOPFA2021	20	21	M6
STOPFA2122	21	22	M6
STOPFA2223	22	23	M6
STOPFA2425	24	25	M6
STOPFA2526	25	26	M6
STOPFA2627	26	27	M6
STOPFA2728	27	28	M6
STOPFA2829	28	29	M6
STOPFA3031	30	31	M6
STOPFA3233	32	33	M6
STOPFA3435	34	35	M6
STOPFA3637	36	37	M6
STOPFA3839	38	39	M6
STOPFA3940	39	40	M6
STOPFA4041	40	41	M6
STOPFA4243	42	43	M6
STOPFA4344	43	44	M6
STOPFA4445	44	45	M8
STOPFA4547	45	47	M8
STOPFA4850	48	50	M8
STOPFA5153	51	53	M8
STOPFA5354	53	54	M8
STOPFA5456	54	56	M8
STOPFA5759	57	59	M8
STOPFA6062	60	62	M8
STOPFA6365	63	65	M8
STOPFA6668	66	68	M8
STOPFA6971	69	71	M8
STOPFA7274	72	74	M8
STOPFA7577	75	77	M8
STOPFA7880	78	80	M8
STOPFA8183	81	83	M8
STOPFA8486	84	86	M8
STOPFA8789	87	89	M8
STOPFA9092	90	92	M8
STOPFA9395	93	95	M8

Tech Sheet 60137

FIRE SLEEVE FT PRO[®]

Shield your hoses from extreme temperatures

The tried and tested red oxide silicone coated glass protective sleeving is popular requirement for application in mining, petrochemical process, aerospace and steel works settings.



The protective sleeve is easily installed whilst assembling a hose or can also be retro-fitted during maintenance and repair activities.

In addition to defending critical equipment in harsh environmental conditions, the sleeve also mitigates health and safety risks by eliminating temperature extreme hazards so that scorching and burning injuries are avoided.

- Continuous protection at 260°C ambient temperatures
- Withstands molten metal splash at 1200°C
- UL94 flammability V-0
- Worker safety protection against lines that carry hot or volatile fluids
- Resistant to tears and abrasion
- Highly flexible and easily fitted
- MSHA approved
- RoHS 3 compliant



Fire Sleeve MSHA UL 94 V-0

Red Oxide Per Metre



0319	ID mm	OD mm	SAE Size
FS-06-R	6	11	-04
FS-10-R	10	15	-06
FS-12-R	12	17	-08
FS-14-R	14	19	-09
FS-16-R	16	21	-10
FS-19-R	19	24	-12
FS-22-R	22	27	-14
FS-25-R	25	30	-16
FS-28-R	28	33	-18
FS-32-R	32	37	-20
FS-35-R	35	40	-22
FS-38-R	38	43	-24
FS-41-R	41	46	-26
FS-44-R	44	49	-28
FS-51-R	51	56	-32
FS-57-R	57	62	-
FS-63-R	63	68	-40
FS-70-R	70	75	-
FS-76-R	76	81	-48
FS-83-R	83	88	-
FS-89-R	89	94	-56
FS-95-R	95	100	-60
FS-102-R	102	107	-
FS-114-R	114	119	-72
FS-127-R	127	132	-

Tech Sheet 70055

Red Oxide 15 Metre Coils



0319	ID mm	OD mm	SAE Size
FS-06-R-15	6	11	-04
FS-10-R-15	10	15	-06
FS-12-R-15	12	17	-08
FS-14-R-15	14	19	-09
FS-16-R-15	16	21	-10
FS-19-R-15	19	24	-12
FS-22-R-15	22	27	-14
FS-25-R-15	25	30	-16
FS-28-R-15	28	33	-18
FS-32-R-15	32	37	-20
FS-35-R-15	35	40	-22
FS-38-R-15	38	43	-24
FS-41-R-15	41	46	-26
FS-44-R-15	44	49	-28
FS-51-R-15	51	56	-32
FS-57-R-15	57	62	-
FS-63-R-15	63	68	-40
FS-70-R-15	70	75	-
FS-76-R-15	76	81	-48
FS-83-R-15	83	88	-
FS-89-R-15	89	94	-56
FS-95-R-15	95	100	-60
FS-102-R-15	102	107	-
FS-114-R-15	114	119	-72
FS-127-R-15	127	132	-

Tech Sheet 70055



Self Amalgamating Tape 11 Metre Roll

0319	Colour	Width mm
FS-TAPE-25-N-11	Black	25
FS-TAPE-25-R-11	Red	25

Tech Sheet 70056

Galvanised Steel Spring Hose Guard

Open coil spring guard is a very effective and economic means of protecting hoses from expensive abrasive and crush damage.

Manufactured from high tensile spring steel wire. Available in other sizes on request.

These products cannot be ordered online, please contact our sales office.



HEAT SHRINK

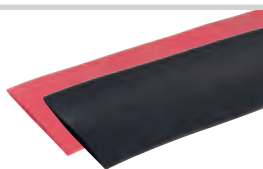
2:1 Ratio (min) Thin Wall UL 224 VW-1



Crosslinked Polyolefin, 50 Metre Reel

0319	Colour	ID mm
HS2T-6-R-50	Red	6.35-12.7
HS2T-8-R-50	Red	8-16
HS2T-10-R-50	Red	9.5-19.1
HS2T-13-R-50	Red	12.7-25.4
HS2T-16-R-50	Red	16-32
HS2T-19-R-50	Red	19.00-38.1
HS2T-6-N-50	Black	6.35-12.7
HS2T-8-N-50	Black	8-16
HS2T-10-N-50	Black	9.5-19.1
HS2T-13-N-50	Black	12.7-25.4
HS2T-16-N-50	Black	16-32
HS2T-19-N-50	Black	19.00-38.1

Tech Sheet 70057



Crosslinked Polyolefin, 30 Metre Reel

0319	Colour	ID mm
HS2T-25-R-30	Red	25.4-50.8
HS2T-38-R-30	Red	38.1-76.2
HS2T-51-R-30	Red	50.8-101.6
HS2T-25-N-30	Black	25.4-50.8
HS2T-38-N-30	Black	38.1-76.2
HS2T-51-N-30	Black	50.8-101.6

Tech Sheet 70057

10 Metre Coils

0362	ID mm	Wall Thickness mm
SHG-18	18	1.6
SHG-20	20	1.6
SHG-22	22	2.0
SHG-24	24	2.0
SHG-25	25	2.0
SHG-26	26	2.0
SHG-29	29	2.0
SHG-31	31	3.2
SHG-33	33	3.2
SHG-37	37	3.2
SHG-41	41	3.2
SHG-43	43	3.2
SHG-45	45	3.2
SHG-49	49	3.2
SHG-51	51	3.2
SHG-54	54	3.2
SHG-56	56	3.2
SHG-60	60	3.2
SHG-63	63	3.2
SHG-70	70	3.2

PROTECTIVE HOSE SLEEVES

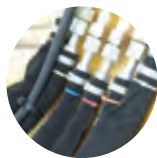


Hose Protection Sleeve

The most economical option for managing, containing and protecting your hose, cables and other equipment.

Applications include protection for hose assemblies, ropes and wire harnesses.

- MSHA approved for underground mines, IC 171/1
- ISO 6945 abrasion standard, minimum 50,000 cycles
- Melting point: +220°C
- Resists mildew and bacterial growth
- Non-toxic
- Excellent resistance to UV ageing
- Very good chemical compatibility



20 Metre Coils

0460	ID mm
LGSLEEVE-18	18
LGSLEEVE-21	21
LGSLEEVE-25	25
LGSLEEVE-31	31
LGSLEEVE-36	36
LGSLEEVE-40	40
LGSLEEVE-45	45
LGSLEEVE-52	52
LGSLEEVE-60	60
LGSLEEVE-73	73
LGSLEEVE-85	85
LGSLEEVE-93	93

Tech Sheet 20377

Nylon Hose Protection Sleeve

This textile sleeve consists of nylon multifilament. Complying with European standards, it has excellent abrasion resistance, and is ideal for protecting people, environment and machinery against any possible hydraulic hose oil leakage or spill.

- Material: nylon (polyamide)
- Thickness: 0.8mm (European standard)
- Melting point: +230°C
- MSHA approved: IC 293-1
- ISO 6945 abrasion standard, minimum 50,000 cycles
- UV solar protected: BS EN 13758-1
- Burst and leakage protected: SAE J343/ISO 3457
- Conductivity requirement: ISO 8031 approved
- Pin hole test approved



° Working Temperature:
-40°C to +125°C
(the sleeve loses 10% of its resistance at +125°C)

20 Metre Coils

0672	ID mm
FPSLEEVE-017	17
FPSLEEVE-020	20
FPSLEEVE-023	23
FPSLEEVE-027	27
FPSLEEVE-031	31
FPSLEEVE-036	36
FPSLEEVE-040	40
FPSLEEVE-044	44
FPSLEEVE-055	55
FPSLEEVE-060	60
FPSLEEVE-066	66
FPSLEEVE-073	73
FPSLEEVE-093	93
FPSLEEVE-112	112

Tech Sheet 68268

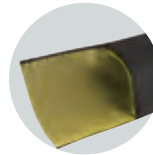
Hose Burst Guard

Our highest performance sleeve, designed to control and dissipate fluids from dangerous hose bursts.

For use in line-of-sight applications, to help protect personnel and equipment from the effects of a hose failure.

- MSHA approved IC171/1
- Outer layer withstands a minimum 350,000 cycles, abrasion tested using ISO 6945 test method
- Controls bursts up to 13,000 psi
- Two-layer structure with inner yellow layer acting as an abrasion indicator
- Meets ISO 3457, 4413, 6945, 6805, EN 414, MDG 41 and MSHA IC171/2
- Excellent resistance to UV ageing
- 40 metre lengths available on request
- Melting point: +215°C

° **Maximum Burst Control Pressure:**
890 bar



30 Metre Coils

0460	ID mm
BUSLEEVE-31	31
BUSLEEVE-36	36
BUSLEEVE-42	42
BUSLEEVE-46	46
BUSLEEVE-54	54

Tech Sheet 60335

10 Metre Coils

0460	ID mm
BUSLEEVE-31-10	31
BUSLEEVE-36-10	36
BUSLEEVE-42-10	42
BUSLEEVE-46-10	46
BUSLEEVE-54-10	54

Tech Sheet 60335

Hose Wrap Sleeve

Ideal for hose bundling, adding abrasion protection post assembly or replacing damaged existing sleeves.

- Quick assembly
- Lightweight
- Proprietary bonding process allows cutting without fraying
- Meets ISO 6945 abrasion standard
- Excellent UV resistance
- Velcro fastening with shear strength of 22 psi
- Maximum temperature without degradation: +225°C



45 Metre Coils

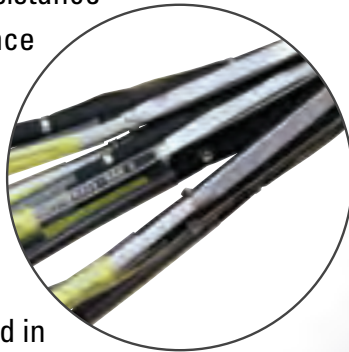
0460	ID mm
WRSLEEVE-25	25
WRSLEEVE-75	75
WRSLEEVE-100	100
WRSLEEVE-125	125
WRSLEEVE-150	150
WRSLEEVE-175	175
WRSLEEVE-200	200

Tech Sheet 60336



Spiral Hose Guard Features

- Provides high strength abrasion resistance for most types of hydraulic, pneumatic and industrial hose assemblies across a wide range of industries including: mining, forestry, drill rigs, plant and agricultural machinery, automotive, marine and offshore
- Exceptional anti-crushing performance
- High abrasion resistance
- Good UV resistance
- Easy installation and routing
- Proven in arduous conditions
- Conveniently coiled and packed in cartons for easy storage
- Suitable for wrapping single hoses or multiple hose looms



Hose I.D.	Hose Type								
	R1AT	R2AT	1SC	2SC	4SP	4SH	R13	R15	R17
3/16"	A	A							
1/4"	B	B	B	B	C				B
5/16"	B	C							B
3/8"	C	C	C	C	D			D	C
1/2"	D	D	D	D	E			E	D
5/8"	D	E							E
3/4"	E	E	E	E	E	E	E	E	E
1"	F	F		F	F	F	F	F	F
1.1/4"	G	G			G	G	G	G	
1.1/2"	G	H			H	H	H		
2"	I	I			I	I	I	I	

PROTECTIVE HOSE SLEEVES



Polypropylene Protective Hose Sleeves



Working Temperature:
-40°C to +90°C

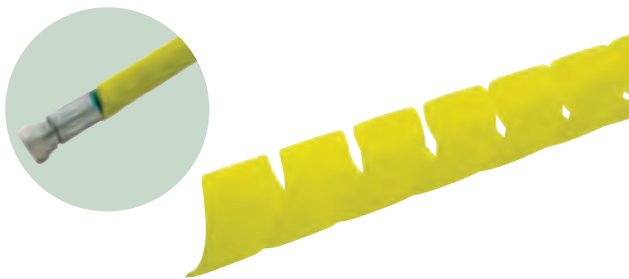
Available in various colours on request.



Flat Type Black, Polypropylene

0369	ID mm	Length Metres	To Suit
FSG-10	10	20	A
FSG-12	12	20	B
FSG-14	14	20	-
FSG-16	16	20	C
FSG-20	20	20	D
FSG-25	25	20	E
FSG-32	32	20	F
FSG-42	42	10	G
FSG-50	50	10	H
FSG-60	60	10	I
FSG-74	74	10	-
FSG-80	80	10	-
FSG-88	88	10	-
FSG-100	100	10	-
FSG-130	130	10	-
FSG-150	150	10	-
FSG-200	200	2	-

Tech Sheet 10265



Flat Type Yellow, Polypropylene

0369	ID mm	Length Metres	To Suit
FYSG-10	10	20	A
FYSG-12	12	20	B
FYSG-16	16	20	C
FYSG-20	20	20	D
FYSG-25	25	20	E
FYSG-32	32	20	F
FYSG-42	42	10	G
FYSG-50	50	10	H
FYSG-60	60	10	I

Tech Sheet 10265



Round Type Black, Polypropylene

0369	ID mm	Length Metres	To Suit
RSG-10	10	20	A
RSG-12	12	20	B
RSG-16	16	20	C
RSG-20	20	20	D
RSG-25	25	20	E
RSG-32	32	20	F
RSG-42	42	10	G
RSG-50	50	10	H
RSG-60	60	10	I

Tech Sheet 10265



Flat Type Hi-Viz Green, Polypropylene

0369	ID mm	Length	To Suit
FGSG-10	10	20	A
FGSG-12	12	20	B
FGSG-14	14	20	-
FGSG-16	16	20	C
FGSG-20	20	20	D
FGSG-25	25	20	E
FGSG-32	32	20	F
FGSG-42	42	10	G
FGSG-50	50	10	H
FGSG-60	60	10	I

Tech Sheet 10265

Larger sizes are available; speak to your account manager for further information.

The pellet launcher uses compressed air to fire a foam pellet through tube, pipe and hose, clearing soft deposits and loose debris as it travels through.

The pellet launcher is designed to operate at 80-110 psi and should be connected, by a 3/8" (10mm) ID air line, to an air source NOT exceeding 150 psi.

Maximum Working Pressure:
0 bar

Pellet Launcher Kits

The mobile kit is specifically for use with hose, tube and pipe from 5mm to 50mm. The hose nozzle fits over the tube, hose or pipe to be cleaned.

The specially designed and extremely robust pellet launcher controls the air flow. It attaches to a 50mm crimp head through a patented interlocking system. The nozzles are inserted into the head. These are designed to reduce the pellet in size for insertion into the pipe.

All nozzles fit into the 50mm crimp head. All kits come in a case with instruction manuals and a pellet usage chart for identifying the correct pellets to use with your application.

This kit consist of the following:

- AM-1™ hand piece
- 50mm crimp head
- Adapter ring
- White hose nozzles: 6, 8, 10, 13, 16, 19, 25, 32, 38 and 50mm



Mobile Kit

0489	Thread	Nozzle Quantity	Nozzle Hole Size
MOBI-KIT	1/4"	10 x Hose Nozzles	6mm to 50mm
Tech Sheet 60438			

Pellets used in the system will travel through 90° angles, tee joints, coils, U tubes, bore and straight-through valves.

The specially designed and extremely robust pellet launcher controls the air flow. It attaches to the 32mm and 50mm heads through a patented interlocking system. The nozzles are inserted into the head. These are designed to reduce the pellet in size for insertion into the pipe.

All nozzles fit into either the 32mm or 50mm heads. All kits come in a case with instruction manuals and a pellet usage chart for identifying the correct pellets to use with your application.

This kit consist of the following:

- AM-1™ hand piece
- 32mm and 50mm heads
- White hose nozzles: 6, 8, 10, 13, 16, 19, 25, 32, 38 and 50mm
- Green tube and JIC nozzles: 5, 6, 8, 10, 13, 16, 19, 22, 25, 32, 38 and 50mm
- Blue BSP nozzles: 6, 10, 13, 16, 19, 25 and 32mm



Full Kit

0489	Thread	Nozzle Quantity	Nozzle Hole Size
FULL-KIT	1/4"	31 x Hose Nozzles	6mm to 50mm
Tech Sheet 60439			

Foam Pellets

Standard pellets are designed for removal of debris from all hose, tube or pipe, without fittings. Pellets are manufactured from foam and should be approximately 15-20% larger than the ID of the hose, tube or pipe being cleaned. Please select the pellet closest to the size required from the list.



Standard

0490	OD mm
NSP007	7
NSP008	8
NSP010	10
NSP012	12
NSP014	14
NSP016	16
NSP018	18
NSP020	20
NSP022	22
NSP024	24
NSP026	26
NSP028	28
NSP030	30
NSP033	33
NSP035	35
NSP040	40
NSP045	45
NSP050	50
NSP055	55
NSP060	60

These multipurpose pellets are designed for use in complex assemblies, hoses with fittings and to eliminate fine particles of contamination. Pellets are manufactured from foam and should be approximately 15-20% larger than the ID of the hose, tube or pipe being cleaned. Please select the pellet closest to the size required from the list.



General Purpose

0490	OD mm
MPP007	7
MPP008	8
MPP010	10
MPP012	12
MPP014	14
MPP016	16
MPP018	18
MPP020	20
MPP022	22
MPP024	24
MPP026	26
MPP028	28
MPP030	30
MPP033	33
MPP035	35
MPP040	40
MPP045	45
MPP050	50
MPP055	55
MPP060	60



Plugtite Industrial

Designed and used to prevent the leakage and contamination of various fluids, including hydraulics and chemicals, during the service, maintenance and storage of machinery and equipment. Used in industrial areas such as hydraulic, chemical, processing, MRO, HVAC, mining and heavy equipment.

Made from a special compound in our own factory

The **Plugtite** aperture has been designed and engineered to give the plug greater compression than standard solid plugs, ensuring a perfect seal whilst still being able to be cut to size if needed.

- Greater resistance to most oils within the temperature range of -25°C to +90°C
- Does not shrink, leak or discolour
- Resistant to sunlight for greater shelf life; does not split/crack or deteriorate
- Easy to use; insert, squeeze, press home and release
- The compressed rubber ensures a tight fit

Other Members of the Plugtite Family

Plugtite - Hygiene FDA Approved

This plug is specifically produced for use in the food and beverage processing industry.

The use of the plugs helps to ensure that sensitive working areas are kept free of contamination from oils and other fluids by preventing leakage when cleaning and servicing machinery and equipment.

Plugtite - Heat Resistant

For use in operations such as electrostatic lines, die casting, etc, where high heat resistance is a requirement.



3 Standard Apertures

- Plugtite Small 2mm to 14mm
- Plugtite Medium 6mm to 24mm
- Plugtite Large 15mm to 45mm



The new generation of service and maintenance plugs

SERVICE PLUGS

Spill Prevention

- Stop contamination
- Plugtite products are used to prevent contamination of all sorts of chemical compounds into the surrounding environment

 **Working Temperature:**
-25°C to +90°C



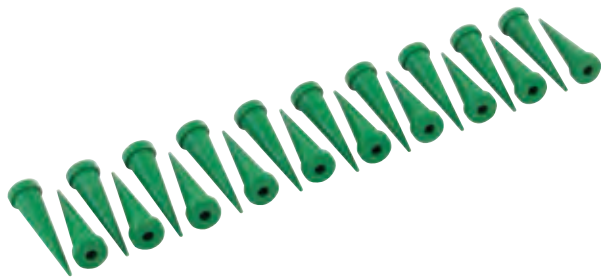
Standard Pack

0709	Size mm	Box Quantity
PLUGTITE-STD-10	6-24	10
Tech Sheet 68083		



XL Pack

0709	Size mm	Box Quantity
PLUGTITE-MAX-4	15-45	4
Tech Sheet 68083		



Micro Pack

0709	Size mm	Box Quantity
PLUGTITE-MINI-20	2-14	20
Tech Sheet 68083		



Mix Pack

0709	Size mm	Box Quantity
PLUGTITE-MIX-9	2-45	9
Tech Sheet 68083		



Our extensive range of adaptors includes stock of more than 3000 different variations of JIC, SAE, Metric, BSP, BSPT, NPTF and NPSM made from mild steel (BS EN 10277:3:199 – 230M07Pb).



We specialise in not just one type of product – we have the flexibility to produce special requirements alongside our standard product ranges. This diversity of ranges and sizes, combines with our unparalleled customer service and technical assistance.

The market for hydraulic adaptors is a truly diverse one. Hydraulics are used in almost every facet of industry: Agriculture, Transport, Waste, Defence, Manufacturing, Marine, Construction, Mining, Engineering, etc. Hydraulic power plays a crucial global role in keeping these and other industries moving.



THREADS AND DIMENSIONS

- BSP adaptor dimensions are compatible with ISO 8434-6 and BS 5200.
- BSP DIN spec adaptors are to DIN 3852 Form A.
- BSPP and NCB threads are to BS EN ISO 228-1.
- BSPT threads are to BS EN 10226-1.
- JIC adaptors are to SAE J514.
- JIC and SAE threads are to BS 1580.
- JIS are to JIS B 8363
- Metric threads are to BS 3643-2.
- NPTF threads are to ANSI B1 20.3

PLATING

- Acid zinc plating is to ISO 2081, Fe/Zn8/A/T2.
- Fe = Ferrous substrate.
- Zn8 = Zinc coating 8 microns thick.
- A = Clear passivate.
- T2 = Application of organic or inorganic sealants.

MATERIAL

- Steel used for stock parts is 230M07Pb/11SMnPb37 as to BE EN 10277-3.
- Stainless is grade 316 to BS EN 10277-1.



HYDRAULIC ADAPTORS

Male/Male Adaptors

Equal BSPP Male x BSPP Male 60° Cone



0014	Thread	Thread
1BP0202	1/8"	1/8"
1BP0404	1/4"	1/4"
1BP0606	3/8"	3/8"
1BP0808	1/2"	1/2"
1BP1010	5/8"	5/8"
1BP1212	3/4"	3/4"
1BP1616	1"	1"
1BP2020	1.1/4"	1.1/4"
1BP2424	1.1/2"	1.1/2"
1BP2828	1.3/4"	1.3/4"
1BP3232	2"	2"
1BP4040	2.1/2"	2.1/2"
1BP4848	3"	3"
1BP6464	4"	4"

Tech Sheet 20000

Unequal BSPP Male x BSPP Male 60° Cone



0014	Thread	Thread
1BP0204	1/8"	1/4"
1BP0206	1/8"	3/8"
1BP0208	1/8"	1/2"
1BP0406	1/4"	3/8"
1BP0408	1/4"	1/2"
1BP0410	1/4"	5/8"
1BP0412	1/4"	3/4"
1BP0416	1/4"	1"
1BP0420	1/4"	1.1/4"
1BP0432	1/4"	2"
1BP0608	3/8"	1/2"
1BP0610	3/8"	5/8"
1BP0612	3/8"	3/4"
1BP0616	3/8"	1"
1BP0620	3/8"	1.1/4"
1BP0624	3/8"	1.1/2"
1BP0810	1/2"	5/8"
1BP0812	1/2"	3/4"
1BP0816	1/2"	1"
1BP0820	1/2"	1.1/4"
1BP0824	1/2"	1.1/2"
1BP0832	1/2"	2"
1BP1012	5/8"	3/4"
1BP1016	5/8"	1"
1BP1020	5/8"	1.1/4"
1BP1216	3/4"	1"
1BP1220	3/4"	1.1/4"
1BP1224	3/4"	1.1/2"
1BP1232	3/4"	2"
1BP1620	1"	1.1/4"
1BP1624	1"	1.1/2"
1BP1632	1"	2"
1BP1640	1"	2.1/2"
1BP2024	1.1/4"	1.1/2"
1BP2032	1.1/4"	2"
1BP2428	1.1/2"	1.3/4"
1BP2432	1.1/2"	2"
1BP2440	1.1/2"	2.1/2"
1BP2832	1.3/4"	2"

Tech Sheet 20000

BSPP Male x BSPP Male 60° Cone DIN 3852 Form A



0014	Thread	Thread
1BPA0202	1/8"	1/8"
1BPA0204	1/8"	1/4"
1BPA0404	1/4"	1/4"
1BPA0406	1/4"	3/8"
1BPA0408	1/4"	1/2"
1BPA0606	3/8"	3/8"
1BPA0608	3/8"	1/2"
1BPA0808	1/2"	3/8"
1BPA0812	1/2"	3/4"
1BPA0816	1/2"	1"
1BPA1212	3/4"	3/4"
1BPA1216	3/4"	1"
1BPA1616	1"	1"
1BPA1620	1"	1.1/4"
1BPA1624	1"	1.1/2"
1BPA2020	1.1/4"	1.1/4"
1BPA2024	1.1/4"	1.1/2"
1BPA2424	1.1/2"	1.1/2"
1BPA2432	1.1/2"	2"
1BPA3232	2"	2"

Tech Sheet 20000

BSPP Male x BSPP Male 60° Cone with Restrictor



0014	Thread	Thread	Restrictor
1BPR0404-1/32	1/4"	1/4"	1/32"
1BPR0404-1	1/4"	1/4"	1mm
1BPR0404-1/16	1/4"	1/4"	1/16"
1BPR0406-1/32	1/4"	3/8"	1/32"
1BPR0406-1	1/4"	3/8"	1mm
1BPR0406-1/16	1/4"	3/8"	1/16"
1BPR0408-1/32	1/4"	1/2"	1/32"
1BPR0408-1/16	1/4"	1/2"	1/16"
1BPR0606-1/32	3/8"	3/8"	1/32"
1BPR0606-1	3/8"	3/8"	1mm
1BPR0606-1/16	3/8"	3/8"	1/16"
1BPR0608-1/32	3/8"	1/2"	1/32"
1BPR0608-1	3/8"	1/2"	1mm
1BPR0608-3	3/8"	1/2"	3mm
1BPR0612-1/16	3/8"	3/4"	1/16"
1BPR0808-1/32	1/2"	1/2"	1/32"
1BPR0808-1	1/2"	1/2"	1mm
1BPR0808-1/16	1/2"	1/2"	1/16"

Tech Sheet 20000

BSPP Male x BSPP Male 60° Cone 174 Spec.



0014	Thread	Thread
00100	1/8"	1/4"
00114	1/4"	1/4"
00117	1/4"	3/8"
00101	1/4"	1/2"
00120	3/8"	3/8"
00102	3/8"	1/2"
00103	3/8"	3/4"
00125	1/2"	1/2"
00104	1/2"	3/4"
00116	1/2"	1"
00115	3/4"	3/4"
00106	3/4"	1"
00118	1"	1"
00119	1"	1.1/4"
00109	1.1/4"	1.1/4"
00110	1.1/4"	1.1/2"
00129	1.1/4"	2"
00111	1.1/2"	1.1/2"
00112	1.1/2"	2"
00113	2"	2"

Tech Sheet 20000

BSPP Male x BSPP Male 60° Cone BS5200



0014	Thread	Thread
52021	1/2"	1/2"

Tech Sheet 20000

BSPP Male x BSPP Male 60° Cone with Restrictor Blank Only



0014	Thread	Thread mm
13080	1/4"	1/4"
13081	1/4"	3/8"
13082	1/4"	1/2"
13083	3/8"	3/8"
13084	3/8"	1/2"
13089	3/8"	3/4"
13085	1/2"	1/2"
13086	1/2"	3/4"
13088	3/4"	1"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Male Adaptors



BSPP Male 60° Cone x BSPT Male

0014	Thread	Thread
1BP02T02	1/8"	1/8"
1BP02T04	1/8"	1/4"
1BP02T06	1/8"	3/8"
1BP04T02	1/4"	1/8"
1BP04T04	1/4"	1/4"
1BP04T06	1/4"	3/8"
1BP04T08	1/4"	1/2"
1BP04T12	1/4"	3/4"
1BP06T02	3/8"	1/8"
1BP06T04	3/8"	1/4"
1BP06T06	3/8"	3/8"
1BP06T08	3/8"	1/2"
1BP06T12	3/8"	3/4"
1BP06T16	3/8"	1"
1BP08T02	1/2"	1/8"
1BP08T04	1/2"	1/4"
1BP08T06	1/2"	3/8"
1BP08T08	1/2"	1/2"
1BP08T10	1/2"	5/8"
1BP08T12	1/2"	3/4"
1BP08T16	1/2"	1"
1BP08T20	1/2"	1.1/4"
1BP10T06	5/8"	3/8"
1BP10T08	5/8"	1/2"
1BP10T10	5/8"	5/8"
1BP10T12	5/8"	3/4"
1BP12T04	3/4"	1/4"
1BP12T06	3/4"	3/8"
1BP12T08	3/4"	1/2"
1BP12T12	3/4"	3/4"
1BP12T16	3/4"	1"
1BP12T20	3/4"	1.1/4"
1BP12T24	3/4"	1.1/2"
1BP16T06	1"	3/8"
1BP16T08	1"	1/2"
1BP16T12	1"	3/4"
1BP16T16	1"	1"
1BP16T20	1"	1.1/4"
1BP16T24	1"	1.1/2"
1BP16T32	1"	2"
1BP20T16	1.1/4"	1"
1BP20T20	1.1/4"	1.1/4"
1BP20T24	1.1/4"	1.1/2"
1BP20T32	1.1/4"	2"
1BP24T16	1.1/2"	1"
1BP24T20	1.1/2"	1.1/4"
1BP24T24	1.1/2"	1.1/2"
1BP24T32	1.1/2"	2"
1BP32T16	2"	1"
1BP32T20	2"	1.1/4"
1BP32T24	2"	1.1/2"
1BP32T32	2"	2"
1BP32T40	2"	2.1/2"
1BP32T48	2"	3"
1BP40T40	2.1/2"	2.1/2"

Tech Sheet 20000



BSPP Male 60° Cone x SAE O-Ring Face Seal Male

0014	Thread	Thread
74005	1/8"	9/16"
74000	1/4"	9/16"
74006	1/4"	11/16"
74001	3/8"	11/16"
74007	3/8"	13/16"
74015	1/2"	11/16"
74002	1/2"	13/16"
74008	1/2"	1"
74011	1/2"	1.3/16"
74014	5/8"	1.3/16"
74009	3/4"	1"
74003	3/4"	1.3/16"
74004	1"	1.7/16"
74012	1"	1.11/16"
74010	1.1/4"	1.11/16"

Tech Sheet 20000



BSPP Male 60° Cone x SAE Male 45° External Flare

0014	Thread	Thread
13200	3/8"	5/8"

Tech Sheet 20000



BSPT Male x JIS Male (BSPP Threads)

0014	Thread	Thread
00313-JIS	3/8"	3/8"

Tech Sheet 20000



BSPT Male x NPTF Male

0014	Thread	Thread
1BNT0204	1/8"	1/4"
1BNT0402	1/4"	1/8"
1BNT0404	1/4"	1/4"
1BNT0406	1/4"	3/8"
1BNT0606	3/8"	3/8"
1BNT0604	3/8"	1/4"
1BNT0808	1/2"	1/2"
1BNT1212	3/4"	3/4"
1BNT1616	1"	1"
1BNT2420	1.1/2"	1.1/4"
1BNT2424	1.1/2"	1.1/2"
1BNT3232	2"	2"
1BNT4040	2.1/2"	2.1/2"

Tech Sheet 20000



BSPT Male x BSPT Male

0014	Thread	Thread
1BT0202	1/8"	1/8"
1BT0204	1/8"	1/4"
1BT0404	1/4"	1/4"
1BT0406	1/4"	3/8"
1BT0408	1/4"	1/2"
1BT0606	3/8"	3/8"
1BT0608	3/8"	1/2"
1BT0808	1/2"	1/2"
1BT0812	1/2"	3/4"
1BT1212	3/4"	3/4"
1BT1216	3/4"	1"
1BT1220	3/4"	1.1/4"
1BT1616	1"	1"
1BT1620	1"	1.1/4"
1BT1624	1"	1.1/2"
1BT2020	1.1/4"	1.1/4"
1BT2024	1.1/4"	1.1/2"
1BT2032	1.1/4"	2"
1BT2424	1.1/2"	1.1/2"
1BT2432	1.1/2"	2"
1BT3232	2"	2"
1BT4040	2.1/2"	2.1/2"
1BT4848	3"	3"

Tech Sheet 20000



JIS Male x JIS Male 30° Cone (Metric Threads)

0014	Thread mm
9741-14	14
9741-18	18
9741-22	22
9741-24	24
9741-30	30
9741-33	33

Tech Sheet 20000



JIS Male x JIS Male 30° Cone (BSPP Threads)

0014	Thread
7801-04-04	1/4"
7801-06-06	3/8"
7801-08-08	1/2"
7801-12-12	3/4"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Male Adaptors



NPTF Male x BSPP Male 60° Cone

0014	Thread	Thread
1NB0202	1/8"	1/8"
1NB0204	1/8"	1/4"
1NB0206	1/8"	3/8"
1NB0208	1/8"	1/2"
1NB0402	1/4"	1/8"
1NB0404	1/4"	1/4"
1NB0406	1/4"	3/8"
1NB0408	1/4"	1/2"
1NB0412	1/4"	3/4"
1NB0602	3/8"	1/8"
1NB0604	3/8"	1/4"
1NB0606	3/8"	3/8"
1NB0608	3/8"	1/2"
1NB0610	3/8"	5/8"
1NB0612	3/8"	3/4"
1NB0802	1/2"	1/8"
1NB0804	1/2"	1/4"
1NB0806	1/2"	3/8"
1NB0808	1/2"	1/2"
1NB0810	1/2"	5/8"
1NB0812	1/2"	3/4"
1NB0816	1/2"	1"
1NB1204	3/4"	1/4"
1NB1206	3/4"	3/8"
1NB1208	3/4"	1/2"
1NB1210	3/4"	5/8"
1NB1212	3/4"	3/4"
1NB1216	3/4"	1"
1NB1220	3/4"	1.1/4"
1NB1224	3/4"	1.1/2"
1NB1604	1"	1/4"
1NB1606	1"	3/8"
1NB1608	1"	1/2"
1NB1612	1"	3/4"
1NB1616	1"	1"
1NB1620	1"	1.1/4"
1NB2012	1.1/4"	3/4"
1NB2016	1.1/4"	1"
1NB2020	1.1/4"	1.1/4"
1NB2024	1.1/4"	1.1/2"
1NB2032	1.1/4"	2"
1NB2416	1.1/2"	1"
1NB2420	1.1/2"	1.1/4"
1NB2424	1.1/2"	1.1/2"
1NB2432	1.1/2"	2"
1NB3216	2"	1"
1NB3220	2"	1.1/4"
1NB3224	2"	1.1/2"
1NB3232	2"	2"
1NB3240	2"	2.1/2"
1NB4032	2.1/2"	2"
1NB4040	2.1/2"	2.1/2"
1NB4832	3"	2"
1NB4840	3"	2.1/2"

Tech Sheet 20000



NPTF Male x NPTF Male

0014	Thread	Thread
1N0202	1/8"	1/8"
1N0204	1/8"	1/4"
1N0208	1/8"	1/2"
1N0404	1/4"	1/4"
1N0406	1/4"	3/8"
1N0408	1/4"	1/2"
1N0412	1/4"	3/4"
1N0606	3/8"	3/8"
1N0608	3/8"	1/2"
1N0808	1/2"	1/2"
1N0812	1/2"	3/4"
1N0816	1/2"	1"
1N0820	1/2"	1.1/4"
1N0824	1/2"	1.1/2"
1N1212	3/4"	3/4"
1N1216	3/4"	1"
1N1220	3/4"	1.1/4"
1N1616	1"	1"
1N1620	1"	1.1/4"
1N2020	1.1/4"	1.1/4"
1N2024	1.1/4"	1.1/2"
1N2032	1.1/4"	2"
1N2432	1.1/2"	2"
1N4040	2.1/2"	2.1/2"

Tech Sheet 20000



Metric Male x BSPP Male 60° Cone

0014	Thread	Thread
10542	M8 x 1	1/8"
10544	M10 x 1	1/8"
10545	M10 x 1	1/4"
10548	M10 x 1	3/8"
10543	M12 x 1	1/8"
10546	M12 x 1	1/4"
10541	M14 x 1	1/4"

Tech Sheet 20000



Metric Male x BSPP Male 60° Cone to DIN 3852 Form A

0014	Thread	Thread
60500	M22 x 1.5	1/2"

Tech Sheet 20000



Metric Male x Metric Male

0014	Thread	Thread
1MP1010	M10 x 1.5	M10 x 1.5
1MP1012	M10 x 1.5	M12 x 1.5
1MP1014	M10 x 1.5	M14 x 1.5
1MP1212	M12 x 1.5	M12 x 1.5
1MP1214	M12 x 1.5	M14 x 1.5
1MP1216	M12 x 1.5	M16 x 1.5
1MP1414	M14 x 1.5	M14 x 1.5
1MP1416	M14 x 1.5	M16 x 1.5
1MP1418	M14 x 1.5	M18 x 1.5
1MP1420	M14 x 1.5	M20 x 1.5
1MP1616	M16 x 1.5	M16 x 1.5
1MP1618	M16 x 1.5	M18 x 1.5
1MP1620	M16 x 1.5	M20 x 1.5
1MP1622	M16 x 1.5	M22 x 1.5
1MP1626	M16 x 1.5	M26 x 1.5
1MP1818	M18 x 1.5	M18 x 1.5
1MP1820	M18 x 1.5	M20 x 1.5
1MP1822	M18 x 1.5	M22 x 1.5
1MP1824	M18 x 1.5	M24 x 1.5
1MP1826	M18 x 1.5	M26 x 1.5
1MP2020	M20 x 1.5	M20 x 1.5
1MP2022	M20 x 1.5	M22 x 1.5
1MP2024	M20 x 1.5	M24 x 1.5
1MP2026	M20 x 1.5	M26 x 1.5
1MP2222	M22 x 1.5	M22 x 1.5
1MP2224	M22 x 1.5	M24 x 1.5
1MP2226	M22 x 1.5	M26 x 1.5
1MP2230	M22 x 1.5	M30 x 1.5
1MP2424	M24 x 1.5	M24 x 1.5
1MP2626	M26 x 1.5	M26 x 1.5
1MP3030	M30 x 1.5	M30 x 1.5
1MP3038	M30 x 1.5	M38 x 1.5
1MP3838	M38 x 1.5	M38 x 1.5

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Male Adaptors



Metric Male x BSPP Male 60° Cone

0014	Thread	Thread
1MBP1004	M10 x 1.5	1/4"
1MBP1202	M12 x 1.5	1/8"
1MBP1204	M12 x 1.5	1/4"
1MBP1206	M12 x 1.5	3/8"
1MBP1208	M12 x 1.5	1/2"
1MBP1402	M14 x 1.5	1/8"
1MBP1404	M14 x 1.5	1/4"
1MBP1406	M14 x 1.5	3/8"
1MBP1408	M14 x 1.5	1/2"
1MBP1410	M14 x 1.5	5/8"
1MBP1604	M16 x 1.5	1/4"
1MBP1606	M16 x 1.5	3/8"
1MBP1608	M16 x 1.5	1/2"
1MBP1610	M16 x 1.5	5/8"
1MBP1612	M16 x 1.5	3/4"
1MBP1804	M18 x 1.5	1/4"
1MBP1806	M18 x 1.5	3/8"
1MBP1808	M18 x 1.5	1/2"
1MBP1810	M18 x 1.5	5/8"
1MBP1812	M18 x 1.5	3/4"
1MBP1816	M18 x 1.5	1"
1MBP2004	M20 x 1.5	1/4"
1MBP2006	M20 x 1.5	3/8"
1MBP2008	M20 x 1.5	1/2"
1MBP2012	M20 x 1.5	3/4"
1MBP2204	M22 x 1.5	1/4"
1MBP2206	M22 x 1.5	3/8"
1MBP2208	M22 x 1.5	1/2"
1MBP2212	M22 x 1.5	3/4"
1MBP2216	M22 x 1.5	1"
1MBP2406	M24 x 1.5	3/8"
1MBP2408	M24 x 1.5	1/2"
1MBP2412	M24 x 1.5	3/4"
1MBP2608	M26 x 1.5	1/2"
1MBP2610	M26 x 1.5	5/8"
1MBP2612	M26 x 1.5	3/4"
1MBP2616	M26 x 1.5	1"
1MBP3012	M30 x 1.5	3/4"
1MBP3016	M30 x 1.5	1"
1MBP3020	M30 x 1.5	1.1/4"
1MBP3616	M36 x 1.5	1"
1MBP3816	M38 x 1.5	1"
1MBP3820	M38 x 1.5	1.1/4"

Tech Sheet 20000



SAE O-Ring Boss Male x BSPP Male 60° Cone Less O-Ring

0014	Thread	Thread
01329	1/4"	1/8"
01326	1/4"	1/4"
01300	3/8"	1/4"
01323	3/8"	3/8"
01309	7/16"	1/8"
01301	7/16"	1/4"
01303	7/16"	3/8"
01302	7/16"	1/2"
01304	1/2"	1/4"
01305	1/2"	3/8"
01341	1/2"	1/2"
01306	9/16"	1/4"
01307	9/16"	3/8"
01308	9/16"	1/2"
01310	3/4"	1/4"
01311	3/4"	3/8"
01312	3/4"	1/2"
01313	3/4"	5/8"
01314	3/4"	3/4"
01315	5/8"	1/4"
01316	5/8"	3/8"
01344	5/8"	1/2"
01346	7/8"	1/4"
01317	7/8"	3/8"
01318	7/8"	1/2"
01319	7/8"	5/8"
01320	7/8"	3/4"
01335	7/8"	1"
01321	1.1/16"	3/8"
01322	1.1/16"	1/2"
01337	1.1/16"	5/8"
01324	1.1/16"	3/4"
01325	1.1/16"	1"
01348	1.1/16"	1.1/4"
01345	1.3/16"	3/4"
01343	1.5/16"	1/2"
01327	1.5/16"	3/4"
01328	1.5/16"	1"
01338	1.5/16"	1.1/4"
01330	1.5/16"	1.1/2"
01331	1.5/8"	3/4"
01332	1.5/8"	1"
01333	1.5/8"	1.1/4"
01339	1.5/8"	1.1/2"
01342	1.7/8"	1.1/4"
01340	1.7/8"	1.1/2"

Tech Sheet 20000



NPT Male x SAE Male 45° External Flare

0014	Thread	Thread
01050	1/8"	7/16"
01052	1/4"	7/16"
01054	1/4"	5/8"
01056	3/8"	7/16"
01058	3/8"	5/8"
01057	3/8"	3/4"
01060	1/2"	5/8"
01061	1/2"	3/4"
01062	1/2"	7/8"
01063	1/2"	1.1/16"
01065	3/4"	3/4"
01066	3/4"	7/8"
01064	3/4"	1.5/8"
01067	3/4"	1.1/16"

Tech Sheet 20000



SAE O-Ring Boss Male x SAE O-Ring Face Seal Male Less O-Rings

0014	Thread	Thread
21300	7/16"	9/16"
21301	7/16"	11/16"
21302	9/16"	11/16"
21303	9/16"	13/16"
21304	3/4"	11/16"
21305	3/4"	13/16"
21307	7/8"	13/16"
21308	7/8"	1"
21310	1.1/16"	1.3/16"
21311	1.1/16"	1.7/16"
21312	1.5/16"	1.3/16"
21313	1.5/16"	1.7/16"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Fixed Female Adaptors



BSPP Male 60° Cone x BSPP Fixed Female Extended

0014	Male Thread	Female Thread
4BX02	1/8"	1/8"
4BX0204	1/8"	1/4"
4BX0206	1/8"	3/8"
4BX0208	1/8"	1/2"
4BX0402	1/4"	1/8"
4BX04	1/4"	1/4"
4BX0406	1/4"	3/8"
4BX0408	1/4"	1/2"
4BX0412	1/4"	3/4"
4BX0604	3/8"	1/4"
4BX06	3/8"	3/8"
4BX0608	3/8"	1/2"
4BX0612	3/8"	3/4"
4BX0806	1/2"	3/8"
4BX08	1/2"	1/2"
4BX0812	1/2"	3/4"
4BX0816	1/2"	1"
4BX0820	1/2"	1.1/4"
4BX1208	3/4"	1/2"
4BX12	3/4"	3/4"
4BX1216	3/4"	1"
4BX1220	3/4"	1.1/4"
4BX1224	3/4"	1.1/2"
4BX1612	1"	3/4"
4BX16	1"	1"
4BX1620	1"	1.1/4"
4BX1624	1"	1.1/2"
4BX2020	1.1/4"	1.1/4"
4BX2024	1.1/4"	1.1/2"
4BX2032	1.1/4"	2"
4BX2420	1.1/2"	1.1/4"
4BX24	1.1/2"	1.1/2"

Tech Sheet 20000



BSPP Male 60° Cone x BSPT Female Extended

0014	Male Thread	Female Thread
16091	1/4"	1/8"
16090	1/4"	1/4"
16092	3/8"	1/4"
16093	3/8"	3/8"
16089	3/8"	1/2"
16094	1/2"	1/2"
16102	3/4"	1/2"
16095	3/4"	3/4"
16103	3/4"	1"
16096	1"	1"

Tech Sheet 20000



BSPP Male 60° Cone x Metric Female 1.5mm Pitch Extended

0014	Male Thread	Female Thread mm
19803	1/4"	12
19804	1/4"	14
19800	1/2"	16
19801	1/2"	22
19802	3/4"	22

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BSPP Male 60° Cone x NPT Female Extended

0014	Male Thread	Female Thread
16060	1/8"	1/8"
16061	1/4"	1/8"
16062	1/4"	1/4"
16073	1/4"	3/8"
16085	1/4"	1/2"
16072	3/8"	1/4"
16063	3/8"	3/8"
16065	1/2"	3/8"
16066	1/2"	1/2"
16082	1/2"	3/4"
16067	3/4"	3/4"
16083	1"	3/4"
16068	1"	1"
16084	1"	1.1/2"
16069	1.1/4"	1.1/4"
16075	1.1/2"	1.1/4"
16070	1.1/2"	1.1/2"
16071	2"	2"

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NPT Male x BSPP Female Extended

0014	Male Thread	Female Thread
16170	1/8"	1/8"
16178	1/8"	1/4"
16171	1/4"	1/4"
16173	3/8"	3/8"
16172	1/2"	3/8"
16174	1/2"	1/2"
16175	3/4"	3/4"
16176	1"	1"
16169	1.1/4"	1.1/4"
16366	1.1/2"	1.1/4"

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NPT Male x NPT Female Extended

0014	Male Thread	Female Thread
00820	1/8"	1/8"
00821	1/8"	1/4"
00822	1/4"	1/4"
00823	1/4"	3/8"
00843	1/4"	1"
00824	3/8"	3/8"
00842	3/8"	1/2"
00841	3/8"	3/4"
00826	1/2"	1/2"
00850	1/2"	3/4"
00829	3/4"	3/4"
00844	3/4"	1"
00849	3/4"	1.1/4"
00831	1"	1"
00825	1"	1.1/4"

Tech Sheet 20000

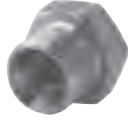
For Hydraulic Tube Clamps
see pages 184-200



HYDRAULIC ADAPTORS

Bushes

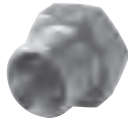
BSPP Male 60° Cone x BSPP Fixed Female Bush



0014	Male Thread	Female Thread
4B0602	3/8"	1/8"
4B0802	1/2"	1/8"
4B0804	1/2"	1/4"
4B1204	3/4"	1/4"
4B1206	3/4"	3/8"
4B1604	1"	1/4"
4B1606	1"	3/8"
4B1608	1"	1/2"
4B2008	1.1/4"	1/2"
4B2012	1.1/4"	3/4"
4B2016	1.1/4"	1"
4B2408	1.1/2"	1/2"
4B2412	1.1/2"	3/4"
4B2416	1.1/2"	1"
4B3216	2"	1"
4B3220	2"	1.1/4"
4B3224	2"	1.1/2"
4B4024	2.1/2"	1.1/2"
4B4032	2.1/2"	2"
4B4832	3"	2"

Tech Sheet 20000

BSPP Male 60° Cone x NPT Fixed Female Bush



0014	Male Thread	Female Thread
4BN0802	1/2"	1/8"
4BN0804	1/2"	1/4"
4BN1206	3/4"	3/8"
4BN1604	1"	1/4"
4BN1608	1"	1/2"
4BN2016	1.1/4"	1"
4BN2416	1.1/2"	1"
4BN4032	2.1/2"	2"
4BN4832	3"	2"

Tech Sheet 20000

BSPT Male x BSPP Female Bush



0014	Male Thread	Female Thread
16121	3/8"	1/8"
16122	3/8"	1/4"
16125	1/2"	1/4"
16123	3/4"	1/4"
16124	3/4"	3/8"
16137	3/4"	1/2"
16126	1"	1/4"
16117	1"	3/8"
16127	1"	1/2"
16128	1"	3/4"
16136	1.1/4"	1"
16142	1.1/2"	1/2"

Tech Sheet 20000

BSPP Male x BSPP Female Bush (Not Coned)



0014	Male Thread	Female Thread
00780	3/8"	1/8"
00781	1/2"	1/8"
00782	1/2"	1/4"
00783	5/8"	1/4"
00784	5/8"	3/8"
00785	3/4"	1/8"
00786	3/4"	1/4"
00787	3/4"	3/8"
00788	1"	1/4"
00789	1"	3/8"
00790	1"	1/2"
00791	1"	5/8"
00792	1.1/4"	1/4"
00793	1.1/4"	3/8"
00794	1.1/4"	1/2"
00795	1.1/4"	3/4"
00796	1.1/4"	1"
00801	1.1/2"	3/4"
00802	1.1/2"	1"
00805	2"	1/2"
00806	2"	5/8"
00807	2"	3/4"
00808	2"	1"
00809	2"	1.1/4"
00810	2"	1.1/2"

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BSPT Male x BSPT Female Bush



0014	Male Thread	Female Thread
16180	1/4"	1/8"
16181	3/8"	1/8"
16182	3/8"	1/4"
16183	1/2"	1/4"
16184	1/2"	3/8"
16186	3/4"	3/8"
16187	3/4"	1/2"
16190	1"	1/2"
16191	1"	3/4"

Tech Sheet 20000

NPT Male x BSPP Female Bush



0014	Male Thread	Female Thread
16350	1/4"	1/8"
16351	3/8"	1/4"
16352	1/2"	1/4"
16354	3/4"	1/4"
16355	3/4"	3/8"
16356	3/4"	1/2"
16359	1"	1/2"
16360	1"	3/4"
16365	2"	1"

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BSPP Male 60° Cone x BSPT Fixed Female Bush



0014	Male Thread	Female Thread
16601	1/2"	1/4"

Tech Sheet 20000

NPT Male x NPT Female Bush



0014	Male Thread	Female Thread
01001	1/4"	1/8"
01002	3/8"	1/8"
01003	3/8"	1/4"
01018	1/2"	1/8"
01004	1/2"	1/4"
01005	1/2"	3/8"
01032	3/4"	1/8"
01006	3/4"	1/4"
01007	3/4"	3/8"
01008	3/4"	1/2"
01022	1"	1/4"
01011	1"	3/8"
01009	1"	1/2"
01010	1"	3/4"
01023	1.1/4"	1/4"
01025	1.1/4"	3/8"
01026	1.1/4"	1/2"
01019	1.1/4"	3/4"
01012	1.1/4"	1"
01024	1.1/2"	1/4"
01027	1.1/2"	3/8"
01028	1.1/2"	1/2"
01013	1.1/2"	3/4"
01015	1.1/2"	1"
01021	1.1/2"	1.1/4"
01031	2"	1/4"
01030	2"	1/2"
01029	2"	3/4"
01014	2"	1"
01017	2"	1.1/4"
01016	2"	1.1/2"
01033	2.1/2"	2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Gauge Adaptors

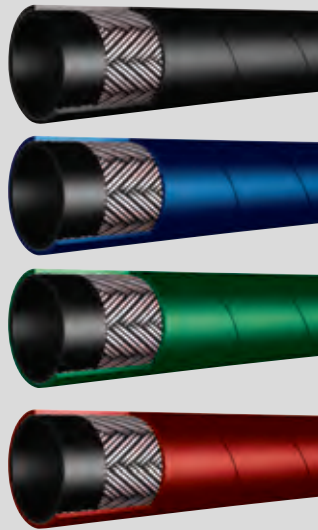


BSPP Male 60° Cone x BSPP Fixed Female Gauge

0014	Male Thread	Female Thread
4BG02	1/8"	1/8"
4BG0204	1/8"	1/4"
4BG0206	1/8"	3/8"
4BG0402	1/4"	1/8"
4BG04	1/4"	1/4"
4BG0406	1/4"	3/8"
4BG0408	1/4"	1/2"
4BG0602	3/8"	1/8"
4BG0604	3/8"	1/4"
4BG06	3/8"	3/8"
4BG0608	3/8"	1/2"
4BG0804	1/2"	1/4"
4BG0806	1/2"	3/8"
4BG08	1/2"	1/2"
4BG0812	1/2"	3/4"
4BG0816	1/2"	1"
4BG1208	3/4"	1/2"
4BG1612	1"	3/4"

Tech Sheet 20000

FT PRO



For Push Style Hose System
see pages 37-39

Female Hose Inserts



Female Swivel Straight BSPP

0014	Thread	To Suit Hose ID
09240	1/4"	1/4"
09241	3/8"	3/8"
09242	1/2"	1/2"
09243	5/8"	5/8"
09244	3/4"	3/4"
09245	1"	1"

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Female Fixed Straight NPT

0014	Thread	To Suit Hose ID
16301	3/8"	3/8"
16302	1/2"	1/2"

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BSPP Swivel Female 60° Cone x Hose Tail Straight

0014	Thread	To Suit Hose ID
93100	1/4"	1/4"
93101	3/8"	3/8"
93102	1/2"	1/2"
93103	5/8"	5/8"
93104	3/4"	3/4"
93105	1"	1"
93107	1.1/2"	1.1/2"
93108	2"	2"

Tech Sheet 20000

Male Hose Inserts



Male Straight BSPP 60° Cone

0014	Thread	To Suit Hose ID
09220	1/4"	1/4"
09221	3/8"	3/8"
09222	1/2"	1/2"
09223	3/4"	3/4"
09224	1"	1"

Tech Sheet 20000



Male Straight BSPT

0014	Thread	To Suit Hose ID
09258	1/8"	1/4"
09250	1/4"	1/4"
09251	3/8"	3/8"
09252	3/8"	1/2"
09253	1/2"	1/2"
09254	3/4"	3/4"
09255	1"	1"

Tech Sheet 20000



BSPP Male 60° Cone x Hose Tail Straight

0014	Thread	To Suit Hose ID
19920	1/4"	1/4"
19921	3/8"	3/8"
19922	1/2"	1/2"
19923	5/8"	5/8"
19924	3/4"	3/4"
19925	1"	1"
19927	1.1/4"	1.1/4"

Tech Sheet 20000



BSPP Male 60° Cone x Hose Tail 90° Swept

0014	Thread	To Suit Hose ID
19930	1/4"	1/4"
19931	3/8"	3/8"
19932	1/2"	1/2"
19933	5/8"	5/8"
19934	3/4"	3/4"
19935	1"	1"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Female Swivel Adaptors



BSPP Male 60° Cone x BSPP Swivel Female 60° Cone

0014	Male Thread	Female Thread
2B0202	1/8"	1/8"
2B0204	1/8"	1/4"
2B0206	1/8"	3/8"
2B0402	1/4"	1/8"
2B0404	1/4"	1/4"
2B0406	1/4"	3/8"
2B0408	1/4"	1/2"
2B0412	1/4"	3/4"
2B0602	3/8"	1/8"
2B0604	3/8"	1/4"
2B0606	3/8"	3/8"
2B0608	3/8"	1/2"
2B0610	3/8"	5/8"
2B0612	3/8"	3/4"
2B0616	3/8"	1"
2B0804	1/2"	1/4"
2B0806	1/2"	3/8"
2B0808	1/2"	1/2"
2B0810	1/2"	5/8"
2B0812	1/2"	3/4"
2B0816	1/2"	1"
2B1004	5/8"	1/4"
2B1006	5/8"	3/8"
2B1008	5/8"	1/2"
2B1010	5/8"	5/8"
2B1012	5/8"	3/4"
2B1204	3/4"	1/4"
2B1206	3/4"	3/8"
2B1208	3/4"	1/2"
2B1210	3/4"	5/8"
2B1212	3/4"	3/4"
2B1216	3/4"	1"
2B1220	3/4"	1.1/4"
2B1224	3/4"	1.1/2"
2B1606	1"	3/8"
2B1608	1"	1/2"
2B1612	1"	3/4"
2B1616	1"	1"
2B1620	1"	1.1/4"
2B1624	1"	1.1/2"
2B1632	1"	2"
2B2008	1.1/4"	1/2"
2B2012	1.1/4"	3/4"
2B2016	1.1/4"	1"
2B2020	1.1/4"	1.1/4"
2B2024	1.1/4"	1.1/2"
2B2416	1.1/2"	1"
2B2420	1.1/2"	1.1/4"
2B2424	1.1/2"	1.1/2"
2B2432	1.1/2"	2"
2B3224	2"	1.1/2"
2B3232	2"	2"

Tech Sheet 20000



BSPP Male 60° Cone x SAE O-Ring Swivel Female

0014	Male Thread	Female Thread
96400	1/4"	9/16"
96410	1/4"	11/16"
96420	3/8"	9/16"
96430	3/8"	11/16"
96440	3/8"	13/16"
96450	1/2"	13/16"
96460	1/2"	1"
96470	3/4"	1.3/16"
96480	3/4"	1.7/16"
96490	1"	1.7/16"
96500	1.1/4"	1.11/16"

Tech Sheet 20000



BSPP Male 60° Cone x Metric Swivel Female

0014	Male Thread	Female Thread
2BM0412	1/4"	M12 x 1.5
2BM0414	1/4"	M14 x 1.5
2BM0416	1/4"	M16 x 1.5
2BM0418	1/4"	M18 x 1.5
2BM0614	3/8"	M14 x 1.5
2BM0616	3/8"	M16 x 1.5
2BM0618	3/8"	M18 x 1.5
2BM0620	3/8"	M20 x 1.5
2BM0622	3/8"	M22 x 1.5
2BM0816	1/2"	M16 x 1.5
2BM0818	1/2"	M18 x 1.5
2BM0820	1/2"	M20 x 1.5
2BM0822	1/2"	M22 x 1.5
2BM0824	1/2"	M24 x 1.5
2BM0826	1/2"	M26 x 1.5
2BM1022	5/8"	M22 x 1.5
2BM1222	3/4"	M22 x 1.5

Tech Sheet 20000

BSPP Male 60° Cone DIN 3852 Form A x BSPP Swivel Female 60° Cone



0014	Male Thread	Female Thread
61400	1/8"	1/8"
61402	1/8"	3/8"
61403	1/4"	1/8"
61404	1/4"	1/4"
61405	1/4"	3/8"
61406	1/4"	1/2"
61410	3/8"	3/8"
61411	3/8"	1/2"
61417	1/2"	1/2"
61419	1/2"	3/4"
61420	1/2"	1"
61429	3/4"	1/2"
61431	3/4"	3/4"
61432	3/4"	1"
61433	3/4"	1.1/4"
61434	1"	1/2"
61436	1"	3/4"
61437	1"	1"
61438	1"	1.1/4"
61439	1"	1.1/2"
61443	1.1/4"	1.1/4"
61444	1.1/4"	1.1/2"
61445	1.1/4"	2"
61448	1.1/2"	1.1/2"
61449	1.1/2"	2"

Tech Sheet 20000

BSPP Male 60° Cone x NPSM Swivel Female



0014	Male Thread	Female Thread
31427	1/4"	1/4"
31429	1/4"	3/8"
31433	3/8"	1/4"
31434	3/8"	3/8"

Tech Sheet 20000

BSPT Male x BSPP Swivel Female 60° Cone



0014	Male Thread	Female Thread
01875	1/8"	1/8"
01876	1/4"	1/4"
01877	3/8"	3/8"
01885	3/8"	1/2"
01884	1/2"	3/8"
01878	1/2"	1/2"
01879	5/8"	5/8"
01880	3/4"	1/2"
01881	3/4"	3/4"
01887	3/4"	1"
01882	1"	3/4"
01883	1"	1"
01889	1.1/4"	1.1/4"
01888	1.1/2"	1.1/2"
01886	2"	2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Male/Female Swivel Adaptors



Metric Male x BSPP Swivel Female 60° Cone

0014	Male Thread	Female Thread
2MB1204	M12 x 1.5	1/4"
2MB1404	M14 x 1.5	1/4"
2MB1406	M14 x 1.5	3/8"
2MB1604	M16 x 1.5	1/4"
2MB1606	M16 x 1.5	3/8"
2MB1608	M16 x 1.5	1/2"
2MB1612	M16 x 1.5	3/4"
2MB1806	M18 x 1.5	3/8"
2MB1808	M18 x 1.5	1/2"
2MB2006	M20 x 1.5	3/8"
2MB2008	M20 x 1.5	1/2"
2MB2012	M20 x 1.5	3/4"
2MB2208	M22 x 1.5	1/2"
2MB2212	M22 x 1.5	3/4"
2MB2606	M26 x 1.5	3/8"
2MB3008	M30 x 1.5	1/2"

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Metric Male x Metric Swivel Female

0014	Male Thread	Female Thread
2M1414	M14 x 1.5	M14 x 1.5
2M1616	M16 x 1.5	M16 x 1.5
2M1618	M16 x 1.5	M18 x 1.5
2M1818	M18 x 1.5	M18 x 1.5
2M2020	M20 x 1.5	M20 x 1.5
2M2022	M20 x 1.5	M22 x 1.5
2M2218	M22 x 1.5	M18 x 1.5
2M2220	M22 x 1.5	M20 x 1.5
2M2222	M22 x 1.5	M22 x 1.5

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NPT Male x BSPP Swivel Female 60° Cone

0014	Male Thread	Female Thread
11875	1/8"	1/8"
11876	1/4"	1/4"
11885	3/8"	1/4"
11877	3/8"	3/8"
11884	3/8"	1/2"
11874	1/2"	3/8"
11878	1/2"	1/2"
11880	3/4"	1/2"
11881	3/4"	3/4"
11882	1"	3/4"
11883	1"	1"

Tech Sheet 20000

Swivel Females



BSPP Swivel Female x BSPP Swivel Female 60° Cone

0014	Thread	Thread
3B0202	1/8"	1/8"
3B0204	1/8"	1/4"
3B0206	1/8"	3/8"
3B0404	1/4"	1/4"
3B0406	1/4"	3/8"
3B0606	3/8"	3/8"
3B0612	3/8"	3/4"
3B0616	3/8"	1"
3B0804	1/2"	1/4"
3B0806	1/2"	3/8"
3B0808	1/2"	1/2"
3B0810	1/2"	5/8"
3B0812	1/2"	3/4"
3B1006	5/8"	3/8"
3B1010	5/8"	5/8"
3B1210	3/4"	5/8"
3B1212	3/4"	3/4"
3B1216	3/4"	1"
3B1608	1"	1/2"
3B1616	1"	1"
3B1620	1"	1.1/4"
3B1624	1"	1.1/2"
3B2012	1.1/4"	3/4"
3B2020	1.1/4"	1.1/4"
3B2424	1.1/2"	1.1/2"
3B2432	1.1/2"	2"
3B3232	2"	2"

Tech Sheet 20000



BSPP Swivel Female 60° Cone x Metric Swivel Female

0014	Thread	Thread
3BM0412	1/4"	M12 x 1.5
3BM0414	1/4"	M14 x 1.5
3BM0612	3/8"	M12 x 1.5
3BM0614	3/8"	M14 x 1.5
3BM0616	3/8"	M16 x 1.5
3BM0618	3/8"	M18 x 1.5
3BM0620	3/8"	M20 x 1.5
3BM0622	3/8"	M22 x 1.5
3BM0816	1/2"	M16 x 1.5
3BM0818	1/2"	M18 x 1.5
3BM0822	1/2"	M22 x 1.5

Tech Sheet 20000

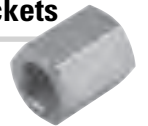
Metric Swivel Female x Metric Swivel Female



0014	Thread	Thread
01775	M12 x 1.5	M12 x 1.5
01785	M12 x 1.5	M14 x 1.5
01776	M14 x 1.5	M14 x 1.5
01777	M16 x 1.5	M16 x 1.5
01782	M16 x 1.5	M18 x 1.5
01778	M18 x 1.5	M18 x 1.5
01783	M18 x 1.5	M20 x 1.5
01779	M18 x 1.5	M22 x 1.5
01780	M20 x 1.5	M20 x 1.5
01784	M20 x 1.5	M22 x 1.5
01781	M22 x 1.5	M22 x 1.5

Tech Sheet 20000

Hexagon Female Sockets



BSPP Fixed Female x BSPP Fixed Female

0014	Thread
7B02	1/8"
7B04	1/4"
7B06	3/8"
7B08	1/2"
7B10	5/8"
7B12	3/4"
7B16	1"
7B20	1.1/4"
7B24	1.1/2"
7B32	2"

Tech Sheet 20000

BSPP Fixed Female x BSPP Fixed Female Reducing

0014	Thread	Thread
7B0204	1/8"	1/4"
7B0406	1/4"	3/8"
7B0408	1/4"	1/2"
7B0608	3/8"	1/2"
7B0812	1/2"	3/4"
7B0810	1/2"	5/8"
7B1216	3/4"	1"

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NPT Fixed Female x NPT Fixed Female

0014	Thread
7N02	1/8"
7N04	1/4"
7N06	3/8"
7N08	1/2"
7N12	3/4"
7N16	1"
7N24	1.1/2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

90° Elbows



BSPP Male x BSPP Male 90° Swept Elbow 60° Cone

0014	Thread
EBM04	1/4"
EBM06	3/8"
EBM08	1/2"
EBM10	5/8"
EBM12	3/4"
EBM16	1"
EBM32	2"

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BSPP Male 60° Cone x BSPP Male 90° Positional Forged Elbow

0014	Thread
03051FDPOS	1/4"
03053FDPOS	3/8"
03054FDPOS	1/2"
03056FDPOS	3/4"
03057FDPOS	1"
03058FDPOS	1.1/4"

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BSPP Male x BSPP Swivel Female 90° Swept Elbow 60° Cone

0014	Thread
EBMF04	1/4"
EBMF06	3/8"
EBMF08	1/2"
EBMF10	5/8"
EBMF12	3/4"
EBMF16	1"
EBMF20	1.1/4"
EBMF24	1.1/2"
EBMF32	2"

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BSPP Swivel Female x BSPP Swivel Female 90° Swept Elbow 60° Cone

0014	Thread
EBF04	1/4"
EBF06	3/8"
EBF08	1/2"
EBF10	5/8"
EBF12	3/4"
EBF16	1"
EBF20	1.1/4"
EBF24	1.1/2"

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BSPP Swivel Female 60° Cone x Hose Tail 90° Swept Elbow

0014	Thread	To Suit Hose ID
93000	1/4"	1/4"
93001	3/8"	3/8"
93002	1/2"	1/2"
93003	5/8"	5/8"
93004	3/4"	3/4"
93005	1"	1"
93006	1.1/4"	1.1/4"

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Female Elbow 90° BSPP 60° Cone

0014	Thread	To Suit Hose ID
09280	1/4"	1/4"
09281	3/8"	3/8"
09282	1/2"	1/2"
09283	5/8"	5/8"
09284	3/4"	3/4"
09285	1"	1"

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BSPP Swivel Female 60° Cone x Hose Tail 90° Compact

0014	Thread	To Suit Hose ID
80001	1/4"	1/4"
80002	3/8"	3/8"
80008	1/2"	3/8"
80003	1/2"	1/2"
80004	5/8"	5/8"
80005	3/4"	3/4"
80006	1"	1"

Tech Sheet 20000

90° Compact Elbows



BSPP Male x BSPP Male 90° Compact Elbow 60° Cone

0014	Thread	Thread
XMB0404	1/4"	1/4"
XMB0406	1/4"	3/8"
XMB0606	3/8"	3/8"
XMB0608	3/8"	1/2"
XMB0808	1/2"	1/2"
XMB0812	1/2"	3/4"
XMB1212	3/4"	3/4"
XMB1616	1"	1"
XMB3232	2"	2"

Tech Sheet 20000



BSPP Male x BSPP Male 90° Compact Elbow for Bonded Seal 60° Cone

0014	Thread	Thread
XMBS0202	1/8"	1/8"
XMBS0402	1/4"	1/8"
XMBS0404	1/4"	1/4"
XMBS0606	3/8"	3/8"
XMBS0808	1/2"	1/2"
XMBS1212	3/4"	3/4"
XMBS1612	1"	3/4"
XMBS1616	1"	1"
XMBS2020	1.1/4"	1.1/4"

Tech Sheet 20000



BSPP Male 60° Cone x BSPT Male 90° Compact Elbow

0014	Thread	Thread
XMBP02T02	1/8"	1/8"
XMBP04T02	1/4"	1/8"
XMBP04T04	1/4"	1/4"
XMBP06T06	3/8"	3/8"
XMBP08T06	1/2"	3/8"
XMBP08T08	1/2"	1/2"
XMBP12T12	3/4"	3/4"
XMBP16T16	1"	1"

Tech Sheet 20000

Pressure ratings are not applicable to swept elbows or push-in fittings

HYDRAULIC ADAPTORS

90° Compact Elbows



BSPP Male 60° Cone x NPT Male 90° Compact Elbow

0014	Thread	Thread
XMB04N04	1/4"	1/4"
XMB06N06	3/8"	3/8"
XMB08N08	1/2"	1/2"

Tech Sheet 20000



BSPP Male for Bonded Seal x BSPP Swivel Female 90° Compact Elbow 60° Cone

0014	Male Thread	Female Thread
XBMBF0202	1/8"	1/8"
XBMBF0404	1/4"	1/4"
XBMBF0606	3/8"	3/8"
XBMBF0604	3/8"	1/4"
XBMBF0806	1/2"	3/8"
XBMBF0808	1/2"	1/2"
XBMBF0812	1/2"	3/4"
XBMBF1010	5/8"	5/8"
XBMBF1212	3/4"	3/4"
XBMBF1616	1"	1"
XBMBF2020	1.1/4"	1.1/4"
XBMBF2424	1.1/2"	1.1/2"
XBMBF3232	2"	2"

Tech Sheet 20000



BSPP Male for Cone Seal x BSPP Swivel Female 90° Compact Elbow 60° Cone

0014	Male Thread	Female Thread
XBMF0402	1/4"	1/8"
XBMF0404	1/4"	1/4"
XBMF0406	1/4"	3/8"
XBMF0604	3/8"	1/4"
XBMF0606	3/8"	3/8"
XBMF0608	3/8"	1/2"
XBMF0612	3/8"	3/4"
XBMF0806	1/2"	3/8"
XBMF0808	1/2"	1/2"
XBMF0812	1/2"	3/4"
XBMF0816	1/2"	1"
XBMF1212	3/4"	3/4"
XBMF1216	3/4"	1"
XBMF1612	1"	3/4"
XBMF1616	1"	1"
XBMF2424	1.1/2"	1.1/2"
XBMF3232	2"	2"

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BSPP Female x BSPP Female 90° Compact Elbow

0014	Thread
15026	1/4"
15027	3/8"
15028	1/2"
15030	3/4"
15031	1"
15032	1.1/4"

Tech Sheet 20000



BSPP Swivel Female x BSPP Swivel Female 90° Compact Elbow 60° Cone

0014	Thread	Thread
XBFO202	1/8"	1/8"
XBFO204	1/8"	1/4"
XBFO404	1/4"	1/4"
XBFO406	1/4"	3/8"
XBFO408	1/4"	1/2"
XBFO606	3/8"	3/8"
XBFO608	3/8"	1/2"
XBFO808	1/2"	1/2"
XBF1010	5/8"	5/8"
XBF1212	3/4"	3/4"
XBF1216	3/4"	1"
XBF1616	1"	1"
XBF2020	1.1/4"	1.1/4"
XBF2424	1.1/2"	1.1/2"
XBF3232	2"	2"

Tech Sheet 20000



BSPP Swivel Female x BSPP Swivel Female 90° Forged Compact Elbow 60° Cone

0014	Thread
05026FD	1/4"
05027FD	3/8"
05028FD	1/2"
05030FD	3/4"
05031FD	1"

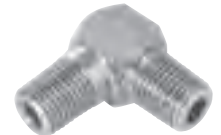
Tech Sheet 20000



BSPP Male x BSPP Swivel Female 90° Forged Compact Elbow 60° Cone

0014	Thread
05000FD	1/4"
05001FD	3/8"
05002FD	1/2"
05004FD	3/4"
05005FD	1"
05018FD	1.1/4"
05007FD	1.1/2"

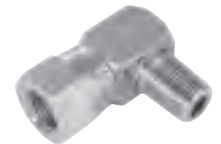
Tech Sheet 20000



BSPT Male x BSPT Male 90° Compact Elbow

0014	Thread
83000	1/4"
83001	3/8"
83002	1/2"
83003	3/4"
83004	1"
83005	1.1/4"

Tech Sheet 20000



BSPT Male x BSPP Swivel Female 90° Compact Elbow 60° Cone

0014	Male Thread	Female Thread
09410	1/8"	1/8"
09405	1/4"	1/4"
09406	3/8"	3/8"
09407	1/2"	1/2"
09411	3/4"	1/2"
09408	3/4"	3/4"
09409	1"	1"
09412	1.1/2"	1.1/2"

Tech Sheet 20000



NPT Male x BSPP Swivel Female 90° Compact Elbow 60° Cone

0014	Male Thread	Female Thread
09397	1/8"	1/8"
09400	1/4"	1/4"
09401	3/8"	3/8"
09402	1/2"	1/2"
09403	3/4"	3/4"
09404	1"	1"
09398	1.1/4"	1.1/4"
09399	1.1/2"	1.1/2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

90° Compact Elbows



NPT Male x NPT Male 90° Compact Elbow

0014	Thread	Thread
XMN04	1/4"	1/4"
XMN06	3/8"	3/8"
XMN08	1/2"	1/2"
XMN12	3/4"	3/4"
XMN16	1"	1"
XMN20	1.1/4"	1.1/4"
XMN24	1.1/2"	1.1/2"
XMN32	2"	2"

Tech Sheet 20000



NPT Male x NPT Fixed Female 90° Compact Elbow

0014	Male Thread	Female Thread
XNMF0202	1/8"	1/8"
XNMF0404	1/4"	1/4"
XNMF0604	3/8"	1/4"
XNMF0606	3/8"	3/8"
XNMF0806	1/2"	3/8"
XNMF0808	1/2"	1/2"
XNMF1212	3/4"	3/4"
XNMF1616	1"	1"
XNMF2020	1.1/4"	1.1/4"
XNMF2424	1.1/2"	1.1/2"

Tech Sheet 20000



NPT Fixed Female x NPT Fixed Female 90° Compact Elbow

0014	Thread	Thread
XFN0202	1/8"	1/8"
XFN0404	1/4"	1/4"
XFN0606	3/8"	3/8"
XFN0608	3/8"	1/2"
XFN0808	1/2"	1/2"
XFN1212	3/4"	3/4"
XFN1616	1"	1"
XFN2020	1.1/4"	1.1/4"
XFN2424	1.1/2"	1.1/2"
XFN3232	2"	2"

Tech Sheet 20000

45° Elbows



BSPP Male x BSPP Male 45° Swept Elbow 60° Cone

0014	Thread
SEBM04	1/4"
SEBM06	3/8"
SEBM08	1/2"
SEBM10	5/8"
SEBM24	1.1/2"

Tech Sheet 20000



BSPP Male x BSPP Swivel Female 45° Swept Elbow 60° Cone

0014	Thread
SEBMF04	1/4"
SEBMF06	3/8"
SEBMF08	1/2"
SEBMF10	5/8"
SEBMF12	3/4"
SEBMF16	1"
SEBMF20	1.1/4"
SEBMF24	1.1/2"
SEBMF32	2"

Tech Sheet 20000



BSPP Swivel Female x Hose Tail 45° Swept 60° Cone

0014	Thread	To Suit Hose ID
94505	1"	1"

Tech Sheet 20000



BSPP Swivel Female x BSPP Swivel Female 45° Swept Elbow 60° Cone

0014	Thread
SEBF04	1/4"
SEBF06	3/8"
SEBF08	1/2"
SEBF10	5/8"
SEBF12	3/4"
SEBF16	1"
SEBF20	1.1/4"
SEBF24	1.1/2"
SEBF32	2"

Tech Sheet 20000



BSPP Male x BSPP Male 45° Positional Forged Elbow

0014	Thread
03051FDPOS-45	1/4"
03053FDPOS-45	3/8"
03054FDPOS-45	1/2"
03056FDPOS-45	3/4"
03057FDPOS-45	1"

Tech Sheet 20000



Female Elbow 45° BSPP 60° Cone

0014	Thread	To Suit Hose ID
19280	1/4"	1/4"
19281	3/8"	3/8"
19282	1/2"	1/2"
19283	5/8"	5/8"
19284	3/4"	3/4"
19285	1"	1"

Tech Sheet 20000

45° Compact Elbows



BSPP Male x BSPP Swivel Female 45° Forged Compact Elbow 60° Cone

0014	Thread
05000/45FD	1/4"
05001/45FD	3/8"
05002/45FD	1/2"
05004/45FD	3/4"
05005/45FD	1"

Tech Sheet 20000

Pressure ratings are not applicable to swept elbows or push-in fittings

HYDRAULIC ADAPTORS

Tees



BSPP Male x BSPP Male x BSPP Swivel Female Branch Tee 60° Cone

0014	Thread
ZMMFB02	1/8"
ZMMFB04	1/4"
ZMMFB06	3/8"
ZMMFB08	1/2"
ZMMFB12	3/4"
ZMMFB16	1"
ZMMFB20	1.1/4"

Tech Sheet 20000



BSPP Male x BSPP Swivel Female x BSPP Male Branch Tee 60° Cone

0014	Thread
ZMFMB02	1/8"
ZMFMB04	1/4"
ZMFMB06	3/8"
ZMFMB08	1/2"
ZMFMB10	5/8"
ZMFMB12	3/4"
ZMFMB16	1"
ZMFMB20	1.1/4"

Tech Sheet 20000



BSPP Male x BSPP Swivel Female x BSPP Swivel Female Branch Tee 60° Cone

0014	Thread
ZMFFB02	1/8"
ZMFFB04	1/4"
ZMFFB06	3/8"
ZMFFB08	1/2"
ZMFFB10	5/8"
ZMFFB12	3/4"
ZMFFB16	1"
ZMFFB20	1.1/4"

Tech Sheet 20000



BSPP Male x BSPP Swivel Female x BSPP Male Branch Tee Reducing on Branch 60° Cone

0014	Thread A	Thread B	Thread C
02035	3/8"	3/8"	1/4"
02032	1/2"	1/2"	1/4"
02031	1/2"	1/2"	3/8"
02022	3/4"	3/4"	1/4"
02039	3/4"	3/4"	3/8"
02037	3/4"	3/4"	1/2"
02023	1"	1"	1/4"
02018	1"	1"	3/4"

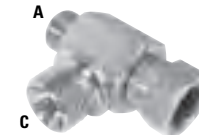
Tech Sheet 20000



BSPP Male x BSPP Swivel Female x BSPP Male Branch Tee Reducing on Run 60° Cone

0014	Thread A	Thread B	Thread C
02036	3/8"	1/2"	1/2"

Tech Sheet 20000



BSPP Male x BSPP Swivel Female x BSPP Male Branch Tee Enlarging on Branch 60° Cone

0014	Thread A	Thread B	Thread C
02017	3/8"	3/8"	1/2"

Tech Sheet 20000



BSPP Swivel Female x BSPP Swivel Female x BSPP Male Branch Tee 60° Cone

0014	Thread
ZFFMB04	1/4"
ZFFMB06	3/8"
ZFFMB08	1/2"
ZFFMB10	5/8"
ZFFMB12	3/4"
ZFFMB16	1"
ZFFMB20	1.1/4"

Tech Sheet 20000



NPT Male x NPT Female x NPT Male Branch Tee

0014	Thread
08010	1/4"
08011	3/8"
08012	1/2"
08013	3/4"
08014	1"
08015	1.1/4"
08016	1.1/2"

Tech Sheet 20000



NPT Male x NPT Female x NPT Female Branch Tee

0014	Thread
07059	1/8"
07060	1/4"
07061	3/8"
07062	1/2"
07063	3/4"
07064	1"
07065	1.1/4"
07066	1.1/2"

Tech Sheet 20000



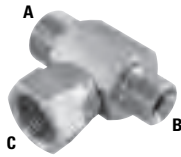
NPT Female x NPT Female x NPT Male Branch Tee

0014	Thread
07080	1/4"
07081	3/8"
07082	1/2"
07083	3/4"
07084	1"
07085	1.1/4"
07086	1.1/2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Tees



BSPP Male x BSPP Male x BSPP Swivel Female Branch Unequal Tee 60° Cone

0014	Thread A	Thread B	Thread C
01998	3/8"	1/2"	1/2"
02014	1/4"	1/2"	1/2"
01999	1/2"	3/4"	3/4"
02013	1/2"	3/4"	1"

Tech Sheet 20000



BSPP Male Tee 60° Cone Seating Enlarging on Branch

0014	Thread A	Thread B
01913	3/8"	1/2"

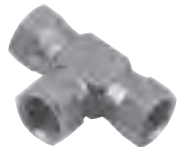
Tech Sheet 20000



NPT Male Tee

0014	Thread
ZMN02	1/8"
ZMN04	1/4"
ZMN06	3/8"
ZMN08	1/2"

Tech Sheet 20000



BSPP Swivel Female Tee 60° Cone

0014	Thread
ZFB02	1/8"
ZFB04	1/4"
ZFB06	3/8"
ZFB08	1/2"
ZFB10	5/8"
ZFB12	3/4"
ZFB16	1"
ZFB20	1.1/4"
ZFB24	1.1/2"
ZFB32	2"

Tech Sheet 20000



BSPP Female Tee

0014	Thread
11975	1/8"
11976	1/4"
11977	3/8"
11978	1/2"
11979	5/8"
11980	3/4"
11981	1"
11982	1.1/4"
11985	1.1/2"
11984	2"

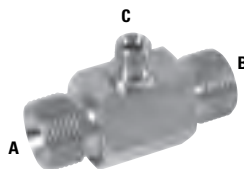
Tech Sheet 20000



NPTF Female Tee

0014	Thread
07000	1/8"
07001	1/4"
07002	3/8"
07003	1/2"
07004	3/4"
07005	1"
07006	1.1/4"
07007	1.1/2"
07008	2"

Tech Sheet 20000



BSPP Male Tee Reducing on Branch 60° Cone

0014	Thread A	Thread B	Thread C
RZMB0402BS	1/4"	1/4"	1/8"
RZMB0604BS	3/8"	3/8"	1/4"
RZMB0804BS	1/2"	1/2"	1/4"
RZMB1008BS	5/8"	5/8"	1/2"
RZMB1204BS	3/4"	3/4"	1/4"
RZMB1208BS	3/4"	3/4"	1/2"
RZMB1612BS	1"	1"	3/4"
RZMB2012BS	1.1/4"	1.1/4"	3/4"
RZMB2016BS	1.1/4"	1.1/4"	1"

Tech Sheet 20000



BSPP Male Tee for Bonded Seal 60° Cone

0014	Thread
ZMB02BS	1/8"
ZMB04BS	1/4"
ZMB06BS	3/8"
ZMB08BS	1/2"
ZMB10BS	5/8"
ZMB12BS	3/4"
ZMB16BS	1"
ZMB24BS	1.1/4"

Tech Sheet 20000



BSPP Male Tee 60° Cone Seating

0014	Thread
ZMB04	1/4"
ZMB06	3/8"
ZMB08	1/2"
ZMB12	3/4"
ZMB16	1"
ZMB24	1.1/2"
ZMB32	2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Bulkheads



BSPP Male x BSPP Male Bulkhead complete with Locknut 60° Cone

0014	Thread A	Thread B
09500	1/8"	1/8"
09501	1/4"	1/4"
09512	1/4"	3/8"
09513	3/8"	1/4"
09502	3/8"	3/8"
09505	3/8"	1/2"
09511	1/2"	3/8"
09503	1/2"	1/2"
09514	1/2"	3/4"
09504	5/8"	5/8"
09515	3/4"	1/2"
09506	3/4"	3/4"
09507	1"	1"
09508	1.1/4"	1.1/4"
09521	1.1/2"	1"
09509	1.1/2"	1.1/2"
09510	2"	2"
09516	2.1/2"	2.1/2"
09517	3"	3"

Tech Sheet 20000



BSPP Male x BSPP Male Extended Bulkhead 60° Cone complete with Locknut

0014	Thread A	Thread B
8BPX0404	1/4"	1/4"
8BPX0606	3/8"	3/8"
8BPX0608	3/8"	1/2"
8BPX0806	1/2"	3/8"
8BPX0808	1/2"	1/2"
8BPX1010	5/8"	5/8"
8BPX1208	3/4"	1/2"
8BPX1212	3/4"	3/4"
8BPX1616	1"	1"

Tech Sheet 20000



For Hydraulic Seals
see pages 109-112



BSPP Male x BSPP Male Bulkhead 60° Cone No Locknut

0014	Thread A	Thread B
8BP0202	1/8"	1/8"
8BP0404	1/4"	1/4"
8BP0606	3/8"	3/8"
8BP0808	1/2"	1/2"
8BP1010	5/8"	5/8"
8BP1212	3/4"	3/4"
8BP1616	1"	1"
8BP2020	1.1/4"	1.1/4"
8BP2424	1.1/2"	1.1/2"
8BP3232	2"	2"
8BP0406	1/4"	3/8"
8BP0604	3/8"	1/4"
8BP0608	3/8"	1/2"
8BP0806	1/2"	3/8"
8BP0812	1/2"	3/4"
8BP1208	3/4"	1/2"

Tech Sheet 20000



Metric Male x Metric Male Bulkhead No Locknut

0014	Thread	Thread
8MP1212	M12 x 1.5	M12 x 1.5
8MP1414	M14 x 1.5	M14 x 1.5
8MP1616	M16 x 1.5	M16 x 1.5
8MP1818	M18 x 1.5	M18 x 1.5
8MP2020	M20 x 1.5	M20 x 1.5
8MP2222	M22 x 1.5	M22 x 1.5
8MP2424	M24 x 1.5	M24 x 1.5

Tech Sheet 20000



Metric Male x Metric Male Bulkhead complete with Locknut

0014	Thread
09550	M12 x 1.5
09551	M14 x 1.5
09552	M16 x 1.5
09553	M18 x 1.5
09554	M20 x 1.5
09555	M22 x 1.5
09556	M24 x 1.5

Tech Sheet 20000

Plugs



BSPP Solid Plug

0014	Thread
6BS02	1/8"
6BS04	1/4"
6BS06	3/8"
6BS08	1/2"
6BS10	5/8"
6BS12	3/4"
6BS16	1"
6BS20	1.1/4"
6BS24	1.1/2"
6BS32	2"

Tech Sheet 20000



BSPP 60° Coned Plug

0014	Thread
6BC02	1/8"
6BC04	1/4"
6BC06	3/8"
6BC08	1/2"
6BC10	5/8"
6BC12	3/4"
6BC16	1"
6BC20	1.1/4"
6BC24	1.1/2"
6BC32	2"
6BC40	2.1/2"

Tech Sheet 20000



BSPP 60° Coned Plug to DIN 3852 Form A

0014	Thread
69001	1/4"
69002	3/8"
69003	1/2"
69005	3/4"
69006	1"
69009	2"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Plugs



BSPP Socket Headed Plug for Bonded Seal

0014	Thread
09025-02-SPG	1/8"
09026-04-SPG	1/4"
09027-06-SPG	3/8"
09028-08-SPG	1/2"
09030-12-SPG	3/4"

Tech Sheet 20000



BSPP Socket Headed Plug with 3869 Seal

0014	Thread
3869-02-SPG	1/8"
3869-04-SPG	1/4"
3869-06-SPG	3/8"
3869-08-SPG	1/2"
3869-12-SPG	3/4"

Tech Sheet 20000



BSPT Solid Plug

0014	Thread
6BT02	1/8"
6BT04	1/4"
6BT06	3/8"
6BT08	1/2"
6BT10	5/8"
6BT12	3/4"
6BT16	1"
6BT24	1.1/2"
6BT32	2"

Tech Sheet 20000



Metric Solid Plug 1mm Pitch

0014	Thread
09169	M8 x 1
09179	M10 x 1
09168	M12 x 1

Tech Sheet 20000



Metric Solid Plug 1.5mm Pitch

0014	Thread
6M10	M10 x 1.5
6M12	M12 x 1.5
6M14	M14 x 1.5
6M16	M16 x 1.5
6M18	M18 x 1.5
6M20	M20 x 1.5
6M22	M22 x 1.5
6M24	M24 x 1.5
6M26	M26 x 1.5

Tech Sheet 20000



Metric Socket Headed Plug for Bonded Seal

0014	Thread
09179-M10-SPG	M10 x 1
09173-M14-SPG	M14 x 1.5
09170-M16-SPG	M16 x 1.5
09176-M22-SPG	M22 x 1.5

Tech Sheet 20000



Metric Socket Headed Plug with 3869 Seal

0014	Thread
3869-M10-SPG	M10 x 1
3869-M14-SPG	M14 x 1.5
3869-M16-SPG	M16 x 1.5
3869-M22-SPG	M22 x 1.5
3869-M26-SPG	M26 x 1.5

Tech Sheet 20000



NPT Socket Headed Plug

0014	Thread
09100/HD	1/8"
09101/HD	1/4"
09102/HD	3/8"
09103/HD	1/2"
09105/HD	3/4"
09106/HD	1"

Tech Sheet 20000



NPT Solid Plug

0014	Thread
6N02	1/8"
6N04	1/4"
6N06	3/8"
6N08	1/2"
6N12	3/4"
6N16	1"
6N20	1.1/4"
6N24	1.1/2"
6N32	2"
6N40	2.1/2"
6N48	3"

Tech Sheet 20000



SAE Boss Socket Head Male Plug with O-Ring

0014	Thread
7238-04	7/16"
7238-05	1/2"
7238-06	9/16"
7238-08	3/4"
7238-10	7/8"
7238-12	1.1/16"
7238-14	1.3/16"
7238-16	1.5/16"

Tech Sheet 20000

HYDRAULIC ADAPTORS

Plugs



SAE O-Ring Boss Male Solid Plug with O-Ring

0014	Thread
19162	5/16"
19150	7/16"
19151	1/2"
19152	9/16"
19153	3/4"
19154	7/8"
19155	1.1/16"
19156	1.3/16"
19157	1.5/16"
19158	1.5/8"
19159	1.7/8"
19160	2.1/2"

Tech Sheet 20000



SAE O-Ring Face Plug with O-Ring

0014	Thread
96000	9/16"
96001	11/16"
96002	13/16"
96003	1"
96004	1.3/16"
96005	1.7/16"

Tech Sheet 20000



JIS Solid Plug 30° Cone (BSPP Threads)

0014	Thread
7681-04	1/4"
7681-06	3/8"
7681-08	1/2"
7681-12	3/4"

Tech Sheet 20000



JIS Solid Plug 30° Cone (Metric Threads)

0014	Thread
9711-14	M14 x 1.5
9711-18	M18 x 1.5
9711-22	M22 x 1.5
9711-24	M24 x 1.5
9711-30	M30 x 1.5

Tech Sheet 20000

Crosses



BSPP Male Cross 60° Cone for Bonded Seal

0014	Thread
03007	1/8"
03000	1/4"
03001	3/8"
03002	1/2"
03003	5/8"
03004	3/4"
03005	1"
03006	1.1/4"

Tech Sheet 20000



BSPP Female Cross

0014	Thread
13023	1/8"
13020	1/4"
13021	3/8"
13022	1/2"
13024	3/4"
13025	1"
13026	1.1/4"

Tech Sheet 20000



BSPP Swivel Female Cross 60° Cone

0014	Thread
Z4MB02	1/8"
Z4MB04	1/4"
Z4MB06	3/8"
Z4MB08	1/2"
Z4MB10	5/8"
Z4MB12	3/4"
Z4MB16	1"
Z4MB20	1.1/4"
Z4MB24	1.1/2"

Tech Sheet 20000



NPT Female Cross

0014	Thread
37000	1/4"
37001	3/8"
37002	1/2"
37004	1"
37006	1.1/2"

Tech Sheet 20000

Ferrules

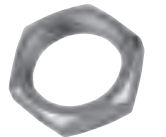


R2AT Non-skive Ferrule

0014	ID
19951	3/8"
19953	5/8"
19955	1"

Tech Sheet 20000

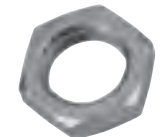
Locknuts



BSPP Locknut

0014	Thread
BLN02	1/8"
BLN04	1/4"
BLN06	3/8"
BLN08	1/2"
BLN10	5/8"
BLN12	3/4"
BLN16	1"
BLN20	1.1/4"
BLN24	1.1/2"
BLN32	2"

Tech Sheet 20000



Metric Locknut

0014	Thread
MLN12	M12 x 1.5
MLN14	M14 x 1.5
MLN16	M16 x 1.5
MLN18	M18 x 1.5
MLN20	M20 x 1.5
MLN22	M22 x 1.5
MLN24	M24 x 1.5

Tech Sheet 20000

HYDRAULIC ADAPTORS

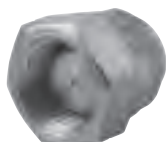
Blanking Caps



BSPP Swivel 60° Coned Blanking Cap

0014	Thread
7BSBC02	1/8"
7BSBC04	1/4"
7BSBC06	3/8"
7BSBC08	1/2"
7BSBC10	5/8"
7BSBC12	3/4"
7BSBC16	1"
7BSBC20	1.1/4"
7BSBC24	1.1/2"
7BSBC32	2"

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Metric Swivel Blanking Cap

0014	Thread
7M12	M12 x 1.5
7M14	M14 x 1.5
7M16	M16 x 1.5
7M18	M18 x 1.5
7M20	M20 x 1.5
7M22	M22 x 1.5

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JIS Female Cap (BSPP Threads)

0014	Thread
7691-04	1/4"
7691-06	3/8"
7691-08	1/2"
7691-12	3/4"

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JIS Female Cap (Metric Threads)

0014	Thread
9721-14	M14 x 1.5
9721-18	M18 x 1.5
9721-22	M22 x 1.5
9721-24	M24 x 1.5
9721-30	M30 x 1.5

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Crimp Nuts



BSPP Crimp Nut

0014	Thread
708021	1/4"
708023	1/2"
708024	5/8"
708025	3/4"
708026	1"
708027	1.1/4"
708028	1.1/2"
708029	2"

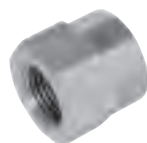
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Metric Crimp Nut

0014	Thread
708049	M10 x 1.5
708050	M12 x 1.5
708051	M14 x 1.5
708053	M18 x 1.5

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NPSM Crimp Nut

0014	Thread
18004	1/8"
18000	1/4"
18001	3/8"
18002	1/2"
18003	3/4"
18005	1"
18007	1.1/4"
18008	1.1/2"
18009	2"

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Test Point Adaptors



BSPP Male x Swivel Female, 1/8" BSP Test Point

0014	Thread
01425-TP-B02	1/8"
01427-TP-B02	1/4"
01434-TP-B02	3/8"
01440-TP-B02	1/2"
01451-TP-B02	3/4"
01458-TP-B02	1"

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1/8" BSPP Male, M16x2 Test Point Fitting

0014	Thread
MTP/B02-M16/2S	1/8"

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For Threaded
Hydraulic Valves
see pages 244-246

JIC HYDRAULIC ADAPTORS

Male/Male Adaptors

NPTF Male x JIC Male 37° Cone



0014	Thread	Thread
1NJ0207	1/8"	7/16"
1NJ0208	1/8"	1/2"
1NJ0209	1/8"	9/16"
1NJ0407	1/4"	7/16"
1NJ0408	1/4"	1/2"
1NJ0409	1/4"	9/16"
1NJ0412	1/4"	3/4"
1NJ0414	1/4"	7/8"
1NJ0607	3/8"	7/16"
1NJ0608	3/8"	1/2"
1NJ0609	3/8"	9/16"
1NJ0612	3/8"	3/4"
1NJ0614	3/8"	7/8"
1NJ0807	1/2"	7/16"
1NJ0809	1/2"	9/16"
1NJ0812	1/2"	3/4"
1NJ0814	1/2"	7/8"
1NJ0817	1/2"	1.1/16"
1NJ0821	1/2"	1.5/16"
1NJ1207	3/4"	7/16"
1NJ1209	3/4"	9/16"
1NJ1214	3/4"	7/8"
1NJ1217	3/4"	1.1/16"
1NJ1226	3/4"	1.5/8"
1NJ1612	1"	3/4"
1NJ1614	1"	7/8"
1NJ1621	1"	1.5/16"
1NJ1626	1"	1.5/8"
1NJ1630	1"	1.7/8"
1NJ2017	1.1/4"	1.1/16"
1NJ2021	1.1/4"	1.5/16"
1NJ2030	1.1/4"	1.7/8"
1NJ2040	1.1/4"	2.1/2"
1NJ2417	1.1/2"	1.1/16"
1NJ2421	1.1/2"	1.5/16"
1NJ2426	1.1/2"	1.5/8"
1NJ2430	1.1/2"	1.7/8"
1NJ2440	1.1/2"	2.1/2"
1NJ3226	2"	1.5/8"
1NJ3230	2"	1.7/8"
1NJ3240	2"	2.1/2"

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BSPP Male x JIC Male 37° Cone Restrictor Blank Only

0014	Thread	Thread
13230	1/4"	9/16"
13231	3/8"	7/16"
13232	3/8"	9/16"
13233	1/2"	9/16"

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BSPT Male x JIC Male 37° Cone



0014	Thread	Thread
1BTJ0207	1/8"	7/16"
1BTJ0208	1/8"	1/2"
1BTJ0209	1/8"	9/16"
1BTJ0407	1/4"	7/16"
1BTJ0408	1/4"	1/2"
1BTJ0409	1/4"	9/16"
1BTJ0412	1/4"	3/4"
1BTJ0607	3/8"	7/16"
1BTJ0608	3/8"	1/2"
1BTJ0609	3/8"	9/16"
1BTJ0612	3/8"	3/4"
1BTJ0809	1/2"	9/16"
1BTJ0812	1/2"	3/4"
1BTJ0814	1/2"	7/8"
1BTJ0817	1/2"	1.1/16"
1BTJ1212	3/4"	3/4"
1BTJ1214	3/4"	7/8"
1BTJ1217	3/4"	1.1/16"
1BTJ1219	3/4"	1.3/16"
1BTJ1221	3/4"	1.5/16"
1BTJ1612	1"	3/4"
1BTJ1617	1"	1.1/16"
1BTJ1621	1"	1.5/16"
1BTJ1626	1"	1.5/8"
1BTJ2021	1.1/4"	1.5/16"
1BTJ2026	1.1/4"	1.5/8"
1BTJ2426	1.1/2"	1.5/8"
1BTJ2430	1.1/2"	1.7/8"
1BTJ3230	2"	1.7/8"
1BTJ3240	2"	2.1/2"

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JIC Male x JIC Male 37° Cone



0014	Thread	Thread
1JP0505	5/16"	5/16"
1JP0507	5/16"	7/16"
1JP0707	7/16"	7/16"
1JP0709	7/16"	9/16"
1JP0807	1/2"	7/16"
1JP0808	1/2"	1/2"
1JP0809	1/2"	9/16"
1JP0812	1/2"	3/4"
1JP0814	1/2"	7/8"
1JP0909	9/16"	9/16"
1JP0914	9/16"	7/8"
1JP0917	9/16"	1.1/16"
1JP0919	9/16"	1.3/16"
1JP1207	3/4"	7/16"
1JP1209	3/4"	9/16"
1JP1212	3/4"	3/4"
1JP1214	3/4"	7/8"
1JP1414	7/8"	7/8"
1JP1417	7/8"	1.1/16"
1JP1421	7/8"	1.5/16"
1JP1717	1.1/16"	1.1/16"
1JP1721	1.1/16"	1.5/16"
1JP1919	1.3/16"	1.3/16"
1JP2121	1.5/16"	1.5/16"
1JP2126	1.5/16"	1.5/8"
1JP2130	1.5/16"	1.7/8"
1JP2626	1.5/8"	1.5/8"
1JP3030	1.7/8"	1.7/8"
1JP4040	2.1/2"	2.1/2"

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JIC Male 37° Cone x JIS Male 30° Cone (BSPP Threads)



0014	Thread	Thread
6811-04-04	7/16"	1/4"
6811-06-06	9/16"	3/8"
6811-08-08	3/4"	1/2"

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JIC Male 37° Cone x JIS Male 30° Cone (Metric Threads)



0014	Thread	Thread
8751-04-14	7/16"	M14 x 1.5
8751-06-18	9/16"	M18 x 1.5
8751-08-22	3/4"	M22 x 1.5
8751-10-24	7/8"	M24 x 1.5
8751-12-30	1.1/16"	M30 x 1.5
8751-16-33	1.5/16"	M33 x 1.5

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JIC HYDRAULIC ADAPTORS

Male/Male Adaptors



Metric Male x JIC Male 37° Cone

0014	Thread	Thread
01265	M10 x 1.5	7/16"
01274	M12 x 1.5	7/16"
01284	M12 x 1.5	9/16"
01286	M12 x 1.5	3/4"
01268	M14 x 1.5	3/8"
01291	M14 x 1.5	7/16"
01287	M14 x 1.5	9/16"
01288	M14 x 1.5	3/4"
01272	M14 x 1.5	7/8"
01295	M16 x 1.5	7/16"
01280	M16 x 1.5	9/16"
01275	M16 x 1.5	3/4"
01289	M16 x 1.5	7/8"
01299	M18 x 1.5	7/16"
01276	M18 x 1.5	9/16"
01281	M18 x 1.5	3/4"
01283	M18 x 1.5	7/8"
01298	M18 x 1.5	1.1/16"
01282	M20 x 1.5	9/16"
01277	M20 x 1.5	3/4"
01290	M20 x 1.5	7/8"
01270	M20 x 1.5	1.1/16"
01285	M22 x 1.5	9/16"
01278	M22 x 1.5	3/4"
01279	M22 x 1.5	7/8"
01294	M22 x 1.5	1.1/16"
01267	M24 x 1.5	1.1/16"
01297	M26 x 1.5	7/8"
01292	M26 x 1.5	1.1/16"

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BSPP Male 60° Cone x JIC 37° Cone Male

0014	Thread	Thread
1BJP0207	1/8"	7/16"
1BJP0208	1/8"	1/2"
1BJP0209	1/8"	9/16"
1BJP0407	1/4"	7/16"
1BJP0408	1/4"	1/2"
1BJP0409	1/4"	9/16"
1BJP0412	1/4"	3/4"
1BJP0414	1/4"	7/8"
1BJP0417	1/4"	1.1/16"
1BJP0421	1/4"	1.5/16"
1BJP0607	3/8"	7/16"
1BJP0608	3/8"	1/2"
1BJP0609	3/8"	9/16"
1BJP0612	3/8"	3/4"
1BJP0614	3/8"	7/8"
1BJP0617	3/8"	1.1/16"
1BJP0621	3/8"	1.5/16"
1BJP0807	1/2"	7/16"
1BJP0808	1/2"	1/2"
1BJP0809	1/2"	9/16"
1BJP0812	1/2"	3/4"
1BJP0814	1/2"	7/8"
1BJP0817	1/2"	1.1/16"
1BJP0821	1/2"	1.5/16"
1BJP1009	5/8"	9/16"
1BJP1012	5/8"	3/4"
1BJP1014	5/8"	7/8"
1BJP1017	5/8"	1.1/16"
1BJP1019	5/8"	1.3/16"
1BJP1021	5/8"	1.5/16"
1BJP1207	3/4"	7/16"
1BJP1208	3/4"	1/2"
1BJP1209	3/4"	9/16"
1BJP1212	3/4"	3/4"
1BJP1214	3/4"	7/8"
1BJP1217	3/4"	1.1/16"
1BJP1219	3/4"	1.3/16"
1BJP1221	3/4"	1.5/16"
1BJP1226	3/4"	1.5/8"
1BJP1230	3/4"	1.7/8"
1BJP1612	1"	3/4"
1BJP1614	1"	7/8"
1BJP1617	1"	1.1/16"
1BJP1619	1"	1.3/16"
1BJP1621	1"	1.5/16"
1BJP1626	1"	1.5/8"
1BJP1630	1"	1.7/8"
1BJP2017	1.1/4"	1.1/16"
1BJP2021	1.1/4"	1.5/16"
1BJP2026	1.1/4"	1.5/8"
1BJP2030	1.1/4"	1.7/8"
1BJP2040	1.1/4"	2.1/2"
1BJP2421	1.1/2"	1.5/16"
1BJP2426	1.1/2"	1.5/8"
1BJP2430	1.1/2"	1.7/8"
1BJP2440	1.1/2"	2.1/2"
1BJP3230	2"	1.7/8"
1BJP3240	2"	2.1/2"

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Metric Male 24° Cone x JIC Male 37° Cone

0014	To Fit Tube Size mm	Thread	Thread
01-06L04J	6	M12 x 1.5	7/16"
01-06S04J	6	M14 x 1.5	7/16"
01-08L04J	8	M14 x 1.5	7/16"
01-08S04J	8	M16 x 1.5	7/16"
01-10L06J	8	M16 x 1.5	9/16"
01-08S08J	10	M16 x 1.5	9/16"
41275-10	10	M16 x 1.5	3/4"
01-10S06J	10	M18 x 1.5	9/16"
01-12L06J	12	M18 x 1.5	9/16"
01-10S08J	10	M18 x 1.5	3/4"
01-12L08J	12	M18 x 1.5	3/4"
01-12S08J	12	M20 x 1.5	3/4"
01-14S08J	14	M20 x 1.5	3/4"
01-15L08J	15	M22 x 1.5	3/4"
01-15L12J	15	M22 x 1.5	1.1/16"
41270-20	20	M30 x 1.5	1.1/16"
41270-22	22	M30 x 1.5	1.1/16"
41262-28	28	M36 x 1.5	1.1/16"
01-35LX216J	35	M45 x 1.5	1.5/16"

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JIC HYDRAULIC ADAPTORS

Male/Male Adaptors



SAE Boss Male x JIC Male 37° Coneless O-Ring

0014	Thread	Thread
01350	7/16"	7/16"
01353	7/16"	1/2"
01351	7/16"	9/16"
01392	1/2"	7/16"
01352	1/2"	1/2"
01388	1/2"	9/16"
01354	9/16"	7/16"
01355	9/16"	1/2"
01356	9/16"	9/16"
01357	9/16"	3/4"
01358	9/16"	7/8"
01389	3/4"	7/16"
01361	3/4"	9/16"
01362	3/4"	3/4"
01363	3/4"	7/8"
01364	3/4"	1.1/16"
01386	7/8"	9/16"
01365	7/8"	3/4"
01366	7/8"	7/8"
01367	7/8"	1.1/16"
01395	1.1/16"	9/16"
01368	1.1/16"	3/4"
01370	1.1/16"	7/8"
01371	1.1/16"	1.1/16"
01373	1.1/16"	1.5/16"
01391	1.3/16"	1.3/16"
01394	1.5/16"	3/4"
01396	1.5/16"	7/8"
01377	1.5/16"	1.1/16"
01378	1.5/16"	1.5/16"
01379	1.5/16"	1.5/8"
01380	1.5/8"	1.5/16"
01381	1.5/8"	1.5/8"
01387	1.5/8"	1.7/8"
01397	1.7/8"	1.5/16"
01383	1.7/8"	1.5/8"
01384	1.7/8"	1.7/8"
01369	1.7/8"	2.1/2"
01385	2.1/2"	2.1/2"

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Metric Male 24° Cone x JIC Male 37° Cone

0014	To Fit Tube Size mm	Thread	Thread
01-22LX212J	22	M30 x 2	1.1/16"
01-25SX212J	25	M36 x 2	1.1/16"
01-30SX220J	30	M42 x 2	1.5/8"
01-35LX216J	35	M45 x 2	1.5/16"
01-38SX220J	38	M52 x 2	1.5/8"

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Male/Female Fixed Adaptors



JIC Male 37° Cone x BSPP Female Extended

0014	Male Thread	Female Thread
17004	7/16"	1/8"
17001	7/16"	1/4"

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JIC Male x 37° Cone NPT Female Extended

0014	Male Thread	Female Thread
16261	7/16"	1/8"
16250	7/16"	1/4"
16249	7/16"	3/8"
16251	9/16"	1/4"
16257	9/16"	3/8"
16258	9/16"	1/2"
16256	3/4"	3/8"
16252	3/4"	1/2"
16253	7/8"	1/2"
16254	1.1/16"	3/4"
16255	1.5/16"	1"

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JIC Male 37° Cone x JIS Female Extended 60° Internal Seat (Metric Threads)

0014	Male Thread	Female Thread
8701-04-14	7/16"	M14 x 1.5
8701-06-18	9/16"	M18 x 1.5
8701-08-22	3/4"	M22 x 1.5
8701-12-30	1.1/16"	M30 x 1.5
8701-16-33	1.5/16"	M33 x 1.5

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Male/Female Swivel Adaptors



NPT Male x JIC Swivel Female 37° Cone

0014	Male Thread	Female Thread
11201	1/4"	9/16"
11202	3/8"	3/4"
11203	1/2"	7/8"
11204	3/4"	1.1/16"
11205	1"	1.5/16"

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BSPP Male 60° Cone x JIC Swivel Female 37° Cone

0014	Male Thread	Female Thread
2BJ0207	1/8"	7/16"
2BJ0407	1/4"	7/16"
2BJ0408	1/4"	1/2"
2BJ0409	1/4"	9/16"
2BJ0412	1/4"	3/4"
2BJ0607	3/8"	7/16"
2BJ0608	3/8"	1/2"
2BJ0609	3/8"	9/16"
2BJ0612	3/8"	3/4"
2BJ0614	3/8"	7/8"
2BJ0807	1/2"	7/16"
2BJ0808	1/2"	1/2"
2BJ0809	1/2"	9/16"
2BJ0812	1/2"	3/4"
2BJ0814	1/2"	7/8"
2BJ0817	1/2"	1.1/16"
2BJ1012	5/8"	3/4"
2BJ1014	5/8"	7/8"
2BJ1017	5/8"	1.1/16"
2BJ1212	3/4"	3/4"
2BJ1214	3/4"	7/8"
2BJ1217	3/4"	1.1/16"
2BJ1219	3/4"	1.3/16"
2BJ1221	3/4"	1.5/16"
2BJ1617	1"	1.1/16"
2BJ1619	1"	1.3/16"
2BJ1621	1"	1.5/16"
2BJ1626	1"	1.5/8"
2BJ2021	1.1/4"	1.5/16"
2BJ2026	1.1/4"	1.5/8"
2BJ3230	2"	1.7/8"

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JIC HYDRAULIC ADAPTORS

Male/Female Swivel Adaptors

JIC Male 37° Cone x BSPP Swivel Female 60° Cone



0014	Male Thread	Female Thread
2JB0702	7/16"	1/8"
2JB0704	7/16"	1/4"
2JB0706	7/16"	3/8"
2JB0708	7/16"	1/2"
2JB0804	1/2"	1/4"
2JB0806	1/2"	3/8"
2JB0808	1/2"	1/2"
2JB0904	9/16"	1/4"
2JB0906	9/16"	3/8"
2JB1206	3/4"	3/8"
2JB1208	3/4"	1/2"
2JB1210	3/4"	5/8"
2JB1212	3/4"	3/4"
2JB1406	7/8"	3/8"
2JB1408	7/8"	1/2"
2JB1410	7/8"	5/8"
2JB1412	7/8"	3/4"
2JB1712	1.1/16"	3/4"
2JB2116	1.5/16"	1"
2JB2620	1.5/8"	1.1/4"

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JIC Male 37° Cone x Metric Swivel Female



0014	Male Thread	Female Thread
01664	7/16"	M12 x 1.5
01651	9/16"	M14 x 1.5
01652	9/16"	M16 x 1.5
01653	9/16"	M18 x 1.5
01654	9/16"	M20 x 1.5
01655	9/16"	M22 x 1.5
01656	3/4"	M16 x 1.5
01657	3/4"	M18 x 1.5
01659	3/4"	M22 x 1.5
01661	7/8"	M18 x 1.5
01662	7/8"	M20 x 1.5
01663	7/8"	M22 x 1.5

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JIC Male 37° Cone x JIC Swivel Female 37° Cone



0014	Male Thread	Female Thread
2J0707	7/16"	7/16"
2J0709	7/16"	9/16"
2J0712	7/16"	3/4"
2J0714	7/16"	7/8"
2J0808	1/2"	1/2"
2J0809	1/2"	9/16"
2J0907	9/16"	7/16"
2J0908	9/16"	1/2"
2J0909	9/16"	9/16"
2J0912	9/16"	3/4"
2J0914	9/16"	7/8"
2J1209	3/4"	9/16"
2J1212	3/4"	3/4"
2J1214	3/4"	7/8"
2J1217	3/4"	1.1/16"
2J1412	7/8"	3/4"
2J1414	7/8"	7/8"
2J1417	7/8"	1.1/16"
2J1712	1.1/16"	3/4"
2J1714	1.1/16"	7/8"
2J1717	1.1/16"	1.1/16"
2J1721	1.1/16"	1.5/16"
2J1919	1.3/16"	1.3/16"
2J2126	1.5/16"	1.5/8"
2J2626	1.5/8"	1.5/8"
2J2630	1.5/8"	1.7/8"

Tech Sheet 20000

Metric Male x JIC Swivel Female 37° Cone



0014	Male Thread	Female Thread
01625	M12 x 1.5	1/2"
01626	M14 x 1.5	9/16"
01627	M16 x 1.5	9/16"
01628	M16 x 1.5	3/4"
01631	M18 x 1.5	3/4"

Tech Sheet 20000

BSPP Swivel Female 60° Cone x JIC Swivel Female 37° Cone



0014	Thread	Thread
3BJ0407	1/4"	7/16"
3BJ0408	1/4"	1/2"
3BJ0409	1/4"	9/16"
3BJ0607	3/8"	7/16"
3BJ0608	3/8"	1/2"
3BJ0609	3/8"	9/16"
3BJ0612	3/8"	3/4"
3BJ0614	3/8"	7/8"
3BJ0809	1/2"	9/16"
3BJ0812	1/2"	3/4"
3BJ0814	1/2"	7/8"
3BJ0817	1/2"	1.1/16"
3BJ1014	5/8"	7/8"
3BJ1212	3/4"	3/4"
3BJ1217	3/4"	1.1/16"
3BJ1221	3/4"	1.5/16"
3BJ1617	1"	1.1/16"
3BJ1621	1"	1.5/16"
3BJ2026	1.1/4"	1.5/8"

Tech Sheet 20000

Female Swivel Adaptors

JIC Swivel Female 37° Cone x JIC Swivel Female 37° Cone



0014	Thread	Thread
3J0707	7/16"	7/16"
3J0709	7/16"	9/16"
3J0712	7/16"	3/4"
3J0808	1/2"	1/2"
3J0809	1/2"	9/16"
3J0909	9/16"	9/16"
3J0912	9/16"	3/4"
3J1212	3/4"	3/4"
3J1409	7/8"	9/16"
3J1412	7/8"	3/4"
3J1414	7/8"	7/8"
3J1717	1.1/16"	1.1/16"
3J1721	1.1/16"	1.5/16"
3J1919	1.3/16"	1.3/16"
3J2121	1.5/16"	1.5/16"
3J2626	1.5/8"	1.5/8"

Tech Sheet 20000



For **ABF Anti Bloc Grease**
see page 164

JIC HYDRAULIC ADAPTORS

90° Elbows

JIC Male x JIC Male 90° Forged Compact Elbow



0014	Thread	Thread
03085FD	7/16"	7/16"
03086FD	1/2"	1/2"
03087FD	9/16"	9/16"
03088FD	3/4"	3/4"
03089FD	7/8"	7/8"
03090FD	1.1/16"	1.1/16"
03091FD	1.3/16"	1.3/16"

Tech Sheet 20000

NPTF Male x JIC Male 90° Forged Compact Elbow



0014	Thread	Thread	Thread
04050FD	1/8"	7/16"	7/16"
04053FD	1/4"	7/16"	7/16"
04059FD	3/8"	9/16"	9/16"
04060FD	3/8"	3/4"	3/4"
04065FD	1/2"	3/4"	3/4"
04073FD	3/4"	1.1/16"	1.1/16"
04076FD	1"	1.5/16"	1.5/16"

Tech Sheet 20000

JIC Male x Male Bulkhead 90° Forged



0014	Thread	Thread
10525-03	3/8"	3/8"
10525-04	7/16"	7/16"
10525-05	1/2"	1/2"
10525-06	9/16"	9/16"
10525-08	3/4"	3/4"
10525-10	7/8"	7/8"
10525-12	1.1/16"	1.1/16"
10525-16	1.5/16"	1.5/16"

Tech Sheet 20000

JIC Male 37° Cone x BSPP Male 90° Positional Forged Elbow



0014	Thread	Thread	Thread
27070FDPOS	7/16"	1/4"	1/4"
27072FDPOS	9/16"	1/4"	1/4"
27073FDPOS	9/16"	3/8"	3/8"
27077FDPOS	3/4"	3/8"	3/8"
27074FDPOS	3/4"	1/2"	1/2"
27079FDPOS	7/8"	1/2"	1/2"
27075FDPOS	1.1/16"	3/4"	3/4"
27076FDPOS	1.5/16"	1"	1"

Tech Sheet 20000

JIC Male x JIC Swivel Female 90° Forged Compact Elbow 37° Cone



0014	Thread	Thread
05050FD	7/16"	7/16"
05051FD	1/2"	1/2"
05052FD	9/16"	9/16"
05053FD	3/4"	3/4"
05054FD	7/8"	7/8"
05055FD	1.1/16"	1.1/16"
05056FD	1.5/16"	1.5/16"

Tech Sheet 20000

NPT Male x JIC Male 90° Compact Elbow 37° Cone



0014	Thread	Thread	Thread
04086	1/8"	5/16"	5/16"
04050	1/8"	7/16"	7/16"
04051	1/8"	1/2"	1/2"
04052	1/8"	9/16"	9/16"
04053	1/4"	7/16"	7/16"
04054	1/4"	1/2"	1/2"
04055	1/4"	9/16"	9/16"
04056	1/4"	3/4"	3/4"
04087	3/8"	3/8"	3/8"
04057	3/8"	7/16"	7/16"
04058	3/8"	1/2"	1/2"
04059	3/8"	9/16"	9/16"
04060	3/8"	3/4"	3/4"
04061	3/8"	7/8"	7/8"
04048	3/8"	1.1/16"	1.1/16"
04062	1/2"	7/16"	7/16"
04063	1/2"	1/2"	1/2"
04064	1/2"	9/16"	9/16"
04065	1/2"	3/4"	3/4"
04066	1/2"	7/8"	7/8"
04082	1/2"	1.1/16"	1.1/16"
04070	3/4"	9/16"	9/16"
04071	3/4"	3/4"	3/4"
04072	3/4"	7/8"	7/8"
04073	3/4"	1.1/16"	1.1/16"
04075	3/4"	1.5/16"	1.5/16"
04085	1"	3/4"	3/4"
04089	1"	7/8"	7/8"
04074	1"	1.1/16"	1.1/16"
04076	1"	1.5/16"	1.5/16"
04077	1"	1.5/8"	1.5/8"
04078	1.1/4"	1.5/16"	1.5/16"
04079	1.1/4"	1.5/8"	1.5/8"
04083	1.1/4"	1.7/8"	1.7/8"
04084	1.1/2"	1.5/8"	1.5/8"
04080	1.1/2"	1.7/8"	1.7/8"
04088	1.1/2"	2.1/2"	2.1/2"
04081	2"	2.1/2"	2.1/2"

Tech Sheet 20000

JIC Swivel Female x JIC Swivel Female 90° Compact Elbow 37° Cone



0014	Thread	Thread
XJF0707	7/16"	7/16"
XJF0909	9/16"	9/16"
XJF1212	3/4"	3/4"
XJF1414	7/8"	7/8"
XJF1717	1.1/16"	1.1/16"
XJF1919	1.3/16"	1.3/16"
XJF2121	1.5/16"	1.5/16"

Tech Sheet 20000

NPT Male x JIC Swivel Female 90° Compact Elbow 37° Cone



0014	Male Thread	Female Thread
99001	3/8"	9/16"

Tech Sheet 20000

NPT Male x SAE Male 90° Compact Elbow 45° Cone



0014	Thread	Thread
07020	1/8"	7/16"
07021	1/8"	1/2"
07022	1/4"	7/16"
07023	1/4"	1/2"
07024	1/4"	5/8"
07025	1/4"	3/4"
07026	3/8"	7/16"
07027	3/8"	1/2"
07028	3/8"	5/8"
07029	3/8"	3/4"
07030	3/8"	7/8"
07031	1/2"	5/8"

Tech Sheet 20000



For Flaretite Seals
see page 111

JIC HYDRAULIC ADAPTORS

90° Elbows

JIC Male 37° Cone x Metric Male 90° Positional Forged Elbow



0014	Thread	Thread
29500FDPOS	7/16"	M12 x 1.5
29501FDPOS	7/16"	M14 x 1.5
29502FDPOS	9/16"	M16 x 1.5
29503FDPOS	9/16"	M18 x 1.5
29505FDPOS	3/4"	M18 x 1.5
29506FDPOS	3/4"	M20 x 1.5
29507FDPOS	3/4"	M22 x 1.5
29508FDPOS	7/8"	M22 x 1.5
29509FDPOS	1.1/16"	M22 x 1.5

Tech Sheet 20000

JIC Male 37° Cone x JIC Swivel Female 90° Swept Elbow



0014	Thread
10900	7/16"
10902	9/16"
10903	3/4"
10904	7/8"
10905	1.1/16"
10907	1.5/16"
10908	1.5/8"

Tech Sheet 20000

JIC Male 37° Cone x UNF Male 90° Positional Forged Elbow



0014	Thread	Thread
03085FDPOS	7/16"	7/16"
03087FDPOS	9/16"	9/16"
03088FDPOS	3/4"	3/4"
03089FDPOS	7/8"	7/8"
03090FDPOS	1.1/16"	1.1/16"
03092FDPOS	1.5/16"	1.5/16"

Tech Sheet 20000

BSPP Male 60° Cone x JIC Swivel Female 37° Cone 90° Compact Elbow



0014	Male Thread	Female Thread
XBMJF0409	1/4"	9/16"
XBMJF0609	3/8"	9/16"
XBMJF0612	3/8"	3/4"
XBMJF0812	1/2"	3/4"
XBMJF0814	1/2"	7/8"
XBMJF1014	5/8"	7/8"
XBMJF1217	3/4"	1.1/16"

Tech Sheet 20000

BSPP Male 60° Cone x JIC Male 90° Compact Elbow 37° Cone



0014	Thread	Thread
XMB04J07	1/4"	7/16"
XMB04J08	1/4"	1/2"
XMB04J09	1/4"	9/16"
XMB06J09	3/8"	9/16"
XMB06J12	3/8"	3/4"
XMB08J12	1/2"	3/4"
XMB08J14	1/2"	7/8"
XMB12J14	3/4"	7/8"
XMB12J17	3/4"	1.1/16"
XMB16J17	1"	1.1/16"
XMB16J21	1"	1.5/16"
XMB20J26	1.1/4"	1.5/8"
XMB24J30	1.1/2"	1.7/8"

Tech Sheet 20000

BSPT Male x JIC Male 90° Compact Elbow 37° Cone



0014	Thread	Thread
08550	1/8"	7/16"
08551	1/8"	1/2"
08552	1/8"	9/16"
08553	1/4"	7/16"
08554	1/4"	1/2"
08555	1/4"	9/16"
08556	1/4"	3/4"
08557	3/8"	7/16"
08558	3/8"	1/2"
08559	3/8"	9/16"
08560	3/8"	3/4"
08561	3/8"	7/8"
08562	1/2"	7/16"
08564	1/2"	9/16"
08565	1/2"	3/4"
08566	1/2"	7/8"
08567	1/2"	1.1/16"
08584	1/2"	1.5/16"
08568	3/4"	9/16"
08569	3/4"	3/4"
08570	3/4"	7/8"
08571	3/4"	1.1/16"
08572	3/4"	1.5/16"
08573	1"	3/4"
08585	1"	7/8"
08574	1"	1.1/16"
08575	1"	1.5/16"
08576	1"	1.5/8"
08577	1.1/4"	1.5/16"
08578	1.1/4"	1.5/8"
08579	1.1/4"	1.7/8"
08580	1.1/2"	1.5/8"
08581	1.1/2"	1.7/8"
08582	2"	2.1/2"

Tech Sheet 20000

JIC Male 37° Cone x BSPP Swivel Female 90° Compact Elbow 60° Cone



0014	Male Thread	Female Thread
09612	7/16"	1/4"
09605	9/16"	3/8"
09608	3/4"	3/8"
09606	3/4"	1/2"
09607	1.1/16"	3/4"
09609	1.5/16"	1"
09610	1.7/8"	1.1/2"

Tech Sheet 20000

JIC Male 37° Cone x JIC Male 90° Compact Elbow



0014	Thread	Thread
XMJ0909	9/16"	9/16"
XMJ1212	3/4"	3/4"
XMJ1414	7/8"	7/8"
XMJ1717	1.1/16"	1.1/16"
XMJ1919	1.3/16"	1.3/16"
XMJ2121	1.5/16"	1.5/16"
XMJ2626	1.5/8"	1.5/8"
XMJ3030	1.7/8"	1.7/8"

Tech Sheet 20000

JIC Male 37° Cone x JIC Swivel Female 90° Compact Elbow



0014	Thread	Thread
XJMF0707	7/16"	7/16"
XJMF0808	1/2"	1/2"
XJMF0909	9/16"	9/16"
XJMF1212	3/4"	3/4"
XJMF1414	7/8"	7/8"
XJMF1717	1.1/16"	1.1/16"
XJMF2121	1.5/16"	1.5/16"
XJMF2626	1.5/8"	1.5/8"

Tech Sheet 20000

JIC HYDRAULIC ADAPTORS

45° Elbows

JIC Male x JIC Swivel Female 45° Swept Elbow



0014	Thread
11905	1.1/16"
11907	1.5/16"

Tech Sheet 20000

JIC Male x JIC Male Bulkhead 45° Forged



0014	Thread
10375-04	7/16"
10375-05	1/2"
10375-06	9/16"
10375-08	3/4"
10375-10	7/8"
10375-12	1.1/16"
10375-16	1.5/16"

Tech Sheet 20000

JIC Male 37° Cone x UNF Male 45°



Positional Forged Elbow

0014	Thread	Thread
03085FDPOS-45	7/16"	7/16"
03087FDPOS-45	9/16"	9/16"
03088FDPOS-45	3/4"	3/4"
03089FDPOS-45	7/8"	7/8"
03090FDPOS-45	1.1/16"	1.1/16"
03092FDPOS-45	1.5/16"	1.5/16"

Tech Sheet 20000

Bulkheads

JIC Male x JIC Male Bulkhead 37° Cone complete with Locknut



0014	Thread
00236	3/8"
00225	7/16"
00226	1/2"
00227	9/16"
00228	3/4"
00229	7/8"
00230	1.1/16"
00234	1.3/16"
00231	1.5/16"
00232	1.5/8"
00233	1.7/8"

Tech Sheet 20000

JIC Male x JIC Swivel Female 45° Forged Compact Elbow 37° Cone



0014	Thread
05050/45FD	7/16"
05052/45FD	9/16"
05053/45FD	3/4"
05054/45FD	7/8"
05055/45FD	1.1/16"
05056/45FD	1.5/16"

Tech Sheet 20000

JIC Male x JIC Swivel Female 45° Compact Elbow 37° Cone



0014	Thread
05050/45	7/16"
05052/45	9/16"
05053/45	3/4"
05055/45	1.1/16"
05056/45	1.5/16"
05059/45	1.7/8"

Tech Sheet 20000

NPT Male x JIC Male 45° Forged Compact Elbow 37° Cone



0014	Thread	Thread
04053/45FD	1/4"	7/16"
04059/45FD	3/8"	9/16"
04060/45FD	3/8"	3/4"
04065/45FD	1/2"	3/4"
04066/45FD	1/2"	7/8"
04073/45FD	3/4"	1.1/16"
04076/45FD	1"	1.5/16"

Tech Sheet 20000

JIC Male x JIC Male Bulkhead 37° Cone No Locknut



0014	Thread
8JP0707	7/16"
8JP0808	1/2"
8JP0909	9/16"
8JP1212	3/4"
8JP1414	7/8"
8JP1717	1.1/16"
8JP2121	1.5/16"

Tech Sheet 20000

Tees

JIC Male x JIC Male x UNF Male Forced Positional On Run with O-Ring



0014	Thread
10716-04-04-04	7/16"
10716-05-05-05	1/2"
10716-06-06-06	9/16"
10716-08-08-08	3/4"
10716-10-10-10	7/8"
10716-12-12-12	1.1/16"

Tech Sheet 20000

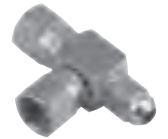
JIC Male x JIC Swivel Female x JIC Male Branch Tee 37° Cone



0014	Thread
ZMFMJ07	7/16"
ZMFMJ08	1/2"
ZMFMJ09	9/16"
ZMFMJ12	3/4"
ZMFMJ14	7/8"
ZMFMJ17	1.1/16"
ZMFMJ21	1.5/16"
ZMFMJ26	1.5/8"
ZMFMJ30	1.7/8"

Tech Sheet 20000

JIC Male x JIC Swivel Female x JIC Swivel Female Branch Tee 37° Cone



0014	Thread
ZMFFJ07	7/16"
ZMFFJ08	1/2"
ZMFFJ09	9/16"
ZMFFJ12	3/4"
ZMFFJ14	7/8"
ZMFFJ17	1.1/16"
ZMFFJ21	1.5/16"

Tech Sheet 20000

JIC Swivel Female x JIC Swivel Female x JIC Male Branch Tee 37° Cone



0014	Thread
ZFFMJ07	7/16"
ZFFMJ08	1/2"
ZFFMJ09	9/16"
ZFFMJ12	3/4"
ZFFMJ14	7/8"
ZFFMJ17	1.1/16"
ZFFMJ21	1.5/16"

Tech Sheet 20000

JIC HYDRAULIC ADAPTORS

Tees



JIC Male x JIC Male x UNF Male Forged Positional On Branch with O-Ring

0014	Thread
10715-04-04-04	7/16"
10715-05-05-05	1/2"
10715-06-06-06	9/16"
10715-08-08-08	3/4"
10715-10-10-10	7/8"
10715-12-12-12	1.1/16"

Tech Sheet 20000



JIC Male Tee 37° Cone

0014	Thread
ZMJ07	7/16"
ZMJ09	9/16"
ZMJ12	3/4"
ZMJ14	7/8"
ZMJ17	1.1/16"
ZMJ19	1.3/16"
ZMJ21	1.5/16"

Tech Sheet 20000



JIC Male x JIC Male x JIC Swivel Female Branch Tee 37° Cone

0014	Thread
ZMMFJ07	7/16"
ZMMFJ09	9/16"
ZMMFJ12	3/4"
ZMMFJ14	7/8"
ZMMFJ17	1.1/16"
ZMMFJ21	1.5/16"
ZMMFJ26	1.5/8"

Tech Sheet 20000



JIC Swivel Female Tee 37° Cone

0014	Thread
ZFJ07	7/16"
ZFJ08	1/2"
ZFJ09	9/16"
ZFJ12	3/4"
ZFJ14	7/8"
ZFJ17	1.1/16"
ZFJ21	1.5/16"

Tech Sheet 20000

Crosses



JIC Male Cross 37° Cone

0014	Thread
03030	7/16"
03031	1/2"
03032	9/16"
03033	3/4"
03034	7/8"
03036	1.1/16"
03035	1.5/16"
03037	1.5/8"

Tech Sheet 20000

Plugs



JIC Solid Plug 37° Cone

0014	Thread
6J05	5/16"
6J07	7/16"
6J08	1/2"
6J09	9/16"
6J12	3/4"
6J14	7/8"
6J17	1.1/16"
6J19	1.3/16"
6J21	1.5/16"
6J26	1.5/8"
6J30	1.7/8"
6J40	2.1/2"

Tech Sheet 20000

Blanking Caps

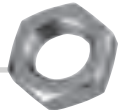


JIC Swivel 37° Coned Blanking Cap

0014	Thread
7J07	7/16"
7J08	1/2"
7J09	9/16"
7J12	3/4"
7J14	7/8"
7J17	1.1/16"
7J19	1.3/16"
7J21	1.5/16"
7J26	1.5/8"
7J30	1.7/8"
7J40	2.1/2"

Tech Sheet 20000

Locknuts



JIC Locknut

0014	Thread
JLN07	7/16"
JLN08	1/2"
JLN09	9/16"
JLN12	3/4"
JLN14	7/8"
JLN17	1.1/16"
JLN21	1.5/16"
JLN26	1.5/8"
JLN30	1.7/8"

Tech Sheet 20000

Crimp Nuts



JIC Crimp Nut

0014	Thread
708075	7/16"
708076	1/2"
708077	9/16"
708078	5/8"
708079	3/4"
708080	7/8"
708084	1.3/16"
708081	1.5/16"
708083	1.5/8"
708082	1.7/8"
708085	2.1/2"

Tech Sheet 20000

Hose Inserts



JIC Male 37° Cone x Push-in Straight

0014	Thread	To Suit Hose ID
09711	7/16"	1/4"
09712	9/16"	3/8"

Tech Sheet 20000



JIC Swivel Female 37° Cone x Push-in Straight

0014	Thread	To Suit Hose ID
09700	7/16"	1/4"
09701	9/16"	3/8"
09705	3/4"	3/8"
09702	3/4"	1/2"
09703	7/8"	5/8"
09704	1.1/16"	3/4"
09707	1.5/16"	1"

Tech Sheet 20000



JIC Swivel Female 37° Cone x Push-in 90° Swept Elbow

0014	Thread	To Suit Hose ID
09301	7/16"	1/4"
09302	9/16"	3/8"
09303	3/4"	1/2"
09300	7/8"	5/8"
09304	1.1/16"	3/4"
09305	1.5/16"	1"

Tech Sheet 20000



JIC Swivel Female x Push-in 45° Swept Elbow 37° Cone

0014	Thread	To Suit Hose ID
09320	7/16"	1/4"
09321	9/16"	3/8"
09322	3/4"	1/2"
09323	7/8"	5/8"
09324	1.1/16"	3/4"

Tech Sheet 20000

JIC HYDRAULIC ADAPTORS

Tube Nuts



Universal Metric & Imperial

0014	Thread	To Suit Tube OD mm	To Suit Tube OD
4JTN	7/16"	6	1/4"
5JTN	1/2"	8	5/16"
6JTN	9/16"	10	3/8"
8JTN	3/4"	12	1/2"
10JTN	7/8"	14, 15 & 16	5/8"
12JTN	1.1/16"	18 & 20	3/4"
16JTN	1.5/16"	25	1"
20JTN	1.5/8"	28, 30 & 32	1.1/4"
24JTN	1.7/8"	35 & 38	1.1/2"

Tech Sheet 20000

Tube Sleeves



Imperial

0014	To Suit Tube OD
4JITS	1/4"
5JITS	5/16"
6JITS	3/8"
8JITS	1/2"
10JITS	5/8"
12JITS	3/4"
16JITS	1"
20JITS	1.1/4"
24JITS	1.1/2"

Tech Sheet 20000



Metric

0014	To Suit Tube OD mm
6JMITS	6
8JMITS	8
10JMITS	10
12JMITS	12
14JMITS	14
15JMITS	15
16JMITS	16
18JMITS	18
20JMITS	20
25JMITS	25
30JMITS	30
38JMITS	38

Tech Sheet 20000

ORFS HYDRAULIC ADAPTORS

Straight Adaptors



Male x Male Adaptor

0014	Thread
9305-04	9/16"
9305-06	11/16"
9305-08	13/16"
9305-10	1"
9305-12	1.3/16"
9305-16	1.7/16"
9305-20	1.11/16"

Tech Sheet 20000



Male x Male Bulkhead Only

0014	Thread
9325-04	9/16"
9325-06	11/16"
9325-08	13/16"
9325-10	1"
9325-12	1.3/16"
9325-16	1.7/16"
9325-20	1.11/16"

Tech Sheet 20000



Bulkhead Locknut

0014	Thread
9925-04	9/16"
9925-06	11/16"
9925-08	13/16"
9925-10	1"
9925-12	1.3/16"
9925-16	1.7/16"
9925-20	1.11/16"

Tech Sheet 20000



Male x Swivel Female

0014	Male Thread	Female Thread
9015-04-06AS	9/16"	11/16"
9015-06-08AS	11/16"	13/16"
9015-10-12AS	1"	1.3/16"
9015-12-16AS	1.3/16"	1.7/16"
9015-16-20AS	1.7/16"	1.11/16"
9015-08-10AS	13/16"	1"
9015-04-12AS	9/16"	13/16"
9015-06-12AS	11/16"	1.3/16"

Tech Sheet 20000

ORFS HYDRAULIC ADAPTORS

90° Elbows

Male x Male 90° Forged Compact Elbow



0014	Thread
9505-04-04	9/16"
9505-06-06	11/16"
9505-08-08	13/16"
9505-10-10	1"
9505-12-12	1.3/16"
9505-16-16	1.7/16"

Tech Sheet 20000

Male x Swivel Female 90° Forged Compact Elbow



0014	Thread
9506-04-04	9/16"
9506-06-06	11/16"
9506-08-08	13/16"
9506-10-10	1"
9506-12-12	1.3/16"
9506-16-16	1.7/16"
9506-20-20	1.11/16"
9506-24-24	2"

Tech Sheet 20000

Male x BSPP Male 90° Positional Forged Elbow with O-Ring



0014	Thread	Thread
9515-04-04B	9/16"	1/4"
9515-08-06B	13/16"	3/8"
9515-10-08B	1"	1/2"
9515-12-12B	1.3/16"	3/4"
9515-16-16B	1.7/16"	1"

Tech Sheet 20000

Male x Male 90° Forged Bulkhead



0014	Thread
9525-04-04	9/16"
9525-06-06	11/16"
9525-08-08	13/16"
9525-10-10	1"
9525-12-12	1.3/16"

Tech Sheet 20000

Male x UNF Male 90° Positional Forged Elbow with O-Ring



0014	Thread	Thread
9515-04-04	9/16"	7/16"
9515-04-06	9/16"	9/16"
9515-06-06	11/16"	9/16"
9515-08-08	13/16"	3/4"
9515-10-10	1"	7/8"
9515-10-12	1"	1.1/16"
9515-12-08	1.3/16"	3/4"
9515-12-12	1.3/16"	1.1/16"
9515-16-16	1.7/16"	1.5/16"

Tech Sheet 20000

45° Elbows

Male x Swivel Female 45° Forged Compact Elbow



0014	Thread
9356-04-04	9/16"
9356-06-06	11/16"
9356-08-08	13/16"
9356-10-10	1"
9356-12-12	1.3/16"
9356-16-16	1.7/16"
9356-20-20	1.11/16"
9356-24-24	2"

Tech Sheet 20000

Tees

Seal: Nitrile

Forged Male Tee



0014	Thread
9705-04-04-04	9/16"
9705-06-06-06	11/16"
9705-08-08-08	13/16"
9705-10-10-10	1"
9705-12-12-12	1.3/16"
9705-16-16-16	1.7/16"

Tech Sheet 20000

Male x Female x Male Swivel Forged Run Tee



0014	Thread
9706-04-04-04	9/16"
9706-06-06-06	11/16"
9706-08-08-08	13/16"
9706-10-10-10	1"
9706-12-12-12	1.3/16"
9706-16-16-16	1.7/16"
9706-20-20-20	1.11/16"

Tech Sheet 20000

Male Tee UNF Positional on Run with O-Ring



0014	Thread A	Thread B	Thread C
9716-04-04-04	9/16"	9/16"	7/16"
9716-06-06-06	11/16"	11/16"	9/16"
9716-08-08-08	13/16"	13/16"	3/4"
9716-10-10-10	1"	1"	7/8"
9716-12-12-12	1.3/16"	1.3/16"	1.1/16"

Tech Sheet 20000

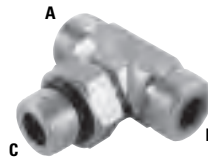
Male x Male x Swivel Female Forged Branch Tee



0014	Thread
9707-04-04-04	9/16"
9707-06-06-06	11/16"
9707-08-08-08	13/16"
9707-10-10-10	1"
9707-12-12-12	1.3/16"
9707-16-16-16	1.7/16"
9707-20-20-20	1.11/16"

Tech Sheet 20000

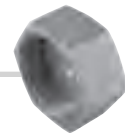
Male Tee UNF Positional on Branch Forged with O-Ring



0014	Thread A	Thread B	Thread C
9715-06-06-06	11/16"	11/16"	9/16"
9715-08-08-08	13/16"	13/16"	3/4"
9715-10-10-10	1"	1"	7/8"
9715-12-12-12	1.3/16"	1.3/16"	1.1/16"

Tech Sheet 20000

Caps



Female Thread

0014	Thread
9129-04	9/16"
9129-06	11/16"
9129-08	13/16"
9129-10	1"
9129-12	1.3/16"
9129-16	1.7/16"
9129-20	1.11/16"
9129-24	2"

Tech Sheet 20000

KR500

High Pressure Hydraulic Adaptors



HYDRAULIC ADAPTORS 1/8"-3/4" 680 BAR 1"-2" 500 BAR

KR500

Standard hydraulic adaptors do not adhere to the working pressure of multi spiral hose. Please use KR500 Hydraulic Adaptors for high pressure and multi spiral applications. Also available in stainless steel and Hiduron upon request.



Maximum Working Pressure:
1/8" to 3/4" 680 bar
1" to 2" 500 bar

Equal Male Unions



BSPP

0450	Thread
KREU2	1/8"
KREU4	1/4"
KREU6	3/8"
KREU8	1/2"
KREU10	5/8"
KREU12	3/4"
KREU16	1"
KREU20	1.1/4"
KREU24	1.1/2"
KREU32	2"

Tech Sheet 10728



BSPP x BSPT

0450	Thread
KREUPT2	1/8"
KREUPT4	1/4"
KREUPT6	3/8"
KREUPT8	1/2"
KREUPT12	3/4"
KREUPT16	1"
KREUPT20	1.1/4"
KREUPT24	1.1/2"
KREUPT32	2"

Tech Sheet 10729



BSPP x NPT

0450	Thread
KREUPAT2	1/8"
KREUPAT4	1/4"
KREUPAT6	3/8"
KREUPAT8	1/2"
KREUPAT12	3/4"
KREUPAT16	1"
KREUPAT20	1.1/4"

Tech Sheet 10730

Unequal Male Unions

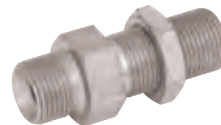


BSPP

0450	Thread	Thread
KRUU4-2	1/4"	1/8"
KRUU6-4	3/8"	1/4"
KRUU8-4	1/2"	1/4"
KRUU8-6	1/2"	3/8"
KRUU10-4	5/8"	1/4"
KRUU10-6	5/8"	3/8"
KRUU10-8	5/8"	1/2"
KRUU12-6	3/4"	3/8"
KRUU12-8	3/4"	1/2"
KRUU12-10	3/4"	5/8"
KRUU16-8	1"	1/2"
KRUU16-10	1"	5/8"
KRUU16-12	1"	3/4"
KRUU16-14	1"	7/8"
KRUU20-12	1.1/4"	3/4"
KRUU20-16	1.1/4"	1"
KRUU24-16	1.1/2"	1"
KRUU24-20	1.1/2"	1.1/4"
KRUU32-16	2"	1"
KRUU32-20	2"	1.1/4"
KRUU32-24	2"	1.1/2"

Tech Sheet 10731

Equal Male Bulkhead Unions



BSPP

0450	Thread
KREUBH4	1/4"
KREUBH6	3/8"
KREUBH8	1/2"
KREUBH10	5/8"
KREUBH12	3/4"
KREUBH16	1"
KREUBH20	1.1/4"
KREUBH24	1.1/2"

Tech Sheet 10732

Reducing Bushes



BSPP

0450	Thread	Thread
KRRB4-2	1/4"	1/8"
KRRB6-2	3/8"	1/8"
KRRB6-4	3/8"	1/4"
KRRB8-2	1/2"	1/8"
KRRB8-4	1/2"	1/4"
KRRB8-6	1/2"	3/8"
KRRB10-8	5/8"	1/2"
KRRB12-4	3/4"	1/4"
KRRB12-6	3/4"	3/8"
KRRB12-8	3/4"	1/2"
KRRB16-4	1"	1/4"
KRRB16-6	1"	3/8"
KRRB16-8	1"	1/2"
KRRB16-12	1"	3/4"
KRRB20-4	1.1/4"	1/4"
KRRB20-6	1.1/4"	3/8"
KRRB20-8	1.1/4"	1/2"
KRRB20-12	1.1/4"	3/4"
KRRB20-16	1.1/4"	1"
KRRB24-8	1.1/2"	1/2"
KRRB24-12	1.1/2"	3/4"
KRRB24-16	1.1/2"	1"
KRRB24-20	1.1/2"	1.1/4"
KRRB32-16	2"	1"
KRRB32-20	2"	1.1/4"
KRRB32-24	2"	1.1/2"

Tech Sheet 10733

Bleed Valve



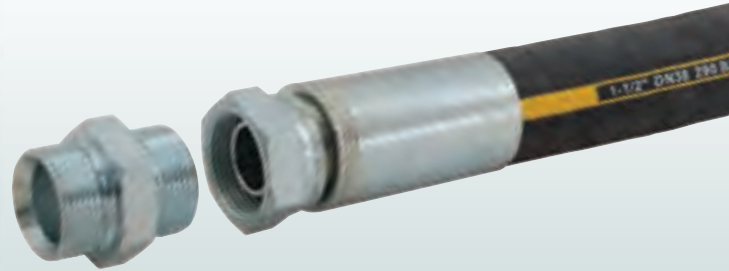
BSPP

0450	Thread
KRBV2	1/8"

Tech Sheet 10799

Minimum order quantity on selected items may apply


Over 2. years of proven high performance with a comprehensive history of product approvals and 3rd party accreditations.



HYDRAULIC ADAPTORS 1/8" - 3/4" 680 BAR 1" - 2" 500 BAR



Standard hydraulic adaptors do not adhere to the working pressure of multi spiral hose. Please use KR500 Hydraulic Adaptors for high pressure and multi spiral applications. Also available in stainless steel and Hiduron upon request.

 Maximum Working Pressure:
1/8" to 3/4" 680 bar
1" to 2" 500 bar

Male Elbows



BSPP

O450	Thread
KREME4	1/4"
KREME6	3/8"
KREME8	1/2"
KREME12	3/4"
KREME16	1"
KREME20	1.1/4"
KREME24	1.1/2"

Tech Sheet 10734

Fixed Bushes



BSPT Male x BSPP Female

O450	Male Thread	Female Thread
KRAB4T-4	1/4"	1/4"
KRAB6T-4	3/8"	1/4"
KRAB6T-6	3/8"	3/8"
KRAB8T-8	1/2"	1/2"
KRAB12T-12	3/4"	3/4"
KRAB16T-16	1"	1"
KRAB24T-24	1.1/2"	1.1/2"

Tech Sheet 10736

Female Tees



BSPP

O450	Thread
KREFT2	1/8"
KREFT4	1/4"
KREFT6	3/8"
KREFT8	1/2"
KREFT12	3/4"
KREFT16	1"
KREFT20	1.1/4"
KREFT24	1.1/2"
KREFT32	2"

Tech Sheet 10738

Female Elbows



BSPP

O450	Thread
KREFE2	1/8"
KREFE4	1/4"
KREFE6	3/8"
KREFE8	1/2"
KREFE12	3/4"
KREFE16	1"
KREFE20	1.1/4"
KREFE24	1.1/2"
KREFE32	2"

Tech Sheet 10735

Female Hexagon Sockets



BSPP

O450	Thread	Thread
KRFA4-2	1/4"	1/8"
KRFA4-4	1/4"	1/4"
KRFA6-2	3/8"	1/8"
KRFA6-4	3/8"	1/4"
KRFA6-6	3/8"	3/8"
KRFA8-2	1/2"	1/8"
KRFA8-4	1/2"	1/4"
KRFA8-6	1/2"	3/8"
KRFA8-8	1/2"	1/2"
KRFA12-12	3/4"	3/4"
KRFA16-16	1"	1"
KRFA20-20	1.1/4"	1.1/4"

Tech Sheet 10737

Female Branch Tees



BSPP

O450	Thread
KRFOMT4	1/4"
KRFOMT6	3/8"
KRFOMT8	1/2"
KRFOMT12	3/4"
KRFOMT16	1"
KRFOMT20	1.1/4"
KRFOMT24	1.1/2"

Tech Sheet 10739

Minimum order quantity on selected items may apply

HYDRAULIC ADAPTORS

1/8" - 3/4" 680 BAR 1" - 2" 500 BAR

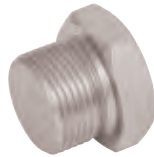


Standard hydraulic adaptors do not adhere to the working pressure of multi spiral hose. Please use KR500 Hydraulic Adaptors for high pressure and multi spiral applications. Also available in stainless steel and Hiduron upon request.



Maximum Working Pressure:
1/8" to 3/4" 680 bar
1" to 2" 500 bar

Plugs



BSPP

0450	Thread
KRP2	1/8"
KRP4	1/4"
KRP6	3/8"
KRP8	1/2"
KRP10	5/8"
KRP12	3/4"
KRP16	1"
KRP20	1.1/4"
KRP24	1.1/2"
KRP32	2"

Tech Sheet 10740



BSPT

0450	Thread
KRPT2	1/8"
KRPT4	1/4"
KRPT6	3/8"
KRPT8	1/2"
KRPT12	3/4"
KRPT16	1"
KRPT20	1.1/4"

Tech Sheet 10741

Gauge Adaptors



BSPP

0450	Thread	Thread
KRGA4-4	1/4"	1/4"
KRGA6-4	3/8"	1/4"
KRGA8-4	1/2"	1/4"

Tech Sheet 10742

Stud Standpipes



OD Imperial to BSPP

0450	OD	Thread
KR4-2SSAR	1/4"	1/8"
KR4-4SSAR	1/4"	1/4"
KR5-2SSAR	5/16"	1/8"
KR5-4SSAR	5/16"	1/4"
KR5-6SSAR	5/16"	3/8"
KR6-4SSAR	3/8"	1/4"
KR6-6SSAR	3/8"	3/8"
KR8-4SSAR	1/2"	1/4"
KR8-6SSAR	1/2"	3/8"
KR8-8SSAR	1/2"	1/2"
KR10-6SSAR	5/8"	3/8"
KR10-8SSAR	5/8"	1/2"
KR10-12SSAR	5/8"	3/4"
KR12-8SSAR	3/4"	1/2"
KR12-12SSAR	3/4"	3/4"
KR14-8SSAR	7/8"	1/2"
KR14-12SSAR	7/8"	3/4"
KR14-16SSAR	7/8"	1"
KR16-12SSAR	1"	3/4"
KR16-16SSAR	1"	1"
KR20-12SSAR	1.1/4"	3/4"
KR20-16SSAR	1.1/4"	1"
KR20-20SSAR	1.1/4"	1.1/4"
KR32-24SSAR	2"	1.1/2"
KR32-32SSAR	2"	2"

Tech Sheet 10743



OD Metric to BSPP

0450	OD mm	Thread
KRM6-2SSAR	6	1/8"
KRM6-4SSAR	6	1/4"
KRM8-2SSAR	8	1/8"
KRM8-4SSAR	8	1/4"
KRM8-6SSAR	8	3/8"
KRM10-4SSAR	10	1/4"
KRM10-6SSAR	10	3/8"
KRM12-4SSAR	12	1/4"
KRM12-6SSAR	12	3/8"
KRM12-8SSAR	12	1/2"
KRM16-6SSAR	16	3/8"
KRM16-8SSAR	16	1/2"
KRM16-12SSAR	16	3/4"
KRM20-8SSAR	20	1/2"
KRM20-12SSAR	20	3/4"
KRM22-8SSAR	22	1/2"
KRM22-12SSAR	22	3/4"
KRM22-16SSAR	22	1"
KRM25-12SSAR	25	3/4"
KRM25-16SSAR	25	1"
KRM30-12SSAR	30	3/4"
KRM30-16SSAR	30	1"
KRM30-20SSAR	30	1.1/4"
KRM38-16SSAR	38	1"
KRM38-20SSAR	38	1.1/4"
KRM38-24SSAR	38	1.1/2"
KRM50-24SSAR	50	1.1/2"
KRM50-32SSAR	50	2"

Tech Sheet 10744

Banjos

Seals sold separately



BSPP

0450	Thread
KRA4-4BJ	1/4"
KRA6-6BJ	3/8"
KRA8-8BJ	1/2"
KRA12-12BJ	3/4"

Tech Sheet 10745

Bleed Plugs (Air)



BSPP

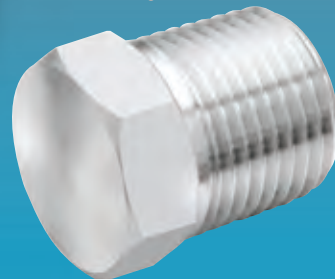
0450	Thread
KRP2AB	1/8"

Tech Sheet 10746

Minimum order quantity on selected items may apply



Stainless Steel Adaptors



HYDRAULIC STAINLESS STEEL ADAPTORS

stainless
steel



Male x Male Straight Adaptors



BSPP x BSPP

0044	Thread	Thread
2025-1401	1/8"	1/8"
2025-1419	1/4"	1/8"
2025-1427	1/4"	1/4"
2025-1435	3/8"	1/8"
2025-1443	3/8"	1/4"
2025-1450	3/8"	3/8"
2025-1468	1/2"	1/4"
2025-1476	1/2"	3/8"
2025-1484	1/2"	1/2"
2025-1495	5/8"	1/2"
2025-1505	5/8"	5/8"
2025-1520	3/4"	1/4"
2025-1526	3/4"	3/8"
2025-1534	3/4"	1/2"
2025-1538	3/4"	5/8"
2025-1559	3/4"	3/4"
2025-1567	1"	1/2"
2025-1572	1"	5/8"
2025-1583	1"	3/4"
2025-1591	1"	1"
2025-1595	1.1/4"	3/4"
2025-1600	1.1/4"	1"
2025-1609	1.1/4"	1.1/4"
2025-1611	1.1/2"	1"
2025-1615	1.1/2"	1.1/4"
2025-1617	1.1/2"	1.1/2"
2025-1620	2"	1.1/2"
2025-1625	2"	2"

Tech Sheet 20884



BSPP x BSPT

0044	Thread
2033-9693	1/4"
2033-9761	3/8"
2033-9719	1/2"
2033-9727	3/4"
2033-9735	1"

Tech Sheet 20884

BSPP x NPT

0044	BSPP Thread	NPT Thread
2025-1633	1/8"	1/8"
2025-1636	1/8"	1/4"
2025-1639	1/4"	1/8"
2025-1641	1/4"	1/4"
2025-1643	1/4"	3/8"
2025-1656	3/8"	1/4"
2025-1658	3/8"	3/8"
2025-1661	3/8"	1/2"
2025-1671	1/2"	3/8"
2025-1674	1/2"	1/2"
2025-1677	5/8"	1/2"
2025-1679	5/8"	3/4"
2025-1681	3/4"	1/2"
2025-1682	3/4"	3/4"
2025-1684	3/4"	1"
2025-1687	1"	3/4"
2025-1690	1"	1"
2025-1700	1.1/4"	1.1/4"
2025-1710	1.1/2"	1.1/2"
2025-1720	2"	2"

Tech Sheet 20884



BSPT x BSPT

0044	Thread	Thread
2025-1708	1/8"	1/8"
2025-1715	1/4"	1/8"
2025-1724	1/4"	1/4"
2025-1727	3/8"	1/8"
2025-1732	3/8"	1/4"
2025-1740	3/8"	3/8"
2025-1845	1/2"	1/8"
2025-1852	1/2"	1/4"
2025-1856	1/2"	3/8"
2025-1865	1/2"	1/2"
2025-1881	3/4"	1/8"
2025-1885	3/4"	1/4"
2025-1889	3/4"	3/8"
2025-1894	3/4"	1/2"
2025-1898	3/4"	3/4"
2025-1905	1"	1/8"
2025-1910	1"	1/4"
2025-1915	1"	3/8"
2025-1920	1"	1/2"
2025-1925	1"	3/4"
2025-1931	1"	1"
2025-1935	1.1/4"	1"
2025-1940	1.1/4"	1.1/4"
2025-1945	1.1/2"	1"
2025-1950	1.1/2"	1.1/2"
2025-1956	2"	1"
2025-1960	2"	1.1/2"
2025-1965	2"	2"

Tech Sheet 20884

Male x Female Straight Adaptors



Male x Female Swivel, BSPP

0044	Male Thread	Female Thread
2025-1930	1/8"	1/8"
2025-1948	1/4"	1/4"
2025-1955	1/4"	3/8"
2025-1961	1/4"	1/2"
2025-1963	3/8"	1/4"
2025-1971	3/8"	3/8"
2025-1989	3/8"	1/2"
2025-1997	1/2"	3/8"
2025-2003	1/2"	1/2"
2025-2020	1/2"	3/4"
2025-2029	3/4"	1/2"
2025-2037	3/4"	3/4"
2025-2043	3/4"	1"
2025-2060	1"	1"

Tech Sheet 20884

Female Swivel, BSPP x BSPT Male

0044	Thread
2033-9862	1/8"
2033-9867	1/4"
2033-9875	3/8"
2033-9883	1/2"
2033-9891	3/4"
2033-9896	1"

Tech Sheet 20884

Male x Female Fixed, BSPP

0044	Male Thread	Female Thread
2025-8121	1/8"	1/8"
2025-8131	1/4"	1/8"
2025-8142	1/4"	1/4"
2025-8151	3/8"	1/8"
2025-8161	3/8"	1/4"
2025-8171	3/8"	3/8"
2025-8181	1/2"	1/4"
2025-8201	1/2"	3/8"
2025-8211	1/2"	1/2"
2025-8191	3/4"	1/4"
2025-8221	3/4"	3/8"
2025-8231	3/4"	1/2"
2025-8241	3/4"	3/4"
2025-8251	1"	1/2"
2025-8261	1"	1"
2025-8271	1"	3/4"
2025-8281	1.1/4"	1/2"
2025-8291	1.1/4"	3/4"
2025-8301	1.1/4"	1"
2025-8311	1.1/4"	1.1/4"
2025-8321	1.1/2"	3/4"
2025-8331	1.1/2"	1"
2025-8341	1.1/2"	1.1/2"
2025-8351	1.1/2"	1.1/4"
2025-8361	2"	2"

Tech Sheet 20884



HYDRAULIC STAINLESS STEEL ADAPTORS

stainless
steel



Female x Female Straight Adaptors



Swivel, BSPP

0044	Thread	Thread
2025-2078	1/4"	1/4"
2025-2082	3/8"	1/4"
2025-2086	3/8"	3/8"
2025-2089	1/2"	1/4"
2025-2093	1/2"	3/8"
2025-2094	1/2"	1/2"
2025-2100	5/8"	5/8"
2025-2122	3/4"	1/2"
2025-2132	3/4"	3/4"
2025-2110	1"	1"

Tech Sheet 20884

Fixed Female Hexagon Socket, BSPP



0044	Thread
2025-2466	1/8"
2025-2474	1/4"
2025-2482	3/8"
2025-2490	1/2"
2025-2508	3/4"
2025-2516	1"

Tech Sheet 20884

Elbows



Equal Elbow, BSPP

0044	Thread
2033-9922	1/8"
2033-9933	1/4"
2033-9941	3/8"
2033-9958	1/2"
2033-9962	5/8"
2033-9963	3/4"
2033-9974	1"
2033-9982	1.1/4"
2033-9992	1.1/2"

Tech Sheet 20884

Male x Female Swivel, BSPP



0044	Thread
2025-2185	1/8"
2025-2193	1/4"
2025-2201	3/8"
2025-2219	1/2"
2025-2223	5/8"
2025-2227	3/4"
2025-2232	1"
2025-2240	1.1/4"
2025-2245	1.1/2"

Tech Sheet 20884

Female Swivel, BSPP



0044	Thread
2025-2128	1/8"
2025-2136	1/4"
2025-2151	1/2"
2025-2169	3/4"

Tech Sheet 20884

Tees



Male, BSPP

0044	Thread
2025-2321	1/8"
2025-2326	1/4"
2025-2334	3/8"
2025-2342	1/2"
2025-2449	3/4"
2025-2354	1"

Tech Sheet 20884



Female Swivel, BSPP

0044	Thread
2025-2250	1/4"
2025-2258	3/8"
2025-2263	1/2"
2025-2273	5/8"
2025-2283	3/4"
2025-2293	1"

Tech Sheet 20884



Female Swivel Branch, BSPP

0044	Thread
2025-4001	1/8"
2025-4011	1/4"
2025-4021	3/8"
2025-4031	1/2"
2025-4041	3/4"
2025-4051	1"

Tech Sheet 20884



Female Swivel Run, BSPP

0044	Thread
2025-4501	1/8"
2025-4511	1/4"
2025-4521	3/8"
2025-4531	1/2"
2025-4541	3/4"
2025-4551	1"

Tech Sheet 20884

Bulkhead complete with Locknut



BSPP

0044	Thread
2025-2391	1/4"
2025-2409	3/8"
2025-2417	1/2"
2025-2425	5/8"
2025-2433	3/4"
2025-2441	1"
2025-2445	1.1/4"
2025-2450	1.1/2"

Tech Sheet 20884

Plugs



BSPP

0044	Thread
2033-4002	1/8"
2033-4012	1/4"
2033-4022	3/8"
2033-4032	1/2"
2033-4042	5/8"
2033-4052	3/4"
2033-4062	1"
2033-4072	1.1/4"
2033-4082	1.1/2"
2033-4092	2"

Tech Sheet 20884

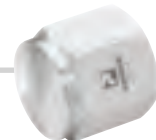


BSPT

0044	Thread
2025-2524	1/8"
2025-2532	1/4"
2025-2540	3/8"
2025-2557	1/2"
2025-2565	3/4"
2025-2573	1"
2025-2582	1.1/4"
2025-2592	1.1/2"
2025-2602	2"

Tech Sheet 20884

Caps



BSPP

0044	Thread
2033-8301	1/8"
2033-8311	1/4"
2033-8321	3/8"
2033-8331	1/2"
2033-8341	3/4"
2033-8351	1"

Tech Sheet 20884

316 PRECISION INSTRUMENTATION PIPE FITTINGS

stainless
steel



Hexagon Nipples

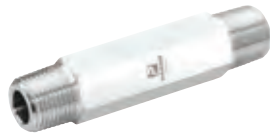


Male x Male, NPT

0342	Thread
PHN-01	1/16"
PHN-02	1/8"
PHN-04	1/4"
PHN-06	3/8"
PHN-08	1/2"
PHN-12	3/4"
PHN-16	1"

Tech Sheet 20885

Hexagon Nipples, Long



Male x Male, NPT

0342	Thread	Length
PHNL-02-L1.5	1/8"	1.5"
PHNL-02-L2	1/8"	2"
PHNL-02-L3	1/8"	3"
PHNL-02-L4	1/8"	4"
PHNL-02-L6	1/8"	6"
PHNL-04-L1.5	1/4"	1.5"
PHNL-04-L2	1/4"	2"
PHNL-04-L3	1/4"	3"
PHNL-04-L4	1/4"	4"
PHNL-04-L6	1/4"	6"
PHNL-06-L1.5	3/8"	1.5"
PHNL-06-L2	3/8"	2"
PHNL-06-L3	3/8"	3"
PHNL-06-L4	3/8"	4"
PHNL-06-L6	3/8"	6"
PHNL-08-L1.5	1/2"	1.5"
PHNL-08-L2	1/2"	2"
PHNL-08-L3	1/2"	3"
PHNL-08-L4	1/2"	4"
PHNL-08-L6	1/2"	6"
PHNL-12-L2	3/4"	2"
PHNL-12-L3	3/4"	3"
PHNL-12-L4	3/4"	4"
PHNL-12-L6	3/4"	6"
PHNL-16-L1.5	1"	1.5"
PHNL-16-L2	1"	2"
PHNL-16-L3	1"	3"
PHNL-16-L4	1"	4"
PHNL-16-L6	1"	6"

Tech Sheet 20885

Reducing Hexagon Nipples



Male x Male, NPT

0342	Thread	Thread
PRHN-02-01	1/8"	1/16"
PRHN-04-02	1/4"	1/8"
PRHN-06-02	3/8"	1/8"
PRHN-06-04	3/8"	1/4"
PRHN-08-02	1/2"	1/8"
PRHN-08-04	1/2"	1/4"
PRHN-08-06	1/2"	3/8"
PRHN-12-06	3/4"	1/4"
PRHN-12-08	3/4"	1/2"
PRHN-16-08	1"	1/2"
PRHN-16-12	1"	3/4"

Tech Sheet 20885

Hexagon Coupling



Female x Female, NPT

0342	Thread
PHC-02	1/8"
PHC-04	1/4"
PHC-06	3/8"
PHC-08	1/2"
PHC-12	3/4"
PHC-16	1"

Tech Sheet 20885

Reducing Hexagon Couplings



Female x Female, NPT

0342	Thread	Thread
PRC-04-02	1/4"	1/8"
PRC-06-04	3/8"	1/4"
PRC-08-02	1/2"	1/8"
PRC-08-04	1/2"	1/4"
PRC-08-06	1/2"	3/8"
PRC-12-04	3/4"	1/4"
PRC-12-08	3/4"	1/2"
PRC-16-08	1"	1/2"

Tech Sheet 20885

Equal Male x Female Adaptors



Male x Female, NPT

0342	Thread
PPA-02	1/8"
PPA-04	1/4"
PPA-06	3/8"
PPA-08	1/2"
PPA-12	3/4"
PPA-16	1"

Tech Sheet 20885

Reducing Male x Female Adaptors



Male x Female, NPT

0342	Male Thread	Female Thread
PRA-02-01	1/16"	1/8"
PRA-04-02	1/8"	1/4"
PRA-06-02	1/8"	3/8"
PRA-06-04	1/4"	3/8"
PRA-08-02	1/8"	1/2"
PRA-08-04	1/4"	1/2"
PRA-08-06	3/8"	1/2"
PRA-12-04	1/4"	3/4"
PRA-12-06	3/8"	3/4"
PRA-12-08	1/2"	3/4"
PRA-16-04	1/4"	1"
PRA-16-08	1/2"	1"
PRA-16-12	3/4"	1"

Tech Sheet 20885

Gauge Adaptor



Male NPT x Female, BSPP

0342	Male Thread	Female Thread
PGA-04-04	1/4"	1/4"
PGA-06-06	3/8"	3/8"
PGA-08-08	1/2"	1/2"

Tech Sheet 20885

316 PRECISION INSTRUMENTATION PIPE FITTINGS

stainless
steel



Reducing Bushes



Male x Female, NPT

0342	Male Thread	Female Thread
PRB-02-01	1/8"	1/16"
PRB-04-02	1/4"	1/8"
PRB-06-02	3/8"	1/8"
PRB-06-04	3/8"	1/4"
PRB-08-02	1/2"	1/8"
PRB-08-04	1/2"	1/4"
PRB-08-06	1/2"	3/8"
PRB-12-04	3/4"	1/4"
PRB-12-06	3/4"	3/8"
PRB-12-08	3/4"	1/2"
PRB-16-04	1"	1/4"
PRB-16-06	1"	3/8"
PRB-16-08	1"	1/2"
PRB-16-12	1"	3/4"

Tech Sheet 20885

Pipe Caps



NPT

0342	Thread
PCP-02	1/8"
PCP-04	1/4"
PCP-06	3/8"
PCP-08	1/2"
PCP-12	3/4"
PCP-16	1"

Tech Sheet 20885

Pipe Plugs



NPT

0342	Thread
PP-01	1/16"
PP-02	1/8"
PP-04	1/4"
PP-06	3/8"
PP-08	1/2"
PP-12	3/4"
PP-16	1"

Tech Sheet 20885

Equal Elbows



Female, NPT

0342	Thread
PPFE-02	1/8"
PPFE-04	1/4"
PPFE-06	3/8"
PPFE-08	1/2"
PPFE-12	3/4"
PPFE-16	1"

Tech Sheet 20885



Male, NPT

0342	Thread
PPME-02	1/8"
PPME-04	1/4"
PPME-06	3/8"
PPME-08	1/2"

Tech Sheet 20885



Male x Female, NPT

0342	Thread
PSE-01	1/16"
PSE-02	1/8"
PSE-04	1/4"
PSE-06	3/8"
PSE-08	1/2"
PSE-12	3/4"
PSE-16	1"

Tech Sheet 20885

Equal Tees



Female, NPT

0342	Thread
PFT-02	1/8"
PFT-04	1/4"
PFT-06	3/8"
PFT-08	1/2"
PFT-12	3/4"
PFT-16	1"

Tech Sheet 20885



Male, NPT

0342	Thread
PMT-02	1/8"
PMT-04	1/4"
PMT-06	3/8"
PMT-08	1/2"

Tech Sheet 20885

Branch Tees



Female x Male, NPT

0342	Thread
PBT-02	1/8"
PBT-04	1/4"
PBT-06	3/8"
PBT-08	1/2"

Tech Sheet 20885

Equal Crosses



Female, NPT

0342	Thread
PPC-02	1/8"
PPC-04	1/4"
PPC-06	3/8"
PPC-08	1/2"
PPC-12	3/4"
PPC-16	1"

Tech Sheet 20885

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



Male x Male Straight Adaptors



BSPP x BSPP

0339	Thread	Thread
2G-2G-MM-10K	1/8"	1/8"
2G-4G-MM-10K	1/8"	1/4"
2G-6G-MM-10K	1/8"	3/8"
2G-8G-MM-10K	1/8"	1/2"
2G-12G-MM-10K	1/8"	3/4"
2G-16G-MM-10K	1/8"	1"
4G-4G-MM-10K	1/4"	1/4"
4G-6G-MM-10K	1/4"	3/8"
4G-8G-MM-10K	1/4"	1/2"
4G-12G-MM-10K	1/4"	3/4"
4G-16G-MM-10K	1/4"	1"
6G-6G-MM-10K	3/8"	3/8"
6G-8G-MM-10K	3/8"	1/2"
6G-12G-MM-10K	3/8"	3/4"
6G-16G-MM-10K	3/8"	1"
8G-8G-MM-10K	1/2"	1/2"
8G-12G-MM-10K	1/2"	3/4"
8G-16G-MM-10K	1/2"	1"
12G-12G-MM-10K	3/4"	3/4"
12G-16G-MM-10K	3/4"	1"
16G-16G-MM-10K	1"	1"

Tech Sheet 20887



BSPP x JIC

0339	Thread	Thread
2G-4J-MM-10K	1/8"	7/16"
2G-6J-MM-10K	1/8"	9/16"
4G-4J-MM-10K	1/4"	7/16"
4G-6J-MM-10K	1/4"	9/16"
4G-8J-MM-10K	1/4"	3/4"
6G-4J-MM-10K	3/8"	7/16"
6G-6J-MM-10K	3/8"	9/16"
6G-8J-MM-10K	3/8"	3/4"
6G-10J-MM-10K	3/8"	7/8"
6G-12J-MM-10K	3/8"	1.1/16"
8G-4J-MM-10K	1/2"	7/16"
8G-8J-MM-10K	1/2"	3/4"
8G-10J-MM-10K	1/2"	7/8"
8G-12J-MM-10K	1/2"	1.1/16"
8G-16J-MM-10K	1/2"	1.5/16"
12G-8J-MM-10K	3/4"	3/4"
12G-10J-MM-10K	3/4"	7/8"
12G-12J-MM-10K	3/4"	1.1/16"
12G-16J-MM-10K	3/4"	1.5/16"
16G-10J-MM-10K	1"	7/8"
16G-12J-MM-10K	1"	1.1/16"
16G-16J-MM-10K	1"	1.5/16"

Tech Sheet 20887



BSPP x NPT

0339	Thread	Thread
2G-2N-MM-10K	1/8"	1/8"
2G-4N-MM-10K	1/8"	1/4"
2G-6N-MM-10K	1/8"	3/8"
2G-8N-MM-10K	1/8"	1/2"
2G-12N-MM-10K	1/8"	3/4"
2G-16N-MM-10K	1/8"	1"
4G-2N-MM-10K	1/4"	1/8"
4G-4N-MM-10K	1/4"	1/4"
4G-6N-MM-10K	1/4"	3/8"
4G-8N-MM-10K	1/4"	1/2"
4G-12N-MM-10K	1/4"	3/4"
4G-16N-MM-10K	1/4"	1"
6G-4N-MM-10K	3/8"	1/4"
6G-6N-MM-10K	3/8"	3/8"
6G-8N-MM-10K	3/8"	1/2"
6G-12N-MM-10K	3/8"	3/4"
6G-16N-MM-10K	3/8"	1"
8G-4N-MM-10K	1/2"	1/4"
8G-6N-MM-10K	1/2"	3/8"
8G-8N-MM-10K	1/2"	1/2"
8G-12N-MM-10K	1/2"	3/4"
8G-16N-MM-10K	1/2"	1"
12G-12N-MM-10K	3/4"	3/4"
12G-16N-MM-10K	3/4"	1"
16G-16N-MM-10K	1"	1"

Tech Sheet 20887




NPT x NPT

0339	Thread	Thread
2N-2N-MM-10K	1/8"	1/8"
2N-4N-MM-10K	1/8"	1/4"
4N-4N-MM-10K	1/4"	1/4"
4N-6N-MM-10K	1/4"	3/8"
4N-8N-MM-10K	1/4"	1/2"
6N-2N-MM-10K	3/8"	1/8"
6N-6N-MM-10K	3/8"	3/8"
6N-8N-MM-10K	3/8"	1/2"
8N-2N-MM-10K	1/2"	1/8"
8N-8N-MM-10K	1/2"	1/2"
12N-2N-MM-10K	3/4"	1/8"
12N-4N-MM-10K	3/4"	1/4"
12N-6N-MM-10K	3/4"	3/8"
12N-8N-MM-10K	3/4"	1/2"
12N-12N-MM-10K	3/4"	3/4"
16N-2N-MM-10K	1"	1/8"
16N-4N-MM-10K	1"	1/4"
16N-6N-MM-10K	1"	3/8"
16N-8N-MM-10K	1"	1/2"
16N-12N-MM-10K	1"	3/4"
16N-16N-MM-10K	1"	1"

Tech Sheet 20887

These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating.

All BSPP fittings are 60° coned for connection to hoses.

 **Maximum Working Pressure:**
10,000 psi (690 bar)



NPT x JIC

0339	Thread	Thread
2N-2J-MM-10K	1/8"	5/16"
2N-4J-MM-10K	1/8"	7/16"
4N-4J-MM-10K	1/4"	7/16"
4N-6J-MM-10K	1/4"	9/16"
4N-8J-MM-10K	1/4"	3/4"
6N-4J-MM-10K	3/8"	7/16"
6N-6J-MM-10K	3/8"	9/16"
6N-8J-MM-10K	3/8"	3/4"
6N-12J-MM-10K	3/8"	1.1/16"
8N-4J-MM-10K	1/2"	7/16"
8N-6J-MM-10K	1/2"	9/16"
8N-8J-MM-10K	1/2"	3/4"
8N-12J-MM-10K	1/2"	1.1/16"
12N-8J-MM-10K	3/4"	3/4"
12N-12J-MM-10K	3/4"	1.1/16"
12N-16J-MM-10K	3/4"	1.5/16"
16N-12J-MM-10K	1"	1.1/16"
16N-16J-MM-10K	1"	1.5/16"

Tech Sheet 20887



JIC x JIC

0339	Thread	Thread
4J-4J-MM-10K	7/16"	7/16"
4J-6J-MM-10K	7/16"	9/16"
4J-8J-MM-10K	7/16"	3/4"
6J-6J-MM-10K	9/16"	9/16"
6J-8J-MM-10K	9/16"	3/4"
6J-10J-MM-10K	9/16"	7/8"
8J-8J-MM-10K	3/4"	3/4"
8J-10J-MM-10K	3/4"	7/8"
8J-12J-MM-10K	3/4"	1.1/16"
10J-10J-MM-10K	7/8"	7/8"
10J-12J-MM-10K	7/8"	1.1/16"
10J-16J-MM-10K	7/8"	1.5/16"
12J-16J-MM-10K	1.1/16"	1.5/16"
16J-16J-MM-10K	1.5/16"	1.5/16"

Tech Sheet 20887

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.

Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Straight Adaptors



BSPP x BSPP

0339	Male Thread	Female Thread
2G-2G-MF-A-10K	1/8"	1/8"
2G-4G-MF-A-10K	1/8"	1/4"
2G-6G-MF-A-10K	1/8"	3/8"
2G-8G-MF-A-10K	1/8"	1/2"
2G-12G-MF-A-10K	1/8"	3/4"
4G-4G-MF-A-10K	1/4"	1/4"
4G-6G-MF-A-10K	1/4"	3/8"
4G-8G-MF-A-10K	1/4"	1/2"
4G-12G-MF-A-10K	1/4"	3/4"
4G-16G-MF-A-10K	1/4"	1"
6G-6G-MF-A-10K	3/8"	3/8"
6G-8G-MF-A-10K	3/8"	1/2"
6G-12G-MF-A-10K	3/8"	3/4"
6G-16G-MF-A-10K	3/8"	1"
8G-8G-MF-A-10K	1/2"	1/2"
8G-12G-MF-A-10K	1/2"	3/4"
8G-16G-MF-A-10K	1/2"	1"
12G-12G-MF-A-10K	3/4"	3/4"
12G-16G-MF-A-10K	3/4"	1"
16G-16G-MF-A-10K	1"	1"

Tech Sheet 20887



NPT x NPT

0339	Male Thread	Female Thread
2N-2N-MF-A-10K	1/8"	1/8"
2N-4N-MF-A-10K	1/8"	1/4"
2N-6N-MF-A-10K	1/8"	3/8"
2N-8N-MF-A-10K	1/8"	1/2"
2N-12N-MF-A-10K	1/8"	3/4"
4N-4N-MF-A-10K	1/4"	1/4"
4N-6N-MF-A-10K	1/4"	3/8"
4N-8N-MF-A-10K	1/4"	1/2"
4N-12N-MF-A-10K	1/4"	3/4"
4N-16N-MF-A-10K	1/4"	1"
6N-6N-MF-A-10K	3/8"	3/8"
6N-8N-MF-A-10K	3/8"	1/2"
6N-12N-MF-A-10K	3/8"	3/4"
6N-16N-MF-A-10K	3/8"	1"
8N-8N-MF-A-10K	1/2"	1/2"
8N-12N-MF-A-10K	1/2"	3/4"
8N-16N-MF-A-10K	1/2"	1"
12N-12N-MF-A-10K	3/4"	3/4"
12N-16N-MF-A-10K	3/4"	1"
16N-16N-MF-A-10K	1"	1"

Tech Sheet 20887

JIC x NPT

0339	Male Thread	Female Thread
4J-2N-MF-A-10K	7/16"-20	1/8"
4J-4N-MF-A-10K	7/16"-20	1/4"
6J-4N-MF-A-10K	9/16"-18	1/4"
4J-6N-MF-A-10K	7/16"-20	3/8"
6J-6N-MF-A-10K	9/16"-18	3/8"
8J-6N-MF-A-10K	3/4"-16	3/8"
8J-8N-MF-A-10K	9/16"-18	1/2"
10J-8N-MF-A-10K	3/4"-16	1/2"
12J-8N-MF-A-10K	7/8"-14	1/2"
12J-12N-MF-A-10K	3/4"-16	1/2"
16J-16N-MF-A-10K	7/8"-14	1/2"

Tech Sheet 20887



BSPP x JIC, Swivel

0339	Male Thread	Female Thread
4G-4J-MF-10K	1/4"	7/16"
4G-5J-MF-10K	1/4"	1/2"
4G-6J-MF-10K	1/4"	9/16"
6G-6J-MF-10K	3/8"	9/16"
8G-6J-MF-10K	1/2"	9/16"
6G-8J-MF-10K	3/8"	3/4"
8G-8J-MF-10K	1/2"	3/4"
6G-10J-MF-10K	3/8"	7/8"
8G-10J-MF-10K	1/2"	7/8"
12G-10J-MF-10K	3/4"	7/8"
8G-12J-MF-10K	1/2"	1.1/16"
12G-12J-MF-10K	3/4"	1.1/16"
16G-12J-MF-10K	1"	1.1/16"
12G-16J-MF-10K	3/4"	1.5/16"
16G-16J-MF-10K	1"	1.5/16"

Tech Sheet 20887

NPT x JIC, Swivel

0339	Male Thread	Female Thread
4N-4J-MF-10K	1/4"	7/16"
6N-6J-MF-10K	3/8"	9/16"
6N-8J-MF-10K	3/8"	3/4"
8N-10J-MF-10K	1/2"	7/8"
8N-12J-MF-10K	1/2"	1.1/16"
12N-12J-MF-10K	3/4"	1.1/16"
12N-14J-MF-10K	3/4"	1.3/16"
12N-16J-MF-10K	3/4"	1.5/16"
16N-16J-MF-10K	1"	1.5/16"

Tech Sheet 20887



JIC x JIC, Swivel

0339	Male Thread	Female Thread
4J-4J-MF-10K	7/16"	7/16"
4J-6J-MF-10K	7/16"	9/16"
4J-8J-MF-10K	7/16"	3/4"
6J-4J-MF-10K	9/16"	7/16"
6J-6J-MF-10K	9/16"	9/16"
6J-8J-MF-10K	9/16"	3/4"
8J-4J-MF-10K	3/4"	7/16"
8J-6J-MF-10K	3/4"	9/16"
10J-8J-MF-10K	7/8"	3/4"
12J-8J-MF-10K	1.1/16"	3/4"
12J-12J-MF-10K	1.1/16"	1.1/16"
14J-12J-MF-10K	1.3/16"	1.1/16"
16J-12J-MF-10K	1.5/16"	1.1/16"
16J-16J-MF-10K	1.5/16"	1.5/16"

Tech Sheet 20887



For Hydraulic Adaptors
see pages 82-84

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Straight Reducers



BSPP

0339	Male Thread	Female Thread
4G-2G-MF-B-10K	1/4"	1/8"
6G-2G-MF-B-10K	3/8"	1/8"
6G-4G-MF-B-10K	3/8"	1/4"
8G-2G-MF-B-10K	1/2"	1/8"
8G-4G-MF-B-10K	1/2"	1/4"
8G-6G-MF-B-10K	1/2"	3/8"
12G-2G-MF-B-10K	3/4"	1/8"
12G-4G-MF-B-10K	3/4"	1/4"
12G-6G-MF-B-10K	3/4"	3/8"
12G-8G-MF-B-10K	3/4"	1/2"
16G-2G-MF-B-10K	1"	1/8"
16G-4G-MF-B-10K	1"	1/4"
16G-6G-MF-B-10K	1"	3/8"
16G-8G-MF-B-10K	1"	1/2"
16G-12G-MF-B-10K	1"	3/4"

Tech Sheet 20887



NPT

0339	Male Thread	Female Thread
4N-2N-MF-B-10K	1/4"	1/8"
6N-2N-MF-B-10K	3/8"	1/8"
6N-4N-MF-B-10K	3/8"	1/4"
8N-2N-MF-B-10K	1/2"	1/8"
8N-4N-MF-B-10K	1/2"	1/4"
8N-6N-MF-B-10K	1/2"	3/8"
12N-2N-MF-B-10K	3/4"	1/8"
12N-4N-MF-B-10K	3/4"	1/4"
12N-6N-MF-B-10K	3/4"	3/8"
12N-8N-MF-B-10K	3/4"	1/2"
16N-2N-MF-B-10K	1"	1/8"
16N-4N-MF-B-10K	1"	1/4"
16N-6N-MF-B-10K	1"	3/8"
16N-8N-MF-B-10K	1"	1/2"
16N-12N-MF-B-10K	1"	3/4"

Tech Sheet 20887

Female x Female Straight Adaptors



Swivel, BSPP

0339	Thread	Thread
4G-4G-FF-10K	1/4"	1/4"
4G-6G-FF-10K	1/4"	3/8"
4G-8G-FF-10K	1/4"	1/2"
6G-6G-FF-10K	3/8"	3/8"
6G-8G-FF-10K	3/8"	1/2"
8G-8G-FF-10K	1/2"	1/2"
12G-12G-FF-10K	3/4"	3/4"
16G-16G-FF-10K	1"	1"

Tech Sheet 20887



Fixed, NPT

0339	Thread	Thread
2N-2N-FF-10K	1/8"	1/8"
2N-4N-FF-10K	1/8"	1/4"
2N-6N-FF-10K	1/8"	3/8"
2N-8N-FF-10K	1/8"	1/2"
2N-12N-FF-10K	1/8"	3/4"
2N-16N-FF-10K	1/8"	1"
4N-4N-FF-10K	1/4"	1/4"
4N-6N-FF-10K	1/4"	3/8"
4N-8N-FF-10K	1/4"	1/2"
4N-12N-FF-10K	1/4"	3/4"
4N-16N-FF-10K	1/4"	1"
6N-6N-FF-10K	3/8"	3/8"
6N-8N-FF-10K	3/8"	1/2"
6N-12N-FF-10K	3/8"	3/4"
6N-16N-FF-10K	3/8"	1"
8N-8N-FF-10K	1/2"	1/2"
8N-12N-FF-10K	1/2"	3/4"
8N-16N-FF-10K	1/2"	1"
12N-12N-FF-10K	3/4"	3/4"
12N-16N-FF-10K	3/4"	1"
16N-16N-FF-10K	1"	1"

Tech Sheet 20887



Swivel, JIC

0339	Thread	Thread
4J-4J-FF-10K	7/16"	7/16"
4J-6J-FF-10K	7/16"	9/16"
4J-8J-FF-10K	9/16"	3/4"
6J-6J-FF-10K	9/16"	9/16"
6J-8J-FF-10K	9/16"	3/4"
8J-8J-FF-10K	3/4"	3/4"
12J-12J-FF-10K	1.1/16"	1.1/16"
16J-16J-FF-10K	1.5/16"	1.5/16"

Tech Sheet 20887

Male x Male Elbows



BSPP

0339	Thread
2G-E-MM-10K	1/8"
4G-E-MM-10K	1/4"
6G-E-MM-10K	3/8"
8G-E-MM-10K	1/2"
12G-E-MM-10K	3/4"
16G-E-MM-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-E-MM-10K	1/8"
4N-E-MM-10K	1/4"
6N-E-MM-10K	3/8"
8N-E-MM-10K	1/2"
12N-E-MM-10K	3/4"
16N-E-MM-10K	1"

Tech Sheet 20887

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Elbows



Swivel, BSPP

0339	Thread
2G-E-MF-10K	1/8"
4G-E-MF-10K	1/4"
6G-E-MF-10K	3/8"
8G-E-MF-10K	1/2"
12G-E-MF-10K	3/4"
16G-E-MF-10K	1"

Tech Sheet 20887



Fixed, NPT

0339	Thread
2N-E-MF-10K	1/8"
4N-E-MF-10K	1/4"
6N-E-MF-10K	3/8"
8N-E-MF-10K	1/2"
12N-E-MF-10K	3/4"
16N-E-MF-10K	1"

Tech Sheet 20887



Swivel, JIC

0339	Thread
4J-E-MF-10K	7/16"
6J-E-MF-10K	9/16"
8J-E-MF-10K	3/4"
10J-E-MF-10K	7/8"
12J-E-MF-10K	1.1/16"
16J-E-MF-10K	1.5/16"

Tech Sheet 20887



NPT x JIC

0339	Male Thread	Female Thread
4N-4J-E-MF-10K	1/4"	7/16"
6N-6J-E-MF-10K	3/8"	9/16"
8N-8J-E-MF-10K	1/2"	3/4"
12N-12J-E-MF-10K	3/4"	1.1/16"

Tech Sheet 20887

Female x Female Elbows



BSPP

0339	Thread
2G-E-FF-10K	1/8"
4G-E-FF-10K	1/4"
6G-E-FF-10K	3/8"
8G-E-FF-10K	1/2"
12G-E-FF-10K	3/4"
16G-E-FF-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-E-10K	1/8"
4N-E-10K	1/4"
6N-E-10K	3/8"
8N-E-10K	1/2"
12N-E-10K	3/4"
16N-E-10K	1"

Tech Sheet 20887



JIC

0339	Thread
2J-E-FF-10K	7/16"
4J-E-FF-10K	9/16"
6J-E-FF-10K	3/4"
8J-E-FF-10K	7/8"
12J-E-FF-10K	1.1/16"
16J-E-FF-10K	1.5/16"

Tech Sheet 20887

Male x Male Tees



BSPP

0339	Thread
2G-T-MM-10K	1/8"
4G-T-MM-10K	1/4"
6G-T-MM-10K	3/8"
8G-T-MM-10K	1/2"
12G-T-MM-10K	3/4"
16G-T-MM-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-T-MM-10K	1/8"
4N-T-MM-10K	1/4"
6N-T-MM-10K	3/8"
8N-T-MM-10K	1/2"
12N-T-MM-10K	3/4"
16N-T-MM-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-T-MM-10K	7/16"
5J-T-MM-10K	1/2"
6J-T-MM-10K	9/16"
8J-T-MM-10K	3/4"
10J-T-MM-10K	7/8"
12J-T-MM-10K	1.1/16"
14J-T-MM-10K	1.3/16"
16J-T-MM-10K	1.5/16"

Tech Sheet 20887



stainless steel



For Stainless Steel Gauges
see pages 414-416

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Female x Female Tees



BSPP

0339	Thread
2G-T-FF-10K	1/8"
4G-T-FF-10K	1/4"
6G-T-FF-10K	3/8"
8G-T-FF-10K	1/2"
12G-T-FF-10K	3/4"
16G-T-FF-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-T-10K	1/8"
4N-T-10K	1/4"
6N-T-10K	3/8"
8N-T-10K	1/2"
12N-T-10K	3/4"

Tech Sheet 20887



JIC

0339	Thread
2J-T-FF-10K	7/16"
4J-T-FF-10K	9/16"
6J-T-FF-10K	3/4"
8J-T-FF-10K	7/8"
12J-T-FF-10K	1.1/16"
16J-T-FF-10K	1.5/16"

Tech Sheet 20887

Female Equal Cross



NPT

0339	Thread
2N-X-10K	1/8"
4N-X-10K	1/4"
6N-X-10K	3/8"
8N-X-10K	1/2"
12N-X-10K	3/4"
16N-X-10K	1"

Tech Sheet 20887

Plugs



BSPP

0339	Thread
2G-P-10K	1/8"
4G-P-10K	1/4"
6G-P-10K	3/8"
8G-P-10K	1/2"
12G-P-10K	3/4"
16G-P-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-P-10K	1/8"
4N-P-10K	1/4"
6N-P-10K	3/8"
8N-P-10K	1/2"
12N-P-10K	3/4"
16N-P-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-P-10K	7/16"
6J-P-10K	9/16"
8J-P-10K	3/4"
10J-P-10K	7/8"
12J-P-10K	1.1/16"
16J-P-10K	1.5/16"

Tech Sheet 20887

Caps



BSPP

0339	Thread
2G-C-10K	1/8"
4G-C-10K	1/4"
6G-C-10K	3/8"
8G-C-10K	1/2"
12G-C-10K	3/4"
16G-C-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-C-10K	1/8"
4N-C-10K	1/4"
6N-C-10K	3/8"
8N-C-10K	1/2"
12N-C-10K	3/4"
16N-C-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-C-10K	7/16"
6J-C-10K	9/16"
8J-C-10K	3/4"
10J-C-10K	7/8"
12J-C-10K	1.1/16"
16J-C-10K	1.5/16"

Tech Sheet 20887



For Glycerine Gauges & Accessories
see pages 263-264

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Male Stud Couplings



UNF

0215	Thread
205BM6	7/16"-20
205BM8	1/2"-20
205BM10	9/16"-18
205BM12	3/4"-16
205BM16	7/8"-14
205BM20	1.1/16"-12
205BM22	1.3/16"-12
205BM25	1.5/16"-12
205BM32	1.5/8"-12

Tech Sheet 20886



UNF x BSPT

0215	Thread	Thread
210BM6R18	7/16"-20	1/8"
210BM6R14	7/16"-20	1/4"
210BM6R12	7/16"-20	1/2"
210BM8R18	1/2"-20	1/8"
210BM8R14	1/2"-20	1/4"
210BM10R14	9/16"-18	1/4"
210BM10R18	9/16"-18	1/8"
210BM10R38	9/16"-18	3/8"
210BM10R12	9/16"-18	1/2"
210BM12R14	3/4"-16	1/4"
210BM12R38	3/4"-16	3/8"
210BM12R12	3/4"-16	1/2"
210BM16R12	7/8"-14	1/2"
210BM16R34	7/8"-14	3/4"
210BM20R12	1.1/16"-12	1/2"
210BM20R34	1.1/16"-12	3/4"
210BM20R1	1.1/16"-12	1"
210BM22R34	1.3/16"-12	3/4"
210BM25R34	1.5/16"-12	3/4"
210BM25R1	1.5/16"-12	1"
210BM32R1	1.5/8"-12	1"
210BM32R114	1.5/8"-12	1.1/4"
210BM38R112	1.7/8"-12	1.1/2"

Tech Sheet 20886



UNF x BSPP

0215	Thread	Thread
210SM6G18	7/16"-20	1/8"
210SM6G14	7/16"-20	1/4"
210SM6G38	7/16"-20	3/8"
210SM6G12	7/16"-20	1/2"
210SM8G18	1/2"-20	1/8"
210SM8G14	1/2"-20	1/4"
210SM8G38	1/2"-20	3/8"
210SM10G18	9/16"-18	1/8"
210SM10G14	9/16"-18	1/4"
210SM10G38	9/16"-18	3/8"
210SM10G12	9/16"-18	1/2"
210SM12G14	3/4"-16	1/4"
210SM12G38	3/4"-16	3/8"
210SM12G12	3/4"-16	1/2"
210SM12G34	3/4"-16	3/4"
210SM16G38	7/8"-14	3/8"
210SM16G12	7/8"-14	1/2"
210SM16G34	7/8"-14	3/4"
210SM20G12	1.1/16"-12	1/2"
210SM20G34	1.1/16"-12	3/4"
210SM20G1	1.1/16"-12	1"
210SM22G34	1.3/16"-12	3/4"
210SM25G34	1.5/16"-12	3/4"
210SM25G1	1.5/16"-12	1"
210SM25G114	1.5/16"-12	1.1/4"
210SM32G1	1.5/8"-12	1"
210SM32G114	1.5/8"-12	1.1/4"
210SM38G114	1.7/8"-12	1.1/4"
210SM38G112	1.7/8"-12	1.1/2"

Tech Sheet 20886



UNF x NPT

0215	Thread	Thread
214BM6N18	7/16"-20	1/8"
214BM6N14	7/16"-20	1/4"
214BM8N18	1/2"-20	1/8"
214BM8N14	1/2"-20	1/4"
214BM10N18	9/16"-18	1/8"
214BM10N14	9/16"-18	1/4"
214BM10N38	9/16"-18	3/8"
214BM10N12	9/16"-18	1/2"
214BM12N14	3/4"-16	1/4"
214BM12N38	3/4"-16	3/8"
214BM12N12	3/4"-16	1/2"
214BM12N34	3/4"-16	3/4"
214BM16N12	7/8"-14	1/2"
214BM20N12	1.1/16"-12	1/2"
214BM20N34	1.1/16"-12	3/4"
214BM20N1	1.1/16"-12	1"
214BM25N34	1.5/16"-12	3/4"
214BM25N1	1.5/16"-12	1"
214BM32N1	1.5/8"-12	1"
214BM32N114	1.5/8"-12	1.1/4"
214BM38N114	1.7/8"-12	1.1/4"
214BM38N112	1.7/8"-12	1.1/2"

Tech Sheet 20886

stainless
steel



For 316 Stainless Steel Tubing
see page 183

For Flare Seals see page 111

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Female Stud Couplings



Male UNF x Female BSPP

0215	Male Thread	Female Thread
230BM6G18	7/16"-20	1/8"
230BM6G14	7/16"-20	1/4"
230BM6G12	7/16"-20	1/2"
230BM8G14	1/2"-20	1/4"
230BM10G18	9/16"-18	1/8"
230BM10G14	9/16"-18	1/4"
230BM10G38	9/16"-18	3/8"
230BM10G12	9/16"-18	1/2"
230BM12G14	3/4"-16	1/4"
230BM12G38	3/4"-16	3/8"
230BM12G12	3/4"-16	1/2"
230BM12G34	3/4"-16	3/4"
230BM16G38	7/8"-14	3/8"
230BM16G12	7/8"-14	1/2"
230BM16G34	7/8"-14	3/4"
230BM18G1	1.1/16"-12	1"
230BM22G34	1.3/16"-12	3/4"
230BM25G34	1.5/16"-12	3/4"
230BM25G1	1.5/16"-12	1"
230BM32G1	1.5/8"-12	1"
230BM32G114	1.5/8"-12	1.1/4"
230BM38G114	1.7/8"-12	1.1/2"
230BM38G112	1.7/8"-12	1.1/2"

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Male UNF x Female NPT

0215	Male Thread	Female Thread
232BM6N18	7/16"-20	1/8"
232BM6N14	7/16"-20	1/4"
232BM8N14	1/2"-20	1/4"
232BM10N14	9/16"-18	1/4"
232BM10N38	9/16"-18	3/8"
232BM12N12	3/4"-16	1/2"
232BM20N12	1.1/16"-12	1/2"
232BM20N34	1.1/16"-12	3/4"
232BM25N1	1.5/16"-12	1"
232BM32N114	1.5/8"-12	1.1/4"
232BM38N112	1.7/8"-12	1.1/2"

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Male UNF x Female BSPT

0215	Male Thread	Female Thread
231M6R18	7/16"-20	1/8"
231M6R14	7/16"-20	1/4"
231M6R12	7/16"-20	1/2"
231M8R18	1/2"-20	1/8"
231M8R14	1/2"-20	1/4"
231M10R18	9/16"-18	1/8"
231M10R14	9/16"-18	1/4"
231M10R38	9/16"-18	3/8"
231M10R12	9/16"-18	1/2"
231M12R14	3/4"-16	1/4"
231M12R38	3/4"-16	3/8"
231M12R12	3/4"-16	1/2"
231M12R34	3/4"-16	3/4"
231M16R38	7/8"-14	3/8"
231M16R12	7/8"-14	1/2"
231M16R34	7/8"-14	3/4"
231M18R34	1.1/16"-12	3/4"
231M18R1	1.1/16"-12	1"
231M22R34	1.3/16"-12	3/4"
231M25R34	1.5/16"-12	3/4"
231M25R1	1.5/16"-12	1"
231M32R1	1.5/8"-12	1"
231M32R114	1.5/8"-12	1.1/4"
231M38R114	1.7/8"-12	1.1/4"
231M38R112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Female Swivel Connectors



Male UNF x Female UNF

0215	Male Thread	Female Thread
273M6U716	7/16"-20	7/16"-20
273M8U716	1/2"-20	7/16"-20
273M8U12	1/2"-20	1/2"-20
273M10U716	9/16"-18	7/16"-20
273M10U916	9/16"-18	9/16"-18
273M12U916	3/4"-16	9/16"-18
273M16U34	7/8"-14	3/4"-16
273M18U34	1.1/16"-12	3/4"-16
273M18U1116	1.1/16"-12	1.1/16"-12
273M22U1116	1.3/16"-12	1.1/16"-12
273M25U1116	1.5/16"-12	1.1/16"-12
273M25U1516	1.5/16"-12	1.5/16"-12

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Male BSPP x Female UNF

0215	Male Thread	Female Thread
273M6G18	1/8"	7/16"-20
273M8G18	1/8"	1/2"-20
273M8G14	1/4"	1/2"-20
273M10G14	1/4"	9/16"-18
273M10G38	3/8"	9/16"-18
273M12G38	3/8"	3/4"-16
273M16G12	1/2"	7/8"-14
273M20G34	3/4"	1.1/16"-12
273M22G34	3/4"	1.3/16"-12
273M25G1	1"	1.5/16"-12
273M32G114	1.1/4"	1.5/8"-12
273M38G112	1.1/2"	1.7/8"-12

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Male NPT x Female UNF

0215	Male Thread	Female Thread
276M6N18	1/8"	7/16"-20
276M8N18	1/8"	1/2"-20
276M6N14	1/4"	7/16"-20
276M8N14	1/4"	1/2"-20
276M10N14	1/4"	9/16"-18
276M10N38	3/8"	9/16"-18
276M12N38	3/8"	3/4"-16
276M16N12	1/2"	7/8"-14
276M20N12	1/2"	1.1/16"-12
276M20N34	3/4"	1.1/16"-12
276M22N34	3/4"	1.3/16"-12
276M25N34	3/4"	1.5/16"-12
276M25N1	1"	1.5/16"-12
276M32N114	1.1/4"	1.5/8"-12
276M38N112	1.1/2"	1.7/8"-12

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Male BSPT x Female UNF

0215	Male Thread	Female Thread
273M6R18	1/8"	7/16"-20
273M8R14	1/4"	1/2"-20
273M10R14	1/4"	9/16"-18
273M12R14	1/4"	3/4"-16
273M12R38	3/8"	3/4"-16
273M16R12	1/2"	7/8"-14
273M20R12	1/2"	1.1/16"-12
273M20R34	3/4"	1.1/16"-12
273M22R34	3/4"	1.3/16"-12
273M25R34	3/4"	1.5/16"-12
273M25R1	1"	1.5/16"-12
273M32R114	1.1/4"	1.5/8"-12
273M38R112	1.1/2"	1.7/8"-12

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37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Bulkhead Unions



Bulkhead complete with Locknut, UNF

0215	Thread
204M6U716	7/16"-20
204M8U12	1/2"-20
204M10U916	9/16"-18
204M12U34	3/4"-16
204M16U78	7/8"-14
204M18U1116	1.1/16"-12
204M22U1316	1.3/16"-12
204M25U1516	1.5/16"-12
204M32U158	1.5/8"-12
204M38U178	1.7/8"-12

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Bulkhead Locknuts

0215	Thread
199M6U716	7/16"-20
199M8U12	1/2"-20
199M10U916	9/16"-18
199M12U34	3/4"-16
199M16U78	7/8"-14
199M18U1116	1.1/16"-12
199M22U1316	1.3/16"-12
199M25U1516	1.5/16"-12
199M32U158	1.5/8"-12
199M38U178	1.7/8"-12

Tech Sheet 20886

Fixed Elbows



UNF

0215	Thread
206BM6	7/16"-20
206BM8	1/2"-20
206BM12	3/4"-16
206BM20	1.1/16"-12
206BM22	1.3/16"-12
206BM25	1.5/16"-12
206BM32	1.5/8"-12
206BM38	1.7/8"-12

Tech Sheet 20886

UNF Male x BSPT Male

0215	Thread	Thread
206M6R18	7/16"-20	1/8"
206M6R14	7/16"-20	1/4"
206M6R12	7/16"-20	1/2"
206M8R18	1/2"-20	1/8"
206M8R14	1/2"-20	1/4"
206M10R18	9/16"-18	1/8"
206M10R14	9/16"-18	1/4"
206M10R38	9/16"-18	3/8"
206M10R12	9/16"-18	1/2"
206M12R14	3/4"-16	1/4"
206M12R38	3/4"-16	3/8"
206M12R12	3/4"-16	1/2"
206M12R34	3/4"-16	3/4"
206M16R38	7/8"-14	3/8"
206M16R12	7/8"-14	1/2"
206M16R34	7/8"-14	3/4"
206M18R34	1.1/16"-12	3/4"
206M18R1	1.1/16"-12	1"
206M22R34	1.3/16"-12	3/4"
206M25R34	1.5/16"-12	3/4"
206M25R1	1.5/16"-12	1"
206M32R1	1.5/8"-12	1"
206M32R114	1.5/8"-12	1.1/4"
206M38R114	1.7/8"-12	1.1/4"
206M38R112	1.7/8"-12	1.1/2"

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UNF Male x 45° NPT Male

0215	Thread	Thread
285M6N18	7/16"-20	1/8"
285M8N14	1/2"-20	1/8"
285M10N12	9/16"-18	1/2"
285M12N18	3/4"-16	3/8"
285M16N14	7/8"-14	1/2"
285M18N18	1.1/16"-12	3/4"
285M22N14	1.3/16"-12	3/4"
285M25N38	1.5/16"-12	1"
285M32N12	1.5/8"-12	1.1/4"
285M38N14	1.7/8"-12	1.1/2"

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For Hydraulic Oil
see page 283

For Flareite Seals see page 111

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Swivel Elbows



Male x Female, UNF

0215	Thread
275M6U716	7/16"-20
275M8U12	1/2"-20
275M10U916	9/16"-18
275M12U34	3/4"-16
275M16U78	7/8"-14
275M18U1116	1.1/16"-12
275M22U1316	1.3/16"-12
275M25U1516	1.5/16"-12
275M32U158	1.5/8"-12
275M38U178	1.7/8"-12

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Equal Female, UNF

0215	Thread
265M6U716	7/16"-20
265M8U12	1/2"-20
265M10U916	9/16"-18
265M12U34	3/4"-16
265M16U78	7/8"-14
265M18U1116	1.1/16"-12
265M22U1316	1.3/16"-12
265M25U1516	1.5/16"-12
265M32U158	1.5/8"-12
265M38U178	1.7/8"-12

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NPT Male x UNF Female

0215	Thread	Thread
275M6N18	7/16"-20	1/8"
275M6N14	7/16"-20	1/4"
275M6N12	7/16"-20	1/2"
275M8N18	1/2"-20	1/8"
275M8N14	1/2"-20	1/4"
275M10N18	9/16"-18	1/8"
275M10N14	9/16"-18	1/4"
275M10N38	9/16"-18	3/8"
275M10N12	9/16"-18	1/2"
275M12N14	3/4"-16	1/4"
275M12N38	3/4"-16	3/8"
275M12N12	3/4"-16	1/2"
275M12N34	3/4"-16	3/4"
275M16N38	7/8"-14	3/8"
275M16N12	7/8"-14	1/2"
275M16N34	7/8"-14	3/4"
275M18N34	1.1/16"-12	3/4"
275M18N1	1.1/16"-12	1"
275M22N34	1.3/16"-12	3/4"
275M25N34	1.5/16"-12	3/4"
275M25N1	1.5/16"-12	1"
275M32N1	1.5/8"-12	1"
275M32N114	1.5/8"-12	1.1/4"
275M38N114	1.7/8"-12	1.1/4"
275M38N112	1.7/8"-12	1.1/2"

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90° Position Elbows



UNF x BSPP

0215	Thread	Thread
216SM6G18	7/16"-20	1/8"
216SM6G14	7/16"-20	1/4"
216SM8G18	1/2"-20	1/8"
216SM10G38	9/16"-18	3/8"
216SM12G14	3/4"-16	1/4"
216SM12G38	3/4"-16	3/8"
216SM12G12	3/4"-16	1/2"
216SM12G34	3/4"-16	3/4"
216SM16G14	7/8"-14	1/4"
216SM16G38	7/8"-14	3/8"
216SM16G12	7/8"-14	1/2"
216SM16G34	7/8"-14	3/4"
216SM20G12	1.1/16"-12	1/2"
216SM20G34	1.1/16"-12	3/4"
216SM22G12	1.3/16"-12	1/2"
216SM22G34	1.3/16"-12	3/4"
216SM22G1	1.3/16"-12	1/2"
216SM25G12	1.5/16"-12	1/2"
216SM25G1	1.5/16"-12	1"
216SM32G1	1.5/8"-12	1"
216SM38G112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Fixed Tees



UNF

0215	Thread
207BM6	7/16"-20
207BM8	1/2"-20
207BM10	9/16"-18
207BM12	3/4"-16
207BM16	7/8"-14
207BM20	1.1/16"-12
207BM22	1.3/16"-12
207BM25	1.5/16"-12
207BM32	1.5/8"-12

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UNF Male x NPT Male Branch

0215	Thread	Thread
307M6N18	7/16"-20	1/8"
307M6N14	7/16"-20	1/4"
307M6N12	7/16"-20	1/2"
307M8N18	1/2"-20	1/8"
307M8N14	1/2"-20	1/4"
307M10N18	9/16"-18	1/8"
307M10N14	9/16"-18	1/4"
307M10N38	9/16"-18	3/8"
307M10N12	9/16"-18	1/2"
307M12N14	3/4"-16	1/4"
307M12N38	3/4"-16	3/8"
307M12N12	3/4"-16	1/2"
307M12N34	3/4"-16	3/4"
307M16N38	7/8"-14	3/8"
307M16N12	7/8"-14	1/2"
307M16N34	7/8"-14	3/4"
307M18N34	1.1/16"-12	3/4"
307M18N1	1.1/16"-12	1"
307M22N34	1.3/16"-12	3/4"
307M25N34	1.5/16"-12	3/4"
307M25N1	1.5/16"-12	1"
307M32N1	1.5/8"-12	1"
307M32N114	1.5/8"-12	1.1/4"
307M38N114	1.7/8"-12	1.1/4"
307M38N112	1.7/8"-12	1.1/2"

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37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Fixed Tees



UNF Male x NPT Male Run

0215	Thread	Thread
309M6N18	7/16"-20	1/8"
309M6N14	7/16"-20	1/4"
309M6N12	7/16"-20	1/2"
309M8N18	1/2"-20	1/8"
309M8N14	1/2"-20	1/4"
309M10N18	9/16"-18	1/8"
309M10N14	9/16"-18	1/4"
309M10N38	9/16"-18	3/8"
309M10N12	9/16"-18	1/2"
309M12N14	3/4"-16	1/4"
309M12N38	3/4"-16	3/8"
309M12N12	3/4"-16	1/2"
309M12N34	3/4"-16	3/4"
309M16N38	7/8"-14	3/8"
309M16N12	7/8"-14	1/2"
309M16N34	7/8"-14	3/4"
309M18N34	1.1/16"-12	3/4"
309M18N1	1.1/16"-12	1"
309M22N34	1.3/16"-12	3/4"
309M25N34	1.5/16"-12	3/4"
309M25N1	1.5/16"-12	1"
309M32N1	1.5/8"-12	1"
309M32N114	1.5/8"-12	1.1/4"
309M38N114	1.7/8"-12	1.1/4"
309M38N112	1.7/8"-12	1.1/2"

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Swivel Tees



Female Swivel, UNF

0215	Thread
310M6U716	7/16"-20
310M8U12	1/2"-20
310M10U916	9/16"-18
310M12U34	3/4"-16
310M16U78	7/8"-14
310M18U1116	1.1/16"-12
310M22U1316	1.3/16"-12
310M25U1516	1.5/16"-12
310M32U158	1.5/8"-12
310M38U178	1.7/8"-12

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Female Swivel Branch, UNF

0215	Thread
314M6U716	7/16"-20
314M8U12	1/2"-20
314M10U916	9/16"-18
314M12U34	3/4"-16
314M16U78	7/8"-14
314M18U1116	1.1/16"-12
314M22U1316	1.3/16"-12
314M25U1516	1.5/16"-12
314M32U158	1.5/8"-12
314M38U178	1.7/8"-12

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Female Swivel Run, UNF

0215	Thread
312M6U716	7/16"-20
312M8U12	1/2"-20
312M10U916	9/16"-18
312M12U34	3/4"-16
312M16U78	7/8"-14
312M18U1116	1.1/16"-12
312M22U1316	1.3/16"-12
312M25U1516	1.5/16"-12
312M32U158	1.5/8"-12
312M38U178	1.7/8"-12

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Position Tees



UNF Male x BSPP Male

0215	Thread	Thread
308M6G18	7/16"-20	1/8"
308M6G14	7/16"-20	1/4"
308M8G18	1/2"-20	1/8"
308M8G14	1/2"-20	1/4"
308M10G14	9/16"-18	1/4"
308M10G38	9/16"-18	3/8"
308M12G14	3/4"-16	1/4"
308M12G38	3/4"-16	3/8"
308M12G12	3/4"-16	1/2"
308M12G34	3/4"-16	3/4"
308M16G14	7/8"-14	1/4"
308M16G38	7/8"-14	3/8"
308M16G12	7/8"-14	1/2"
308M16G34	7/8"-14	3/4"
308M20G12	1.1/16"-12	1/2"
308M20G34	1.1/16"-12	3/4"
308M22G34	1.3/16"-12	1/2"
308M22G1	1.3/16"-12	3/4"
308M22G12	1.3/16"-12	1"
308M25G34	1.5/16"-12	1/2"
308M25G1	1.5/16"-12	3/4"
308M32G1	1.5/8"-12	1"
308M32G114	1.5/8"-12	1"
308M38G114	1.7/8"-12	1.1/4"
308M38G112	1.7/8"-12	1.1/2"

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Cross



Male, UNF

0215	Thread
320M6U716	7/16"-20
320M8U12	1/2"-20
320M10U916	9/16"-18
320M12U34	3/4"-16
320M16U78	7/8"-14
320M18U1116	1.1/16"-12
320M22U1316	1.3/16"-12
320M25U1516	1.5/16"-12
320M32U158	1.5/8"-12
320M38U178	1.7/8"-12

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For Flaretite Seals see page 111

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
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Swivel Caps



UNF

0215	Thread
289M6U716	7/16"-20
289M8U12	1/2"-20
289M10U916	9/16"-18
289M12U34	3/4"-16
289M16U78	7/8"-14
289M22U1316	1.3/16"-12
289M25U1516	1.5/16"-12
289M32U158	1.5/8"-12
289M38U178	1.7/8"-12

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Blanking Plugs



UNF

0215	Thread
299M6	7/16"-20
299M8	1/2"-20
299M10	9/16"-18
299M12	3/4"-16
299M16	7/8"-14
299M20	1.1/16"-12
299M22	1.3/16"-12
299M25	1.5/16"-12
299M32	1.5/8"-12
299M38	1.7/8"-12

Tech Sheet 20886

Reducing Adaptors



UNF Tube x UNF Male

0215	OD mm	OD mm	Male Thread
303M6U716	10	6	7/16"-20
303M6U34	12	6	3/4"-16
303M10U34	12	10	3/4"-16
303M6U78	16	6	7/8"-14
303M10U78	16	10	7/8"-14
303M6U1116	18	6	1.1/16"-12
303M10U1116	18	10	1.1/16"-12
303M12U1116	18	12	1.1/16"-12
303M10U1316	22	10	1.3/16"-12
303M16U1316	22	16	1.3/16"-12
303M6U1516	25	6	1.5/16"-12
303M10U1516	25	10	1.5/16"-12
303M12U1516	25	12	1.5/16"-12
303M16U1516	25	16	1.5/16"-12
303M18U1516	25	18	1.5/16"-12
303M18U158	32	18	1.5/8"-12
303M25U158	32	25	1.5/8"-12
303M12U178	38	12	1.7/8"-12
303M18U178	38	18	1.7/8"-12
303M25U178	38	25	1.7/8"-12

Tech Sheet 20886

Tube Nuts



UNF

0215	Thread
201M6U716	7/16"-20
201M8U12	1/2"-20
201M10U916	9/16"-18
201M12U34	3/4"-16
201M16U78	7/8"-14
201M20U1116	1.1/16"-12
201M22U1316	1.3/16"-12
201M25U1516	1.5/16"-12
201M32U158	1.5/8"-12
201M38U178	1.7/8"-12

Tech Sheet 20886

Flare Sleeves



Metric

0215	OD mm
203M6	6
203M8	8
203M10	10
203M12	12
203M14	14
203M15	15
203M16Z58	16
203M18	18
203M20	20
203M25	25
203M30	30
203M32	32
203M38Z112	38

Tech Sheet 20886

Imperial

0215	OD
203Z14	1/4"
203Z516	5/16"
203Z38	3/8"
203Z12	1/2"
203M15Z58	5/8"
203Z34	3/4"
203Z1	1"

Tech Sheet 20886

SAE FLANGES

havit



- Closed Flanges
- Split Flange Half
- 90° Threaded Flanges
- Threaded Flanges
- Threaded Flanges-Companion (Counter)
- Socket Weld Flanges
- Socket Weld Flanges 90°
- Butt Weld Flanges
- Butt Weld Flanges 90°
- Butt Weld Flanges-Companion (Counter)
- Socket Weld Coupling Set
- Bolts & Spring Washers
- O-Rings

SAE FLANGES

Closed Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi

0300	Flange Size	Bolt Type Metric
AFC080	1/2"	M8 x 30
AFC100	3/4"	M10 x 35
AFC102	1"	M10 x 35
AFC104	1.1/4"	M10 x 40
AFC106	1.1/2"	M12 x 45
AFC108	2"	M12 x 45
AFC110	2.1/2"	M12 x 45
AFC112	3"	M16 x 50
AFC114	3.1/2"	M16 x 50
AFC116	4"	M16 x 50
AFC118	5"	M16 x 50

Tech Sheet 1625

6000 psi

0300	Flange Size	Bolt Type Metric
AFC401	1/2"	M8 x 30
AFC402	3/4"	M10 x 35
AFC403	1"	M12 x 45
AFC404	1.1/4"	M14 x 45
AFC405	1.1/2"	M16 x 50
AFC406	2"	M20 x 65
AFC407	2.1/2"	M24 x 80

Tech Sheet 1625

Split Flange Half

Bolts, washers and O-Rings are not included and must be purchased separately

Please see page 108

3000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH3001	1/2"	M8 x 25	5/16" x 1.1/4"
FH3002	3/4"	M10 x 30	3/8" x 1.1/4"
FH3003	1"	M10 x 30	3/8" x 1.1/4"
FH3004	1.1/4"	M10 x 35	7/16" x 1.1/2"
FH3005	1.1/2"	M12 x 35	1/2" x 1.1/2"
FH3006	2"	M12 x 35	1/2" x 1.1/2"
FH3007	2.1/2"	M12 x 40	1/2" x 1.1/2"
FH3011	5"	M16 x 50	5/8" x 2"

Tech Sheet 1626

6000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH6001	1/2"	M8 x 30	5/16" x 1.1/4"
FH6002	3/4"	M10 x 35	3/8" x 1.1/2"
FH6003	1"	M12 x 45	-
FH6013	1"	-	7/16" x 1.1/4"
FH6004	1.1/4"	M14 x 50	-
FH6044	1.1/4"	-	1/2" x 1.3/4"
FH6005	1.1/2"	M16 x 55	5/8" x 2"
FH6006	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1626

havIT

90° Threaded Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi, BSPP

0300	Flange Size	Thread	Bolt Typ Metric	Bolt Type UNC
AFS080/90G-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS100/90G	3/4"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS102/90G	1"	1"	M10 x 35	3/8" x 1.1/2"
AFS104/90G	1.1/4"	1.1/4"	M10 x 35	3/8" x 1.1/2"
AFS106/90G	1.1/2"	1.1/2"	M12 x 45	1/2" x 1.3/4"
AFS/90G	2"	2"	M12 x 45	1/2" x 1.3/4"

Tech Sheet 1628

6000 psi, BSPP

0300	Flange Size	Thread	Bolt Type Metric	Bolt Type UNC
AFS401/90G-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS401/90G-012	1/2"	1/2"	M8 x 30	5/16" x 1.1/4"
AFS402/90G	3/4"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS403/90G	1"	1"	M12 x 45	7/16" x 1.3/4"
AFS405/90G	1.1/2"	1.1/2"	M16 x 50	5/8" x 2"
AFS406/90G	2"	2"	M20 x 110	-

Tech Sheet 1628

Code Information: AFS = Flange with O-Ring Groove
GFS = Flange with Flat Face



Bolts, washers and O-Rings are not included and must be purchased separately

Please see page 108

3000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH3001	1/2"	M8 x 25	5/16" x 1.1/4"
FH3002	3/4"	M10 x 30	3/8" x 1.1/4"
FH3003	1"	M10 x 30	3/8" x 1.1/4"
FH3004	1.1/4"	M10 x 35	7/16" x 1.1/2"
FH3005	1.1/2"	M12 x 35	1/2" x 1.1/2"
FH3006	2"	M12 x 35	1/2" x 1.1/2"
FH3007	2.1/2"	M12 x 40	1/2" x 1.1/2"
FH3011	5"	M16 x 50	5/8" x 2"

Tech Sheet 1626

6000 psi

0300	Flange Size	Bolt Type Metric	Bolt Type UNC
FH6001	1/2"	M8 x 30	5/16" x 1.1/4"
FH6002	3/4"	M10 x 35	3/8" x 1.1/2"
FH6003	1"	M12 x 45	-
FH6013	1"	-	7/16" x 1.1/4"
FH6004	1.1/4"	M14 x 50	-
FH6044	1.1/4"	-	1/2" x 1.3/4"
FH6005	1.1/2"	M16 x 55	5/8" x 2"
FH6006	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1626



For Hydraulic Hose Connectors
see pages 17-24

SAE FLANGES

Threaded Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi, BSPP

0300	Flange Size	Thread	Bolt Type Metric	Bolt Type UNC
AFS080G-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS080G	1/2"	1/2"	M8 x 30	5/16" x 1.1/4"
AFS100G-012	3/4"	1/2"	M10 x 35	3/8" x 1.1/2"
AFS100G	3/4"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS102G-012	1"	1/2"	M10 x 35	3/8" x 1.1/2"
AFS102G-034	1"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS102G	1"	1"	M10 x 35	3/8" x 1.1/2"
AFS104G-034	1.1/4"	3/4"	M10 x 40	7/16" x 1.1/2"
AFS104G-100	1.1/4"	1"	M10 x 40	7/16" x 1.3/4"
AFS104G	1.1/4"	1.1/4"	M10 x 40	7/16" x 1.1/2"
AFS106G-034	1.1/2"	3/4"	M12 x 45	1/2" x 1.3/4"
AFS106G-100	1.1/2"	1"	M12 x 45	1/2" x 1.3/4"
AFS106G-114	1.1/2"	1.1/4"	M12 x 45	1/2" x 1.3/4"
AFS106G	1.1/2"	1.1/2"	M12 x 45	1/2" x 1.3/4"
AFS108G-100	2"	1"	M12 x 45	1/2" x 1.3/4"
AFS108G-114	2"	1.1/4"	M12 x 45	1/2" x 1.3/4"
AFS108G-112	2"	1.1/2"	M12 x 45	1/2" x 1.3/4"
AFS108G	2"	2"	M12 x 45	1/2" x 1.3/4"
AFS110G-200	2.1/2"	2"	M12 x 45	1/2" x 1.3/4"
AFS110G	2.1/2"	2.1/2"	M12 x 45	1/2" x 1.3/4"
AFS112G-212	3"	2.1/2"	M16 x 50	5/8" x 2"
AFS112G	3"	3"	M16 x 50	5/8" x 2"
AFS114G-300	3.1/2"	3"	M16 x 50	5/8" x 2"
AFS114G	3.1/2"	3.1/2"	M16 x 50	5/8" x 2"
AFS116G-312	4"	3.1/2"	M16 x 50	5/8" x 2"
AFS116G	4"	4"	M16 x 50	5/8" x 2"

Tech Sheet 1629

6000 psi, BSPP

0300	Flange Size	Thread	Bolt Type Metric	Bolt Type UNC
AFS401G-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS401G-012	1/2"	1/2"	M8 x 30	5/16" x 1.1/4"
AFS402G-012	3/4"	1/2"	M10 x 35	3/8" x 1.1/2"
AFS402G	3/4"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS403G-034	1"	3/4"	M12 x 45	7/16" x 1.3/4"
AFS403G	1"	1"	M12 x 45	7/16" x 1.3/4"
AFS404G-100	1.1/4"	1"	M14 x 45	1/2" x 1.3/4"
AFS404G	1.1/4"	1.1/4"	M14 x 45	1/2" x 1.3/4"
AFS405G-114	1.1/2"	1.1/4"	M16 x 50	5/8" x 2"
AFS405G	1.1/2"	1.1/2"	M16 x 50	5/8" x 2"
AFS406G-112	2"	1.1/2"	M20 x 65	3/4" x 2.1/2"
AFS406G	2"	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1629

3000 psi, NPT

0300	Flange Size	Thread	Bolt Type Metric	Bolt Type UNC
AFS080N-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS080N	1/2"	1/2"	M8 x 30	5/16" x 1.1/4"
AFS100N-012	3/4"	1/2"	M10 x 35	3/8" x 1.1/2"
AFS102N-034	1"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS102N	1"	1"	M10 x 35	3/8" x 1.1/2"
AFS104N-100	1.1/4"	1"	M10 x 40	7/16" x 1.1/2"
AFS104N	1.1/4"	1.1/4"	M10 x 40	7/16" x 1.1/2"
AFS106N-114	1.1/2"	1.1/4"	M12 x 45	1/2" x 1.3/4"
AFS106N	1.1/2"	1.1/2"	M12 x 45	1/2" x 1.3/4"
AFS108N-112	2"	1.1/2"	M12 x 45	1/2" x 1.3/4"
AFS108N	2"	2"	M12 x 45	1/2" x 1.3/4"
AFS110N	2.1/2"	2.1/2"	M12 x 45	1/2" x 1.3/4"
AFS112N	3"	3"	M16 x 50	5/8" x 2"
AFS114N	3.1/2"	3.1/2"	M16 x 50	5/8" x 2"
AFS116N	4"	4"	M16 x 50	5/8" x 2"

Tech Sheet 1629

6000 psi, NPT

0300	Flange Size	Thread	Bolt Type Metric	Bolt Type UNC
AFS401N-038	1/2"	3/8"	M8 x 30	5/16" x 1.1/4"
AFS401N-012	1/2"	1/2"	M8 x 30	5/16" x 1.1/4"
AFS402N-012	3/4"	1/2"	M10 x 35	3/8" x 1.1/2"
AFS402N	3/4"	3/4"	M10 x 35	3/8" x 1.1/2"
AFS403N-034	1"	3/4"	M12 x 45	7/16" x 1.3/4"
AFS403N	1"	1"	M12 x 45	7/16" x 1.3/4"
AFS404N-100	1.1/4"	1"	M14 x 45	1/2" x 1.3/4"
AFS405N-114	1.1/2"	1.1/4"	M16 x 50	5/8" x 2"
AFS405N	1.1/2"	1.1/2"	M16 x 50	5/8" x 2"
AFS406N-112	2"	1.1/2"	M20 x 65	3/4" x 2.1/2"
AFS406N	2"	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1629

Code Information: AFS = Flange with O-Ring Groove GFS = Flange with Flat Face

SAE FLANGES

Threaded Flanges-Companion (Counter)

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi, BSPP, Metric Mount

0300	Flange Size	Thread	Bolt Type Metric
GFS080GM-038	1/2"	3/8"	M8
GFS080GM	1/2"	1/2"	M8
GFS100GM-012	3/4"	1/2"	M10
GFS100GM	3/4"	3/4"	M10
GFS102GM-034	1"	3/4"	M10
GFS102GM	1"	1"	M10
GFS104GM-100	1.1/4"	1"	M10
GFS104GM	1.1/4"	1.1/4"	M10
GFS106GM-114	1.1/2"	1.1/4"	M12
GFS106GM	1.1/2"	1.1/2"	M12
GFS108GM-112	2"	1.1/2"	M12
GFS108GM	2"	2"	M12
GFS110GM-200	2.1/2"	2"	M12
GFS110GM	2.1/2"	2.1/2"	M12
GFS112GM-212	3"	2.1/2"	M16
GFS112GM	3"	3"	M16
GFS114GM-300	3.1/2"	3"	M16
GFS114GM	3.1/2"	3.1/2"	M16
GFS116GM-312	4"	3.1/2"	M16
GFS116GM	4"	4"	M16

Tech Sheet 1631

6000 psi, BSPP, Metric Mount

0300	Flange Size	Thread	Bolt Type Metric
GFS401GM-038	1/2"	3/8"	M8
GFS401GM-012	1/2"	1/2"	M8
GFS402GM-012	3/4"	1/2"	M10
GFS402GM	3/4"	3/4"	M10
GFS403GM	1"	1"	M12
GFS404GM-100	1.1/4"	1"	M14
GFS404GM	1.1/4"	1.1/4"	M14
GFS405GM-114	1.1/2"	1.1/4"	M16
GFS405GM	1.1/2"	1.1/2"	M16
GFS406GM-112	2"	1.1/2"	M20
GFS406GM	2"	2"	M20

Tech Sheet 1631

3000 psi, BSPP, UNC Mount

0300	Flange Size	Thread	Bolt Type Metric
GFS080GU-038	1/2"	3/8"	5/16"
GFS100GU-012	3/4"	1/2"	3/8"
GFS100GU	3/4"	3/4"	3/8"
GFS102GU-034	1"	3/4"	3/8"
GFS102GU	1"	1"	3/8"
GFS104GU-100	1.1/4"	1"	7/16"
GFS104GU	1.1/4"	1.1/4"	7/16"
GFS106GU-114	1.1/2"	1.1/4"	1/2"
GFS106GU	1.1/2"	1.1/2"	1/2"
GFS108GU-112	2"	1.1/2"	1/2"
GFS108GU	2"	2"	1/2"
GFS110GU-200	2.1/2"	2"	1/2"
GFS110GU	2.1/2"	2.1/2"	1/2"
GFS112GU-212	3"	2.1/2"	5/8"
GFS112GU	3"	3"	5/8"
GFS114GU-300	3.1/2"	3"	5/8"
GFS114GU	3.1/2"	3.1/2"	5/8"
GFS116GU-312	4"	3.1/2"	5/8"
GFS116GU	4"	4"	5/8"

Tech Sheet 1631

6000 psi, BSPP, UNC Mount

0300	Flange Size	Thread	Bolt Type Metric
GFS401GU-038	1/2"	3/8"	1/2"
GFS401GU-012	1/2"	1/2"	5/16"
GFS402GU-012	3/4"	1/2"	3/8"
GFS402GU	3/4"	3/4"	3/8"
GFS403GU	1"	1"	7/16"
GFS404GU-100	1.1/4"	1"	1/2"
GFS404GU	1.1/4"	1.1/4"	1/2"
GFS405GU-114	1.1/2"	1.1/4"	5/8"
GFS405GU	1.1/2"	1.1/2"	5/8"
GFS406GU-112	2"	1.1/2"	3/4"
GFS406GU	2"	2"	3/4"

Tech Sheet 1631

SAE FLANGES

Socket Weld Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS080SM-038	1/2"	17.5	M8
GFS080SM-A20	1/2"	20.3	M8
GFS080SM	1/2"	21.6	M8
GFS100SM-A25	3/4"	25.3	M10
GFS100SM	3/4"	27.2	M10
GFS102SM-A30	1"	30.3	M10
GFS102SM	1"	34	M10
GFS104SM-A38	1.1/4"	38.3	M10
GFS104SM	1.1/4"	42.8	M10
GFS106SM	1.1/2"	48.6	M12
GFS106SM-A50	1.1/2"	50.5	M12
GFS108S	2"	61	M12
GFS110SM	2.1/2"	76.6	M12
GFS112SM	3"	90.5	M16
GFS114SM	3.1/2"	103	M16
GFS116SM	4"	115.5	M16

Tech Sheet 1632

6000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS401SM-038	1/2"	17.5	M8
GFS401SM-A20	1/2"	20.3	M8
GFS401SM-012	1/2"	21.6	M8
GFS402SM-A25	3/4"	25.3	M10
GFS402SM	3/4"	27.2	M10
GFS403SM-A30	1"	30.3	M12
GFS403SM	1"	34	M12
GFS404SM-A38	1.1/4"	38.3	M14
GFS404SM	1.1/4"	42.8	M14
GFS405SM	1.1/2"	48.6	M16
GFS405SM-A50	1.1/2"	50.5	M16
GFS406SM	1.1/2"	61	M20
GFS407SM	2.1/2"	76.6	M24

Tech Sheet 1632

Socket Weld Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108

3000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS080S-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS080S-A20	1/2"	20.3	M8 x 30	5/16" x 1.1/4"
AFS080S	1/2"	21.6	M8 x 30	5/16" x 1.1/4"
AFS100S-A25	3/4"	25.3	M10 x 35	3/8" x 1.1/2"
AFS100S	3/4"	27.2	M10 x 35	3/8" x 1.1/2"
AFS102S-A30	1"	30.3	M10 x 35	3/8" x 1.1/2"
AFS102S	1"	34	M10 x 35	3/8" x 1.1/2"
AFS104S-A38	1.1/4"	38.3	M10 x 40	7/16" x 1.1/2"
AFS106S	1.1/2"	48.6	M12 x 45	1/2" x 1.3/4"
AFS106S-A50	1.1/2"	50.5	M12 x 45	1/2" x 1.3/4"
AFS108S	2"	61	M12 x 45	1/2" x 1.3/4"
AFS110S	2.1/2"	76.6	M12 x 45	1/2" x 1.3/4"
AFS114S	3.1/2"	103	M16 x 50	5/8" x 2"
AFS116S	4"	115.5	M16 x 50	5/8" x 2"

Tech Sheet 1633

3000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS080SU-038	1/2"	17.5	5/16"
GFS080SU-A20	1/2"	20.3	5/16"
GFS080SU	1/2"	21.6	5/16"
GFS100SU-A25	3/4"	25.3	3/8"
GFS100SU	3/4"	27.2	3/8"
GFS102SU-A30	1"	30.3	3/8"
GFS102SU	1"	34	3/8"
GFS104SU-A38	1.1/4"	38.3	7/16"
GFS104SU	1.1/4"	42.8	7/16"
GFS106SU	1.1/2"	48.6	1/2"
GFS106SU-A50	1.1/2"	50.5	1/2"
GFS108SU	2"	61	1/2"
GFS110SU	2.1/2"	76.6	1/2"
GFS112SU	3"	90.5	5/8"
GFS114SU	3.1/2"	103	5/8"
GFS116SU	4"	115.5	5/8"

Tech Sheet 1632

6000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS401SU-038	1/2"	17.5	5/16"
GFS401SU-A20	1/2"	20.3	5/16"
GFS401SU-012	1/2"	21.6	5/16"
GFS402SU-A25	3/4"	25.3	3/8"
GFS402SU	3/4"	27.2	3/8"
GFS403SU-A30	1"	30.3	7/16"
GFS403SU	1"	34	7/16"
GFS404SU-A38	1.1/4"	38.3	1/2"
GFS404SU	1.1/4"	42.8	1/2"
GFS405SU	1.1/2"	48.6	5/8"
GFS405SU-A50	1.1/2"	50.5	5/8"
GFS406SU	1.1/2"	61	3/4"

Tech Sheet 1632



6000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS401S-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS401S-A20	1/2"	20.3	M8 x 30	5/16" x 1.1/4"
AFS401S-012	1/2"	21.6	M8 x 30	5/16" x 1.1/4"
AFS402S-A25	3/4"	25.3	M10 x 35	3/8" x 1.1/2"
AFS402S	3/4"	27.2	M10 x 35	3/8" x 1.1/2"
AFS403S-A30	1"	30.3	M12 x 45	7/16" x 1.3/4"
AFS403S	1"	34	M12 x 45	7/16" x 1.3/4"
AFS404S-A38	1.1/4"	38.3	M14 x 45	1/2" x 1.3/4"
AFS404S	1.1/4"	42.8	M14 x 45	1/2" x 1.3/4"
AFS405S	1.1/2"	48.6	M16 x 50	5/8" x 2"
AFS405S-A50	1.1/2"	50.5	M16 x 50	5/8" x 2"
AFS406S	2"	61	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1633

SAE FLANGES

Socket Weld Flanges 90°

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi, Metric

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS080/90S-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS080/90S	1/2"	21.6	M8 x 30	5/16" x 1.1/4"
AFS100/90S	3/4"	27.2	M10 x 35	3/8" x 1.1/2"
AFS106/90S	1.1/2"	48.6	M12 x 45	7/16" x 1.3/4"

Tech Sheet 1634

6000 psi, Metric

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS401/90S-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS401/90S-012	1/2"	21.6	M8 x 30	5/16" x 1.1/4"
AFS402/90S	3/4"	27.2	M10 x 35	3/8" x 1.1/2"
AFS403/90S	1"	34	M12 x 45	7/16" x 1.3/4"
AFS404/90S	1.1/4"	42.8	M14 x 50	1/2" x 1.3/4"
AFS405/90S	1.1/2"	48.6	M16 x 50	5/8" x 2"
AFS406/90S	2"	61	M20 x 110	-

Tech Sheet 1634

Butt Weld Flanges

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS080ST-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS080ST	1/2"	21.5	M8 x 30	5/16" x 1.1/4"
AFS100ST	3/4"	28	M10 x 35	3/8" x 1.1/2"
AFS102ST	1"	34	M10 x 35	3/8" x 1.1/2"
AFS104ST	1.1/4"	42.8	M10 x 40	7/16" x 1.1/2"
AFS106ST	1.1/2"	48.6	M12 x 45	1/2" x 1.3/4"
AFS108ST	2"	61	M12 x 45	1/2" x 1.3/4"
AFS110ST	2.1/2"	77	M12 x 45	1/2" x 1.3/4"
AFS112ST	3"	92	M16 x 50	5/8" x 2"
AFS114ST	3.1/2"	103	M16 x 50	5/8" x 2"
AFS116ST	4"	115.5	M16 x 50	5/8" x 2"

Tech Sheet 1635

6000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bolt Type UNC
AFS401ST-038	1/2"	17.5	M8 x 30	5/16" x 1.1/4"
AFS401ST-012	1/2"	21.5	M8 x 30	5/16" x 1.1/4"
AFS402ST	3/4"	28	M10 x 35	3/8" x 1.1/2"
AFS403ST	1"	34	M12 x 45	7/16" x 1.3/4"
AFS404ST	1.1/4"	42.8	M14 x 45	1/2" x 1.3/4"
AFS405ST	1.1/2"	48.6	M16 x 50	5/8" x 2"
AFS406ST	2"	61	M20 x 65	3/4" x 2.1/2"

Tech Sheet 1635

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Butt Weld Flanges 90°

Bolts, washers and O-Rings are not included and must be purchased separately
Please see page 108



3000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bore Size mm
AFS200/90ST	3/4"	27	M10 x 40	27
AFS202/90ST	1"	34.5	M10 x 45	34.5
AFS204/90ST	1.1/4"	43	M10 x 45	43
AFS206/90ST	1.1/2"	50	M12 x 50	50
AFS208/90ST	2"	65	M12 x 70	65

Tech Sheet 1636

6000 psi

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric	Bore Size mm
AFS700/90ST	3/4"	28	M10 x 35	28
AFS702/90ST	1"	34	M12 x 45	34
AFS704/90ST	1.1/4"	42	M14 x 50	42
AFS706/90ST	1.1/2"	48	M16 x 50	48
AFS708/90ST	2"	65	M20 x 110	65

Tech Sheet 1636

**Code Information: AFS = Flange with O-Ring Groove
GFS = Flange with Flat Face**



For Bolts, Spring Washers & O-Rings see page 108

Butt Weld Flanges-Companion (Counter)

Bolts, washers and O-Rings are not included and must be purchased separately

Please see page 108



3000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS080STM-038	1/2"	17.5	M8
GFS080STM	1/2"	21.5	M8
GFS100STM	3/4"	28	M10
GFS102STM	1"	34	M10
GFS104STM	1.1/4"	42.8	M10
GFS106STM	1.1/2"	48.6	M12
GFS108STM	2"	61	M12
GFS110STM	2.1/2"	77	M12
GFS112STM	3"	92	M16
GFS114STM	3.1/2"	103	M16
GFS116STM	4"	115.5	M16

Tech Sheet 1637

3000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type UNC
GFS080STU-038	1/2"	17.5	5/16"
GFS080STU	1/2"	21.5	5/16"
GFS100STU	3/4"	28	3/8"
GFS102STU	1"	34	3/8"
GFS104STU	1.1/4"	42.8	7/16"
GFS106STU	1.1/2"	48.6	1/2"
GFS108STU	2"	61	1/2"
GFS110STU	2.1/2"	77	1/2"
GFS112STU	3"	92	5/8"
GFS114STU	3.1/2"	103	5/8"
GFS116STU	4"	115.5	5/8"

Tech Sheet 1637

6000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
GFS401STM-038	1/2"	17.5	M8
GFS401STM-012	1/2"	21.5	M8
GFS402STM	3/4"	28	M10
GFS403STM	1"	34	M12
GFS404STM	1.1/4"	42.8	M14
GFS405STM	1.1/2"	48.6	M16
GFS406STM	2"	61	M20

Tech Sheet 1637

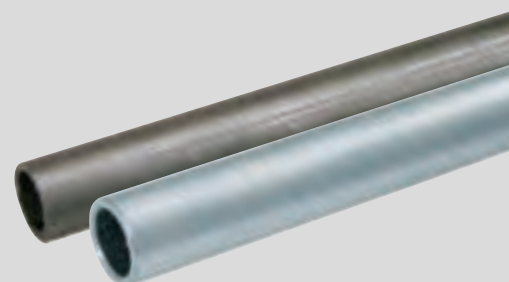
6000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type UNC
GFS401STU-038	1/2"	17.5	5/16"
GFS401STU-012	1/2"	21.5	5/16"
GFS402STU	3/4"	28	3/8"
GFS403STU	1"	34	7/16"
GFS404STU	1.1/4"	42.8	1/2"
GFS405STU	1.1/2"	48.6	5/8"
GFS406STU	2"	61	3/4"

Tech Sheet 1637

Code Information: AFS = Flange with O-Ring Groove GFS = Flange with Flat Face

For Hydraulic Tubing
see pages 179-183



SAE FLANGES

Socket Weld Coupling Set

Bolts, washers and O-Rings included



3000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
DFS080SM-038	1/2"	17.5	M8
DFS080SM-A20	1/2"	20.3	M8
DFS080SM	1/2"	21.6	M8
DFS100SM-A25	3/4"	25.3	M10
DFS100SM	3/4"	27.2	M10
DFS102SM-A30	1"	30.3	M10
DFS102SM	1"	34	M10
DFS104SM-A38	1.1/4"	38.3	M10
DFS104SM	1.1/4"	42.8	M10
DFS106SM	1.1/2"	48.6	M12
DFS106SM-A50	1.1/2"	50.5	M12
DFS108SM	2"	61	M12
DFS110SM	2.1/2"	76.6	M12
DFS112SM	3"	90.5	M16
DFS114SM	3.1/2"	103	M16
DFS116SM	4"	115.5	M16

Tech Sheet 1638

3000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type UNC
DFS080SU-038	1/2"	17.5	5/16"
DFS080SU-A20	1/2"	20.3	5/16"
DFS080SU	1/2"	21.6	5/16"
DFS100SU-A25	3/4"	25.3	3/8"
DFS100SU	3/4"	27.2	3/8"
DFS102SU-A30	1"	30.3	3/8"
DFS102SU	1"	34	3/8"
DFS104SU-A38	1.1/4"	38.3	7/16"
DFS104SU	1.1/4"	42.8	7/16"
DFS106SU	1.1/2"	48.6	1/2"
DFS106SU-A50	1.1/2"	50.5	1/2"
DFS108SU	2"	61	1/2"
DFS110SU	2.1/2"	76.6	1/2"
DFS112SU	3"	90.5	5/8"
DFS114SU	3.1/2"	103	5/8"
DFS116SU	4"	115.5	5/8"

Tech Sheet 1638

6000 psi, Metric Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type Metric
DFS401SM-038	1/2"	17.5	M8
DFS401SM-A20	1/2"	20.3	M8
DFS401SM-012	1/2"	21.6	M8
DFS402SM-A25	3/4"	25.3	M10
DFS402SM	3/4"	27.2	M10
DFS403SM-A30	1"	30.3	M10
DFS403SM	1"	34	M10
DFS404SM-A38	1.1/4"	38.3	M10
DFS404SM	1.1/4"	42.8	M10
DFS405SM	1.1/2"	48.6	M12
DFS405SM-A50	1.1/2"	50.5	M12
DFS406SM	2"	61	M12

Tech Sheet 1638

6000 psi, UNC Mount

0300	Flange Size	Boss Weld Diameter mm	Bolt Type UNC
DFS401SU-038	1/2"	17.5	5/16"
DFS401SU-A20	1/2"	20.3	5/16"
DFS401SU-012	1/2"	21.6	5/16"
DFS402SU-A25	3/4"	25.3	3/8"
DFS402SU	3/4"	27.2	3/8"
DFS403SU-A30	1"	30.3	3/8"
DFS403SU	1"	34	3/8"
DFS404SU-A38	1.1/4"	38.3	7/16"
DFS404SU	1.1/4"	42.8	7/16"
DFS405SU	1.1/2"	48.6	1/2"
DFS405SU-A50	1.1/2"	50.5	1/2"
DFS406SU	2"	61	1/2"

Tech Sheet 1638

Bolts & Spring Washers

Metric, Set of 4

0300	Thread
M8X25	M8 x 25
M8X30	M8 x 30
M10X30	M10 x 30
M10X35	M10 x 35
M10X40	M10 x 40
M10X45	M10 x 45
M12X35	M12 x 35
M12X45	M12 x 45
M12X50	M12 x 50
M12X70	M12 x 70
M14X45	M14 x 45
M14X50	M14 x 50
M16X55	M16 x 55
M20X60	M20 x 60
M20X65	M20 x 65
M20X70	M20 x 70
M20X110	M20 x 110

UNC, Set of 4

0300	Thread
UNC3/8X11/4	3/8" x 1.1/4"
UNC3/8X11/2	3/8" x 1.1/2"
UNC7/16X11/2	7/16" x 1.1/2"
UNC7/16X13/4	7/16" x 1.3/4"
UNC1/2X13/4	1/2" x 1.3/4"
UNC1/2X11/2	1/2" x 1.1/2"
UNC5/8X2	5/8" x 2"
UNC5/16X11/4	5/16" x 1.1/4"
UNC3/4X21/2	3/4" x 2.1/2"



O-Rings



Buna

0300	Size
1/2-ORING	1/2"
3/4-ORING	3/4"
1-ORING	1"
11/4-ORING	1.1/4"
11/2-ORING	1.1/2"
2-ORING	2"
21/2-ORING	2.1/2"
3-ORING	3"
31/2-ORING	3.1/2"
4-ORING	4"
5-ORING	5"

Tech Sheet 1639

HYDRAULIC SEALS



- Self Centering Bonded Seals
- Standard Bonded Seals
- Fibre Washers
- Washers
- Bonded Seals
- O-Rings
- Flaretite
- SAE Flange Seals
- ORFS Seal Kit
- CAT Flange Seals
- Splicing Kit
- Seal Kits

HYDRAULIC SEALS

Self Centering Bonded Seals



Mild Steel, Nitrile,
to suit BSPP Threads

1005	To Suit
BS-18	1/8"
BS-14	1/4"
BS-38	3/8"
BS-12	1/2"
BS-34	3/4"
BS-1	1"
BS-114	1.1/4"
BS-112	1.1/2"
BS-2	2"

Tech Sheet 10513

Mild Steel, Viton, to suit BSPP Threads

1005	To Suit
BSV-18	1/8"
BSV-14	1/4"
BSV-38	3/8"
BSV-12	1/2"
BSV-58	5/8"
BSV-34	3/4"
BSV-1	1"
BSV-114	1.1/4"
BSV-112	1.1/2"
BSV-2	2"

Tech Sheet 10513

316 Stainless Steel, Nitrile

1005	To Suit
BS-18N	1/8"
BS-14N	1/4"
BS-38N	3/8"
BS-12N	1/2"
BS-34N	3/4"
BS-1N	1"
BS-114N	1.1/4"
BS-112N	1.1/2"
BS-2N	2"

Tech Sheet 10513

316 Stainless Steel, Viton

1005	To Suit
BS-14V	1/4"
BS-38V	3/8"
BS-12V	1/2"
BS-34V	3/4"
BS-1V	1"
BS-112V	1.1/2"

Tech Sheet 10513

Mild Steel, Nitrile, to suit Metric Threads

1005	To Suit
BS-M8	M8
BS-M10	M10
BS-M12	M12
BS-M14	M14
BS-M16	M16
BS-M18	M18
BS-M22	M22

Standard Bonded Seals (Not Self Centering)



Mild Steel, Nitrile,
to suit JIC/UNF Thread Form

1005	To Suit
BS-14JIC	1/4"
BS-516JIC	5/16"
BS-716JIC	7/16"
BS-12JIC	1/2"
BS-916JIC	9/16"
BS-58JIC	5/8"
BS-1116JIC	11/16"
BS-34JIC	3/4"
BS-1516JIC	15/16"
BS-1-116JIC	1.1/16"
BS-1-18JIC	1.1/8"
BS-1-14JIC	1.1/4"

Tech Sheet 10513

Mild Steel, Nitrile,
to suit JIC/UNF Thread Form

1005	To Suit
BS-6BA	6BA
BS-4BA	4BA
BS-2BA	2BA

Fibre Washers



1005	To Suit
FW5M	M5
FW18	1/8"
FW14	1/4"
FW38	3/8"
FW12	1/2"
FW34	3/4"
FW1	1"
FW114	1.1/4"
FW112	1.1/2"
FW2	2"

Tech Sheet 20357

Washers



Flat Copper Washer,
Metric

1300	BSPP Male Thread	OD ID x Thickness
CWM8	M8	11 x 8 x 0.9
CWM10	M10	16 x 10 x 1
CWM12	M12	16 x 12 x 1
CWM14	M14	18 x 14 x 1
CWM16	M16	20 x 16 x 1.5
CWM18	M18	24 x 18 x 1.5
CWM22	M22	27 x 22 x 1.75

Copper Washers for BSPP Stud Ends



1300	Male Thread	Female Thread
CW18	1/8"	3/8"
CW14	1/4"	1/2"
CW38	3/8"	3/4"
CW12	1/2"	7/8"
CW34	3/4"	-
CW1	1"	-
CW114	1.1/4"	-
CW112	1.1/2"	-
CW2	2"	-

Tech Sheet 20358

Nylon, Notched



1030	Thread
D11X-5M	M5
D11X-1/8	1/8"
D11X-1/4	1/4"
D11X-3/8	3/8"
D11X-1/2	1/2"
D11X-3/4	3/4"

Tech Sheet 10705

Bonded Seals



Stainless Steel, Nitrile,
to suit Metric Threads

1005	To Suit
SSBSM04N	M4
SSBSM06N	M6
SSBSM08N	M8
SSBSM10N	M10
SSBSM12N	M12
SSBSM14N	M14
SSBSM16N	M16
SSBSM20N	M20

HYDRAULIC SEALS

O-Rings

Imperial O-Rings, Nitrile 70 Shore, Per Pack of 100

1005	ID	Wall Thickness Imperial
ORING-BS006N	1/8"	0.07
ORING-BS007N	5/32"	0.07
ORING-BS008N	3/16"	0.07
ORING-BS009N	7/32"	0.07
ORING-BS010N	1/4"	0.07
ORING-BS011N	5/16"	0.07
ORING-BS012N	3/8"	0.07
ORING-BS110N	3/8"	0.103
ORING-BS111N	7/16"	0.103
ORING-BS112N	1/2"	0.103
ORING-BS113N	9/16"	0.103
ORING-BS114N	5/8"	0.103
ORING-BS115N	11/16"	0.103
ORING-BS116N	3/4"	0.103
ORING-BS210N	3/4"	0.139
ORING-BS211N	13/16"	0.139
ORING-BS212N	7/8"	0.139
ORING-BS213N	15/16"	0.139
ORING-BS214N	1"	0.139
ORING-BS215N	1.1/16"	0.139
ORING-BS216N	1.1/8"	0.139
ORING-BS217N	1.3/16"	0.139
ORING-BS218N	1.1/4"	0.139
ORING-BS219N	1.5/16"	0.139
ORING-BS220N	1.3/8"	0.139
ORING-BS221N	1.7/16"	0.139
ORING-BS222N	1.1/2"	0.139
ORING-BS325N	1.1/2"	0.21
ORING-BS326N	1.5/8"	0.21
ORING-BS327N	1.3/4"	0.21

Imperial O-Rings, Viton 75 Shore, Per Pack of 100

1005	ID	Wall Thickness Imperial
ORING-BS006V	1/8"	0.07
ORING-BS008V	3/16"	0.07
ORING-BS009V	7/32"	0.07
ORING-BS010V	1/4"	0.07
ORING-BS011V	5/16"	0.07
ORING-BS012V	3/8"	0.07
ORING-BS110V	3/8"	0.103
ORING-BS112V	1/2"	0.103
ORING-BS116V	3/4"	0.103
ORING-BS211V	13/16"	0.139
ORING-BS212V	7/8"	0.139
ORING-BS218V	1.1/4"	0.139
ORING-BS221V	1.7/16"	0.139

Metric O-Rings, Nitrile 70 Shore, Per Pack of 100

1005	ID mm	Wall Thickness mm
M-3X2	3	2
M-4X2	4	2
M-5X2	5	2
M-6X2	6	2
M-7X2	7	2
M-8X2	8	2
M-10X2	10	2
M-10X2.5	10	2.5
M-11X2.5	11	2.5
M-12X2.5	12	2.5
M-14X2.5	14	2.5
M-16X2.5	16	2.5
M-17X2.5	17	2.5
M-19X2.5	19	2.5
M-19X3	19	3
M-20X3	20	3
M-22X3	22	3
M-24X3	24	3
M-25X3	25	3
M-27X3	27	3
M-28X3	28	3
M-30X3	30	3
M-32X3	32	3
M-33X3	33	3
M-35X3	35	3
M-36X3	36	3
M-38X3	38	3
M-38X4	38	4
M-41X4	41	4
M-44X4	44	4



Flaretite



The Flaretite Seal is a metal stamping, designed with multiple, concentric sealing rings.

The entire seal is coated with a **dry-to-the-touch**, baked-on Loctite™ sealant. When inserted into a fitting, the concentric rings form multiple seals on the face of the flare, while the Loctite™ coating fills minor imperfections and abrasively increases the integrity of the fitting. New ISO and NFP standards strongly recommend seals for all fittings.

- Fits all standard JIC/SAE/JIS flare fittings, hydraulic and pneumatic
- Has a user-friendly tab to clip the seal onto the fitting
- Protects against weeping on new and old fittings
- Creates a perfect leak-free clip-on seal, guaranteed
- Complies with latest international standards

Other seals available on request.

Working Temperature:
-40°C to +150°C



Flaretite 304 Stainless Steel, JIC 37°

0266	JIC Thread
FF13267	7/16"
FF13268	9/16"
FF13269	3/4"
FF13270	7/8"
FF13271	1.1/16"
FF13272	1.5/16"
FF13273	1.5/8"
FF13570	1.7/8"
FF13571	2.1/2"

Tech Sheet 20353

For JIC Adaptors
see pages 72-80

HYDRAULIC SEALS

SAE Flange Seals

Designed to fit the SAE J518 location grooves. Made from high performance grade of polyurethane, the material provides excellent resistance-to-gap extrusion. Covers a wide temperature range from -40°C to +110°C at pressures up to 400 bar.

Contents:

10 x 1/2"
10 x 3/4"
10 x 1"
10 x 1.1/4"
10 x 1.1/2"
10 x 2"



1005	No. of Parts	Type
SAE-KIT01	60	SAE Flange
Tech Sheet 68214		

ORFS Seal Kit

O-Ring face seal kit to suit ORFS male fittings

Material: Nitrile

Contents:

50 x 9/16"
50 x 11/16"
30 x 13/16"
30 x 1"
30 x 1.3/16
20 x 1.7/16"
20 x 1.11/16"



1005	No. of Parts	Type
ORFS-KIT01	230	ORFS
Tech Sheet 68215		

Seal Kits



Assorted Bonded Seals

1005	No. of Parts	Type
BSK-1	140	Imperial
BSK-2	140	Metric
Tech Sheet 20372		

CAT Flange Seals

CAT D-Rings provide a high pressure seal between flange and port face on C T hose assemblies. Can be used in conjunction with CAT XT-5 and XT-6 type flanges.

Material: Nitrile

Contents:

10 x 3/4"
10 x 1"
10 x 1.1/4"
10 x 1.1/2"
10 x 2"



1005	No. of Parts	Type
CAT-KIT01	50	CAT Flange
Tech Sheet 68216		

Splicing Kit

Ideal for repairing or replacing damaged O-Ring seals.

Material: Nitrile

Contents:

14 x standard sizes of O-Ring cord
1 x tape measure
1 x cutting block
(for butt or scarf joins)
1 x cutting knife
1 x tube glue

Rubber Cord:

2 metres of each size:
1.78, 2, 2.4, 2.62, 3, 3.53, 4, 4.5, 5,
5.33, 5.7, 6, 7 and 8mm.



O-Ring Splicing Kit

1005	No. of Parts	Type
SPLICING-KIT01		
Tech Sheet 68213		

PLASTIC CAPS & PLUGS

SR 1077 Threaded Fitting Plugs

- Knurled head for easy application
- Ideal for sealing 37° flare fitting



Red LDPE, UNF Thread

0307	Thread
110228	5/16"
110177	3/8"
110178	7/16"
110179	1/2"
110180	9/16"
110181	5/8"
110182	3/4"
110183	7/8"
110184	1.1/16"

SR 1002 Threaded Protection Plugs

- Easy to grip head
- Thread ensures secure fit
- Excellent protection from dirt, moisture and corrosion
- Widely used in hydraulic, pneumatic and general engineering industries



Red LDPE, UNF/JIC Thread

0307	Thread
10692	3/8"
10763	7/16"
10696	1/2"
10668	9/16"
10940	5/8"
10575	3/4"
12827	13/16"
10326	7/8"
12785	1"
10460	1.1/16"
11506	1.3/16"
10671	1.5/16"
11752	1.5/8"
11755	1.7/8"

Red LDPE, Metric Thread

0307	Thread
12011	M8 x 1
12012	M10 x 1
12013	M12 x 1
12017	M12 x 1.5
12018	M14 x 1.5
12019	M16 x 1.5
10458	M18 x 1.5
12020	M20 x 1.5
10128	M22 x 1.5
12021	M24 x 1.5
12022	M25 x 1.5
12023	M26 x 1.5

Red LDPE, BSP/Gas

0307	Thread
10651	1/8" x 28
10588	1/4" x 19
10996	3/8" x 19
10590	1/2" x 14
10511	5/8" x 14
10731	3/4" x 14
10810	1" x 11
10459	1.1/4" x 11
11242	1.1/2" x 11

SR 1018 Threaded Protection Caps

- Used throughout the automotive, fluid power and engineering industries
- Protect threaded components from dust, moisture and damage



Red LDPE, UNF/JIC Thread

0307	Thread
10251	3/8"
12652	7/16"
10332	7/16"
10528	1/2"
11041	9/16"
10653	5/18"
12847	3/4"
11089	7/8"
12075	7/8"
12826	1"
10685	1.1/16"
10163	1.3/16"
10151	1.5/16"

Red LDPE, Metric Thread

0307	Thread
12100	M8 x 1
12101	M10 x 1
12102	M12 x 1
12103	M12 x 1.5
12104	M14 x 1.5
12650	M14 x 1.5
12105	M16 x 1.5
12106	M18 x 1.5
12107	M20 x 1.5
12845	M22 x 1.5
12109	M24 x 1.5
12110	M25 x 1.5
12967	M28 x 1.5
12122	M30 x 2
12123	M36 x 2
12124	M42 x 2
12126	M52 x 2

Red LDPE, BSP/Gas

0307	Thread
10392	1/8" x 28
10559	1/4" x 19
10104	3/8" x 19
10198	1/2" x 14
11157	5/8" x 14
10205	3/4" x 14
10204	1" x 11
10167	1.1/4" x 11
10432	1.1/2" x 11
10968	2" x 11



For Hydraulic Adaptors
see pages 52-108

PLASTIC CAPS & PLUGS

SR 1000 Tapered Caps/Plugs

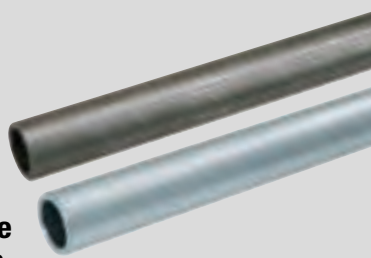
- Use as cap or plug
- Easy fitting and removal
- Provide excellent protection from damage, dirt, moisture and corrosion during storage and transport



Red LDPE

0307	To Suit Hose ID	To Suit Hose OD
10991	6.1	4.4
10727	7.6	6.2
10549	9.1	7.7
10289	10	8.4
10750	11.8	10
10114	12.3	10.9
10438	15.3	13.6
10342	16	14.2
10424	17	14.7
11139	18.3	16.4
10394	20	17.8
10136	26.4	23.4
10732	27.7	24.7
10272	32.6	30
10181	37.2	33.3
10491	40.6	36.9
10485	42.7	39.6

For Hydraulic Tube
see pages 179-183



SR 1125 O-Ring Threaded Plugs

- Can be applied by spanner, screwdriver or socket; manually or with power tool



Yellow HDPE, Metric Thread

0307	Thread
467087	M8 x 1
467088	M10 x 1
467089	M12 x 1
467090	M10 x 1.5
467091	M12 x 1.5
467092	M14 x 1.5
467093	M16 x 1.5
467094	M18 x 1.5
467095	M20 x 1.5
467096	M22 x 1.5

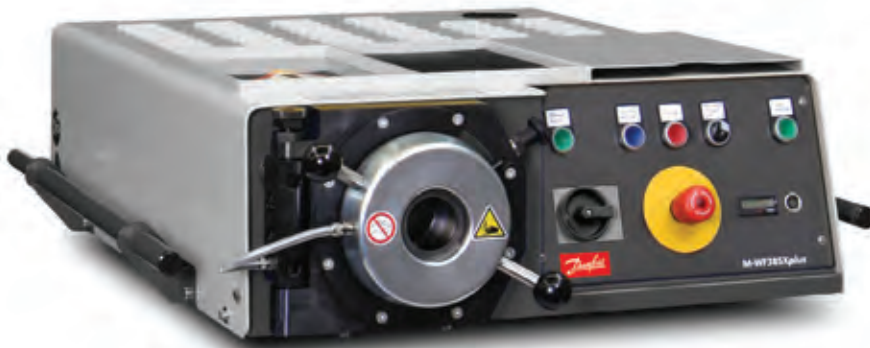
Yellow HDPE, UNF Thread

0307	Thread
467114	3/8" x 24
467115	7/16" x 20
467116	1/2" x 20
467117	9/16" x 18
467118	5/8" x 18
467119	3/4" x 16
467120	7/8" x 14
467121	1" x 14

Yellow HDPE, BSP Thread

0307	Thread
467127	1/8" x 28
467128	1/4" x 19
467129	3/8" x 19
467130	1/2" x 14
467131	5/8" x 14
467133	7/8" x 14
467134	1" x 11

Walform[®] Machine Hire



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cold forming
tube fitting
system in
the world!

Hassle free hire includes:

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- **Shipping and Collection**

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Danfoss's Waltech Trilogy

- Simple final in service assembly with prefabricated tube ends
- Best in class performance
- Maximum system stability and safety
- Superior quality
- Global availability

WALPRO[®]



WALRING[®]



WALFORM[™]



COMPONENT PARTS



Threaded Plugs

Captive nitrile seal.



BSPP

0350	Thread
VSR1/8WD	1/8"
VSR1/4WD	1/4"
VSR3/8WD	3/8"
VSR1/2WD	1/2"
VSR3/4WD	3/4"
VSR1WD	1"
VSR11/4WD	1.1/4"
VSR11/2WD	1.1/2"

Tech Sheet 1656

Captive nitrile seal



Metric

0350	Thread
VSM8X1.0WD	M8 x 1.0
VSM12X1.5WD	M12 x 1.5
VSM14X1.5WD	M14 x 1.5
VSM16X1.5WD	M16 x 1.5
VSM18X1.5WD	M18 x 1.5
VSM20X1.5WD	M20 x 1.5
VSM22X1.5WD	M22 x 1.5
VSM26X1.5WD	M26 x 1.5
VSM27X2WD	M27 x 2
VSM33X2WD	M33 x 2
VSM42X2WD	M42 x 2
VSM48X2WD	M48 x 2

Tech Sheet 1656

Blanking Plugs



Extra Light-duty

0350	To Suit Tube OD mm
VSD4LLMMB	4
VSD6LLMMD	6
VSD8LLMMD	8

Tech Sheet 1657

Light-duty

0350	To Suit Tube OD mm
VSD6L/SMMB	6
VSD8L/SMMB	8
VSD10L/SMMB	10
VSD12L/SMMB	12
VSD15LMMB	15
VSD18LMMB	18
VSD22LMMB	22
VSD28LMMB	28
VSD35LMMB	35
VSD42LMMB	42

Tech Sheet 1657

Heavy-duty

0350	To Suit Tube OD mm
VSD14SMMB	14
VSD16SMMB	16
VSD20SMMB	20
VSD25SMMB	25
VSD30SMMB	30
VSD38SMMB	38

Tech Sheet 1657

Blanking Ends

Suitable for swivel end connectors.



Light-duty

0350	OD mm	Max Pressure Bar
VSK6L	6	500
VSK8L	8	500
VSK10L	10	500
VSK12L	12	400
VSK15L	15	400
VSK18L	18	400
VSK22L	22	250
VSK28L	28	250
VSK35L	35	250
VSK42L	42	250

Tech Sheet 1658

Heavy-duty

0350	OD mm	Max Pressure Bar
VSK6S	6	800
VSK8S	8	800
VSK10S	10	800
VSK12S	12	630
VSK14S	14	630
VSK16S	16	630
VSK20S	20	420
VSK25S	25	420
VSK30S	30	420
VSK38S	38	420

Tech Sheet 1658

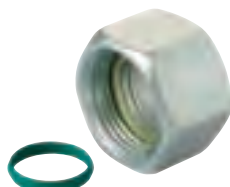


For Hose & Pipe Cleaning Kits
see page 49

COMPONENT PARTS



Walring Nuts c/w Profile Ring & O-Ring



Metric, Light-duty Viton

0350	Thread	OD mm	Max Pressure Bar
WR6LVIA2M	M12 x 1.5	6	500
WR8LVIA2M	M14 x 1.5	8	500
WR10LVIA2M	M16 x 1.5	10	500
WR12LVIA2M	M18 x 1.5	12	400
WR15LVIA2M	M22 x 1.5	15	400
WR18LVIA2M	M26 x 1.5	18	400
WR22LVIA2M	M30 x 2	22	250
WR28LVIA2M	M36 x 2	28	250
WR35LVIA2M	M45 x 2	35	250
WR42LVIA2M	M52 x 2	42	250

Tech Sheet 1660

Metric, Heavy-duty Viton

0350	Thread	OD mm	Max Pressure Bar
WR6SVIA2M	M14 x 1.5	6	800
WR8SVIA2M	M16 x 1.5	8	800
WR12SVIA2M	M20 x 1.5	12	630
WR16SVIA2M	M24 x 1.5	16	630
WR20SVIA2M	M30 x 2	20	420
WR25SVIA2M	M36 x 2	25	420
WR30SVIA2M	M42 x 2	30	420
WR38SVIA2M	M52 x 2	38	420

Tech Sheet 1660

Metric, Light-duty Nitrile

0350	Thread	OD mm	Max Pressure Bar
WR6LA2M	M12 x 1.5	6	500
WR8LA2M	M14 x 1.5	8	500
WR10LA2M	M16 x 1.5	10	500
WR12LA2M	M18 x 1.5	12	400
WR15LA2M	M22 x 1.5	15	400
WR18LA2M	M26 x 1.5	18	400
WR22LA2M	M30 x 2	22	250
WR28LA2M	M36 x 2	28	250
WR35LA2M	M45 x 2	35	250
WR42LA2M	M52 x 2	42	250

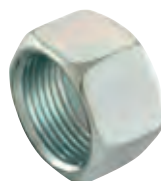
Tech Sheet 1660

Metric, Heavy-duty Nitrile

0350	Thread	OD mm	Max Pressure Bar
WR6SA2M	M14 x 1.5	6	800
WR10SA2M	M18 x 1.5	10	800
WR12SA2M	M20 x 1.5	12	630
WR16SA2M	M24 x 1.5	16	630
WR20SA2M	M30 x 2	20	420
WR25SA2M	M36 x 2	25	420
WR38SA2M	M52 x 2	38	420

Tech Sheet 1660

DIN 2353 Walform Nuts



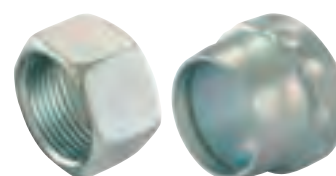
Light-duty

0350	Thread	OD mm	Max Pressure Bar
M-6L	M12 x 1.5	6	500
M-8L	M14 x 1.5	8	500
M-10L	M16 x 1.5	10	500
M-12L	M18 x 1.5	12	400
M-15L	M22 x 1.5	15	400
M-18L	M26 x 1.5	18	400
M-22L	M30 x 2	22	250
M-28L	M36 x 2	28	250
M-35L	M45 x 2	35	250
M-42L	M52 x 2	42	250

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
M6S	M14 x 1.5	6	800
M8S	M16 x 1.5	8	800
M10S	M18 x 1.5	10	800
M12S	M20 x 1.5	12	630
M14S	M22 x 1.5	14	630
M16S	M24 x 1.5	16	420
M20S	M30 x 2	20	420
M25S	M36 x 2	25	420
M30S	M42 x 2	30	420
M38S	M52 x 2	38	420

Walpro Nut & Profile Ring



Extra Light-duty

0350	OD mm	Max Pressure Bar
SR-M 4 LL	4	100
SR-M 6 LL	6	100
SR-M 8 LL	8	100

Light-duty

0350	OD mm	Max Pressure Bar
PR-M 6 L	6	500
PR-M 8 L	8	500
PR-M 10 L	10	500
PR-M 12 L	12	400
PR-M 15 L	15	400
PR-M 18 L	18	400
PR-M 22 L	22	250
PR-M 28 L	28	250
PR-M 35 L	35	250
PR-M 42 L	42	250

Heavy-duty

0350	OD mm	Max Pressure Bar
PR-M 6 S	6	800
PR-M 8 S	8	800
PR-M 10 S	10	800
PR-M 12 S	12	630
PR-M 14 S	14	630
PR-M 16 S	16	420
PR-M 20 S	20	420
PR-M 25 S	25	420
PR-M 30 S	30	420
PR-M 38 S	38	420



You might also need
CETOP 3 Manifold
see page 208

COMPONENT PARTS

Walform Plus Viton Captive Seal



Light-duty

0350	To Suit Nut
WF-WD18LVI	18L
WF-WD22LVI	22L
WF-WD28LVI	28L
WF-WD35LVI	35L
WF-WD42LVI	42L
Tech Sheet 1660	

Heavy-duty

0350	To Suit Nut
WF-WD16SVI	16S
WF-WD20SVI	20S
WF-WD25SVI	25S
WF-WD30SVI	30S
WF-WD38SVI	38S
Tech Sheet 1660	

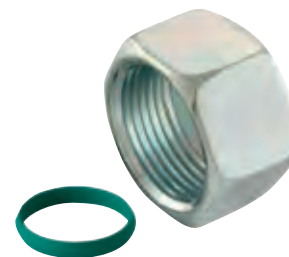
Walform Plus Nitrile Captive Seal



Light/Heavy-duty

0350	To Suit Nut
WF-WD6L/S	6L/S
WF-WD8L/S	8L/S
WF-WD10L/S	10L/S
WF-WD12L/S	12L/S
WF-WD15L	15L
WF-WD16S	16S
WF-WD18L	18L
WF-WD20S	20S
WF-WD22L	22L
WF-WD25S	25S
WF-WD28L	28L
WF-WD30S	30S
WF-WD35L	35L
WF-WD38S	38S
WF-WD42L	42L
Tech Sheet 1660	

Walform Nut & Seal



Light-duty, Viton

0350	OD mm
WF-M 6 L VI	6
WF-M 8 L VI	8
WF-M 10 L VI	10
WF-M 12 L VI	12
WF-M 15 L VI	15
WF-M 18 L VI	18
WF-M 22 L VI	22
WF-M 28 L VI	28
WF-M 35 L VI	35
WF-M 42 L VI	42

Heavy-duty, Viton

0350	OD mm
WF-M 6 S VI	6
WF-M 8 S VI	8
WF-M 10 S VI	10
WF-M 12 S VI	12
WF-M 16 S VI	16
WF-M 20 S VI	20
WF-M 25 S VI	25
WF-M 30 S VI	30
WF-M 38 S VI	38

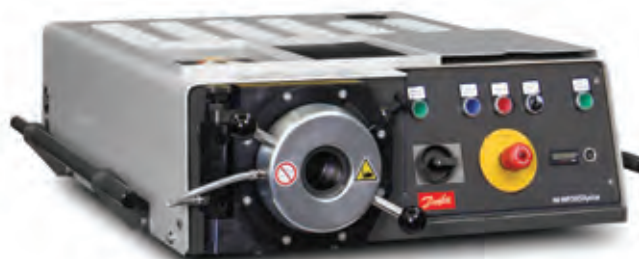
Light-duty, Nitrile

0350	OD mm
WF-M 6 L NBR	6
WF-M 8 L NBR	8
WF-M 10 L NBR	10
WF-M 12 L NBR	12
WF-M 15 L NBR	15
WF-M 18 L NBR	18
WF-M 22 L NBR	22
WF-M 28 L NBR	28
WF-M 35 L NBR	35
WF-M 42 L NBR	42

Heavy-duty, Nitrile

0350	OD mm
WF-M 6 S NBR	6
WF-M 8 S NBR	8
WF-M 10 S NBR	10
WF-M 12 S NBR	12
WF-M 16 S NBR	16
WF-M 20 S NBR	20
WF-M 25 S NBR	25
WF-M 30 S NBR	30
WF-M 38 S NBR	38

Walform Machine Hire



Hire available with an order for Danfoss Waltech compression fittings, tube and clamp

Hassle free hire includes:

- **Walform machine**
- **Tooling**
- **Shipping and Collection**

Hire available now with order for Danfoss Waltech compression fittings

MALE STUD COUPLINGS



CUTTING RING COUPLINGS DIN 2353/ISO 8434-1

Waltech Hydraulic BITE TYPE Fittings

Waltech offer a complete product range and highest quality:

Based on this principle Waltech offers one of the most comprehensive product ranges for tube coupling systems.

The Waltech programme includes cutting ring, soft seal, flared coupling and flange couplings, plus a wide range of accessories

The Waltech range of hydraulic compression fittings cover sizes from 6mm od to 42mm od in light-duty and from 6mm od to 38mm od in heavy-duty.

Manufactured to DIN 2353 standard, mild steel with C6F free surface coating, each compression fitting is supplied complete with cutting ring and nut

Pressure Range Guide: **Heavy-duty**

Light-duty 6mm OD-16mm OD = 630 bar

6mm OD-18mm OD = 400 bar 20mm OD-25mm OD = 400 bar

22mm OD-42mm OD = 250 bar 30mm OD-38mm = 250 bar

These pressures are for guide purposes only and please consult our technical department for specific applications

BSPP 60° Cone



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6LRFOA	1/8"	6	400
GEV8LR1/8FOA	1/8"	8	400
GEV6LR1/4FOA	1/4"	6	400
GEV8LRFOA	1/4"	8	400
GEV10LRFOA	1/4"	10	400
GEV12LR1/4FOA	1/4"	12	400
GEV6LR3/8FOA	3/8"	6	400
GEV8LR3/8FOA	3/8"	8	400
GEV10LR3/8FOA	3/8"	10	400
GEV12LRFOA	3/8"	12	400
GEV15LR3/8FOA	3/8"	15	400
GEV10LR1/2FOA	1/2"	10	400
GEV12LR1/2FOA	1/2"	12	400
GEV15LRFOA	1/2"	15	400
GEV18LRFOA	1/2"	18	400
GEV22LR1/2FOA	1/2"	22	250
GEV18LR3/4FOA	3/4"	18	400
GEV22LRFOA	3/4"	22	250
GEV28LR3/4FOA	3/4"	28	250
GEV28LRFOA	1"	28	250
GEV35LRFOA	1.1/4"	35	250

Tech Sheet 20898

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV8SRFOA	1/4"	8	630
GEV10SR1/4FOA	1/4"	10	630
GEV12SR1/4FOA	1/4"	12	630
GEV10SRFOA	3/8"	10	630
GEV12SRFOA	3/8"	12	630
GEV16SR3/8FOA	3/8"	16	630
GEV12SR1/2FOA	1/2"	12	630
GEV14SRFOA	1/2"	14	630
GEV16SRFOA	1/2"	16	630
GEV20SR1/2FOA	1/2"	20	400
GEV16SR3/4FOA	3/4"	16	630
GEV20SRFOA	3/4"	20	400
GEV25SR3/4FOA	3/4"	25	400
GEV25SRFOA	1"	25	400
GEV30SR1FOA	1"	30	250
GEV38SR1FOA	1"	38	250
GEV38SRFOA	1.1/2"	38	250
GEV30SR11/4FOA	1.1/4"	30	250
GEV38SR11/4FOA	1.1/4"	38	250

Tech Sheet 20898

BSPT



Extra Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV4LLRK	1/8"	4	100
GEV6LLRK	1/8"	6	100
GEV8LLRK	1/8"	8	100

Tech Sheet 1661

Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV8LRK	1/4"	8	250
GEV10LRK	1/4"	10	250
GEV12LR1/4K	1/4"	12	250
GEV10LR3/8K	3/8"	10	250
GEV12LRK	3/8"	12	250
GEV15LRK	1/2"	15	250

Tech Sheet 1661

Form B, Metric



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6LM12X1.5	M12 x 1.5	6	400
GEV8LM	M12 x 1.5	8	400
GEV10LM	M14 x 1.5	10	400
GEV8LM16X1.5	M16 x 1.5	8	400
GEV10LM16X1.5	M16 x 1.5	10	400
GEV12LM	M16 x 1.5	12	400
GEV10LM18X1.5	M18 x 1.5	10	400
GEV12LM18X1.5	M18 x 1.5	12	400
GEV15LM	M18 x 1.5	15	400
GEV18LM18X1.5	M18 x 1.5	18	400
GEV10LM22X1.5	M22 x 1.5	10	400
GEV12LM22X1.5	M22 x 1.5	12	400
GEV15LM22X1.5	M22 x 1.5	15	400
GEV18LM	M22 x 1.5	18	400
GEV22LM	M26 x 1.5	22	250
GEV28LM	M33 x 2	28	250
GEV35LM	M42 x 2	35	250
GEV42LM	M48 x 2	42	250

Tech Sheet 1662

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6SM	M12 x 1.5	6	630
GEV8SM	M14 x 1.5	8	630
GEV10SM	M16 x 1.5	10	630
GEV12SM	M18 x 1.5	12	630
GEV16SM18X1.5	M18 x 1.5	16	630
GEV14SM	M20 x 1.5	14	630
GEV16SM	M22 x 1.5	16	630
GEV20SM	M27 x 2	20	400
GEV25SM	M33 x 2	25	400
GEV30SM	M42 x 2	30	250
GEV38SM	M48 x 2	38	250

Tech Sheet 1662

MALE STUD COUPLINGS



Form B, BSPP



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6LR	1/8"	6	400
GEV8LR1/8	1/8"	8	400
GEV6LR1/4	1/4"	6	400
GEV8LR	1/4"	8	400
GEV10LR	1/4"	10	400
GEV12LR1/4	1/4"	12	400
GEV6LR3/8	3/8"	6	400
GEV8LR3/8	3/8"	8	400
GEV10LR3/8	3/8"	10	400
GEV12LR	3/8"	12	400
GEV15LR3/8	3/8"	15	400
GEV18LR3/8	3/8"	18	400
GEV8LR1/2	1/2"	8	400
GEV10LR1/2	1/2"	10	400
GEV12LR1/2	1/2"	12	400
GEV15LR	1/2"	15	400
GEV18LR	1/2"	18	400
GEV22LR1/2	1/2"	22	250
GEV15LR3/4	3/4"	15	400
GEV18LR3/4	3/4"	18	400
GEV22LR	3/4"	22	250
GEV28LR3/4	3/4"	28	250
GEV22LR1	1"	22	250
GEV28LR	1"	28	250
GEV35LR1	1"	35	250
GEV42LR	1.1/2"	42	250

Tech Sheet 1663

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6SR	1/4"	6	630
GEV8SR	1/4"	8	630
GEV10SR1/4	1/4"	10	630
GEV12SR1/4	1/4"	12	630
GEV8SR3/8	3/8"	8	630
GEV10SR	3/8"	10	630
GEV12SR	3/8"	12	630
GEV14SR3/8	3/8"	14	630
GEV16SR3/8	3/8"	16	630
GEV8SR1/2	1/2"	8	630
GEV10SR1/2	1/2"	10	630
GEV12SR1/2	1/2"	12	630
GEV14SR	1/2"	14	630
GEV16SR	1/2"	16	630
GEV20SR1/2	1/2"	20	400
GEV16SR3/4	3/4"	16	630
GEV20SR	3/4"	20	400
GEV25SR3/4	3/4"	25	400
GEV30SR3/4	3/4"	30	250
GEV20SR1	1"	20	400
GEV25SR	1"	25	400
GEV30SR1	1"	30	250
GEV30SR	1.1/4"	30	250
GEV38SR11/4	1.1/4"	38	250
GEV38SR	1.1/2"	38	250

Tech Sheet 1663

Form E, Metric



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6LMWD	M10 x 1	6	500
GEV8LMWD	M12 x 1.5	8	500
GEV10LMWD	M14 x 1.5	10	500
GEV12LMWD	M16 x 1.5	12	400
GEV12LM18X1.5WD	M18 x 1.5	12	400
GEV15LMD	M18 x 1.5	15	400
GEV18LM18X1.5WD	M18 x 1.5	18	400
GEV12LM22X1.5WD	M22 x 1.5	12	400
GEV15LM22X1.5WD	M22 x 1.5	15	400
GEV18LMWD	M22 x 1.5	18	400
GEV22LMWD	M26 x 1.5	22	250
GEV28LMWD	M33 x 2	28	250
GEV35LMWD	M42 x 2	35	250

Tech Sheet 1664

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6SMWD	M12 x 1.5	6	800
GEV8SMWD	M14 x 1.5	8	800
GEV10SMWD	M16 x 1.5	10	800
GEV12SMWD	M18 x 1.5	12	630
GEV14SMWD	M20 x 1.5	14	630
GEV16SMWD	M22 x 1.5	16	630
GEV20SMWD	M27 x 2	20	420
GEV25SMWD	M33 x 2	25	420
GEV30SMWD	M42 x 2	30	420
GEV38SMWD	M48 x 2	38	420

Tech Sheet 1664

Form E, BSPP



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6LRWD	1/8"	6	500
GEV8LR1/8WD	1/8"	8	500
GEV6LR1/4WD	1/4"	6	500
GEV8LRWD	1/4"	8	500
GEV10LRWD	1/4"	10	500
GEV12LR1/4WD	1/4"	12	400
GEV8LR3/8WD	3/8"	8	500
GEV10LR3/8WD	3/8"	10	500
GEV12LRWD	3/8"	12	400
GEV15LR3/8WD	3/8"	15	400
GEV10LR1/2WD	1/2"	10	500
GEV12LR1/2WD	1/2"	12	400
GEV15LRWD	1/2"	15	400
GEV18LRWD	1/2"	18	400
GEV18LR3/4WD	3/4"	18	400
GEV22LRWD	3/4"	22	250
GEV28LRWD	1"	28	250
GEV35LRWD	1.1/4"	35	250
GEV42LRWD	1.1/2"	42	250

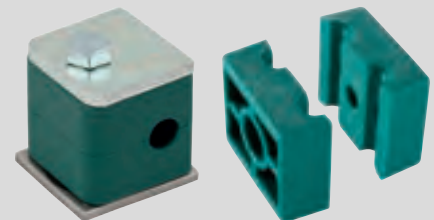
Tech Sheet 1665

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6SRWD	1/4"	6	800
GEV8SRWD	1/4"	8	800
GEV10SR1/4WD	1/4"	10	800
GEV12SR1/4WD	1/4"	12	630
GEV8SR3/8WD	3/8"	8	800
GEV10SRWD	3/8"	10	800
GEV12SRWD	3/8"	12	630
GEV16SR3/8WD	3/8"	16	630
GEV10SR1/2WD	1/2"	10	800
GEV12SR1/2WD	1/2"	12	630
GEV14SRWD	1/2"	14	630
GEV16SRWD	1/2"	16	630
GEV16SR3/4WD	3/4"	16	630
GEV20SRWD	3/4"	20	420
GEV25SR3/4WD	3/4"	25	420
GEV25SRWD	1"	25	420
GEV30SRWD	1.1/4"	30	420
GEV38SRWD	1.1/2"	38	420

Tech Sheet 1665

For Hydraulic Tube Clamps
see pages 184-200



MALE STUD COUPLINGS



NPT



Extra Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV4LL1/8NPT	1/8"	4	100
GEV6LL1/8NPT	1/8"	6	100
GEV8LL1/8NPT	1/8"	8	100

Tech Sheet 1666

Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV6L1/8NPT	1/8"	6	315
GEV6L1/4NPT	1/4"	6	315
GEV8L1/4NPT	1/4"	8	315
GEV10L1/4NPT	1/4"	10	315
GEV12L1/4NPT	1/4"	12	315
GEV10L3/8NPT	3/8"	10	315
GEV12L3/8NPT	3/8"	12	315
GEV12L1/2NPT	1/2"	12	315
GEV15L1/2NPT	1/2"	15	315
GEV18L1/2NPT	1/2"	18	315
GEV22L3/4NPT	3/4"	22	160
GEV28L1NPT	1"	28	160
GEV35L11/4NPT	1.1/4"	35	160
GEV42L11/2NPT	1.1/2"	42	160

Tech Sheet 1666

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV8S1/4NPT	1/4"	8	630
GEV10S1/4NPT	1/4"	10	630
GEV12S1/4NPT	1/4"	12	630
GEV10S3/8NPT	3/8"	10	630
GEV12S3/8NPT	3/8"	12	630
GEV12S1/2NPT	1/2"	12	630
GEV14S1/2NPT	1/2"	14	630
GEV16S1/2NPT	1/2"	16	400
GEV25S1NPT	1"	25	400
GEV38S11/2NPT	1.1/2"	38	315

Tech Sheet 1666

UNF



Light-duty

0350	Thread	OD mm	Max Pressure Bar
GEV8L7/16-20UNF	7/16-20 UNF	8	400
GEV10L7/16-20UNF	7/16-20 UNF	10	400
GEV8L9/16-18UNF	9/16-18 UNF	8	400
GEV10L9/16-18UNF	9/16-18 UNF	10	400
GEV12L9/16-18UNF	9/16-18 UNF	12	400
GEV12L3/4-16UNF	3/4-16 UNF	12	400
GEV15L3/4-16UNF	3/4-16 UNF	15	400
GEV18L3/4-16UNF	3/4-16 UNF	18	400
GEV12L7/8-14UNF	7/8-14 UNF	12	400
GEV15L7/8-14UNF	7/8-14 UNF	15	400
GEV18L7/8-14UNF	7/8-14 UNF	18	400
GEV22L7/8-14UNF	7/8-14 UNF	22	250
GEV28L7/8-14UNF	7/8-14 UNF	28	250
GEV22L11/16-12UN	1.1/16-12 UN	22	250
GEV28L15/16-12UN	1.5/16-12 UN	28	250
GEV35L15/16-12UN	1.5/16-12 UN	35	250
GEV35L15/8-12UN	1.5/8-12 UN	35	250

Tech Sheet 1667

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GEV10S9/16-18UNF	9/16-18 UNF	10	630
GEV12S3/4-16UNF	3/4-16 UNF	12	630
GEV16S3/4-16UNF	3/4-16 UNF	16	630
GEV20S3/4-16UNF	3/4-16 UNF	20	400
GEV16S7/8-14UNF	7/8-14 UNF	16	630
GEV20S7/8-14UNF	7/8-14 UNF	20	400
GEV20S11/16-12UN	1.1/16-10 UN	20	400
GEV30S15/8-12UN	1.5/8-12 UN	30	315

Tech Sheet 1667

For Hydraulic Ball Valves
see pages 238-240



MALE STUD ELBOWS & REDUCING BUSHES



Elbows



BSPT, Extra Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV4LLRK	1/8"	4	100
WEV6LLRK	1/8"	6	100
WEV8LLRK	1/8"	8	100
Tech Sheet 1668			

BSPT, Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6LRK	1/8"	6	250
WEV6LR1/4K	1/4"	6	250
WEV8LRK	1/4"	8	250
WEV12LR1/4K	1/4"	12	250
WEV10LRK	1/4"	10	250
WEV10LR3/8K	3/8"	10	250
WEV12LRK	3/8"	12	250
WEV15LR3/8K	3/8"	15	250
WEV12LR1/2K	1/2"	12	250
WEV15LRK	1/2"	15	250
WEV18LRK	1/2"	18	160
Tech Sheet 1668			

BSPT, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6SRK	1/4"	6	630
WEV8SRK	1/4"	8	630
WEV12SRK	3/8"	12	630
WEV14SRK	1/2"	14	630
WEV16SRK	1/2"	16	400
Tech Sheet 1668			

BSPP, Reducing Bushes

Captive NBR seal



BSPP, Compact

0350	Male Thread	Female Thread	Max Pressure Bar
REDR3/8X1/8	3/8"	1/8"	630
REDR1/2X1/8	1/2"	1/8"	630
REDR1/2X1/4	1/2"	1/4"	630
REDR3/4X1/4	3/4"	1/4"	400
REDR3/4X3/8	3/4"	3/8"	400
REDR1X1/4	1"	1/4"	400
REDR1X3/8	1"	3/8"	400
REDR1X1/2	1"	1/2"	400
REDR11/4X1/2	1.1/4"	1/2"	400
REDR11/4X3/4	1.1/4"	3/4"	400
REDR11/2X1/2	1.1/2"	1/2"	400
REDR11/2X3/4	1.1/2"	3/4"	400
REDR11/2X1	1.1/2"	1"	400
Tech Sheet 1671			



Metric Taper, Extra Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV4LLMK	M8 x 1	4	100
WEV6LLMK	M10 x 1	6	100
WEV8LLMK	M10 x 1	8	100
Tech Sheet 1669			

Metric Taper, Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6LMK	M10 x 1	6	250
WEV8LMK	M12 x 1.5	8	250
WEV10LMK	M14 x 1.5	10	250
WEV12LMK	M16 x 1.5	12	250
WEV15LMK	M18 x 1.5	15	250
WEV18LMK	M22 x 1.5	18	160
Tech Sheet 1669			

Metric Taper, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6SMK	M12 x 1.5	6	630
WEV8SMK	M14 x 1.5	8	630
WEV10SMK	M16 x 1.5	10	630
WEV12SMK	M18 x 1.5	12	630
WEV16SMK	M22 x 1.5	16	400
Tech Sheet 1669			

Captive NBR seal



BSPP

0350	Male Thread	Female Thread	Max Pressure Bar
REDR1/8X1/4	1/8"	1/4"	400
REDR1/8X3/8	1/8"	3/8"	400
REDR1/4X1/8	1/4"	1/8"	400
REDR1/4X3/8	1/4"	3/8"	400
REDR1/4X1/2	1/4"	1/2"	400
REDR1/4X3/4	1/4"	3/4"	400
REDR3/8X1/4	3/8"	1/4"	400
REDR3/8X1/2	3/8"	1/2"	400
REDR3/8X3/4	3/8"	3/4"	400
REDR1/2X3/8	1/2"	3/8"	400
REDR1/2X3/4	1/2"	3/4"	400

NPT, Extra Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV4LL1/8NPT	1/8"	4	100
WEV6LL1/8NPT	1/8"	6	100
WEV8LL1/8NPT	1/8"	8	100
Tech Sheet 1670			

NPT, Light-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6L1/8NPT	1/8"	6	250
WEV8L1/4NPT	1/4"	8	250
WEV10L1/4NPT	1/4"	10	250
WEV12L1/4NPT	1/4"	12	250
WEV12L3/8NPT	3/8"	12	250
WEV15L1/2NPT	1/2"	15	250
WEV18L1/2NPT	1/2"	18	160
WEV22L3/4NPT	3/4"	22	160
WEV28L1NPT	1"	28	100
Tech Sheet 1670			

NPT, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
WEV6S1/4NPT	1/4"	6	630
WEV8S1/4NPT	1/4"	8	630
WEV10S3/8NPT	3/8"	10	630
WEV12S3/8NPT	3/8"	12	630
WEV14S1/2NPT	1/2"	14	630
WEV16S1/2NPT	1/2"	16	400
WEV20S3/4NPT	3/4"	20	400
WEV25S1NPT	1"	25	400
Tech Sheet 1670			

TUBE TO TUBE COUPLINGS



Equal Elbows



Extra Light-duty

0350	OD mm	Max Pressure Bar
WV4LL	4	100
WV6LL	6	100
WV8LL	8	100

Tech Sheet 1673

Light-duty

0350	OD mm	Max Pressure Bar
WV6L	6	500
WV8L	8	500
WV10L	10	500
WV12L	12	400
WV15L	15	400
WV18L	18	400
WV22L	22	250
WV28L	28	250
WV35L	35	250
WV42L	42	250

Tech Sheet 1673

Heavy-duty

0350	OD mm	Max Pressure Bar
WV06S	6	800
WV08S	8	800
WV10S	10	800
WV12S	12	630
WV14S	14	630
WV16S	16	630
WV20S	20	420
WV25S	25	420
WV30S	30	420
WV38S	38	400

Tech Sheet 1673

Bulkhead Elbows

Light-duty

0350	Thread	OD mm	Max Pressure Bar
WSV6L	M12 x 1.5	6	500
WSV8L	M14 x 1.5	8	500
WSV10L	M16 x 1.5	10	500
WSV12L	M18 x 1.5	12	400
WSV15L	M22 x 1.5	15	400
WSV18L	M26 x 1.5	18	400
WSV22L	M30 x 2	22	250
WSV28L	M36 x 2	28	250
WSV35L	M45 x 2	35	250
WSV42L	M52 x 2	42	250

Tech Sheet 1674

Reducing Elbows

Light-duty

0350	OD mm	OD mm	Max Pressure Bar
REDWV8L-6L	8	6	315
REDWV10L-8L	10	8	315
REDWV10L-6L	10	6	315
REDWV12L-10L	12	10	315
REDWV12L-8L	12	8	315
REDWV12L-6L	12	6	315
REDWV15L-12L	15	12	315
REDWV15L-10L	15	10	315
REDWV15L-8L	15	8	315
REDWV15L-6L	15	6	315
REDWV18L-15L	18	15	315
REDWV18L-12L	18	12	315
REDWV18L-10L	18	10	315
REDWV18L-8L	18	8	315
REDWV18L-6L	18	6	315
REDWV22L-18L	22	18	160
REDWV22L-15L	22	15	160
REDWV22L-12L	22	12	160
REDWV22L-10L	22	10	160
REDWV22L-8L	22	8	160
REDWV28L-22L	28	22	160
REDWV28L-18L	28	18	160
REDWV28L-15L	28	15	160
REDWV28L-12L	28	12	160
REDWV28L-10L	28	10	160
REDWV35L-28L	35	28	160
REDWV35L-22L	35	22	160
REDWV35L-18L	35	18	160
REDWV35L-15L	35	15	160
REDWV42L-35L	42	35	160
REDWV42L-22L	42	22	160
REDWV42L-18L	42	18	160
REDWV42L-15L	42	15	160

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
WSV6S	M14 x 1.5	6	800
WSV8S	M16 x 1.5	8	800
WSV10S	M18 x 1.5	10	800
WSV12S	M20 x 1.5	12	630
WSV14S	M22 x 1.5	14	630
WSV16S	M24 x 1.5	16	630
WSV20S	M30 x 2	20	400
WSV25S	M36 x 2	25	400
WSV30S	M42 x 2	30	400
WSV38S	M52 x 2	38	400

Tech Sheet 1674

Heavy-duty

0350	OD mm	OD mm	Max Pressure Bar
REDWV8S-6S	8	6	630
REDWV10S-8S	10	8	630
REDWV10S-6S	10	6	630
REDWV12S-10S	12	10	630
REDWV12S-8S	12	8	630
REDWV12S-6S	12	6	630
REDWV14S-12S	14	12	630
REDWV14S-10S	14	10	630
REDWV14S-8S	14	8	630
REDWV14S-6S	14	6	630
REDWV16S-14S	16	14	400
REDWV16S-12S	16	12	400
REDWV16S-10S	16	10	400
REDWV16S-8S	16	8	400
REDWV16S-6S	16	6	400
REDWV20S-16S	20	16	400
REDWV20S-14S	20	14	400
REDWV20S-12S	20	12	400
REDWV20S-10S	20	10	400
REDWV20S-8S	20	8	400
REDWV20S-6S	20	6	400
REDWV25S-20S	25	20	400
REDWV25S-16S	25	16	400
REDWV25S-14S	25	14	400
REDWV25S-12S	25	12	400
REDWV25S-10S	25	10	400
REDWV25S-8S	25	8	400
REDWV30S-25S	30	25	400
REDWV30S-20S	30	20	400
REDWV30S-16S	30	16	400
REDWV30S-14S	30	14	400
REDWV30S-12S	30	12	400
REDWV38S-30S	38	30	315
REDWV38S-25S	38	25	315
REDWV38S-20S	38	20	315
REDWV38S-16S	38	16	315
REDWV38S-10S	38	10	315

TUBE TO TUBE COUPLINGS



Equal Tees



Extra Light-duty

0350	OD mm	Max Pressure Bar
TV4LL	4	100
TV6LL	6	100
TV8LL	8	100

Tech Sheet 1676

Light-duty

0350	OD mm	Max Pressure Bar
TV6L	6	500
TV8L	8	500
TV10L	10	500
TV12L	12	400
TV15L	15	400
TV18L	18	400
TV22L	22	250
TV28L	28	250
TV35L	35	250
TV42L	42	250

Tech Sheet 1676

Heavy-duty

0350	OD mm	Max Pressure Bar
TV6S	6	800
TV8S	8	800
TV10S	10	800
TV12S	12	630
TV14S	14	630
TV16S	16	630
TV20S	20	420
TV25S	25	420
TV30S	30	420
TV38S	38	400

Tech Sheet 1676

Reducing Tees

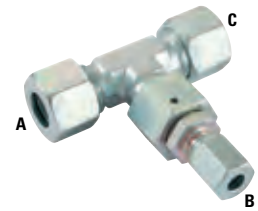


Light-duty

0350	OD A mm	OD B mm	OD C mm	Max Pressure Bar
TV10/10/6L	10	6	10	500
TV10/10/8L	10	8	10	500
TV12/12/8L	12	8	12	400
TV12/12/10L	12	10	12	400
TV12/12/15L	12	15	12	400
TV15/12/12L	15	12	12	400
TV18/18/10L	18	10	18	400
TV18/18/12L	18	12	18	400
TV22/22/10L	22	10	22	250
TV22/22/15L	22	15	22	250

Tech Sheet 1677

Adjustable Reducing Tees



Light-duty

0350	OD A mm	OD B mm	OD C mm	Max Pressure Bar
TV8/8/6L	8	8	6	315
TV12/12/6L	12	12	6	315
TV15/15/12L	15	15	12	315
TV15/15/10L	15	15	10	315
TV15/15/8L	15	15	8	315
TV15/15/6L	15	15	6	315
TV18/18/15L	18	18	15	315
TV18/18/8L	18	18	8	315
TV18/18/6L	18	18	6	315
TV22/22/18L	22	22	18	160
TV22/22/12L	22	22	12	160
TV22/22/8L	22	22	8	160
TV28/28/22L	28	28	22	160
TV28/28/18L	28	28	18	160
TV28/28/15L	28	28	15	160
TV28/28/12L	28	28	12	160
TV28/28/10L	28	28	10	160
TV35/35/28L	35	35	28	160
TV35/35/22L	35	35	22	160
TV35/35/18L	35	35	18	160
TV35/35/15L	35	35	15	160
TV42/42/35L	42	42	35	160
TV42/42/22L	42	42	22	160
TV42/42/18L	42	42	18	160
TV42/42/15L	42	42	15	160

Heavy-duty

0350	OD A mm	OD B mm	OD C mm	Max Pressure Bar
TV8/8/6S	8	6	8	630
TV10/10/8S	10	8	10	630
TV10/10/6S	10	6	10	630
TV12/12/10S	12	10	12	630
TV12/12/8S	12	8	12	630
TV12/12/6S	12	6	12	630
TV14/14/12S	14	12	14	630
TV14/14/10S	14	10	14	630
TV14/14/8S	14	8	14	630
TV14/14/6S	14	6	14	630
TV16/16/14S	16	14	16	400
TV16/16/12S	16	12	16	400
TV16/16/10S	16	10	16	400
TV16/16/8S	16	8	16	400
TV16/16/6S	16	6	16	400
TV20/20/16S	20	16	20	400
TV20/20/14S	20	14	20	400
TV20/20/12S	20	12	20	400
TV20/20/10S	20	10	20	400
TV20/20/8S	20	8	20	400
TV20/20/6S	20	6	20	400
TV25/25/20S	25	20	25	400
TV25/25/16S	25	16	25	400
TV25/25/14S	25	14	25	400
TV25/25/12S	25	12	25	400
TV25/25/10S	25	10	25	400
TV25/25/8S	25	8	25	400
TV30/30/25S	30	25	30	400
TV30/30/20S	30	20	30	400
TV30/30/16S	30	16	30	400
TV30/30/14S	30	14	30	400
TV30/30/12S	30	12	30	400
TV38/38/30S	38	30	38	315
TV38/38/25S	38	25	38	315
TV38/38/20S	38	20	38	315
TV38/38/16S	38	16	38	315
TV38/38/10S	38	10	38	315

stainless steel

You might also need
316 Stainless Steel Tube
see page 183



TUBE TO TUBE COUPLINGS



Bulkhead Couplings



Straight, Light-duty

0350	Thread	OD mm	Max Pressure Bar
GSV6L	M12 x 1.5	6	500
GSV8L	M14 x 1.5	8	500
GSV10L	M16 x 1.5	10	500
GSV12L	M18 x 1.5	12	400
GSV15L	M22 x 1.5	15	400
GSV18L	M26 x 1.5	18	400
GSV22L	M30 x 2	22	250
GSV28L	M36 x 2	28	250
GSV35L	M45 x 2	35	250
GSV42L	M52 x 2	42	250

Tech Sheet 1675

Straight, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GSV6S	M14 x 1.5	6	800
GSV8S	M16 x 1.5	8	800
GSV10S	M18 x 1.5	10	800
GSV12S	M20 x 1.5	12	630
GSV14S	M22 x 1.5	14	630
GSV16S	M24 x 1.5	16	630
GSV20S	M30 x 2	20	630
GSV25S	M36 x 2	25	630
GSV30S	M42 x 2	30	630
GSV38S	M52 x 2	38	400

Tech Sheet 1675

Straight Couplings



Equal Straight, Extra Light-duty

0350	OD mm	Max Pressure Bar
GV4LL	4	100
GV6LL	6	100
GV8LL	8	100

Tech Sheet 1678

Equal Straight, Light-duty

0350	OD mm	Max Pressure Bar
GV-6L	6	500
GV-8L	8	500
GV-10L	10	500
GV-12L	12	400
GV-15L	15	400
GV-18L	18	400
GV-22L	22	250
GV-28L	28	250
GV-35L	35	250
GV-42L	42	250

Tech Sheet 1678

Equal Straight, Heavy-duty

0350	OD mm	Max Pressure Bar
GV6S	6	800
GV8S	8	800
GV10S	10	800
GV12S	12	630
GV14S	14	630
GV16S	16	630
GV20S	20	420
GV25S	25	420
GV30S	30	420
GV38S	38	420

Tech Sheet 1678

Reducing Couplings



Unequal Straight, Extra Light-duty

0350	OD mm	OD mm	Max Pressure Bar
GV6/4LL	6	4	100

Tech Sheet 1679

Unequal Straight, Light-duty

0350	OD mm	OD mm	Max Pressure Bar
GV8/6L	8	6	500
GV10/6L	10	6	500
GV10/8L	10	8	500
GV12/6L	12	6	400
GV12/8L	12	8	400
GV12/10L	12	10	400
GV15/10L	15	10	400
GV15/12L	15	12	400
GV18/10L	18	10	400
GV18/12L	18	12	400
GV18/15L	18	15	400
GV22/15L	22	15	250
GV22/18L	22	18	250

Tech Sheet 1679

Unequal Straight, Heavy-duty

0350	OD mm	OD mm	Max Pressure Bar
GV16/12S	16	12	620
GV20/16S	20	16	420
GV25/16S	25	16	420
GV25/20S	25	20	420

Tech Sheet 1679

Tube to Tube Equal Crosses



Extra Light-duty

0350	OD mm	Max Pressure Bar
KV4LL	4	100
KV6LL	6	100
KV8LL	8	100

Tech Sheet 1680

Light-duty

0350	OD mm	Max Pressure Bar
KV6L	6	500
KV8L	8	500
KV10L	10	500
KV12L	12	400
KV15L	15	400
KV18L	18	400
KV22L	22	250
KV28L	28	250
KV35L	35	250
KV42L	42	250

Tech Sheet 1680

Heavy-duty

0350	OD mm	Max Pressure Bar
KV6S	6	800
KV8S	8	800
KV10S	10	800
KV12S	12	630
KV14S	14	630
KV16S	16	630
KV20S	20	420
KV25S	25	420
KV30S	30	420
KV38S	38	400

Tech Sheet 1680

BANJO COUPLINGS

Banjo Couplings

Low restrictive



Banjo Seal Edge Metric, Light-duty

0350	Thread	OD mm	Max Pressure Bar
RSWV6LM	M10 x 1	6	500
RSWV8LM	M12 x 1.5	8	500
RSWV10LM	M14 x 1.5	10	500
RSWV12LM	M16 x 1.5	12	400
RSWV12LM18X1.5	M18 x 1.5	12	315
RSWV15LM	M18 x 1.5	15	400
RSWV18LM	M22 x 1.5	18	400
RSWV22LM	M26 x 1.5	22	250
RSWV28LM	M33 x 2	28	250
RSWV35LM	M42 x 2	35	250
RSWV42LM	M48 x 2	42	250

Tech Sheets 1681 & 1682

Banjo Seal Edge Metric, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
RSWV6SM	M12 x 1.5	6	500
RSWV8SM	M14 x 1.5	8	500
RSWV10SM	M16 x 1.5	10	500
RSWV12SM	M18 x 1.5	12	400
RSWV14SM	M20 x 1.5	14	400
RSWV16SM	M22 x 1.5	16	400
RSWV20SM	M27 x 2	20	315
RSWV25SM	M33 x 2	25	250
RSWV30SM	M42 x 2	30	250
RSWV38SM	M48 x 2	38	250

Tech Sheets 1681 & 1682

Banjo Seal Edge BSPP, Light-duty

0350	Thread	OD mm	Max Pressure Bar
RSWV6LR	1/8"	6	500
RSWV8LR	1/4"	8	500
RSWV10LR	1/4"	10	500
RSWV12LR	3/8"	12	400
RSWV15LR	1/2"	15	400
RSWV18LR	1/2"	18	400
RSWV22LR	3/4"	22	250
RSWV28LR	1"	28	250
RSWV35LR	1.1/4"	35	250
RSWV42LR	1.1/2"	42	250

Tech Sheets 1681 & 1682

Banjo Seal Edge BSPP, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
RSWV6SR	1/4"	6	500
RSWV8SR	1/4"	8	500
RSWV10SR	3/8"	10	500
RSWV12SR	3/8"	12	400
RSWV14SR	1/2"	14	400
RSWV16SR	1/2"	16	400
RSWV20SR	3/4"	20	315
RSWV25SR	1"	25	250
RSWV30SR	1.1/4"	30	250
RSWV38SR	1.1/2"	38	250

Tech Sheets 1681 & 1682

Double Banjo Couplings



Double Banjo Metric, Light-duty with Elastomer Seal

0350	Thread	OD mm	Max Pressure Bar
P-RSTV6LM-WD	M10 x 1	6	500
P-RSTV8LM-WD	M12 x 1.5	8	500
P-RSTV10LM-WD	M14 x 1.5	10	500
P-RSTV12LM-WD	M16 x 1.5	12	400
P-RSTV15LM-WD	M18 x 1.5	15	400
P-RSTV18LM-WD	M22 x 1.5	18	400
P-RSTV22LM-WD	M26 x 1.5	22	250
P-RSTV28LM-WD	M33 x 2	28	250
P-RSTV35LM-WD	M42 x 2	35	250

Tech Sheets 1683 & 1684

Double Banjo Metric, Heavy-duty with Elastomer Seal

0350	Thread	OD mm	Max Pressure Bar
P-RSTV6SM-WD	M12 x 1.5	6	500
P-RSTV8SM-WD	M14 x 1.5	8	500
P-RSTV16SM-WD	M22 x 1.5	16	400
P-RSTV20SM-WD	M27 x 2	20	315
P-RSTV25SM-WD	M33 x 2	25	250
P-RSTV30SM-WD	M42 x 2	30	250
P-RSTV38SM-WD	M48 x 2	38	250

Tech Sheets 1683 & 1684

Double Banjo BSPP, Light-duty with Elastomer Seal

0350	Thread	OD mm	Max Pressure Bar
P-RSTV6LR-WD	1/8"	6	500
P-RSTV8LR-WD	1/4"	8	500
P-RSTV10LR-WD	1/4"	10	500
P-RSTV12LR-WD	3/8"	12	400
P-RSTV15LR-WD	1/2"	15	400
P-RSTV18LR-WD	1/2"	18	400
P-RSTV35LR-WD	1.1/4"	35	250
P-RSTV42LR-WD	1.1/2"	42	250

Tech Sheets 1683 & 1684

Double Banjo BSPP, Heavy-duty with Elastomer Seal

0350	Thread	OD mm	Max Pressure Bar
P-RSTV6SR-WD	1/4"	6	500
P-RSTV8SR-WD	1/4"	8	500
P-RSTV10SR-WD	3/8"	10	500
P-RSTV12SR-WD	3/8"	12	400
P-RSTV16SR-WD	1/2"	16	400
P-RSTV20SR-WD	3/4"	20	315
P-RSTV25SR-WD	1"	25	250
P-RSTV30SR-WD	1.1/4"	30	250
P-RSTV38SR-WD	1.1/2"	38	250

Tech Sheets 1683 & 1684

Swivel Elbow Banjo Coupling, Tube to Tube



Light-duty

0350	OD mm	Max Pressure Bar
DGWW6L	6	250
DGWW8L	8	250
DGWW10L	10	250
DGWW12L	12	250
DGWW18L	18	160
DGWW22L	22	160
DGWW28L	28	100
DGWW35L	35	100
DGWW42L	42	100

Tech Sheet 1685

Heavy-duty

0350	OD mm	Max Pressure Bar
DGWW6S	6	400
DGWW8S	8	400
DGWW10S	10	400
DGWW14S	14	400
DGWW16S	16	400
DGWW20S	20	250
DGWW25S	25	250
DGWW30S	30	250
DGWW38S	38	250

Tech Sheet 1685

Swivel Banjo Couplings



BSPP, Light-duty

0350	Thread	OD mm	Max Pressure Bar
DGWEV6LRWD	1/8"	6	250
DGWEV6LR1/4WD	1/4"	6	250
DGWEV8LRWD	1/4"	8	250
DGWEV10LRWD	1/4"	10	250
DGWEV10LR3/8WD	3/8"	10	250
DGWEV12LRWD	3/8"	12	250
DGWEV12LR1/2WD	1/2"	12	250
DGWEV15LRWD	1/2"	15	250
DGWEV18LRWD	1/2"	18	160
DGWEV22LRWD	3/4"	22	160
DGWEV28LRWD	1"	28	100
DGWEV35LRWD	1.1/4"	35	100
DGWEV42LRWD	1.1/2"	42	100

Tech Sheet 1686

BSPP, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
DGWEV6SRWD	1/4"	6	400
DGWEV8SRWD	1/4"	8	400
DGWEV10SRWD	3/8"	10	400
DGWEV12SRWD	3/8"	12	400
DGWEV16SRWD	1/2"	16	400
DGWEV20SRWD	3/4"	20	250
DGWEV25SRWD	1"	25	250
DGWEV30SRWD	1.1/4"	30	250
DGWEV38SRWD	1.1/2"	38	250

Tech Sheet 1686

Swivel banjos are connecting components between pipe work and equipment to allow swivel movement and slow speed rotation. These connections have a low starting torque and are leak-free and require no maintenance.

WELDING COUPLINGS



Welding Couplings



Bosses, Light-duty

0350	OD mm	Max Pressure Bar
ASV6L	6	500
ASV8L	8	500
ASV10L	10	500
ASV12L	12	400
ASV15L	15	400
ASV18L	18	400
ASV22L	22	250
ASV28L	28	250
ASV35L	35	250
ASV42L	42	250

Tech Sheet 1687

Bosses, Heavy-duty

0350	OD mm	Max Pressure Bar
ASV6S	6	800
ASV8S	8	800
ASV12S	12	630
ASV14S	14	630
ASV16S	16	630
ASV20S	20	420
ASV25S	25	420
ASV30S	30	420
ASV38S	38	420

Tech Sheet 1687



Bulkhead, Light-duty

0350	OD mm	Max Pressure Bar
ESV6L	6	500
ESV8L	8	500
ESV10L	10	500
ESV12L	12	400
ESV15L	15	400
ESV18L	18	400
ESV22L	22	250
ESV28L	28	250
ESV35L	35	250
ESV42L	42	250

Tech Sheet 1688

Bulkhead, Heavy-duty

0350	OD mm	Max Pressure Bar
ESV8S	8	800
ESV10S	10	800
ESV12S	12	630
ESV14S	14	630
ESV16S	16	630
ESV20S	20	420
ESV25S	25	420
ESV30S	30	420
ESV38S	38	420

Tech Sheet 1688

Welding Nipples

Without tube centring



With O-Ring Seal

0350	To Suit Tube OD mm	Max Pressure Bar
SN8X2	8 x 2	400
SN10X1.5	10 x 1.5	400
SN10X2	10 x 2	400
SN12X2.5	12 x 2.5	400
SN16X2	16 x 2	400
SN16X3	16 x 3	400
SN20X3	20 x 3	250
SN25X3	25 x 3	250
SN25X4	25 x 4	315
SN30X4	30 x 4	250
SN30X5	30 x 5	315
SN38X4	38 x 4	160
SN38X5	38 x 5	250
SN38X6	38 x 6	315

Tech Sheet 1689

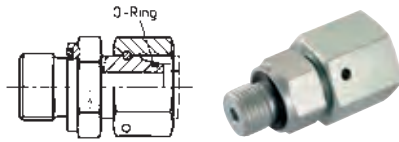


For PPE
see pages 1750-1760

ADJUSTABLE STUD COUPLINGS



Standpipes, Metric



Captive Seal, Light-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6LMWD	M10 x 1	6	500
EGESD8LMWD	M12 x 1.5	8	500
EGESD10LMWD	M14 x 1.5	10	500
EGESD12LMWD	M16 x 1.5	12	400
EGESD15LMWD	M18 x 1.5	15	400
EGESD18LMWD	M22 x 1.5	18	400
EGESD22LMWD	M26 x 1.5	22	250
EGESD28LMWD	M33 x 2	28	250
EGESD35LMWD	M42 x 2	35	250
EGESD42LMWD	M48 x 2	42	250

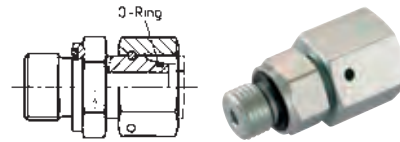
Tech Sheet 1690

Captive Seal, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6SMWD	M12 x 1.5	6	800
EGESD8SMWD	M14 x 1.5	8	800
EGESD10SMWD	M16 x 1.5	10	800
EGESD12SMWD	M18 x 1.5	12	630
EGESD14SMWD	M20 x 1.5	14	630
EGESD16SMWD	M22 x 1.5	16	630
EGESD20SMWD	M27 x 2	20	420
EGESD25SMWD	M33 x 2	25	420
EGESD30SMWD	M42 x 2	30	400
EGESD38SMWD	M48 x 2	38	400

Tech Sheet 1690

Standpipes, BSPP



Captive Seal, Light-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6LRWD	1/8"	6	500
EGESD8LRWD	1/4"	8	500
EGESD10LRWD	1/4"	10	500
EGESD12LRWD	3/8"	12	400
EGESD15LRWD	1/2"	15	400
EGESD18LRWD	1/2"	18	400
EGESD22LRWD	3/4"	22	250
EGESD28LRWD	1"	28	250
EGESD35LRWD	1.1/4"	35	250
EGESD42LRWD	1.1/2"	42	250

Tech Sheet 1691

Captive Seal, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6SRWD	1/4"	6	800
EGESD8SRWD	1/4"	8	800
EGESD12SRWD	3/8"	12	630
EGESD10SRWD	3/8"	10	800
EGESD12SR1/2WD	1/2"	12	630
EGESD14SRWD	1/2"	14	630
EGESD16SRWD	1/2"	16	630
EGESD20SRWD	3/4"	20	420
EGESD25SRWD	1"	25	420
EGESD30SRWD	1.1/4"	30	400
EGESD38SRWD	1.1/2"	38	400

Tech Sheet 1691

Standpipes, NPT



Light-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6L1/8NPT	1/8"	6	250
EGESD8L1/4NPT	1/4"	8	250
EGESD10L1/4NPT	1/4"	10	250
EGESD12L3/8NPT	3/8"	12	250
EGESD15L1/2NPT	1/2"	15	250
EGESD18L1/2NPT	1/2"	18	160
EGESD22L3/4NPT	3/4"	22	160
EGESD28L1NPT	1"	28	100

Tech Sheet 1692

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
EGESD6S1/4NPT	1/4"	6	630
EGESD8S1/4NPT	1/4"	8	630
EGESD10S3/8NPT	3/8"	10	630
EGESD12S3/8NPT	3/8"	12	630
EGESD16S1/2NPT	1/2"	16	400
EGESD20S3/4NPT	3/4"	20	400
EGESD25S1NPT	1"	25	400
EGESD30S11/4NPT	1.1/4"	30	250
EGESD38S11/2NPT	1.1/2"	38	250

Tech Sheet 1692

Straight Couplings

Nuts on either side are retractable to back of O-Ring groove, but only one at a time.



Equal Straight, Light-duty

0350	OD mm	Max Pressure Bar
SNV6L	6	500
SNV8L	8	500
SNV10L	10	500
SNV12L	12	400
SNV15L	15	400
SNV18L	18	400
SNV22L	22	250
SNV28L	28	250
SNV35L	35	250
SNV42L	42	250

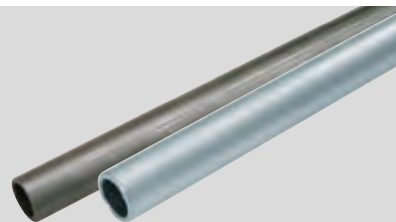
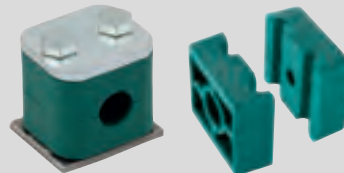
Tech Sheet 1693

Equal Straight, Heavy-duty

0350	OD mm	Max Pressure Bar
SNV6S	6	800
SNV8S	8	800
SNV10S	10	800
SNV12S	12	630
SNV14S	14	630
SNV16S	16	630
SNV20S	20	420
SNV25S	25	420
SNV30S	30	400
SNV38S	38	400

Tech Sheet 1693

You might also need
Hydraulic Tubing
see pages 179-183

For **Hydraulic Tube Clamps**
see pages 184-200

SWIVEL COUPLINGS



Straight Couplings

Nuts on either side are retractable to back of O-Ring groove

Unequal Straight, Light-duty

0350	OD mm	OD mm	Max Pressure Bar
SNV8/6L	8	6	500
SNV10/6L	10	6	500
SNV10/8L	10	8	500
SNV12/6L	12	6	400
SNV12/8L	12	8	400
SNV12/10L	12	10	400
SNV15/8L	15	8	400
SNV15/10L	15	10	400
SNV15/12L	15	12	400
SNV18/10L	18	10	400
SNV18/12L	18	12	400
SNV18/15L	18	15	400
SNV22/12L	22	12	250
SNV22/15L	22	15	250
SNV28/15L	28	15	250
SNV28/18L	28	18	250
SNV28/22L	28	22	250
SNV35/18L	35	18	250
SNV35/22L	35	22	250
SNV35/28L	35	28	250
SNV42/22L	42	22	250
SNV42/28L	42	28	250
SNV42/35L	42	35	250

Tech Sheet 1694



Unequal Straight, Heavy-duty

0350	OD mm	OD mm	Max Pressure Bar
SNV8/6S	8	6	800
SNV10/6S	10	6	800
SNV10/8S	10	8	800
SNV12/6S	12	6	630
SNV12/8S	12	8	630
SNV12/10S	12	10	630
SNV16/10S	16	10	630
SNV16/12S	16	12	630
SNV20/12S	20	12	420
SNV20/16S	20	16	420
SNV25/16S	25	16	420
SNV25/20S	25	20	420
SNV30/16S	30	16	400
SNV30/20S	30	20	400
SNV30/25S	30	25	400
SNV38/20S	38	20	400
SNV38/25S	38	25	400
SNV38/30S	38	30	400

Tech Sheet 1694



Unequal Straight, Light to Heavy-duty

0350	OD mm	OD mm	Max Pressure Bar
SNV6L/6S	6	6	400
SNV8L/8S	8	8	400
SNV10L/10S	10	10	400
SNV12L/12S	12	12	400
SNV18L/16S	18	16	400
SNV22L/20S	22	20	250
SNV28L/25S	28	25	250
SNV35L/30S	35	30	250
SNV42L/38S	42	38	250

Tech Sheet 1695

Unequal Straight, Heavy to Light-duty

0350	OD mm	OD mm	Max Pressure Bar
SNV16S/15L	16	15	400
SNV20S/18L	20	18	400
SNV25S/22L	25	22	250
SNV30S/28L	30	28	250
SNV38S/35L	38	35	250

Tech Sheet 1695

Adjustable Swivel Elbows



Light-duty

0350	Thread	OD mm	Max Pressure Bar
EWVD6L	M12 x 1.5	6	500
EWVD8L	M14 x 1.5	8	500
EWVD10L	M16 x 1.5	10	500
EWVD12L	M18 x 1.5	12	400
EWVD15L	M22 x 1.5	15	400
EWVD18L	M26 x 1.5	18	400
EWVD22L	M30 x 2	22	250
EWVD28L	M36 x 2	28	250
EWVD35L	M45 x 2	35	250
EWVD42L	M52 x 2	42	250

Tech Sheet 1696

Adjustable Run Tees



Light-duty

0350	Thread	OD mm	Max Pressure Bar
ELVD6L	M12 x 1.5	6	500
ELVD8L	M14 x 1.5	8	500
ELVD10L	M16 x 1.5	10	500
ELVD12L	M18 x 1.5	12	400
ELVD15L	M22 x 1.5	15	400
ELVD18L	M26 x 1.5	18	400
ELVD22L	M30 x 2	22	250
ELVD28L	M36 x 2	28	250
ELVD35L	M45 x 2	35	250
ELVD42L	M52 x 2	42	250

Tech Sheet 1697

Adjustable Branch Tees



Light-duty

0350	Thread	OD mm	Max Pressure Bar
ETVD6L	M12 x 1.5	6	500
ETVD8L	M14 x 1.5	8	500
ETVD10L	M16 x 1.5	10	500
ETVD12L	M18 x 1.5	12	400
ETVD15L	M22 x 1.5	15	400
ETVD18L	M26 x 1.5	18	400
ETVD22L	M30 x 2	22	250
ETVD28L	M36 x 2	28	250
ETVD35L	M45 x 2	35	250
ETVD42L	M52 x 2	42	250

Tech Sheet 1698

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
EWVD6S	M14 x 1.5	6	800
EWVD8S	M16 x 1.5	8	800
EWVD10S	M18 x 1.5	10	800
EWVD12S	M20 x 1.5	12	630
EWVD14S	M22 x 1.5	14	630
EWVD16S	M24 x 1.5	16	630
EWVD20S	M30 x 2	20	420
EWVD25S	M36 x 2	25	420
EWVD30S	M42 x 2	30	400
EWVD38S	M52 x 2	38	400

Tech Sheet 1696

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
ELVD6S	M14 x 1.5	6	800
ELVD8S	M16 x 1.5	8	800
ELVD10S	M18 x 1.5	10	800
ELVD12S	M20 x 1.5	12	630
ELVD14S	M22 x 1.5	14	630
ELVD16S	M24 x 1.5	16	630
ELVD20S	M30 x 2	20	420
ELVD25S	M36 x 2	25	420
ELVD30S	M42 x 2	30	400
ELVD38S	M52 x 2	38	400

Tech Sheet 1697

Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
ETVD6S	M14 x 1.5	6	800
ETVD8S	M16 x 1.5	8	800
ETVD10S	M18 x 1.5	10	800
ETVD12S	M20 x 1.5	12	630
ETVD14S	M22 x 1.5	14	630
ETVD16S	M24 x 1.5	16	630
ETVD20S	M30 x 2	20	420
ETVD25S	M36 x 2	25	420
ETVD30S	M42 x 2	30	400
ETVD38S	M52 x 2	38	400

Tech Sheet 1698

FEMALE STUD & GAUGE COUPLINGS



Female Stud Couplings



Female Stud Metric, Light-duty

0350	Thread	OD mm	Max Pressure Bar
GAV6LM	M10 x 1	6	250
GAV8LM	M12 x 1.5	8	250
GAV10LM	M14 x 1.5	10	250
GAV12LM	M16 x 1.5	12	250
GAV15LM	M18 x 1.5	15	250
GAV18LM	M22 x 1.5	18	160
GAV22LM	M26 x 1.5	22	160

Tech Sheet 1699

Female Stud Metric, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GAV6SM	M12 x 1.5	6	630
GAV8SM	M14 x 1.5	8	630
GAV10SM	M16 x 1.5	10	630
GAV12SM	M18 x 1.5	12	630
GAV14SM	M20 x 1.5	14	630
GAV16SM	M22 x 1.5	16	400
GAV20SM	M27 x 2	20	400

Tech Sheet 1699



Female Stud BSPP, Light-duty

0350	Thread	OD mm	Max Pressure Bar
GAV6LR	1/8"	6	250
GAV8LR	1/4"	8	250
GAV10LR	1/4"	10	250
GAV12LR1/4	1/4"	12	250
GAV12LR	3/8"	12	250
GAV15LR	1/2"	15	250
GAV18LR	1/2"	18	160
GAV22LR	3/4"	22	160
GAV28LR	1"	28	100
GAV35LR	1.1/4"	35	100
GAV42LR	1.1/2"	42	100

Tech Sheet 1700

Female Stud BSPP, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
GAV6SR	1/4"	6	630
GAV8SR	1/4"	8	630
GAV10SR	3/8"	10	630
GAV12SR	3/8"	12	630
GAV14SR	1/2"	14	630
GAV16SR	1/2"	16	400
GAV20SR	3/4"	20	400
GAV25SR	1"	25	400
GAV30SR	1.1/4"	30	250
GAV38SR	1.1/2"	38	250

Tech Sheet 1700

Female Gauge Couplings



Female Gauge BSPP, Tube, Light-duty

0350	Thread	OD mm	Max Pressure Bar
MAV6LR	1/4"	6	500
MAV8LR	1/4"	8	500
MAV10LR	1/4"	10	500
MAV12LR	1/4"	12	400

Tech Sheet 1701

Female Gauge BSPP, Tube, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
MAV6SR	1/2"	6	800
MAV8SR	1/2"	8	800
MAV10SR	1/2"	10	800
MAV12SR	1/2"	12	630

Tech Sheet 1701



Female Gauge BSPP, Swivel, Light-duty

0350	Thread	OD mm	Max Pressure Bar
EMASD6LR	1/4"	6	500
EMASD8LR	1/4"	8	500
EMASD10LR	1/4"	10	500
EMASD12LR	1/4"	12	400

Tech Sheet 1702

Female Gauge BSPP, Swivel, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
EMASD6SR	1/2"	6	630
EMASD8SR	1/2"	8	630
EMASD10SR	1/2"	10	630
EMASD12SR	1/2"	12	630

Tech Sheet 1702

Sealing Ring for Gauge Coupling



Steel

0350	To Suit
DKRR1/4MANOM.A3L	1/4"
DKRR1/2MANOM.A3L	1/2"



Customers who bought from this page also purchased **Glycerine Gauges** see pages 414-416

REDUCING COUPLINGS



Reducing Inserts



Light-duty

0350	OD mm	OD mm	Max Pressure Bar
REDVDN8/6L	8	6	500
REDVDN10/8L	10	8	500
REDVDN10/6L	10	6	500
REDVDN12/10L	12	10	400
REDVDN12/8L	12	8	400
REDVDN12/6L	12	6	400
REDVDN15/12L	15	12	400
REDVDN15/10L	15	10	400
REDVDN15/8L	15	8	400
REDVDN15/6L	15	6	400
REDVDN18/15L	18	15	400
REDVDN18/12L	18	12	400
REDVDN18/10L	18	10	400
REDVDN18/8L	18	8	400
REDVDN18/6L	18	6	400
REDVDN22/18L	22	18	250
REDVDN22/15L	22	15	250
REDVDN22/12L	22	12	250
REDVDN22/10L	22	10	250
REDVDN22/8L	22	8	250
REDVDN28/22L	28	22	250
REDVDN28/18L	28	18	250
REDVDN28/15L	28	15	250
REDVDN28/12L	28	12	250
REDVDN28/10L	28	10	250
REDVDN35/28L	35	28	250
REDVDN35/22L	35	22	250
REDVDN35/18L	35	18	250
REDVDN35/15L	35	15	250
REDVDN42/35L	42	35	250
REDVDN42/22L	42	22	250
REDVDN42/18L	42	18	250
REDVDN42/15L	42	15	250

Tech Sheet 1703



Heavy-duty

0350	OD mm	OD mm	Max Pressure Bar
REDVDN8/6S	8	6	800
REDVDN10/8S	10	8	800
REDVDN10/6S	10	6	800
REDVDN12/10S	12	10	630
REDVDN12/8S	12	8	630
REDVDN12/6S	12	6	630
REDVDN14/12S	14	12	630
REDVDN14/10S	14	10	630
REDVDN14/8S	14	8	630
REDVDN14/6S	14	6	630
REDVDN16/14S	16	14	630
REDVDN16/12S	16	12	630
REDVDN16/10S	16	10	630
REDVDN16/8S	16	8	630
REDVDN16/6S	16	6	630
REDVDN20/16S	20	16	420
REDVDN20/14S	20	14	420
REDVDN20/12S	20	12	420
REDVDN20/10S	20	10	420
REDVDN20/8S	20	8	420
REDVDN20/6S	20	6	420
REDVDN25/20S	25	20	420
REDVDN25/16S	25	16	420
REDVDN25/14S	25	14	420
REDVDN25/12S	25	12	420
REDVDN25/10S	25	10	420
REDVDN25/8S	25	8	420
REDVDN30/25S	30	25	400
REDVDN30/20S	30	20	400
REDVDN30/16S	30	16	400
REDVDN30/14S	30	14	400
REDVDN30/12S	30	12	400
REDVDN38/30S	38	30	400
REDVDN38/25S	38	25	400
REDVDN38/20S	38	20	400
REDVDN38/16S	38	16	400
REDVDN38/10S	38	10	400

Tech Sheet 1704

For **Bonded Seals**
see pages 109-112



DIN 2353 BODY ONLY FITTINGS



Male Stud Coupling



Light-duty, Form B, BSPP

0350	Thread	OD mm
GES 6 LR	1/8"	6
GES 6 LR 1/4	1/4"	6
GES 8 LR 1/8	1/8"	8
GES 8 LR	1/4"	8
GES 8 LR 3/8	3/8"	8
GES 10 LR	1/4"	10
GES 10 LR 3/8	3/8"	10
GES 10 LR 1/2	1/2"	10
GES 12 LR 1/4	1/4"	12
GES 12 LR	3/8"	12
GES 12 LR 1/2	1/2"	12
GES 15 LR	1/2"	15
GES 15 LR 3/4	3/4"	15
GES 18 LR	1/2"	18
GES 22 LR 1/2	1/2"	22
GES 22 LR	3/4"	22
GES 28 LR 3/4	3/4"	28
GES 28 LR	1"	28
GES 35 LR	1.1/4"	35
GES 42 LR	1.1/2"	42

Heavy-duty, Form B, BSPP

0350	Thread	OD mm
GES 6 SR	1/4"	6
GES 8 SR	1/4"	8
GES 8 SR 3/8	3/8"	8
GES 10 SR 1/4	1/4"	10
GES 10 SR	3/8"	10
GES 10 SR 1/2	1/2"	12
GES 12 SR 1/4	1/4"	12
GES 12 SR	3/8"	12
GES 12 SR 1/2	1/2"	12
GES 14 SR	1/2"	14
GES 16 SR 3/8	3/8"	16
GES 16 SR	1/2"	16
GES 16 SR 3/4	3/4"	16
GES 20 SR 1/2	1/2"	20
GES 20 SR	3/4"	20
GES 25 SR 3/4	3/4"	25
GES 25 SR	1"	25
GES 30 SR	1.1/4"	30
GES 38 SR 1.1/4	1.1/4"	38
GES 38 SR	1.1/2"	38



Light-duty, WD Seal, BSPP

0350	Thread	OD mm
GES 6 LR-WD	1/8"	6
GES 6 LR 1/4-WD	1/4"	6
GES 8 LR 1/8-WD	1/8"	8
GES 8 LR-WD	1/4"	8
GES 8 LR 3/8-WD	3/8"	8
GES 10 LR-WD	1/4"	10
GES 10 LR 3/8-WD	3/8"	10
GES 10 LR 1/2-WD	1/2"	10
GES 12 LR 1/4-WD	1/4"	12
GES 12 LR-WD	3/8"	12
GES 12 LR 1/2-WD	1/2"	12
GES 15 LR-WD	1/2"	15
GES 18 LR-WD	1/2"	18
GES 22 LR-WD	3/4"	22
GES 28 LR-WD	1"	28
GES 35 LR-WD	1.1/4"	35
GES 42 LR-WD	1.1/2"	42

Heavy-duty, WD Seal, BSPP

0350	Thread	OD mm
GES 6 SR-WD	1/4"	6
GES 8 SR-WD	1/4"	8
GES 8 SR 3/8-WD	3/8"	8
GES 10 SR 1/4-WD	1/4"	10
GES 10 SR-WD	3/8"	10
GES 10 SR 1/2-WD	1/2"	10
GES 12 SR 1/4-WD	1/4"	12
GES 12 SR-WD	3/8"	12
GES 12 SR 1/2-WD	1/2"	12
GES 14 SR-WD	1/2"	14
GES 16 SR 3/8-WD	3/8"	16
GES 16 SR-WD	1/2"	16
GES 16 SR 3/4-WD	3/4"	16
GES 20 SR-WD	3/4"	20
GES 25 SR 3/4-WD	3/4"	25
GES 25 SR-WD	1"	25
GES 30 SR-WD	1.1/4"	30
GES 38 SR-WD	1.1/2"	38



Light-duty, 60° Cone, BSPP

0350	Thread	OD mm
GES6 LRFOA	1/8"	6
GES6 LR 1/4FOA	1/4"	6
GES6 LR 3/8FOA	3/8"	6
GES8 LR 1/8FOA	1/8"	8
GES8 LRFOA	1/4"	8
GES8 LR 3/8FOA	3/8"	8
GES10 LRFOA	1/4"	10
GES10 LR 3/8FOA	3/8"	10
GES10 LR 1/2FOA	1/2"	10
GES12 LRFOA	3/8"	12
GES12 LR 1/4FOA	1/4"	12
GES12 LR 1/2FOA	1/2"	12
GES15 LR 3/8FOA	3/8"	15
GES15 LRFOA	1/2"	15
GES18 LRFOA	1/2"	18
GES18 LR 3/4FOA	3/4"	18
GES22 LR 1/2FOA	1/2"	22
GES22 LRFOA	3/4"	22
GES28 LR 3/4FOA	3/4"	28
GES28 LRFOA	1"	28

Heavy-duty, 60° Cone, BSPP

0350	Thread	OD mm
GES8 SRFOA	1/4"	8
GES10 SR 1/4FOA	1/4"	10
GES10 SRFOA	3/8"	10
GES12 SR 1/4FOA	1/4"	12
GES12 SRFOA	3/8"	12
GES12 SR 1/2FOA	1/2"	12
GES14 SRFOA	1/2"	14
GES16 SR 3/8FOA	3/8"	16
GES16 SRFOA	1/2"	16
GES16 SR 3/4FOA	3/4"	16
GES20 SR 1/2FOA	1/2"	20
GES20 SRFOA	3/4"	20
GES25 SR 3/4FOA	3/4"	25
GES25 SRFOA	1"	25
GES30 SR 1FOA	1"	30
GES35 LRFOA	1.1/4"	35
GES38 SR 1FOA	1"	38
GES38 SR 1.1/4FOA	1.1/4"	38

DIN 2353 BODY ONLY FITTINGS



Straight Coupling



Light-duty

0350	OD mm
GS 6 L	6
GS 8 L	8
GS 10 L	10
GS 12 L	12
GS 15 L	15
GS 18 L	18
GS 22 L	22
GS 28 L	28
GS 35 L	35
GS 42 L	42

Heavy-duty

0350	OD mm
GS 6 S	6
GS 8 S	8
GS 10 S	10
GS 12 S	12
GS 14 S	14
GS 16 S	16
GS 20 S	20
GS 25 S	25
GS 30 S	30
GS 38 S	38

Female Stud Coupling



Light-duty, BSPP

0350	Thread	OD mm
GAS 6 LR	1/8"	6
GAS 8 LR	1/4"	8
GAS 10 LR	1/4"	10
GAS 12 LR 1/4	1/4"	12
GAS 12 LR	3/8"	12
GAS 15 LR	1/2"	15
GAS 18 LR	1/2"	18
GAS 22 LR	3/4"	22
GAS 28 LR	1"	28
GAS 35 LR	1.1/4"	35
GAS 42 LR	1.1/2"	42

Straight Bulkhead Coupling



Light-duty

0350	OD mm
GSS 6 L	6
GSS 8 L	8
GSS 10 L	10
GSS 12 L	12
GSS 15 L	15
GSS 18 L	18
GSS 22 L	22
GSS 28 L	28
GSS 35 L	35
GSS 42 L	42

Heavy-duty

0350	OD mm
GSS 6 S	6
GSS 8 S	8
GSS 10 S	10
GSS 12 S	12
GSS 14 S	14
GSS 16 S	16
GSS 20 S	20
GSS 25 S	25
GSS 30 S	30
GSS 38 S	38

Equal Elbow



Light-duty

0350	OD mm
WS 6 L	6
WS 8 L	8
WS 10 L	10
WS 12 L	12
WS 15 L	15
WS 18 L	18
WS 22 L	22
WS 28 L	28
WS 35 L	35
WS 42 L	42

Heavy-duty

0350	OD mm
WS 6 S	6
WS 8 S	8
WS 12 S	12
WS 16 S	16
WS 20 S	20
WS 25 S	25
WS 30 S	30
WS 38 S	38

Equal Tee



Light-duty

0350	OD mm
TS 6 L	6
TS 8 L	8
TS 10 L	10
TS 12 L	12
TS 15 L	15
TS 18 L	18
TS 22 L	22
TS 28 L	28
TS 35 L	35
TS 42 L	42

Heavy-duty

0350	OD mm
TS 6 S	6
TS 8 S	8
TS 10 S	10
TS 12 S	12
TS 14 S	14
TS 16 S	16
TS 20 S	20
TS 25 S	25
TS 30 S	30
TS 38 S	38

DIN 2353 BODY ONLY FITTINGS



90° Swivel Elbow



Light-duty

0350	OD mm
EWSD 6 L	6
EWSD 8 L	8
EWSD 10 L	10
EWSD 12 L	12
EWSD 15 L	15
EWSD 18 L	18
EWSD 22 L	22
EWSD 28 L	28
EWSD 35 L	35
EWSD 42 L	42

Heavy-duty

0350	OD mm
EWSD 6 S	6
EWSD 8 S	8
EWSD 10 S	10
EWSD 12 S	12
EWSD 14 S	14
EWSD 16 S	16
EWSD 20 S	20
EWSD 25 S	25
EWSD 30 S	30
EWSD 38 S	38

45° Swivel Elbow



Light-duty

0350	OD mm
EWSD 45 6 L	6
EWSD 45 8 L	8
EWSD 45 10 L	10
EWSD 45 12 L	12
EWSD 45 15 L	15
EWSD 45 18 L	18
EWSD 45 22 L	22
EWSD 45 28 L	28
EWSD 45 35 L	35
EWSD 45 42 L	42

Heavy-duty

0350	OD mm
EWSD 45 6 S	6
EWSD 45 8 S	8
EWSD 45 10 S	10
EWSD 45 12 S	12
EWSD 45 16 S	16
EWSD 45 20 S	20
EWSD 45 25 S	25
EWSD 45 30 S	30
EWSD 45 38 S	38

Male Stud Elbow



Light-duty, BSPT

0350	Thread	OD mm
WES 6 LRK	1/8"	6
WES 6 LRK 1/4	1/4"	6
WES 8 LRK	1/4"	8
WES 10 LRK	1/4"	10
WES 10 LRK 3/8	3/8"	10
WES 12 LRK 1/4	1/4"	12
WES 12 LRK	3/8"	12
WES 15 LRK	1/2"	15
WES 18 LRK	1/2"	18

Heavy-duty, BSPT

0350	Thread	OD mm
WES 6 SRK	1/4"	6
WES 8 SRK	1/4"	8
WES 10 SRK	3/8"	10
WES 12 SRK	3/8"	12
WES 14 SRK	1/2"	14
WES 16 SRK	1/2"	16

Swivel Branch Tee



Light-duty

0350	OD mm
ETSD 6 L	6
ETSD 8 L	8
ETSD 10 L	10
ETSD 12 L	12
ETSD 15 L	15
ETSD 18 L	18
ETSD 22 L	22
ETSD 28 L	28
ETSD 35 L	35
ETSD 42 L	42

Heavy-duty

0350	OD mm
ETSD 6 S	6
ETSD 8 S	8
ETSD 10 S	10
ETSD 12 S	12
ETSD 14 S	14
ETSD 16 S	16
ETSD 20 S	20
ETSD 25 S	25
ETSD 30 S	30
ETSD 38 S	38

Swivel Run Tee

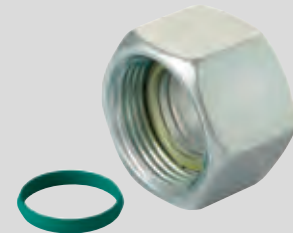


Light-duty

0350	OD mm
ELSD 6 L	6
ELSD 8 L	8
ELSD 10 L	10
ELSD 12 L	12
ELSD 15 L	15
ELSD 18 L	18
ELSD 22 L	22
ELSD 28 L	28
ELSD 35 L	35
ELSD 42 L	42

Heavy-duty

0350	OD mm
ELSD 6 S	6
ELSD 8 S	8
ELSD 10 S	10
ELSD 12 S	12
ELSD 14 S	14
ELSD 16 S	16
ELSD 20 S	20
ELSD 25 S	25
ELSD 30 S	30
ELSD 38 S	38



For Nuts & Olives
see pages 117-118

FLANGE COUPLINGS

Straight Flange Couplings

- O-Rings, spring washers and hexagon nuts must be purchased separately
- Comes complete with profile nut on!



35 Series

0350	OD mm	Max Pressure Bar
GFV10L35	10	315
GFV12L35	12	315
GFV15L35	15	250
GFV16L35	16	315

Tech Sheet 1705

40 Series

0350	OD mm	Max Pressure Bar
GFV15L40	15	100
GFV18L40	18	100
GFV22L40	22	100
GFV28L40	28	100

Tech Sheet 1705

55 Series

0350	OD mm	Max Pressure Bar
GFV20S55	20	250

Tech Sheet 1705

Elbow Flange Couplings



35 Series

0350	OD mm	Max Pressure Bar
WFF10L35	10	315
WFF12L35	12	315
WFF15L35	15	250
WFF16S35	16	315
WFF20S35	20	250

Tech Sheet 1706

40 Series

0350	OD mm	Max Pressure Bar
WFF15L40	15	100
WFF18L40	18	100
WFF22L40	22	100
WFF28L40	28	100
WFF35L40	35	100
WFF20S40	20	250

Tech Sheet 1706

55 Series

0350	OD mm	Max Pressure Bar
WFF22L55	22	100
WFF35L55	35	100
WFF42L55	42	100
WFF20S55	20	250
WFF25S55	25	250
WFF30S55	30	250

Tech Sheet 1706

O-Rings

- Sold as singles
- 1 required per unit



0350	To Suit
WAL610519	35 Series
WAL610499	40 Series
WAL610500	55 Series

Tech Sheet 1707

Spring Washers

- Sold as singles
- 4 required per unit



0350	To Suit
WAL020102	35/40 Series
WAL020104	55 Series

Hexagon Sockets

- Sold as singles
- 4 required per unit



0350	To Suit
WAL020309	35/40 Series
WAL020324	55 Series

Tech Sheet 1707



TOTAL

For Industrial Grade Hand Tools
see pages 1729-1741



VALVES

Non-return Valves

Tube to BSPP, Light-duty



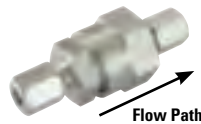
0350	Thread	OD mm	Max Pressure Bar
RVV6LRWD	1/8"	6	400
RVV8LRWD	1/4"	8	400
RVV10LRWD	1/4"	10	400
RVV12LRWD	3/8"	12	400
RVV15LRWD	1/2"	15	400
RVV18LRWD	1/2"	18	400
RVV22LRWD	3/4"	22	250
RVV28LRWD	1"	28	250
RVV35LRWD	1.1/4"	35	250
RVV42LRWD	1.1/2"	42	250
Tech Sheet 1708			

Tube to BSPP, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
RVV6SRWD	1/4"	6	400
RVV8SRWD	1/4"	8	400
RVV10SRWD	3/8"	10	400
RVV12SRWD	3/8"	12	400
RVV14SRWD	1/2"	14	400
RVV16SRWD	1/2"	16	400
RVV20SRWD	3/4"	20	400
RVV25SRWD	1"	25	250
RVV30SRWD	1.1/4"	30	250
RVV38SRWD	1.1/2"	38	250
Tech Sheet 1708			

1 bar cracking pressure.

Tube to Tube, Light-duty



0350	OD mm	Max Pressure Bar
RV6L	6	400
RV8L	8	400
RV10L	10	400
RV12L	12	400
RV15L	15	400
RV18L	18	400
RV22L	22	250
RV28L	28	250
RV35L	35	250
RV42L	42	250
Tech Sheet 1709		

Tube to Tube, Heavy-duty

0350	OD mm	Max Pressure Bar
RV6S	6	400
RV8S	8	400
RV10S	10	400
RV12S	12	400
RV14S	14	400
RV16S	16	400
RV20S	20	400
RV25S	25	250
RV30S	30	250
RV38S	38	250
Tech Sheet 1709		

Flow from tube to male

BSPP x Tube, Light-duty

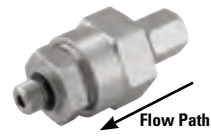


0350	Thread	OD mm	Max Pressure Bar
RVZ6LRWD	1/8"	6	400
RVZ8LRWD	1/4"	8	400
RVZ10LRWD	1/4"	10	400
RVZ12LRWD	3/8"	12	400
RVZ15LRWD	1/2"	15	400
RVZ18LRWD	1/2"	18	400
RVZ22LRWD	3/4"	22	250
RVZ28LRWD	1"	28	250
RVZ35LRWD	1.1/4"	35	250
RVZ42LRWD	1.1/2"	42	250
Tech Sheet 1710			

BSPP x Tube, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
RVZ6SRWD	1/4"	6	400
RVZ8SRWD	1/4"	8	400
RVZ10SRWD	3/8"	10	400
RVZ12SRWD	3/8"	12	400
RVZ14SRWD	1/2"	14	400
RVZ16SRWD	1/2"	16	400
RVZ20SRWD	3/4"	20	400
RVZ25SRWD	1"	25	250
RVZ30SRWD	1.1/4"	30	250
RVZ38SRWD	1.1/2"	38	250
Tech Sheet 1710			

Metric x Tube, Light-duty



0350	Thread	OD mm	Max Pressure Bar
RVZ6LMWD	M10 x 1	6	400
RVZ8LMWD	M12 x 1.5	8	400
RVZ10LMWD	M14 x 1.5	10	400
RVZ12LMWD	M16 x 1.5	12	400
RVZ15LMWD	M18 x 1.5	15	400
RVZ18LMWD	M22 x 1.5	18	400
RVZ22LMWD	M26 x 1.5	22	250
RVZ28LMWD	M33 x 2	28	250
RVZ35LMWD	M42 x 2	35	250
RVZ42LMWD	M48 x 2	42	250
Tech Sheet 1711			

Metric x Tube, Heavy-duty

0350	Thread	OD mm	Max Pressure Bar
RVZ8SMWD	M14 x 1.5	8	400
RVZ10SMWD	M16 x 1.5	10	400
RVZ12SMWD	M18 x 1.5	12	400
RVZ14SMWD	M20 x 1.5	14	400
RVZ16SMWD	M22 x 1.5	16	400
RVZ20SMWD	M27 x 2	20	400
RVZ25SMWD	M33 x 2	25	250
RVZ30SMWD	M42 x 2	30	250
RVZ38SMWD	M48 x 2	38	250
Tech Sheet 1711			



Shuttle Valves



Ball Seat, Light-duty

0350	OD mm	Max Pressure Bar
TWV8L	8	250
TWV10L	10	250
TWV12L	12	250
Tech Sheet 1712		

VALVES

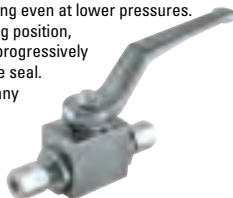


Compression Ball Valves

Tube connection both ends. The ball seal is pre-loaded, which ensures tight sealing even at lower pressures.

Owing to the ball's floating position, any rise in pressure will progressively push the ball closer to the seal.

Ball valves can be fitted in any position at 45° angles.



Light-duty

0350	OD mm	Max Pressure Bar
KHV6L	6	400
KHV8L	8	400
KHV10L	10	400
KHV12L	12	400
KHV15L	15	400
KHV18L	18	400
KHV22L	22	250
KHV28L	28	250
KHV35L	35	250
KHV42L	42	210

Tech Sheet 1713

Heavy-duty

0350	OD mm	Max Pressure Bar
KHV8S	8	500
KHV10S	10	500
KHV12S	12	500
KHV14S	14	500
KHV16S	16	500
KHV20S	20	500
KHV25S	25	400
KHV30S	30	315
KHV38S	38	315

Tech Sheet 1713

Compression L Ported Ball Valves

Tube connection all ports.

Warning: Port A must always be in the open position. Pressure may only be applied from this side. Application of pressure through the other ports is not permissible and may cause malfunction.



L Ported, Light-duty

0350	OD mm	Max Pressure Bar
KH3KV8L-LP0RT	8	400
KH3KV10L-LP0RT	10	400
KH3KV12L-LP0RT	12	350
KH3KV15L-LP0RT	15	350

Tech Sheet 1714

Compression T Ported Ball Valves



T Ported, Light-duty

0350	OD mm	Max Pressure Bar
KH3KV10L-TP0RT	10	400
KH3KV12L-TP0RT	12	350
KH3KV15L-TP0RT	15	350

Tech Sheet 1714

STANDPIPE ADAPTORS



Metric Standpipe Adaptors, Mild Steel, BSPP

L Series

0023	Thread	OD mm
2101-7991	1/8"	6
2101-8007	1/4"	8
2135-2869	3/8"	8
2135-2885	1/8"	10
2101-8023	1/4"	10
2135-2893	1/4"	12
2101-8031	3/8"	12
2135-2901	1/2"	12
2135-3206	3/8"	15
2135-3214	3/8"	18
2135-3222	3/4"	18
2101-8049	1/2"	15
2101-8064	1/2"	18
2101-8072	3/4"	22
2135-3230	3/4"	28
2101-8080	1"	28
2101-8098	1.1/4"	35
2101-8114	1.1/2"	42

BSPP Threads internal 60° coned as standard.

S Series

0023	Thread	OD mm
2101-8122	1/4"	6
2101-8130	1/4"	8
2135-3321	3/8"	8
2101-8148	3/8"	10
2135-3339	1/4"	12
2101-8163	3/8"	12
2135-3347	1/2"	12
2101-8189	1/2"	14
2135-3354	3/8"	16
2101-8197	1/2"	16



0023	Thread	OD mm
2135-3362	3/4"	16
2135-3388	1/2"	20
2101-8205	3/4"	20
2135-3396	1"	20
2135-3404	3/4"	25
2101-8213	1"	25
2135-3412	1"	30
2101-8221	1.1/4"	30
2101-8239	1.1/2"	38

HIGH PRESSURE METRIC TUBE COUPLINGS



Benefits:

- Leak free O-Ring seal
- Safe joint every time
- Low tightening torque and clamping force rises with the internal pressure
- Low installed cost, no welding (so inert gas purging and T an excessive flushing are not required), minimal tube preparation and no special assembly equipment required
- Demountable and reusable, can be used with most tube materials



Working Temperature:

Nitrile: -40°C to +100°C

Viton: -20°C to +150°C

Features:

- Body – mild steel, stainless steel or cupro-nickel. Compatible with most fluids and environments. Locates O-Ring and tube.
- O-Ring – nitrile, FPM (Viton), EP or FEP encapsulated FPM. Compatible with most fluids. Highly resistant to leakage even under severe vibration, pressure pulsation and temperature cycling. Provides diametric seal between tube OD and body cavity.
- Nut – mild steel, stainless steel or cupro-nickel. Compatible with most environments. Closes split collet and retains sealing mechanism.
- Back-up washer – mild steel, stainless steel, or cupro-nickel. Provides additional support from the tube and locates the O-Ring.
- Split collet – mild steel, stainless steel or cupro-nickel. Clamping force rises with pressure. Large clamping area ensures minimal deformation of the tube. Retains tube in position.



Maximum Working Pressure:

6mm to 22mm: 680 bar

25mm to 50mm: 500 bar

Technical:

- 3:1 safety factor
- Derate by 50% for high pressure gas systems
- Pressure ratings based on the tube OD tolerance to BS3602 and DIN2391C

All fittings also available in the following materials upon request:

- Stainless steel
- Cupro-nickel

Seals available on request:

- EP (ethylene propylene)
- FEP encapsulated FPM
- All fittings supplied with Nitrile seals as standard.

Straight Couplings



Tube x Tube

0459	OD mm
KRAM6CR	6
KRAM8CR	8
KRAM10CR	10
KRAM12CR	12
KRAM16CR	16
KRAM20CR	20
KRAM22CR	22
KRAM25CR	25
KRAM30CR	30
KRAM38CR	38
KRAM50CR	50

Tech Sheet 20544

Equal Bulkheads



Tube x Tube

0459	OD mm
KRAM6BPR	6
KRAM8BPR	8
KRAM10BPR	10
KRAM12BPR	12
KRAM16BPR	16
KRAM20BPR	20
KRAM22BPR	22
KRAM25BPR	25
KRAM30BPR	30
KRAM38BPR	38
KRAM50BPR	50

Tech Sheet 20545

Reducing Branch Tees



Tube x Tube

0459	OD mm	OD mm
KRAM12-M8ROTR	12	8
KRAM16-M8ROTR	16	8
KRAM20-M8ROTR	20	8
KRAM25-M12ROTR	25	12
KRAM25-M16ROTR	25	16
KRAM30-M16ROTR	30	16
KRAM38-M20ROTR	38	20

Tech Sheet 20548

Equal Elbows



Tube x Tube

0459	OD mm
KRAM6ER	6
KRAM8ER	8
KRAM10ER	10
KRAM12ER	12
KRAM16ER	16
KRAM20ER	20
KRAM22ER	22
KRAM25ER	25
KRAM30ER	30
KRAM38ER	38
KRAM50ER	50

Tech Sheet 20546

Equal Tees



Tube x Tube

0459	OD mm
KRAM6TR	6
KRAM8TR	8
KRAM10TR	10
KRAM12TR	12
KRAM16TR	16
KRAM20TR	20
KRAM22TR	22
KRAM25TR	25
KRAM30TR	30
KRAM38TR	38
KRAM50TR	50

Tech Sheet 20547

Minimum order quantity on selected items may apply

HIGH PRESSURE METRIC TUBE COUPLINGS



Male Stud Couplings



BSPP

0459	OD mm	Thread
KRAM6-2MSCR	6	1/8"
KRAM6-4MSCR	6	1/4"
KRAM6-6MSCR	6	3/8"
KRAM8-2MSCR	8	1/8"
KRAM8-4MSCR	8	1/4"
KRAM8-6MSCR	8	3/8"
KRAM10-4MSCR	10	1/4"
KRAM10-6MSCR	10	3/8"
KRAM10-8MSCR	10	1/2"
KRAM12-4MSCR	12	1/4"
KRAM12-6MSCR	12	3/8"
KRAM12-8MSCR	12	1/2"
KRAM12-12MSCR	12	3/4"
KRAM16-6MSCR	16	3/8"
KRAM16-8MSCR	16	1/2"
KRAM16-12MSCR	16	3/4"
KRAM20-8MSCR	20	1/2"
KRAM20-12MSCR	20	3/4"
KRAM20-16MSCR	20	1"
KRAM25-12MSCR	25	3/4"
KRAM25-16MSCR	25	1"
KRAM25-20MSCR	25	1.1/4"
KRAM30-16MSCR	30	1"
KRAM30-20MSCR	30	1.1/4"
KRAM38-16MSCR	38	1"
KRAM38-20MSCR	38	1.1/4"
KRAM38-24MSCR	38	1.1/2"
KRAM50-20MSCR	50	1.1/4"
KRAM50-24MSCR	50	1.1/2"
KRAM50-32MSCR	50	2"

Tech Sheet 20549

Male Stud Bulkheads



BSPP

0459	OD mm	Thread
KRAM8-4BHR	8	1/4"
KRAM10-6BHR	10	3/8"
KRAM12-6BHR	12	3/8"
KRAM16-8BHR	16	1/2"
KRAM20-12BHR	20	3/4"
KRAM25-16BHR	25	1"
KRAM38-20BHR	38	1.1/4"
KRAM38-24BHR	38	1.1/2"

Tech Sheet 20555

Female Stud Couplings



BSPP

0459	OD mm	Thread
KRAM6-4FSCR	6	1/4"
KRAM8-6FSCR	8	3/8"
KRAM12-6FSCR	12	3/8"
KRAM16-8FSCR	16	1/2"
KRAM20-12FSCR	20	3/4"
KRAM25-16FSCR	25	1"
KRAM30-20FSCR	30	1.1/4"
KRAM38-24FSCR	38	1.1/2"
KRAM50-32FSCR	50	2"

Tech Sheet 20550

Banjos



BSPP

0459	OD mm	Thread
KRAM6-4BJR	6	1/4"
KRAM8-4BJR	8	1/4"
KRAM10-6BJR	10	3/8"
KRAM12-6BJR	12	3/8"
KRAM16-8BJR	16	1/2"
KRAM20-12BJR	20	3/4"
KRAM25-16BJR	25	3/4"
KRAM30-20BJR	30	1.1/4"
KRAM38-24BJR	38	1.1/2"

Tech Sheet 20556

Female Branch Tees



BSPP

0459	OD mm	Thread
KRAM10-6FOTR	10	3/8"
KRAM12-6FOTR	12	3/8"
KRAM16-8FOTR	16	1/2"
KRAM30-20FOTR	30	1.1/4"
KRAM38-20FOTR	38	1.1/4"
KRAM38-24FOTR	38	1.1/2"
KRAM50-24FOTR	50	1.1/2"

Tech Sheet 20551

Breakaway Adaptors

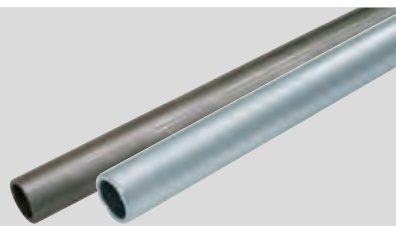


OD

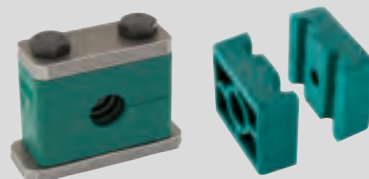
0459	OD mm
KRAM8BCR	8
KRAM10BCR	10
KRAM12BCR	12
KRAM16BCR	16
KRAM20BCR	20
KRAM22BCR	22
KRAM25BCR	25
KRAM30BCR	30
KRAM38BCR	38
KRAM50BCR	50

Tech Sheet 20552

You might also need
Hydraulic Tubing
see pages 179-183



For **Hydraulic Tube Clamps**
see pages 184-200



Minimum order quantity on selected items may apply

HIGH PRESSURE METRIC TUBE COUPLINGS



Reducing Nut Adaptors



Tube x Tube

0459	OD mm	OD mm
KRAM10-M6RNR	10	6
KRAM10-M8RNR	10	8
KRAM12-M8RNR	12	8
KRAM12-M10RNR	12	10
KRAM16-M8RNR	16	8
KRAM16-M12RNR	16	12
KRAM20-M10RNR	20	10
KRAM20-M12RNR	20	12
KRAM20-M16RNR	20	16
KRAM25-M12RNR	25	12
KRAM25-M16RNR	25	16
KRAM25-M20RNR	25	20
KRAM30-M25RNR	30	25
KRAM38-M20RNR	38	20
KRAM38-M25RNR	38	25
KRAM38-M30RNR	38	30
KRAM50-M25RNR	50	25
KRAM50-M30RNR	50	30
KRAM50-M38RNR	50	38

Tech Sheet 20557

Blanking End Plugs



OD

0459	OD mm
KRM6BPGR	6
KRM8BPGR	8
KRM10BPGR	10
KRM20BPGR	20
KRM22BPGR	22
KRM25BPGR	25
KRM30BPGR	30
KRM38BPGR	38
KRM50BPGR	50

Tech Sheet 20553

Washers



OD

0459	OD mm
KRM6W	6
KRM8W	8
KRM10W	10
KRM12W	12
KRM16W	16
KRM20W	20
KRM22W	22
KRM25W	25
KRM30W	30
KRM38W	38
KRM50W	50

Tech Sheet 20553

Collets

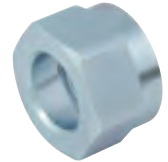


OD

0459	OD mm
KRM6R	6
KRM8R	8
KRM10R	10
KRM12R	12
KRM16R	16
KRM20R	20
KRM22R	22
KRM25R	25
KRM30R	30
KRM38R	38
KRM50R	50

Tech Sheet 20553

Nuts



OD

0459	OD mm
KRM6NCR	6
KRM8NCR	8
KRM10NCR	10
KRM12NCR	12
KRM16NCR	16
KRM20NCR	20
KRM22NCR	22
KRM25NCR	25
KRM30NCR	30
KRM38NCR	38
KRM50NCR	50

Tech Sheet 20553

O-Rings



Viton

0459	OD mm
KR200-010-9790	6
KR200-011-9790	8
KR200-613-9790	10
KR200-614-9790	12
KR200-114-9790	16
KR200-211-9790	20
KR200-212-9790	22
KR200-214-9790	25
KR200-217-9790	30
KR200-222-9790	38
KR207-071-9790	50

Tech Sheet 20554

Nitrile

0459	OD mm
KR200-010-4490	6
KR200-011-4490	8
KR200-613-4490	10
KR200-614-4490	12
KR200-114-4490	16
KR200-211-4490	20
KR200-212-4490	22
KR200-214-4490	25
KR200-217-4490	30
KR200-222-4490	38
KR207-071-4490	50

Tech Sheet 20554

Minimum order quantity on selected items may apply

HYDRAULIC IMPERIAL COMPRESSION FITTINGS

Steel Fittings for O.D. & N.B.



Nuts O.D. Tube

0023	OD
N4	1/4"
N6	3/8"
N8	1/2"
N10	5/8"
N12	3/4"
N14	7/8"
N16	1"
N20	1.1/4"

Tech Sheet 20133



Nuts N.B. Tube

0023	OD
NN4	1/4"
NN6	3/8"
NN8	1/2"
NN12	3/4"
NN16	1"
NN20	1.1/4"

Tech Sheet 20133



Ferrules N.B. Tube

0023	NB
NF4	1/4"
NF6	3/8"
NF8	1/2"
NF12	3/4"
NF16	1"
NF20	1.1/4"

Tech Sheet 20133



Ferrules O.D. Tube

0023	NB
F4	1/4"
F5	5/16"
F6	3/8"
F8	1/2"
F10	5/8"
F12	3/4"
F16	1"
F20	1.1/4"
F24	1.1/2"

Tech Sheet 20133

Technical Data:

1" O.D. 690 bar (10,000 psi) hydraulic or 345 bar (5,000 psi) gas.
 1.1/4" O.D. 552 bar (8,000 psi) hydraulic or 276 bar (4,000 psi) gas.

N.B. Couplings are suitable for the following pressures, up to and including:

3/4" N.B. 690 bar (10,000 psi) hydraulic or 345 bar (5,000 psi) gas.
 1" N.B. 552 bar (8,000 psi) hydraulic or 276 bar (4,000 psi) gas.
 1.1/2" N.B. 345 bar (5,000 psi) hydraulic or 173 bar (2,500 psi) gas.



Straight Couplings O.D. Tube

0023	OD
SC4	1/4"
SC5	5/16"
SC6	3/8"
SC8	1/2"
SC10	5/8"
SC12	3/4"
SC14	7/8"
SC16	1"
SC20	1.1/4"

Tech Sheet 20134



Straight Couplings N.B. Tube

0023	NB
NSC4	1/4"
NSC6	3/8"
NSC8	1/2"
NSC12	3/4"
NSC16	1"
NSC24	1.1/2"

Tech Sheet 20134



BSPP Female Stud Couplings O.D. Tube

0023	OD	Thread
FC4-4	1/4"	1/4"
FC6-4	3/8"	1/4"
FC6-6	3/8"	3/8"
FC6-8	3/8"	1/2"
FC8-4	1/2"	1/4"
FC8-6	1/2"	3/8"
FC8-8	1/2"	1/2"
FC10-8	5/8"	1/2"
FC12-12	3/4"	3/4"
FC14-12	7/8"	3/4"
FC16-16	1"	1"
FC20-20	1.1/4"	1.1/4"
FC24-24	1.1/2"	1.1/2"

Tech Sheet 20135



BSPP Female Stud Couplings N.B. Tube

0023	NB	Thread
NFC4-2	1/4"	1/8"
NFC4-8	1/4"	1/2"
NFC6-8	3/8"	1/2"
NFC8-6	1/2"	3/8"
NFC8-8	1/2"	1/2"
NFC8-12	1/2"	3/4"
NFC16-16	1"	1"

Tech Sheet 20135



BSPP Male Stud Couplings O.D. Tube

0023	OD	Thread
MC4-2	1/4"	1/8"
MC4-4	1/4"	1/4"
MC4-6	1/4"	3/8"
MC6-4	3/8"	1/4"
MC6-6	3/8"	3/8"
MC6-8	3/8"	1/2"
MC8-4	1/2"	1/4"
MC8-6	1/2"	3/8"
MC8-8	1/2"	1/2"
MC8-12	1/2"	3/4"
MC10-8	5/8"	1/2"
MC10-12	5/8"	3/4"
MC12-8	3/4"	1/2"
MC12-12	3/4"	3/4"
MC14-12	7/8"	3/4"
MC16-12	1"	3/4"
MC16-16	1"	1"
MC16-20	1"	1.1/4"
MC20-16	1.1/4"	1"
MC20-20	1.1/4"	1.1/4"
MC20-24	1.1/4"	1.1/2"
MC24-20	1.1/2"	1.1/4"
MC24-24	1.1/2"	1.1/2"

Tech Sheet 20136

HYDRAULIC IMPERIAL COMPRESSION FITTINGS



Steel Fittings for O.D. & N.B.

BSPP Male Stud Couplings N.B. Tube



0023	NB	Thread
NMC4-4	1/4"	1/4"
NMC4-6	1/4"	3/8"
NMC6-4	3/8"	1/4"
NMC6-6	3/8"	3/8"
NMC8-6	1/2"	3/8"
NMC8-8	1/2"	1/2"
NMC8-12	1/2"	3/4"
NMC8-16	1/2"	1"
NMC12-12	3/4"	3/4"
NMC16-12	1"	3/4"
NMC16-16	1"	1"
NMC16-20	1"	1.1/4"
NMC20-16	1.1/4"	1"
NMC20-20	1.1/4"	1.1/4"
NMC24-24	1.1/2"	1.1/2"

Tech Sheet 20137

BSPT Male Stud Couplings O.D. Tube



0023	OD	Thread
MC4-4T	1/4"	1/4"
MC6-4T	3/8"	1/4"
MC6-6T	3/8"	3/8"
MC8-4T	1/2"	1/4"
MC8-6T	1/2"	3/8"
MC8-8T	1/2"	1/2"
MC10-8T	5/8"	1/2"
MC12-8T	3/4"	1/2"
MC12-12T	3/4"	3/4"
MC16-12T	1"	3/4"
MC16-16T	1"	1"
MC20-16T	1.1/4"	1"
MC24-24T	1.1/2"	1.1/2"

Tech Sheet 20138

BSPT Male Stud Couplings N.B. Tube



0023	NB	Thread
NMC4-4T	1/4"	1/4"
NMC4-8T	1/4"	1/2"
NMC6-6T	3/8"	3/8"
NMC8-6T	1/2"	3/8"
NMC8-8T	1/2"	1/2"
NMC8-12T	1/2"	3/4"
NMC12-12T	3/4"	3/4"
NMC12-16T	3/4"	1"
NMC16-16T	1"	1"
NMC20-20T	1.1/4"	1.1/4"
NMC24-24T	1.1/2"	1.1/2"

Tech Sheet 20139

BSPT Male Stud Elbows O.D. Tube



0023	OD	Thread
ME4-2T	1/4"	1/8"
ME4-4T	1/4"	1/4"
ME6-4T	3/8"	1/4"
ME6-6T	3/8"	3/8"
ME8-6T	1/2"	3/8"
ME12-8T	3/4"	1/2"
ME16-12T	1"	3/4"
ME16-16T	1"	1"

Tech Sheet 20140

BSPP Male Stud Elbows N.B. Tube



0023	NB	Thread
NME6-6	3/8"	3/8"
NME8-8	1/2"	1/2"

Tech Sheet 20141

BSPP Male Stud Elbows O.D. Tube



0023	OD	Thread
ME4-2	1/4"	1/8"
ME4-4	1/4"	1/4"
ME8-6	1/2"	3/8"
ME8-8	1/2"	1/2"
ME10-8	5/8"	1/2"
ME12-8	3/4"	1/2"
ME12-12	3/4"	3/4"

Tech Sheet 20141

Equal Elbows O.D. Tube



0023	OD
E4	1/4"
E5	5/16"
E6	3/8"
E8	1/2"
E10	5/8"
E12	3/4"
E14	7/8"
E16	1"
E20	1.1/4"
E24	1.1/2"

Tech Sheet 20143

Bulkhead Couplings O.D. Tube



0023	OD
BH6	3/8"
BH8	1/2"
BH10	5/8"
BH12	3/4"

Tech Sheet 20144

BSPP Banjo Couplings O.D. Tube



0023	OD	Thread
BJ4-4	1/4"	1/4"
BJ6-4	3/8"	1/4"
BJ6-6	3/8"	3/8"
BJ8-6	1/2"	3/8"
BJ8-8	1/2"	1/2"
BJ10-8	5/8"	1/2"

Tech Sheet 20146

Equal Tees O.D. Tube



0023	OD
T4	1/4"
T5	5/16"
T6	3/8"
T8	1/2"
T12	3/4"
T16	1"
T24	1.1/2"

Tech Sheet 20145

HYDRAULIC IMPERIAL COMPRESSION FITTINGS

Steel Fittings for O.D. & N.B.



BSPT Male Stud Elbows N.B. Tube

0023	NB	Thread
NME4-4T	1/4"	1/4"
NME4-6T	1/4"	1/8"
NME6-6T	3/8"	3/8"

Tech Sheet 20140



Equal Elbows N.B. Tube

0023	NB
NE4	1/4"
NE6	3/8"
NE8	1/2"
NE12	3/4"
NE16	1"
NE20	1.1/4"

Tech Sheet 20143



BSPP Banjo Couplings N.B. Tube

0023	NB	Thread
NBJ2-2	1/8"	1/8"
NBJ8-8	1/2"	1/2"

Tech Sheet 20146



Equal Tees N.B. Tube

0023	NB
NT4	1/4"
NT6	3/8"
NT8	1/2"
NT12	3/4"
NT20	1.1/4"
NT24	1.1/2"

Tech Sheet 20145



BSPP Male Stud Standpipe Adaptors N.B. Fitting

0023	NB	Thread
NSA4-4	1/4"	1/4"
NSA6-4	1/4"	3/8"
NSA6-6	3/8"	3/8"
NSA8-6	3/8"	1/2"
NSA8-8	1/2"	1/2"
NSA12-8	1/2"	3/4"
NSA12-12	3/4"	3/4"
NSA12-16	1"	3/4"
NSA16-16	1"	1"
NSA16-20	1.1/4"	1"
NSA20-16	1"	1.1/4"
NSA20-20	1.1/4"	1.1/4"

Tech Sheet 20148



BSPP Male Stud Standpipe Adaptors O.D. Fitting

0023	OD	Thread
SA4-4	1/4"	1/4"
SA4-6	3/8"	1/4"
SA6-6	3/8"	3/8"
SA6-8	1/2"	3/8"
SA8-8	1/2"	1/2"
SA8-12	3/4"	1/2"
SA12-12	3/4"	3/4"
SA12-16	1"	3/4"
SA16-16	1"	1"
SA20-20	1.1/4"	1.1/4"

Tech Sheet 20148



Blanking Plugs O.D. Tube

0023	OD
BP4	1/4"
BP6	3/8"
BP8	1/2"
BP12	3/4"
BP20	1.1/4"

Tech Sheet 20149

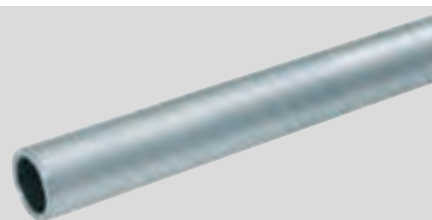


Blanking Plugs N.B. Tube

0023	NB
NBP4	1/4"
NBP6	3/8"
NBP8	1/2"
NBP12	3/4"

Tech Sheet 20149

You might also need
Imperial Hydraulic Tubing
see page **182**



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

Male Stud Couplings



L Series, BSPP (Captive Seal)

0291	OD mm	Thread
GE-6L-2EO	6	1/8"
GE-6L-4EO	6	1/4"
GE-6L-6EO	6	3/8"
GE-6L-8EO	6	1/2"
GE-8L-2EO	8	1/8"
GE-8L-4EO	8	1/4"
GE-8L-6EO	8	3/8"
GE-8L-8EO	8	1/2"
GE-10L-2EO	10	1/8"
GE-10L-4EO	10	1/4"
GE-10L-6EO	10	3/8"
GE-10L-8EO	10	1/2"
GE-10L-12EO	10	3/4"
GE-12L-2EO	12	1/8"
GE-12L-4EO	12	1/4"
GE-12L-6EO	12	3/8"
GE-12L-8EO	12	1/2"
GE-12L-12EO	12	3/4"
GE-15L-4EO	15	1/4"
GE-15L-6EO	15	3/8"
GE-15L-8EO	15	1/2"
GE-15L-12EO	15	3/4"
GE-15L-16EO	15	1"
GE-18L-6EO	18	3/8"
GE-18L-8EO	18	1/2"
GE-18L-12EO	18	3/4"
GE-18L-16EO	18	1"
GE-22L-6EO	22	3/8"
GE-22L-8EO	22	1/2"
GE-22L-12EO	22	3/4"
GE-22L-16EO	22	1"
GE-22L-20EO	22	1.1/4"
GE-28L-8EO	28	1/2"
GE-28L-12EO	28	3/4"
GE-28L-16EO	28	1"
GE-28L-20EO	28	1.1/4"
GE-28L-24EO	28	1.1/2"
GE-35L-12EO	35	3/4"
GE-35L-16EO	35	1"
GE-35L-20EO	35	1.1/4"
GE-35L-24EO	35	1.1/2"
GE-42L-16EO	42	1"
GE-42L-20EO	42	1.1/4"
GE-42L-24EO	42	1.1/2"
GE-42L-32EO	42	2"

Tech Sheet 10585

S Series, BSPP (Captive Seal)

0291	OD mm	Thread
GE-6S-2EO	6	1/8"
GE-6S-4EO	6	1/4"
GE-6S-6EO	6	3/8"
GE-6S-8EO	6	1/2"
GE-8S-2EO	8	1/8"
GE-8S-4EO	8	1/4"
GE-8S-6EO	8	3/8"
GE-8S-8EO	8	1/2"
GE-10S-2EO	10	1/8"
GE-10S-4EO	10	1/4"
GE-10S-6EO	10	3/8"
GE-10S-8EO	10	1/2"
GE-10S-12EO	10	3/4"
GE-12S-4EO	12	1/4"
GE-12S-6EO	12	3/8"
GE-12S-8EO	12	1/2"
GE-12S-12EO	12	3/4"
GE-14S-6EO	14	3/8"
GE-14S-8EO	14	1/2"
GE-14S-12EO	14	3/4"
GE-16S-4EO	16	1/4"
GE-16S-6EO	16	3/8"
GE-16S-8EO	16	1/2"
GE-16S-12EO	16	3/4"
GE-16S-16EO	16	1"
GE-20S-6EO	20	3/8"
GE-20S-8EO	20	1/2"
GE-20S-12EO	20	3/4"
GE-20S-16EO	20	1"
GE-20S-20EO	20	1.1/4"
GE-25S-8EO	25	1/2"
GE-25S-12EO	25	3/4"
GE-25S-16EO	25	1"
GE-25S-20EO	25	1.1/4"
GE-30S-12EO	30	3/4"
GE-30S-16EO	30	1"
GE-30S-20EO	30	1.1/4"
GE-30S-24EO	30	1.1/2"
GE-38S-16EO	38	1"
GE-38S-20EO	38	1.1/4"
GE-38S-24EO	38	1.1/2"

Tech Sheet 10585

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series, Metric (Captive Seal)

0291	OD mm	Thread
GE-6L-10MEO	6	M10 x 1
GE-6L-12MEO	6	M12 x 1.5
GE-6L-14MEO	6	M14 x 1.5
GE-8L-10MEO	8	M10 x 1.0
GE-8L-12MEO	8	M12 x 1.5
GE-8L-14MEO	8	M14 x 1.5
GE-8L-16MEO	8	M16 x 1.5
GE-8L-18MEO	8	M18 x 1.5
GE-10L-10MEO	10	M10 x 1.0
GE-10L-12MEO	10	M12 x 1.5
GE-10L-14MEO	10	M14 x 1.5
GE-10L-16MEO	10	M16 x 1.5
GE-10L-18MEO	10	M18 x 1.5
GE-10L-22MEO	10	M22 x 1.5
GE-12L-12MEO	12	M12 x 1.5
GE-12L-14MEO	12	M14 x 1.5
GE-12L-16MEO	12	M16 x 1.5
GE-12L-18MEO	12	M18 x 1.5
GE-12L-22MEO	12	M22 x 1.5
GE-15L-16MEO	15	M16 x 1.5
GE-15L-18MEO	15	M18 x 1.5
GE-15L-22MEO	15	M22 x 1.5
GE-18L-18MEO	18	M18 x 1.5
GE-18L-22MEO	18	M22 x 1.5
GE-18L-26MEO	18	M26 x 1.5
GE-22L-22MEO	22	M22 x 1.5
GE-22L-26MEO	22	M26 x 1.5
GE-28L-33MEO	28	M33 x 2
GE-35L-42MEO	35	M42 x 2.0
GE-42L-48MEO	42	M48 x 2.0

Tech Sheet 10586

S Series, Metric (Captive Seal)

0291	OD mm	Thread
GE-6S-12MEO	6	M12 x 1.5
GE-6S-14MEO	6	M14 x 1.5
GE-8S-12MEO	8	M12 x 1.5
GE-8S-14MEO	8	M14 x 1.5
GE-8S-16MEO	8	M16 x 1.5
GE-10S-14MEO	10	M14 x 1.5
GE-10S-16MEO	10	M16 x 1.5
GE-10S-18MEO	10	M18 x 1.5
GE-12S-14MEO	12	M14 x 1.5
GE-12S-16MEO	12	M16 x 1.5
GE-12S-18MEO	12	M18 x 1.5
GE-12S-20MEO	12	M20 x 1.5
GE-12S-22MEO	12	M22 x 1.5
GE-14S-20MEO	14	M20 x 1.5
GE-14S-22MEO	14	M22 x 1.5
GE-16S-18MEO	16	M18 x 1.5
GE-16S-22MEO	16	M22 x 1.5
GE-20S-27MEO	20	M27 x 2
GE-25S-33MEO	25	M33 x 2
GE-30S-42MEO	30	M42 x 2
GE-38S-48MEO	38	M48 x 2

Tech Sheet 10586

For Bonded Seals
see pages 109-112



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Male Stud Couplings



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series, BSPP, Form B Sealing

0291	OD mm	Thread
GE-6L-2RP	6	1/8"
GE-6L-4RP	6	1/4"
GE-6L-6RP	6	3/8"
GE-6L-8RP	6	1/2"
GE-8L-2RP	8	1/8"
GE-8L-4RP	8	1/4"
GE-8L-6RP	8	3/8"
GE-8L-8RP	8	1/2"
GE-10L-2RP	10	1/8"
GE-10L-4RP	10	1/4"
GE-10L-6RP	10	3/8"
GE-10L-8RP	10	1/2"
GE-10L-12RP	10	3/4"
GE-12L-2RP	12	1/8"
GE-12L-4RP	12	1/4"
GE-12L-6RP	12	3/8"
GE-12L-8RP	12	1/2"
GE-12L-12RP	12	3/4"
GE-15L-4RP	15	1/4"
GE-15L-6RP	15	3/8"
GE-15L-8RP	15	1/2"
GE-15L-12RP	15	3/4"
GE-18L-6RP	18	3/8"
GE-18L-8RP	18	1/2"
GE-18L-12RP	18	3/4"
GE-18L-16RP	18	1"
GE-22L-6RP	22	3/8"
GE-22L-8RP	22	1/2"
GE-22L-12RP	22	3/4"
GE-22L-16RP	22	1"
GE-22L-20RP	22	1.1/4"
GE-28L-8RP	28	1/2"
GE-28L-12RP	28	3/4"
GE-28L-16RP	28	1"
GE-28L-20RP	28	1.1/4"
GE-28L-24RP	28	1.1/2"
GE-35L-12RP	35	3/4"
GE-35L-16RP	35	1"
GE-35L-20RP	35	1.1/4"
GE-35L-24RP	35	1.1/2"
GE-42L-16RP	42	1"
GE-42L-20RP	42	1.1/4"
GE-42L-24RP	42	1.1/2"

Tech Sheet 20796

S Series, BSPP, Form B Sealing

0291	OD mm	Thread
GE-6S-2RP	6	1/8"
GE-6S-4RP	6	1/4"
GE-6S-6RP	6	3/8"
GE-6S-8RP	6	1/2"
GE-8S-2RP	8	1/8"
GE-8S-4RP	8	1/4"
GE-8S-6RP	8	3/8"
GE-8S-8RP	8	1/2"
GE-10S-2RP	10	1/8"
GE-10S-4RP	10	1/4"
GE-10S-6RP	10	3/8"
GE-10S-8RP	10	1/2"
GE-10S-12RP	10	3/4"
GE-12S-4RP	12	1/4"
GE-12S-6RP	12	3/8"
GE-12S-8RP	12	1/2"
GE-12S-12RP	12	3/4"
GE-14S-4RP	14	1/4"
GE-14S-6RP	14	3/8"
GE-14S-8RP	14	1/2"
GE-14S-12RP	14	3/4"
GE-16S-4RP	16	1/4"
GE-16S-6RP	16	3/8"
GE-16S-8RP	16	1/2"
GE-16S-12RP	16	3/4"
GE-16S-16RP	16	1"
GE-20S-6RP	20	3/8"
GE-20S-8RP	20	1/2"
GE-20S-12RP	20	3/4"
GE-20S-16RP	20	1"
GE-20S-20RP	20	1.1/4"
GE-25S-8RP	25	1/2"
GE-25S-12RP	25	3/4"
GE-25S-16RP	25	1"
GE-25S-20RP	25	1.1/4"
GE-30S-12RP	30	3/4"
GE-30S-16RP	30	1"
GE-30S-20RP	30	1.1/4"
GE-30S-24RP	30	1.1/2"
GE-38S-16RP	38	1"
GE-38S-20RP	38	1.1/4"
GE-38S-24RP	38	1.1/2"

Tech Sheet 20796

L Series, Metric Parallel, Form B Sealing

0291	OD mm	Thread
GE-6L-10MPB	6	M10 x 1
GE-6L-12MPB	6	M12 x 1.5
GE-6L-14MPB	6	M14 x 1.5
GE-8L-10MPB	8	M10 x 1.0
GE-8L-12MPB	8	M12 x 1.5
GE-8L-14MPB	8	M14 x 1.5
GE-8L-18MPB	8	M18 x 1.5
GE-8L-16MPB	8	M16 x 1.5
GE-10L-10MPB	10	M16 x 1.5
GE-10L-14MPB	10	M14 x 1.5
GE-10L-12MPB	10	M12 x 1.5
GE-10L-16MPB	10	M16 x 1.5
GE-10L-18MPB	10	M18 x 1.5
GE-10L-22MPB	10	M22 x 1.5
GE-12L-14MPB	12	M14 x 1.5
GE-12L-12MPB	12	M12 x 1.5
GE-12L-16MPB	12	M16 x 1.5
GE-12L-18MPB	12	M18 x 1.5
GE-12L-22MPB	12	M22 x 1.5
GE-15L-16MPB	15	M16 x 1.5
GE-15L-18MPB	15	M18 x 1.5
GE-15L-22MPB	15	M22 x 1.5
GE-18L-18MPB	18	M18 x 1.5
GE-18L-22MPB	18	M22 x 1.5
GE-18L-26MPB	18	M26 x 1.5
GE-22L-22MPB	22	M22 x 1.5
GE-22L-26MPB	22	M26 x 1.5
GE-28L-33MPB	28	M33 x 1.5
GE-35L-42MPB	35	M42 x 2
GE-42L-48MPB	42	M48 x 2

Tech Sheet 10587

S Series, Metric Parallel, Form B Sealing

0291	OD mm	Thread
GE-6S-12MPB	6	M12 x 1.5
GE-6S-14MPB	6	M14 x 1.5
GE-8S-14MPB	8	M14 x 1.5
GE-10S-16MPB	10	M16 x 1.5
GE-10S-18MPB	10	M18 x 1.5
GE-12S-14MPB	12	M14 x 1.5
GE-12S-16MPB	12	M16 x 1.5
GE-12S-18MPB	12	M18 x 1.5
GE-12S-22MPB	12	M22 x 1.5
GE-14S-20MPB	14	M20 x 1.5
GE-16S-18MPB	16	M18 x 1.5
GE-16S-22MPB	16	M22 x 1.5
GE-20S-27MPB	20	M27 x 2
GE-25S-33MPB	25	M33 x 2
GE-30S-42MPB	30	M42 x 2
GE-38S-48MPB	38	M48 x 2

Tech Sheet 10587

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Male Stud Couplings

L Series, BSPT

0291	OD mm	Thread
GE-6L-2RT	6	1/8"
GE-6L-4RT	6	1/4"
GE-6L-6RT	6	3/8"
GE-6L-8RT	6	1/2"
GE-8L-2RT	8	1/8"
GE-8L-4RT	8	1/4"
GE-8L-6RT	8	3/8"
GE-8L-8RT	8	1/2"
GE-10L-2RT	10	1/8"
GE-10L-4RT	10	1/4"
GE-10L-6RT	10	3/8"
GE-10L-8RT	10	1/2"
GE-12L-2RT	12	1/8"
GE-12L-4RT	12	1/4"
GE-12L-6RT	12	3/8"
GE-12L-8RT	12	1/2"
GE-12L-12RT	12	3/4"
GE-15L-4RT	15	1/4"
GE-15L-6RT	15	3/8"
GE-15L-8RT	15	1/2"
GE-15L-12RT	15	3/4"
GE-18L-6RT	18	3/8"
GE-18L-8RT	18	1/2"
GE-18L-12RT	18	3/4"
GE-22L-6RT	22	3/8"
GE-22L-8RT	22	1/2"
GE-22L-12RT	22	3/4"
GE-22L-16RT	22	1"
GE-28L-8RT	28	1/2"
GE-28L-12RT	28	3/4"
GE-28L-16RT	28	1"
GE-28L-20RT	28	1.1/4"
GE-35L-16RT	35	1"
GE-35L-20RT	35	1.1/4"
GE-35L-24RT	35	1.1/2"
GE-42L-20RT	42	1.1/4"
GE-42L-24RT	42	1.1/2"

Tech Sheet 10588

S Series, BSPT

0291	OD mm	Thread
GE-6S-2RT	6	1/8"
GE-6S-4RT	6	1/4"
GE-6S-6RT	6	3/8"
GE-8S-2RT	8	1/8"
GE-8S-4RT	8	1/4"
GE-8S-6RT	8	3/8"
GE-10S-4RT	10	1/4"
GE-10S-6RT	10	3/8"
GE-12S-4RT	12	1/4"
GE-12S-6RT	12	3/8"
GE-12S-8RT	12	1/2"
GE-14S-6RT	14	3/8"
GE-14S-8RT	14	1/2"
GE-16S-6RT	16	3/8"
GE-16S-8RT	16	1/2"
GE-16S-12RT	16	3/4"
GE-20S-8RT	20	1/2"
GE-20S-12RT	20	3/4"
GE-25S-12RT	25	3/4"
GE-25S-16RT	25	1"
GE-30S-20RT	30	1.1/4"
GE-38S-24RT	38	1.1/2"

Tech Sheet 10588



L Series, NPT

0291	OD mm	Thread
GE-6L-2N	6	1/8"
GE-6L-4N	6	1/4"
GE-6L-6N	6	3/8"
GE-6L-8N	6	1/2"
GE-8L-2N	8	1/8"
GE-8L-4N	8	1/4"
GE-8L-6N	8	3/8"
GE-8L-8N	8	1/2"
GE-10L-2N	10	1/8"
GE-10L-4N	10	1/4"
GE-10L-6N	10	3/8"
GE-10L-8N	10	1/2"
GE-10L-12N	10	3/4"
GE-12L-2N	12	1/8"
GE-12L-4N	12	1/4"
GE-12L-6N	12	3/8"
GE-12L-8N	12	1/2"
GE-12L-12N	12	3/4"
GE-15L-4N	15	1/4"
GE-15L-6N	15	3/8"
GE-15L-8N	15	1/2"
GE-15L-12N	15	3/4"
GE-18L-6N	18	3/8"
GE-18L-8N	18	1/2"
GE-18L-12N	18	3/4"
GE-18L-16N	18	1"
GE-22L-6N	22	3/8"
GE-22L-8N	22	1/2"
GE-22L-12N	22	3/4"
GE-22L-16N	22	1"
GE-22L-20N	22	1.1/4"
GE-28L-8N	28	1/2"
GE-28L-12N	28	3/4"
GE-28L-16N	28	1"
GE-28L-20N	28	1.1/4"
GE-35L-16N	35	1"
GE-35L-20N	35	1.1/4"
GE-35L-24N	35	1.1/2"
GE-42L-16N	42	1"
GE-42L-20N	42	1.1/4"
GE-42L-24N	42	1.1/2"

Tech Sheet 10589

° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

S Series, NPT

0291	OD mm	Thread
GE-6S-2N	6	1/8"
GE-6S-4N	6	1/4"
GE-6S-6N	6	3/8"
GE-6S-8N	6	1/2"
GE-8S-2N	8	1/8"
GE-8S-4N	8	1/4"
GE-8S-6N	8	3/8"
GE-8S-8N	8	1/2"
GE-10S-2N	10	1/8"
GE-10S-4N	10	1/4"
GE-10S-6N	10	3/8"
GE-10S-8N	10	1/2"
GE-10S-12N	10	3/4"
GE-12S-4N	12	1/4"
GE-12S-6N	12	3/8"
GE-12S-8N	12	1/2"
GE-12S-12N	12	3/4"
GE-14S-6N	14	3/8"
GE-14S-8N	14	1/2"
GE-14S-12N	14	3/4"
GE-16S-6N	16	3/8"
GE-16S-8N	16	1/2"
GE-16S-12N	16	3/4"
GE-16S-16N	16	1"
GE-20S-6N	20	3/8"
GE-20S-12N	20	3/4"
GE-20S-16N	20	1"
GE-20S-20N	20	1.1/4"
GE-25S-8N	25	1/2"
GE-25S-12N	25	3/4"
GE-25S-16N	25	1"
GE-25S-20N	25	1.1/4"
GE-30S-12N	30	3/4"
GE-30S-16N	30	1"
GE-30S-20N	30	1.1/4"
GE-30S-24N	30	1.1/2"
GE-38S-16N	38	1"
GE-38S-20N	38	1.1/4"
GE-38S-24N	38	1.1/2"

Tech Sheet 10589

stainless
steel



For Stainless Steel
Component parts
see page 1255

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Male Stud Couplings



L Series, UNF, O-Ring Sealing

0291	OD mm	Thread
GE-6L-7/16UNF	6	7/16"
GE-6L-1/2UNF	6	1/2"
GE-6L-9/16UNF	6	9/16"
GE-8L-7/16UNF	8	7/16"
GE-8L-1/2UNF	8	1/2"
GE-8L-9/16UNF	8	9/16"
GE-10L-7/16UNF	10	7/16"
GE-10L-1/2UNF	10	1/2"
GE-10L-9/16UNF	10	9/16"
GE-10L-3/4UNF	10	3/4"
GE-12L-9/16UNF	12	9/16"
GE-12L-3/4UNF	12	3/4"
GE-12L-7/8UNF	12	7/8"
GE-15L-9/16UNF	15	9/16"
GE-15L-3/4UNF	15	3/4"
GE-15L-7/8UNF	15	7/8"
GE-18L-3/4UNF	18	3/4"
GE-18L-7/8UNF	18	7/8"
GE-18L-11/16UNF	18	1.1/16"
GE-22L-3/4UNF	22	3/4"
GE-22L-7/8UNF	22	7/8"
GE-22L-11/16UNF	22	1.1/16"
GE-22L-15/16UNF	22	1.5/16"
GE-28L-11/16UNF	28	1.1/16"
GE-28L-15/16UNF	28	1.5/16"
GE-28L-15/8UNF	28	1.5/8"
GE-35L-15/16UNF	35	1.5/16"
GE-35L-15/8UNF	35	1.5/8"
GE-42L-15/8UNF	42	1.5/8"
GE-42L-17/8UNF	42	1.7/8"

Tech Sheet 20797

S Series, UNF, O-Ring Sealing

0291	OD mm	Thread
GE-6S-7/16UNF	6	7/16"
GE-8S-1/2UNF	8	1/2"
GE-8S-7/16UNF	8	7/16"
GE-8S-9/16UNF	8	9/16"
GE-10S-3/4UNF	10	3/4"
GE-12S-9/16UNF	12	9/16"
GE-12S-3/4UNF	12	3/4"
GE-12S-7/8UNF	12	7/8"
GE-14S-3/4UNF	14	3/4"
GE-16S-3/4UNF	16	3/4"
GE-16S-7/8UNF	16	7/8"
GE-16S-11/16UNF	16	1.1/16"
GE-20S-3/4UNF	20	3/4"
GE-20S-7/8UNF	20	7/8"
GE-20S-11/16UNF	20	1.1/16"
GE-20S-15/16UNF	20	1.5/16"
GE-25S-11/16UNF	25	1.1/16"
GE-25S-15/16UNF	25	1.5/16"
GE-30S-11/16UNF	30	1.1/16"
GE-30S-15/16UNF	30	1.5/16"
GE-30S-15/8UNF	30	1.5/8"
GE-38S-15/8UNF	38	1.5/8"
GE-38S-17/8UNF	38	1.7/8"

Female Stud Couplings



L Series, BSPP

0291	OD mm	Thread
GAI-6L-2RG	6	1/8"
GAI-6L-4RG	6	1/4"
GAI-6L-6RG	6	3/8"
GAI-6L-8RG	6	1/2"
GAI-8L-2RG	8	1/8"
GAI-8L-4RG	8	1/4"
GAI-8L-6RG	8	3/8"
GAI-8L-8RG	8	1/2"
GAI-10L-2RG	10	1/8"
GAI-10L-4RG	10	1/4"
GAI-10L-6RG	10	3/8"
GAI-10L-8RG	10	1/2"
GAI-12L-4RG	12	1/4"
GAI-12L-6RG	12	3/8"
GAI-12L-8RG	12	1/2"
GAI-15L-6RG	15	3/8"
GAI-15L-8RG	15	1/2"
GAI-15L-12RG	15	3/4"
GAI-18L-6RG	18	3/8"
GAI-18L-8RG	18	1/2"
GAI-18L-12RG	18	3/4"
GAI-22L-8RG	22	1/2"
GAI-22L-12RG	22	3/4"
GAI-28L-16RG	28	1"
GAI-35L-20RG	35	1.1/4"
GAI-42L-24RG	42	1.1/2"

Tech Sheet 10590

S Series, BSPP

0291	OD mm	Thread
GAI-6S-4RG	6	1/4"
GAI-8S-4RG	8	1/4"
GAI-8S-6RG	8	3/8"
GAI-8S-8RG	8	1/2"
GAI-10S-6RG	10	3/8"
GAI-10S-8RG	10	1/2"
GAI-12S-4RG	12	1/4"
GAI-12S-6RG	12	3/8"
GAI-12S-8RG	12	1/2"
GAI-14S-6RG	14	3/8"
GAI-14S-8RG	14	1/2"
GAI-16S-6RG	16	3/8"
GAI-16S-8RG	16	1/2"
GAI-20S-8RG	20	1/2"
GAI-20S-12RG	20	3/4"
GAI-25S-12RG	25	3/4"
GAI-25S-16RG	25	1"
GAI-30S-20RG	30	1.1/4"
GAI-38S-24RG	38	1.1/2"

° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series, NPT

0291	OD mm	Thread
GAI-6L-2N	6	1/8"
GAI-6L-4N	6	1/4"
GAI-8L-4N	8	1/4"
GAI-10L-4N	10	1/4"
GAI-10L-6N	10	3/8"
GAI-10L-8N	10	1/2"
GAI-12L-4N	12	1/4"
GAI-12L-6N	12	3/8"
GAI-12L-8N	12	1/2"
GAI-15L-8N	15	1/2"
GAI-18L-8N	18	1/2"
GAI-22L-12N	22	3/4"
GAI-28L-16N	28	1"
GAI-35L-20N	35	1.1/4"
GAI-42L-24N	42	1.1/2"

S Series, NPT

0291	OD mm	Thread
GAI-6S-4N	6	1/4"
GAI-8S-4N	8	1/4"
GAI-10S-6N	10	3/8"
GAI-12S-6N	12	3/8"
GAI-12S-8N	12	1/2"
GAI-14S-8N	14	1/2"
GAI-16S-6N	16	3/8"
GAI-16S-8N	16	1/2"
GAI-20S-12N	20	3/4"
GAI-25S-16N	25	1"
GAI-30S-20N	30	1.1/4"
GAI-38S-24N	38	1.1/2"

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

Straight Stud Standpipes



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series, BSPP (Captive Seal)

0291	OD mm	Thread
EVGE-6L-2EO	6	1/8"
EVGE-8L-4EO	8	1/4"
EVGE-8L-6EO	8	3/8"
EVGE-10L-4EO	10	1/4"
EVGE-10L-6EO	10	3/8"
EVGE-10L-8EO	10	1/2"
EVGE-12L-4EO	12	1/4"
EVGE-12L-6EO	12	3/8"
EVGE-12L-8EO	12	1/2"
EVGE-15L-6EO	15	3/8"
EVGE-15L-8EO	15	1/2"
EVGE-18L-6EO	18	3/8"
EVGE-18L-8EO	18	1/2"
EVGE-18L-12EO	18	3/4"
EVGE-22L-6EO	22	3/8"
EVGE-22L-8EO	22	1/2"
EVGE-22L-12EO	22	3/4"
EVGE-28L-12EO	28	3/4"
EVGE-28L-16EO	28	1"
EVGE-35L-20EO	35	1.1/4"
EVGE-42L-24EO	42	1.1/2"

Tech Sheet 10591

S Series, BSPP (Captive Seal)

0291	OD mm	Thread
EVGE-6S-2EO	6	1/8"
EVGE-6S-4EO	6	1/4"
EVGE-8S-4EO	8	1/4"
EVGE-8S-6EO	8	3/8"
EVGE-10S-4EO	10	1/4"
EVGE-10S-6EO	10	3/8"
EVGE-10S-8EO	10	1/2"
EVGE-12S-4EO	12	1/4"
EVGE-12S-6EO	12	3/8"
EVGE-12S-8EO	12	1/2"
EVGE-14S-8EO	14	1/2"
EVGE-16S-6EO	16	3/8"
EVGE-16S-8EO	16	1/2"
EVGE-16S-12EO	16	3/4"
EVGE-20S-8EO	20	1/2"
EVGE-20S-12EO	20	3/4"
EVGE-25S-12EO	25	3/4"
EVGE-25S-16EO	25	1"
EVGE-30S-20EO	30	1.1/4"
EVGE-38S-24EO	38	1.1/2"

Tech Sheet 10591

L Series, Metric Parallel (Captive Seal)

0291	OD mm	Thread
EVGE-6L-10MEO	6	M10 x 1
EVGE-8L-12MEO	8	M12 x 1.5
EVGE-10L-14MEO	10	M14 x 1.5
EVGE-15L-18MEO	15	M18 x 1.5
EVGE-18L-22MEO	18	M22 x 1.5
EVGE-22L-26MEO	22	M26 x 1.5
EVGE-28L-33MEO	28	M33 x 2
EVGE-35L-42MEO	35	M42 x 2
EVGE-42L-48MEO	42	M48 x 2

Tech Sheet 10592

S Series, Metric Parallel (Captive Seal)

0291	OD mm	Thread
EVGE-6S-12MEO	6	M12 x 1.5
EVGE-8S-14MEO	8	M14 x 1.5
EVGE-10S-16MEO	10	M16 x 1.5
EVGE-12S-18MEO	12	M18 x 1.5
EVGE-14S-20MEO	14	M20 x 1.5
EVGE-16S-22MEO	16	M22 x 1.5
EVGE-20S-27MEO	20	M27 x 2
EVGE-30S-42MEO	30	M42 x 2
EVGE-38S-48MEO	38	M48 x 2

Tech Sheet 10592

Reducing Adaptors



Male x Female, BSPP

0291	OD mm	Thread
GRI-2-4RG	1/8"	1/4"
GRI-2-6RG	1/8"	3/8"
GRI-4-2RG	1/4"	1/8"
GRI-4-6RG	1/4"	3/8"
GRI-4-8RG	1/4"	1/2"
GRI-4-12RG	1/4"	3/4"
GRI-6-4RG	3/8"	1/4"
GRI-6-8RG	3/8"	1/2"
GRI-6-12RG	3/8"	3/4"
GRI-6-16RG	3/8"	1"
GRI-8-6RG	1/2"	3/8"
GRI-8-12RG	1/2"	3/4"
GRI-8-16RG	1/2"	1"
GRI-8-20RG	1/2"	1.1/4"
GRI-12-8RG	3/4"	1/2"
GRI-12-16RG	3/4"	1"
GRI-12-20RG	3/4"	1.1/4"
GRI-12-24RG	3/4"	1.1/2"
GRI-16-12RG	1"	3/4"
GRI-16-20RG	1"	1.1/4"
GRI-16-24RG	1"	1.1/2"
GRI-20-16RG	1.1/4"	1"
GRI-24-20RG	1.1/2"	1.1/4"
GRI-20-24RG	1.1/4"	1.1/2"

Tech Sheet 10593

stainless
steel



Reducing Bush



Male x Female, BSPP

0291	OD mm	Thread
GRI-6-2RG	3/8"	1/8"
GRI-8-2RG	1/2"	1/8"
GRI-8-4RG	1/2"	1/4"
GRI-12-2RG	3/4"	1/8"
GRI-12-4RG	3/4"	1/4"
GRI-12-6RG	3/4"	3/8"
GRI-16-4RG	1"	1/4"
GRI-16-6RG	1"	3/8"
GRI-16-8RG	1"	1/2"
GRI-20-6RG	1.1/4"	3/8"
GRI-20-8RG	1.1/4"	1/2"
GRI-20-12RG	1.1/4"	3/4"
GRI-24-8RG	1.1/2"	1/2"
GRI-24-12RG	1.1/2"	3/4"
GRI-24-16RG	1.1/2"	1"
GRI-32-8RG	2"	1/2"
GRI-32-12RG	2"	3/4"
GRI-32-16RG	2"	1"
GRI-32-20RG	2"	1.1/4"
GRI-32-24RG	2"	1.1/2"

Tech Sheet 10593

Adjustable Branch Tees

° Stainless Steel 1.4571 Working Temperature:

-60°C to +400°C
(DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C
(FPM/Viton)



L Series, Metric, Female Thread

0291	OD mm	Thread
EVT-6L	6	M12 x 1.5
EVT-8L	8	M14 x 1.5
EVT-10L	10	M16 x 1.5
EVT-12L	12	M18 x 1.5
EVT-15L	15	M22 x 1.5
EVT-18L	18	M26 x 1.5
EVT-22L	22	M30 x 2
EVT-28L	28	M36 x 2
EVT-35L	35	M45 x 2
EVT-42L	42	M52 x 2

Tech Sheet 10594

S Series, Metric, Female Thread

0291	OD mm	Thread
EVT-6S	6	M14 x 1.5
EVT-8S	8	M16 x 1.5
EVT-10S	10	M18 x 1.5
EVT-12S	12	M20 x 1.5
EVT-14S	14	M22 x 1.5
EVT-16S	16	M24 x 1.5
EVT-20S	20	M30 x 2
EVT-25S	25	M36 x 2
EVT-30S	30	M42 x 2
EVT-38S	38	M52 x 2

Tech Sheet 10594

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Adjustable Run Tees

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series, Metric, Female Thread

0291	OD mm	Thread
EVL-6L	6	M12 x 1.5
EVL-8L	8	M14 x 1.5
EVL-10L	10	M16 x 1.5
EVL-12L	12	M18 x 1.5
EVL-15L	15	M22 x 1.5
EVL-18L	18	M26 x 1.5
EVL-22L	22	M30 x 2
EVL-28L	28	M36 x 2
EVL-35L	35	M45 x 2
EVL-42L	42	M52 x 2

Tech Sheet 10597

S Series, Metric, Female Thread

0291	OD mm	Thread
EVL-6S	6	M14 x 1.5
EVL-8S	8	M16 x 1.5
EVL-10S	10	M18 x 1.5
EVL-12S	12	M20 x 1.5
EVL-14S	14	M22 x 1.5
EVL-16S	16	M24 x 1.5
EVL-20S	20	M30 x 2
EVL-25S	25	M36 x 2
EVL-30S	30	M42 x 2
EVL-38S	38	M52 x 2

Tech Sheet 10597

stainless
steel



For **Stainless Steel Tubing**
see page **1287**

Male Stud Elbows

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series, BSPT

0291	OD mm	Thread
WE6L-2RT	6	1/8"
WE6L-4RT	6	1/4"
WE6L-6RT	6	3/8"
WE6L-8RT	6	1/2"
WE8L-2RT	8	1/8"
WE8L-4RT	8	1/4"
WE8L-6RT	8	3/8"
WE8L-8RT	8	1/2"
WE10L-2RT	10	1/8"
WE10L-4RT	10	1/4"
WE10L-6RT	10	3/8"
WE10L-8RT	10	1/2"
WE12L-2RT	12	1/8"
WE12L-4RT	12	1/4"
WE12L-6RT	12	3/8"
WE12L-8RT	12	1/2"
WE15L-4RT	15	1/4"
WE15L-6RT	15	3/8"
WE15L-8RT	15	1/2"
WE15L-12RT	15	3/4"
WE18L-6RT	18	3/8"
WE18L-8RT	18	1/2"
WE18L-12RT	18	3/4"
WE22L-8RT	22	1/2"
WE22L-12RT	22	3/4"
WE28L-16RT	28	1"
WE35L-20RT	35	1.1/4"

Tech Sheet 10600

S Series, BSPT

0291	OD mm	Thread
WE6S-2RT	6	1/8"
WE6S-4RT	6	1/4"
WE6S-6RT	6	3/8"
WE6S-8RT	6	1/2"
WE8S-4RT	8	1/4"
WE8S-6RT	8	3/8"
WE8S-8RT	8	1/2"
WE10S-4RT	10	1/4"
WE10S-6RT	10	3/8"
WE10S-8RT	10	1/2"
WE12S-4RT	12	1/4"
WE12S-6RT	12	3/8"
WE12S-8RT	12	1/2"
WE14S-6RT	14	3/8"
WE14S-8RT	14	1/2"
WE16S-6RT	16	3/8"
WE16S-8RT	16	1/2"
WE16S-12RT	16	3/4"
WE20S-8RT	20	1/2"
WE20S-12RT	20	3/4"

Tech Sheet 10600

L Series, NPT

0291	OD mm	Thread
WE6L-2N	6	1/8"
WE6L-4N	6	1/4"
WE6L-6N	6	3/8"
WE6L-8N	6	1/2"
WE8L-2N	8	1/8"
WE8L-4N	8	1/4"
WE8L-6N	8	3/8"
WE8L-8N	8	1/2"
WE10L-2N	10	1/8"
WE10L-4N	10	1/4"
WE10L-8N	10	1/2"
WE12L-4N	12	1/4"
WE12L-6N	12	3/8"
WE12L-8N	12	1/2"
WE15L-6N	15	3/8"
WE15L-8N	15	1/2"
WE15L-12N	15	3/4"
WE18L-6N	18	3/8"
WE18L-8N	18	1/2"
WE18L-12N	18	3/4"
WE22L-8N	22	1/2"
WE22L-12N	22	3/4"
WE28L-12N	28	3/4"
WE28L-16N	28	1"
WE35L-20N	35	1.1/4"
WE42L-24N	42	1.1/2"

Tech Sheet 10601

S Series, NPT

0291	OD mm	Thread
WE6S-4N	6	1/4"
WE6S-6N	6	3/8"
WE6S-8N	6	1/2"
WE8S-4N	8	1/4"
WE8S-6N	8	3/8"
WE8S-8N	8	1/2"
WE10S-4N	8	1/4"
WE10S-6N	10	3/8"
WE10S-8N	10	1/2"
WE12S-4N	12	1/4"
WE12S-6N	12	3/8"
WE12S-8N	12	1/2"
WE14S-6N	14	3/8"
WE14S-8N	14	1/2"
WE16S-6N	16	3/8"
WE16S-8N	16	1/2"
WE16S-12N	16	3/4"
WE20S-8N	20	1/2"
WE20S-12N	20	3/4"
WE25S-16N	25	1"
WE30S-20N	30	1.1/4"
WE38S-24N	38	1.1/2"

Tech Sheet 10601



For Stainless Steel 304 & 316 see section 10 page 1225

Many of our products are produced in stainless steel (304 or 316) so if that is your focus and to simplify product selection, we have all our products regardless of type or application grouped in **section 10** (coded yellow) of our catalogue.

Food safety starts with rigorous hygiene and nickel-containing stainless steels are the superior, reliable standard at every link of the food and industry supply chain. Though it may not be inherently antimicrobial, stainless steel, particularly 304 or 316 stainless steels, are one of the best materials to use in a food and beverage processing environment.

Industries

- Food
- Brewing
- Transport
- Pharmaceuticals
- Chemicals

Stainless steel is commonly used in the food industry because of its non-toxicity and ease of cleaning. This material does not react chemically with other substances and can be cleaned with high temperatures. In the process of disinfection, we can also use most of the available detergents. Stainless steel is not absorbent and after rinsing its surface with water, you can freely use it for food processing. This material is extremely durable and does not require regular and expensive maintenance. Although stainless steel can be slightly more expensive than other raw materials, it is an excellent compromise between the interests of the consumer and manufacturer.

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Adjustable Elbows



L Series, Metric, Female Thread

0291	OD mm	Thread
EVW-6L	6	M12 x 1.5
EVW-8L	8	M14 x 1.5
EVW-10L	10	M16 x 1.5
EVW-12L	12	M18 x 1.5
EVW-15L	15	M22 x 1.5
EVW-18L	18	M26 x 1.5
EVW-22L	22	M30 x 2
EVW-28L	28	M36 x 2
EVW-35L	35	M45 x 2
EVW-42L	42	M52 x 2

Tech Sheet 10602

S Series, Metric, Female Thread

0291	OD mm	Thread
EVW-6S	6	M14 x 1.5
EVW-8S	8	M16 x 1.5
EVW-10S	10	M18 x 1.5
EVW-12S	12	M20 x 1.5
EVW-14S	14	M22 x 1.5
EVW-16S	16	M24 x 1.5
EVW-20S	20	M30 x 2
EVW-25S	25	M36 x 2
EVW-30S	30	M42 x 2
EVW-38S	38	M52 x 2

Tech Sheet 10602

Straights



L Series

0291	OD mm
G6-UL	6
G8-UL	8
G10-UL	10
G12-UL	12
G15-UL	15
G18-UL	18
G22-UL	22
G28-UL	28
G35-UL	35
G42-UL	42

Tech Sheet 10605

S Series

0291	OD mm
G6-US	6
G8-US	8
G10-US	10
G12-US	12
G14-US	14
G16-US	16
G20-US	20
G25-US	25
G30-US	30
G38-US	38

Tech Sheet 10605

Straight Reducers



L Series

0291	OD mm	OD mm
GR-8L-6L	8	6
GR-10L-6L	10	6
GR-10L-8L	10	8
GR-12L-6L	12	6
GR-12L-8L	12	8
GR-12L-10L	12	10
GR-15L-6L	15	6
GR-15L-8L	15	8
GR-15L-10L	15	10
GR-15L-12L	15	12
GR-18L-8L	18	8
GR-18L-10L	18	10
GR-18L-12L	18	12
GR-18L-15L	18	15
GR-22L-8L	22	8
GR-22L-10L	22	10
GR-22L-12L	22	12
GR-22L-15L	22	15
GR-22L-18L	22	18
GR-28L-10L	28	10
GR-28L-12L	28	12
GR-28L-15L	28	15
GR-28L-18L	28	18
GR-28L-22L	28	22
GR-35L-15L	35	15
GR-35L-18L	35	18
GR-35L-22L	35	22
GR-35L-28L	35	28
GR-42L-15L	42	15
GR-42L-18L	42	18
GR-42L-22L	42	22
GR-42L-28L	42	28
GR-42L-35L	42	35

Tech Sheet 10606

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

S Series

0291	OD mm	OD mm
GR-8S-6S	8	6
GR-10S-6S	10	6
GR-10S-8S	10	8
GR-12S-6S	12	6
GR-12S-8S	12	8
GR-12S-10S	12	10
GR-14S-6S	14	6
GR-14S-8S	14	8
GR-14S-10S	14	10
GR-14S-12S	14	12
GR-16S-6S	16	6
GR-16S-8S	16	8
GR-16S-10S	16	10
GR-16S-12S	16	12
GR-16S-14S	16	14
GR-20S-6S	20	6
GR-20S-8S	20	8
GR-20S-10S	20	10
GR-20S-12S	20	12
GR-20S-14S	20	14
GR-20S-16S	20	16
GR-25S-8S	25	8
GR-25S-10S	25	10
GR-25S-12S	25	12
GR-25S-14S	25	14
GR-25S-16S	25	16
GR-25S-20S	25	20
GR-30S-10S	30	10
GR-30S-12S	30	12
GR-30S-14S	30	14
GR-30S-16S	30	16
GR-30S-20S	30	20
GR-30S-25S	30	25
GR-38S-10S	38	10
GR-38S-12S	38	12
GR-38S-14S	38	14
GR-38S-16S	38	16
GR-38S-20S	38	20
GR-38S-25S	38	25
GR-38S-30S	38	30

Tech Sheet 10606

stainless
steel

For Stainless Steel Check Valves
see page 1300



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



90° Compact Adjustable Elbows

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Temperature Range:
-20°C to +200°C (FPM/Viton)



L Series, Metric, BSPP Male Thread with Viton O-Ring

0291	OD mm	Thread
WEEV-06L-1/8	6	1/8"
WEEV-08L-1/4	8	1/4"
WEEV-10L-1/4	10	1/4"
WEEV-12L-3/8	12	3/8"
WEEV-15L-1/2	15	1/2"
WEEV-18L-1/2	18	1/2"
WEEV-22L-3/4	22	3/4"
WEEV-28L-1	28	1"
WEEV-35L-114	35	1.1/4"

Tech Sheet 67962

45° Adjustable Elbows



L Series, Metric, BSPP Female Thread with Viton O-Ring

0291	OD mm	Thread
EV-DKOL-06	6	M12 x 1.5
EV-DKOL-08	8	M14 x 1.5
EV-DKOL-10	10	M16 x 1.5
EV-DKOL-12	12	M18 x 1.5
EV-DKOL-15	15	M22 x 1.5
EV-DKOL-18	18	M26 x 1.5
EV-DKOL-22	22	M30 x 2
EV-DKOL-28	28	M36 x 2
EV-DKOL-35	35	M45 x 2
EV-DKOL-42	42	M52 x 2

Tech Sheet 67963

Soft Sealed Cutting Ring



L Series Sealing Ring with Viton Seal

0291	OD mm
ES4-L-06-WD	6
ES4-L-08-WD	8
ES4-L-10-WD	10
ES4-L-12-WD	12
ES4-L-15-WD	15
ES4-L-18-WD	18
ES4-L-22-WD	22
ES4-L-28-WD	28
ES4-L-35-WD	35
ES4-L-42-WD	42

Tech Sheet 67964

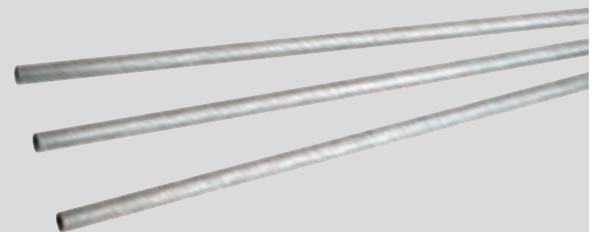
S Series Sealing Ring with Viton Seal

0291	OD mm
ES4-S-06-WD	6
ES4-S-08-WD	8
ES4-S-10-WD	10
ES4-S-12-WD	12
ES4-S-14-WD	14
ES4-S-16-WD	16
ES4-S-20-WD	20
ES4-S-25-WD	25
ES4-S-30-WD	30
ES4-S-38-WD	38

Tech Sheet 67964

stainless
steel

For **Stainless Steel Tubing**
see page **183**



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Equal Elbows



L Series

0291	OD mm
W6-UEL	6
W8-UEL	8
W10-UEL	10
W12-UEL	12
W15-UEL	15
W18-UEL	18
W22-UEL	22
W28-UEL	28
W35-UEL	35
W42-UEL	42

Tech Sheet 10607

S Series

0291	OD mm
W6-UES	6
W8-UES	8
W10-UES	10
W12-UES	12
W14-UES	14
W16-UES	16
W20-UES	20
W25-UES	25
W30-UES	30
W38-UES	38

Tech Sheet 10607

Equal Tees



L Series

0291	OD mm
T6-UTL	6
T8-UTL	8
T10-UTL	10
T12-UTL	12
T15-UTL	15
T18-UTL	18
T22-UTL	22
T28-UTL	28
T35-UTL	35
T42-UTL	42

Tech Sheet 10608

S Series

0291	OD mm
T6-UTS	6
T8-UTS	8
T10-UTS	10
T12-UTS	12
T14-UTS	14
T16-UTS	16
T20-UTS	20
T25-UTS	25
T30-UTS	30
T38-UTS	38

Tech Sheet 10608

Equal Crosses



L Series

0291	OD mm
K6-UCL	6
K8-UCL	8
K10-UCL	10
K12-UCL	12
K15-UCL	15
K18-UCL	18
K22-UCL	22
K28-UCL	28
K35-UCL	35
K42-UCL	42

Tech Sheet 10609

S Series

0291	OD mm
K6-UCS	6
K8-UCS	8
K10-UCS	10
K12-UCS	12
K14-UCS	14
K16-UCS	16
K20-UCS	20
K25-UCS	25
K30-UCS	30
K38-UCS	38

Tech Sheet 10609

stainless
steel

For **Stainless Steel Gauges**
see pages **414-415**



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Reducing Standpipes

° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series

0291	OD mm	OD mm
KOR-8L-6L	8	6
KOR-10L-6L	10	6
KOR-10L-8L	10	8
KOR-12L-6L	12	6
KOR-12L-8L	12	8
KOR-12L-10L	12	10
KOR-15L-6L	15	6
KOR-15L-8L	15	8
KOR-15L-10L	15	10
KOR-15L-12L	15	12
KOR-18L-6L	18	6
KOR-18L-8L	18	8
KOR-18L-10L	18	10
KOR-18L-12L	18	12
KOR-18L-15L	18	15
KOR-22L-6L	22	6
KOR-22L-8L	22	8
KOR-22L-10L	22	10
KOR-22L-12L	22	12
KOR-22L-15L	22	15
KOR-22L-18L	22	18
KOR-28L-6L	28	6
KOR-28L-8L	28	8

0291	OD mm	OD mm
KOR-28L-10L	28	10
KOR-28L-12L	28	12
KOR-28L-15L	28	15
KOR-28L-18L	28	18
KOR-28L-22L	28	22
KOR-35L-6L	35	6
KOR-35L-8L	35	8
KOR-35L-10L	35	10
KOR-35L-12L	35	12
KOR-35L-15L	35	15
KOR-35L-18L	35	18
KOR-35L-22L	35	22
KOR-35L-28L	35	28
KOR-42L-10L	42	10
KOR-42L-12L	42	12
KOR-42L-15L	42	15
KOR-42L-18L	42	18
KOR-42L-22L	42	22
KOR-42L-28L	42	28
KOR-42L-35L	42	35

Tech Sheet 10610

S Series

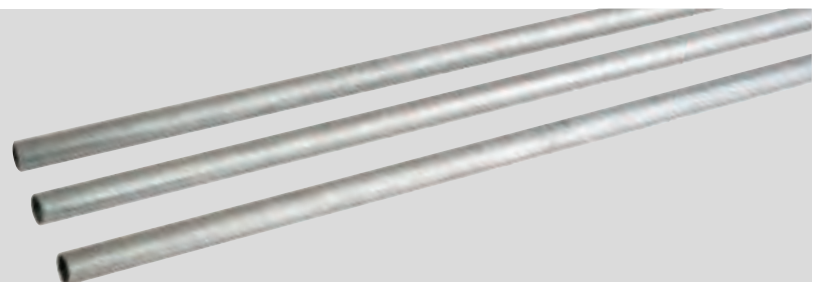
0291	OD mm	OD mm
KOR-8S-6S	8	6
KOR-10S-6S	10	6
KOR-10S-8S	10	8
KOR-12S-6S	12	6
KOR-12S-8S	12	8
KOR-12S-10S	12	10
KOR-14S-6S	14	6
KOR-14S-8S	14	8
KOR-14S-10S	14	10
KOR-14S-12S	14	12
KOR-16S-6S	16	6
KOR-16S-8S	16	8
KOR-16S-10S	16	10
KOR-16S-12S	16	12
KOR-16S-14S	16	14
KOR-20S-6S	20	6
KOR-20S-8S	20	8
KOR-20S-10S	20	10
KOR-20S-12S	20	12
KOR-20S-14S	20	14
KOR-20S-16S	20	16
KOR-25S-6S	25	6
KOR-25S-8S	25	8

0291	OD mm	OD mm
KOR-25S-10S	25	10
KOR-25S-12S	25	12
KOR-25S-14S	25	14
KOR-25S-16S	25	16
KOR-25S-20S	25	20
KOR-30S-6S	30	6
KOR-30S-8S	30	8
KOR-30S-10S	30	10
KOR-30S-12S	30	12
KOR-30S-14S	30	14
KOR-30S-16S	30	16
KOR-30S-20S	30	20
KOR-30S-25S	30	25
KOR-38S-6S	38	6
KOR-38S-8S	38	8
KOR-38S-10S	38	10
KOR-38S-12S	38	12
KOR-38S-14S	38	14
KOR-38S-16S	38	16
KOR-38S-20S	38	20
KOR-38S-25S	38	25
KOR-38S-30S	38	30

Tech Sheet 10610

stainless
steel

For **Stainless Steel Tube**
see page **183**



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

Tee Reducers



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series

0291	OD A mm	OD B mm	OD C mm
TR-6-8-6L	6	8	6
TR-6-10-6L	6	10	6
TR-8-6-8L	8	6	8
TR-8-10-8L	8	10	8
TR-8-12-8L	8	12	8
TR-10-6-10L	10	6	10
TR-10-8-10L	10	8	10
TR-10-10-6L	10	10	6
TR-10-12-10L	10	12	10
TR-10-15-10L	10	15	10
TR-12-6-12L	12	6	12
TR-12-8-8L	12	8	8
TR-12-8-12L	12	8	12
TR-12-10-10L	12	10	10
TR-12-10-12L	12	10	12
TR-12-12-10L	12	12	10
TR-12-15-12L	12	15	12
TR-12-18-12L	12	18	12
TR-15-6-15L	15	6	15
TR-15-10-15L	15	10	15
TR-15-12-12L	15	12	12
TR-15-12-15L	15	12	15
TR-15-15-12L	15	15	12
TR-18-10-10L	18	10	10
TR-18-10-18L	18	10	18
TR-18-12-18L	18	12	18
TR-18-15-18L	18	15	18
TR-18-18-10L	18	18	10
TR-22-10-22L	22	10	22
TR-22-12-22L	22	12	22
TR-22-15-15L	22	15	15
TR-22-15-22L	22	15	22
TR-22-18-18L	22	18	18
TR-22-18-22L	22	18	22
TR-22-22-18L	22	22	18
TR-28-10-28L	28	10	28
TR-28-12-28L	28	12	28
TR-28-15-28L	28	15	28
TR-28-18-28L	28	18	28
TR-28-22-22L	28	22	22
TR-28-22-28L	28	22	28
TR-28-35-28L	28	35	28
TR-35-12-35L	35	12	35
TR-35-15-35L	35	15	35
TR-35-18-35L	35	18	35
TR-35-22-35L	35	22	35
TR-35-28-35L	35	28	35
TR-35-42-35L	35	42	35
TR-42-15-42L	42	15	42
TR-42-18-42L	42	18	42
TR-42-22-42L	42	22	42
TR-42-28-42L	42	28	42
TR-42-35-42L	42	35	42

Tech Sheet 10611

S Series

0291	OD A mm	OD B mm	OD C mm
TR-8-6-8S	8	6	8
TR-10-6-10S	10	6	10
TR-10-8-10S	10	8	10
TR-12-6-12S	12	6	12
TR-12-8-8S	12	8	8
TR-12-8-12S	12	8	12
TR-12-10-12S	12	10	12
TR-12-16-12S	12	16	12
TR-14-8-14S	14	8	14
TR-14-10-14S	14	10	14
TR-16-6-16S	16	6	16
TR-16-8-16S	16	8	16
TR-16-10-16S	16	10	16
TR-16-12-16S	16	12	16
TR-16-14-16S	16	14	16
TR-16-20-16S	16	20	16
TR-20-8-20S	20	08	20
TR-20-10-20S	20	10	20
TR-20-12-20S	20	12	20
TR-20-14-20S	20	14	20
TR-20-16-20S	20	16	20
TR-20-25-20S	20	25	20
TR-25-10-25S	25	10	25
TR-25-12-25S	25	12	25
TR-25-14-25S	25	14	25
TR-25-16-25S	25	16	25
TR-25-20-25S	25	20	25
TR-25-30-25S	25	30	25
TR-30-12-30S	30	12	30
TR-30-16-30S	30	16	30
TR-30-20-30S	30	20	30
TR-30-25-30S	30	25	30
TR-30-38-30S	30	38	30
TR-38-16-38S	38	16	38
TR-38-20-38S	38	20	38
TR-38-25-38S	38	25	38
TR-38-30-38S	38	30	38

Tech Sheet 10611

stainless
steel



Straight Bulkheads



L Series

0291	OD mm
SV-6L	6
SV-8L	8
SV-10L	10
SV-12L	12
SV-15L	15
SV-18L	18
SV-22L	22
SV-28L	28
SV-35L	35
SV-42L	42

Tech Sheet 10612

S Series

0291	OD mm
SV-6S	6
SV-8S	8
SV-10S	10
SV-12S	12
SV-14S	14
SV-16S	16
SV-20S	20
SV-25S	25
SV-30S	30
SV-38S	38

Tech Sheet 10612

Weld Bulkheads



L Series

0291	OD mm
ESV-6L-FT	6
ESV-8L-FT	8
ESV-10L-FT	10
ESV-12L-FT	12
ESV-15L-FT	15
ESV-18L-FT	18
ESV-20L-FT	20
ESV-28L-FT	28

Tech Sheet 10613

S Series

0291	OD mm
ESV-6S-FT	6
ESV-8S-FT	8
ESV-10S-FT	10
ESV-12S-FT	12
ESV-14S-FT	14
ESV-16S-FT	16
ESV-20S-FT	20
ESV-25S-FT	25

Tech Sheet 10613

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

Bulkhead Elbows



L Series

0291	OD mm
WSV-6L-FT	6
WSV-8L-FT	8
WSV-10L-FT	10
WSV-12L-FT	12
WSV-15L-FT	15
WSV-18L-FT	18
WSV-22L-FT	22
WSV-28L-FT	28
WSV-35L-FT	35
WSV-42L-FT	42

Tech Sheet 10614

S Series

0291	OD mm
WSV-6S-FT	6
WSV-8S-FT	8
WSV-10S-FT	10
WSV-12S-FT	12
WSV-14S-FT	14
WSV-16S-FT	16
WSV-20S-FT	20
WSV-25S-FT	25
WSV-30S-FT	30
WSV-38S-FT	38

Tech Sheet 10614

Weld Nipples



O-Ring Sealing, Nitrile

0291	OD mm	Diameter mm
SKA-108	10	8
SKA-107	10	7
SKA-106	10	6
SKA-129	12	9
SKA-128	12	8
SKA-127	12	7
SKA-1613	16	13
SKA-1612	16	12
SKA-1611	16	11
SKA-1610	16	10
SKA-2016	20	16
SKA-2015	20	15
SKA-2014	20	14
SKA-2012	20	12
SKA-2519	25	19
SKA-2517	25	17
SKA-2515	25	15

Tech Sheet 10615

Butt Weld Fittings



L Series

0291	OD mm
AS-6L	6
AS-8L	8
AS-10L	10
AS-12L	12
AS-15L	15
AS-18L	18
AS-22L	22
AS-28L	28

Tech Sheet 10616

S Series

0291	OD mm
AS-6S	6
AS-8S	8
AS-10S	10
AS-12S	12
AS-14S	14
AS-16S	16
AS-20S	20
AS-25S	25

Tech Sheet 10616

Weld Standpipe



0291	OD mm	Diameter mm
ASK-108	10	8
ASK-107	10	7
ASK-106	10	6
ASK-129	12	9
ASK-128	12	8
ASK-127	12	7
ASK-1612	16	12
ASK-1611	16	11
ASK-1610	16	10
ASK-2016	20	16
ASK-2015	20	15
ASK-2014	20	14
ASK-2012	20	12
ASK-2519	25	19
ASK-2517	25	17
ASK-2515	25	15

Tech Sheet 10617

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Special Weld Nipples (Reducers)



O-Ring Sealing, Nitrile

0291	OD mm	Diameter mm
SKAR-10-6	10	6
SKAR-10-8	10	8
SKAR-12-8	12	8
SKAR-12-10	12	10
SKAR-16-12	16	12
SKAR-20-12	20	12
SKAR-20-16	20	16
SKAR-25-16	25	16
SKAR-25-20	25	20
SKAR-25-15	25	15

Tech Sheet 10618

Metric Standpipe Adaptors, BSPP



L Series

0291	Thread	OD mm
2101-8247	1/8"	6
2101-8254	1/4"	8
2101-8262	1/4"	10
2101-8270	3/8"	12
2101-8288	1/2"	15
2101-8296	1/2"	18
2101-8304	3/4"	22
2101-8312	1"	28
2101-8445	1.1/4"	35
2101-8338	1.1/2"	42

Tech Sheet 20799

S Series

0291	Thread	OD mm
2101-8346	1/4"	6
2101-8353	1/4"	8
2101-8361	3/8"	10
2101-8379	3/8"	12
2101-8387	1/2"	14
2101-8395	1/2"	16
2101-8403	3/4"	20
2101-8411	1"	25
2101-8429	1.1/4"	30
2101-8437	1.1/2"	38

Tech Sheet 20799

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Banjo Elbows



L Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
WHV-6L-2RG	6	1/8"
WHV-8L-4RG	8	1/4"
WHV-10L-4RG	10	1/4"
WHV-10L-6G	10	3/8"
WHV-12L-4RG	12	1/4"
WHV-12L-6RG	12	3/8"
WHV-12L-8RG	12	1/2"
WHV-15L-8RG	15	1/2"
WHV-18L-8RG	18	1/2"
WHV-22L-12RG	22	3/4"
WHV-28L-16RG	28	1"
WHV-35L-20RG	35	1.1/4"
WHV-42L-24RG	42	1.1/2"

Tech Sheet 20736

S Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
WHV-6S-4RG	6	1/4"
WHV-8S-4RG	8	1/4"
WHV-10S-4RG	10	1/4"
WHV-10S-6G	10	3/8"
WHV-12S-6RG	12	3/8"
WHV-14S-8RG	14	1/2"
WHV-16S-8RG	16	1/2"
WHV-20S-12RG	20	3/4"
WHV-25S-16RG	25	1"
WHV-30S-20RG	30	1.1/4"
WHV-38S-24RG	38	1.1/2"

Tech Sheet 20736

Gauge Couplings



L Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
MV-6L-4RG	6	1/4"
MV-6L-8RG	6	1/2"
MV-8L-4RG	8	1/4"
MV-8L-8RG	8	1/2"
MV-10L-4RG	10	1/4"
MV-10L-8RG	10	1/2"
MV-12L-4RG	12	1/4"
MV-12L-8RG	12	1/2"

Tech Sheet 20737



S Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
MV-6S-8RG	6	1/2"
MV-8S-4RG	8	1/4"
MV-8S-8RG	8	1/2"
MV-10S-4RG	10	1/4"
MV-10S-8RG	10	1/2"
MV-12S-4RG	12	1/4"
MV-12S-8RG	12	1/2"

Tech Sheet 20737



L Series, NPT

0291	OD mm	Thread
MV-6L-4N	6	1/4"
MV-6L-8N	6	1/2"
MV-8L-4N	8	1/4"
MV-8L-8N	8	1/2"
MV-10L-4N	10	1/4"
MV-10L-8N	10	1/2"
MV-12L-4N	12	1/4"
MV-12L-8N	12	1/2"

Tech Sheet 20901



S Series, NPT

0291	OD mm	Thread
MV-6S-8N	6	1/2"
MV-8S-8N	8	1/2"
MV-10S-8N	10	1/2"
MV-12S-8N	12	1/2"

Tech Sheet 20901

For Hydraulic Tube Clamps
see pages 184-200



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Non-return Valves

All valves supplied with 1 bar cracking pressure unless stated, other pressures available on request are 0.2, 0.5, 2.0 and 3.0

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

L Series, BSPP, Flow Towards Thread



0291	OD mm	Thread
RZ-6L-2RG	6	1/8"
RZ-8L-4RG	8	1/4"
RZ-10L-4RG	10	1/4"
RZ-12L-6RG	12	3/8"
RZ-15L-8RG	15	1/2"
RZ-18L-8RG	18	1/2"
RZ-22L-12RG	22	3/4"
RZ-28L-16RG	28	1"
RZ-35L-20RG	35	1.1/4"
RZ-42L-24RG	42	1.1/2"

Tech Sheet 20352

L Series, BSPP, Flow Away From Thread



0291	OD mm	Thread
RV-6L-2RG	6	1/8"
RV-8L-4RG	8	1/4"
RV-10L-4RG	10	1/4"
RV-12L-6RG	12	3/8"
RV-15L-8RG	15	1/2"
RV-18L-8RG	18	1/2"
RV-22L-12RG	22	3/4"
RV-28L-16RG	28	1"
RV-35L-20RG	35	1.1/4"
RV-42L-24RG	42	1.1/2"

Tech Sheet 20352

L Series, Tube x Tube



0291	OD mm	Cracking Pressure Bar
770-0606	6	0.5
770-0808	8	0.5
770-1010	10	0.5
770-1212	12	0.5
770-1515	15	0.5
770-1818	18	0.5
770-2222	22	0.5
770-2828	28	0.5
770-3535	35	0.5
770-4242	42	0.5

Tech Sheet 10619

S Series, BSPP, Flow Towards Thread

0291	OD mm	Thread
RZ-6S-2RG	6	1/8"
RZ-8S-4RG	8	1/4"
RZ-10S-4RG	10	1/4"
RZ-12S-6RG	12	3/8"
RZ-14S-8RG	14	1/2"
RZ-16S-8RG	16	1/2"
RZ-20S-12RG	20	3/4"
RZ-25S-16RG	25	1"
RZ-30S-20RG	30	1.1/4"
RZ-38S-24RG	38	1.1/2"

S Series, BSPP, Flow Away From Thread

0291	OD mm	Thread
RV-6S-2RG	6	1/8"
RV-8S-4RG	8	1/4"
RV-10S-4RG	10	1/4"
RV-12S-6RG	12	3/8"
RV-14S-8RG	14	1/2"
RV-16S-8RG	16	1/2"
RV-20S-12RG	20	3/4"
RV-25S-16RG	25	1"
RV-30S-20RG	30	1.1/4"
RV-38S-24RG	38	1.1/2"

S Series, Tube x Tube

0291	OD mm
RD-6S	6
RD-8S	8
RD-10S	10
RD-12S	12
RD-14S	14
RD-16S	16
RD-20S	20
RD-25S	25
RD-30S	30
RD-38S	38

Tech Sheet 10619

Blanking Plugs, Threaded



BSPP

0291	Thread
VSTI-2EO	1/8"
VSTI-4EO	1/4"
VSTI-6EO	3/8"
VSTI-8EO	1/2"
VSTI-12EO	3/4"
VSTI-16EO	1"
VSTI-20EO	1.1/4"
VSTI-24EO	1.1/2"

Tech Sheet 10620

Metric

0291	Thread
VSTI-10M	M10 x 1
VSTI-12M	M12 x 1.5
VSTI-14M	M14 x 1.5
VSTI-16M	M16 x 1.5
VSTI-18M	M18 x 1.5
VSTI-20M	M20 x 1.5
VSTI-22M	M22 x 1.5
VSTI-26M	M26 x 1.5
VSTI-27M	M27 x 2
VSTI-33M	M33 x 2
VSTI-42M	M42 x 2
VSTI-48M	M48 x 2

Tech Sheet 10620

Blanking Plugs



L Series

0291	OD mm
VKA-6L	6
VKA-8L	8
VKA-10L	10
VKA-12L	12
VKA-15L	15
VKA-18L	18
VKA-22L	22
VKA-28L	28
VKA-35L	35
VKA-42L	42

Tech Sheet 10621

S Series

0291	OD mm
VKA-6S	6
VKA-8S	8
VKA-10S	10
VKA-12S	12
VKA-14S	14
VKA-16S	16
VKA-20S	20
VKA-25S	25
VKA-30S	30
VKA-38S	38

Tech Sheet 10621

Blanking Ends



L Series

0291	OD mm
ROV-6L	6
ROV-8L	8
ROV-10L	10
ROV-12L	12
ROV-15L	15
ROV-18L	18
ROV-22L	22
ROV-28L	28
ROV-35L	35
ROV-42L	42

Tech Sheet 10622

S Series

0291	OD mm
ROV-6S	6
ROV-8S	8
ROV-10S	10
ROV-12S	12
ROV-14S	14
ROV-16S	16
ROV-20S	20
ROV-25S	25
ROV-30S	30
ROV-38S	38

Tech Sheet 10622

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Nut



L Series

0291	OD mm
M-6L-FT	6
M-8L-FT	8
M-10L-FT	10
M-12L-FT	12
M-15L-FT	15
M-18L-FT	18
M-22L-FT	22
M-28L-FT	28
M-35L-FT	35
M-42L-FT	42

Tech Sheet 10623

S Series

0291	OD mm
M-6S-FT	6
M-8S-FT	8
M-10S-FT	10
M-12S-FT	12
M-14S-FT	14
M-16S-FT	16
M-20S-FT	20
M-25S-FT	25
M-30S-FT	30
M-38S-FT	38

Tech Sheet 10623

Compression Ring

- Hardened, nickel plated.



L Series

0291	OD mm
DPR-6L	6
DPR-8L	8
DPR-10L	10
DPR-12L	12
DPR-15L	15
DPR-18L	18
DPR-22L	22
DPR-28L	28
DPR-35L	35
DPR-42L	42

Tech Sheet 10624

S Series

0291	OD mm
DPR-6S	6
DPR-8S	8
DPR-10S	10
DPR-12S	12
DPR-14S	14
DPR-16S	16
DPR-20S	20
DPR-25S	25
DPR-30S	30
DPR-38S	38

Tech Sheet 10624

Seals



Banjo Couplings

0291	Thread
DKR-2RG	1/8"
DKR-4RG	1/4"
DKR-6RG	3/8"
DKR-8RG	1/2"
DKR-12RG	3/4"
DKR-16RG	1"
DKR-20RG	1.1/4"
DKR-24RG	1.1/2"



Gauge Couplings

0291	Thread
DKRI-4RG	1/4"
DKRI-8RG	1/2"



Viton

0291	Thread
WD-10X1	M10 x 1 (1/8")
WD-12X1.5	M12 x 1.5
WD-14X1.5	M14 x 1.5 (1/4")
WD-16X1.5	M16 x 1.5
WD-3/8	3/8"
WD-18X1.5	M18 x 1.5
WD-20X1.5	M20 x 1.5
WD-1/2	1/2"
WD-26X1.5	M26 x 1.5 (3/4")
WD-22X1.5	M22 x 1.5
WD-27X2	M27 x 2 (3/4")
WD-33X2	M33 x 2 (1")
WD-42X2	M42 x 2 (1.1/4")
WD-48X2	M48 x 2 (1.1/2")

For **Hose & Pipe Cleaning Kits**
see page 49



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Technical details of ISO 8434-1 24° Fittings
Cone sealing couplings with 24° Cone and O-ring - FPM

There are several advantages to using DKO couplings:

- They are simple to assemble with low torque requirements.
- There is a wide variety of couplings to choose from.
- They are also easy to combine with each other.
- Additionally, DKO couplings have a super low leakage rate thanks to the O-ring sealing.

Straight Swivel Unions - DKO



L Series

0291	OD mm	Thread
GV-DKOL-06	6	M12 x 1.5
GV-DKOL-08	8	M 4 x 1.5
GV-DKOL-10	10	M16 x 1.5
GV-DKOL-12	12	M18 x 1.5
GV-DKOL-15	15	M22 x 1.5
GV-DKOL-18	18	M26 x 1.5
GV-DKOL-22	22	M30 x 2
GV-DKOL-28	28	M36 x 2
GV-DKOL-35	35	M45 x 2
GV-DKOL-42	42	M52 x 2

Tech Sheet 71713

S Series

0291	OD mm	Thread
GV-DKOS-06	6	M14 x 1.5
GV-DKOS-08	8	M16 x 1.5
GV-DKOS-10	10	M18 x 1.5
GV-DKOS-12	12	M20 x 1.5
GV-DKOS-14	14	M22 x 1.5
GV-DKOS-16	16	M24 x 1.5
GV-DKOS-20	20	M30 x 2
GV-DKOS-25	25	M36 x 2
GV-DKOS-30	30	M42 x 2
GV-DKOS-38	38	M52 x 2

Tech Sheet 71713

Straight Swivel Reducers - DKO



L/L Series

0291	OD mm	OD mm
GVR-DKO-08L/06L	8	6
GVR-DKO-10L/06L	10	6
GVR-DKO-10L/08L	10	8
GVR-DKO-12L/06L	12	6
GVR-DKO-12L/08L	12	8
GVR-DKO-12L/10L	12	10
GVR-DKO-15L/08L	15	8
GVR-DKO-15L/10L	15	10
GVR-DKO-15L/12L	15	12
GVR-DKO-18L/10L	18	10
GVR-DKO-18L/12L	18	12
GVR-DKO-18L/15L	18	15
GVR-DKO-22L/12L	22	12
GVR-DKO-22L/15L	22	15
GVR-DKO-22L/18L	22	18
GVR-DKO-28L/15L	28	15
GVR-DKO-28L/18L	28	18
GVR-DKO-28L/22L	28	22
GVR-DKO-35L/18L	35	18
GVR-DKO-35L/22L	35	22
GVR-DKO-35L/28L	35	28
GVR-DKO-42L/22L	42	22
GVR-DKO-42L/28L	42	28
GVR-DKO-42L/35L	42	35

Tech Sheet 71714

S/S Series

0291	OD mm	OD mm
GVR-DKO-08S/06S	8	6
GVR-DKO-10S/06S	10	6
GVR-DKO-10S/08S	10	8
GVR-DKO-12S/06S	12	6
GVR-DKO-12S/08S	12	8
GVR-DKO-12S/10S	12	10
GVR-DKO-16S/10S	16	10
GVR-DKO-16S/12S	16	12
GVR-DKO-16S/14S	16	14
GVR-DKO-20S/12S	20	12
GVR-DKO-20S/14S	20	14
GVR-DKO-20S/16S	20	16
GVR-DKO-25S/16S	25	16
GVR-DKO-25S/20S	25	20
GVR-DKO-30S/16S	30	16
GVR-DKO-30S/20S	30	20
GVR-DKO-30S/25S	30	25
GVR-DKO-38S/20S	38	20
GVR-DKO-38S/25S	38	25
GVR-DKO-38S/30S	38	30

Tech Sheet 71714

L/S Series

0291	OD mm	OD mm
GVR-DKO-06L/06S	6	6
GVR-DKO-08L/06S	8	6
GVR-DKO-08L/08S	8	8
GVR-DKO-10L/10S	10	10
GVR-DKO-12L/10S	12	10
GVR-DKO-12L/12S	12	12
GVR-DKO-15L/12S	15	12
GVR-DKO-15L/14S	15	14
GVR-DKO-18L/16S	18	16
GVR-DKO-22L/20S	22	20
GVR-DKO-28L/25S	28	25
GVR-DKO-35L/30S	35	30
GVR-DKO-42L/38S	42	38

Tech Sheet 71715

S/L Series

0291	OD mm	OD mm
GVR-DKO-10S/08L	10	8
GVR-DKO-12S/08L	12	8
GVR-DKO-12S/10L	12	10
GVR-DKO-16S/10L	16	10
GVR-DKO-16S/12L	16	12
GVR-DKO-16S/15L	16	15
GVR-DKO-20S/18L	20	18
GVR-DKO-25S/18L	25	18
GVR-DKO-25S/22L	25	22
GVR-DKO-30S/28L	30	28
GVR-DKO-38S/35L	38	35

Tech Sheet 71715

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Adjustable Elbows - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
EW-DKOL-06	6	M12 x 1,5
EW-DKOL-08	8	M14 x 1,5
EW-DKOL-10	10	M16 x 1,5
EW-DKOL-12	12	M18 x 1,5
EW-DKOL-15	15	M22 x 1,5
EW-DKOL-18	18	M26 x 1,5
EW-DKOL-22	22	M30 x 2
EW-DKOL-28	28	M36 x 2
EW-DKOL-35	35	M45 x 2
EW-DKOL-42	42	M52 x 2

Tech Sheet 71716

S Series, Metric, Female Thread

0291	OD mm	Thread
EW-DKOS-06	6	M14 x 1,5
EW-DKOS-08	8	M16 x 1,5
EW-DKOS-10	10	M18 x 1,5
EW-DKOS-12	12	M20 x 1,5
EW-DKOS-14	14	M22 x 1,5
EW-DKOS-16	16	M24 x 1,5
EW-DKOS-20	20	M30 x 2
EW-DKOS-25	25	M36 x 2
EW-DKOS-30	30	M42 x 2
EW-DKOS-38	38	M52 x 2

Tech Sheet 71716

Adjustable Branch Tees - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
ET-DKOL-06	6	M12 x 1,5
ET-DKOL-08	8	M14 x 1,5
ET-DKOL-10	10	M16 x 1,5
ET-DKOL-12	12	M18 x 1,5
ET-DKOL-15	15	M22 x 1,5
ET-DKOL-18	18	M26 x 1,5
ET-DKOL-22	22	M30 x 2
ET-DKOL-28	28	M36 x 2
ET-DKOL-35	35	M45 x 2
ET-DKOL-42	42	M52 x 2

Tech Sheet 71717

S Series, Metric, Female Thread

0291	OD mm	OD mm
ET-DKOS-06	6	M14 x 1,5
ET-DKOS-08	8	M16 x 1,5
ET-DKOS-10	10	M18 x 1,5
ET-DKOS-12	12	M20 x 1,5
ET-DKOS-14	14	M22 x 1,5
ET-DKOS-16	16	M24 x 1,5
ET-DKOS-20	20	M30 x 2
ET-DKOS-25	25	M36 x 2
ET-DKOS-30	30	M42 x 2
ET-DKOS-38	38	M52 x 2

Tech Sheet 71717

Adjustable Run Tees - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
EL-DKOL-06	6	M12 x 1,5
EL-DKOL-08	8	M14 x 1,5
EL-DKOL-10	10	M16 x 1,5
EL-DKOL-12	12	M18 x 1,5
EL-DKOL-15	15	M22 x 1,5
EL-DKOL-18	18	M26 x 1,5
EL-DKOL-22	22	M30 x 2
EL-DKOL-28	28	M36 x 2
EL-DKOL-35	35	M45 x 2
EL-DKOL-42	42	M52 x 2

Tech Sheet 71718

S Series, Metric, Female Thread

0291	OD mm	Thread
EL-DKOS-06	6	M14 x 1,5
EL-DKOS-08	8	M16 x 1,5
EL-DKOS-10	10	M18 x 1,5
EL-DKOS-12	12	M20 x 1,5
EL-DKOS-14	14	M22 x 1,5
EL-DKOS-16	16	M24 x 1,5
EL-DKOS-20	20	M30 x 2
EL-DKOS-25	25	M36 x 2
EL-DKOS-30	30	M42 x 2
EL-DKOS-38	38	M52 x 2


Tech Sheet 71718

stainless
steel

For **Stainless Steel Hydraulic Ball Valves**
see page 242



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

 **Stainless Steel 1.4571 Working Temperature:**
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Reducing Couplings - DKO



L Series

0291	OD mm	OD mm
RED-DKOL-08/06	8	6
RED-DKOL-10/06	10	6
RED-DKOL-10/08	10	8
RED-DKOL-12/06	12	6
RED-DKOL-12/08	12	8
RED-DKOL-12/10	12	10
RED-DKOL-15/06	15	6
RED-DKOL-15/08	15	8
RED-DKOL-15/10	15	10
RED-DKOL-15/12	15	12
RED-DKOL-18/06	18	6
RED-DKOL-18/08	18	8
RED-DKOL-18/10	18	10
RED-DKOL-18/12	18	12
RED-DKOL-18/15	18	15
RED-DKOL-22/06	22	6
RED-DKOL-22/08	22	8
RED-DKOL-22/10	22	10
RED-DKOL-22/12	22	12
RED-DKOL-22/15	22	15
RED-DKOL-22/18	22	18
RED-DKOL-28/06	28	6
RED-DKOL-28/08	28	8
RED-DKOL-28/10	28	10
RED-DKOL-28/12	28	12
RED-DKOL-28/15	28	15
RED-DKOL-28/18	28	18
RED-DKOL-28/22	28	22
RED-DKOL-35/06	35	6
RED-DKOL-35/08	35	8
RED-DKOL-35/10	35	10
RED-DKOL-35/12	35	12
RED-DKOL-35/15	35	15
RED-DKOL-35/18	35	18
RED-DKOL-35/22	35	22
RED-DKOL-35/28	35	28
RED-DKOL-42/06	42	6
RED-DKOL-42/08	42	8
RED-DKOL-42/10	42	10
RED-DKOL-42/12	42	12
RED-DKOL-42/15	42	15
RED-DKOL-42/18	42	18
RED-DKOL-42/22	42	22
RED-DKOL-42/28	42	28
RED-DKOL-42/35	42	35

Tech Sheet 71719

S Series

0291	OD mm	OD mm
RED-DKOS-08/06	8	6
RED-DKOS-10/06	10	6
RED-DKOS-10/08	10	8
RED-DKOS-12/06	12	6
RED-DKOS-12/08	12	8
RED-DKOS-12/10	12	10
RED-DKOS-14/06	14	6
RED-DKOS-14/08	14	8
RED-DKOS-14/10	14	10
RED-DKOS-14/12	14	12
RED-DKOS-16/06	16	6
RED-DKOS-16/08	16	8
RED-DKOS-16/10	16	10
RED-DKOS-16/12	16	12
RED-DKOS-16/14	16	14
RED-DKOS-20/06	20	6
RED-DKOS-20/08	20	8
RED-DKOS-20/10	20	10
RED-DKOS-20/12	20	12
RED-DKOS-20/14	20	14
RED-DKOS-20/16	20	16
RED-DKOS-25/06	25	6
RED-DKOS-25/08	25	8
RED-DKOS-25/10	25	10
RED-DKOS-25/12	25	12
RED-DKOS-25/14	25	14
RED-DKOS-25/16	25	16
RED-DKOS-25/20	25	20
RED-DKOS-30/06	30	6
RED-DKOS-30/08	30	8
RED-DKOS-30/10	30	10
RED-DKOS-30/12	30	12
RED-DKOS-30/14	30	14
RED-DKOS-30/16	30	16
RED-DKOS-30/20	30	20
RED-DKOS-30/25	30	25
RED-DKOS-38/06	38	6
RED-DKOS-38/08	38	8
RED-DKOS-38/10	38	10
RED-DKOS-38/12	38	12
RED-DKOS-38/14	38	14
RED-DKOS-38/16	38	16
RED-DKOS-38/20	38	20
RED-DKOS-38/25	38	25
RED-DKOS-38/30	38	30

Tech Sheet 71720

stainless
steel



Swivel Female - Male, Connectors - DKO



L Series

0291	OD mm	Thread BSPP
EGE-DKO-06L-2EO	6	1/8"
EGE-DKO-06L-4EO	6	1/4"
EGE-DKO-06L-6EO	6	3/8"
EGE-DKO-08L-2EO	8	1/8"
EGE-DKO-08L-4EO	8	1/4"
EGE-DKO-08L-6EO	8	3/8"
EGE-DKO-08L-8EO	8	1/2"
EGE-DKO-10L-2EO	10	1/8"
EGE-DKO-10L-4EO	10	1/4"
EGE-DKO-10L-6EO	10	3/8"
EGE-DKO-10L-8EO	10	1/2"
EGE-DKO-12L-2EO	12	1/8"
EGE-DKO-12L-4EO	12	1/4"
EGE-DKO-12L-6EO	12	3/8"
EGE-DKO-12L-8EO	12	1/2"
EGE-DKO-15L-6EO	15	3/8"
EGE-DKO-15L-8EO	15	1/2"
EGE-DKO-15L-12EO	15	3/4"
EGE-DKO-18L-6EO	18	3/8"
EGE-DKO-18L-8EO	18	1/2"
EGE-DKO-18L-12EO	18	3/4"
EGE-DKO-22L-8EO	22	1/2"
EGE-DKO-22L-12EO	22	3/4"
EGE-DKO-22L-16EO	22	1"
EGE-DKO-28L-12EO	28	3/4"
EGE-DKO-28L-16EO	28	1"
EGE-DKO-35L-20EO	35	1.1/4"
EGE-DKO-42L-20EO	42	1.1/4"
EGE-DKO-42L-24EO	42	1.1/2"

Tech Sheet 71721

S Series

0291	OD mm	Thread BSPP
EGE-DKO-06S-4EO	6	1/4"
EGE-DKO-08S-4EO	8	1/4"
EGE-DKO-08S-6EO	8	3/8"
EGE-DKO-10S-4EO	10	1/4"
EGE-DKO-10S-6EO	10	3/8"
EGE-DKO-10S-8EO	10	1/2"
EGE-DKO-12S-4EO	12	1/4"
EGE-DKO-12S-6EO	12	3/8"
EGE-DKO-12S-8EO	12	1/2"
EGE-DKO-14S-8EO	14	1/2"
EGE-DKO-16S-6EO	16	3/8"
EGE-DKO-16S-8EO	16	1/2"
EGE-DKO-16S-12EO	16	3/4"
EGE-DKO-20S-8EO	20	1/2"
EGE-DKO-20S-12EO	20	3/4"
EGE-DKO-20S-16EO	20	1"
EGE-DKO-25S-12EO	25	3/4"
EGE-DKO-25S-16EO	25	1"
EGE-DKO-30S-16EO	30	1"
EGE-DKO-30S-20EO	30	1.1/4"
EGE-DKO-38S-24EO	38	1.1/2"

Tech Sheet 71721

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)
Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Banjo Elbows



LL Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-4LL-2EO-WDS	4	1/8"
WHV-6LL-2EO-WDS	6	1/8"
WHV-8LL-2EO-WDS	8	1/8"

Tech Sheet 71722

L Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-06L-2EO-WDS	6	1/8"
WHV-08L-4EO-WDS	8	1/4"
WHV-10L-4EO-WDS	10	1/4"
WHV-10L-6EO-WDS	10	3/8"
WHV-12L-4EO-WDS	12	1/4"
WHV-12L-6EO-WDS	12	3/8"
WHV-12L-8EO-WDS	12	1/2"
WHV-15L-8EO-WDS	15	1/2"
WHV-18L-8EO-WDS	18	1/2"
WHV-22L-12EO-WDS	22	3/4"
WHV-28L-16EO-WDS	28	1"
WHV-35L-20EO-WDS	35	1.1/4"
WHV-42L-24EO-WDS	42	1.1/2"

Tech Sheet 71722

S Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-06S-4EO-WDS	6	1/4"
WHV-08S-4EO-WDS	8	1/4"
WHV-10S-4EO-WDS	10	1/4"
WHV-10S-6EO-WDS	10	3/8"
WHV-12S-6EO-WDS	12	3/8"
WHV-14S-8EO-WDS	14	1/2"
WHV-16S-8EO-WDS	16	1/2"
WHV-20S-12EO-WDS	20	3/4"
WHV-25S-16EO-WDS	25	1"
WHV-30S-20EO-WDS	30	1.1/4"
WHV-38S-24EO-WDS	38	1.1/2"

Tech Sheet 71722

Banjo Tees



LL Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-4LL-2EO-WDS	4	1/8"
THV-6LL-2EO-WDS	6	1/8"
THV-8LL-2EO-WDS	8	1/8"

Tech Sheet 71723

L Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-06L-2EO-WDS	6	1/8"
THV-08L-4EO-WDS	8	1/4"
THV-10L-4EO-WDS	10	1/4"
THV-12L-4EO-WDS	12	1/4"
THV-12L-6EO-WDS	12	3/8"
THV-15L-8EO-WDS	15	1/2"
THV-18L-8EO-WDS	18	1/2"
THV-22L-12EO-WDS	22	3/4"
THV-28L-16EO-WDS	28	1"
THV-35L-20EO-WDS	35	1.1/4"
THV-42L-24EO-WDS	42	1.1/2"

Tech Sheet 71723

S Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-06S-4EO-WDS	6	1/4"
THV-08S-4EO-WDS	8	1/4"
THV-10S-4EO-WDS	10	1/4"
THV-10S-6EO-WDS	10	3/8"
THV-12S-6EO-WDS	12	3/8"
THV-14S-8EO-WDS	14	1/2"
THV-16S-8EO-WDS	16	1/2"
THV-20S-12EO-WDS	20	3/4"
THV-25S-16EO-WDS	25	1"
THV-30S-20EO-WDS	30	1.1/4"
THV-38S-24EO-WDS	38	1.1/2"

Tech Sheet 71723

One-Bite Cutting Rings - SPH Finish



LL Series Sealing Ring with SPH Finish

0291	OD mm
SR-LL-04/1 K-SPH	4
SR-LL-06/1 K-SPH	6
SR-LL-08/1 K-SPH	8

Tech Sheet 71724

Double-Bite Cutting Rings - SPH Finish



L Series Sealing Ring with SPH Finish

0291	OD mm
SR-L-06/2 K-SPH	6
SR-L-08/2 K-SPH	8
SR-L-10/2 K-SPH	10
SR-L-12/2 K-SPH	12
SR-L-15/2 K-SPH	15
SR-L-18/2 K-SPH	18
SR-L-22/2 K-SPH	22
SR-L-28/2 K-SPH	28
SR-L-35/2 K-SPH	35
SR-L-42/2 K-SPH	42

Tech Sheet 71724

S Series Sealing Ring with SPH Finish

0291	OD mm
SR-S-06/2 K-SPH	6
SR-S-08/2 K-SPH	8
SR-S-10/2 K-SPH	10
SR-S-12/2 K-SPH	12
SR-S-16/2 K-SPH	16
SR-S-20/2 K-SPH	20
SR-S-25/2 K-SPH	25
SR-S-30/2 K-SPH	30
SR-S-38/2 K-SPH	38

Tech Sheet 71724

STAINLESS STEEL COMPONENT PARTS

stainless
steel



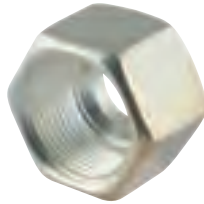
Silver Plated Stainless Steel Nuts (AGP)

There is a high risk for cold welding (gripping) at the threads without silver-coating.

Together with ABF-grease easy assembly due to reduction in tightening torque by up to 70%.

Reduced torsion load to the coupling body.

Applications: Marine industry.



Light-duty

0294	Thread	OD mm
M18L-1.4571AGP	M26 x 1.5	18
M22L-1.4571AGP	M30 x 2	22
M28L-1.4571AGP	M36 x 2	28
M35L-1.4571AGP	M45 x 2	35

Heavy-duty

0294	Thread	OD mm
M20S-1.4571AGP	M30 x 2	20
M25S-1.4571AGP	M36 x 2	25
M30S-1.4571AGP	M42 x 2	30
M38S-1.4571AGP	M52 x 2	38

ABF Anti Bloc Grease

Special grease for the installation of stainless couplings, material 1.4571.

Applications: Marine industry.

To avoid gripping and reduce the coefficient of friction.



1000g Can

0294	Grams
ANTI-BLOC 1KG	1000

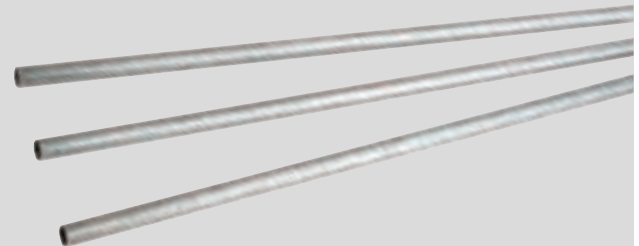


100g Tube

0294	Grams
ANTI-BLOC 100G	100

stainless
steel

For **Stainless Steel Tubing**
see page **183**



INTRODUCING TWIN FERRULE TUBE COMPRESSION FITTINGS

stainless steel



Panam Instrumentation tube fittings provide a zero leak proof seal which will withstand high pressure, impulse, vibration and temperature. These features offer high safety and maintenance free smooth working. Each component is precision machined to the most accurate tolerance; maintain TQM practices throughout manufacturing process.

The fittings are manufactured in accordance with ISO9001 quality standards and CE marking requirements with complete traceability records available upon request.

Available in 316 SS, Brass, CS, Monel materials in a variety of end connections. Straight fittings are machined from bar stock and shaped bodies are machined from forgings.

The fittings are used on instrumentation process control systems, analysers and environmental equipment in oil and gas, Petro-chemical, Power generation, Pulp and Paper industry and many more.

Assembly Instructions

SIZE M6 thru M25 (6mm-25mm) SIZE M3 thru M4 (3mm-4mm)



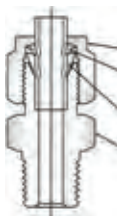
1-1/4 Turns from Finger Tight



Only 3/4 Turn from Finger Tight is necessary to seal and will result in additional remakes of the fitting

- 1 Insert the tubing in to the Tube Fitting until it comes up to the tube stop.
- 2 Ensure that the nut is finger tight and tighten the nut 1-1/4 turns as shown in figure.
- 3 For 1/8" and 3/16 Fittings only 3/4 turns as shown in Fig-3.

Functions



- Compression nut Threads are silver plated which prevents galling.
- Back Ferrule locks together the fittings and tube forms a primary Seal which absorbs the pressure pulses and vibration.
- Front Ferrule Forms a secondary seal which connects tube and fitting and guarantees a bubble tight Zero Leak Sealing.
- Rugged body construction, high precision machined surface and standardised tolerances provides maximum trouble free service life in severe working conditions.

The above illustrates sealing action of a Tube Fitting assembly which takes place after the assembly is fully tightened

Identification of Twin Ferrule Fittings



Metric Tube End with Stepped Shoulder on Nut and Fitting

Imperial Tube End

The Metric size of the Fittings have extra stepped shoulder on the body and nut to distinguish them from imperial size.

All Dimensions are in mm unless otherwise stated. Dimensions are for reference only, subject to change.

Material Standards

Material	Bar Stock a	Forging b	Tubing
316 Stainless Steel	ASTM A276 ASME SA479	ASTM A182 ASME SA182	ASME-SA-213 / ASTM-A-213/ ASTM-A-249 / ASTM-A-269 / MIL T-88504 / MIL T-8506
Brass	ASTM B16	ASTM B283	ASTM-B75 / ASME-SB75 (TEMPER "O")
Alloy 400	ASTM B164 ASME SB164	ASTM B564 ASME SB564	
Alloy 600	ASTM B166 ASME SB166	ASTM B564 ASME SB564	ASTM-B-163
Alloy C-276	ASTM B574	ASTM SB564	ASTM-B-622 / ASTM-B-626
Carbon Steel	ASTM A108		SAE J524b / SAE J525b / ASTM-A-179
PTFE	ASTM D1710	ASTM D3293	

A includes straight configuration B includes all elbows, crosses and tees

Stress Values based on ASME B31.3 Code for Process Piping

Material	Allowable Stress Value		Design Factor	Ultimate Tensile Strength	
	Psig	bar		Psig	bar
316SS	20000	1378	3.75:1	75000	5170
Brass	10000	689	4:1	40000	2760
Steel	20000	1378	3:1	60000	4140

Pipe End Pressure Ratings

Calculations based on ASME B31.3 code for Process Piping

NPT/ISO Pipe Size Inches	316 SS and Carbon Steel				Brass			
	Male		Female		Male		Female	
	Psig	bar	Psig	bar	Psig	bar	Psig	bar
1/16	11000	760	6700	460	5500	380	3300	230
1/8	10000	690	6500	440	5000	340	3200	220
1/4	8000	550	6600	450	4000	270	3300	220
3/8	7800	540	5300	360	3900	270	2600	180
1/2	7700	530	4900	330	3800	260	2400	160
3/4	7300	500	4600	320	3600	250	2300	160
1	5300	370	4400	300	2600	180	2200	150
1.1/4	6000	410	5000	350	3000	200	2500	170
1.1/2	5000	340	4600	310	2500	170	2300	150
2	3900	270	3900	270	1900	130	1900	130

To determine working pressure ratings in accordance with ASME B31.1 Power Piping For 316 stainless steel, multiply psig by 0.94; for carbon steel multiply psig by 0.75; Brass ratings remain the same. To determine working pressure kPa multiply psig by 6.89

SAE Pressure Ratings

Pressure Ratings are from SAE J1926/3

SAE/MS Thread Size	316 SS and Carbon Steel			
	(Nonpositionable)		(Positionable)	
	Psig	bar	Psig	bar
5/16-24				
7/16-20			4568	315
1/2-20	4568	315		
9/16-18			3626	250
3/4-16				
7/8-14	3626	250	2900	200
1.1/16-12				
1.3/16-12	2900	200	2320	160
1.5/16-12				
1.5/8-12	2320	160	1813	125
1.7/8-12				
1.1/2-12	1813	125	1450	100

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Connectors



Male Thread, NPT

0292	OD	Thread
MC-125-125N	1/8"	1/8"
MC-125-250N	1/8"	1/4"
MC-125-375N	1/8"	3/8"
MC-125-500N	1/8"	1/2"
MC-187-125N	3/16"	1/8"
MC-187-250N	3/16"	1/4"
MC-250-125N	1/4"	1/8"
MC-250-250N	1/4"	1/4"
MC-250-375N	1/4"	3/8"
MC-250-500N	1/4"	1/2"
MC-250-750N	1/4"	3/4"
MC-312-125N	5/16"	1/8"
MC-312-250N	5/16"	1/4"
MC-312-375N	5/16"	3/8"
MC-312-500N	5/16"	1/2"
MC-375-125N	5/16"	1/8"
MC-375-250N	3/8"	1/4"
MC-375-375N	3/8"	3/8"
MC-375-500N	3/8"	1/2"
MC-375-750N	3/8"	3/4"
MC-500-125N	1/2"	1/8"
MC-500-250N	1/2"	1/4"
MC-500-375N	1/2"	3/8"
MC-500-500N	1/2"	1/2"
MC-500-750N	1/2"	3/4"
MC-500-1000N	1/2"	1"
MC-625-375N	5/8"	3/8"
MC-625-500N	5/8"	1/2"
MC-625-750N	5/8"	3/4"
MC-750-500N	3/4"	1/2"
MC-750-750N	3/4"	3/4"
MC-750-1000N	3/4"	1"
MC-875-750N	7/8"	3/4"
MC-875-1000N	7/8"	1"
MC-1000-500N	1"	1/2"
MC-1000-750N	1"	3/4"
MC-1000-1000N	1"	1"

Tech Sheet 20234



Male Thread, BSPT

0292	OD	Thread
MC-125-125RT	1/8"	1/8"
MC-125-250RT	1/8"	1/4"
MC-250-125RT	1/4"	1/8"
MC-250-250RT	1/4"	1/4"
MC-250-375RT	1/4"	3/8"
MC-250-500RT	1/4"	1/2"
MC-312-125RT	5/16"	1/8"
MC-312-250RT	5/16"	1/4"
MC-375-125RT	3/8"	1/8"
MC-375-250RT	3/8"	1/4"
MC-375-375RT	3/8"	3/8"
MC-375-500RT	3/8"	1/2"
MC-500-250RT	1/2"	1/4"
MC-500-375RT	1/2"	3/8"
MC-500-500RT	1/2"	1/2"
MC-500-750RT	1/2"	3/4"
MC-750-750RT	3/4"	3/4"
MC-1000-1000RT	1"	1"

Tech Sheet 20233



Male Thread, SAE/MS

0292	OD	Thread
MC-125-312SE	1/8"	5/16"-24
MC-125-562SE	1/8"	9/16"-18
MC-250-437SE	1/4"	7/16"-20
MC-250-750SE	1/4"	3/4"-16
MC-250-875SE	1/4"	7/8"-14
MC-312-500SE	5/16"	1/2"-20
MC-375-437SE	3/8"	7/16"-20
MC-375-562SE	3/8"	9/16"-18
MC-375-750SE	3/8"	3/4"-16
MC-375-875SE	3/8"	7/8"-14
MC-500-562SE	1/2"	9/16"-18
MC-500-750SE	1/2"	3/4"-16
MC-500-875SE	1/2"	7/8"-14
MC-500-1062SE	1/2"	1.1/16"-12
MC-625-750SE	5/8"	3/4"-16
MC-625-875SE	5/8"	7/8"-14
MC-750-750SE	3/4"	3/4"-16
MC-750-1062SE	3/4"	1.1/16"-12
MC-875-1187SE	7/8"	1.3/16"-12
MC-1000-1062SE	1"	1.1/16"-12
MC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20807



Male Thread, SAE/MS (Long)

0292	OD	Thread
LMC-250-437SE	1/4"	7/16"-20
LMC-312-500SE	5/16"	1/2"-20
LMC-375-562SE	3/8"	9/16"-18
LMC-500-750SE	1/2"	3/4"-16
LMC-625-875SE	5/8"	7/8"-14
LMC-750-1062SE	3/4"	1.1/16"-12
LMC-875-1187SE	7/8"	1.3/16"-12
LMC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20808



Male Thread, SAE/MS (Captive Seal)

0292	OD	Thread
OMC-125-312SE	1/8"	5/16"-24
OMC-187-375SE	3/16"	3/8"-24
OMC-250-437SE	1/4"	7/16"-20
OMC-312-500SE	5/16"	1/2"-20
OMC-375-562SE	3/8"	9/16"-18
OMC-500-750SE	1/2"	3/4"-16
OMC-750-1062SE	3/4"	1.1/16"-12
OMC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20809

Male Thread, BSPP (Captive Seal)

0292	OD	Thread
OMC-250-250EO	1/4"	1/4"
OMC-250-500EO	1/4"	1/2"
OMC-375-375EO	3/8"	3/8"
OMC-500-250EO	1/2"	1/4"
OMC-500-375EO	1/2"	3/8"
OMC-500-500EO	1/2"	1/2"
OMC-750-750EO	3/4"	3/4"

Tech Sheet 20809

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Connectors

Stainless steel washer with a Viton inner ring.



Male Thread-RS, BSPP

0292	OD	Thread
MC-125-125RS	1/8"	1/8"
MC-125-250RS	1/8"	1/4"
MC-125-375RS	1/8"	3/8"
MC-250-125RS	1/4"	1/8"
MC-250-250RS	1/4"	1/4"
MC-250-375RS	1/4"	3/8"
MC-250-500RS	1/4"	1/2"
MC-375-250RS	3/8"	1/4"
MC-375-375RS	3/8"	3/8"
MC-375-500RS	3/8"	1/2"
MC-500-250RS	1/2"	1/4"
MC-500-375RS	1/2"	3/8"
MC-500-500RS	1/2"	1/2"
MC-750-500RS	3/4"	1/2"
MC-750-750RS	3/4"	3/4"
MC-1000-500RS	1"	1/2"
MC-1000-1000RS	1"	1"

Tech Sheet 20810

Female Connectors



Female Thread, NPT

0292	OD	Thread
FC-125-125N	1/8"	1/8"
FC-125-250N	1/8"	1/4"
FC-187-125N	3/16"	1/8"
FC-250-125N	1/4"	1/8"
FC-250-250N	1/4"	1/4"
FC-250-375N	1/4"	3/8"
FC-250-500N	1/4"	1/2"
FC-312-125N	5/16"	1/8"
FC-312-250N	5/16"	1/4"
FC-312-375N	5/16"	3/8"
FC-375-125N	3/8"	1/8"
FC-375-250N	3/8"	1/4"
FC-375-375N	3/8"	3/8"
FC-375-500N	3/8"	1/2"
FC-375-750N	3/8"	3/4"
FC-500-250N	1/2"	1/4"
FC-500-375N	1/2"	3/8"
FC-500-500N	1/2"	1/2"
FC-500-750N	1/2"	3/4"
FC-625-375N	5/8"	3/8"
FC-625-500N	5/8"	1/2"
FC-625-750N	5/8"	3/4"
FC-750-500N	3/4"	1/2"
FC-750-750N	3/4"	3/4"
FC-875-750N	7/8"	3/4"
FC-1000-750N	1"	3/4"
FC-1000-1000N	1"	1"

Tech Sheet 20235

Female Thread, BSPT

0292	OD	Thread
FC-250-125RT	1/4"	1/8"
FC-250-250RT	1/4"	1/4"
FC-250-375RT	1/4"	3/8"
FC-250-500RT	1/4"	1/2"
FC-375-250RT	3/8"	1/4"
FC-375-375RT	3/8"	3/8"
FC-375-500RT	3/8"	1/2"
FC-500-250RT	1/2"	1/4"
FC-500-375RT	1/2"	3/8"
FC-500-500RT	1/2"	1/2"

Tech Sheet 20237

Female Thread, BSPP

0292	OD	Thread
FC-250-250RG	1/4"	1/4"
FC-250-375RG	1/4"	3/8"
FC-250-500RG	1/4"	1/2"
FC-312-250RG	5/16"	1/4"
FC-312-500RG	5/16"	1/2"
FC-375-250RG	3/8"	1/4"
FC-375-375RG	3/8"	3/8"
FC-375-500RG	3/8"	1/2"
FC-500-375RG	1/2"	3/8"
FC-500-500RG	1/2"	1/2"

Tech Sheet 20236

Bulkhead Male Connectors



Male Thread, NPT

0292	OD	Thread
BMC-125-125N	1/8"	1/8"
BMC-187-125N	3/16"	1/8"
BMC-250-125N	1/4"	1/8"
BMC-250-250N	1/4"	1/4"
BMC-250-375N	1/4"	3/8"
BMC-250-500N	1/4"	1/2"
BMC-312-125N	5/16"	1/8"
BMC-312-250N	5/16"	1/4"
BMC-375-125N	3/8"	1/8"
BMC-375-250N	3/8"	1/4"
BMC-375-375N	3/8"	3/8"
BMC-500-250N	1/2"	1/4"
BMC-500-375N	1/2"	3/8"
BMC-500-500N	1/2"	1/2"
BMC-500-750N	1/2"	3/4"
BMC-625-375N	5/8"	3/8"
BMC-625-500N	5/8"	1/2"
BMC-750-500N	3/4"	1/2"
BMC-750-750N	3/4"	3/4"
BMC-875-750N	7/8"	3/4"
BMC-1000-750N	1"	3/4"

Tech Sheet 20814

Bulkhead Female Connectors



Female Thread, NPT

0292	OD	Thread
BFC-125-125N	1/8"	1/8"
BFC-187-125N	3/16"	1/8"
BFC-250-125N	1/4"	1/8"
BFC-250-250N	1/4"	1/4"
BFC-312-125N	5/16"	1/8"
BFC-375-250N	3/8"	1/4"
BFC-500-375N	1/2"	3/8"
BFC-500-500N	1/2"	1/2"
BFC-625-500N	5/8"	1/2"
BFC-750-750N	3/4"	3/4"
BFC-875-750N	7/8"	3/4"
BFC-1000-1000N	1"	1"

Tech Sheet 20815

LOCTITE



For Threadlockers
see page 1584

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Unions



Tube x Tube

0292	OD
U-125	1/8"
U-187	3/16"
U-250	1/4"
U-312	5/16"
U-375	3/8"
U-500	1/2"
U-625	5/8"
U-750	3/4"
U-875	7/8"
U-1000	1"

Tech Sheet 20297



Metric Tube x Imperial Tube

0292	OD mm	OD
U-3-125	3	1/8"
U-4-125	4	1/8"
U-4-250	4	1/4"
U-6-125	6	1/8"
U-6-250	6	1/4"
U-6-312	6	5/16"
U-8-250	8	1/4"
U-8-375	8	3/8"
U-10-125	10	1/8"
U-10-250	10	1/4"
U-10-312	10	5/16"
U-10-375	10	3/8"
U-12-312	12	5/16"
U-12-375	12	3/8"
U-12-500	12	1/2"
U-15-500	15	1/2"
U-18-750	18	3/4"
U-20-500	20	1/2"
U-20-1000	20	1"
U-25-1000	25	1"

Tech Sheet 20817

Reducing Unions



Tube x Tube

0292	OD	OD
RU-187-125	3/16"	1/8"
RU-250-125	1/4"	1/8"
RU-250-187	1/4"	3/16"
RU-312-125	5/16"	1/8"
RU-312-250	5/16"	1/4"
RU-375-125	3/8"	1/8"
RU-375-250	3/8"	1/4"
RU-375-312	3/8"	5/16"
RU-500-125	1/2"	1/8"
RU-500-250	1/2"	1/4"
RU-500-375	1/2"	3/8"
RU-625-375	5/8"	3/8"
RU-625-500	5/8"	1/2"
RU-750-250	3/4"	1/4"
RU-750-375	3/4"	3/8"
RU-750-500	3/4"	1/2"
RU-750-625	3/4"	5/8"
RU-1000-500	1"	1/2"
RU-1000-750	1"	3/4"

Tech Sheet 20298

Bulkhead Unions



Tube x Tube

0292	OD
BU-125	1/8"
BU-187	3/16"
BU-250	1/4"
BU-312	5/16"
BU-375	3/8"
BU-500	1/2"
BU-625	5/8"
BU-750	3/4"
BU-1000	1"

Tech Sheet 20238

Male Branch Tees



Male Thread, NPT

0292	OD	Thread
MBT-125-125N	1/8"	1/8"
MBT-125-250N	1/8"	1/4"
MBT-187-125N	3/16"	1/8"
MBT-250-125N	1/4"	1/8"
MBT-250-250N	1/4"	1/4"
MBT-312-125N	5/16"	1/8"
MBT-375-250N	3/8"	1/4"
MBT-375-375N	3/8"	3/8"
MBT-500-375N	1/2"	3/8"
MBT-500-500N	1/2"	1/2"
MBT-625-500N	5/8"	1/2"
MBT-750-750N	3/4"	3/4"

Tech Sheet 20240

Male Positionable Branch Tees



Male Thread, SAE/MS

0292	OD	Thread
MBTP-250-437SE	1/4"	7/16"-20
MBTP-375-562SE	3/8"	9/16"-18
MBTP-500-750SE	1/2"	3/4"-16
MBTP-750-1062SE	3/4"	1.1/16"-12
MBTP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20821

Male Thread, BSPP

0292	OD	Thread
MBTP-250-125PR	1/4"	1/8"
MBTP-250-250PR	1/4"	1/4"
MBTP-375-250PR	3/8"	1/4"
MBTP-500-375PR	1/2"	3/8"
MBTP-500-500PR	1/2"	1/2"
MBTP-625-500PR	5/8"	1/2"
MBTP-750-500PR	3/4"	1/2"
MBTP-750-750PR	3/4"	3/4"
MBTP-1000-1000PR	1"	1"

Tech Sheet 20822

Male Run Tees



Male Thread, NPT

0292	OD	Thread
MRT-125-125N	1/8"	1/8"
MRT-125-250N	1/8"	1/4"
MRT-187-125N	3/16"	1/8"
MRT-250-125N	1/4"	1/8"
MRT-250-250N	1/4"	1/4"
MRT-312-125N	5/16"	1/8"
MRT-375-250N	3/8"	1/4"
MRT-375-375N	3/8"	3/8"
MRT-500-375N	1/2"	3/8"
MRT-500-500N	1/2"	1/2"
MRT-625-500N	5/8"	1/2"
MRT-750-750N	3/4"	3/4"

Tech Sheet 20299

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Positionable Run Tees



Male Thread, SAE/MS

0292	OD	Thread
MRTP-250-437SE	1/4"	7/16"-20
MRTP-375-562SE	3/8"	9/16"-18
MRTP-500-750SE	1/2"	3/4"-16
MRTP-750-1062SE	3/4"	1.1/16"-12
MRTP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20824

Male Thread, BSPP

0292	OD	Thread
MRTP-250-125PR	1/4"	1/8"
MRTP-250-250PR	1/4"	1/4"
MRTP-375-250PR	3/8"	1/4"
MRTP-500-375PR	1/2"	3/8"
MRTP-500-500PR	1/2"	1/2"
MRTP-625-500PR	5/8"	1/2"
MRTP-750-500PR	3/4"	1/2"
MRTP-750-750PR	3/4"	3/4"
MRTP-1000-1000PR	1"	1"

Tech Sheet 20825

Female Branch Tees



Female Thread, NPT

0292	OD	Thread
FBT-125-125N	1/8"	1/8"
FBT-250-125N	1/4"	1/8"
FBT-250-250N	1/4"	1/4"
FBT-375-250N	3/8"	1/4"
FBT-375-375N	3/8"	3/8"
FBT-375-500N	3/8"	1/2"
FBT-500-250N	1/2"	1/4"
FBT-500-375N	1/2"	3/8"
FBT-500-500N	1/2"	1/2"
FBT-625-500N	5/8"	1/2"
FBT-750-750N	3/4"	3/4"
FBT-1000-750N	1"	3/4"
FBT-1000-1000N	1"	1"

Tech Sheet 20826

Female Run Tees



Female Thread, NPT

0292	OD	Thread
FRT-125-125N	1/8"	1/8"
FRT-250-125N	1/4"	1/8"
FRT-250-250N	1/4"	1/4"
FRT-375-250N	3/8"	1/4"
FRT-500-375N	1/2"	3/8"
FRT-500-500N	1/2"	1/2"
FRT-750-750N	3/4"	3/4"
FRT-1000-750N	1"	3/4"
FRT-1000-1000N	1"	1"

Tech Sheet 20239

Male Elbows



Male Thread, NPT

0292	OD	Thread
ME-125-125N	1/8"	1/8"
ME-125-250N	1/8"	1/4"
ME-187-125N	3/16"	1/8"
ME-187-250N	3/16"	1/4"
ME-250-125N	1/4"	1/8"
ME-250-250N	1/4"	1/4"
ME-250-375N	1/4"	3/8"
ME-250-500N	1/4"	1/2"
ME-312-125N	5/16"	1/8"
ME-312-250N	5/16"	1/4"
ME-312-375N	5/16"	3/8"
ME-375-125N	3/8"	1/8"
ME-375-250N	3/8"	1/4"
ME-375-375N	3/8"	3/8"
ME-375-500N	3/8"	1/2"
ME-375-750N	3/8"	3/4"
ME-500-250N	1/2"	1/4"
ME-500-375N	1/2"	3/8"
ME-500-500N	1/2"	1/2"
ME-500-750N	1/2"	3/4"
ME-625-375N	5/8"	3/8"
ME-625-500N	5/8"	1/2"
ME-625-750N	5/8"	3/4"
ME-750-500N	3/4"	1/2"
ME-750-750N	3/4"	3/4"
ME-875-750N	7/8"	3/4"
ME-1000-750N	1"	3/4"
ME-1000-1000N	1"	1"

Tech Sheet 20295

Male Thread, BSPT

0292	OD	Thread
ME-250-125RT	1/4"	1/8"
ME-250-250RT	1/4"	1/4"
ME-250-375RT	1/4"	3/8"
ME-250-500RT	1/4"	1/2"
ME-312-250RT	5/16"	1/4"
ME-375-250RT	3/8"	1/4"
ME-375-375RT	3/8"	3/8"

Tech Sheet 20294

Female Elbows



Female Thread, NPT

0292	OD	Thread
FE-125-125N	1/8"	1/8"
FE-125-250N	1/8"	1/4"
FE-187-125N	3/16"	1/8"
FE-250-125N	1/4"	1/8"
FE-250-250N	1/4"	1/4"
FE-250-375N	1/4"	3/8"
FE-250-500N	1/4"	1/2"
FE-312-125N	5/16"	1/8"
FE-312-250N	5/16"	1/4"
FE-375-125N	3/8"	1/8"
FE-375-250N	3/8"	1/4"
FE-375-375N	3/8"	3/8"
FE-375-500N	3/8"	1/2"
FE-500-250N	1/2"	1/4"
FE-500-375N	1/2"	3/8"
FE-500-500N	1/2"	1/2"
FE-625-375N	5/8"	3/8"
FE-625-500N	5/8"	1/2"
FE-750-500N	3/4"	1/2"
FE-750-750N	3/4"	3/4"
FE-875-750N	7/8"	3/4"
FE-1000-750N	1"	3/4"
FE-1000-1000N	1"	1"

Tech Sheet 20296

Positionable Elbows



Male Thread, SAE/MS

0292	OD	Thread
MEP-250-437SE	1/4"	7/16"-20
MEP-250-562SE	1/4"	9/16"-18
MEP-312-500SE	5/16"	1/2"-20
MEP-375-562SE	3/8"	9/16"-18
MEP-375-750SE	3/8"	3/4"-16
MEP-500-750SE	1/2"	3/4"-16
MEP-625-875SE	5/8"	7/8"-14
MEP-750-1062SE	3/4"	1.1/16"-12
MEP-875-1187SE	7/8"	1.3/16"-12
MEP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20831

Male Thread, BSPP

0292	OD	Thread
MEP-250-125PR	1/4"	1/8"
MEP-250-250PR	1/4"	1/4"
MEP-375-250PR	3/8"	1/4"
MEP-375-375PR	3/8"	3/8"
MEP-500-250PR	1/2"	1/4"
MEP-500-375PR	1/2"	3/8"
MEP-500-500PR	1/2"	1/2"
MEP-625-500PR	5/8"	1/2"
MEP-750-500PR	3/4"	1/2"
MEP-750-750PR	3/4"	3/4"
MEP-1000-750PR	1"	3/4"
MEP-1000-1000PR	1"	1"

Tech Sheet 20832

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Bulkhead Reducing Unions



Tube x Tube

0292	OD	OD
RBU-250-125	1/4"	1/8"
RBU-375-250	3/8"	1/4"
RBU-500-250	1/2"	1/4"

Tech Sheet 20833

Union Elbows



Tube x Tube

0292	OD
UE-125	1/8"
UE-187	3/16"
UE-250	1/4"
UE-312	5/16"
UE-375	3/8"
UE-500	1/2"
UE-625	5/8"
UE-750	3/4"
UE-875	7/8"
UE-1000	1"

Tech Sheet 20289

Reducing Union Elbows



Tube x Tube

0292	OD	OD
RUE-187-125	3/16"	1/8"
RUE-250-125	1/4"	1/8"
RUE-312-125	5/16"	1/8"
RUE-312-250	5/16"	1/4"
RUE-375-125	3/8"	1/8"
RUE-375-250	3/8"	1/4"
RUE-375-312	3/8"	5/16"
RUE-500-250	1/2"	1/4"
RUE-500-312	1/2"	5/16"
RUE-500-375	1/2"	3/8"
RUE-625-375	5/8"	3/8"
RUE-625-500	5/8"	1/2"
RUE-750-250	3/4"	1/4"
RUE-750-375	3/4"	3/8"
RUE-750-500	3/4"	1/2"
RUE-875-250	7/8"	1/4"
RUE-1000-500	1"	1/2"
RUE-1000-750	1"	3/4"

Tech Sheet 20835

Union Tees



Tube x Tube

0292	OD
UT-125	1/8"
UT-187	3/16"
UT-250	1/4"
UT-312	5/16"
UT-375	3/8"
UT-500	1/2"
UT-625	5/8"
UT-750	3/4"
UT-875	7/8"
UT-1000	1"

Tech Sheet 20288

Reducing Branch, Union Tees



Tube x Tube

0292	OD	OD
RUT-375-250	3/8"	1/4"
RUT-500-250	1/2"	1/4"
RUT-500-375	1/2"	3/8"
RUT-625-375	5/8"	3/8"
RUT-750-375	3/4"	3/8"
RUT-750-500	3/4"	1/2"
RUT-1000-375	1"	3/8"
RUT-1000-500	1"	1/2"
RUT-1000-750	1"	3/4"

Tech Sheet 20837

Union Crosses



Tube x Tube

0292	OD
UC-125	1/8"
UC-250	1/4"
UC-312	5/16"
UC-375	3/8"
UC-500	1/2"
UC-750	3/4"
UC-1000	1"

Tech Sheet 20290

AN Unions



Male Thread, AN

0292	OD	Thread
NU-125-125AN	1/8"	5/16"
NU-125-250AN	1/8"	7/16"
NU-250-250AN	1/4"	7/16"
NU-312-312AN	5/16"	1/2"
NU-375-250AN	3/8"	7/16"
NU-375-375AN	3/8"	9/16"
NU-500-500AN	1/2"	3/4"
NU-750-750AN	3/4"	1.1/16"
NU-1000-1000AN	1"	1.5/16"

Tech Sheet 20839

AN Bulkhead Unions



Male Thread, AN

0292	OD	Thread
ABU-250-250AN	1/4"	7/16"
ABU-375-375AN	3/8"	9/16"
ABU-500-500AN	1/2"	3/4"
ABU-750-750AN	3/4"	1.1/16"
ABU-1000-1000AN	1"	1.5/16"

Tech Sheet 20840

Weld Union, Sockets



Tube x Tube

0292	OD
SWU-125	1/8"
SWU-250	1/4"
SWU-375	3/8"
SWU-500	1/2"
SWU-750	3/4"
SWU-1000	1"

Tech Sheet 20841

Weld Elbow, Sockets



Tube x Tube

0292	OD
SWE-250	1/4"
SWE-375	3/8"
SWE-500	1/2"
SWE-750	3/4"
SWE-1000	1"

Tech Sheet 20842

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Weld Union, Connectors



Tube x Tube

0292	OD	Stem OD
MWC-125-125	1/8"	1/8"
MWC-187-125	3/16"	1/8"
MWC-250-125	1/4"	1/8"
MWC-250-250	1/4"	1/4"
MWC-312-125	5/16"	1/8"
MWC-312-250	5/16"	1/4"
MWC-375-250	3/8"	1/4"
MWC-375-375	3/8"	3/8"
MWC-375-500	3/8"	1/2"
MWC-375-750	3/8"	3/4"
MWC-500-375	1/2"	3/8"
MWC-500-500	1/2"	1/2"
MWC-500-750	1/2"	3/4"
MWC-625-500	5/8"	1/2"
MWC-750-750	3/4"	3/4"
MWC-1000-1000	1"	1"

Tech Sheet 20843

Weld Elbow, Connectors



Tube x Tube

0292	OD	Stem OD
MWE-250-125	1/4"	1/8"
MWE-250-250	1/4"	1/4"
MWE-375-250	3/8"	1/4"
MWE-500-500	1/2"	1/2"
MWE-750-750	3/4"	3/4"

Tech Sheet 20844

Bulkhead Reducers



Tube x Tube

0292	OD
BR-125	1/8"
BR-250	1/4"
BR-375	3/8"
BR-500	1/2"
BR-625	5/8"
BR-1000	1"

Tech Sheet 20287

Reducers



Tube x Tube

0292	OD	Stem OD
R-125-125	1/8"	1/8"
R-125-187	1/8"	3/16"
R-125-250	1/8"	1/4"
R-125-375	1/8"	3/8"
R-125-500	1/8"	1/2"
R-187-125	3/16"	1/8"
R-187-250	3/16"	1/4"
R-250-125	1/4"	1/8"
R-250-187	1/4"	3/16"
R-250-250	1/4"	1/4"
R-250-312	1/4"	5/16"
R-250-375	1/4"	3/8"
R-250-500	1/4"	1/2"
R-250-625	1/4"	5/8"
R-250-750	1/4"	3/4"
R-312-375	5/16"	3/8"
R-312-500	5/16"	1/2"
R-375-250	3/8"	1/4"
R-375-375	3/8"	3/8"
R-375-500	3/8"	1/2"
R-375-625	3/8"	5/8"
R-375-750	3/8"	3/4"
R-500-250	1/2"	1/4"
R-500-375	1/2"	3/8"
R-500-500	1/2"	1/2"
R-500-625	1/2"	5/8"
R-500-750	1/2"	3/4"
R-500-1000	1/2"	1"
R-625-750	5/8"	3/4"
R-625-875	5/8"	7/8"
R-625-1000	5/8"	1"
R-750-500	3/4"	1/2"
R-750-1000	3/4"	1"

Tech Sheet 20286

Port Connectors



Tube x Tube

0292	OD
PC-125	1/8"
PC-250	1/4"
PC-312	5/16"
PC-375	3/8"
PC-500	1/2"
PC-750	3/4"
PC-1000	1"

Tech Sheet 20378

Reducing Port Connectors



Tube x Tube

0292	OD	Stem OD
RPC-250-125	1/4"	1/8"
RPC-375-125	3/8"	1/8"
RPC-375-250	3/8"	1/4"
RPC-500-250	1/2"	1/4"
RPC-750-500	3/4"	1/2"
RPC-1000-500	1"	1/2"
RPC-1000-750	1"	3/4"

Tech Sheet 20849

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Caps



Tube

0292	OD
C-125-FT	1/8"
C-187	3/16"
C-250	1/4"
C-312	5/16"
C-375	3/8"
C-500	1/2"
C-625	5/8"
C-750	3/4"
C-875	7/8"
C-1000	1"

Tech Sheet 20284

Nuts



Tube

0292	OD
N-125-FT	1/8"
N-187	3/16"
N-250	1/4"
N-312	5/16"
N-375	3/8"
N-500	1/2"
N-625	5/8"
N-750	3/4"
N-875	7/8"
N-1000	1"

Tech Sheet 20283

Front Ferrules



Tube

0292	OD
FF-125	1/8"
FF-187	3/16"
FF-250	1/4"
FF-312	5/16"
FF-375	3/8"
FF-500	1/2"
FF-625	5/8"
FF-750	3/4"
FF-875	7/8"
FF-1000	1"

Tech Sheet 20854

Plugs



Tube

0292	OD
P-125	1/8"
P-187	3/16"
P-250	1/4"
P-312	5/16"
P-375	3/8"
P-500	1/2"
P-625	5/8"
P-750	3/4"
P-875	7/8"
P-1000	1"

Tech Sheet 20282

Back Ferrules



Tube

0292	OD
BF-125	1/8"
BF-187	3/16"
BF-250	1/4"
BF-312	5/16"
BF-375	3/8"
BF-500	1/2"
BF-625	5/8"
BF-750	3/4"
BF-875	7/8"
BF-1000	1"

Tech Sheet 20285

Lock Nuts



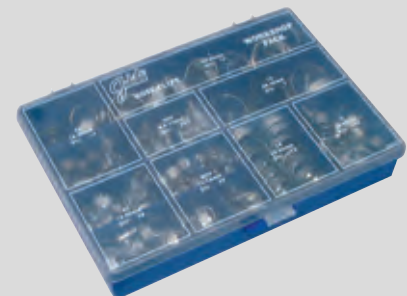
To suit Bulkheads

0292	OD
BLN-125	1/8"
BLN-187	3/16"
BLN-250	1/4"
BLN-312	5/16"
BLN-375	3/8"
BLN-500	1/2"
BLN-625	5/8"
BLN-750	3/4"
BLN-875	7/8"
BLN-1000	1"

Tech Sheet 20855



For Jubilee® Workshop Pack
see page 1520



316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Male Connectors



Male Thread, NPT

0292	OD mm	Thread
MC-3-125N	3	1/8"
MC-3-250N	3	1/4"
MC-4-125N	4	1/8"
MC-4-250N	4	1/4"
MC-6-125N	6	1/8"
MC-6-250N	6	1/4"
MC-6-375N	6	3/8"
MC-6-500N	6	1/2"
MC-8-125N	8	1/8"
MC-8-250N	8	1/4"
MC-8-375N	8	3/8"
MC-8-500N	8	1/2"
MC-10-125N	10	1/8"
MC-10-250N	10	1/4"
MC-10-375N	10	3/8"
MC-10-500N	10	1/2"
MC-10-750N	10	3/4"
MC-12-125N	12	1/8"
MC-12-250N	12	1/4"
MC-12-375N	12	3/8"
MC-12-500N	12	1/2"
MC-12-750N	12	3/4"
MC-14-250N	14	1/4"
MC-14-375N	14	3/8"
MC-14-500N	14	1/2"
MC-15-500N	15	1/2"
MC-16-375N	16	3/8"
MC-16-500N	16	1/2"
MC-16-750N	16	3/4"
MC-18-500N	18	1/2"
MC-18-750N	18	3/4"
MC-20-500N	20	1/2"
MC-20-750N	20	3/4"
MC-22-750N	22	3/4"
MC-22-1000N	22	1"
MC-25-500N	25	1/2"
MC-25-750N	25	3/4"
MC-25-1000N	25	1"

Tech Sheet 20281



Male Thread, BSPT

0292	OD mm	Thread
MC-3-125RT	3	1/8"
MC-3-250RT	3	1/4"
MC-4-125RT	4	1/8"
MC-4-250RT	4	1/4"
MC-6-125RT	6	1/8"
MC-6-250RT	6	1/4"
MC-6-375RT	6	3/8"
MC-6-500RT	6	1/2"
MC-8-125RT	8	1/8"
MC-8-250RT	8	1/4"
MC-8-375RT	8	3/8"
MC-8-500RT	8	1/2"
MC-10-125RT	10	1/8"
MC-10-250RT	10	1/4"
MC-10-375RT	10	3/8"
MC-10-500RT	10	1/2"
MC-12-125RT	12	1/8"
MC-12-250RT	12	1/4"
MC-12-375RT	12	3/8"
MC-12-500RT	12	1/2"
MC-12-750RT	12	3/4"
MC-15-500RT	15	1/2"
MC-16-250RT	16	1/4"
MC-16-375RT	16	3/8"
MC-16-500RT	16	1/2"
MC-16-750RT	16	3/4"
MC-18-500RT	18	1/2"
MC-18-750RT	18	3/4"
MC-20-500RT	20	1/2"
MC-20-750RT	20	3/4"
MC-22-750RT	22	3/4"
MC-22-1000RT	22	1"
MC-25-750RT	25	3/4"
MC-25-1000RT	25	1"

Tech Sheet 20278



Male Thread, BSPP (Captive Seal)

0292	OD mm	Thread
OMC-6-125EO	6	1/8"
OMC-6-250EO	6	1/4"
OMC-6-375EO	6	3/8"
OMC-6-500EO	6	1/2"
OMC-10-250EO	10	1/4"
OMC-10-375EO	10	3/8"
OMC-10-500EO	10	1/2"
OMC-12-250EO	12	1/4"
OMC-12-375EO	12	3/8"
OMC-12-500EO	12	1/2"

Tech Sheet 20856



Male Thread-RS, BSPP

0292	OD mm	Thread
MC-3-125RS	3	1/8"
MC-3-250RS	3	1/4"
MC-4-125RS	4	1/8"
MC-6-125RS	6	1/8"
MC-6-250RS	6	1/4"
MC-6-375RS	6	3/8"
MC-6-500RS	6	1/2"
MC-8-125RS	8	1/8"
MC-8-250RS	8	1/4"
MC-8-375RS	8	3/8"
MC-8-500RS	8	1/2"
MC-10-250RS	10	1/4"
MC-10-375RS	10	3/8"
MC-10-500RS	10	1/2"
MC-12-250RS	12	1/4"
MC-12-375RS	12	3/8"
MC-12-500RS	12	1/2"
MC-12-750RS	12	3/4"
MC-16-375RS	16	3/8"
MC-16-500RS	16	1/2"
MC-18-500RS	18	1/2"
MC-18-750RS	18	3/4"
MC-20-500RS	20	1/2"
MC-20-750RS	20	3/4"
MC-22-750RS	22	3/4"
MC-22-1000RS	22	1"
MC-25-750RS	25	3/4"
MC-25-1000RS	25	1"

Tech Sheet 20279

stainless
steel



You might also need
Stainless Steel Tubing
see page 183

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Female Connectors



Female Thread, NPT

0292	OD mm	Thread
FC-3-125N	3	1/8"
FC-3-250N	3	1/4"
FC-4-125N	4	1/8"
FC-6-125N	6	1/8"
FC-6-250N	6	1/4"
FC-6-375N	6	3/8"
FC-6-500N	6	1/2"
FC-8-125N	8	1/8"
FC-8-250N	8	1/4"
FC-8-375N	8	3/8"
FC-8-500N	8	1/2"
FC-10-250N	10	1/4"
FC-10-375N	10	3/8"
FC-10-500N	10	1/2"
FC-12-250N	12	1/4"
FC-12-375N	12	3/8"
FC-12-500N	12	1/2"
FC-15-500N	15	1/2"
FC-16-500N	16	1/2"
FC-20-500N	20	1/2"
FC-20-750N	20	3/4"
FC-22-750N	22	3/4"
FC-22-1000N	22	1"
FC-25-750N	25	3/4"
FC-25-1000N	25	1"

Tech Sheet 20275

Female Thread, BSPT

0292	OD mm	Thread
FC-3-125RT	3	1/8"
FC-6-125RT	6	1/8"
FC-6-250RT	6	1/4"
FC-6-375RT	6	3/8"
FC-6-500RT	6	1/2"
FC-8-125RT	8	1/8"
FC-8-250RT	8	1/4"
FC-8-375RT	8	3/8"
FC-8-500RT	8	1/2"
FC-10-125RT	10	1/8"
FC-10-250RT	10	1/4"
FC-10-375RT	10	3/8"
FC-10-500RT	10	1/2"
FC-12-125RT	12	1/8"
FC-12-250RT	12	1/4"
FC-12-375RT	12	3/8"
FC-12-500RT	12	1/2"
FC-12-750RT	12	3/4"
FC-15-375RT	15	3/8"
FC-15-500RT	15	1/2"
FC-20-500RT	20	1/2"
FC-20-750RT	20	3/4"
FC-22-750RT	22	3/4"
FC-22-1000RT	22	1"
FC-25-750RT	25	3/4"
FC-25-1000RT	25	1"

Tech Sheet 20274



Female Thread, BSPP

0292	OD mm	Thread
FC-3-250RG	3	1/4"
FC-6-250RG	6	1/4"
FC-6-375RG	6	3/8"
FC-6-500RG	6	1/2"
FC-8-250RG	8	1/4"
FC-8-375RG	8	3/8"
FC-8-500RG	8	1/2"
FC-10-250RG	10	1/4"
FC-10-375RG	10	3/8"
FC-10-500RG	10	1/2"
FC-12-250RG	12	1/4"
FC-12-375RG	12	3/8"
FC-12-500RG	12	1/2"
FC-20-500RG	20	1/2"
FC-22-500RG	22	1/2"

Tech Sheet 20273

Bulkhead Male Connectors



Male Thread, NPT

0292	OD mm	Thread
BMC-6-125N	6	1/8"
BMC-6-250N	6	1/4"
BMC-8-125N	8	1/8"
BMC-8-250N	8	1/4"
BMC-10-250N	10	1/4"
BMC-10-375N	10	3/8"
BMC-10-500N	10	1/2"
BMC-12-250N	12	1/4"
BMC-12-375N	12	3/8"
BMC-12-500N	12	1/2"

Tech Sheet 20276

Bulkhead Female Connectors



Female Thread, NPT

0292	OD mm	Thread
BFC-6-125N	6	1/8"
BFC-6-250N	6	1/4"
BFC-8-125N	8	1/8"
BFC-10-250N	10	1/4"
BFC-12-375N	12	3/8"
BFC-12-500N	12	1/2"

Tech Sheet 20277

For PTFE Tape
see page 1391



316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Unions



Tube x Tube

0292	OD mm
U-3	3
U-4	4
U-6	6
U-8	8
U-10	10
U-12	12
U-15	15
U-16	16
U-18	18
U-20-FT	20
U-22	22
U-25	25

Tech Sheet 20266

Reducing Unions



Tube x Tube

0292	OD mm	OD mm
RU-6-3	6	3
RU-6-4	6	4
RU-8-6	8	6
RU-10-6	10	6
RU-10-8	10	8
RU-12-6	12	6
RU-12-8	12	8
RU-12-10	12	10
RU-16-10	16	10
RU-16-12	16	12
RU-18-12	18	12
RU-25-18	25	18
RU-25-20	25	20

Tech Sheet 20267

Bulkhead Unions



Tube x Tube

0292	OD mm
BU-3-FT	3
BU-4	4
BU-6	6
BU-8	8
BU-10	10
BU-12-FT	12
BU-14	14
BU-15	15
BU-16	16
BU-18	18
BU-20	20

Tech Sheet 20272

Male Branch Tees



Male Thread, NPT

0292	OD mm	Thread
MBT-6-125N	6	1/8"
MBT-6-250N	6	1/4"
MBT-8-125N	8	1/8"
MBT-8-250N	8	1/4"
MBT-10-250N	10	1/4"
MBT-12-250N	12	1/4"
MBT-12-375N	12	3/8"
MBT-12-500N	12	1/2"
MBT-16-500N	16	1/2"

Tech Sheet 20269

Male Positionable Branch Tees



Male Thread, BSPP

0292	OD mm	Thread
MBTP-6-125PR	6	1/8"
MBTP-6-250PR	6	1/4"
MBTP-8-125PR	8	1/8"
MBTP-8-250PR	8	1/4"
MBTP-10-250PR	10	1/4"
MBTP-12-375PR	12	3/8"
MBTP-12-500PR	12	1/2"

Tech Sheet 20861

Male Run Tees



Male Thread, NPT

0292	OD mm	Thread
MRT-6-125N	6	1/8"
MRT-6-250N	6	1/4"
MRT-8-250N	8	1/4"
MRT-12-250N	12	1/4"
MRT-12-375N	12	3/8"
MRT-12-500N	12	1/2"
MRT-16-500N	16	1/2"

Tech Sheet 20268

Male Positionable Run Tees



Male Thread, BSPP

0292	OD mm	Thread
MRTP-6-125PR	6	1/8"
MRTP-6-250PR	6	1/4"
MRTP-8-125PR	8	1/8"
MRTP-8-250PR	8	1/4"
MRTP-10-250PR	10	1/4"
MRTP-12-375PR	12	3/8"
MRTP-12-500PR	12	1/2"

Tech Sheet 20863

Female Branch Tees



Female Thread, NPT

0292	OD mm	Thread
FBT-6-125N	6	1/8"
FBT-6-250N	6	1/4"
FBT-8-125N	8	1/8"
FBT-8-250N	8	1/4"
FBT-10-250N	10	1/4"
FBT-12-250N	12	1/4"
FBT-12-375N	12	3/8"
FBT-16-500N	16	1/2"

Tech Sheet 20271

Female Run Tees



Female Thread, NPT

0292	OD mm	Thread
FRT-6-125N	6	1/8"
FRT-6-250N	6	1/4"
FRT-8-125N	8	1/8"
FRT-8-250N	8	1/4"
FRT-10-250N	10	1/4"
FRT-12-250N	12	1/4"
FRT-12-375N	12	3/8"
FRT-16-500N	16	1/2"

Tech Sheet 20270

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Male Elbows



Male Thread, NPT

0292	OD mm	Thread
ME-3-250N	3	1/4"
ME-4-125N	4	1/8"
ME-4-250N	4	1/4"
ME-6-125N	6	1/8"
ME-6-250N	6	1/4"
ME-6-375N	6	3/8"
ME-6-500N	6	1/2"
ME-8-125N	8	1/8"
ME-8-250N	8	1/4"
ME-8-375N	8	3/8"
ME-8-500N	8	1/2"
ME-10-250N	10	1/4"
ME-10-375N	10	3/8"
ME-10-500N	10	1/2"
ME-12-250N	12	1/4"
ME-12-375N	12	3/8"
ME-12-500N	12	1/2"
ME-12-750N	12	3/4"
ME-15-500N	15	1/2"
ME-16-375N	16	3/8"
ME-16-500N	16	1/2"
ME-16-750N	16	3/4"
ME-18-500N	18	1/2"
ME-18-750N	18	3/4"
ME-20-500N	20	1/2"
ME-22-750N	22	3/4"
ME-22-1000N	22	1"
ME-25-750N	25	3/4"
ME-25-1000N	25	1"

Tech Sheet 20264



Male Thread, BSPT

0292	OD mm	Thread
ME-3-125RT	3	1/8"
ME-3-250RT	3	1/4"
ME-4-125RT	4	1/8"
ME-4-250RT	4	1/4"
ME-6-125RT	6	1/8"
ME-6-250RT	6	1/4"
ME-6-375RT	6	3/8"
ME-6-500RT	6	1/2"
ME-8-125RT	8	1/8"
ME-8-250RT	8	1/4"
ME-8-375RT	8	3/8"
ME-8-500RT	8	1/2"
ME-10-250RT	10	1/4"
ME-10-375RT	10	3/8"
ME-10-500RT	10	1/2"
ME-12-250RT	12	1/4"
ME-12-375RT	12	3/8"
ME-12-500RT	12	1/2"
ME-12-750RT	12	3/4"
ME-16-375RT	16	3/8"
ME-16-500RT	16	1/2"
ME-18-500RT	18	1/2"
ME-20-500RT	20	1/2"
ME-20-750RT	20	3/4"
ME-22-750RT	22	3/4"
ME-22-1000RT	22	1"
ME-25-750RT	25	3/4"
ME-25-1000RT	25	1"

Tech Sheet 20263

Female Elbows



Female Thread, NPT

0292	OD mm	Thread
FE-6-125N	6	1/8"
FE-6-250N	6	1/4"
FE-6-500N	6	1/2"
FE-8-250N	8	1/4"
FE-10-125N	10	1/8"
FE-10-250N	10	1/4"
FE-12-250N	12	1/4"
FE-12-375N	12	3/8"
FE-12-500N	12	1/2"
FE-16-500N	16	1/2"

Tech Sheet 20265



Male Thread, BSPP

0292	OD mm	Thread
MEP-6-125PR	6	1/8"
MEP-6-250PR	6	1/4"
MEP-8-125PR	8	1/8"
MEP-8-250PR	8	1/4"
MEP-10-250PR	10	1/4"
MEP-10-375PR	10	3/8"
MEP-12-250PR	12	1/4"
MEP-12-375PR	12	3/8"
MEP-12-500PR	12	1/2"
MEP-12-750PR	12	3/4"

Tech Sheet 20265

Positionable Elbows

Union Elbows



Tube x Tube

0292	OD mm
UE-3	3
UE-4	4
UE-6	6
UE-8	8
UE-10	10
UE-12	12
UE-14	14
UE-15	15
UE-16	16
UE-18	18
UE-20	20
UE-22	22
UE-25	25

Tech Sheet 20261

Union Tees



Tube x Tube

0292	OD mm
UT-3	3
UT-4	4
UT-6	6
UT-8	8
UT-10	10
UT-12	12
UT-14	14
UT-15	15
UT-16	16
UT-18	18
UT-20	20
UT-22	22
UT-25	25

Tech Sheet 20260

Union Crosses



Tube x Tube

0292	OD mm
UC-3	3
UC-6	6
UC-8	8
UC-10	10
UC-12	12
UC-16	16
UC-18	18
UC-20	20
UC-25	25

Tech Sheet 20262

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Weld Union, Connectors



Tube x Tube

0292	OD mm	Stem OD
MWC-3-125	3	1/8"
MWC-4-125	4	1/8"
MWC-6-125	6	1/8"
MWC-6-250	6	1/4"
MWC-8-125	8	1/8"
MWC-8-250	8	1/4"
MWC-8-500	8	1/2"
MWC-10-250	10	1/4"
MWC-10-500	10	1/2"
MWC-12-250	12	1/4"
MWC-12-375	12	3/8"
MWC-12-500	12	1/2"
MWC-14-375	14	3/8"
MWC-15-500	15	1/2"
MWC-16-500	16	1/2"
MWC-18-500	18	1/2"

Tech Sheet 20873

Port Connectors



Tube x Tube

0292	OD mm
PC-3	3
PC-6	6
PC-8	8
PC-10	10
PC-12-FT	12
PC-15-FT	15
PC-16	16
PC-18-FT	18
PC-20	20
PC-25	25

Tech Sheet 20874

Reducing Port Connectors



Tube x Tube

0292	OD mm	Stem OD mm
RPC-6-3	6	3
RPC-8-6	8	6
RPC-10-6	10	6
RPC-10-8	10	8
RPC-12-6	12	6
RPC-12-8	12	8
RPC-12-10	12	10
RPC-16-12	16	12

Tech Sheet 20875

Reducers



Tube x Tube

0292	OD mm	Stem OD mm
R-3-4	3	4
R-3-6	3	6
R-3-10	3	10
R-4-6	4	6
R-6-3	6	3
R-6-8	6	8
R-6-10	6	10
R-6-12	6	12
R-6-18	6	18
R-8-6	8	6
R-8-10	8	10
R-8-12	8	12
R-10-6	10	6
R-10-12	10	12
R-10-15	10	15
R-10-18	10	18
R-12-6	12	6
R-12-8	12	8
R-12-10	12	10
R-12-16	12	16
R-12-18	12	18
R-12-20	12	20
R-12-22	12	22
R-12-25	12	25
R-16-12	16	12
R-18-12	18	12
R-18-16	18	16
R-18-20	18	20
R-18-22	18	22
R-18-25	18	25
R-20-16	20	16
R-20-22	20	22
R-20-25	20	25
R-22-18	22	18
R-22-20	22	20
R-22-25	22	25
R-25-18	25	18
R-25-20	25	20

Tech Sheet 20258



Metric Tube x Imperial Tube

0292	OD mm	Stem OD
R-3-125	3	1/8"
R-3-250	3	1/4"
R-4-250	4	1/4"
R-6-125	6	1/8"
R-6-250	6	1/4"
R-6-312	6	5/16"
R-6-375	6	3/8"
R-6-500	6	1/2"
R-8-375	8	3/8"
R-8-500	8	1/2"
R-10-375	10	3/8"
R-10-500	10	1/2"
R-12-500	12	1/2"
R-12-750	12	3/4"
R-18-750	18	3/4"
R-25-1000	25	1"

Tech Sheet 20877

Caps



Tube

0292	OD mm
C-3	3
C-4	4
C-6	6
C-8	8
C-10	10
C-12	12
C-14	14
C-15	15
C-16	16
C-18	18
C-20	20
C-22	22
C-25	25

Tech Sheet 20259

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Plugs



Tube

0292	OD mm
P-3-FT	3
P-4	4
P-6-FT	6
P-8	8
P-10	10
P-12	12
P-15	15
P-16	16
P-18	18
P-20	20
P-22	22
P-25	25

Tech Sheet 20254

Nuts



Tube

0292	OD mm
N-3	3
N-4	4
N-6	6
N-8	8
N-10	10
N-12	12
N-15	15
N-16	16
N-18	18
N-20	20
N-25	25

Tech Sheet 20255

Back Ferrules



Tube

0292	OD mm
BF-3	3
BF-4	4
BF-6	6
BF-8	8
BF-10	10
BF-12	12
BF-14	14
BF-15	15
BF-16	16
BF-18	18
BF-20	20
BF-22	22
BF-25	25

Tech Sheet 20257

Front Ferrules



Tube

0292	OD mm
FF-3	3
FF-4	4
FF-6	6
FF-8	8
FF-10	10
FF-12	12
FF-14	14
FF-15	15
FF-16	16
FF-18	18
FF-20	20
FF-22	22
FF-25	25

Tech Sheet 20256

Lock Nuts



To suit Bulkheads

0292	OD mm
BLN-3	3
BLN-4	4
BLN-6	6
BLN-8	8
BLN-10-FT	10
BLN-12-FT	12
BLN-14	14
BLN-16-FT	16
BLN-18	18
BLN-20-FT	20

Tech Sheet 20883



For Needle Valves
see pages 982-983



Metric Hydraulic Tubing

Bright - DIN 2391/C ST37.4, 3 & 6 Metre Lengths

Chrome 6 Free, 3 & 6 Metre Lengths

Chrome 6 Free, 6 Metre Lengths

Imperial Hydraulic Tubing

Imperial - DIN 2391/C ST37.4, 3 & 6 Metre Lengths

Reinforcing Tube Inserts

Manual Tube Benders

316 Stainless Steel Tube

Seamless ASTM A269, Metric, 3 & 6 Metre Lengths

Seamless ASTM A269, Imperial, 3 & 6 Metre Lengths

HYDRAULIC TUBE

METRIC HYDRAULIC TUBING



Hydraulic Tubing

Maximum working pressure has been determined according to DIN 2413 scope of application 1, for primarily static load at temperatures up to 120°C.

3 metre lengths next day.

6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

For full details please contact our Business Development Team.

Minimum of 10 Lengths is advised up to 8mm to prevent damage in transit.



Bright - DIN 2391/C ST37.4, 3 Metre Lengths

0201	OD mm	Wall Thickness mm	Pressure Kg/cm ²
HST4X1.0	4	1.0	624
HST6X1.0	6	1.0	365
HST6X1.5	6	1.5	624
HST6X2.0	6	2.0	989
HST8X2.0	8	2.0	624
HST12X2.5	12	2.5	485
HST14X1.5	14	1.5	217
HST14X2.0	14	2.0	303
HST16X2.5	16	2.5	337
HST18X2.0	18	2.0	226
HST18X2.5	18	2.5	300
HST20X2.5	20	2.5	259
HST20X3.0	20	3.0	321
HST20X3.5	20	3.5	388
HST22X1.5	22	1.5	132
HST22X2.0	22	2.0	181
HST25X1.5	25	1.5	115
HST25X2.0	25	2.0	157
HST25X2.5	25	2.5	201
HST25X3.0	25	3.0	257
HST28X1.5	28	1.5	102
HST28X2.5	28	2.5	177
HST28X3.0	28	3.0	217
HST30X2.5	30	2.5	164
HST30X4.0	30	4.0	279
HST35X2.0	35	2.0	109
HST35X2.5	35	2.5	139
HST35X3.0	35	3.0	169
HST35X5.0	35	5.0	303
HST38X3.0	38	3.0	155
HST38X5.0	38	5.0	275
HST42X3.0	42	3.0	139
HST42X4.0	42	4.0	190

Bright - DIN 2391/C ST37.4, 6 Metre Lengths

0201	OD mm	Wall Thickness mm	Pressure Kg/cm ²
HST4X1.0-6M	4	1.0	624
HST6X1.0-6M	6	1.0	365
HST6X1.5-6M	6	1.5	624
HST6X2.0-6M	6	2.0	989
HST8X2.0-6M	8	2.0	624
HST12X2.5-6M	12	2.5	485
HST14X1.5-6M	14	1.5	217
HST14X2.0-6M	14	2.0	303
HST16X2.5-6M	16	2.5	337
HST18X2.0-6M	18	2.0	226
HST18X2.5-6M	18	2.5	300
HST20X2.5-6M	20	2.5	259
HST20X3.0-6M	20	3.0	321
HST20X3.5-6M	20	3.5	388
HST22X1.5-6M	22	1.5	132
HST22X2.0-6M	22	2.0	181
HST25X1.5-6M	25	1.5	115
HST25X2.0-6M	25	2.0	157
HST25X2.5-6M	25	2.5	201
HST25X3.0-6M	25	3.0	247
HST28X1.5-6M	28	1.5	102
HST28X2.5-6M	28	2.5	177
HST28X3.0-6M	28	3.0	217
HST30X2.5-6M	30	2.5	164
HST30X4.0-6M	30	4.0	279
HST35X2.0-6M	35	2.0	109
HST35X2.5-6M	35	2.5	139
HST35X3.0-6M	35	3	169
HST35X5.0-6M	35	5	303
HST38X3.0-6M	38	3.0	155
HST38X5.0-6M	38	5.0	275
HST42X3.0-6M	42	3.0	139
HST42X4.0-6M	42	4	190

See page 181 for chrome 6 free tube

Hydraulic Tubing

3 metre lengths next day.

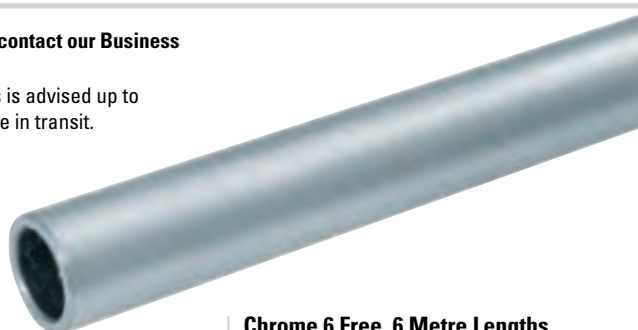
6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

Chrome 6 Free, 3 Metre Lengths

0201	OD mm	Wall Thickness mm	Pressure Kg/cm ²
HST4X1.0-C6F	4	1	624
HST6X1.0-C6F	6	1	365
HST6X1.5-C6F	6	1.5	624
HST6X2.0-C6F	6	2	989
HST8X1.0-C6F	8	1	259
HST8X1.5-C6F	8	1.5	423
HST8X2.0-C6F	8	2	624
HST10X1.0-C6F	10	1	201
HST10X1.5-C6F	10	1.5	321
HST10X2.0-C6F	10	2	460
HST12X1.0-C6F	12	1	164
HST12X1.5-C6F	12	1.5	259
HST12X2.0-C6F	12	2	365
HST14X1.5-C6F	14	1.5	217
HST14X2.0-C6F	14	2	303
HST15X1.5-C6F	15	1.5	201
HST15X2.0-C6F	15	2	279
HST16X1.5-C6F	16	1.5	187
HST16X2.0-C6F	16	2	259
HST16X2.5-C6F	16	2.5	337
HST16X3.0-C6F	16	3	423
HST18X1.5-C6F	18	1.5	164
HST18X2.0-C6F	18	2	226
HST18X2.5-C6F	18	2.5	300
HST20X2.0-C6F	20	2	201
HST20X2.5-C6F	20	2.5	259
HST20X3.0-C6F	20	3	321
HST20X3.5-C6F	20	3.5	388
HST20X4.0-C6F	20	4	460
HST22X1.5-C6F	22	1.5	132
HST22X2.0-C6F	22	2	181
HST22X2.5-C6F	22	2.5	232
HST25X1.5-C6F	25	1.5	115
HST25X2.0-C6F	25	2	157
HST25X2.5-C6F	25	2.5	201
HST25X3.0-C6F	25	3	247
HST25X4.0-C6F	25	4	347
HST28X1.5-C6F	28	1.5	102
HST28X2.0-C6F	28	2	139
HST28X2.5-C6F	28	2.5	177
HST28X3.0-C6F	28	3	217
HST30X2.5-C6F	30	2.5	164
HST30X3.0-C6F	30	3	201
HST30X4.0-C6F	30	4	279
HST35X2.0-C6F	35	2	109
HST35X2.5-C6F	35	2.5	139
HST35X3.0-C6F	35	3	169
HST35X5.0-C6F	35	5	303
HST38X3.0-C6F	38	3	155
HST38X4.0-C6F	38	4	213
HST42X3.0-C6F	42	3	139
HST42X4.0-C6F	42	4	190
HST50X3.0-C6F	50	3	115
HST50X5.0-C6F	50	5	201
HST50X6.0-C6F	50	6	247

For full details please contact our Business Development Team.

Minimum of 10 Lengths is advised up to 8mm to prevent damage in transit.



Chrome 6 Free, 6 Metre Lengths

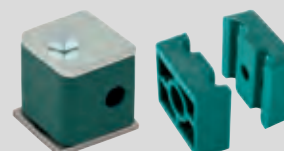
0201	OD mm	Wall Thickness mm	Pressure Kg/cm ²
HST10X1.0-C6F-6M	10	1	201
HST10X1.5-C6F-6M	10	1.5	321
HST10X2.0-C6F-6M	10	2	460
HST12X1.0-C6F-6M	12	1	164
HST12X1.5-C6F-6M	12	1.5	259
HST12X2.0-C6F-6M	12	2	365
HST14X1.5-C6F-6M	14	1.5	217
HST14X2.0-C6F-6M	14	2	303
HST15X1.5-C6F-6M	15	1.5	201
HST15X2.0-C6F-6M	15	2	279
HST16X1.5-C6F-6M	16	1.5	187
HST16X2.0-C6F-6M	16	2	259
HST16X2.5-C6F-6M	16	2.5	337
HST16X3.0-C6F-6M	16	3	423
HST18X1.5-C6F-6M	18	1.5	164
HST18X2.0-C6F-6M	18	2	226
HST18X2.5-C6F-6M	18	2.5	392
HST20X2.0-C6F-6M	20	2	201
HST20X2.5-C6F-6M	20	2.5	259
HST20X3.0-C6F-6M	20	3	321
HST20X3.5-C6F-6M	20	3.5	388
HST20X4.0-C6F-6M	20	4	460
HST22X1.5-C6F-6M	22	1.5	132
HST22X2.0-C6F-6M	22	2	181
HST22X2.5-C6F-6M	22	2.5	232
HST25X1.5-C6F-6M	25	1.5	115
HST25X2.0-C6F-6M	25	2	157
HST25X2.5-C6F-6M	25	2.5	232
HST25X3.0-C6F-6M	25	3	247
HST25X4.0-C6F-6M	25	4	347
HST28X1.5-C6F-6M	28	1.5	102
HST28X2.0-C6F-6M	28	2	139
HST28X2.5-C6F-6M	28	2.5	177
HST28X3.0-C6F-6M	28	3	217
HST30X2.5-C6F-6M	30	2.5	164
HST30X3.0-C6F-6M	30	3	201
HST30X4.0-C6F-6M	30	4	279
HST35X2.0-C6F-6M	35	2	109
HST35X2.5-C6F-6M	35	2.5	139
HST35X3.0-C6F-6M	35	3	169
HST35X5.0-C6F-6M	35	5	303
HST38X3.0-C6F-6M	38	3	155
HST38X4.0-C6F-6M	38	4	213
HST42X3.0-C6F-6M	42	3	139
HST42X4.0-C6F-6M	42	4	190
HST50X3.0-C6F-6M	50	3	115
HST50X5.0-C6F-6M	50	5	201
HST50X6.0-C6F-6M	50	6	247

Chrome 6 Free, 6 Metre Lengths, Bundles of 10

0201	OD mm	Wall Thickness mm	Pressure Kg/cm ²
HST4X1.0-C6F-6M	4	1	624
HST6X1.0-C6F-6M	6	1	365
HST6X1.5-C6F-6M	6	1.5	624
HST6X2.0-C6F-6M	6	2	989
HST8X1.0-C6F-6M	8	1	259
HST8X1.5-C6F-6M	8	1.5	423
HST8X2.0-C6F-6M	8	2	624



Hydraulic Fittings
see pages 115-136



Hydraulic Tube Clamps
see pages 184-200

IMPERIAL HYDRAULIC TUBING



Hydraulic Tubing

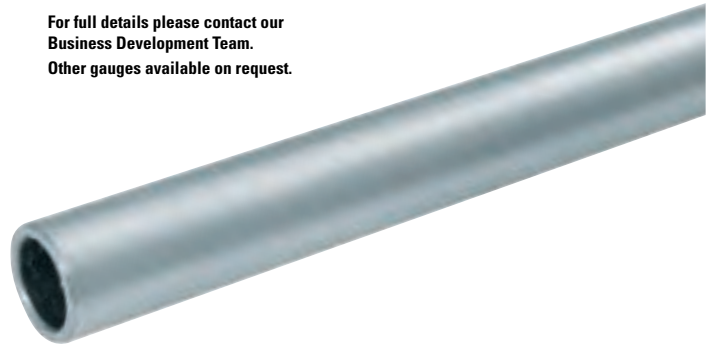
Maximum working pressure has been determined according to DIN 2413 scope of application 1, for primarily static load at temperatures up to 120°C.

3 metre lengths next day.

6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

For full details please contact our Business Development Team.

Other gauges available on request.



Imperial - DIN 2391/C ST37.4, 3 Metre Lengths

0201	OD	SWG	Max Pressure Bar
HST1/4X16G-3M	1/4"	16	648
HST3/8X16G-3M	3/8"	16	377
HST1/2X16G-3M	1/2"	16	267
HST5/8X16G-3M	5/8"	16	207
HST3/4X16G-3M	3/4"	16	169
HST1X16G-3M	1"	16	124
HST1.1/4X16G-3M	1.1/4"	16	98
HST1.1/2X16G-3M	1.1/2"	16	81

Imperial - DIN 2391/C ST37.4, 6 Metre Lengths

0201	OD	SWG	Max Pressure Bar
HST1/4X16G-6M	1/4"	16	648
HST3/8X16G-6M	3/8"	16	377
HST1/2X16G-6M	1/2"	16	267
HST5/8X16G-6M	5/8"	16	207
HST3/4X16G-6M	3/4"	16	169
HST1X16G-6M	1"	16	124
HST1.1/4X16G-6M	1.1/4"	16	98
HST1.1/2X16G-6M	1.1/2"	16	81

IMPERIAL HYDRAULIC TUBING



Reinforcing Tube Inserts



For use with Thin Wall Hydraulic Steel Tube

0350	To Fit Tube Size mm	ID mm
EH4MS	6 x 1	4
EH5MS	6 x 0.5	5
EH6MS	8 x 1	6
EH7MS	10 x 1.5	7
EH8MS	10 x 1	8
EH9MS	12 x 1.5	9
EH10MS	12 x 1	10
EH12MS	14 x 1 & 15 x 1.5	12
EH13MS	15 x 1	13
EH15MS	18 x 1.5	15
EH16MS	18 x 1	16
EH18MS	20 x 1	18
EH19MS	22 x 1.5	19
EH20MS	22 x 1	20
EH24MS	28 x 2	24
EH25MS	28 x 1.5	25

Tech Sheet 1715

Manual Tube Benders

The tube bender is for use in manual vice.

The kit contains 3 bending dies.

Die 1: 6mm and 8mm tube

Die 2: 10mm tube

Die 3: 12mm tube

Die 4: 14mm tube

Die 5: 16mm tube

Die 6: 18mm tube

Tolerance +/-2mm



To suit Tube O.D. 6mm-12mm

0027
SBVO-612

The tube bender is for use in manual vice. The kit contains 6 bending dies with O.D. 6mm to 18mm, (1/8" to 3/8").

Die 1: 6mm and 8mm tube

Die 2: 10mm tube

Die 3: 12mm tube

Die 4: 14mm tube

Die 5: 16mm tube

Die 6: 18mm tube



To suit Tube O.D. 6mm-18mm

0027
SBVO-618

316 Stainless Steel Tube

3 metre lengths next day.

6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

For full details please contact our Business Development Team.

Minimum of 10 lengths is advised up to 8mm to prevent damage in transit.



Seamless ASTM A269, Metric, 6 Metre Lengths

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610-6M	6	1	428
765-6X1.5-6M	6	1.5	627
765-0810-6M	8	1	321
765-8X1.5-6M	8	1.5	472
765-1013-6M	10	1	257
765-10X1.5-6M	10	1.5	385
765-12X1.5-6M	12	1.5	321
765-1515-6M	15	1.5	257
765-16X1.5-6M	16	1.5	235
765-1602-6M	16	2	321
765-20X2-6M	20	2	257
765-25X2.5-6M	25	2.5	210
765-30X3-6M	30	3	257

Tech Sheet 831

Seamless ASTM A269, Metric, 3 Metre Lengths, Random

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610	6	1	428
765-6X1.5	6	1.5	627
765-6X2	6	2	942
765-0813	8	1	321
765-8X1.5	8	1.5	472
765-8X2	8	2	706
765-1013	10	1	257
765-10X1.5	10	1.5	385
765-10X2	10	2	564
765-1213	12	1	210
765-12X1.5	12	1.5	321
765-12X2	12	2	420
765-1513	15	1	200
765-15X1.5	15	1.5	257
765-15X2	15	2	376
765-16X1.5	16	1.5	235
765-16X2	16	2	321
765-18X1.5	18	1.5	235
765-18X2	18	2	314
765-20X1.5	20	1.5	212
765-20X2	20	2	257
765-20X3	20	3	424
765-22X1.5	22	1.5	193
765-22X2	22	2	256
765-25X1.5	25	1.5	169
765-25X2	25	2	226
765-25X2.5	25	2.5	210
765-25X3	25	3	339
765-28X2	28	2	201
765-30X3	30	3	257
765-35X3	35	3	242
765-42X3	42	3	201

Tech Sheet 831

Seamless ASTM A269, Imperial, 3 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372	1/8"	20	718
2020-1380	1/4"	20	360
2020-1406	3/8"	20	240
2020-1414	1/2"	20	180
2020-1422	3/4"	20	120
2020-1430	1"	20	90

Tech Sheet 831

Seamless ASTM A269, Imperial, 6 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372-6M	1/8"	20	750
2020-1380-6M	1/4"	20	360
2020-1406-6M	3/8"	20	240
2020-1414-6M	1/2"	20	180
2020-1422-6M	3/4"	20	120
2020-1430-6M	1"	20	90

Tech Sheet 831



You might also need...
Stainless Steel Fittings
see pages 165-178

Hydraulic Tube Clamps

Our quality range of Hydraulic Tube Clamps have been manufactured to the highest specifications using quality materials and conforms to DIN 3015 and DIN 3570 Standards.



The vast range includes:

Light, heavy and double units in sizes ranging from 6mm to 168.3mm. Body materials of polypropylene, polyamide, rubber and aluminium, also with plates and bolts in steel (zinc plated) and stainless steel offering anti-corrosion and fire retardant options. U bolts, pipe saddles, steel clamps and O clamps are available.

The range is tried, tested and used extensively throughout the world's manufacturing facilities and in the mobile plant industry.

Applications:

- Hydraulics
- Construction
- Agriculture
- Mining
- OEM Machine Building
- Offshore
- Marine
- Automotive Technology
- Machine Tool
- Lubrication Systems

If you have any requirements for sizes or types of clamps not shown in the catalogue, please contact a member of our sales team.

For tubing
see pages **179-183**





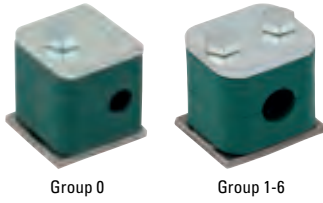
RSB clamps
according to
DIN 3015 are
DNV certified



HYDRAULIC TUBE CLAMPS



Series A Light-duty Complete Clamps



Single Polypropylene Clamps with Hex Head Bolts

0162	OD mm	Group
RAPR3-006	6	0
RAPR3-006.4	6.4	0
RAPR3-008	8	0
RAPR3-009.5	9.5	0
RAPR3-010	10	0
RAPR3-012	12	0
RAPR3-106	6	1
RAPR3-106.4	6.4	1
RAPR3-108	8	1
RAPR3-109.5	9.5	1
RAPR3-110	10	1
RAPR3-112	12	1
RAPR3-212.7	12.7	2
RAPR3-213.5	13.5	2
RAPR3-214	14	2
RAPR3-215	15	2
RAPR3-216	16	2
RAPR3-217.2	17.2	2
RAPR3-218	18	2
RAPR3-319	19	3
RAPR3-320	20	3
RAPR3-321.3	21.3	3
RAPR3-322	22	3
RAPR3-323	23	3
RAPR3-325	25	3
RAPR3-426.9	26.9	4
RAPR3-428	28	4
RAPR3-430	30	4
RAPR3-532	32	5
RAPR3-533.7	33.7	5
RAPR3-535	35	5
RAPR3-538	38	5
RAPR3-540	40	5
RAPR3-542	42	5
RAPR3-644.5	44.5	6
RAPR3-645	45	6
RAPR3-648	48	6
RAPR3-650	50	6
RAPR3-650.8	50.8	6
RAPR3-652	52	6
RAPR3-655	55	6
RAPR3-657	57	6

Series B Standard-duty Complete Clamps



Double Polypropylene Clamps with Hex Head Bolts

0162	OD mm	Group
RBPR1-106	6	1
RBPR1-106.4	6.4	1
RBPR1-108	8	1
RBPR1-109.5	9.5	1
RBPR1-110	10	1
RBPR1-112	12	1
RBPR1-212.7	12.7	2
RBPR1-213.5	13.5	2
RBPR1-214	14	2
RBPR1-215	15	2
RBPR1-216	16	2
RBPR1-217.2	17.2	2
RBPR1-218	18	2
RBPR1-319	19	3
RBPR1-320	20	3
RBPR1-321.3	21.3	3
RBPR1-322	22	3
RBPR1-325	25	3
RBPR1-426.9	26.9	4
RBPR1-428	28	4
RBPR1-430	30	4
RBPR1-532	32	5
RBPR1-533.7	33.7	5
RBPR1-535	35	5
RBPR1-538	38	5
RBPR1-540	40	5
RBPR1-542	42	5

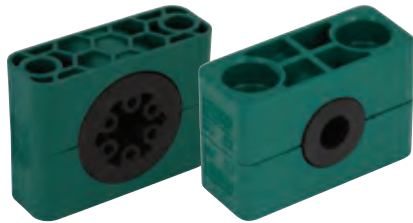
Series C Heavy-duty Complete Clamps



Single Polypropylene Clamps with Hex Head Bolts

0162	OD mm	Group
RCPR3-106	6	1
RCPR3-108	8	1
RCPR3-110	10	1
RCPR3-112	12	1
RCPR3-112.7	12.7	1
RCPR3-113.5	13.5	1
RCPR3-114	14	1
RCPR3-115	15	1
RCPR3-116	16	1
RCPR3-117.2	17.2	1
RCPR3-118	18	1
RCPR3-219	19	2
RCPR3-220	20	2
RCPR3-221.3	21.3	2
RCPR3-222	22	2
RCPR3-223	23	2
RCPR3-225	25	2
RCPR3-226.9	26.9	2
RCPR3-228	28	2
RCPR3-230	30	2
RCPR3-330	30	3
RCPR3-332	32	3
RCPR3-333.7	33.7	3
RCPR3-335	35	3
RCPR3-338	38	3
RCPR3-340	40	3
RCPR3-342	42	3
RCPR3-438	38	4
RCPR3-440	40	4
RCPR3-442	42	4
RCPR3-445	45	4
RCPR3-448.3	48.3	4
RCPR3-450	50	4
RCPR3-451	51	4
RCPR3-452	52	4
RCPR3-455	55	4
RCPR3-457	57	4
RCPR3-460.3	60.3	4
RCPR3-463	63	4
RCPR3-465	65	4
RCPR3-470	70	4
RCPR3-570	70	5
RCPR3-573	73	5
RCPR3-575	75	5
RCPR3-576.1	76.1	5
RCPR3-580	80	5
RCPR3-582.5	82.5	5
RCPR3-588.9	88.9	5
RCPR3-590	90	5
RCPR3-6101.6	101.6	6
RCPR3-6114.3	114.3	6
RCPR3-6127	127	6
RCPR3-7130	130	7
RCPR3-7140	140	7
RCPR3-7168.3	168.3	7

HYDRAULIC TUBE CLAMPS



Series A Light-duty Noise Protection Clamp Body

Supplied in pairs



Polypropylene

0162	OD mm	Group
RAPE-4	10	4
RAPE-5	10-12	5
RAPE-6	10-20	6
RAPAE-6	18-30	6

Tech Sheet 10133

Series C Heavy-duty Noise Protection Clamp Body

Other sizes and materials available on request
Supplied in pairs



Polypropylene

0162	OD mm	Group
RCPE-2	10	2
RCPE-3	10-20	3
RCPE-4	22-35	4
RCPE-5	35-60.3	5

Tech Sheet 10133

The clamp system for vibration dampening and structure borne noise insulation. Select relevant insert for your tube size and appropriate sized body, for use with all regular plates bolts, etc.

Noise Protection Insert

Other sizes and materials available on request



Group 2 Heavy, Group 4 Light

0162	OD mm	Group
EE-206/406	6	2/4
EE-208/408	8	2/4
EE-210/410	10	2/4
EE-212/412	12	2/4
EE-212.7/412.7	12.7	2/4
EE-214/414	14	2/4
EE-215/415	15	2/4
EE-216/416	16	2/4
EE-217.2/417.2	17.2	2/4
EE-218/418	18	2/4
EE-219/419	19	2/4

Tech Sheet 10133

Group 3 Heavy, Group 6 Light

0162	OD mm	Group
EE-320/620	20	3/6
EE-321.3/621.3	21.3	3/6
EE-322/622	22	3/6
EE-323/623	23	3/6
EE-325/625	25	3/6
EE-326.9/626.9	26.9	3/6
EE-328/628	28	3/6
EE-330/630	30	3/6
EE-332/632	32	3/6

Tech Sheet 10133

Group 4 Heavy

0162	OD mm	Group
EE-432	32	4
EE-433.7	33.7	4
EE-435	35	4
EE-438	38	4
EE-440	40	4
EE-442	42	4
EE-445	45	4
EE-448	48	4
EE-451	51	4
EE-453.4	53.4	4
EE-456.4	56.4	4

Tech Sheet 10133



Noise Protection & Anti-vibration Inserts



Group 2 Heavy, Group 4 Light

0162	OD mm	Group
EFA-410/210	10	2/4

Tech Sheet 10133

Group 3 Heavy, Group 6 Light

0162	OD mm	Group
EFA-610/310	10	3/6
EFA-612/312	12	3/6
EFA-615/315	15	3/6
EFA-618/318	18	3/6
EFA-620/320	20	3/6

Tech Sheet 10133

Group 4 Heavy

0162	OD mm	Group
EFA-422	22	4
EFA-425	25	4
EFA-428	28	4
EFA-430	30	4
EFA-435	35	4

Tech Sheet 10133

Group 5 Light

0162	OD mm	Group
EFA-510	10	5
EFA-512	12	5
EFA-515	15	5

Tech Sheet 10133

Group 5 Heavy

0162	OD mm	Group
EFA-535	35	5
EFA-538	38	5
EFA-542	42	5
EFA-548.3	48.3	5
EFA-560.3	60.3	5

Tech Sheet 10133

Group 6 Light

0162	OD mm	Group
EFA-618	18	6
EFA-620	20	6
EFA-622	22	6
EFA-625	25	6
EFA-628	28	6
EFA-630	30	6

Tech Sheet 10133

HYDRAULIC TUBE CLAMPS

We have simplified the selection of this clamp range by making it self selection.

Select in the following order.

1. Clamp body by material, series, group and tube size.
2. Weld plate by series and group.
3. Top plate by series and group (not required with slotted head and socket head bolts as they countersink into body).
4. Bolts by series and group.

As a regular feature of Series A and B clamps, screws, rail nuts and cover plates are zinc coated, welding plates phosphatized and support rails uncoated.

As a regular feature of Series C clamps, all steel parts are uncoated.

Please order the **same series** to make complete clamp, i.e. **Series A** clamp, **Series A** top plate and **Series A** bottom plate and **Series A** screws or bolts.




**High Pressure
Tube Couplings**
see pages 138-140



Series A Light-duty Clamp Halves

Supplied in pairs



Single Polypropylene

0162	OD mm	Group
RAPR-006	6	0
RAPR-006.4	6.4	0
RAPR-008	8	0
RAPR-009.5	9.5	0
RAPR-010	10	0
RAPR-012	12	0
RAPR-106	6	1
RAPR-106.4	6.4	1
RAPR-108	8	1
RAPR-109.5	9.5	1
RAPR-110	10	1
RAPR-112	12	1
RAPR-212.7	12.7	2
RAPR-213.5	13.5	2
RAPR-214	14	2
RAPR-215	15	2
RAPR-216	16	2
RAPR-217.2	17.2	2
RAPR-218	18	2
RAPR-319	19	3
RAPR-320	20	3
RAPR-321.3	21.3	3
RAPR-322	22	3
RAPR-323	23	3
RAPR-325	25	3
RAPR-426.9	26.9	4
RAPR-428	28	4
RAPR-430	30	4
RAPR-532	32	5
RAPR-533.7	33.7	5
RAPR-535	35	5
RAPR-538	38	5
RAPR-540	40	5
RAPR-542	42	5
RAPR-644.5	44.5	6
RAPR-645	45	6
RAPR-648	48	6
RAPR-650	50	6
RAPR-650.8	50.8	6
RAPR-652	52	6
RAPR-655	55	6
RAPR-657	57	6

Tech Sheet 811

Supplied in pairs



Single Polypropylene Inside Smooth

0162	OD mm	Group
RAPG-106	6	1
RAPG-106.4	6.4	1
RAPG-108	8	1
RAPG-109.5	9.5	1
RAPG-110	10	1
RAPG-112	12	1
RAPG-212.7	12.7	2
RAPG-213.5	13.5	2
RAPG-214	14	2
RAPG-215	15	2
RAPG-216	16	2
RAPG-217.2	17.2	2
RAPG-218	18	2
RAPG-319	19	3
RAPG-320	20	3
RAPG-321.3	21.3	3
RAPG-322	22	3
RAPG-323	23	3
RAPG-325	25	3
RAPG-426.9	26.9	4
RAPG-428	28	4
RAPG-430	30	4
RAPG-532	32	5
RAPG-533.7	33.7	5
RAPG-535	35	5
RAPG-538	38	5
RAPG-540	40	5
RAPG-542	42	5
RAPG-644.5	44.5	6
RAPG-645	45	6
RAPG-648	48	6
RAPG-650	50	6
RAPG-650.8	50.8	6
RAPG-652	52	6
RAPG-655	55	6
RAPG-657	57	6

Tech Sheet 811

HYDRAULIC TUBE CLAMPS



Series A Light-duty Clamp Halves

Supplied in pairs



Single Polyamide 6 Inside Smooth

0162	OD mm	Group
RANG-106	6	1
RANG-106.4	6.4	1
RANG-108	8	1
RANG-109.5	9.5	1
RANG-110	10	1
RANG-112	12	1
RANG-212.7	12.7	2
RANG-213.5	13.5	2
RANG-214	14	2
RANG-215	15	2
RANG-216	16	2
RANG-217.2	17.2	2
RANG-218	18	2
RANG-319	19	3
RANG-320	20	3
RANG-321.3	21.3	3
RANG-322	22	3
RANG-323	23	3
RANG-325	25	3
RANG-426.9	26.9	4
RANG-428	28	4
RANG-430	30	4
RANG-532	32	5
RANG-533.7	33.7	5
RANG-535	35	5
RANG-538	38	5
RANG-540	40	5
RANG-542	42	5
RANG-644.5	44.5	6
RANG-645	45	6
RANG-648	48	6
RANG-650	50	6
RANG-650.8	50.8	6
RANG-652	52	6
RANG-655	55	6
RANG-657	57	6

Tech Sheet 811

Supplied in pairs



Single Rubber

0162	OD mm	Group
RAVG-106	6	1
RAVG-108	8	1
RAVG-109.5	9.5	1
RAVG-110	10	1
RAVG-112	12	1
RAVG-212.7	12.7	2
RAVG-213.5	13.5	2
RAVG-214	14	2
RAVG-215	15	2
RAVG-216	16	2
RAVG-217.2	17.2	2
RAVG-218	18	2
RAVG-319	19	3
RAVG-320	20	3
RAVG-321.3	21.3	3
RAVG-322	22	3
RAVG-323	23	3
RAVG-325	25	3
RAVG-426.9	26.9	4
RAVG-428	28	4
RAVG-430	30	4
RAVG-532	32	5
RAVG-533.7	33.7	5
RAVG-535	35	5
RAVG-538	38	5
RAVG-540	40	5
RAVG-542	42	5
RAVG-644.5	44.5	6
RAVG-645	45	6
RAVG-648	48	6
RAVG-650	50	6
RAVG-650.8	50.8	6
RAVG-652	52	6
RAVG-655	55	6
RAVG-657	57	6

Tech Sheet 811

Supplied in pairs



Single Polyamide 6 (Fire Retardant)

0162	OD mm	Group
RANR-006	6	0
RANR-008	8	0
RANR-009.5	9.5	0
RANR-012	12	0
RANR-106	6	1
RANR-106.4	6.4	1
RANR-110	10	1
RANR-112	12	1
RANR-212.7	12.7	2
RANR-214	14	2
RANR-215	15	2
RANR-216	16	2
RANR-217.2	17.2	2
RANR-218	18	2
RANR-320	20	3
RANR-321.3	21.3	3
RANR-325	25	3
RANR-426.9	26.9	4
RANR-532	32	5
RANR-533.7	33.7	5
RANR-538	38	5
RANR-540	40	5
RANR-542	42	5
RANR-644.5	44.5	6
RANR-650.8	50.8	6

Tech Sheet 811

Supplied in pairs

Single Aluminium

0162	OD mm	Group
RAAR-106	6	1
RAAR-106.4	6.4	1
RAAR-108	8	1
RAAR-109.5	9.5	1
RAAR-110	10	1
RAAR-112	12	1
RAAR-212.7	12.7	2
RAAR-213.5	13.5	2
RAAR-214	14	2
RAAR-215	15	2

0162	OD mm	Group
RAAR-216	16	2
RAAR-217.2	17.2	2
RAAR-218	18	2
RAAR-319	19	3
RAAR-320	20	3
RAAR-321.3	21.3	3
RAAR-322	22	3
RAAR-323	23	3
RAAR-325	25	3
RAAR-426.9	26.9	4

0162	OD mm	Group
RAAR-430	30	4
RAAR-532	32	5
RAAR-533.7	33.7	5
RAAR-535	35	5
RAAR-538	38	5
RAAR-540	40	5
RAAR-542	42	5
RAAR-648	48	6
RAAR-650	50	6

Tech Sheet 811



HYDRAULIC TUBE CLAMPS



Tube Identification System

Tube labelling/identification system
Complete with plastic cover and galvanised steel strap.



Universal Holder

0162	To Suit
UNH	Up to 2.1/2" OD

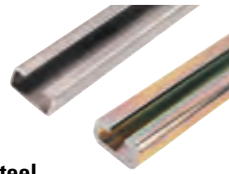
Tube labelling/identification system
Complete with plastic cover and 100mm welding pin.



Welding Holder

0162	To Suit
SWH	100mm Welding Pin

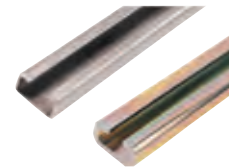
Clamping Rails



Series A, B & C, Steel

0162	Series	Length Metres	Depth mm
TS11-A/B1	A & B	1	11
TS11-A/B2	A & B	2	11
TS14-A/B1	A & B	1	14
TS14-A/B2	A & B	2	14
TS-C1	C	1	22
TS-C2	C	2	22

Tech Sheet 1640



Series A, B & C, Stainless Steel

0162	Series	Length Metres	Depth mm
TS11-A/B1-SS	A & B	1	11
TS11-A/B2-SS	A & B	2	11
TS14-A/B1-SS	A & B	1	14
TS14-A/B2-SS	A & B	2	14
TS-C1-SS	C	1	22
TS-C2-SS	C	2	22

Tech Sheet 1640

Clamping Nuts



Series A, B & C, Chromium VI-Free

0162	Group	Series
TM-A	All A & B1	A & B1
TM-B2	2-5	B
TM-C1	1-3	C
TM-C4	4	C

Tech Sheet 1640



Series A, B & C, Stainless Steel

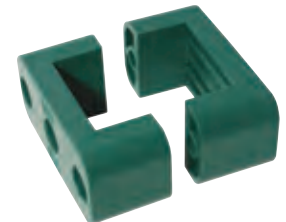
0162	Group	Series
TM-A/B1	All A & B1	A & B1
TM-B2-SS	2-5	B
TM-C1-SS	1-3	B
TM-C4-SS	4	C

Tech Sheet 1640

Special Clamps

Fixing Clamps for 40 x 40mm square cased sensors built to EN 50 025 and 50 037.

The sensors can be adjusted axially and laterally when mounted on support rails.
Accessory materials are Series A, Group 5.



Series A Sensor Clamps

0162	Material
RAPS-540	Polypropylene
RANS-540	Polyamide 6

Tech Sheet 814

You might also need a
RIDGID® StrutSlayr
see page 1744



HYDRAULIC TUBE CLAMPS



Series A Weld Plates

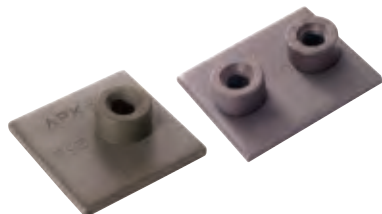


Short Weld Plate, Stainless Steel

stainless steel

0162	Group
APK-A0-SS	0
APK-A1-SS	1
APK-A2-SS	2
APK-A3-SS	3
APK-A4-SS	4
APK-A5-SS	5
APK-A6-SS	6
APK-A7-SS	7
APK-A8-SS	8

Tech Sheet 811



Short Weld Plate, Steel

0162	Group
APK-A0	0
APK-A1	1
APK-A2	2
APK-A3	3
APK-A4	4
APK-A5	5
APK-A6	6

Tech Sheet 811



Multiple Weld Plate, Steel

0162	Group	Centres mm
APR-A0	0	-
APR-A1	1	20
APR-A2	2	26
APR-A3	3	33
APR-A4	4	40
APR-A5	5	52
APR-A6	6	66

Tech Sheet 812



Weld/Screw Plate, Steel

0162	Group
APL-A0	0
APL-A1	1
APL-A2	2
APL-A3	3
APL-A4	4
APL-A5	5
APL-A6	6

Tech Sheet 812

Weld/Screw Plate, Stainless Steel

stainless steel

0162	Group
APL-A1-SS	1
APL-A2-SS	2
APL-A3-SS	3
APL-A4-SS	4
APL-A5-SS	5
APL-A6-SS	6

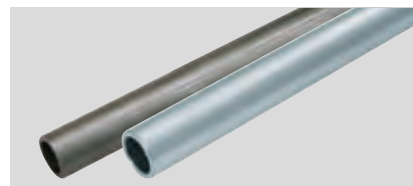
Tech Sheet 812



Twin Weld Plate, Steel

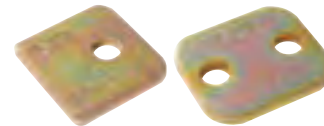
0162	Group	Centres mm
APD-A0	0	-
APD-A1	1	20
APDL-A1	1	20
APD-A2	2	26
APDL-A2	2	26
APD-A3	3	33
APDL-A3	3	33
APD-A5	5	52
APD-A6	6	66

Tech Sheet 812



You might also need
Hydraulic Tubing
see pages 179-183

Series A Cover Plates



Single, Steel

0162	Group
DP-A0	0
DP-A1	1
DP-A2	2
DP-A3	3
DP-A4	4
DP-A5	5
DP-A6	6

Tech Sheet 813

Single, Stainless Steel

stainless steel

0162	Group
DP-A0-SS	0
DP-A1-SS	1
DP-A2-SS	2
DP-A3-SS	3
DP-A4-SS	4
DP-A5-SS	5
DP-A6-SS	6
DP-A7-SS	7
DP-A8-SS	8

Tech Sheet 813

Series A Locking Plates



Steel

0162	Group
SBR-A	0-6

Tech Sheet 1391

Stainless Steel

stainless steel

0162	Group
SBR-A-SS	0-6

Tech Sheet 1391



You might also need
Hydraulic Fittings
see pages 115-135

HYDRAULIC TUBE CLAMPS

Series A Fixing Bolts



Slotted Head, Steel

0162	Group
SL-A0/A1	0 & 1
SL-A2	2
SL-A3	3
SL-A4	4
SL-A5	5
SL-A6	6
Tech Sheet 813	



Socket Head, Steel

0162	Group
IS-A0/A1	0 & 1
IS-A2	2
IS-A3	3
IS-A4	4
IS-A5	5
IS-A6	6
Tech Sheet 813	



Stacking Head, Steel

0162	Group
AS-A0/A1	0 & 1
AS-A2	2
AS-A3	3
AS-A4	4
AS-A5	5
AS-A6	6
Tech Sheet 1391	

Stacking Head, Stainless Steel

stainless steel

0162	Group
AS-A0/A1-SS	0 & 1
AS-A2-SS	2
AS-A3-SS	3
AS-A4-SS	4
AS-A5-SS	5
AS-A6-SS	6
Tech Sheet 1391	



Hexagon Head, Steel

0162	Group
SSL-A0/A1	0 & 1
SSL-A2	2
SSL-A3	3
SSL-A4	4
SSL-A5	5
SSL-A6	6
SSL-A7	7
Tech Sheet 813	

Hexagon Head, Stainless Steel

stainless steel

0162	Group
SSL-A0/A1-SS	0 & 1
SSL-A2-SS	2
SSL-A3-SS	3
SSL-A4-SS	4
SSL-A5-SS	5
SSL-A6-SS	6
Tech Sheet 813	



Visitec Clamping Nuts, Light Series

The rail nut with loss protection.

The larger flange area prevents the rail nut falling into the rail during installation which is a problem inherent to the traditional design. The new design has a vibration and sound installation function.

The rubber cap has an integrated screw locking device. Fast and easy to install, easy to adjust, especially for vertical installations.

Advantages:

- Vibration and sound insulating function
- Designed especially for vertical installations
- Fast and easy to install
- 40% time savings for installers



Series A, Chromium VI-Free

0162	Group	Series
TM-A/B1VISITEC	All A & B1	A & B1
Tech Sheet 1981		

Series A, Stainless Steel

stainless steel

0162	Group	Series
TM-A/B1SSVISITEC	All A & B1	A & B1
Tech Sheet 1981		

Locking Washers



Series A & B

0162	Group
US-A	1
US-B2	2-5
Tech Sheet 1391	

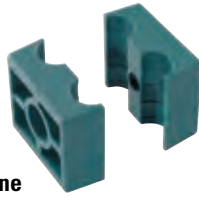
HYDRAULIC TUBE CLAMPS



Please order the same series to make complete clamp, i.e. **Series B** clamp and **Series B** top plate and **Series B** bottom plate and **Series B** screws or bolts.

Series B Clamp Halves

Supplied in pairs

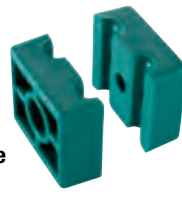


Double Polypropylene

0162	OD mm	Group
RBPR-106	6	1
RBPR-106.4	6.4	1
RBPR-108	8	1
RBPR-109.5	9.5	1
RBPR-110	10	1
RBPR-112	12	1
RBPR-212.7	12.7	2
RBPR-213.5	13.5	2
RBPR-214	14	2
RBPR-215	15	2
RBPR-216	16	2
RBPR-217.2	17.2	2
RBPR-218	18	2
RBPR-319	19	3
RBPR-320	20	3
RBPR-321.3	21.3	3
RBPR-322	22	3
RBPR-325	25	3
RBPR-426.9	26.9	4
RBPR-428	28	4
RBPR-430	30	4
RBPR-532	32	5
RBPR-533.7	33.7	5
RBPR-535	35	5
RBPR-538	38	5
RBPR-540	40	5
RBPR-542	42	5

Tech Sheet 1641

Supplied in pairs



Double Polypropylene Inside Smooth

0162	OD mm	Group
RBPG-106	6	1
RBPG-106.4	6.4	1
RBPG-108	8	1
RBPG-109.5	9.5	1
RBPG-110	10	1
RBPG-112	12	1
RBPG-212.7	12.7	2
RBPG-213.5	13.5	2
RBPG-214	14	2
RBPG-215	15	2
RBPG-216	16	2
RBPG-217.2	17.2	2
RBPG-218	18	2
RBPG-319	19	3
RBPG-320	20	3
RBPG-321.3	21.3	3
RBPG-322	22	3
RBPG-325	25	3
RBPG-426.9	26.9	3
RBPG-428	28	4
RBPG-430	30	4
RBPG-532	32	4
RBPG-533.7	33.7	5
RBPG-535	35	5
RBPG-538	38	5
RBPG-540	40	5
RBPG-542	42	5

Tech Sheet 1641

Supplied in pairs



Double Polyamide 6 (Fire Retardant)

0162	OD mm	Group
RBNR-106.4	6.4	1
RBNR-109.5	9.5	1
RBNR-212.7	12.7	2
RBNR-213.5	13.5	2
RBNR-214	14	2
RBNR-215	15	2
RBNR-218	18	2
RBNR-320	20	3
RBNR-322	22	3
RBNR-325	25	3
RBNR-428	28	4
RBNR-533.7	33.7	5
RBNR-535	35	5

Tech Sheet 1641

Supplied in pairs



Double Polyamide 6 Inside Smooth

0162	OD mm	Group
RBNG-106	6	1
RBNG-106.4	6.4	1
RBNG-108	8	1
RBNG-109.5	9.5	1
RBNG-110	10	1
RBNG-112	12	1
RBNG-212.7	12.7	2
RBNG-213.5	13.5	2
RBNG-214	14	2
RBNG-215	15	2
RBNG-216	16	2
RBNG-217.2	17.2	2
RBNG-218	18	2
RBNG-319	19	3
RBNG-320	20	3
RBNG-321.3	21.3	3
RBNG-322	22	3
RBNG-325	25	3
RBNG-426.9	26.9	3
RBNG-428	28	4
RBNG-430	30	4
RBNG-532	32	4
RBNG-533.7	33.7	5
RBNG-535	35	5
RBNG-538	38	5
RBNG-542	42	5

Tech Sheet 1641



You might also need
Hydraulic Tubing
see pages 179-183



You might also need
Hydraulic Fittings
see pages 115-135

HYDRAULIC TUBE CLAMPS



Series B Clamp Halves

Supplied in pairs

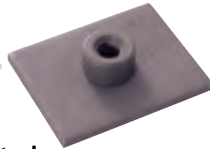


Double Rubber

0162	OD mm	Group
RBVG-106	6	1
RBVG-106.4	6.4	1
RBVG-108	8	1
RBVG-109.5	9.5	1
RBVG-110	10	1
RBVG-112	12	1
RBVG-212.7	12.7	2
RBVG-213.5	13.5	2
RBVG-214	14	2
RBVG-215	15	2
RBVG-216	16	2
RBVG-217.2	17.2	2
RBVG-218	18	2
RBVG-319	19	3
RBVG-320	20	3
RBVG-321.3	21.3	3
RBVG-322	22	3
RBVG-325	25	3
RBVG-426.9	26.9	4
RBVG-428	28	4
RBVG-430	30	4
RBVG-532	32	5
RBVG-533.7	33.7	5
RBVG-535	35	5
RBVG-538	38	5
RBVG-542	42	5

Tech Sheet 1641

Series B Weld Plates



Short Weld Plate, Steel

0162	Group
AP-B1	1
AP-B2	2
AP-B3	3
AP-B4	4
AP-B5	5

Tech Sheet 1641

Short Weld Plate, Stainless Steel

stainless steel

0162	Group
AP-B1-SS	1
AP-B2-SS	2
AP-B3-SS	3
AP-B4-SS	4
AP-B5-SS	5

Tech Sheet 1641

For illustration purposes only

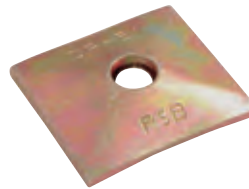


Multiple Weld Plate, Steel

0162	Group	Centres mm
APR-B1	1	40
APR-B2	2	58
APR-B3	3	72
APR-B4	4	90
APR-B5	5	112

Tech Sheet 1642

Series B Cover Plates



Double, Steel

0162	Group
DP-B1	1
DP-B2	2
DP-B3	3
DP-B4	4
DP-B5	5

Tech Sheet 1643

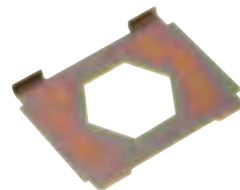
Double, Stainless Steel

stainless steel

0162	Group
DP-B1-SS	1
DP-B2-SS	2
DP-B3-SS	3
DP-B4-SS	4
DP-B5-SS	5

Tech Sheet 1643

Series B Locking Plates



Steel

0162	Group
SB-B1	1
SB-B2	2-5

Tech Sheet 1644

Series B Fixing Bolts



Socket Head, Steel

0162	Group
IS-B1	1
IS-B2	2
IS-B3	3
IS-B5	5

Tech Sheet 1644



Stacking Head, Steel

0162	Group
AS-B1	1
AS-B2	2
AS-B3	3
AS-B4	4
AS-B5	5

Tech Sheet 1644

Stacking Head, Stainless Steel

stainless steel

0162	Group
AS-B1-SS	1
AS-B2-SS	2
AS-B3-SS	3
AS-B4-SS	4
AS-B5-SS	5

Tech Sheet 1644



Hexagon Head, Steel

0162	Group
SS-B1	1
SS-B2	2
SS-B3	3
SS-B4	4
SS-B5	5

Tech Sheet 1643

Hexagon Head, Stainless Steel

stainless steel

0162	Group
SS-B1-SS	1
SS-B2-SS	2
SS-B3-SS	3

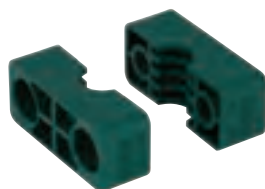
Tech Sheet 1643

HYDRAULIC TUBE CLAMPS



Series C Heavy-duty Clamp Halves

Supplied in pairs



Single Polypropylene

0162	OD mm	Group
RCPR-106	6	1
RCPR-108	8	1
RCPR-110	10	1
RCPR-112	12	1
RCPR-112.7	12.7	1
RCPR-113.5	13.5	1
RCPR-114	14	1
RCPR-115	15	1
RCPR-116	16	1
RCPR-117.2	17.2	1
RCPR-118	18	1
RCPR-219	19	2
RCPR-220	20	2
RCPR-221.3	21.3	2
RCPR-222	22	2
RCPR-223	23	2
RCPR-225	25	2
RCPR-226.9	26.9	2
RCPR-228	28	2
RCPR-230	30	2
RCPR-330	30	3
RCPR-332	32	3
RCPR-333.7	33.7	3
RCPR-335	35	3
RCPR-338	38	3
RCPR-340	40	3
RCPR-342	42	3
RCPR-438	38	4
RCPR-440	40	4
RCPR-442	42	4
RCPR-445	45	4
RCPR-448.3	48.3	4
RCPR-450	50	4
RCPR-451	51	4
RCPR-452	52	4
RCPR-455	55	4
RCPR-457	57	4
RCPR-460.3	60.3	4
RCPR-463	63	4
RCPR-465	65	4
RCPR-470	70	4
RCPR-570	70	5
RCPR-573	73	5
RCPR-575	75	5
RCPR-576.1	76.1	5
RCPR-580	80	5
RCPR-582.5	82.5	5
RCPR-588.9	88.9	5
RCPR-590	90	5
RCPR-6101.6	101.6	6
RCPR-6114.3	114.3	6
RCPR-6127	127	6
RCPR-7130	130	7
RCPR-7140	140	7
RCPR-7168.3	168.3	7

Tech Sheet 1645

Supplied in pairs



Single Polyamide 6 (Fire Retardant)

0162	OD mm	Group
RCNR-106	6	1
RCNR-108	8	1
RCNR-110	10	1
RCNR-112	12	1
RCNR-112.7	12.7	1
RCNR-113.5	13.5	1
RCNR-114	14	1
RCNR-115	15	1
RCNR-116	16	1
RCNR-117.2	17.2	1
RCNR-118	18	1
RCNR-220	20	2
RCNR-221.3	21.3	2
RCNR-222	22	2
RCNR-223	23	2
RCNR-225	25	2
RCNR-226.9	26.9	2
RCNR-228	28	2
RCNR-230	30	2
RCNR-330	30	3
RCNR-332	32	3
RCNR-333.7	33.7	3
RCNR-335	35	3
RCNR-338	38	3
RCNR-340	40	3
RCNR-342	42	3
RCNR-438	38	4
RCNR-440	40	4
RCNR-442	42	4
RCNR-445	45	4
RCNR-448.3	48.3	4
RCNR-450	50	4
RCNR-451	51	4
RCNR-452	52	4
RCNR-455	55	4
RCNR-457	57	4
RCNR-460.3	60.3	4
RCNR-463	63	4
RCNR-465	65	4
RCNR-470	70	4
RCNR-570	70	5
RCNR-573	73	5
RCNR-575	75	5
RCNR-576.1	76.1	5
RCNR-580	80	5
RCNR-582.5	82.5	5
RCNR-588.9	88.9	5
RCNR-590	90	5

Tech Sheet 1645

Supplied in pairs



Single Aluminium

0162	OD mm	Group
RCAR-110	10	1
RCAR-220	20	2
RCAR-221.3	21.3	2
RCAR-222	22	2
RCAR-226.9	26.9	2
RCAR-230	30	2
RCAR-330	30	3
RCAR-332	32	3
RCAR-333.7	33.7	3
RCAR-338	38	3
RCAR-340	40	3
RCAR-448.3	48.3	4
RCAR-450	50	4
RCAR-455	55	4
RCAR-460.3	60.3	4
RCAR-470	70	4

Tech Sheet 1645

Please order the same series to make complete clamp, i.e. Series C Clamp & Series C Top Plate & Series C Bottom Plate & Series C Screws or Bolts.

HYDRAULIC TUBE CLAMPS



Series C Heavy-duty Clamp Halves

Supplied in pairs



Single Polypropylene Inside Smooth

0162	OD mm	Group
RCPG-106	6	1
RCPG-108	8	1
RCPG-110	10	1
RCPG-112	12	1
RCPG-112.7	12.7	1
RCPG-114	14	1
RCPG-115	15	1
RCPG-116	16	1
RCPG-117.2	17.2	1
RCPG-118	18	1
RCPG-219	19	2
RCPG-220	20	2
RCPG-221.3	21.3	2
RCPG-222	22	2
RCPG-225	25	2
RCPG-226.9	26.9	2
RCPG-230	30	2
RCPG-330	30	3
RCPG-332	32	3
RCPG-333.7	33.7	3
RCPG-335	35	3
RCPG-338	38	3
RCPG-340	40	3
RCPG-342	42	3

0162	OD mm	Group
RCPG-438	38	4
RCPG-440	40	4
RCPG-442	42	4
RCPG-445	45	4
RCPG-448.3	48.3	4
RCPG-450	50	4
RCPG-452	52	4
RCPG-455	55	4
RCPG-457	57	4
RCPG-460.3	60.3	4
RCPG-465	65	4
RCPG-470	70	4
RCPG-560.3	60.3	5
RCPG-573	73	5
RCPG-576.1	76.1	5
RCPG-580	80	5
RCPG-588.9	88.9	5
RCPG-6100	100	6
RCPG-6101.6	101.6	6
RCPG-6114.3	114.3	6
RCPG-7108	108	7
RCPG-7168.3	168.3	7
RCPG-8168.3	168.3	8

Tech Sheet 1645

You might also need
Hydraulic Ball Valves
 see pages **238-240**



HYDRAULIC TUBE CLAMPS



Series C Weld Plates



Short Weld Plate, Steel

0162	Group
AP-C1	1
AP-C2	2
AP-C3	3
AP-C4	4
AP-C5	5
AP-C6	6
AP-C7	7

Tech Sheet 1646

Short Weld Plate, Stainless Steel

stainless steel

0162	Group
AP-C1-SS	1
AP-C2-SS	2
AP-C3-SS	3
AP-C4-SS	4
AP-C5-SS	5
AP-C6-SS	6
AP-C7-SS	7
AP-C8-SS	8

Tech Sheet 1646



Weld/Screw Plate, Steel

0162	Group
APL-C1	1
APL-C2	2
APL-C3	3
APL-C4	4
APL-C5	5

Tech Sheet 1646



Short Double Weld Plate, Steel

0162	Group
APD-C1	1
APD-C2	2
APD-C3	3
APD-C5	5

Tech Sheet 1646

Series C Cover Plates



Single, Steel

0162	Group
DP-C1	1
DP-C2	2
DP-C3	3
DP-C4	4
DP-C5	5
DP-C6	6
DP-C7	7

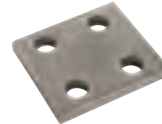
Tech Sheet 1647

Single, Stainless Steel

stainless steel

0162	Group
DP-C1-SS	1
DP-C2-SS	2
DP-C3-SS	3
DP-C4-SS	4
DP-C5-SS	5
DP-C6-SS	6
DP-C7-SS	7
DP-C8-SS	8

Tech Sheet 1647

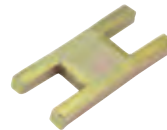


Double, Steel

0162	Group
DPD-C1	1
DPD-C2	2
DPD-C3	3
DPD-C4	4
DPD-C5	5

Tech Sheet 1647

Series C Locking Plates



Steel

0162	Group
SP-C1	1
SP-C2	2
SP-C3	3
SP-C4	4
SP-C5	5

Tech Sheet 1648

Stainless Steel

stainless steel

0162	Group
SP-C1-SS	1
SP-C2-SS	2
SP-C3-SS	3
SP-C4-SS	4
SP-C5-SS	5
SP-C6-SS	6
SP-C7-SS	7
SP-C8-SS	8

Tech Sheet 1648

Series C Fixing Bolts



Socket Head, Steel

0162	Group
IS-C1	1
IS-C2	2
IS-C3	3
IS-C4	4
IS-C5	5

Tech Sheet 1648



Stacking Head, Steel

0162	Group
AS-C1	1
AS-C2	2
AS-C3	3
AS-C4	4
AS-C5	5

Tech Sheet 1648

Stacking Head, Stainless Steel

stainless steel

0162	Group
AS-C1-SS	1
AS-C2-SS	2
AS-C3-SS	3
AS-C4-SS	4

Tech Sheet 1648



Hexagon Head, Steel

0162	Group
SS-C1	1
SS-C2	2
SS-C3	3
SS-C4	4
SS-C5	5
SS-C6	6
SS-C7	7

Tech Sheet 1647

Hexagon Head, Stainless Steel

stainless steel

0162	Group
SS-C1-SS	1
SS-C2-SS	2
SS-C3-SS	3
SS-C4-SS	4
SS-C5-SS	5

Tech Sheet 1647

HYDRAULIC TUBE CLAMPS



U-Bolt Clamps

DIN 3570



2 Nuts Steel Clamps

0162	Size mm
RUBS-15/24	15-24
RUBS-20/30	20-30
RUBS-25/38	25-38
RUBS-32/46	32-46
RUBS-40/52	40-52
RUBS-50/64	50-64
RUBS-65/82	65-82
RUBS-80/94	80-94
RUBS-100/120	100-120
RUBS-125/148	125-148
RUBS-150/176	150-176

Tech Sheet 1650

DIN 3570

Bolts: Zinc Plated

2 Nuts Zinc Plated Steel Clamps

0162	Size mm
RUBZ-15/24	15-24
RUBZ-20/30	20-30
RUBZ-25/38	25-38
RUBZ-32/46	32-46
RUBZ-40/52	40-52
RUBZ-50/64	50-64
RUBZ-65/82	65-82
RUBZ-80/94	80-94
RUBZ-100/120	100-120
RUBZ-150/176	150-176
RUBZ-175/202	175-202
RUBZ-250/282	250-282

Tech Sheet 1650



4 Nuts Steel Clamps

0162	Size mm
RUBLS-15/24	15-24
RUBLS-20/30	20-30
RUBLS-25/38	25-38
RUBLS-32/46	32-46
RUBLS-50/64	50-64
RUBLS-65/82	65-82
RUBLS-80/94	80-94
RUBLS-100/120	100-120
RUBLS-125/148	125-148

Tech Sheet 1650

Bolts: Zinc Plated

4 Nuts Zinc Plated Steel Clamps

0162	Size mm
RUBLZ-20/30	20-30
RUBLZ-32/46	32-46
RUBLZ-50/64	50-64
RUBLZ-65/82	65-82
RUBLZ-80/94	80-94
RUBLZ-100/120	100-120
RUBLZ-125/148	125-148

Tech Sheet 1650

Cylinder Tube Fastenings

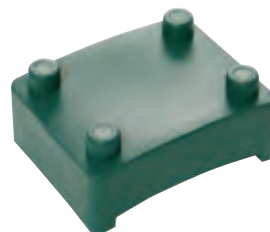
Support
Clip
Adaptor

Supports

0162	Group
RLP-16	16
RLP-22	22

Tech Sheet 1649

NOTE: To suit all cylinder tube fastenings.



Adaptor

0162
ADP

Tech Sheet 1649

Pipe Saddles



Long Polypropylene

0162	Size mm
KUPL-15/17.2	15-17.2
KUPL-15/21.3	15-21.3
KUPL-20/25	20-25
KUPL-20/26.9	20-26.9
KUPL-25/30	25-30
KUPL-25/33.7	25-33.7
KUPL-32/38	32-38
KUPL-32/42.4	32-42.4
KUPL-40/44.5	40-44.5
KUPL-40/48.3	40-48.3
KUPL-50/57	50-57
KUPL-50/60.3	50-60.3
KUPL-65/76.1	65-76.1
KUPL-80/88.9	80-88.9
KUPL-100/108	100-108
KUPL-100/114.3	100-114.3

Tech Sheet 1651



Long Polyamide 6 (Fire Retardant)

0162	Size mm
KUNL-20/25	20-25
KUNL-20/26.9	20-26.9
KUNL-25/30	25-30
KUNL-25/33.7	25-33.7
KUNL-32/38	32-38
KUNL-40/44.5	40-44.5
KUNL-40/48.3	40-48.3
KUNL-50/57	50-57
KUNL-50/60.3	50-60.3
KUNL-65/76.1	65-76.1
KUNL-80/88.9	80-88.9
KUNL-100/108	100-108
KUNL-100/114.3	100-114.3

Tech Sheet 1651

HYDRAULIC TUBE CLAMPS



Hydraulic Steel Clamps

The support-block is welded to the machine body or another component either in upend or flat position. The tube clamp is screwed on.



HRS Series Clamps

0162	To Fit Tube Size mm
HSRS-25	25
HSRS-30	30
HSRS-35	35
HSRS-38	38
HSRS-42	42

Tech Sheet 1653

Improved quality as regards noise and vibration reduction. Safe fastening method even for very sensitive tube and hose lines. Only one clamp for different diameters.



Elastomer Inlay

0162	To Fit Tube Size mm
EE25-12	25 x 12
EE25-15	25 x 15
EE30-20	30 x 20
EE35-25	35 x 25
EE42-30	42 x 30

Tech Sheet 1653

Cover to suit Double Clamps



Galvanised Steel

0162	Group
DP-01	1
DP-02	2
DP-03	3
DP-04	4

Tech Sheet 1655

Flat Tube Clamps

DIN 3570



Steel

0162	NB mm
FRDS-20A	20
FRDS-22A	22
FRDS-25A	25
FRDS-27A	27
FRDS-30A	30
FRDS-34A	34
FRDS-38A	38
FRDS-43A	43
FRDS-45A	45
FRDS-49A	49
FRDS-57A	57
FRDS-61A	61
FRDS-77A	77
FRDS-89A	89
FRDS-108A	108
FRDS-115A	115
FRDS-133A	133
FRDS-169A	169

Tech Sheet 1654



Galvanised Steel

0162	NB mm
FRDZ-22A	22
FRDZ-25A	25
FRDZ-30A	30
FRDZ-34A	34
FRDZ-38A	38
FRDZ-43A	43
FRDZ-45A	45
FRDZ-49A	49
FRDZ-57A	57
FRDZ-61A	61
FRDZ-77A	77
FRDZ-89A	89
FRDZ-115A	115
FRDZ-159A	159
FRDZ-169A	169
FRDZ-194A	194
FRDZ-220A	220

Tech Sheet 1654

HYDRAULIC TUBE CLAMPS



Series O Clamps

Areas of Application: Pneumatics, automotive technology, machine tool industry, lubrication and naval technology.



Single Polypropylene

0162	OD mm	Group
ROP-106	6	1
ROP-106.4	6.4	1
ROP-108	8	1
ROP-208	8	2
ROP-209.5	9.5	2
ROP-210	10	2
ROP-212	12	2
ROP-212.7	12.7	2
ROP-310	10	3
ROP-312	12	3
ROP-312.7	12.7	3
ROP-313.5	13.5	3
ROP-314	14	3
ROP-315	15	3
ROP-316	16	3
ROP-415	15	4
ROP-416	16	4
ROP-417.2	17.2	4
ROP-418	18	4
ROP-419	19	4
ROP-420	20	4
ROP-421.3	21.3	4
ROP-422	22	4

Tech Sheet 1655



Double Polypropylene

0162	OD mm	Group
ROPD-106	6	1
ROPD-106.4	6.4	1
ROPD-108	8	1
ROPD-208	8	2
ROPD-209.5	9.5	2
ROPD-210	10	2
ROPD-212	12	2
ROPD-212.7	12.7	2
ROPD-310	10	3
ROPD-312	12	3
ROPD-312.7	12.7	3
ROPD-313.5	13.5	3
ROPD-314	14	3
ROPD-315	15	3
ROPD-316	16	3
ROPD-414	14	4
ROPD-415	15	4
ROPD-416	16	4
ROPD-417.2	17.2	4
ROPD-418	18	4
ROPD-419	19	4
ROPD-420	20	4
ROPD-421.3	21.3	4
ROPD-422	22	4

Tech Sheet 1655



Single Polyamide 6 (Fire Retardant)

0162	OD mm	Group
RON-106	6	1
RON-106.4	6.4	1
RON-108	8	1
RON-208	8	2
RON-209.5	9.5	2
RON-210	10	2
RON-212	12	2
RON-212.7	12.7	2
RON-312	12	3
RON-312.7	12.7	3
RON-313.5	13.5	3
RON-314	14	3
RON-315	15	3
RON-316	16	3
RON-414	14	4
RON-415	15	4
RON-416	16	4
RON-417.2	17.2	4
RON-418	18	4
RON-419	19	4
RON-420	20	4
RON-421.3	21.3	4
RON-422	22	4

Tech Sheet 1655



Double Polyamide 6 (Fire Retardant)

0162	OD mm	Group
ROND-106	6	1
ROND-106.4	6.4	1
ROND-108	8	1
ROND-208	8	2
ROND-209.5	9.5	2
ROND-210	10	2
ROND-212	12	2
ROND-212.7	12.7	2
ROND-310	10	3
ROND-312	12	3
ROND-312.7	12.7	3
ROND-313.5	13.5	3
ROND-314	14	3
ROND-315	15	3
ROND-316	16	3
ROND-414	14	4
ROND-415	15	4
ROND-416	16	4
ROND-417.2	17.2	4
ROND-418	18	4
ROND-419	19	4
ROND-420	20	4
ROND-421.3	21.3	4
ROND-422	22	4

Tech Sheet 1655

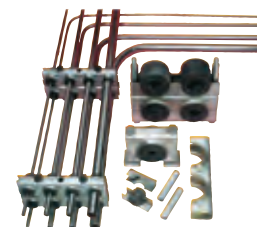
MULTICLAMP



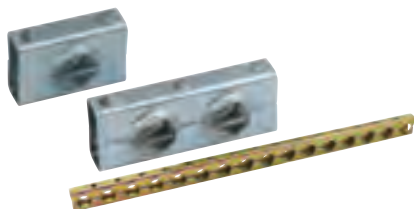
Multiclamp is a system of components, each one engineered to a high standard, that together build to provide effective, all purpose pipe work clamping. Available in a single, double and multiple hole clamps across 3 sizes, each with a range of split bushes allowing the clamping of hose or pipe with diameters from 6mm up to 50mm.

Features

- High quality pipe clamping system in 3 ranges Series 10, 16, 32
- Covers a range from 6mm up to 50mm
- 26 different diameter, high quality split rubber bushes
- Plated steel construction with anti-corrosive, full passivate
- Stainless steel option available upon request



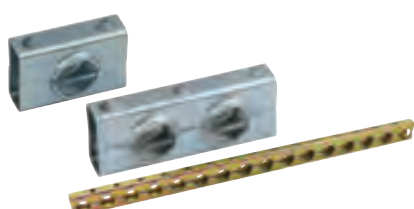
Series 10



Steel Clamp Body

0045	Type	Box Quantity
MC101	Single Clamp	10
MC102	Double Clamp	10
MC1016	16 Bay Clamp	1
Tech Sheet 10178		

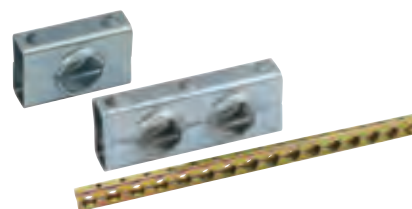
Series 16



Steel Clamp Body

0045	Type	Box Quantity
MC161	Single Clamp	10
MC162	Double Clamp	10
MC1612	12 Bay Clamp	1
Tech Sheet 10178		

Series 32



Steel Clamp Body

0045	Type	Box Quantity
MC321	Single Clamp	10
MC322	Double Clamp	10
MC3216	16 Bay Clamp	1
Tech Sheet 10178		

Split Bushes



0045	OD mm	OD	Box Quantity
MCG105	8	5/16"	10
MCG106	10	3/8"	10
MCG108	12-14	1/2"	10
MCG1010	15-16	5/8"	10
MCG1012	18-20	3/4"	10
Tech Sheet 10178			

Split Bushes



0045	OD mm	OD	Box Quantity
MCG164	6	1/4"	10
MCG166	10	3/8"	10
MCG168	12-14	1/2"	10
MCG1610	15-16	5/8"	10
MCG1612	18-20	3/4"	10
MCG1614	22	7/8"	10
MCG1616	25	1"	10
MCG1618	28	-	10
Tech Sheet 10178			

Split Bushes



0045	OD mm	OD	Box Quantity
MCG326	10	3/8"	10
MCG328	12-14	1/2"	10
MCG3210	15-16	5/8"	10
MCG3212	18-20	3/4"	10
MCG3214	22	7/8"	10
MCG3218	28	-	10
MCG3220	32-34	1.1/4"	10
MCG3224	35-38	1.1/4"	10
MCG3226	42	-	10
MCG3232	50	2"	10
Tech Sheet 10178			

Clamp Components



0045	Type	Box Quantity
MCN10	Stacking Nut	50
MCS10	Stacking Stud	50
MCWP10	Weld Plate	10
MCSB10	Standard Bolt	50
Tech Sheet 10178		

Clamp Components



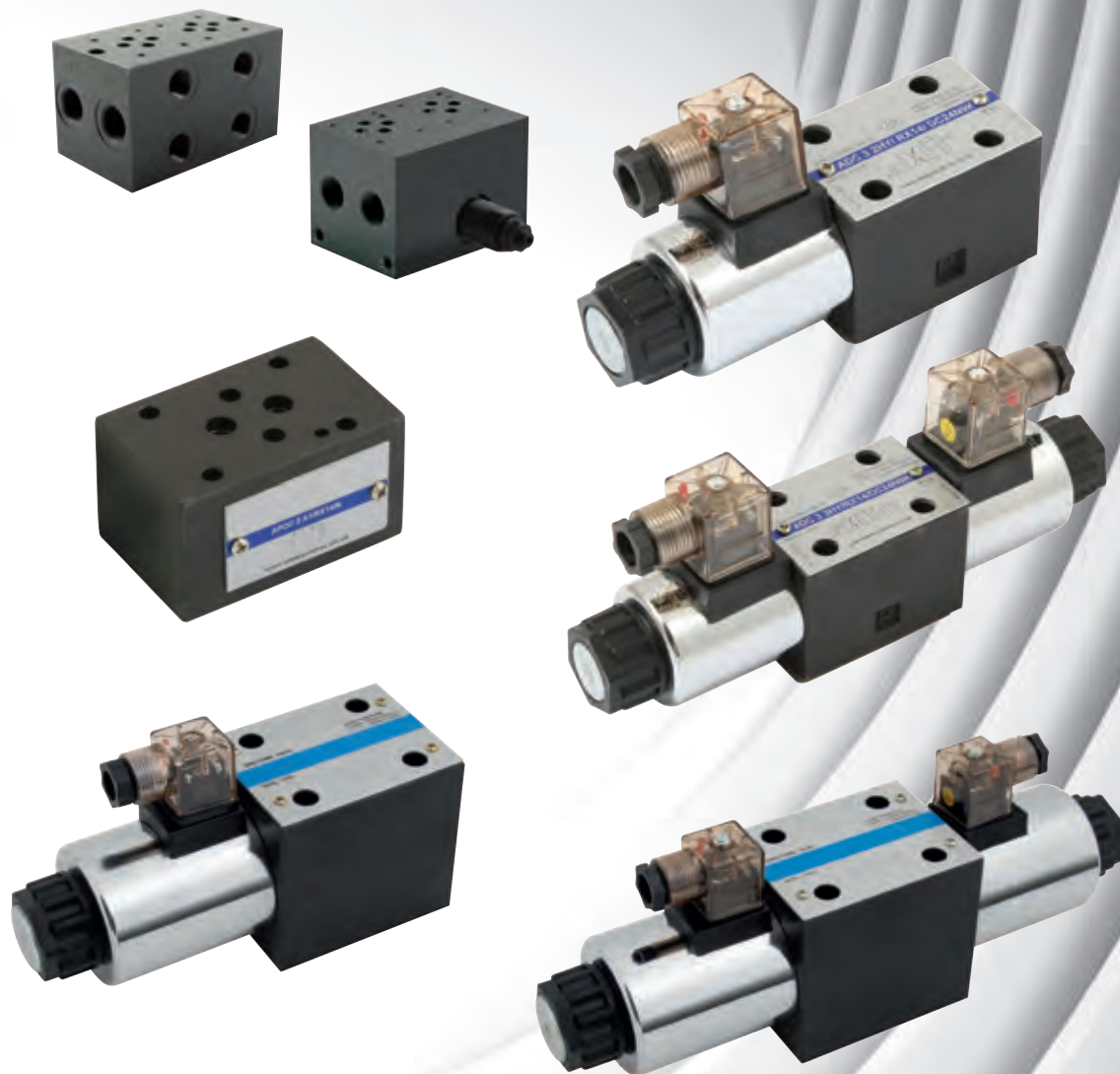
0045	Type	Box Quantity
MCN16	Stacking Nut	50
MCS10	Stacking Stud	50
MCWP10	Weld Plate	10
MCSB10	Standard Bolt	50
Tech Sheet 10178		

Clamp Components



0045	Type	Box Quantity
MCN32	Stacking Nut	50
MCS32	Stacking Stud	50
MCWP32	Weld Plate	10
MCSB32	Standard Bolt	50
Tech Sheet 10178		

CETOP Directional Control Valves

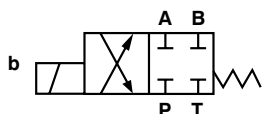


CETOP 3, Single Solenoid

Max Flow Rate: 80 L/min
 Viscosity 2.8-100 mm²/s
 ISO 4401 Size 3
 DIN 24340 Size 6
 IP65

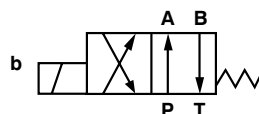
Working Temperature:
 -20°C to +70°C

Maximum Working Pressure:
 350 bar



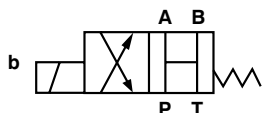
2 Position, All Ports Closed, Spring Offset to Centre

0451	Model	Voltage
1010-1047	ADC 3 2EY/RX14/AC110N9K	110V AC
1010-1046	ADC 3 2EY/RX14/DC24N9K	24V DC
Tech Sheet 10682		



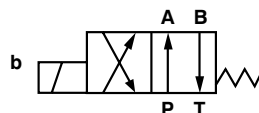
2 Position, Spring Offset, Open Transient

0451	Model	Voltage
1010-1045	ADC 3 2CY/RX14/AC110N9K	110V AC
1010-1044	ADC 3 2CY/RX14/DC24N9K	24V DC
Tech Sheet 10682		



2 Position, All Ports Open, Spring Offset to Centre

0451	Model	Voltage
1010-1000	ADC 3 2HY/RX14/AC110N9K	110V AC
1010-1001	ADC 3 2HY/RX14/DC24N9K	24V DC
1010-1059	ADC 3 2HY/RX14/DC12N9K	12V DC
Tech Sheet 10682		



2 Position, Spring Offset End to End

0451	Model	Voltage
1010-1002	ADC 3 2DY/RX14/AC110N9K	110V AC
1010-1003	ADC 3 2DY/RX14/DC24N9K	24V DC
1010-1058	ADC 3 2DY/RX14/DC12N9K	12V DC
Tech Sheet 10682		



You might also need
CETOP 3 Manifold
 see page 208



CETOP 3, Double Solenoid

Max Flow Rate: 80 L/min

Viscosity 2.8-100 mm²/s

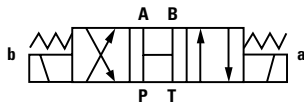
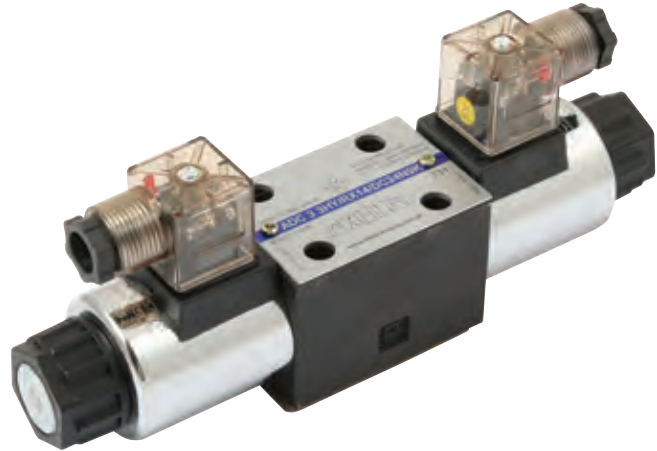
ISO 4401 Size 3

DIN 24340 Size 6

IP65

Working Temperature:
-20°C to +70°C

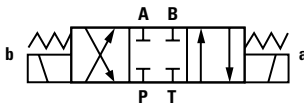
Maximum Working Pressure:
350 bar



3 Position, All Ports Open, Spring Centred

0451	Model	Voltage
1010-1004	ADC 3 3HY/RX14/AC110N9K	110V AC
1010-1006	ADC 3 3HY/RX14/DC24N9K	24V DC
1010-1005	ADC 3 3HY/RX14/DC12N9K	12V DC

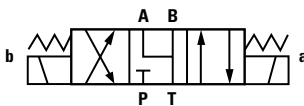
Tech Sheet 10682



3 Position, All Ports Closed, Spring Centred

0451	Model	Voltage
1010-1007	ADC 3 3EY/RX14/AC110N9K	110V AC
1010-1008	ADC 3 3EY/RX14/DC24N9K	24V DC
1010-1060	ADC 3 3EY/RX14/DC12N9K	12V DC

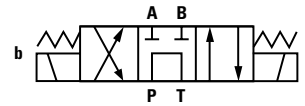
Tech Sheet 10682



3 Position, A, B & T Connected, Spring Centred

0451	Model	Voltage
1010-1009	ADC 3 3JY/RX14/AC110N9K	110V AC
1010-1010	ADC 3 3JY/RX14/DC24N9K	24V DC
1010-1062	ADC 3 3JY/RX14/DC12N9K	12V DC

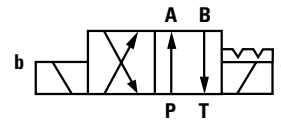
Tech Sheet 10682



3 Position, P & T Connected A & B Blocked, Spring Centred

0451	Model	Voltage
1010-1011	ADC 3 3GY/RX14/AC110N9K	110V AC
1010-1012	ADC 3 3GY/RX14/DC24N9K	24V DC
1010-1061	ADC 3 3GY/RX14/DC12N9K	12V DC

Tech Sheet 10682



2 Position, Detent

0451	Model	Voltage
1010-1013	ADC 3 2DD/RX14/AC110N9K	110V AC
1010-1014	ADC 3 2DD/RX14/DC24N9K	24V DC

Tech Sheet 10682

CETOP 5, Single Solenoid

Max Flow Rate: 120 L/min

Viscosity 2.8-100 mm²/s

ISO 4401 Size 5

DIN 24340 Size 10

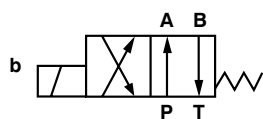
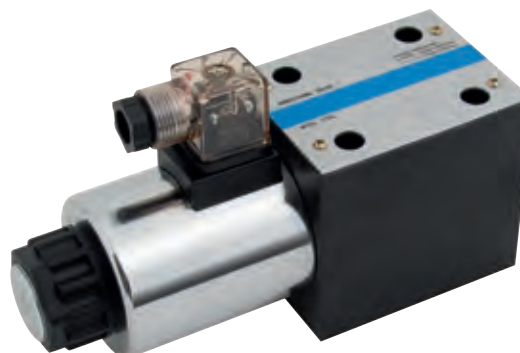
IP65

Working Temperature:

-20°C to +70°C

Maximum Working Pressure:

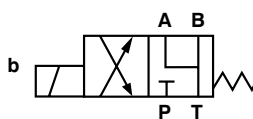
315 bar



2 Position, Spring Offset End to End

0451	Model	Voltage
1010-1015	ADC 5 2DY/RX14/AC110N9K	110V AC
1010-1016	ADC 5 2DY/RX14/DC24N9K	24V DC
1010-1063	ADC 5 2DY/RX14/DC12N9K	12V DC

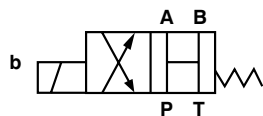
Tech Sheet 10683



2 Position, A, B & T Connected, Spring Return

0451	Model	Voltage
1010-1071	ADC 5 2JY/RX14/DC12N9K	12V DC
1010-1072	ADC 5 2JY/RX14/DC24N9K	24V DC

Tech Sheet 10683



2 Position, All Ports Open, Spring Offset to Centre

0451	Model	Voltage
1010-1069	ADC 5 2HY/RX14/DC24N9K	24V DC
1010-1064	ADC 5 2HY/RX14/DC12N9K	12V DC

Tech Sheet 10683

Replacement Coils



CETOP 3

0451	Voltage
1010-1036	110V AC
1010-1037	220V AC
1010-1038	12V DC
1010-1039	24V DC

Tech Sheet 10683




CETOP 5

0451	Voltage
1010-1040	110V AC
1010-1041	220V AC
1010-1042	12V DC
1010-1043	24V DC

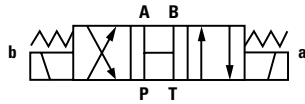
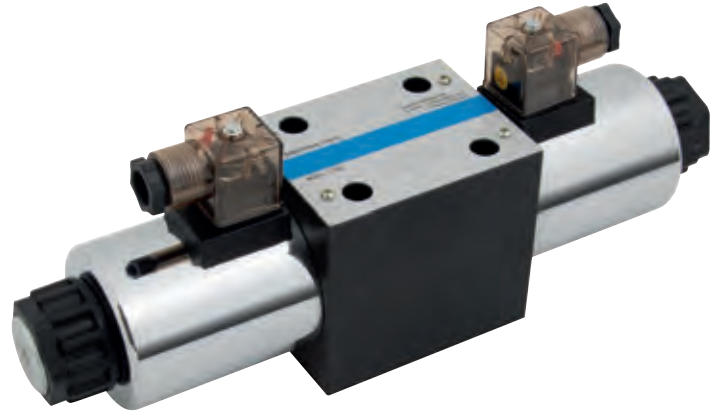
Tech Sheet 10683

CETOP 5, Double Solenoid

Max Flow Rate: 120 L/min
 Viscosity 2.8-100 mm²/s
 ISO 4401 Size 5
 DIN 24340 Size 10
 IP65

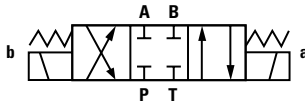
 **Working Temperature:**
 -20°C to +70°C

 **Maximum Working Pressure:**
 315 bar



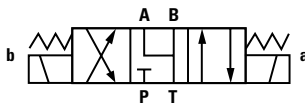
3 Position, All Ports Open, Spring Centred

0451	Model	Voltage
1010-1070	ADC 5 3HY/RX14/DC24N9K	24V DC
1010-1067	ADC 5 3HY/RX14/DC12N9K	12V DC
Tech Sheet 10683		



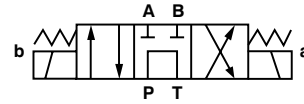
3 Position, All Ports Closed, Spring Centred

0451	Model	Voltage
1010-1017	ADC 5 3EY/RX14/AC110N9K	110V AC
1010-1018	ADC 5 3EY/RX14/DC24N9K	24V DC
1010-1065	ADC 5 3EY/RX14/DC12N9K	12V DC
Tech Sheet 10683		



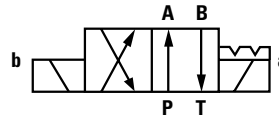
3 Position, A, B & T Connected, Spring Centred

0451	Model	Voltage
1010-1019	ADC 5 3JY/RX14/AC110N9K	110V AC
1010-1020	ADC 5 3JY/RX14/DC24N9K	24V DC
1010-1068	ADC 5 3JY/RX14/DC12N9K	12V DC
Tech Sheet 10683		



3 Position, P & T Connected A & B Blocked, Spring Centred

0451	Model	Voltage
1010-1056	ADC 5 3GY/RX14/AC110N9K	110V AC
1010-1021	ADC 5 3GY/RX14/DC24N9K	24V DC
1010-1066	ADC 5 3GY/RX14/DC12N9K	12V DC
Tech Sheet 10683		



2 Position, Detented

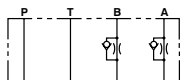
0451	Model	Voltage
1010-1055	ADC 5 2DD/RX14/AC110N9K	110V AC
1010-1054	ADC 5 2DD/RX14/DC24N9K	24V DC
Tech Sheet 10683		

° Working Temperature:
-20°C to +70°C

Maximum Working Pressure:
350 bar

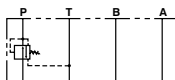
Max Flow Rate: 80 L/min
Viscosity 2.8-100 mm²/s
ISO 4401 Size 3
DIN 24340 Size 6

CETOP 3 Sandwich Valves



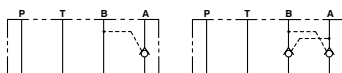
Flow Restrictor

0451	Model	Type
1010-1022	AFR 3 X2/RX14/2Q	A & B Meter In
1010-1023	AFR 3 Y2/RX14/2Q	A & B Meter Out
1010-1053	AFR 3 Z P2/RX14/2Q	P Line
Tech Sheet 10682		



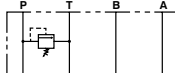
Pressure Reducing

0451	Model	Pressure Range Bar
1010-1026	ARD 3 PP 2/RX14/75	3.5 - 75
1010-1027	ARD 3 PP 2/RX14/150	10 - 150
1010-1028	ARD 3 PP 2/RX14/210	20 - 210
Tech Sheet 10682		



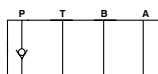
Pilot Operated Check

0451	Model	Type
1010-1024	APOC 3 A1/RX14/N	Single
1010-1025	APOC 3 AB1/RX14/	Double
Tech Sheet 10682		



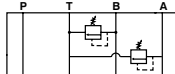
Single Line Pressure Relief

0451	Model	Pressure Range Bar
1010-1050	ASPR 3 PT1/RX14/100	3 - 100
1010-1029	ASPR 3 PT1/RX14/200	10 - 200
1010-1030	ASPR 3 PT1/RX14/315	50 - 315
Tech Sheet 10682		



Direct Operated Check

0451	Model	Cracking Pressure Bar
1010-1052	ADOC 3 PA/RX14/	0.5
Tech Sheet 10682		



Dual Line Pressure Relief

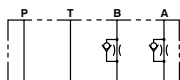
0451	Model	Pressure Range Bar
1010-1051	ADPR 3 AT1 BT1/RX14/200	10 - 200
Tech Sheet 10682		

° Working Temperature:
-20°C to +70°C

Maximum Working Pressure:
315 bar

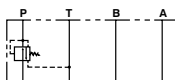
Max Flow Rate; 80 L/min
Viscosity 2.8-100 mm²/s
ISO 4401 Size 5
DIN 24340 Size 10

CETOP 5 Sandwich Valves



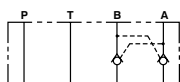
Flow Restrictor

0451	Model	Type
1010-1031	AFR 5 Y2/RX14/2Q	A & B Meter Out
1010-1057	AFR 5 X2/RX14/2Q	A & B Meter In
Tech Sheet 10683		



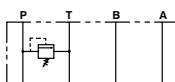
Pressure Reducing

0451	Model	Pressure Range Bar
1010-1033	ARD 5 PP 2/RX14/200	8.5 - 200
1010-1034	ARD 5 PP 2/RX14/315	8.5 - 315
Tech Sheet 10683		



Pilot Operated Check

0451	Model	Type
1010-1032	APOC 5 AB1/RX14	Double
Tech Sheet 10683		



Single Line Pressure Relief

0451	Model	Pressure Range Bar
1010-1035	ASPR 5 PT1/RX14/315	8.5 - 315
Tech Sheet 10683		

CETOP MANIFOLD & AUXILIARY PLATES



CETOP 3, Steel Manifold



Maximum Working Pressure:
345 bar



Ports: P & T 1/2", A & B 3/8" BSPP

0345	No of Stations
CM3-1G	1
CM3-2G	2
CM3-3G	3
CM3-4G	4
CM3-5G	5
CM3-6G	6

Tech Sheet 10041

CETOP 3, Steel Manifold with Pressure Relief Valve



Maximum Working Pressure:
345 bar



Ports: P & T 1/2", A & B 3/8" BSPP,
60-250 bar

0345	No of Stations
CM3-1G-ADJ	1
CM3-2G-ADJ	2
CM3-3G-ADJ	3
CM3-4G-ADJ	4
CM3-5G-ADJ	5
CM3-6G-ADJ	6

Tech Sheet 10041

CETOP 3, Aluminium Manifold



Maximum Working Pressure:
207 bar



Ports: P & T 1/2", A & B 3/8" BSPP

0345	No of Stations
CM3-1G/ALU	1
CM3-2G/ALU	2
CM3-3G/ALU	3
CM3-4G/ALU	4
CM3-5G/ALU	5
CM3-6G/ALU	6

Tech Sheet 10041

CETOP 5, Steel Manifold



Maximum Working Pressure:
345 bar



Ports: P 3/4" & T 1", A & B 1/2" BSPP

0345	No of Stations
CM5-1G	1
CM5-2G	2
CM5-3G	3
CM5-4G	4
CM5-5G	5
CM5-6G	6

Tech Sheet 10130

CETOP 5, Steel Manifold with Pressure Relief Valve



Maximum Working Pressure:
345 bar



Ports: P 3/4" & T 1",
A & B 1/2" BSPP, 60-250 bar

0345	No of Stations
CM5-1G-ADJ	1
CM5-2G-ADJ	2
CM5-3G-ADJ	3
CM5-4G-ADJ	4
CM5-5G-ADJ	5
CM5-6G-ADJ	6

Tech Sheet 10130

CETOP 3, Side Entry Subplate



Maximum Working Pressure:
345 bar



BSPP

0345	Thread
CSP-03	3/8"

Tech Sheet 10041

CETOP 5, Side Entry Subplate



BSPP

0345	Thread
CSP-05	1/2"

Tech Sheet 10130

Auxiliary Plates



CETOP 3

0345	Type
CBP-03	Blanking Plate
CCOP-PA-03	Cross Over Plate P-A
CCOP-PB-03	Cross Over Plate P-B
CTP-AB-03	Tapping Plate A & B
CTP-PT-03	Tapping Plate P & T

Tech Sheet 10041



CETOP 5

0345	Type
CBP-05	Blanking Plate
CCOP-PA-05	Cross Over Plate P-A
CCOP-PB-05	Cross Over Plate P-B
CTP-AB-05	Tapping Plate A & B
CTP-PT-05	Tapping Plate P & T

Tech Sheet 10130

Cetop 3 Valves



Solenoid Operated Directional Valve DG4V-3-60 Design

General Description

Solenoid operated directional control valves are for directing and stopping flow at any point in a hydraulic system.

- Efficient control of greater hydraulic powers without increasing solenoid power consumption.
- Installed cost and space savings from higher power/weight-and-size ratios.
- Installation flexibility resulting from choice of numerous combinations of solenoid connectors and locations.
- Viton seals as standard for multi-fluid capability. Nitrile seals available as a model code option.

- Higher sustained machine productivity and higher uptime because of proven fatigue life and endurance, tested over 20 million cycles.
- Solenoid coils can be changed quickly and easily without leakage from hydraulic system.
- Compact, cost effective system design when used with Vickers SystemStak™ valves and subplates.

DG4V-3 High Performance Valves

- Available with manual overrides for industrial or water-resistant overrides for mobile applications.
- Minimum pressure drop 2.5 Bar at 30 lpm.
- Range of coil voltages.
- Up to 80 lpm at 350 Bar.
- Offers designers the opportunity to select the optimum value package for each application.
- International standard interface. The valve mounting face conforms to ISO 4401, size 03 and is compatible with related international standards.
- Alternative coil voltages and connectors such as Deutsch, Amp and terminal box are available, contact sales office for a quotation.

HYDRAULIC DIRECTIONAL CONTROL VALVES



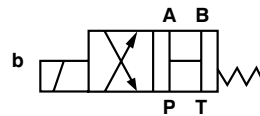
CETOP 3 Single Solenoid Directional Control Valves

Max flow rates up to 80 L/min.
 Mounting interface.
 ISO 4401 Size 3.
 ANSI/B93.7M Size 3.
 CETOP RP6SH Size 3.
 DIN 24340 (NG6).

Temperature Limits:
 Min -20°C (-4°F)
 Max +70°C (+150°F)

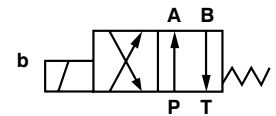
Working Temperature:
 -20°C (-4°F) to +70°C (+150°F)

Maximum Working Pressure:
 350 bar (5075 psi)



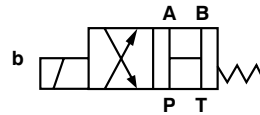
2 Position, All Ports Open, Spring Offset End to Centre

3019	Voltage	Manufacturer's Code
859160	24V DC	DG4V 3 0B M U H7 60
859195	110V AC	DG4V 3 0B M U A6 60
Tech Sheet 3111		



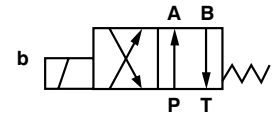
2 Position, Spring Offset End to End

3019	Voltage	Manufacturer's Code
529762	24V DC	DG4V 3 2A M U H7 60
529763	110V AC	DG4V 3 2A M U A6 60
Tech Sheet 3111		



2 Position, All Ports Open, Spring Offset End to Centre, Water Resistant Override

3019	Voltage	Manufacturer's Code
869951	12V DC	DG4V 3 0B H M U G7 60
870804	24V DC	DG4V 3 0B H M U H7 60
Tech Sheet 3111		



2 Position, Spring Offset End to End, Water Resistant Override

3019	Voltage	Manufacturer's Code
869959	12V DC	DG4V 3 2A H M U G7 60
870221	24V DC	DG4V 3 2A H M U H7 60
871358	110/120V 50/60Hz	DG4V 3 2A H M U B6 60
871505	220/240V 50/60Hz	DG4V 3 2A H M U D6 60
Tech Sheet 3111		



For **CETOP Coils**
 see page **219**



Other voltages are available. Please contact our Business Development Team for more details.

HYDRAULIC DIRECTIONAL CONTROL VALVES

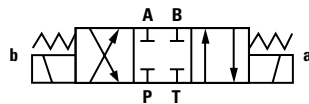
CETOP 3 Double Solenoid Directional Control Valves

Max flow rates up to 80 L/min.
 Mounting interface.
 ISO 4401 Size 3.
 ANSI/B93.7M Size 3.
 CETOP RP6SH Size 3.
 DIN 24340 (NG6).

Temperature Limits:
 Min -20°C (-4°F)
 Max +70°C (+150°F)

Working Temperature:
 -20°C (-4°F) to +70°C (+150°F)

Maximum Working Pressure:
 350 bar (5075 psi)



3 Position, All Ports Closed, Spring Centred

3019	Voltage	Manufacturer's Code
529761	110V AC	DG4V 3 2C M U A6 60

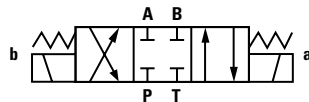
Tech Sheet 3111



3 Position, A, B & T Connected, Spring Centred

3019	Voltage	Manufacturer's Code
565465	24V DC	DG4V 3 6C M U H7 60
859177	110V AC	DG4V 3 6C M U A6 60

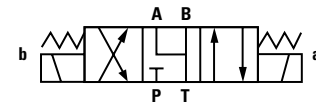
Tech Sheet 3111



3 Position, All Ports Closed, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
859172	220/240V 50/60Hz	DG4V 3 2C H M U D6 60
870177	24V DC	DG4V 3 2C H M U H7 60
870378	12V DC	DG4V 3 2C H M U G7 60

Tech Sheet 3111



3 Position, A, B & T Connected, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
869952	12V DC	DG4V 3 6C H M U G7 60
869953	24V DC	DG4V 3 6C H M U H7 60
02-146111	110/120V 50/60Hz	DG4V 3 6C H M U B6 60

Tech Sheet 3111

For **Hydraulic Quick Release Couplings**
 see pages **289-294**



Other voltages are available. Please contact our Business Development Team for more details.

HYDRAULIC DIRECTIONAL CONTROL VALVES



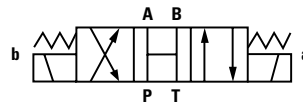
CETOP 3 Double Solenoid Directional Control Valves

Max flow rates up to 80 L/min.
 Mounting interface.
 ISO 4401 Size 3.
 ANSI/B93.7M Size 3.
 CETOP RP6SH Size 3.
 DIN 24340 (NG6).

Temperature Limits:
 Min -20°C (-4°F)
 Max +70°C (+150°F)

Working Temperature:
 -20°C (-4°F) to +70°C (+150°F)

Maximum Working Pressure:
 350 bar (5075 psi)



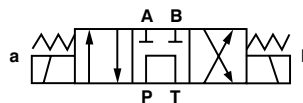
3 Position, All Ports Open, Spring Centred

3019	Voltage	Manufacturer's Code
859197	110V AC	DG4V 3 0C M U A6 60
Tech Sheet 3111		



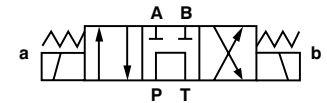
3 Position, All Ports Open, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
869960	24V DC	DG4V 3 0C H M U H7 60
870518	12V DC	DG4V 3 0C H M U G7 60
Tech Sheet 3111		



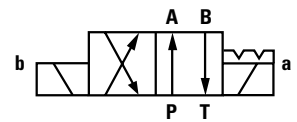
P & T Connected, A & B Blocked, Spring Centred

3019	Voltage	Manufacturer's Code
02-144961	110V AC	DG4V 3 8C VM U A6 61
02-145162	24V DC	DG4V 3 8C VM U H7 61
Tech Sheet 3111		



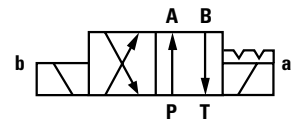
P & T Connected, A & B Blocked, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
02-353298	110/120V 50/60Hz	DG4V 3 8C H VM U B6 61
Tech Sheet 3111		



2 Position, Detented

3019	Voltage	Manufacturer's Code
529764	24V DC	DG4V 3 2N M U H7 60
529765	110V AC	DG4V 3 2N M U A6 60
Tech Sheet 3111		



2 Position, Detented, Water Resistant Override

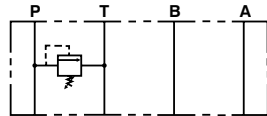
3019	Voltage	Manufacturer's Code
02-139074	24V DC	DG4V 3 2N H M U H7 60
Tech Sheet 3111		

Other voltages are available. Please contact our Business Development Team for more details.

SYSTEM STACK VALVES

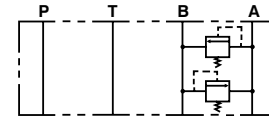


CETOP 3 Modules



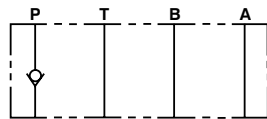
Single Line Relief Valves

3019	Pressure Range Bar	Manufacturer's Code
694419	10-200	DGMC 3 PT CW 41
869641	50-315	DGMC 3 PT GW 41
Tech Sheet 71678		



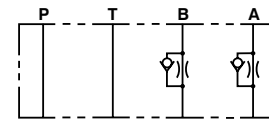
Dual Line Relief Valve

3019	Pressure Range Bar	Manufacturer's Code
869628	10-200	DGMC2 3 AB CW BA CW 41
Tech Sheet 71678		



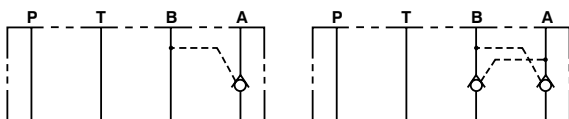
Direct Operated Check Valve

3019	Manufacturer's Code
694415	DGMDC 3 Y PK 41
Tech Sheet 71678	



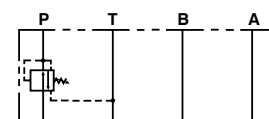
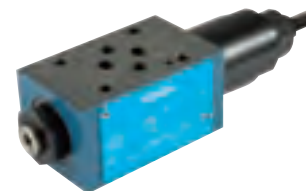
Flow Restrictors

3019	Description	Manufacturer's Code
694414	A & B Meter In	DGMFN 3 X A2W B2W 41
694412	A & B Meter Out	DGMFN 3 Y A2W B2W 41
870043	P Line	DGMFN 3 Z P2W 41
Tech Sheet 71678		



Pilot Operated Check Valves

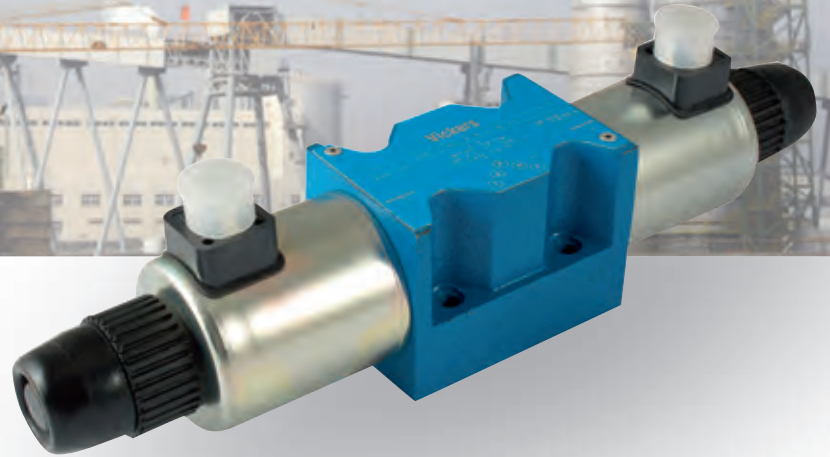
3019	Description	Manufacturer's Code
870024	Single	DGMPC 3 ABK 41
694400	Double	DGMPC 3 ABK BAK 41
Tech Sheet 71678		



Pressure Reducing Valves

3019	Pressure Range Bar	Manufacturer's Code
870036	3.5-70	DGMX2 3 PP BW B 40
870038	20-250	DGMX2 3 PP FW B 40
Tech Sheet 71678		

Cetop 5 Valves



Solenoid Operated Directional Valve DG4V-5-20/22 Design

General Description

A range of four-port solenoid operated directional control valves with four-land spool design to facilitate provision of smooth, variable valve response speeds.

The range includes:

- AC and DC wet-armature solenoid options with ISO 4400 (DIN 43650) electrical connections and manual overrides and manual overrides for industrial or water-resistant overrides for mobile applications.
- Variable speed changeover potential in all DC models; see "Response Times" section.
- Many spool types; in spring-offset, spring centred and detented arrangements.
- Compact, cost effective system design when used with Vickers® SystemStak™ valves and subplates.

HYDRAULIC DIRECTIONAL CONTROL VALVES

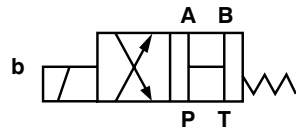
CETOP 5 Single Solenoid Directional Control Valves

Max flow rates up to 120 L/min.
 Mounting interface.
 ISO 4401 Size 5.
 NFPA D02
 DIN 24340 (NG10).

Temperature Limits:
 Min -20°C (-4°F)
 Max +70°C (+150°F)

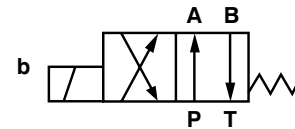
Working Temperature:
 -20°C (-4°F) to +70°C (+150°F)

Maximum Working Pressure:
 350 bar (5075 psi)



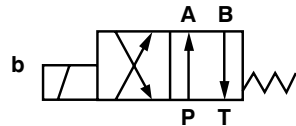
2 Position, All Ports Open, Spring Offset End to Centre

3019	Voltage	Manufacturer's Code
459215	110V AC	DG4V 5 0B M U A6 20
Tech Sheet 3112		



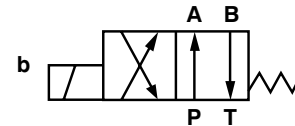
2 Position, Spring Offset End to End, Water Resistant Override

3019	Voltage	Manufacturer's Code
829AN00176A	24V DC	DG4V 5-2AJ H M U H7 22
Tech Sheet 3112		



2 Position, Spring Offset End to End, Notched Spool

3019	Voltage	Manufacturer's Code
829AN00102A	24V DC	DG4V 5 2AJ M U H7 22
Tech Sheet 3112		



2 Position, Spring Offset End to End

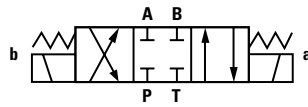
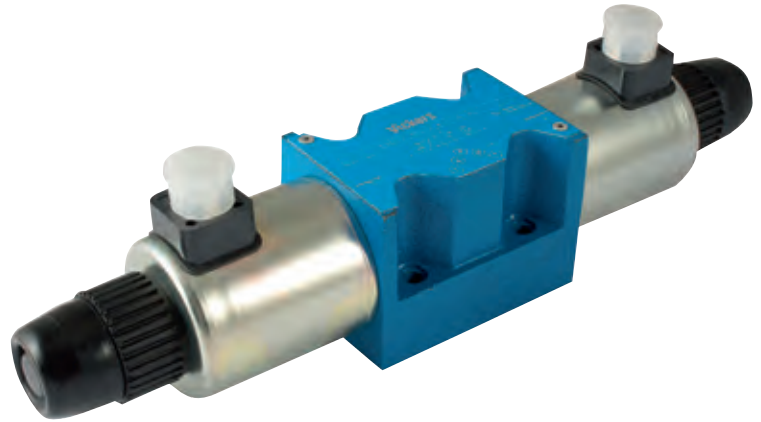
3019	Voltage	Manufacturer's Code
616769	110V AC	DG4V 5 2A M U A6 20
Tech Sheet 3112		

Other voltages are available. Please contact our Business Development Team for more details.

HYDRAULIC DIRECTIONAL CONTROL VALVES

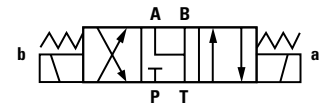


CETOP 5 Double Solenoid Directional Control Valves



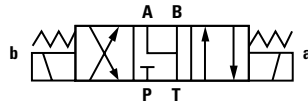
All Ports Closed, Spring Centred

3019	Voltage	Manufacturer's Code
829AN00101A	24V DC	DG4V 5 2CJ M U H7 22
616777	110V AC	DG4V 5 2C M U A6 20
Tech Sheet 3112		



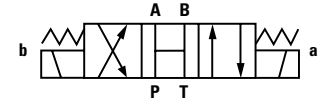
A & B to T, P Blocked, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
829AN00158A	24V DC	DG4V 5 6CJ H M U H7 22
Tech Sheet 3112		



A & B to T, P Blocked, Spring Centred

3019	Voltage	Manufacturer's Code
829AN00100A	24V DC	DG4V 5 6CJ M U H7 22
616781	110V AC	DG4V 5 6C M U A6 20
Tech Sheet 3112		

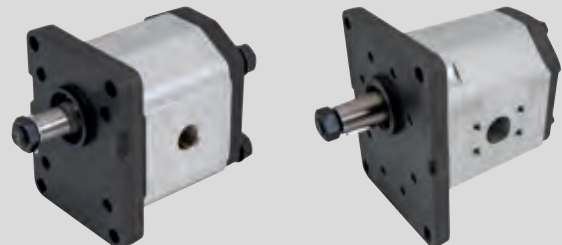


All Ports Open, Spring Centred

3019	Voltage	Manufacturer's Code
829AN00132A	24V DC	DG4V 5 0CJ M H7 22
616789	110V DC	DG4V 5 0C M U A6 20
Tech Sheet 3112		

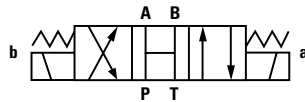
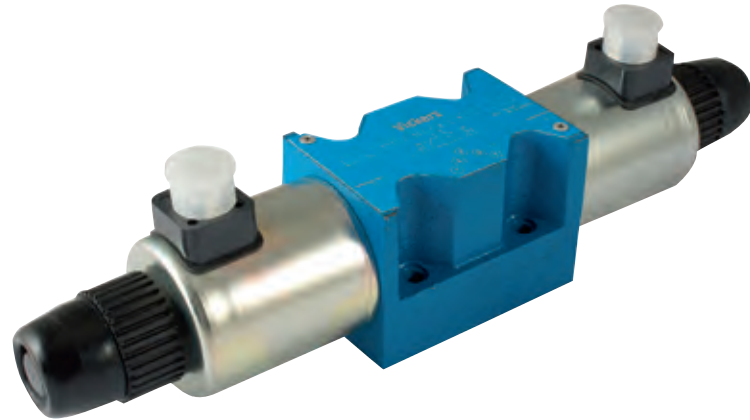
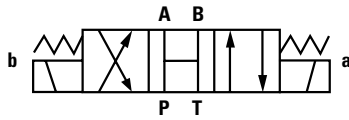
Roquet
making moves

For **Gear Pumps & Motors**
see pages **231-236**



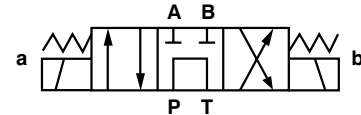
HYDRAULIC DIRECTIONAL CONTROL VALVES

CETOP 5 Double Solenoid Directional Control Valves



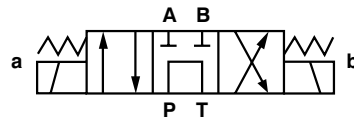
All Ports Open, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
829AN00165A	24V DC	DG4V 5 0CJ H M U H7 22
Tech Sheet 3112		



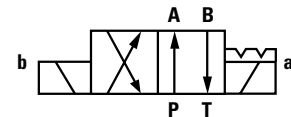
P & T Connected, A & B Blocked, Spring Centred, Water Resistant Override

3019	Voltage	Manufacturer's Code
829AN00221A	24V DC	DG4V 5 8CJ H VM U H7 22
Tech Sheet 3112		



P & T Connected, A & B Blocked, Spring Centred

3019	Voltage	Manufacturer's Code
829AN00103A	24V DC	DG4V 5 8CJ VM U H7 22
616785	110V AC	DG4V 5 8CJ VM U A6 20
Tech Sheet 3112		



2 Position, Detented

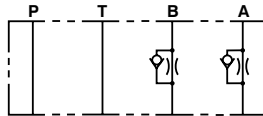
3019	Voltage	Manufacturer's Code
829AN00105A	24V DC	DG4V 5 2NJ M U H7 22
616773	110V AC	DG4V 5 2N M U A6 20
Tech Sheet 3112		

Other voltages are available. Please contact our Business Development Team for more details.

SYSTEM STACK VALVES

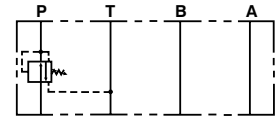


CETOP 5 Modules



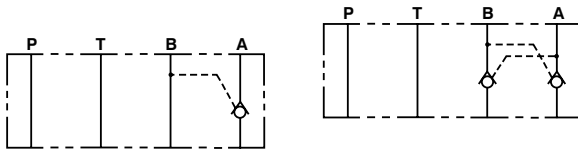
Flow Restrictors

3019	Description	Manufacturer's Code
867332	Meter Out	DGMFN 5 Y A2W B2W 30
867335	Meter In	DGMFN 5 X A2W B2W 30
Tech Sheet 3112		



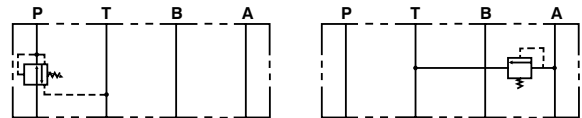
Pressure Reducing Valves

3019	Pressure Range Bar	Manufacturer's Code
868314	8.5-100	DGMX2 5 PP BW B 30
880553	8.5-200	DGMX2 5 PP FW B 30
879046	8.5-315	DGMX2 5 PP GH B 30
Tech Sheet 3112		



Pilot Operated Check Valve, 1 bar Cracking Pressure

3019	Description	Manufacturer's Code
867339	Single A Port	DGMPC 5 ABK 30
867340	Single B Port	DGMPC 5 BAK 30
867364	Double A & B Port	DGMPC 5 ABK BAK 30
Tech Sheet 3112		



Single Line Relief Valves

3019	Pressure Range Bar	Manufacturer's Code
868651	4-100	DGMC 5 AT BW B 30
879342	4-200	DGMC 5 PT FW B 30
868300	4-315	DGMC 5 PT GW B 30
Tech Sheet 3112		

CETOP VALVE COILS



CETOP 3 Coils, 60 Design



DC Coils

3019	Voltage
507847	12V
507848	24V
507855	12V 18W
507852	24V 18W
865882	48V
865637	98V
865884	110V
865638	196V

AC Coils

3019	Voltage
507825	110V 50Hz
507826	220V 50Hz
507833	110V 50Hz / 120V 60Hz
507834	220V 50Hz / 240V 60Hz

CETOP 5 Coils, 20 Design



DC Coils

3019	Voltage
617470	12V
617471	24V
457942	48V
457977	98V
457911	110V
698523	196V

AC Coils

3019	Voltage
617475	110V 50Hz
617476	220V 50Hz
617477	240V 50Hz
617499	115V 60Hz
617500	230V 60Hz

ELECTRICAL CONNECTORS

EN175301-803, DIN43650

PG11

0347	Voltage	Description
GDM2011-G	250V AC/DC	No LED, Grey
GDML2011-GB1-B	250V AC/DC	Bridge-type Rectifier No LED
GDML2011LED-24-B	24V AC/DC	LED No Protection
GDML2011LED-120B	120V AC/DC	LED No Protection
GDML2011LED-230B	230V AC/DC	LED No Protection
GDML2011LED-24HH	24V DC	LED with Diode Protection
GDML2011LED-48HH	48V DC	LED with Diode Protection
Tech Sheet 10132		



HYDRAULIC VALVES PUMPS & MOTORS



Parker Cetop 3 & 5 Valves



**Cetop 3 - 4 Port 3 & 2
Position Solenoid Directional Control Valve - 24-110V**

0484	Coil Voltage	Control Spool	Description
D1VW001CNJW	24V DC	All Blocked	4 Port 3 Pos



**Cetop 5 - 4 Port 3 & 2
Position Solenoid Directional Control Valve - 24-110V**

0484	Coil Voltage	Control Spool	Description
D3VW008CNJW	24V DC	PT Connected	4 Port 3 Pos



**Cetop 3 Modular
Flow Control Valve**

0484	Metering
FM2DDSV	A & B



**Cetop 5 Modular
Flow Control Valve**

0484	Metering
FM3DDSV	A & B



**Cetop 3 Modular
Pilot Operated Check Valve, 1 bar Cracking Pressure**

0484	Cracking Pressure Bar
CPOM2DDV	1.0



**Cetop 5 Modular
Pilot Operated Check Valve, 1 bar Cracking Pressure**

0484	Cracking Pressure Bar
CPOM3DDV	1.0

For **Hydraulic Oils**
see page **283**



Vane & Piston Pumps



Vickers Vane Pumps – V10 and V20

- V10 and V20 balanced vane type construction.
- High performance.
- Enhanced bearing life.
- Low cost.
- High flow, pressure and speed capabilities enable these pumps to meet the hydraulic circuit needs of many types of modern machinery.

Vickers PVQ inline variable displacement pumps.

- Available in five displacements from 10.55cc/rev to 41.00cc/rev.
- Low noise characteristics.
- Choice of pump compensators, high and low-pressure compensator, remote compensator, and load sense compensator.
- Pump stroke adjustment kits available for all sizes.



Vickers Intravane pumps – 25V, 35V and 45V.

- High performance.
- Low noise characteristics.
- The cartridge design offers fast and efficient field serviceability.
- Eleven flow displacements and high operating pressure capabilities provide optimum selection and single source capabilities.

Vickers PVM variable displacement axial piston pumps.

- Available in six displacements from 18cc/rev to 131cc/rev.
- 315 Bar continuous working pressure across all displacements.
- Low noise characteristics.
- Compact size envelope.
- Available as pressure compensated or load sensing.



INDUSTRIAL VANE PUMPS



V10 Series

SAE A 2 Bolt Mounting, Keyed Shaft, BSPP Ports

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
708371-C	6.60	172	V10 1B2B 1C 20
708784-C	9.80	172	V10 1B3B 1C 20
708785-C	13.10	172	V10 1B4B 1C 20
708219-C	16.40	172	V10 1B5B 1C 20
708786-C	19.50	152	V10 1B6B 1C 20
708787-C	22.80	138	V10 1B7B 1C 20
Tech Sheet 10095			

V20 Series

SAE A 2 Bolt Mounting, Keyed Shaft, BSPP Ports

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
707277-C	19.5	172	V20 1B6B 1C 11 EN1000
708397-C	22.80	172	V20 1B7B 1C 11 EN1000
706996-C	26.5	172	V20 1B8B 1C 11 EN1000
707278-C	29.7	172	V20 1B9B 1C 11 EN1000
706997-C	36.40	172	V20 1B11B 1C 11 EN1000
708398-C	39.0	152	V20 1B12B 1C 11 EN1000
706998-C	42.4	152	V20 1B13B 1C 11 EN1000
Tech Sheet 10095			

25V Series

SAE B 2 Bolt Mounting, Keyed Shaft, SAE Flanged Ports

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
02-137109-CR	39	172	25V 12A 1C 22R
02-137110-CR	45	172	25V 14A 1C 22R
02-137113-CR	55	172	25V 17A 1C 22R
02-137117-CR	67	172	25V 21A 1C 22R
Tech Sheet 10097			

35V Series

SAE C 2 Bolt Mounting, Keyed Shaft, SAE Flanged Ports

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
02-137124-CR	81	172	35V 25A 1C 22R
02-137126-CR	97	172	35V 30A 1C 22R
02-137129-CR	112	172	35V 35A 1C 22R
02-137132-CR	121	172	35V 38A 1C 22R
Tech Sheet 10097			

45V Series

SAE C 2 Bolt Mounting, Keyed Shaft, SAE Flanged Ports

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
02-137140-CR	138	172	45V 42A 1C 22R
02-137144-CR	162	172	45V 50A 1C 22R
02-137146-CR	193	172	45V 60A 1C 22R
Tech Sheet 10097			

Other options available, contact us with your requirements

Replacement Parts



V10 Cartridge Kits

3017	Displacement cc/rev	To Suit
923471	3.3	V10 1G Cartridge Kit
923470	6.6	V10 2G Cartridge Kit
923496	9.8	V10 3G Cartridge Kit
923469	13.10	V10 4G Cartridge Kit
923468	16.40	V10 5G Cartridge Kit
923497	19.5	V10 6G Cartridge Kit
923498	22.80	V10 7G Cartridge Kit

V20 Cartridge Kits

3017	Displacement cc/rev	To Suit
02-137560	19.5	V20 6G Cartridge Kit
02-137561	22.80	V20 7G Cartridge Kit
02-137562	26.5	V20 8G Cartridge Kit
02-137563	29.7	V20 9G Cartridge Kit
02-137565	36.40	V20 11G Cartridge Kit
02-137566	39.0	V20 12G Cartridge Kit
02-137567	42.4	V20 13G Cartridge Kit

25V Cartridge Kits

3017	Displacement cc/rev	To Suit
02-102532	39	25V 12G Cartridge Kit
02-102533	45	25V 14G Cartridge Kit
02-102534	55	25V 17G Cartridge Kit
02-102535	67	25V 21G Cartridge Kit

35V Cartridge Kits

3017	Displacement cc/rev	To Suit
02-102552	81	35V 25G Cartridge Kit
02-102553	97	35V 30G Cartridge Kit
02-102554	112	35V 35G Cartridge Kit
02-102555	121	35V 38G Cartridge Kit

45V Cartridge Kits

3017	Displacement cc/rev	To Suit
02-102572	138	45V 42G Cartridge Kit
02-102574	162	45V 50G Cartridge Kit
02-102575	193	45V 60G Cartridge Kit



Shafts

3017	To Suit
238929	25V No. 11 Splined Shaft
242287	35V No. 11 Splined Shaft
242885	45V No. 11 Splined Shaft
392669	35V No. 86 HD Keyed Shaft
361760	45V No. 86 HD Keyed Shaft
393536	Key to suit 392669
239751	Key to suit 361760



Seal Kits

3017	To Suit
923548	V10 Standard Seal Kit
919772	V10 F3 Seal Kit
922733	V20 Standard Seal Kit
919805	V20 F3 Seal Kit
922850	25V Standard Seal Kit
919656	25V F3 Seal Kit
922851	35V Standard Seal Kit
919262	35V F3 Seal Kit
919850	45V Standard Seal Kit
919632	45V F3 Seal Kit

Other options available, contact us with your requirements

HYDRAULIC PISTON PUMPS



Q Series Piston Pump

210 bar, SAE A Flange, Keyed Shaft

3017	Displacement cc/rev	Manufacturer's Code
02-341576	10.5	PVQ10 A2R SE1S 20 C21 12
Tech Sheet 10045		

140 bar, SAE A 2 Bolt Flange, Keyed Shaft

3017	Displacement cc/rev	Manufacturer's Code
02-341644	13.8	PVQ13 A2R SE1S 20 C14 12
Tech Sheet 10045		

210 bar, SAE B 2 Bolt Flange, Keyed Shaft

3017	Displacement cc/rev	Manufacturer's Code
02-341552	21.1	PVQ20 B2R SE1S 21 C21 12
Tech Sheet 10045		

140 bar, SAE B 2 Bolt Flange, Keyed Shaft

3017	Displacement cc/rev	Manufacturer's Code
02-341685	32.9	PVQ32 B2R SE1S 21 C14 12
Tech Sheet 10045		

210 bar, SAE B 2 Bolt Flange, Keyed Shaft

3017	Displacement cc/rev	Manufacturer's Code
02-341949	41.0	PVQ40AR01AB01AB10G2100000100100CDDA
Tech Sheet 10045		

Q Series Piston Pump Compensator

Standard Compensator

3017	To Suit
9900224-003	PVQ10, 13, 20, 32
02-348260	PVQ40
Tech Sheet 10045	

CM Low Pressure Compensator

3017	To Suit
9900224-002	PVQ10,13,20,32
02-348259	PVQ40
Tech Sheet 10045	

CG Hydraulic Remote Compensator

3017	To Suit
02-348243	PVQ10,13,20,32,40
Tech Sheet 10045	

C**V**B Load Sensing Compensator

3017	To Suit
02-466861	PVQ10,13,20,32
Tech Sheet 10045	

Q Series Piston Pump Stroke Adjustment Kit

Maximum Stop/Stroke Limiter

3017	To Suit
5986572-001	PVQ10,13
5986574-001	PVQ20,32
5986576-001	PVQ40
Tech Sheet 10045	

Q Series Piston Pump Seal Kits

Standard Buna Material

3017	To Suit
919191	PVQ10,13
919682	PVQ20,32
920227	PVQ40
Tech Sheet 10045	

Other options available, contact us with your requirements

HYDRAULIC PISTON PUMPS



M Series Piston Pump



Pressure Compensate Pump

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
123AL02399A	18.0	320	PVM018ER02AS02AAA28000001A0A
123AL02398A	45.0	320	PVM045ER06CS02AAA28000001A0A
123AL02054A	57.0	320	PVM057ER09GS02AAA28000001A0A
123AL02062A	74.0	320	PVM074ER09GS02AAA28000001A0A
123AL02070A	98.0	320	PVM098ER09GS02AAA28000001A0A
123AL02090A	131.0	320	PVM131ER09GS02AAA28000001A0A

Tech Sheet 71680

Load Sense Pump

3017	Displacement cc/rev	Max Pressure Bar	Manufacturer's Code
123AL02012A	18.0	320	PVM018ER02AS02AAC28200001A0A
123AL02150A	45.0	320	PVM045ER06CS02AAC28110001A0A
123AL02056A	57.0	320	PVM057ER09GS02AAC28200001A0A
123AL02241A	74.0	320	PVM074ER09GS02AAC28200001A0A
123AL02074A	98.0	320	PVM098ER09GS02AAC28200001A0A
123AL02356A	131.0	320	PVM131ER09GS02AAC28200001A0A

Tech Sheet 71680



For **Roquet Gear Pumps**
see page **231**





Partnership brands available



Hydraulic Accumulators & Accessories

See section 1 pages 227-228



Hydraulic Oil Coolers

See section 1 page 273



Pneumatic Quick Release Couplings

See section 3 pages 330-390



Filters & Drains Air, Water & Vacuum

See section 4 page 430



Plastic Push-in Fittings

See section 6 pages 800-803



Ball & Check Valves

See section 5 page 628



Plastic Push-in Fittings

See section 6 pages 793-807



Metal Push-in Fittings

See section 6 pages 848-851



Ball Valves

See section 7 pages 933-935



Blow Guns

See section 15 page 1596



Aluminium Ring Main Systems

See section 8 pages 1063-1067



ENGINEERING YOUR SUCCESS.

HYDRAULIC ACCUMULATORS & ACCESSORIES



Diaphragm Accumulators

- Low cost non-repairable accumulators
- High reliability gas sealing system, ensures no leakage
- Electron beam welded steel shell
- Parallel threads with bonded seal recess ensures easy connection with no leaks
- **Material:** steel shell electron beam welded. Non repairable
- Nitrile membrane for mineral oil or non aggressive fluid



BSPP

0197	Manufacturer's Code	Thread	Capacity Litres	Temp Range °C	Max Pressure Bar
E007-1515-013611	108492-01125	1/2"	0.075	-10/+80	250
E016-1515-013611	108493-01125	1/2"	0.16	-10/+80	250
E032-1515-013611	109866-01125	1/2"	0.32	-10/+80	210
E050-1515-023611	108495-01125	1/2"	0.50	-20/+80	210
E075-1515-093611	108497-01125	1/2"	0.75	-20/+80	210
E100-1515-123611	109847-01125	1/2"	1.0	-20/+80	210
E140-1515-113511	108502-01125	1/2"	1.4	-20/+80	140
E200-1515-063411	108504-01125	1/2"	2.0	-10/+80	100
E200-1515-063611	110134-01125	3/4"	2.0	-10/+80	250
E280-1515-032611	108879-01125	3/4"	2.8	-10/+80	250
E350-1515-092611	108505-01125	3/4"	3.5	-10/+80	250

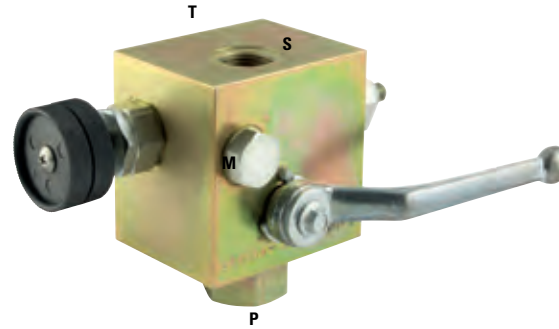
Tech Sheet 10553

Safety Blocks

- Carbon steel
- All blocks fully tested
- Nitrile seals as standard, Viton available on request
- Contact technical department
- Pressure relief valve for the protection of accumulator
- Manual dump to tank as standard



Maximum Working Pressure:
360 bar



Carbon Steel

0197	BSPP S	BSPP P	BSPP T	BSPP M	Max Pressure Bar
ECA12-01-L-N	1/2"	1/2"	1/4"	1/4"	360

Tech Sheet 2153

Hydra-Cushions

Hydracushions are a robust non repairable accumulator. They have been specifically designed for high volume, low cost applications, where it is more economical to replace a unit than to refurbish it after a long service life.

- Steel construction
- Nitrile bladder
- 1/4" gas valve

Maximum Working Pressure:
172 bar



BSPP

0197	Thread	Litres
HC0100A-00-17	3/4"	1.0
HC0200A-00-17	1"	2.0
HC0400A-00-17	1.1/4"	4.0

Tech Sheet 10797

Accumulator Bladder Kits

The kit comprises of a bladder assembly, protective cap, anti extrusion ring, O-Ring for the fluid port, back up ring and seal for the bleed plug.



Oil Service

0197	Litres	Description
0B00A-00	0.16	-
0F00A-00	0.6	-
01C00A-00	1.15	-
0300A-00	3	5/8" Stem
03C00A-00	3	7/8" Stem
0400A-00	4	-
1000A-00	10	-
2000A-00	20	-
2800A-00	28	-
3700A-00	37	-
5400A-00	54	-

Tech Sheet 10797

Thermoswitches

For use with the LAC series of air blast coolers.



1/2" BSPP

0197	Temp °C
598262	40
598261	50
598263	60
598264	70
598265	80

HYDRAULIC ACCUMULATORS & ACCESSORIES



Accumulator Charging Kits

For safe pre-charging of accumulators, Fawcett Christie Hydraulics offer a comprehensive range of equipment.



Universal Pre-charged

0197	Description
10597-01	0-25 & 0-250 bar Gauge
10597-02	0-60 & 0-400 bar Gauge
10597-03	0-10 & 0-160 bar Gauge

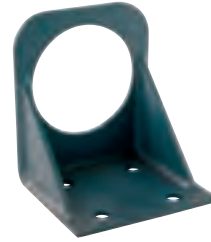
Accumulator Accessories

Designed to allow quick, easy and safe installation of accumulators. They are fabricated from steel and come complete with rubber cushion mouldings and mounting bolts.



Saddle & Clamps

0197	Bore mm
10958	112-114
10959	165-168
10960	220-230



Support Brackets

0197	To Suit
10961	4-9 Litre FCH Accumulators
10962	10-54 Litre FCH Accumulators



Cushioning Rings

0197	To Suit
48473-A00	10-54 Litre Support Brackets



Gas Valves

0197	Thread
10031-S03	1/4" x 1/4" BSPP
43030	0.302 x 1/2" UNF



For Hydraulic Filtration
see pages 247-251



HYDRAULIC HAND PUMPS

Pumps

Specification

- Cast iron body
- White zinc-plated support lever
- Lever connection OD: 27mm
- White zinc-plated external parts

 **Maximum Working Pressure:**
350 bar



Double Acting Pump with Release Knob, Side Mount

0462	Displacement cm ³	Thread	Max Pressure Bar	Model	To Suit
HHP-01	20	1/2"	350	Wall Mount	Single Acting Cylinder

Tech Sheet 60145

Specification

- Cast iron body
- Piston treated with Niploy
- White zinc-plated support lever
- Lever connection OD: 27mm
- White zinc-plated external parts

 **Maximum Working Pressure:**
280 bar



Double Acting Pump with Release Knob, Bottom Mount

0462	Displacement cm ³	Thread	Max Pressure Bar	Model	To Suit
HHP-02	50	1/2"	280	Wall Mount	Single Acting Cylinder

Tech Sheet 60146

Double acting hand pump for single acting cylinder.

Specification

- Cast iron body
- Piston treated with Niploy
- White zinc-plated support lever
- Lever connection OD: 27mm
- White zinc-plated external parts
- Oil tank mounting kit included
- Pressure relief valve (standard setting): 100 bar

 **Maximum Working Pressure:**
350 bar



Double Acting Pump with Release Knob & Pressure Relief Valve

0462	Displacement cm ³	Thread	Max Pressure Bar	Model	To Suit
HHP-03	25	3/8"	350	Tank Mount	Single Acting Cylinder

Tech Sheet 60147

Double acting hand pump for double acting cylinder.

Specification

- Cast iron body
- Piston treated with Niploy
- White zinc-plated support lever
- Lever connection OD: 27mm
- White zinc-plated external parts

 **Maximum Working Pressure:**
350 bar



Double Acting Pump with 4/3 Diverter Valve & Pressure Relief Valve

0462	Displacement cm ³	Thread	Max Pressure Bar	Model	To Suit
HHP-04	25	3/8"	350	Tank Mount	Double Acting Cylinder

Tech Sheet 60148

HYDRAULIC HAND PUMPS

Pumps

Double acting pump for double acting cylinder.

Features:

- Cast iron body
- Piston treated with Niploy
- White zinc-plated support lever
- Lever connection OD: 27mm
- White zinc-plated external parts
- Oil tank mounting kit included
- Hydraulic brake to operate under 50 bar
- Pressure relief valve (standard setting): 100 bar

 **Maximum Working Pressure:**
350 bar



Double Acting Pump with 4/3 Diverter Valve, PRV & Dual PO Check Valve


0462	Displacement cm ³	Thread	Max Pressure Bar	Model	To Suit
HHP-05	25	3/8"	350	Tank Mount	Double Acting Cylinder

Tech Sheet 60149

Single acting pump for single acting cylinder.

Features:

- White zinc-plated steel body
- Piston treated with Niploy
- White zinc-plated external parts
- Release lever

 **Maximum Working Pressure:**
220 bar



Single Acting Foot Pump with 1.5 Litre Reservoir

0462	Displacement cm ³	Thread	Max Pressure Bar	To Suit
HFP-01	15	1/4"	220	Single Acting Cylinder

Tech Sheet 60150

Accessories

Features:

- Black hand grip
- White zinc-plated steel lever



Operating Lever

0462	To Suit	Length mm
HHP-OL	HHP Series	900

Tech Sheet 60152

Closed centre option available.



3 Way Flow Diverter Valves

0462	Thread	Description	Max Pressure Bar	LPM
HHPDV-06	3/8"	Open Centre	350	60
HHPDV-08	1/2"	Open Centre	350	90
HHPDV-12	3/4"	Open Centre	350	120

Tech Sheet 60153

Normally open, two position with mechanical control for tipping trucks.

Features:

- Cast iron body
- Piston treated with Niploy
- White zinc plated external parts

 **Maximum Working Pressure:**
250 bar



End Stroke Valves

0462	Thread	LPM
HESV-06	3/8"	60
HESV-08	1/2"	80

Gear Pump Elbows, BSPP

0347	Group	Thread
GPE1-12	1	1/2"
GPE1-38	1	3/8"
GPE2-12	2	1/2"
GPE2-34	2	3/4"

Tech Sheet 10129



Steel Tanks

Features:

- Suction pipe included
- Breather Cap 1/4" BSPP
- Release Cap 1/4" BSPP
- Standard colour black

Steel Oil Tanks for Hand Pumps

0462	Volume Litres	Thread
HHPT-01	1	1/4"
HHPT-02	2	1/4"
HHPT-03	3	1/4"
HHPT-05	5	1/4"
HHPT-07	7	1/4"

Tech Sheet 60151



Gear Pumps

Roquet is a premium manufacturer of gear pumps and motors ranging from 0.33-150 cm³/rev. As standard, all Roquet gear pumps are manufactured with cast iron front and rear covers; reducing noise and increasing the product's life cycle. This design also enables the unit to accommodate in-built valves for speed control, etc.

Roquet pumps have an anechoic chamber, where the pump is housed to reduce noise levels.

Gear Pumps

A gear pump is a positive displacement pump. It contains two identical interlocking gears, supported by separate shafts.

Generally, one gear is driven by a motor, and this in turn drives the other gear (idler gear).

Fixed volumes of fluid are enclosed between the outer gear teeth mechanically using a cyclic pumping action. This delivers a smooth and pulse-free flow, which is proportional to the rotational speed of the gears.

Close tolerances between the gears prevent fluid from transferring back through the centre. Also, close tolerances between the gears and the casing allow the pump to create suction at the inlet, and prevents fluid leaking back from the outlet. (Leakage is more likely with low viscosity liquids)





Roquet
making moves



Hydraulic valves and pumps



Series 1

Series 1
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve



Series 1 Back pressure valve
Back pressure valve

Series	Back pressure valve	Back pressure valve
Series 1	250	275
Series 2	250	275
Series 3	250	275
Series 4	225	250
Series 5	200	225
Series 6	175	200

Tech Sheet 7170



Series 1 Back pressure valve
Back pressure valve

Series	Back pressure valve	Back pressure valve	
Series 1	18	250	275
Series 2	24	250	275
Series 3	30	250	275
Series 4	36	225	250
Series 5	44	200	225
Series 6	56	175	200

Tech Sheet 7170

Series 2

Series 2
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve



Series 2 Back pressure valve
Back pressure valve

Series	Back pressure valve	Back pressure valve	
Series 1	53.3	225	250
Series 2	66.6	225	250
Series 3	83.3	225	250
Series 4	100	225	250
Series 5	116.6	225	250
Series 6	133.3	200	225
Series 7	150	150	175

Tech Sheet 7170

Series 2 Back pressure valve
Back pressure valve

Series	Back pressure valve	Back pressure valve	
Series 1	18	250	275
Series 2	24	250	275
Series 3	30	250	275
Series 4	36	225	250
Series 5	44	200	225
Series 6	56	175	200

Tech Sheet 7170

Series 3

Series 3
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve
Back pressure valve



Series 3 Back pressure valve
Back pressure valve

Series	Back pressure valve	Back pressure valve	
Series 1	53.3	225	250
Series 2	66.6	225	250
Series 3	83.3	225	250
Series 4	100	225	250
Series 5	116.6	225	250
Series 6	133.3	200	225
Series 7	150	150	175

Tech Sheet 7170

Hydraulics



Gear Motors

Roquet is a premium manufacturer of gear pumps and motors ranging from 0.33-150 cm³/rev. As standard, all Roquet gear motors are manufactured with cast iron front and rear covers; reducing noise and increasing the product's life cycle. This design also enables the unit to accommodate in-built valves for speed control, etc.

Roquet gear motors have an anechoic chamber where the motor is tested to reduce noise levels.

Gear Motors

A gear motor is a mechanical actuator converting hydraulic pressure and flow into shaft rotation and torque. It is the rotary counterpart of the hydraulic cylinder.

Similarly to a gear pump, a gear motor consists of two identical interlocking gears, the driven gear and the idler gear. High-pressure oil enters the inlet side of the motor and flows around the outer periphery of the gear teeth - the gears mesh, which prevents the oil from coming back to the inlet from the outlet side.

For lubrication, a small amount of oil from the pressurised side bleeds through the bearings, and vents to the low pressure side, or through the drain port.



ALUMINIUM GEAR MOTORS



Roquet
making moves



Group 1

Series: L0

Body: Aluminium

Displacement: from 1cm³/rev to 6,63cm³/rev

- Motors with back cover in built valves available.



1:8 Taper Shaft, 4 Bolt European Flange, BSPP Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1ML01.5DE10R	1	275	300
1ML03DE10R	2	275	300
1ML05DE10R	3.3	240	275
1ML07.5DE10R	5	185	200
1ML010DE10R	6.6	135	150

Tech Sheet 71711

Group 2

Series: G

Body: Aluminium

Displacement: from 4cm³/rev to 26,67cm³/rev

- Motors with back cover in built valves available.

'G' series improvements over previous 'L' series:

- More drive shaft designs are available.
- Shorter multiple pumps.
- Higher torque admissible.
- Higher torque from rear pumps in multiple pumps.



1:8 Taper Shaft, 4 Bolt European Flange, BSPP Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1MG4CDE10R	4	275	300
1MG6CDE10R	6	275	300
1MG8CDE10R	8	275	300
1MG11CDE10R	10.7	275	300
1MG12CDE10R	12	275	300
1MG15CDE10R	14.7	250	275
1MG16CDE10R	16	250	275
1MG18CDE10R	18	225	250
1MG23CDE10R	23.3	180	200
1MG27CDE10R	26.6	170	190

Tech Sheet 71711

Other shaft, flange configurations available on request. Also available in cast iron material.

Group 3

Series: PLA

Body: Aluminium

Displacement: from 18cm³/rev to 56cm³/rev

- Motors with back cover in built valves available.



1:8 Taper Shaft, 4 Bolt European Flange, BSPP Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1MPLA27DE10R	18	250	275
1MPLA36DE10R	24	250	275
1MPLA45DE10R	30	250	275
1MPLA54DE10R	36	225	250
1MPLA66DE10R	44	200	225
1MPLA84DE10R	56	175	200

Tech Sheet 71711

Group 3.5

Series: PLC

Body: Aluminium

Displacement: from 53,33cm³/rev to 150cm³/rev

- Motors with back cover in built valves available.



1:8 Taper Shaft, 4 Bolt European Flange, SAE Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1MPLC80DE10M	53.3	225	250
1MPLC100DE10M	66.6	225	250
1MPLC125DE10M	83.3	225	250
1MPLC150DE10M	100	225	250
1MPLC175DE10M	116.6	225	250
1MPLC200DE10M	133.3	200	225
1MPLC225DE10M	150	150	175

Tech Sheet 71711

Group 4

Series: PLC

Body: Aluminium

Displacement: from 53,33cm³/rev to 150cm³/rev

- Motors with back cover in built valves available.

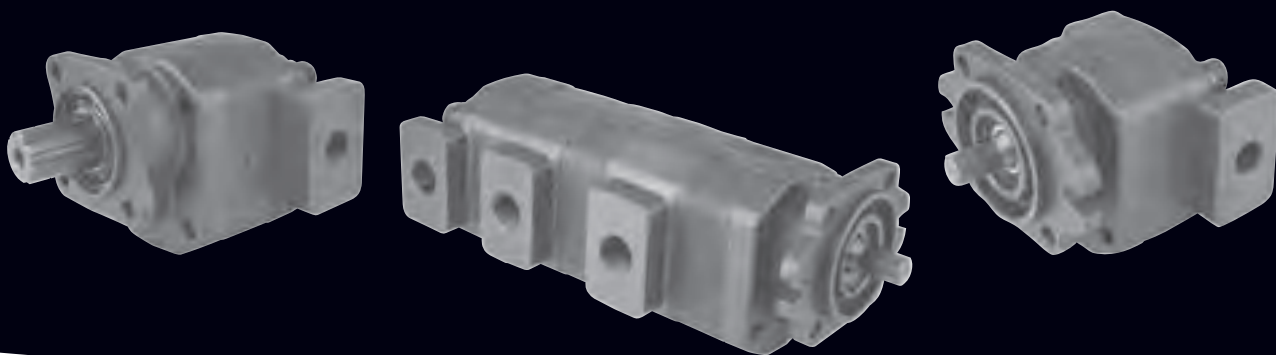


1:8 Taper Shaft, 4 Bolt European Flange, SAE Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1MPLC80DJ23M	53.3	225	250
1MPLC100DJ23M	66.6	225	250
1MPLC125DJ23M	83.3	225	250
1MPLC150DJ23M	100	225	250
1MPLC175DJ23M	116.6	225	250
1MPLC200DJ23M	133.3	200	225
1MPLC225DJ23M	150	150	175

Tech Sheet 71711

Cast Iron Gear Pumps



Group 3

- Series:** PNA
Material: Nodular cast iron
Displacement: from 53,33cm³/rev to 150cm³/rev
 • Pumps with back cover in built valves available.
 • Multiple pumps available.



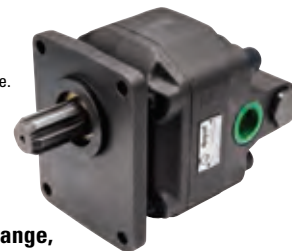
13 Tooth Splined Shaft, 2 Bolt SAE-B Flange, BSPP Ports, Clockwise Rotation with Ball Bearing & Shaft Seal

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
13PNA36DG09R	24	270	300
13PNA45DG09R	30	270	300
13PNA54DG09R	36	260	285
13PNA66DG09R	44	260	285
13PNA84DG09R	56	210	250
13PNA96DG09R	64	180	225
13PNA110DG09R	73.3	160	200

Tech Sheet 71712

Group 3.5

- Series:** PNC
Material: Nodular cast iron
Displacement: from 53,33cm³/rev to 150cm³/rev
 • Pumps with back cover in built valves available.
 • Multiple pumps available.



1:8 Taper Shaft, 4 Bolt European Flange, BSPP Ports, Clockwise Rotation

3014	Displacement (cc/rev)	Continuous Max Pressure (bar)	Intermittent Max Pressure (bar)
1PNC80DE10M	53.3	260	290
1PNC100DE10M	66.6	260	290
1PNC125DE10M	83.3	250	275
1PNC150DE10M	100	250	275
1PNC175DE10M	116.6	225	250
1PNC200DE10M	133.3	200	225
1PNC225DE10M	150	175	200

Tech Sheet 71712

Other shaft, flange configurations available on request.

HYDRAULIC CONTROL VALVES

Roquet
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new
product

1.07 Valves, Pumps & Motors

1

Monoblock Valves

 **Maximum Working Pressure:**
350 bar

Port Sizes:
P, T, A, B: 3/8" BSPP

Nominal Flow: 40 L/min

Maximum Spool Quantity: 6

Main Relief Valve Pressure Ranges

Available: 5-80 bar, 85-175 bar,
180-250 bar, 255-350 bar



3/8" BSPP, 102 Series, 3 Position, Single Section, Open Centre, 85-175 bar Relief Valve

3013	Spool Control Option	Spool Type
102N1PA12I	Spring Return	Motor
102N1PA12D	Spring Return	Cylinder
102N2PA12I	Detent	Motor
102N2PA12D	Detent	Cylinder
102N22PA12I	Pneumatic Pilot	Motor
102N22PA12D	Pneumatic Pilot	Cylinder
102N35RA12I	Rotative	Motor
102N35RA12D	Rotative	Cylinder

Tech Sheet 71709

 **Maximum Working Pressure:**
350 bar

Port Sizes:
P, T, A, B: 1/2" BSPP

Nominal Flow: 60 L/min

Maximum Spool Quantity: 2

Main Relief Valve Pressure Ranges

Available: 5-80 bar, 85-175 bar,
180-250 bar, 255-350 bar



1/2" BSPP, 1102 Series, 3 Position, Single Section, Open Centre, 85-175 bar Relief Valve

3013	Spool Control Option	Spool Type
1102N1PA12I	Spring Return	Motor
1102N1PA12D	Spring Return	Cylinder
1102N2PA12I	Detent	Motor
1102N2PA12D	Detent	Cylinder
1102N22PA12I	Pneumatic Pilot	Motor
1102N22PA12D	Pneumatic Pilot	Cylinder
1102N35RA12I	Rotative	Motor
1102N35RA12D	Rotative	Cylinder

Tech Sheet 71709

Sectional Valves

 **Maximum Working Pressure:**
350 bar

Port Sizes:
P, T: 3/4" BSPP
A, B: 1/2" BSPP

Nominal Flow: 100 L/min

Maximum Spool Quantity: 10

Main Relief Valve Pressure Ranges

Available: 5-80 bar, 85-175 bar,
180-250 bar, 255-350 bar



1/2" BSPP, 406 Series, 3 Position, Single Section, Open Centre, 85-175 bar Relief Valve

3013	Spool Control Option	Spool Type
406N1PA12I	Spring Return	Motor
406N1PA12D	Spring Return	Cylinder
406N2PA12I	Detent	Motor
406N2PA12D	Detent	Cylinder
406N22PA12I	Pneumatic Pilot	Motor
406N22PA12D	Pneumatic Pilot	Cylinder
406N35RA12I	Rotative	Motor
406N35RA12D	Rotative	Cylinder

Tech Sheet 71709

 **Maximum Working Pressure:**
350 bar

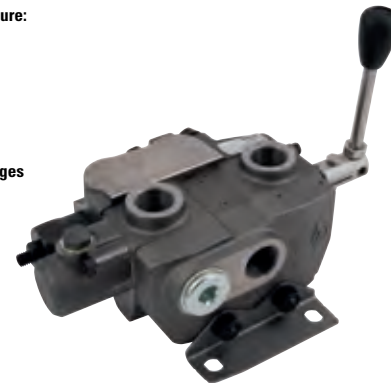
Port Sizes:
P, T, A, B: 3/4" BSPP

Nominal Flow: 100 L/min

Maximum Spool Quantity: 10

Main Relief Valve Pressure Ranges

Available: 5-80 bar, 85-175 bar,
180-250 bar, 255-350 bar



3/4" BSPP, 1406 Series, 3 Position, Single Section, Open Centre, 85-175 bar Relief Valve

3013	Spool Control Option	Spool Type
1406N1PA12I	Spring Return	Motor
1406N1PA12D	Spring Return	Cylinder
1406N2PA12I	Detent	Motor
1406N2PA12D	Detent	Cylinder
1406N22PA12I	Pneumatic Pilot	Motor
1406N22PA12D	Pneumatic Pilot	Cylinder
1406N35RA12I	Rotative	Motor
1406N35RA12D	Rotative	Cylinder

Tech Sheet 71709

Closed centre, HPCO, additional sections and bespoke configurations available on request

Hydraulics

HYDRAULIC BALL VALVES



Hydraulic Ball Valves

Working Temperature:
 -20°C to +120°C

- Carbon steel body
- Zinc-plated C6F
- Steel ball
- Excellent sealing properties
- High pressure
- Full flow



2 Way, BSPP, NBR Seals

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHB-G1/4	1/4"	6	69	500
KHB-G3/8	3/8"	10	72	500
KHB-G1/2	1/2"	13	83	500
KHB-G3/4	3/4"	20	95	315
KHB-G1	1"	25	113	315
KHB-G11/4	1.1/4"	25	110	315
KHB-G11/2	1.1/2"	25	130	315

Tech Sheet 10171



2 Way, Side Hole Fixing, BSPP, Nitrile Seals

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHB SM -G1/4	1/4"	6	69	500
KHB SM -G3/8	3/8"	10	72	500
KHB SM -G1/2	1/2"	13	83	500
KHB SM -G3/4	3/4"	20	95	315
KHB SM -G1	1"	25	113	315
KHB SM -G11/4	1.1/4"	25	110	315
KHB SM -G11/2	1.1/2"	25	130	315

Tech Sheet 10171



2 Way, Top Mountable for Actuation, BSPP, Nitrile Seals

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHBTM-G1/4	1/4"	6	69	500
KHBTM-G3/8	3/8"	10	72	500
KHBTM-G1/2	1/2"	13	83	500
KHBTM-G3/4	3/4"	20	95	315
KHBTM-G1	1"	25	113	315
KHBTM-G11/4	1.1/4"	25	110	315
KHBTM-G11/2	1.1/2"	25	130	315

Tech Sheet 10171

2 Way, 3000lb, Flanged

0177	ND	DN Size	Length mm	Max Pressure Bar
KHBF3-1/2	1/2"	13	151	210
KHBF3-3/4	3/4"	20	162	210
KHBF3-1	1"	25	178	210
KHBF3-1.1/4	1.1/4"	32	191	210
KHBF3-1.1/2	1.1/2"	40	231	210
KHBF3-2	2"	50	232	210

Tech Sheet 10044



2 Way, 6000lb, Flanged

0177	ND	DN Size	Length mm	Max Pressure Bar
KHBF6-1/2	1/2"	13	151	420
KHBF6-3/4	3/4"	20	174	420
KHBF6-1	1"	25	198	420
KHBF6-1.1/4	1.1/4"	32	223	420
KHBF6-1.1/2	1.1/2"	40	281	420

Tech Sheet 10044



2 Way, Light-duty, DIN 2353

0177	Thread	DN Size	Description	Length mm	Max Pressure Bar
KHB-8L	M14 x 1.5	6	8L	69	500
KHB-10L	M16 x 1.5	10	10L	77	500
KHB-12L	M18 x 1.5	10	12L	77	500
KHB-15L	M22 x 1.5	13	15L	83	500
KHB-22L	M30 x 2	20	22L	101	315
KHB-28L	M36 x 2	25	28L	108	315

Tech Sheet 10171



2 Way, Heavy-duty, DIN 2353

0177	Thread	DN Size	Description	Length mm	Max Pressure Bar
KHB-10S	M18 x 1.5	6	10S	73	500
KHB-12S	M20 x 1.5	8	12S	77	500
KHB-16S	M24 x 1.5	13	16S	87	500
KHB-20S	M30 x 2	13	20S	91	500
KHB-25S	M36 x 2	20	25S	111	315
KHB-30S	M42 x 2	25	30S	120	315

Tech Sheet 10171



Lockable Hydraulic Ball Valves

° Working Temperature:
-20°C to +120°C

Lock not included



2 Way, BSPP

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHB-G1/4-LK	1/4"	6	69	500
KHB-G3/8-LK	3/8"	10	72	500
KHB-G1/2-LK	1/2"	13	83	500
KHB-G3/4-LK	3/4"	20	95	315
KHB-G1-LK	1"	25	113	315
KHB-G11/4-LK	1.1/4"	25	110	315
KHB-G11/2-LK	1.1/2"	25	130	315

Tech Sheet 10171



2 Way, Side Hole Fixing, BSPP

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHBSM-G1/4-LK	1/4"	6	69	500
KHBSM-G3/8-LK	3/8"	10	72	500
KHBSM-G1/2-LK	1/2"	13	83	500
KHBSM-G3/4-LK	3/4"	20	95	315
KHBSM-G1-LK	1"	25	113	315
KHBSM-G11/4-LK	1.1/4"	25	110	315
KHBSM-G11/2-LK	1.1/2"	25	130	315

Tech Sheet 10171



2 Way, Light-duty, DIN 2353

0177	Thread	DN Size	Description	Length mm	Max Pressure Bar
KHB-8L-LK	M14 x 1.5	6	8L	69	500
KHB-10L-LK	M16 x 1.5	8	10L	77	500
KHB-12L-LK	M18 x 1.5	13	12L	77	500
KHB-15L-LK	M22 x 1.5	13	15L	83	500
KHB-22L-LK	M30 x 2	20	22L	101	315
KHB-28L-LK	M36 x 2	25	28L	108	315

Tech Sheet 10171



2 Way, Heavy-duty, DIN 2353

0177	Thread	DN Size	Description	Length mm	Max Pressure Bar
KHB-10S-LK	M18 x 1.5	8	10S	73	500
KHB-12S-LK	M20 x 1.5	13	12S	77	500
KHB-16S-LK	M24 x 1.5	13	16S	87	500
KHB-20S-LK	M30 x 2	20	20S	91	500
KHB-25S-LK	M36 x 2	25	25S	111	315
KHB-30S-LK	M42 x 2	25	30S	120	315

Tech Sheet 10171



2 Way, 3000lb, Flanged

0177	ND	DN Size	Length mm	Max Pressure Bar
KHBF3-1/2-LK	1/2"	13	151	210
KHBF3-3/4-LK	3/4"	20	162	210
KHBF3-1-LK	1"	25	178	210
KHBF3-1.1/4-LK	1.1/4"	32	191	210
KHBF3-1.1/2-LK	1.1/2"	40	231	210
KHBF3-2-LK	2"	50	232	210

Tech Sheet 10171



2 Way, 6000lb, Flanged

0177	ND	DN Size	Length mm	Max Pressure Bar
KHBF6-1/2-LK	1/2"	13	151	420
KHBF6-3/4-LK	3/4"	20	174	420
KHBF6-1-LK	1"	25	198	420
KHBF6-1.1/4-LK	1.1/4"	32	223	420
KHBF6-1.1/2-LK	1.1/2"	40	281	420
KHBF6-2-LK	2"	50	316	420

Tech Sheet 10171

HYDRAULIC BALL VALVES



Hydraulic Ball Valves

Working Temperature:
-20°C to +120°C

- Carbon steel body
- Excellent sealing properties
- Zinc-plated C6F
- High pressure
- Steel ball
- Full flow



3 Way, L-Ported, BSPP, Nitrile Seals

0177	Thread	Length mm	Max Pressure Bar
KHB3K-G1/4	1/4"	69	500
KHB3K-G3/8	3/8"	72	500
KHB3K-G1/2	1/2"	83	500
KHB3K-G3/4	3/4"	95	315
KHB3K-G1	1"	113	315
KHB3K-G11/4	1.1/4"	110	315
KHB3K-G11/2	1.1/2"	130	315

Tech Sheet 2129

Working Temperature:
-20°C to +120°C

- Carbon steel body
- Excellent sealing properties
- Zinc-plated C6F
- High pressure
- Steel ball
- Full flow



3 Way, T-Ported, BSPP, Nitrile Seals

0177	Thread	Length mm	Max Pressure Bar
KHB3T-G1/4	1/4"	69	500
KHB3T-G3/8	3/8"	72	500
KHB3T-G1/2	1/2"	83	500
KHB3T-G3/4	3/4"	95	315
KHB3T-G1	1"	113	315
KHB3T-G11/4	1.1/4"	110	315
KHB3T-G11/2	1.1/2"	130	315

Tech Sheet 2129

Spare Handles

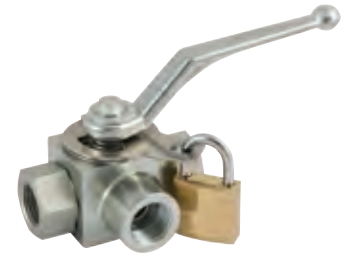


KHB Series Cranked Handles

0177	To Suit
KHBHANDLE-14-12	1/4" to 1/2"
KHBHANDLE-34-1	3/4" to 1"
KHBHANDLE-114-2	1.1/4" to 2"

Tech Sheet 2129

Lockable Hydraulic Ball Valves



3 Way, L-Ported, BSPP, Nitrile Seals

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHB3K-G1/4-LK	1/4"	6	69	500
KHB3K-G3/8-LK	3/8"	10	72	500
KHB3K-G1/2-LK	1/2"	13	83	500
KHB3K-G3/4-LK	3/4"	20	95	315
KHB3K-G1-LK	1"	25	113	315
KHB3K-G11/4-LK	1.1/4"	25	110	315
KHB3K-G11/2-LK	1.1/2"	25	130	315

Tech Sheet 2129



3 Way, T-Ported, BSPP, Nitrile Seals

0177	Thread	DN Size	Length mm	Max Pressure Bar
KHB3T-G1/4-LK	1/4"	6	69	500
KHB3T-G3/8-LK	3/8"	10	72	500
KHB3T-G1/2-LK	1/2"	13	83	500
KHB3T-G3/4-LK	3/4"	20	95	315
KHB3T-G1-LK	1"	25	113	315
KHB3T-G11/4-LK	1.1/4"	25	110	315
KHB3T-G11/2-LK	1.1/2"	25	130	315

Tech Sheet 2129

Lock not included

Non-return Valves

Material: Carbon steel

Plating: Zinc-plated chrome free

Interchangeability: Stucchi VU, Holmbury ATR, VPC series

Cracking Pressure: 0.35 bar



High Pressure 0.35 to 0.5 bar Cracking Pressure, BSPP

0177	Thread	Length mm	Hex Size mm	Max Pressure Bar
EHRVG-14	1/4"	60	19	700
EHRVG-38	3/8"	70	24	700
EHRVG-12	1/2"	77	30	500
EHRVG-34	3/4"	90	36	500
EHRVG-1	1"	106	45	500
EHRVG-114	1.1/4"	125	55	400
EHRVG-112	1.1/2"	140	65	320
EHRVG-2	2"	160	75	320

Tech Sheet 10170

Material: Carbon steel

Plating: Zinc-plated chrome free

Interchangeability: Stucchi VU, Holmbury ATR, VPC series

Cracking Pressure: 3 bar

3 bar Cracking Pressure, BSPP

0177	Thread	Length mm	Hex Size mm	Max Pressure Bar
EHRVG-14-3CP	1/4"	62	19	350
EHRVG-38-3CP	3/8"	68	24	350
EHRVG-12-3CP	1/2"	77	30	350
EHRVG-34-3CP	3/4"	88	36	350
EHRVG-1-3CP	1"	105	41	350
EHRVG-114-3CP	1.1/4"	135	55	300
EHRVG-112-3CP	1.1/2"	145	60	300

Tech Sheet 10170

Material: Carbon steel

Plating: Zinc-plated chrome free

Interchangeability: Stucchi VU, Holmbury ATR, VPC series

Cracking Pressure: 5 bar

5 bar Cracking Pressure, BSPP

0177	Thread	Length mm	Hex Size mm	Max Pressure Bar
EHRVG-14-5CP	1/4"	62	19	350
EHRVG-38-5CP	3/8"	68	24	350
EHRVG-12-5CP	1/2"	77	30	350
EHRVG-34-5CP	3/4"	88	36	350
EHRVG-1-5CP	1"	105	41	350
EHRVG-114-5CP	1.1/4"	135	55	300
EHRVG-112-5CP	1.1/2"	145	60	300

Tech Sheet 10170

Flow Control Valves

Body: Carbon steel

Handle: Aluminium

Spring: SS302 or C72

Standard O-Rings: Nitrile

Ring Stem: PTFE

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
350 bar



Uni-directional (Controlled Flow One Direction, Free Flow Reverse), BSPP

0177	Thread	Mounting Thread
EHCVG1/4	1/4"	M20 x 1
EHCVG3/8	3/8"	M25 x 1
EHCVG1/2	1/2"	M30 x 1.5
EHCVG3/4	3/4"	M35 x 1.5
EHCVG1	1"	M35 x 1.5

Tech Sheet 2130



Bi-directional (Controlled Flow Both Directions), BSPP


0177	Thread	Mounting Thread
EHTVG1/4	1/4"	M20 x 1
EHTVG3/8	3/8"	M25 x 1
EHTVG1/2	1/2"	M30 x 1.5
EHTVG3/4	3/4"	M35 x 1.5
EHTVG1	1"	M35 x 1.5

Tech Sheet 2131

STAINLESS STEEL HYDRAULIC VALVES

stainless
steelFT PRO[®]

High Pressure Stainless Steel Ball Valves

 Working Temperature:
-20°C to +120°C

- Nitrile seals



2 Way, BSPP

0098	Thread	Max Pressure Bar
HBVSS-14	1/4"	500
HBVSS-38	3/8"	500
HBVSS-12	1/2"	500
HBVSS-34	3/4"	315
HBVSS-1	1"	315

Tech Sheet 20888

High Pressure Stainless Steel
Block Style Ball Valves

2 Way, BSPP

0098	Thread	DN Size	Length mm	Max Pressure Bar
HBBVSS-14	1/4"	6	69	500
HBBVSS-38	3/8"	10	72	500
HBBVSS-12	1/2"	13	83	500
HBBVSS-34	3/4"	20	95	315
HBBVSS-1	1"	25	113	315

Tech Sheet 10224

Due to the change of finishes used by our supplier, the product you receive may look slightly different to that illustrated.

Lockable High Pressure Stainless Steel
Block Style Ball Valves

Lock not included



2 Way, BSPP

0098	Thread	DN Size	Length mm	Max Pressure Bar
HBBVSS-14-LK	1/4"	6	69	500
HBBVSS-38-LK	3/8"	10	72	500
HBBVSS-12-LK	1/2"	13	83	500
HBBVSS-34-LK	3/4"	20	95	315
HBBVSS-1-LK	1"	25	113	315

Tech Sheet 10224

High Pressure Check Valves

 Maximum Working Pressure:
350 bar



BSPP, 0.5 bar Cracking Pressure

0098	Thread
HCVSS-3/8	3/8"
HCVSS-1/2	1/2"
HCVSS-3/4	3/4"
HCVSS-1	1"

Tech Sheet 10043

Locking Device



Stainless Steel

0177	To Suit
HPBVLD-1	DN6, DN8, DN10, DN13
HPBVLD-2	DN20, DN25
HPBVLD-3	DN32, DN38, DN50

Tech Sheet 10171

Needle Valves

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
210 bar

Body: Brass, nickel plated
Seal: Nitrile
Stem: 304 Stainless steel



In-line, Bi-directional (Controlled Flow Both Ways) Flow Control & Shut Off, BSPP

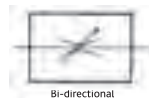
0274	Thread
1251-1010	1/8"
1251-1313	1/4"
1251-1717	3/8"
1251-2121	1/2"

Tech Sheet 10514

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
210 bar

Body: Brass, nickel plated
Seal: Nitrile
Stem: 304 Stainless steel



Angled, In-line, Bi-directional (Controlled Flow Both Ways) Flow Control & Shut Off, BSPP

0274	Thread
1252-2010	1/8"
1252-2013	1/4"
1252-2017	3/8"
1252-2021	1/2"

Tech Sheet 10515

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
210 bar

Body: Brass, nickel plated
Seal: Nitrile
Stem: 304 Stainless steel



In-line, Uni-directional (Controlled Flow One Way) with Free Reverse Flow, BSPP

0274	Thread
1253-3013	1/4"
1253-3017	3/8"
1253-3021	1/2"

Tech Sheet 10516

Needle Valves - Speed Control

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
400 bar: 1/4" to 3/4"
320 bar: 1"

Seal: Nitrile



Female x Female, BSPP

0274	Thread	Length mm	LPM	Return LPM
NCV-14	1/4"	55	50	70
NCV-38	3/8"	65	75	110
NCV-12	1/2"	73	140	150
NCV-34	3/4"	88	175	200
NCV-1	1"	127	350	275

Tech Sheet 10517

Needle Valves - Flow Control

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
400 bar: 1/4" to 3/4"
320 bar: 1"

Seal: Nitrile



Female x Female, BSPP

0274	Thread	Length mm	LPM
INV-14	1/4"	48	50
INV-38	3/8"	58	75
INV-12	1/2"	68	140
INV-34	3/4"	78	175
INV-1	1"	108	350

Tech Sheet 10518

Hydraulic Non-return Valves

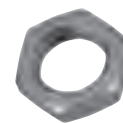
High Pressure, Carbon Steel, BSPP

0268	Thread	Length mm	Max Pressure Bar	Cracking Pressure Bar
HNRV-14	1/4"	62	350	0.5
HNRV-38	3/8"	68	350	0.5
HNRV-12	1/2"	78	350	0.5
HNRV-34	3/4"	88	300	0.5
HNRV-1	1"	112	250	0.5

Tech Sheet 10519



Panel Mounting Nuts



For Series INV & NCV

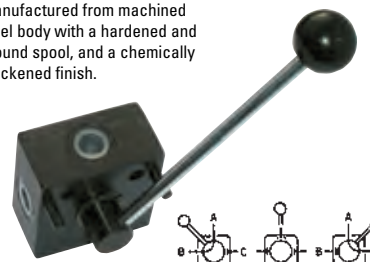
0274	To Suit
2570-13	1/4"
2570-17	3/8"
2570-21	1/2"
2570-26	3/4"

For Series 1251, 1252 & 1253

0274	To Suit
1203-1010	1/8"
1203-1313	1/4"
1203-1717	3/8"
1203-2121	1/2"

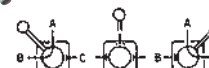
Diverter Valves

Manufactured from machined steel body with a hardened and ground spool, and a chemically blackened finish.



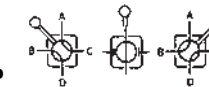
Three Port 2 Way, BSPP

0267	Thread	LPM	Max Pressure Bar
38-3DVL	3/8"	27	207
12-3DVL	1/2"	36	210
34-3DVL	3/4"	100	207
1-3DVL	1"	160	207



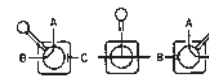
Four Port Open Centre, BSPP

0267	Thread	LPM	Max Pressure Bar
38-4DVOC	3/8"	27	207
12-4DVOC	1/2"	36	210



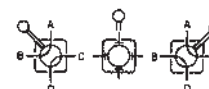
Three Port T, BSPP

0267	Thread	LPM	Max Pressure Bar
38-3DVT	3/8"	27	207
12-3DVT	1/2"	36	210



Four Port Closed Centre, BSPP

0267	Thread	LPM	Max Pressure Bar
38-DVCC	3/8"	27	207
12-DVCC	1/2"	36	210

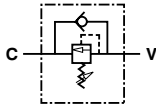


THREADED HYDRAULIC VALVES

Direct Acting Sequence Valves

Pre-set and other spring ratings available on request.

Maximum Working Pressure:
350 bar



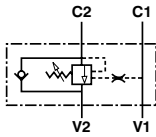
BSPP

0347	Thread	Pressure Range Bar
DASV06	3/8"	10-180
DASV08	1/2"	10-180
DASV12	3/4"	50-350

Tech Sheet 10098

Single Overcentre Valves

1:8 pilot ratio available on request.

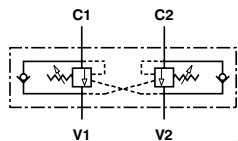


BSPP

0347	Thread	Ratio
SOCV06	3/8"	1:3.1
SOCV08	1/2"	1:3.1
SOCV12	3/4"	1:5.5

Tech Sheet 10099

Double Overcentre Valves



BSPP

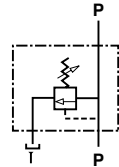
0347	Thread	Ratio
DOCV06	3/8"	1:3.1
DOCV08	1/2"	1:3.1
DOCV12	3/4"	1:5.5

Tech Sheet 10100

Pressure Relief Valves

Pre-set and other spring ratings available on request.

Maximum Working Pressure:
300 bar



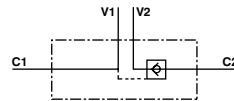
BSPP

0347	Thread	Pressure Range Bar
RV06/180	3/8"	10-180
RV08/180	1/2"	10-180
RV12/180	3/4"	10-180

Tech Sheet 10101

Single Pilot Operated Check Valves

Other cracking pressures available on request.

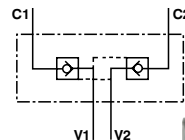


BSPP

0347	Thread	Cracking Pressure Bar	Ratio
POCV04	1/4"	4	1:5.5
POCV06	3/8"	3	1:5.5
POCV08	1/2"	6	1:5

Tech Sheet 10102

Double Pilot Operated Check Valves



BSPP

0347	Thread	Cracking Pressure Bar	Ratio
DPOCV04	1/4"	4.5	1:5.5
DPOCV06	3/8"	4.5	1:5.5
DPOCV08	1/2"	3	1:4.5

Tech Sheet 10103

Dual Cross Relief Valve



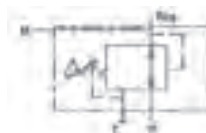
BSPP

0347	Thread	Pressure Range Bar
DCRV04/180	1/4"	10-180
DCRV06/180	3/8"	10-180
DCRV08/180	1/2"	10-180
DCRV012/180	3/4"	10-180

Tech Sheet 10534

Pressure Reducing Valve, Direct Acting

15-55 bar range available on request.

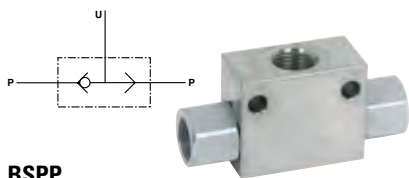


BSPP

0347	Thread	Pressure Range Bar
PREDV06	3/8"	30-165
PREDV08	1/2"	30-165

Tech Sheet 10535

Shuttle Valves



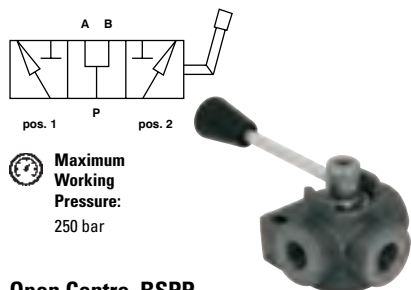
BSPP

0347	Thread	Max Pressure Bar	LPM
SV04	1/4"	450	30
SV06	3/8"	450	45
SV08	1/2"	450	70
SV12	3/4"	350	110

Tech Sheet 10104

3 Way Diverter Valves

Closed centre configuration available on request.



Maximum Working Pressure:
250 bar

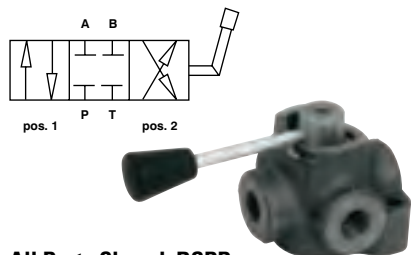
Open Centre, BSPP

0347	Thread	LPM
DV306	3/8"	35
DV308	1/2"	60
DV312	3/4"	100

Tech Sheet 10105

4 Way Diverter Valves

P to T, A and B closed, available on request.

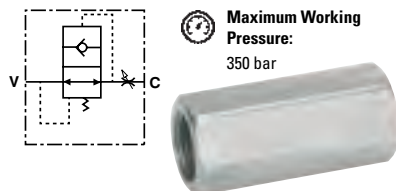


All Ports Closed, BSPP

0347	Thread	LPM
DV406	3/8"	35
DV408	1/2"	60
DV412	3/4"	100

Tech Sheet 10106

Hose Burst Valves

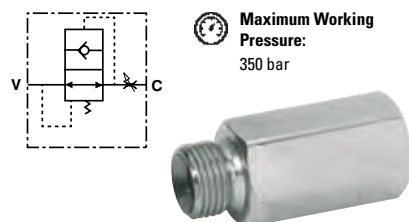


Maximum Working Pressure:
350 bar

Female/Female, BSPP

0347	Thread	LPM
HBVF04	1/4"	25
HBVF06	3/8"	50
HBVF08	1/2"	80
HBVF12	3/4"	140
HBVF16	1"	180

Tech Sheet 10107

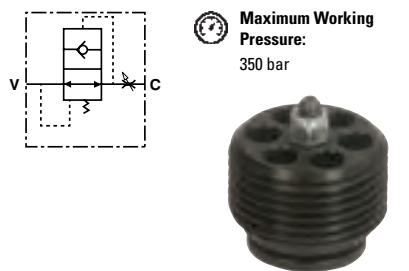


Maximum Working Pressure:
350 bar

Male/Female, BSPP

0347	Thread	LPM
HBVMF04	1/4"	25
HBVMF06	3/8"	50
HBVMF08	1/2"	80
HBVMF12	3/4"	140
HBVMF16	1"	180

Tech Sheet 10107



Maximum Working Pressure:
350 bar

Cartridge

0347	To Suit
HBVC04	1/4"
HBVC06	3/8"
HBVC08	1/2"
HBVC12	3/4"

Tech Sheet 10107

Hydraulic Swivel Joints

- Seal Nitrile
- Mounted between a hose assembly and rigid component in order to allow and compensate occasional rotations, preventing hose damage.



1.1/4" to 2"

90° Swivel, BSPP

0507	Thread	Max Static Pressure Bar	Max Dynamic Pressure Bar
2019-3660	1/4"	400	200
2019-3678	3/8"	400	200
2019-3686	1/2"	300	150
2019-3694	3/4"	300	150
2019-3702	1"	300	100
2019-3703	1.1/4"	300	100
2019-3704	1.1/2"	300	80
2019-3705	2"	250	50

Tech Sheet 849



1" to 2"

Straight Swivel, BSPP

0507	Thread	Max Rotating Pressure Bar	Max Dynamic Pressure Bar
2019-2639	1/4"	400	200
2019-3629	3/8"	400	200
2019-3637	1/2"	300	150
2019-3645	3/4"	300	150
2019-3652	1"	300	100
2019-3653	1.1/4"	300	100
2019-3654	1.1/2"	300	80
2019-3655	2"	250	50

Tech Sheet 848

THREADED HYDRAULIC VALVES

Barrel Flow Control Valve



BSPP

0347	Thread	LPM	Max Pressure Bar
BFCV04	1/4"	20	300
BFCV06	3/8"	45	300
BFCV08	1/2"	70	300
BFCV12	3/4"	110	250
BFCV16	1"	160	250

Tech Sheet 10536

Barrel Flow Control Valve, with Check



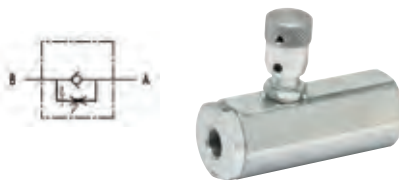
BSPP

0347	Thread	LPM	Max Pressure Bar
BFCVC04	1/4"	20	300
BFCVC06	3/8"	45	300
BFCVC08	1/2"	70	300
BFCVC12	3/4"	110	250
BFCVC16	1"	160	250

Tech Sheet 10537

Compensated Flow Control Valve

Maximum Working Pressure: 250 bar

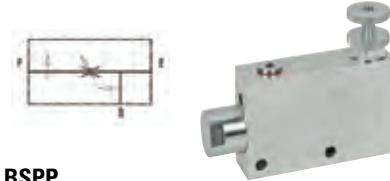


BSPP

0347	Thread	LPM
CFVC04	1/4"	25
CFVC06	3/8"	30
CFVC08	1/2"	45

Tech Sheet 10538

3 Port Flow Control Valve, Ongoing to Pressure



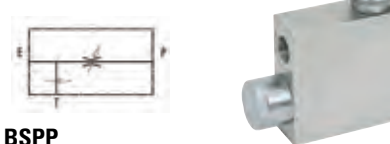
BSPP

0347	Thread	LPM
3FCVP06	3/8"	60
3FCVP08	1/2"	80
3FCVP12	3/4"	120
3FCVP16	1"	200

Tech Sheet 10539

3 Port Flow Control Valve, Excess to Tank

Maximum Working Pressure: 350 bar



BSPP

0347	Thread	LPM
3FCVT06	3/8"	60
3FCVT08	1/2"	80
3FCVT12	3/4"	120

Tech Sheet 10540

2 Way Flow Divider, Cast Iron

Maximum Working Pressure: 250 bar



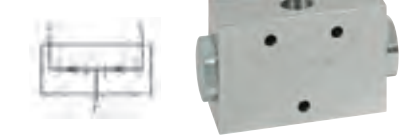
BSPP

0347	Inlet Thread	Outlet Thread	LPM
CFD063	3/8"	3/8"	3
CFD066	3/8"	3/8"	6
CFD0610	3/8"	3/8"	10
CFD0620	3/8"	3/8"	20
CFD0632	3/8"	3/8"	32
CFD0840	1/2"	3/8"	40
CFD0860	1/2"	3/8"	60
CFD0880	1/2"	3/8"	80

Tech Sheet 10541

2 Way Flow Divider, Steel

Maximum Working Pressure: 250 bar

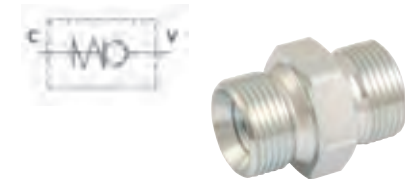


BSPP

0347	Inlet Thread	Outlet Thread	LPM
SFD0610	3/8"	3/8"	10
SFD0620	3/8"	3/8"	20
SFD0840	1/2"	3/8"	40
SFD0860	1/2"	3/8"	60

Tech Sheet 10542

Male Check Valve



BSPP, 1 bar Cracking Pressure

0347	Thread	Max Pressure Bar
MVC04	1/4"	350
MVC06	3/8"	350
MVC08	1/2"	350
MVC12	3/4"	350
MVC16	1"	320
MVC20	1.1/4"	320
MVC24	1.1/2"	320
MVC32	2"	320

Tech Sheet 10543

High Pressure In-line Filters

Features:

- Filter element remains in filter bow
- Environmentally-friendly design
- Bypass valve integral part of filter bow

Benefits

- Avoid use of non-genuine parts
- Less space needed to change/service filter
- Reduces environmental waste by over 50%
- No handling of loose reusable parts
- Easy to integrate in manifold systems
- Lower pressure lost across filter

Typical Applications:

- Mobile working hydraulics
- Mobile drive system
- Pilot line filtration
- Servo controls
- Reverse flow valve application
- Industrial working hydraulics
- Control systems

Also available with various connections:

- SAE flanged
- SAE threaded
- ISO metric
- Manifold mounted



iprotect® glass fibre element as standard

Working Temperature:
-40°C to +100°C

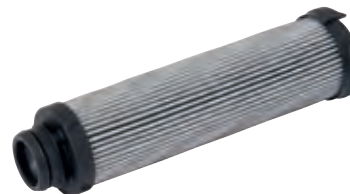
Maximum Working Pressure:
450 bar

EPF Series, 7 bar Bypass

0045	Thread	LPM	Micron
EPF1105QIBPMG081	1/2"	40	5
EPF1110QIBPMG081	1/2"	40	10
EPF2205QIBPMG121	3/4"	140	5
EPF2210QIBPMG121	3/4"	140	10
EPF3205QIBPMG161	1"	250	5
EPF3210QIBPMG161	1"	250	10
EPF4205QIBPMG201	1.1/4"	450	5
EPF4210QIBPMG201	1.1/4"	450	10
EPF5105QIBPMG241	1.1/2"	500	5
EPF5110QIBPMG241	1.1/2"	500	10

Tech Sheet 67979

High Pressure Replacement Elements



2 Micron Element

0045	Manufacturer's Code	To Suit
EPF1-12-2	944418Q	EPF1
EPF2-34-2	944430Q	EPF2
EPF3-1-2	944438Q	EPF3

Tech Sheet 67979

5 Micron Element

0045	Manufacturer's Code	To Suit
EPF1-12-5	944419Q	EPF1
EPF2-34-5	944431Q	EPF2
EPF3-1-5	944439Q	EPF3
EPF4-114-5	944447Q	EPF4

Tech Sheet 67979

10 Micron Element

0045	Manufacturer's Code	To Suit
EPF1-12-10	944420Q	EPF1
EPF2-34-10	944432Q	EPF2
EPF3-1-10	944440Q	EPF3
EPF4-114-10	944448Q	EPF4

Tech Sheet 67979

20 Micron Element

0045	Manufacturer's Code	To Suit
EPF1-12-20	944421Q	EPF1
EPF2-34-20	944433Q	EPF2
EPF5-112-20	944453Q	EPF5

Tech Sheet 67979

High Pressure In-line Filter Accessories



Visual Clogging Indicators

0045	Port Size
FMUM3MVMS08	S08 Cavity

Tech Sheet 67979

- Enclosure class IP65
- Electrical connector DIN 43650
- Overvoltage category II (EN61010-1)

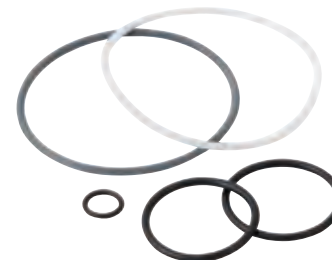


Electrical Clogging Indicators

0045	Port Size
FMUT1MVMS08	S08 Cavity

Tech Sheet 67979

Fluoroelastomer also available



Nitrile Seal Kits

0045	To Suit
EPFSK001	EPF1
EPFSK002	EPF2
EPFSK003	EPF3
EPFSK004	EPF4 & 5

Tech Sheet 67979

HYDRAULIC FILTRATION



Medium Pressure Filters

Features:


- More compact solutions are possible
- Filter element remains in filter bowl during filter servi
- Reduces waste over 50% thanks to reusable element core
- No risk of installation mistake due to a 'foolproof' design
- Easy to integrate into hydraulic manifold solutions

Benefits

- Avoid use of non-genuine parts
- Less space needed to change/service filte
- No handling of loose reusable parts
- Lower pressure lost across filte

Typical Applications:

- Compressor lube oil
- Off-line filter loops
- Machine tools (automotive standard)
- Hydrostatic drive charge pumps
- Mobile equipment
- Pilot lines for servo controls
- Oil patch drilling equipment

 **Working Temperature:**
-20°C to +100°C

 **Maximum Working Pressure:**
70 bar

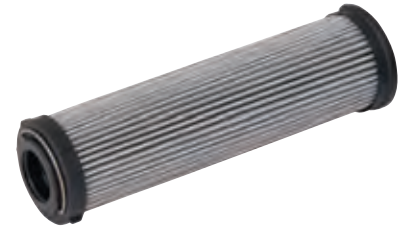


GMF Series

0045	Thread	LPM	Micron
GMF2110QIVPKG164	1"	55	10
GMF2210QIVPKG164	1"	90	10
GMF3110QIVPKG244	1.1/2"	120	10
GMF3210QIVPKG244	1.1/2"	230	10
GMF4110QIVPKG324	2"	350	10
GMF4210QIVPKG324	2"	530	10

Tech Sheet 67980

Medium Pressure Replacement Elements



10 Micron Element

0045	Manufacturer's Code	To Suit
GMF321-112-10	938909Q	GMF321
GMF411-2-10	938913Q	GMF411

Tech Sheet 67980

Medium Pressure In-line Filter Accessories



Visual Clogging Indicators

0045	Port Size
FMUM3KVMS08	S08 Cavity

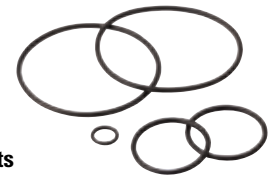
Tech Sheet 67980



Electrical Clogging Indicators

0045	Port Size
FMUT1KVMS08	S08 Cavity

Tech Sheet 67980



Nitrile Seal Kits

0045	To Suit
930000140	GMF21 & 22
930000141	GMF31 & 32
930000142	GMF41 & 42

Tech Sheet 67980

Viton Seal Kits

0045	To Suit
930000149	GMF21 & 22
930000150	GMF31 & 32
930000151	GMF41 & 42

Tech Sheet 67980

Gauge Isolator Valves

Designed to prevent pressure gauge damage and extend gauge life. The gauge isolator valve when installed between gauge and pressure line protects the pressure gauge from continuous hydraulic pressure, surges or shock loads.

Single Station:

Cast iron and steel. Knurled aluminium knob twist to lock or push to read type.

Maximum W/P:
350 bar

Port Size:
Single station = G1/4

Weight:
Single station = 0.90kg



Single Station

0045	Description	Port Size
G11414	Push to Read	1/4"

Modular Filler Breathers

Construction:

Moulded in non-corrodible glass-filled nylon combining strength with lightweight design.

Options:

- Single 63mm diameter hole filler breather installation that eliminates drilled and tapped holes using self-locking clamps
- 6 hole filler breather installation that uses 6 x No. 10 thread forming screws
- 3 hole filler breather installation that uses 3 x No. 10 thread forming screws



Filtration: Expanded polyurethane foam, 10 micron.

Seals: Nitrile.

Un-pressurised, 10 Micron

0045	Description
AB98210011UC	Single Hole
AB98810011UC	6 Hole
AB68118	3 Hole

Tech Sheet 636

Screw-on Type Air Breather (IP65)

Manufactured from non-corrodible glass filled nylon



Un-pressurised 10 Micron, BSPP, 101mm Diameter

0045	Thread
AB98410101UC	3/4"

Tech Sheet 636

Manufactured from in glass filled nylon and glass-coupled polypropylene.

Un-pressurised 10 Micron, BSPP, 70mm Diameter

0045	Thread
SAB6101	G1/2
SAB7101	G3/4

Suction Strainers

Construction:

- Stainless steel media 30% glass-filled nylon hea
- Zintec centre tube and end cap
- Epoxy adhesives

Filter Media: 125 micron.

Flow Range: 15-500 L/min.

Mounting Threads: G1/2 up to G3

Maximum Working Temperature:
+90°C



BSPP, Without Bypass

0045	Old Ref	Thread	LPM
SE1319	SS1A1S1AP	1/2"	15
SE1320	SS1B2A1AP	3/4"	25
SE1457	SS1B3A1AP	1"	50
SE1323	SS1C4A1AP	1.1/2"	95
SE1324	SS1C5A1AP	1.1/2"	130
SE1326	SS1C6A1AP	2"	180
SE1219	SS1D7A1AP	2"	225
SE1221	SS1D9A1AP	3"	500

Tech Sheet 60433

BSPP, With Bypass

0045	Thread	LPM
SE5100	1/2"	15
SE5101	3/4"	25
SE5102	1"	50
SE5103	1.1/2"	95
SE5104	1.1/2"	130
SE5105	2"	180
SE5106	2"	225
SE5107	2.1/2"	350
SE5108	3"	500

Tech Sheet 60433

For Pneumatic Valves & Accessories
see page 564

HYDRAULIC FILTRATION



Maxiflo

Seal: Nitrile

Filter Bowl Material: Steel

Fluids: Mineral oils

Filter Head Material: Aluminium LM24

Working Temperature:
-30°C to +90°C

Maximum Working Pressure:
7 bar



BSPP

0045	Thread	LPM	Material
MXA9551424	1.1/4"	160	Microglass
MXA9511424	1.1/4"	160	Paper



Replacement Elements

0045	Model	Quantity
MXR8550	MXA8551424	1
MX1518410X4	MXA8551223, MX8551023 & 12PS10CTV1R2B	4
MXR9560	MXA9561424	1
MXR9550	MXA9551424	1
MX1591.4.10X4	MXA9511424 & MXA9511223	4

Mini Pressure Filter

- Compact, robust and easy to install
- Manufactured in high quality brass
- 10µ, 25µ, and 125µ elements
- No indicator filter
- G1/4 ports
- For use in lubrication, high pressure water and oil burner systems
- Reliable protection of low flow pilot valve
- Suitable for use with mineral and petroleum based fluid
- Nitrile seal



Filtration Media:

10 micron (nominal) Nitrile phenolic resin impregnated cellulose.

25µ, 40µ and 125µ (nominal) stainless steel.

Please note: HPR1719 and HPR1819 elements are not stainless steel, they are paper with tin end caps.

Working Temperature:
-30°C to +90°C

Maximum Working Pressure:
280 bar

Filters

0045	Old Ref	Micron	LPM
HPA1619100	HP122910	10	6
HPA1719100	HP122925	25	17
HPA1819100	HP122940	40	18

Replacement Elements

0045	Old Ref	To Suit
HPR1619	R122910	HPA1619100
HPR1719	R122925	HPA1719100
HPR1819	R122940	HP1819100

In-line Spin-on Filters

- Paper and glass fibre element medi
- Spin-on disposable canisters
- Suitable for suction and return line applications
- Flow rates to 350 L/min.
- Bypass
- Visual indicator

Seals: Buna Nitrile.

Filter Head Material: Aluminium alloy.

Fluids: Compatible with hydraulic oils, coolant fluids and petroleum based fluids

Filter Bowl Material: Steel.

Element Media:

10CT = 10 micrometer nominal filtration (resin impregnated cellulose).

10BT = 10 micrometer absolute filtration (glass fibre composite material).

Indication:

42mm dia gauge: (0-12 bar. Return line). 0-76cm. Hg Suction line.

Working Temperature:
-30°C to +100°C

Maximum Working Pressure:
7 bar



10BT, BSPP

0045	Thread	LPM Suction & Return
12PS10BTV1R2B	3/4"	65

Replacement Elements

0045	To Suit
926501	12PS10BTV1R2B

Diffusers

Construction:

- Zintec body, 30% glass-filled nylon head
- Zintec end cap
- Epoxy adhesives

Flow Range:

50 L/min up to 454 L/min.

Mounting Threads:

3/4" up to 2".

Designed to reduce fluid aeration, foaming and reservoir noise in fluid systems, extends pump life by reducing cavitation to pump inlet, ranging from 50-454 L/min and port sizes G3/4 up to G2. Suitable for all mineral base fluids



BSPP

0045	Thread	LPM
2210	3/4"	50
2201	1"	114
2202	1.1/2"	227
2203	2"	454

Tank Top Filters

Working Temperature:
-30°C to +90°C

Maximum Working Pressure:
280 bar



1" BSPP

0045	LPM	Bypass PSIG	Micron
FTB1A100V25G16X	120	25	10
Tech Sheet 1338			

1" BSPP, Replacement Element

0045	Description	Micron
FTBE2A20Q	Replacement Element	20

Tanktopper offers a total filtration solution with integrated air breathe .
Patented LEIF elements safeguard filtration qualit .

Working Temperature:
-40°C to +80°C

Maximum Working Pressure:
10 bar



Tanktopper Series

0045	Thread	LPM
TPR110QLBP2EG12E	3/4"	40
TPR510QLBP2E2G20	1.1/4"	120
TPR710QLBP2E2G24	1.1/2"	250
Tech Sheet 60430		

TTF features pre-filtration by means of a magnet column
Flow from inside to out.

Working Temperature:
-40°C to +100°C

Maximum Working Pressure:
10 bar



TTF Series

0045	Thread	LPM
TF310QLBP2EG121	3/4"	90
TF610QLBP2EG203	1.1/2"	170
TF810QLBP2EG243	1.1/2"	300
TF1010QLBP2HG24A	1.1/2"	500
Tech Sheet 60431		

Compact tank top mounted return line filte .
Filter element can be used for direct screw-in mounting with co-polymer reservoirs.
Inside to out flow avoids re-contamination of the system

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
10 bar



PT Tank Top Mounted Filter Series

0045	Thread	LPM
PT2110QBPGG124	3/4"	25
PT2210QBPGG124	3/4"	50
PT4110QBPGG164	1"	110
PT4210QBPGG164	1"	175
Tech Sheet 60432		

Non-corrodible In-line Filter



Working Temperature:
-30°C to +80°C

Maximum Working Pressure:
7 bar

Oil, BSPP

0045	Thread
IL1151	1"
Tech Sheet 1340	

Replacement Element for Oil

0045	
R76115	
Tech Sheet 1340	

Water, BSPP

0045	Thread
IL1251	1"
Tech Sheet 1340	

Replacement Element for Water

0045	
R76125	
Tech Sheet 1340	

HYDRAULIC FLOW METERING

Easiflow Meter

Working Temperature:
+5°C to +80°C
+60°C with water

Maximum Working Pressure:
10 bar

- Oil and water calibrated
- Works in any plane
- Pressures up to 10 bar
- Switches – Fully adjustable flow rate signalling
- Plant and equipment protection
- Switches – Colour coded by application and AC/DC options

Construction:

Cone: Acetal
Viewing Glass: Borosilicate glass
Calibrated Spring: Stainless steel
Seal: Nitrile
Body: Glass filled nylo
Flow Range: 1-150 L/min
Viscosity Range: 10-200 centistokes
Accuracy: ±5% FSD
Repeatability: ±1% FSD
Connections: 1" BSP
Weight: 0.4kg



Oil

0045	LPM
EFL0301	2-30
EFL0501	4-50
EFL1001	5-100
EFL1501	10-150



Water

0045	LPM
EFW0152	1-15
EFW0302	2-30
EFW0502	4-50
EFW1002	5-100
EFW1502	10-150

Fluid Level & Temperature Gauges

Working Temperature:
-30°C to +90°C

Maximum Working Pressure:
1 bar

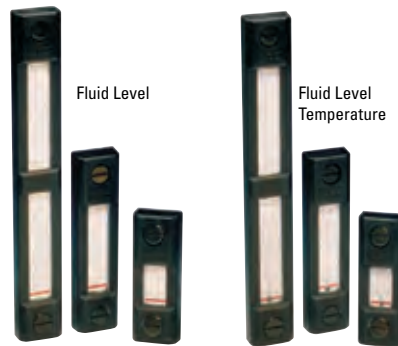
Construction:

- Lens transparent polyamide
- Lens base nylon 66
- No aluminium content
- Shroud high impact polystyrene

Seals: Nitrile.

Fluid Compatibility:

Mineral and petroleum based fluids



Fluid Level

0045	Centres mm	Thread
FL111	76	M10
FL211	127	M10
FL311	254	M10
FL112	76	M12
FL212	127	M12
FL312	254	M12

Tech Sheet 10301

Fluid Level Temperature

0045	Centres mm	Thread
FLT121	76	M10
FLT221	127	M10
FLT321	254	M10
FLT112	76	M12
FLT212	127	M12
FLT312	254	M12

Tech Sheet 10301

Dataflow In-line Flow Indicator

Working Temperature:
+5°C to +80°C Oil
+5°C to +60°C Water

Maximum Working Pressure:
10 bar Oil/water

- Indicator gives flow visibility
- Works in any plane
- Accepts reverse flow
- Indicates flow from 2-150 L/min



Indicator

0045	Description
DFI900	Dataflow Indicator

Tech Sheet 1341

Hydraulic Test Unit

Hydraulic test units are designed specifically for the speedy diagnosis of hydraulic circuit faults in mobile, marine and industrial systems using normal range of mineral oils, their rugged construction based mainly on mild steel, manganese bronze and acrylic materials makes them ideally suited for arduous use in the field. Each unit is supplied in a convenient carrying case providing full protection and additional storage space for fittings. Because they need no power source such as batteries etc, they are always ready for instant use.



The scale on the flow meter can be rotated to ensure visibility in any situation and the installed attitude is not critical, though whenever possible the unit should be monitored with pressure gauge vertical and gauge case relief valve uppermost. **The unit is designed for flow to be in the direction of the arrow on the flow meter scale and must not be installed with the flow reversed**

Safety

An axial flow restrictor valve is fitted which can be adjusted under full load from open to fully closed, and to complete the specification, a safety blow out disc, set to operate at 455 bar is fitted to the manifold in a position facing away from the operator when reading the gauges normally. Two spare blow out discs are supplied which are easily replaced by removing the hexagonal plug on the gauge manifold.

- Speedy diagnosis of hydraulic circuit faults
- Flows ranging from 2-360 L/min
- Measuring flow, pressure and temperature
- Portable. No power source required
- Hydrotrac unit for flows from 2-110 L/min available

Working Temperature:
0°C to +100°C

Flow Range:
10-110 L/min

Maximum Working Pressure:
350 bar

BSP

0045	Thread
4121	3/4"

HYDRAULIC FLOW METERING



Dataflow 4-20mA & Pulse Output Flow Transmitters



- Pulse output available for totalising/batching
- Works in any plane
- Accepts reverse flow
- Maximum flow 150 L/min
- Negligible pressure drop
- Pressures up to 10 bar
- Low cost. Simple to install
- For use with most liquids
- DIN connection

Construction:

Borosilicate glass tube, Nitrile seals.

Body: Glass filled nylon
Rotor and Locator: Acetal.
Washers and shaft: Stainless steel.
Rotor Tips: Stainless steel.

Minimum Flow:

2 L/min (Max 150 L/min). Accepts reverse flow.

Accuracy: ±2%.

Connection: 1" BSP.

Weight: 0.7kg.

Calibration 4-20mA:

4-20mA = 0-100 L/min on water.
 4mA = 0 L/min, 20mA = 100 L/min.

Pulse Output: K factors CE.

Oil: 51.14 pulses per litre.
 Water: 44.25 pulses per litre.

Electrical Details:

4-20mA:

Supply = 24V DC. Output = 4-20mA.

Pulse Output:

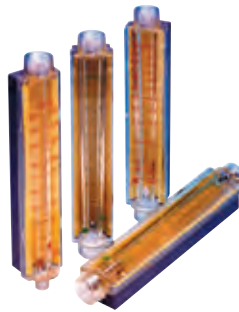
Supply = 24V DC-pulse output.
 (open collector transistor).

Working Temperature: +5°C to +80°C Oil
 +5°C to +60°C Water
Maximum Working Pressure: 10 bar oil/water

Dataflow Transmitters

0045	Description
DFT980	Dataflow Pulse Output Transmitter

Loflow Oil, Water & Air Flowmeters



- Flow measurement from 7.0 ml/min to 22 L/min
- Easy to read, permanent printed scales
- Large scale definition for precise measurement
- Easy panel mounting assembly
- Negligible pressure drop characteristics
- 10 bar pressure rating

Construction:

Body: Grillon TR55.
Back Body: ABS7020.
Ball Retainer: ABS7020.
Back Panel: PVC.

Accuracy: ±2% FSD.

Repeatability: ±1%.

Connections:

Inlet 1/4" or 3/4" tapered threads.
 Outlet 3/4" tapered threads.

Typical Applications:

- Monitoring inert gases for the welding industry
- Pollution monitoring
- Pharmaceutical industry
- Filtration systems
- Hospital equipment for water applications
- Water treatment
- Swimming pools

Water BSPT, Inlet

0045	Media	Thread	LPM	Float Material
LF2020	Water	3/4"	0.2-2.0	Acetal
LF2100	Water	3/4"	1.5-10.0	S/S
LF2220	Water	3/4"	2.0-22.0	S/S

Tech Sheet 10321

Air BSPT, Inlet

0045	Media	Thread	LPM	Float Material
LF3007E	Air	1/4"	1-7.0	Acetal
LF3050E	Air	3/4"	10-50.0	Acetal
LF3135E	Air	3/4"	20-135.0	Acetal
LF3330E	Air	3/4"	1.5-5.5 l/sec	S/S
LF3720E	Air	3/4"	1-12.0 l/sec	S/S

Tech Sheet 10321

Oil BSPT, Inlet

0045	Media	Thread	LPM	Float Material
LF1002	Oil	3/4"	0.010-0.20	S/S
LF1009	Oil	3/4"	0.1-0.9	Acetal
LF1090	Oil	3/4"	1.0-9.0	S/S

Tech Sheet 10321

Flowline Oil & Water Calibrated Flowmeters, Stainless Steel

- For flow measurement of corrosive or chemical media
- Works in any position
- Pressure up to 350 bar (5000psi)
- Flows up to 360 L/min
- Direct reading

Construction:

Stainless steel to BS970 316S

Calibration:

Oil = Specific gravity 0.856 at 20°
 Water = Specific gravity 1.0 at 20°

Viscosity Range: 10-200 centistokes

Accuracy: ±5% FSD

Repeatability: ±1% FSD

Minimum Scale: ±1% FSD 10% FSD.

Connections: BSPP

Seal: Viton

Wetted Parts:

Body, Thread, Adaptor, Piston etc:
 Cone Locknut Stainless steel BS 970316S 16

Magnet Encapsulation:

Stainless steel BS970/1:1991:316S31

Spring: Stainless steel to BS2056 EN58J



Working Temperature: -20°C to +105°C
Maximum Working Pressure: 350 bar

Stainless Steel, BSPP, Red - Oil

0045	Thread	LPM	Max Pressure Bar
FM26332112	3/4"	5-55	350
FM26332212	3/4"	10-110	350

Stainless Steel, BSPP, Yellow - Water

0045	Thread	LPM	Max Pressure Bar
FM26332122	3/4"	5-55	350
FM26332222	3/4"	10-110	350

FLOW METERING



Compressed Air Flowmeters, Brass

Working Temperature:
-20°C to +90°C

Maximum Working Pressure:
41 bar

- Calibrated for direct reading of compressed air at 7 bar
- Works in any plane
- Calibrated at 7 bar and 20°C
- Flow ranges from 2-600 SCFM
- Maximum working pressure 41 bar

Construction:
Brass Body to BS2874 CZ114

Calibration:
Oil specific gravity 0.856 at 20°C
Water specific gravity 1.0 at 20°C

Viscosity Range: 10-200 centistokes

Accuracy: ±5% FSD

Repeatability: ±1% FSD

Minimum Scale: 10% FSD

Connections: BSPP

- Works in any position
- Flows up to 1100 L/min
- Direct reading
- Relatively insensitive to viscosity changes
- Oil or water calibrated



Brass, Blue - Air, BSPP

0045	Thread	SCFM	LPS
FM26223132	1/2"	5-50	2-25
FM26223232	1/2"	10-110	5-50

Flowline Oil & Water Calibrated Flowmeters, Brass

Working Temperature:
-20°C to +90°C

Maximum Working Pressure:
350 bar

Construction:
Brass body to BS2874 CZ114

Calibration:
Oil specific gravity 0.856 at 20°C

Viscosity Range: 10-200 centistokes

Accuracy: ±5% FSD

Repeatability: ±1% FSD

Minimum Scale: 10% FSD

Connections: BSPP

- Works in any position
- Pressure up to 350 bar (5000psi)
- Flows up to 360 L/min
- Direct reading
- Relatively insensitive to viscosity changes



Brass, Red - Oil, BSPP

0045	Thread	LPM	Max Pressure Bar
FM26122212	1/4"	0.5-4.5	350
FM26222112	1/2"	2-20	350
FM26322112	3/4"	5-55	350
FM26322212	3/4"	10-110	350

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Hydraulic Test Points
see pages **268-272**



Tank Top Return Filter



**1 bar By-pass,
7 bar Working Pressure, BSPP**

0347	Thread	Micron
TTF-08B-10	1/2"	10
TTF-08B-25	1/2"	25
TTF-12B-10	3/4"	10
TTF-12B-25	3/4"	25
TTF-16B-10	1"	10
TTF-16B-25	1"	25
TTF-20B-10	1.1/4"	10
TTF-20B-25	1.1/4"	25

Tech Sheet 10051

Replacement Element to suit TTF Housing



0347	To Suit	Micron
TTE-08-10	1/2"	10
TTE-08-10-A	1/2"	10ABS
TTE-08-25	1/2"	25
TTE-12-10	3/4"	10
TTE-12-10-A	3/4"	10ABS
TTE-12-25	3/4"	25
TTE-16-10	1"	10
TTE-16-10-A	1"	10ABS
TTE-16-25	1"	25
TTE-20-10	1.1/4"	10
TTE-20-10-A	1.1/4"	10ABS
TTE-20-25	1.1/4"	25

Tech Sheet 10051

Suction Strainers



**149 Micron,
Nylon, BSPP**

0347	To Suit	LPM
SS020-08	1/2"	20
SS030-12	3/4"	30
SS040-16	1"	40
SS080-20	1.1/4"	80
SS120-24	1.1/2"	120
SS200-24	1.1/2"	200
SS200-32	2"	200
SS300-40	2.1/2"	300
SS400-48	3"	400

Tech Sheet 10052

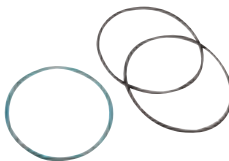


**149 Micron,
Aluminium, BSPP**

0347	To Suit	LPM
SSA020-08	1/2"	20
SSA028-12	3/4"	28
SSA040-16	1"	40
SSA060-20	1.1/4"	60
SSA080-24	1.1/2"	80
SSA120-24	1.1/2"	120
SSA160-32	2"	160
SSA200-32	2"	200
SSA300-40	2.1/2"	300
SSA400-40	3"	400

Tech Sheet 20010

TTF Seal Kit



Seal Kit to suit TTF Housing

0347	To Suit
TTF-SK-08	1/2"
TTF-SK-12	3/4"
TTF-SK-16	1"
TTF-SK-20	1.1/4"

Return Line Diffuser



BSPP

0347	Thread	LPM
RLD-12	3/4"	50
RLD-16	1"	100
RLD-20	1.1/4"	200
RLD-24	1.1/2"	300
RLD-32	2"	400
RLD-40	2.1/2"	500
RLD-48	3"	600

Tech Sheet 10053

Aluminium In-line Heavy-duty Return Filter

Suction and no by-pass models
available on request

**Maximum Working
Temperature:**
+80°C

**Maximum Working
Pressure:**
20 bar



1 bar By-pass, BSPP

0347	Thread	Micron
ILRF1-08-10	1/2"	10
ILRF1-08-25	1/2"	25
ILRF2-12-10	3/4"	10
ILRF2-12-25	3/4"	25
ILRF2-16-10	1"	10
ILRF2-16-25	1"	25
ILRF3-20-10	1.1/4"	10
ILRF3-20-25	1.1/4"	25
ILRF3-24-10	1.1/2"	10
ILRF3-24-25	1.1/2"	25

Tech Sheet 10215

Absolute and stainless steel mesh
elements available on request



**Replacement Element
to suit ILFR***

0347	To Suit	Micron
ILFE-1-10	ILFR1	10
ILFE-1-25	ILFR1	25
ILFE-2-10	ILFR2	10
ILFE-2-25	ILFR2	25
ILFE-3-10	ILFR3	10
ILFE-3-25	ILFR3	25

Tech Sheet 10215

HYDRAULIC ACCESSORIES



Spin-on Filter Assemblies

- Disposable spin-on element
- Die-cast aluminium head
- ~~Flow~~ Flows to 200 L/min
- 2232 Bypass standard 1 bar (suction 0.2 bar)
- For use with mineral/petroleum based oils

Maximum Working Temperature:
+80°C

Maximum Working Pressure:
10 bar



In-line Return, BSPP

0347	Thread	Micron	LPM
SPR08-10-35	1/2"	10	35
SPR08-10-70	1/2"	10	70
SPR08-10-100	1/2"	10	100
SPR08-25-35	1/2"	25	35
SPR08-25-70	1/2"	25	70
SPR08-25-100	1/2"	25	100
SPR12-10-35	3/4"	10	35
SPR12-10-70	3/4"	10	70
SPR12-10-100	3/4"	10	100
SPR12-25-35	3/4"	25	35
SPR12-25-70	3/4"	25	70
SPR12-25-100	3/4"	25	100
SPR16-10-35	1"	10	35
SPR16-10-70	1"	10	70
SPR16-10-100	1"	10	100
SPR16-25-35	1"	25	35
SPR16-25-70	1"	25	70
SPR16-25-100	1"	25	100
SPR20-10-150	1.1/4"	10	150
SPR20-10-200	1.1/4"	10	200
SPR20-25-150	1.1/4"	25	150
SPR20-25-200	1.1/4"	25	200

Tech Sheet 10054

In-line Suction, BSPP

0347	Thread	Micron	LPM
SPS08-10-35	1/2"	10	35
SPS08-10-70	1/2"	10	70
SPS08-10-100	1/2"	10	100
SPS08-25-35	1/2"	25	35
SPS08-25-70	1/2"	25	70
SPS08-25-100	1/2"	25	100
SPS12-10-35	3/4"	10	35
SPS12-10-70	3/4"	10	70
SPS12-10-100	3/4"	10	100
SPS12-25-35	3/4"	25	35
SPS12-25-70	3/4"	25	70
SPS12-25-100	3/4"	25	100
SPS16-10-35	1"	10	35
SPS16-10-70	1"	10	70
SPS16-10-100	1"	10	100
SPS16-25-35	1"	25	35
SPS16-25-70	1"	25	70
SPS16-25-100	1"	25	100
SPS20-10-150	1.1/4"	10	150
SPS20-10-200	1.1/4"	10	200
SPS20-25-150	1.1/4"	25	150
SPS20-25-200	1.1/4"	25	200

Tech Sheet 10054

Visual Indicator



Return, NPT

0347	Thread
VRG	1/8"

Tech Sheet 10054



Suction, NPT

0347	Thread
VSG	1/8"

Tech Sheet 10054

Return/Suction In-line Spin-on Filter Heads



Working Pressure 10 bar, BSPP Post, BSPP Ports

0347	Thread	Description
SRFH-08	1/2"	Return
SSFH-08	1/2"	Suction
SRFH-12	3/4"	Return
SSFH-12	3/4"	Suction
SRFH-16	1"	Return
SSFH-16	1"	Suction
SRFH-20	1.1/4"	Return
SSFH-20	1.1/4"	Suction

Tech Sheet 10054

Spin-on Element to suit S*FH



BSPP

0347	To Suit	Micron	LPM
SE-035-10-12	1/2"	10	35
SE-035-10A-12	1/2"	10ABS	35
SE-035-25-12	1/2"	25	35
SE-070-10-12	3/4"	10	70
SE-070-10A-12	3/4"	10ABS	70
SE-070-25-12	3/4"	25	70
SE-100-10-12	1"	10	100
SE-100-10A-12	1"	10ABS	100
SE-100-25-12	1"	25	100
SE-150-10-20	1.1/4"	10	150
SE-150-25-20	1.1/4"	25	150
SE-200-10-20	1.1/4"	10	200
SE-200-25-20	1.1/4"	25	200

Tech Sheet 10054

HIGH PRESSURE HYDRAULIC FILTRATION



Pressure line filters are an essential part in most hydraulic systems. When the hydraulic components are sophisticated, with close tolerances and a regulation function (not simply that of control), the use of filters in the pressure lines is a must.

The UFI Hydraulic Division pressure filters are named 'COMPO CARE' because they take care of system components, ensuring the recommended cleanliness levels. Filter elements are manufactured from glass fibre and cellulose media

Materials:

- Cast iron head
- Steel bowl
- Steel bypass valve
- NBR nitrile seals (FKM fluoroelastomer on request)
- Brass indicator housing

Pressures: (ISO 10771-1:2002)

- Maximum working: 42 MPa (420 bar)
- Test: 62 MPa (620 bar)
- Bursting: 126 MPa (1.260 bar)
- Collapse differential for the filter element (ISO 2941):
 - Series standard 2 MPa (20 bar)
 - Series H+ 21 MPa (210 bar)

PB Series Filters, 420 bar

Working Temperature:
-25°C to +110°C

Maximum Working Pressure: 420 bar

BSPP Ported, No Indicator, Bypass 6 bar, 5 Micron

0526	Thread	Filter Element Size
FPB12B04CNFA03EX	1/2"	12
FPB13B06CNFA03EX	3/4"	13
FPB21B08CNFA03EX	1"	21
FPB31B10CNFA03EX	1.1/4"	31
FPB33B12CNFA03EX	1.1/2"	33
FPB34B12CNFA03EX	1.1/2"	34

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BSPP Ported, No Indicator, Bypass 6 bar, 12 Micron

0526	Thread	Filter Element Size
FPB12B04CNFC03EX	1/2"	12
FPB13B06CNFC03EX	3/4"	13
FPB21B08CNFC03EX	1"	21
FPB31B10CNFC03EX	1.1/4"	31
FPB33B12CNFC03EX	1.1/2"	33
FPB34B12CNFC03EX	1.1/2"	34

Tech Sheet 68074



BSPP Ported, No Indicator, Bypass 6 bar, 7 Micron

0526	Thread	Filter Element Size
FPB12B04CNFB03EX	1/2"	12
FPB13B06CNFB03EX	3/4"	13
FPB21B08CNFB03EX	1"	21
FPB31B10CNFB03EX	1.1/4"	31
FPB33B12CNFB03EX	1.1/2"	33
FPB34B12CNFB03EX	1.1/2"	34

Tech Sheet 68074

BSPP Ported, No Indicator, Bypass 6 bar, 21 Micron

0526	Thread	Filter Element Size
FPB12B04CNFD03EX	1/2"	12
FPB13B06CNFD03EX	3/4"	13
FPB21B08CNFD03EX	1"	21
FPB31B10CNFD03EX	1.1/4"	31
FPB33B12CNFD03EX	1.1/2"	33
FPB34B12CNFD03EX	1.1/2"	34

Tech Sheet 68074

The UFI Hydraulic Division clogging indicators give an exact indication of the proper time to replace the filter element



Clogging Indicators, Visual

0526	Cracking Pressure Bar
5E-PBIND	5
5F-PBIND	8

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Clogging Indicators, Electrical

0526	Cracking Pressure Bar
6E-PBIND	5
6F-PBIND	8

Tech Sheet 68074



Clogging Indicators, LED Electrical, 24V

0526	Cracking Pressure Bar
7E-PBIND	5
7F-PBIND	8

Tech Sheet 68074

Replacement Fibre Elements

0526	Filter Element Size	Micron
EPB12NFA	12	5
EPB12NFB	12	7
EPB12NFC	12	12
EPB12NFD	12	21
EPB13NFA	13	5
EPB13NFB	13	7
EPB13NFC	13	12
EPB13NFD	13	21

0526	Filter Element Size	Micron
EPB21NFA	21	5
EPB21NFB	21	7
EPB21NFC	21	12
EPB21NFD	21	21
EPB31NFA	31	5
EPB31NFB	31	7
EPB31NFC	31	12
EPB31NFD	31	21

0526	Filter Element Size	Micron
EPB33NFA	33	5
EPB33NFB	33	7
EPB33NFC	33	12
EPB33NFD	33	21
EPB34NFA	34	5
EPB34NFB	34	7
EPB34NFC	34	12
EPB34NFD	34	21



HIGH PRESSURE HYDRAULIC FILTRATION



The UFI Hydraulic Division pressure filters are named 'COMPO CARE' because they take care of system components, ensuring the recommended cleanliness levels.

Filter elements are manufactured from glass fibre and cellulose media

Materials:

- Anodized aluminium alloy housing
- Steel bypass valve
- NBR nitrile seals (FKM fluoroelastomer on request)
- Brass indicator housing

Pressures: (ISO 10771-1:2002)

- Maximum working: 21 MPa (210 bar)
- Test: 33 MPa (330 bar)
- Bursting: 66 MPa (660 bar)
- Collapse differential for the filter element (ISO 2941): 2,1 MPa (21 bar)

Compatibility: (ISO 2943:1999)

- Full with fluids: HH-HL-HM-H -HTG (according to ISO 6743/4)

PM Series Filters, 210 bar

Working Temperature:
-25°C to +110°C

Maximum Working Pressure: 210 bar



BSPP Ported, No Indicator, Bypass 6 bar, 5 Micron

0526	Thread	Filter Element Size
FPM21B04CNFA03XX	1/2"	21
FPM22B06CNFA03XX	3/4"	22
FPM22B08CNFA03XX	1"	22

Tech Sheet 68075

BSPP Ported, No Indicator, Bypass 6 bar, 7 Micron

0526	Thread	Filter Element Size
FPM21B04CNFB03XX	1/2"	21
FPM22B06CNFB03XX	3/4"	22
FPM22B08CNFB03XX	1"	22

Tech Sheet 68075



Replacement Fibre Elements

0526	Filter Element Size	Micron
EPB22NFA	22	5
EPB22NFB	22	7
EPB22NFC	22	12
EPB22NFD	22	21

Tech Sheet 68075

BSPP Ported, No Indicator, Bypass 6 bar, 12 Micron

0526	Thread	Filter Element Size
FPM21B04CNFC03XX	1/2"	21
FPM22B06CNFC03XX	3/4"	22
FPM22B08CNFC03XX	1"	22

Tech Sheet 68075

BSPP Ported, No Indicator, Bypass 6 bar, 21 Micron

0526	Thread	Filter Element Size
FPM21B04CNFD03XX	1/2"	21
FPM22B06CNFD03XX	3/4"	22
FPM22B08CNFD03XX	1"	22

Tech Sheet 68075



For **Clogging Indicators**
see page 257

Materials:

- Aluminium alloy head
- Steel bowl
- NBR nitrile bypass valve (FKM fluoroelastomer on request)
- NBR nitrile seals (FKM fluoroelastomer on request)
- Brass indicator housing

Compatibility: (ISO 2943:1999)

- Full with fluids: HH-HL-HM-H -HTG (according to ISO 6743/4)

Pressures:

- (ISO 10771-1:2002)
- Maximum working: 5 MPa (50 bar)
 - Fatigue test: 0-5 Mpa (0-50 bar) 1 million cycles
 - Collapse differential for the filter element (ISO 2941): 1 MPa (10 bar)

PG Series Filters, 50 bar

Working Temperature:
-25°C to +110°C

Maximum Working Pressure: 50 bar



BSPP Ported, No Indicator, Bypass 3.5 bar, 12 Micron

0526	Thread	Filter Element Size
FPG20B06DNFC03CX	3/4"	20
FPG21B06DNFC03CX	3/4"	21
FPG22B08DNFC03CX	1"	22
FPG31B10DNFC03CX	1.1/4"	31

Tech Sheet 68076

BSPP Ported, No Indicator, Bypass 6 bar, 21 Micron

0526	Thread	Filter Element Size
FPG20B06DNFD03CX	3/4"	20
FPG21B06DNFD03CX	3/4"	21
FPG22B08DNFD03CX	1"	22
FPG31B10DNFD03CX	1.1/4"	31

Tech Sheet 68076



Replacement Fibre Elements

0526	Filter Element Size	Micron
EPG20NFA	20	5
EPG20NFB	20	7
EPG20NFC	20	12
EPG20NFD	20	21
EPG21NFA	21	5
EPG21NFB	21	7
EPG21NFC	21	12
EPG21NFD	21	21
EPG22NFA	22	5
EPG22NFB	22	7
EPG22NFC	22	12
EPG22NFD	22	21
EPG31NFA	31	5
EPG31NFB	31	7
EPG31NFC	31	12
EPG31NFD	31	21

Tech Sheet 68076

HYDRAULIC FILTRATION



The UFI Hydraulic Division return filters are named 'ANK CARE' because they take care of the oil returning into the tank, ensuring the fluid cleanliness level to be within the required values. Nominal flow rates up to 2.400 L/mi (635 GPM). Degree of filtration is from 5µm(c) to 90µm. Filter elements are glass fibre, cellulose and metal wire mesh media.

Materials:

- Aluminium alloy head and cover
- Polyamide bowl for FRA21-31-32-33-41
- Zinc-plated steel bowl for FRA41-42-51-52-53-5D
- Polyamide bypass valve
- NBR nitrile seals (FKM fluoroelastomer on request)
- Brass indicator housing

Compatibility: (ISO 2943:1999)

- Full with fluids: HH-HL-HM-H -HTG (according to ISO 6743/4)

RA Series Filters, Tank Return

Working Temperature:
-25°C to +110°C

Maximum Working Pressure: 3 bar

BSPP Ported, Visual Indicator, Bypass 1.7 bar, 12 Micron

0526	Thread	Filter Element Size
FRA21B04BNFC32WX	1/2"	21
FRA31B06BNFC32WX	3/4"	31
FRA32B08BNFC32WX	1"	32
FRA41B10BNFC32WX	1.1/4"	41
FRA51B12BNFC32WX	1.1/2"	51
FRA53B16BNFC32WX	2"	53

Tech Sheet 68077

BSPP Ported, Visual Indicator, Bypass 1.7 bar, 21 Micron

0526	Thread	Filter Element Size
FRA21B04BNFD32WX	1/2"	21
FRA31B06BNFD32WX	3/4"	31
FRA32B08BNFD32WX	1"	32
FRA41B10BNFD32WX	1.1/4"	41
FRA51B12BNFD32WX	1.1/2"	51
FRA53B16BNFD32WX	2"	53

Replacement Fibre Elements

0526	Filter Element Size	Micron
ERA21NFC	21	12
ERA31NFC	31	12
ERA32NFC	32	12
ERA41NFC	41	12
ERA51NFC	51	12
ERA53NFC	53	12
ERA21NFD	21	21
ERA31NFD	31	21
ERA32NFD	32	21
ERA41NFD	41	21
ERA51NFD	51	21
ERA53NFD	53	21

Materials:

- Aluminium alloy head
- Steel spin-on cartridge
- Polyamide bypass valve
- NBR nitrile seals (FKM fluoroelastomer on request)
- Brass indicator housing

Pressures: (ISO 10771-1:2002)

- Maximum working: 1,2 MPa (12 bar)
- Test: 1,5 MPa (15 bar)
- Bursting: 2,5 MPa (25 bar)
- Collapse differential for the filter element (ISO 2941): 400 kPa (4 bar)

Compatibility: (ISO 2943:1999)

- Full with fluids: HH-HL-HM-HR-HV-HG (according to ISO 6743/4)

PE Series Filters, Spin-on

Maximum Working Pressure: 12 bar

Working Temperature:
-25°C to +110°C

Single, BSPP Ported, Visual Indicator, Bypass 1.7 bar, 12 Micron

0526	Thread	Filter Element Size
FPE11B06BNFC31XX	3/4"	11
FPE12B06BNFC31XX	3/4"	12
FPE21B10BNFC31XX	1.1/4"	21
FPE22B10BNFC31XX	1.1/4"	22

Twin, BSPP Ported, Visual Indicator, Bypass 1.7 bar, 12 Micron

0526	Thread	Filter Element Size
FPE31B12BNFC31XX	1.1/2"	31
FPE32B12BNFC31XX	1.1/2"	32

Dual, BSPP Ported, Visual Indicator, Bypass 1.7 bar, 12 Micron

0526	Thread	Filter Element Size
FPE41B12BNFC31XX	1.1/2"	41
FPE42B12BNFC31XX	1.1/2"	42

Replacement Fibre Elements

0526	Filter Element Size	Micron
ESE11NFA	11	5
ESE11NFB	11	7
ESE11NFC	11	12
ESE11NFD	11	21
ESE12NFA	12	5
ESE12NFB	12	7
ESE12NFC	12	12
ESE12NFD	12	21
ESE21NFA	21	5
ESE21NFB	21	7
ESE21NFC	21	12
ESE21NFD	21	21
ESE22NFA	22	5
ESE22NFB	22	7
ESE22NFC	22	12
ESE22NFD	22	21

Tech Sheet 68078

The UFI Hydraulic Division clogging indicator gives an exact indication of the proper time to replace the filter element



Clogging Indicators, Visual

0526	Thread
31-PEIND	1/8"

Magnetic Tank Cleaner



M12 Thread, 57mm OD

0347	Length mm
MTC-300	300
MTC-450	450
MTC-525	525
MTC-600	600

Tech Sheet 10055

Fluid Sight Glass



BSPP

0347	Thread
SG-12	3/4"
SG-16	1"
SG-20	1.1/4"
SG-24	1.1/2"

Tech Sheet 10060

Weldable Flange to suit SG-**



BSPP

0347	Thread
WF-12	3/4"
WF-16	1"
WF-20	1.1/4"
WF-24	1.1/2"

Tech Sheet 10060

Sight Glasses

- Housing in aluminium and reflector in aluminium, sight glass in polyamide, transparent, high mechanical stability, non-ageing
- Fluid Compatibility: Mineral based oils and solvents

° Maximum Working Temperature: +100°C

Maximum Working Pressure: 3 bar



Aluminium Oil Level Sight Glasses, BSPP

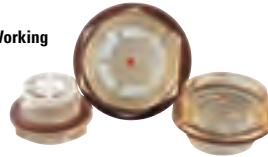
0027	Thread	Hex Size mm
K561020014	1/4"	18
K561024038	3/8"	22
K561029012	1/2"	27

Tech Sheet 10473

- Housing in polyamide, transparent, high mechanical stability, non-ageing
- Fluid Compatibility: Mineral based oils and solvents

° Maximum Working Temperature: +100°C

Maximum Working Pressure: 3 bar



Plastic Oil Sight Glasses, BSPP

0027	Thread	Hex Size mm
K5604120014	1/4"	17
K5604122038	3/8"	18
K5604128012	1/2"	24
K5604135034	3/4"	30
K5604143100	1"	35
K5604151114	1.1/4"	42
K5604158112	1.1/2"	50
K5604174200	2"	64
K56041201415	M14 x 1.5	17
K56041221615	M16 x 1.5	18
K56041251815	M18 x 1.5	21
K56041282015	M20 x 1.5	24

Tech Sheet 10472

Plastic Oil Sight Glasses with Reflector, BSPP

0027	Thread	Hex Size mm
K5604222038	3/8"	18
K5604228012	1/2"	24
K5604235034	3/4"	30
K5604243100	1"	35
K5604251114	1.1/4"	42
K5604258112	1.1/2"	50
K5604274200	2"	64
K56042221615	M16 x 1.5	18
K56042251815	M18 x 1.5	21
K56042282015	M20 x 1.5	24

Tech Sheet 10472

- Housing in polyamide, transparent, high mechanical stability, non-ageing
 - Fluid Compatibility: Mineral based oils and solvents
- NOTE:** For use with a tank with a minimum wall thickness of 5mm. Not suitable for pressurised tanks

° Maximum Working Temperature: +100°C



Push-in Plastic Oil Sight Glasses with Reflector

0027	OD mm
K56062420	20
K56063026	26
K56063632	32
K56064238	38
K56064440	40

Tech Sheet 10471

- Shock resistant
- Transparent polyamide reflector
- Noise aluminium reflector
- Buna-n seal
- For use with mineral, petroleum and water based fluid
- Any contact with alcohol or solvents must be avoided

° Maximum Working Temperature: +100°C

Maximum Working Pressure: 3 bar



Dome Oil Level Sight Glasses, BSPP

0027	Thread	Hex Size mm
K560822038	3/8"	19
K560828012	1/2"	24
K560835034	3/4"	30
K560842100	1"	36

Tech Sheet 10470

Fluid Level Gauge

Without Thermometer

0347	Bolt Thread	Hole Centres mm
FLGS-76	12	76
FLGS-76-10	10	76
FLGS-127	12	127
FLGS-127-10	10	127
FLGS-254	12	254
FLGS-254-10	10	254

Tech Sheet 10060



With Thermometer

0347	Bolt Thread	Hole Centres mm
FLTGS-76	12	76
FLTGS-76-10	10	76
FLTGS-127	12	127
FLTGS-127-10	10	127
FLTGS-254	12	254
FLTGS-254-10	10	254

Tech Sheet 10060

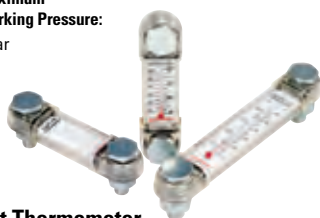


Oil Level Indicators

- Housing in polyamide, transparent, high mechanical stability, non-ageing
- Fluid Compatibility:
 - ▣ Mineral base oils and petroleum base fluids
- Plastic mount and frame allowing for side reading

Working Temperature:
-30°C to +100°C

Maximum Working Pressure:
1 bar



Without Thermometer

0027	Bolt Thread	Hole Centres mm	Length mm
K56001076	M10 x 1.5	76	103
K56001127	M12 x 1.75	127	154

Tech Sheet 10483

With Thermometer

0027	Bolt Thread	Hole Centres mm	Length mm
K56002076	76	M10 x 1.5	103
K56002127	127	M12 x 1.75	154

Tech Sheet 10483

Filler Breathers



Chrome Plated Steel, 40 Micron

0347	OD mm	Description
SFB-3-40	28	3 Bolt Mount
SFB-6-40	48	6 Bolt Mount
SFB-6-40-HN	48	6 Bolt Mount High Neck
SFB-6-40-SM	101.6	Side Mount

Tech Sheet 10056

- Material Body: Thermoplastic polyamide 66
- Strainer: Thermoplastic polypropylene
- Filter: Polyurethane foam 50µm
- Fluid Compatibility: Mineral based oils and solvents

Maximum Working Temperature:
+90°C



Plastic, Push-in

0027	OD mm	Length mm
K5670706020	55	88

Tech Sheet 10484

Desiccant Breather



10 Micron, 2" NPT

0347	LPM
DB-1000	1000
DB-1500	1500
DB-2400	2400

Tech Sheet 10059

Breather



Chrome Plated Steel, 40 Micron, BSPP

0347	Thread
SB-04B	1/4"
SB-08B	1/2"
SB-12B	3/4"



ABS, 40 Micron, BSPP

0347	Thread
ABSB-06B	3/8"
ABSB-08B	1/2"
ABSB-12B	3/4"
ABSB-16B	1"

Tech Sheet 10057



Giant Breather, BSPP

0347	Thread	Micron
GTB-12-10	3/4"	10
GTB-12-25	3/4"	25
GTB-20-10	1.1/4"	10
GTB-20-25	1.1/4"	25

Tech Sheet 10058

5 PSI Pressurised Breather



Chrome Plated Steel, 40 Micron, BSPP

0347	Thread
SPB-08B	1/2"
SPB-12B	3/4"

HYDRAULIC ACCESSORIES



Plugs

- Material: Elastomer, soft polyurethane
- Ideal for keeping threads clean when spraying tanks

- Maximum Working Temperature:**
+100°C
- Working Pressure:**
2 to 3 bar



Screw-in Protection Plugs, BSPP

0027	Thread
K5618018	1/8"
K5618014	1/4"
K5618038	3/8"
K5618012	1/2"
K5618034	3/4"
K5618100	1"

Tech Sheet 10474

Press-in Plugs

- Material: Thermoplastic polyamide 66
- Air Filter: Polyurethane foam
- Filter Fineness 50µm

NOTE: Not suitable for pressurised tanks



With Ventilation with Rubber O-Ring

0027	OD mm	Band Width mm
K562223018	18	8
K562323020	20	8
K562423026	26	9.5

Tech Sheet 10475

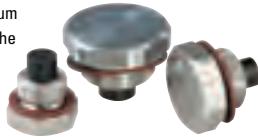
Without Ventilation with Rubber O-Ring

0027	OD mm	Band Width mm
K562213020	20	8
K562213030	30	9.5

Tech Sheet 10475

Plugs with Magnets

- Material: Aluminium
- NOTE:** Mounted on the bottom of tanks to attract metal parts



Aluminium, BSPP

0027	OD mm	Hex Size mm
K562621014	1/4"	19
K562624038	3/8"	22
K562630012	1/2"	27
K562636034	3/4"	34
K562642100	1"	40

Tech Sheet 10476

Vent Screws

- Material: Thermoplastic polyamide 66
- Air Filter: Polyurethane foam
- Fluid Compatibility: Mineral based oils and solvents

- Maximum Working Temperature:**
+100°C



With Oil Fill Symbol

0027	Thread
K5634136038	3/8"
K5634141012	1/2"
K5634147034	3/4"
K5634152100	1"
K5634163114	1.1/4"
K5634163112	1.1/2"
K56341361615	M16 x 1.5
K56341411815	M18 x 1.5
K56341412015	M20 x 1.5
K56341412215	M22 x 1.5

Tech Sheet 10477

With Oil Fill Symbol & Filter

0027	Thread
K5634236038	3/8"
K5634241012	1/2"
K5634247034	3/4"
K5634252100	1"
K5634263114	1.1/4"
K5634263112	1.1/2"
K56342361615	M16 x 1.5
K56342411815	M18 x 1.5
K56342412215	M22 x 1.5

Tech Sheet 10477



With Splash Guard, Filter & Oil Symbol, BSPP

0027	Thread
K563630014	1/4"
K563630038	3/8"
K563630012	1/2"

Tech Sheet 10478

Brass Vent Screws

- Material: Brass and cap in brass filter in galvanized steel wire 50-60µm



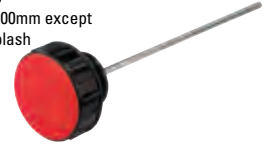
Filter & Vent, BSPP

0027	Thread
K564020014	1/4"
K564024038	3/8"
K564030012	1/2"

Tech Sheet 10481

Vent Screws with Dipstick

- Material: Black thermoplastic polyamide 66
- Filter: Polyurethane foam 50µm
- Dipstick: Galvanized steel
- Fluid Compatibility: Mineral based oils and solvents
- Dipstick Length: 200mm except non-return and splash back 195mm



With Vent, Filter & Fill Symbol

0027	Thread
K5654236038	3/8"
K5654241012	1/2"
K5654247034	3/4"
K5654252100	1"
K56542412015	M20 x 1.5

Tech Sheet 10479

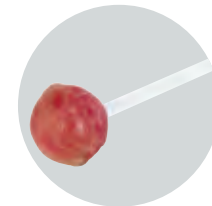


With Non-return Valve & Non-return Symbol, BSPP

0027	Thread
K563830014	1/4"
K563830038	3/8"
K563830012	1/2"

Tech Sheet 10480

Thinking Sticks



Traffic Light Lollipops

0166	Qty
LOL1	150



Hydraulic Pressure Gauges

This quality range of hydraulic glycerine-filled pressure gauges have been manufactured to the highest specification using quality materials.

The range includes stainless steel cased to complete stainless steel units with 40mm, 63mm and 100mm dials. Pressures range from 0-1 bar to 0-600 bar, with rear and bottom connections of 1/4" and 1/2" in BSPP and BSPT.

FT Pro gauges are tried, tested and used extensively throughout the world's manufacturing facilities and in the mobile plant industry.

For your peace of mind all gauges can be supplied with a calibration certificate at a nominal charge.

Applications:

- Hydraulics
- Construction
- Agriculture
- Mining
- OEM machine building
- Offshore
- Marine
- High pressure water applications
- Service kits



GLYCERINE GAUGES & ACCESSORIES



Stainless Steel Case, Bottom Connection

stainless
steel



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001BG	1/4"	63	0-15	0-1
G63-002BG	1/4"	63	0-30	0-2
G63-004BG	1/4"	63	0-60	0-4
G63-006BG	1/4"	63	0-100	0-6
G63-012BG	1/4"	63	0-200	0-12
G63-020BG	1/4"	63	0-300	0-20
G63-025BG	1/4"	63	0-400	0-25
G63-040BG	1/4"	63	0-600	0-40
G63-060BG	1/4"	63	0-1000	0-60
G63-120BG	1/4"	63	0-2000	0-120
G63-200BG	1/4"	63	0-3000	0-200
G63-250BG	1/4"	63	0-4000	0-250
G63-400BG	1/4"	63	0-6000	0-400
G63-600BG	1/4"	63	0-9000	0-600
VG63-01BG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20593

stainless
steel



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001BG	1/4"	63	0-15	0-1
PG63-002BG	1/4"	63	0-30	0-2
PG63-004BG	1/4"	63	0-60	0-4
PG63-006BG	1/4"	63	0-100	0-6
PG63-012BG	1/4"	63	0-200	0-12
PG63-014BG	1/4"	63	0-200	0-14
PG63-020BG	1/4"	63	0-300	0-20
PG63-025BG	1/4"	63	0-400	0-25
PG63-040BG	1/4"	63	0-600	0-40
PG63-060BG	1/4"	63	0-1000	0-60
PG63-120BG	1/4"	63	0-2000	0-120
PG63-200BG	1/4"	63	0-3000	0-200
PG63-250BG	1/4"	63	0-4000	0-250
PG63-400BG	1/4"	63	0-6000	0-400
PG63-600BG	1/4"	63	0-9000	0-600

Tech Sheet 20594

Stainless Steel Case, Centre Back Connection

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB

stainless
steel



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001RG	1/4"	63	0-15	0-1
G63-002RG	1/4"	63	0-30	0-2
G63-004RG	1/4"	63	0-60	0-4
G63-006RG	1/4"	63	0-100	0-6
G63-010RG	1/4"	63	0-160	0-10
G63-012RG	1/4"	63	0-200	0-12
G63-020RG	1/4"	63	0-300	0-20
G63-025RG	1/4"	63	0-400	0-25
G63-040RG	1/4"	63	0-600	0-40
G63-060RG	1/4"	63	0-1000	0-60
G63-120RG	1/4"	63	0-2000	0-120
G63-200RG	1/4"	63	0-3000	0-200
G63-250RG	1/4"	63	0-4000	0-250
G63-400RG	1/4"	63	0-6000	0-400
G63-600RG	1/4"	63	0-9000	0-600
VG63-01RG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20595

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB

stainless
steel



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001RG	1/4"	63	0-15	0-1
PG63-002RG	1/4"	63	0-30	0-2
PG63-004RG	1/4"	63	0-60	0-4
PG63-006RG	1/4"	63	0-100	0-6
PG63-012RG	1/4"	63	0-200	0-12
PG63-020RG	1/4"	63	0-300	0-20
PG63-025RG	1/4"	63	0-400	0-25
PG63-040RG	1/4"	63	0-600	0-40
PG63-060RG	1/4"	63	0-1000	0-60
PG63-120RG	1/4"	63	0-2000	0-120
PG63-200RG	1/4"	63	0-3000	0-200
PG63-250RG	1/4"	63	0-4000	0-250
PG63-400RG	1/4"	63	0-6000	0-400
PG63-600RG	1/4"	63	0-9000	0-600

Tech Sheet 20596

Panel Mounting Brackets

stainless
steel



For G63 & PG63 Centre Back Connection
below 100 bar

0021
G63-PM

stainless
steel



For G63 & PG63 Centre Back Connection
above 100 bar

0021
G63-PM-RHOMB

Gauge Snubbers

Working Pressure:
20 to 300 bar



High Pressure

0234	Male Thread	Female Thread
130.4	1/4"	1/4"
130.3	3/8"	3/8"
130.2	1/2"	1/2"

Tech Sheet 28

Gauge snubbers are a great way of protecting gauges from damage, with sudden impact pressure i.e. when full line pressure is introduced to the gauge damage can occur. With the use of the snubber the gauge will be protected.

Working Pressure:
0 to 20 bar



Low Pressure

0234	Male Thread	Female Thread
131.8	1/8"	1/8"
131.4	1/4"	1/4"
131.3	3/8"	3/8"
131.2	1/2"	1/2"

Tech Sheet 28

Back Rubber Gauge Protectors




0021	Description
G63-OB	Open
G63-CB	Closed

TEMPERATURE GAUGES



Bi-metallic Thermometers, Centre Back Connection

 **Pressure Rating
of Thermowell:**
6 bar max



63mm & 100mm Diameter, Aluminium Case, 1/2" BSPP

0056	Gauge Diameter mm	Temperature Range °C
WTG63-60	63	0-60
WTG63-120	63	0-120
WTG63-200	63	0-200
WTG100-60	100	0-60
WTG100-120	100	0-120
WTG100-200	100	0-200

Tech Sheet 10526

Refrigeration Gauges, Plastic Case, Bottom Connection



63mm Diameter, 7/16" UNF, 1/4" Flare

0056	Temperature Range °C
WG63-716B-1/9	-1/+9

All pressure gauges can be supplied with a calibration certificate at a nominal charge.
Please call our Business Development Team for price and delivery.



Customers who bought from
this page also purchased
Hydraulic Test Points
see pages 268-272



GLYCERINE GAUGES



Heavy-duty, Bottom Connection

Accuracy:

63mm diameter: +/- 1.6%

100mm diameter: +/- 1.0%



63mm & 100mm Diameter, BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar	Max Pressure PSI
WG63-14B-1G	1/4"	63	1	15
WG63-14B-1.6G	1/4"	63	1.6	25
WG63-14B-2.5G	1/4"	63	2.5	40
WG63-14B-4G	1/4"	63	4	60
WG63-14B-6G	1/4"	63	6	90
WG63-14B-10G	1/4"	63	10	160
WG63-14B-16G	1/4"	63	16	230
WG63-14B-25G	1/4"	63	25	400
WG63-14B-40G	1/4"	63	40	600
WG63-14B-60G	1/4"	63	60	900
WG63-14B-100G	1/4"	63	100	1600
WG63-14B-160G	1/4"	63	160	2300
WG63-14B-250G	1/4"	63	250	4000
WG63-14B-400G	1/4"	63	400	6000
WG63-14B-600G	1/4"	63	600	9000
WG100-38B-2.5G	3/8"	100	2.5	40
WG100-38B-4G	3/8"	100	4	60
WG100-38B-6G	3/8"	100	6	90
WG100-38B-10G	3/8"	100	10	160
WG100-38B-16G	3/8"	100	16	230
WG100-38B-40G	3/8"	100	40	600
WG100-12B-100G	1/2"	100	100	1600
WG100-12B-160G	1/2"	100	160	2300
WG100-12B-250G	1/2"	100	250	4000
WG100-12B-400G	1/2"	100	400	6000
WG100-12B-600G	1/2"	100	600	9000

Tech Sheet 10525

Heavy-duty, Centre Back Connection



63mm & 100mm Diameter, BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar	Max Pressure PSI
WG63-14R-1G	1/4"	63	1	15
WG63-14R-1.6G	1/4"	63	1.6	25
WG63-14R-2.5G	1/4"	63	2.5	40
WG63-14R-4G	1/4"	63	4	60
WG63-14R-6G	1/4"	63	6	90
WG63-14R-10G	1/4"	63	10	160
WG63-14R-16G	1/4"	63	16	230
WG63-14R-25G	1/4"	63	25	400
WG63-14R-40G	1/4"	63	40	600
WG63-14R-60G	1/4"	63	60	900
WG63-14R-100G	1/4"	63	100	1600
WG63-14R-160G	1/4"	63	160	2300
WG63-14R-250G	1/4"	63	250	3600
WG63-14R-400G	1/4"	63	400	6000
WG63-14R-600G	1/4"	63	600	9000
WG100-38R-2.5G	3/8"	100	2.5	40
WG100-38R-4G	3/8"	100	4	60
WG100-38R-6G	3/8"	100	6	90
WG100-38R-10G	3/8"	100	10	160
WG100-38R-16G	3/8"	100	16	230
WG100-38R-40G	3/8"	100	40	600
WG100-12R-100G	1/2"	100	100	1600
WG100-12R-160G	1/2"	100	160	2300
WG100-12R-250G	1/2"	100	250	4000
WG100-12R-400G	1/2"	100	400	6000
WG100-12R-600G	1/2"	100	600	9000

Tech Sheet 10525

Vacuum Gauges, Bottom Connection

Accuracy:

63mm diameter: +/- 1.6%



63mm Diameter, 1/4" BSPP

0056	Max Pressure Hg	Max Pressure Bar
WG63-14B/-30HG	-30	-1

Tech Sheet 10525

Vacuum Gauges, Centre Back Connection



63mm Diameter, 1/4" BSPP

0056	Max Pressure Hg	Max Pressure Bar
WG63-14R/-30HG	-30	-1

Tech Sheet 10525

All Stainless Steel Gauges, 1/4" Bottom Connection



1/4" BSPP

0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SSG63-001BG	63	0-15	0-1
SSG63-004BG	63	0-60	0-4
SSG63-012BG	63	0-200	0-12
SSG63-025BG	63	0-400	0-25
SSG63-060BG	63	0-1000	0-60
SSG63-200BG	63	0-3000	0-200
SSG63-400BG	63	0-6000	0-400

Tech Sheet 20598

All Stainless Steel Gauges, 1/4" Centre Back Connection



1/4" BSPP

0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2020-0340	50	0-200	0-12
2020-0341	50	0-300	0-20
2020-0342	50	0-600	0-40
2020-0343	50	0-900	0-60
2020-0344	50	0-4000	0-250
2038-8534	63	0-200	0-12
2038-8567	63	0-900	0-60
2038-8575	63	0-4000	0-250

Tech Sheet 20600

All Stainless Steel Gauges, 1/2" Bottom Connection



1/2" BSPP

0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SHG100-002BG	100	0-30	0-2
SHG100-006BG	100	0-100	0-6
SHG100-016BG	100	0-250	0-16
SHG100-040BG	100	0-600	0-40
SHG100-100BG	100	0-1500	0-100
SHG100-250BG	100	0-4000	0-250
SHG100-600BG	100	0-9000	0-600

Tech Sheet 20599

All Stainless Steel Gauges, 1/2" Centre Back Connection



1/2" BSPP

0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2038-8435	100	0-200	0-12
2038-8443	100	0-300	0-20
2038-8450	100	0-600	0-40
2038-8476	100	0-4000	0-250

Tech Sheet 20601

Stainless Steel Case, Heavy-duty, Bottom Connection



1/2" BSPP

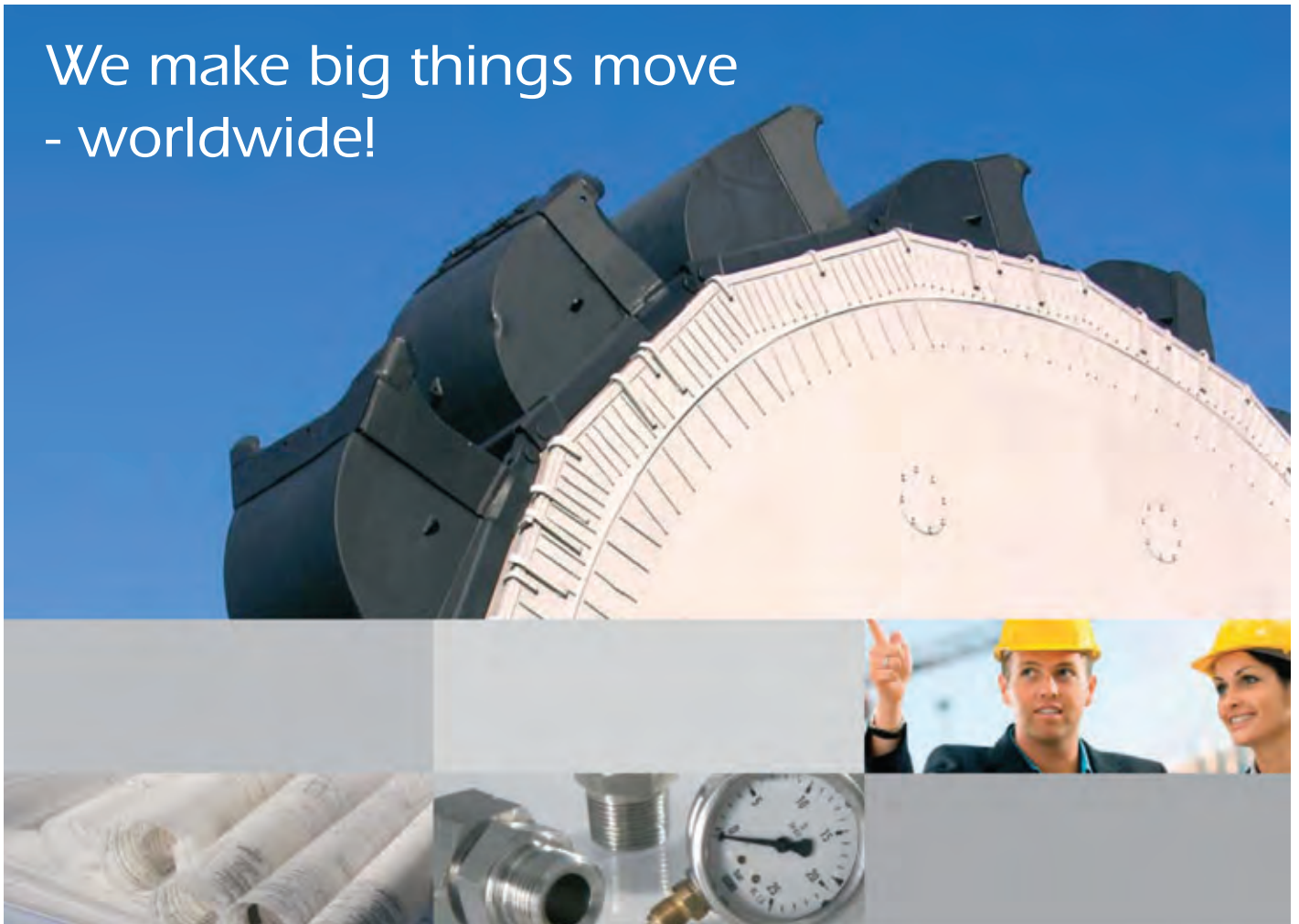
0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002G	100	0-36	0-2.5
HG100-004G	100	0-58	0-4
HG100-006G	100	0-87	0-6
HG100-010G	100	0-145	0-10
HG100-016G	100	0-232	0-16
HG100-040G	100	0-580	0-40
HG100-100G	100	0-1450	0-100
HG100-160G	100	0-2320	0-160
HG100-250G	100	0-3625	0-250
HG100-400G	100	0-5800	0-400

1/2" BSPT

0021	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002B	100	0-36	0-2.5
HG100-004B	100	0-58	0-4
HG100-006B	100	0-87	0-6
HG100-010B	100	0-145	0-10
HG100-016B	100	0-232	0-16
HG100-040B	100	0-580	0-40
HG100-100B	100	0-1450	0-100
HG100-160B	100	0-2320	0-160
HG100-250B	100	0-3625	0-250
HG100-400B	100	0-5800	0-400

Tech Sheet 20597

We make big things move
- worldwide!



HYDRAULICS you can count on!



TEST POINT COUPLINGS

Piston Valve Type, M16 x 2

Media Application:
Hydraulic and other oils on mineral oil basis.

Metal Cap -30°C to +100°C Sealings Buna N
Metal Cap -20°C to +200°C Sealings Viton



Test Coupling

0330	Thread	Max Pressure Bar
1-Z06-28-11-600	1/8" BSPP	400
1-Z06-29-11-600	1/4" BSPP	400
1-Z06-30-11-600	3/8" BSPP	400
1-Z06-22-11-600	M10 x 1.0	630
1-Z06-23-11-600	M12 x 1.5	630
1-Z06-24-11-600	M14 x 1.5	630
1-Z06-43-00-600	1/8" NPT	400
1-Z06-44-00-600	1/4" NPT	400
1-Z06-39-30-600	7/16" UNF	630
1-Z06-40-30-600	9/16" UNF	630

Tech Sheet 10292



Bulkhead Coupling

0330	Max Pressure Bar
1-Z80-48-60-040	630

Tech Sheet 10292



In-line Tee, BSPP

0330	Thread	Max Pressure Bar
1-Z10-68-00-600	1/4"	400
1-Z10-69-00-600	3/8"	400
1-Z10-70-00-600	1/2"	630
1-Z10-72-00-600	3/4"	630
1-Z10-73-00-600	1"	630

Tech Sheet 10292

stainless steel



316 Stainless Steel, BSPP

0330	OD mm	Max Pressure Bar
1-912-28-12-660	1/8"	400
1-912-29-12-660	1/4"	630

Tech Sheet 10292



DIN 2353 DKO Light-duty, Metric

0330	OD mm	Burst Pressure Bar
1-Z08-00-10-600	6L	1000
1-Z08-02-10-600	8L	1000
1-Z08-04-10-600	10L	1000
1-Z08-06-10-600	12L	1000

Tech Sheet 10292

DIN 2353 DKO Heavy-duty, Metric

0330	OD mm	Burst Pressure Bar
1-Z08-03-10-600	8S	1890
1-Z08-05-10-600	10S	1890
1-Z08-07-10-600	12S	1890

Tech Sheet 10292

Gauge Adaptors

stainless steel



316 Stainless Steel, BSPP

0330	Thread	Max Pressure Bar
1-940-31-22-080	1/2"	630

Tech Sheet 10292



Direct, BSPP

0330	Thread	Max Pressure Bar
1-927-29-01-020	1/4"	630
1-927-31-01-020	1/2"	630

Tech Sheet 10292



Hose/Gauge, BSPP

0330	Thread	Max Pressure Bar
1-918-29-01-240	1/4"	630
1-918-31-01-240	1/2"	630

Tech Sheet 10292

TEST POINT COUPLINGS

Ball Valve Type, M16 x 2



Maximum Working Pressure:
630 bar



Test Coupling

0330	Thread	Max Pressure Bar
1-906-22-11-600	M10 x 1.0	630
1-906-23-11-600	M12 x 1.5	630
1-906-24-11-600	M14 x 1.5	630
1-906-28-11-600	G1/8" BSPP	630
1-906-29-11-600	G1/4" BSPP	630
1-906-30-11-600	G3/8" BSPP	630
1-906-43-00-600	1/8" NPT	630
1-906-44-00-600	1/4" NPT	630
1-906-39-30-600	7/16" UNF	630
1-906-40-30-600	9/16" UNF	630

Tech Sheet 10292



Bulkhead Coupling

0330	
1-980-48-60-040	

Tech Sheet 10292



Maximum Working Pressure:
135 bar



DIN 2353 DKO Light-duty, Metric

0330	OD mm	Burst Pressure Bar
1-908-00-20-600	6L	630
1-908-02-20-600	8L	630
1-908-04-20-600	10L	630
1-908-06-20-600	12L	630

Tech Sheet 10292



DIN 2353 DKO Heavy-duty, Metric

0330	OD mm	Burst Pressure Bar
1-908-03-20-600	8S	1890
1-908-05-20-600	10S	1890
1-908-07-20-600	12S	1890

Tech Sheet 10292

316 Stainless Steel Test Points

Sealing by an elastomer captive profiled ring - Vito
Test connection: M16 x 2



Maximum Working Pressure:
630 bar

stainless
steel



Form C, BSPP

0330	Thread
MAS-G1/8-WD	1/8"
MAS-G1/4-WD	1/4"
MAS-G3/8-WD	3/8"
MAS-G1/2-WD	1/2"

400 bar Microbore Test Point Hose Assemblies



M16 x 2

0330	Length mm
1-970-04-04-010	200
1-970-04-04-040	400
1-970-04-04-060	630
1-970-04-04-080	800
1-970-04-04-090	1000
1-970-04-04-100	1500
1-970-04-04-110	2000
1-970-04-04-120	2500
1-970-04-04-130	3200
1-970-04-04-140	4000

Tech Sheet 10292



1/4" BSPP

0330	Length mm
1-970-02-04-010	200
1-970-02-04-030	300
1-970-02-04-050	500
1-970-02-04-060	630
1-970-02-04-080	800
1-970-02-04-090	1000
1-970-02-04-100	1500
1-970-02-04-110	2000
1-970-02-04-120	2500
1-970-02-04-140	4000

Tech Sheet 10292



1/2" BSPP

0330	Length mm
1-970-04-25-090	1000
1-970-04-25-100	1500
1-970-04-25-110	2000

Tech Sheet 10292

TEST POINT COUPLINGS

End Fitting to suit DN2 and DN4 Hose

Bespoke assemblies available on request



Test Female Straight

0330	Thread	Type	DN
2-971-04-02-001	M16 x 2	Knurled	2
2-971-04-04-001	M16 x 2	Knurled	4
2-971-10-02-001	M16 x 1.5	Knurled	2
2-971-10-04-001	M16 x 1.5	Knurled	4
2-971-12-02-001	S12 x 1.5	Knurled	2
2-971-12-04-001	S12 x 1.5	Knurled	4

Tech Sheet 60388



Test Female Straight

0330	Thread	Type	DN
2-971-03-02-001	M16 x 2	Hex	2
2-971-09-02-001	M16 x 1.5	Hex	2

Tech Sheet 60388



Test 90° Elbow

0330	Thread	Type	DN
2-971-50-02-001	M16 x 2	Knurled	2
2-971-50-04-001	M16 x 2	Knurled	4
2-971-57-02-001	S12 x 1.5	Knurled	2
2-971-57-04-001	S12 x 1.5	Knurled	4

Tech Sheet 60388



BSPF Female

0330	Thread	DN
2-971-02-02-004	1/4"	2
2-971-02-04-004	1/4"	4
2-971-25-02-001	1/2"	2
2-971-25-04-001	1/2"	4

Tech Sheet 60388



BSPF 90° Elbow

0330	Thread	DN
2-971-58-02-001	1/4"	2
2-971-58-04-001	1/4"	4
2-971-54-02-001	1/2"	2
2-971-54-04-001	1/2"	4

Tech Sheet 60388



NPT Female

0330	Thread	DN
2-971-26-00-001	1/4"	2
2-971-26-04-001	1/4"	4
2-971-27-00-001	1/2"	2
2-971-27-04-001	1/2"	4

Tech Sheet 60388



Metric Female, DN2353

0330	Thread	Type	DN
2-971-19-02-001	M12 x 1.5	6L	2
2-971-19-04-001	M12 x 1.5	6L	4
2-971-20-02-001	M14 x 1.5	6S	2
2-971-20-04-001	M14 x 1.5	6S	4
2-971-21-02-001	M14 x 1.5	8L	2
2-971-21-04-001	M14 x 1.5	8L	4
2-971-22-02-001	M16 x 1.5	8S	2
2-971-22-04-001	M16 x 1.5	8S	4
2-971-23-02-001	M16 x 1.5	10L	2
2-971-23-04-001	M16 x 1.5	10L	4
2-971-24-02-001	M18 x 1.5	10S	2
2-971-24-04-001	M18 x 1.5	10S	4

Tech Sheet 60388



Metric 90° Elbow, DN2353

0330	Thread	Type	DN
2-971-44-02-001	M12 x 1.5	6L	2
2-971-44-04-001	M12 x 1.5	6L	4
2-971-45-02-001	M14 x 1.5	6S	2
2-971-45-04-001	M14 x 1.5	6S	4
2-971-46-02-001	M14 x 1.5	8L	2
2-971-46-04-001	M14 x 1.5	8L	4
2-971-48-02-001	M16 x 1.5	10L	2
2-971-48-04-001	M16 x 1.5	10L	4

Tech Sheet 60388



Metric Straight Standpipe

0330	OD mm	DN
2-971-13-00-001	6	2
2-971-13-04-001	6	4
2-971-15-00-001	8	2
2-971-15-04-001	8	4

Tech Sheet 60388

BSPF Male, DN3852

0330	Thread	DN
2-971-33-00-001	1/8"	2
2-971-33-04-001	1/8"	4

Tech Sheet 60388



JIC, SAE J541, Female

0330	Thread	DN
2-971-41-02-001	7/16"	2
2-971-41-04-001	7/16"	4

Tech Sheet 60388



Banjo

0330	OD mm	DN
2-971-75-00-001	8	2
2-971-75-04-001	8	4

Tech Sheet 60388



Anti-kink Spring



DN2

0330	To Suit
4-946-00-05-020	DN2 Hose

Ferrule



DN2 & DN4

0330	DN
4-999-03-01-160	2
6-999-03-01-010	4

Test Hose

Bespoke assemblies available on request.
Pin pricked



DN2 & DN4 Pin Pricked, Per Metre

0330	Max Pressure Bar	Type	DN
9-946-02-00-012	400	Pin Pricked	2
9-946-02-01-020	630	Pin Pricked	2
9-946-04-00-010	500	Pin Pricked	4

Tech Sheet 10487

DN2 Per Metre

0330	Max Pressure Bar	DN
9-946-02-00-020	630	2

Tech Sheet 10487



TEST POINT COUPLINGS

Spradow - Innovative Measuring Systems

The **Spradow** test coupling enables you to connect a pressure gauge or other measuring instruments in seconds - even if the system is still under pressure. The connection can be applied without any further tools. The non-return valve inside the test coupling opens only after being connected with the measuring instrument to allow a secure and clean pressure measurement.

Pressure is an important parameter for a successful preventing service and maintenance or, if necessary, trouble-shooting.

With **Spradow** test couplings you can reduce your service and maintenance costs considerably.

The **Spradow** test box is the perfect tool for hydraulic systems offering service and maintenance engineers an

easy mobile pressure test solution.

The complete **Spradow** test equipment is of course compatible with all other manufactures and fulfils all current important industrial standards.

Furthermore **Spradow** offers a comprehensive range of measuring systems for pneumatic braking systems.

Pressure Test Kits

Contents:

- 1 x Microbore Hose DN2-400 1620 Gauge Connection 1/4" BSPP 400 bar
- 1 x Pressure Gauge 0-40 bar 1/4" BSPP
- 1 x Pressure Gauge 0-400 bar 1/4" BSPP
- 1 x Gauge Connection 1620 1/4" BSPP
- 1 x Test Point 1620 1/4" BSPP Metal Cap
- 1 x Test Point 1620 M10 x 1
- 1 x Adaptor 1/4" Female x 3/8" Male
- 1 x Adaptor 1/4" Female x 1/2" Male
- 1 x Cleaning Cloth
- 1 x 1/4" Bonded Seal
- 1 x 3/8" Bonded Seal
- 1 x 1/2" Bonded Seal



400 bar, Pressure Test Kit

0330

HYD-KIT1

Tech Sheet 10292

Contents:

- 1 x SNA 1620 Adaptor 1/4" Male x Female
- 1 x SNA 1620 Adaptor 3/8" Male x Female
- 1 x SNA 1620 Adaptor 1/2" Male x Female
- 1 x Test Point 1620 1/4" BSPP Metal Cap
- 1 x Pressure Gauge 0-40 bar 1/4" BSPP
- 1 x Pressure Gauge 0-400 bar 1/4" BSPP
- 1 x Adaptor 1/4" Female x 1/2" Male
- 1 x Adaptor 1/4" Female x 3/8" Male
- 1 x Microbore Hose DN2-400 1620/Gauge Connection 1/4" BSPP 400 bar
- 1 x Cleaning Cloth
- 1 x 1/4" Bonded Seal
- 1 x 3/8" Bonded Seal
- 1 x 1/2" Bonded Seal



400 bar, Test Kit BSPP with In-line Tees

0330

HYD-KIT2

Tech Sheet 10292

Contents:

- 1 x SNA 1620 Adaptor 1/4" Male x Female
- 1 x SNA 1620 Adaptor 3/8" Male x Female
- 1 x SNA 1620 Adaptor 1/2" Male x Female
- 1 x Test Point 1620 1/4" BSPP Metal Cap
- 1 x Test Point 1620 1/8" BSPP Metal Cap
- 1 x Test Point 1620 M10 x 1
- 1 x Test Point 1620 M12 x 1.5 Metal Cap
- 1 x Adaptor 1/4" Female x 1/2" Male
- 1 x Adaptor 1/4" Female x 3/8" Male
- 1 x Pressure Gauge 0-400 bar 1/4" BSPP
- 1 x Pressure Gauge 0-40 bar 1/4" BSPP
- 1 x Microbore Hose DN2-400 1620/Gauge Connection 1/4" BSP 400 bar
- 1 x Cleaning Cloth
- 1 x 1/4" Bonded Seal
- 1 x 3/8" Bonded Seal
- 1 x 1/2" Bonded Seal



400 bar, Test Kit BSPP/Metric with In-line Tees

0330

HYD-KIT3

Tech Sheet 10292

Deluxe Pressure Test Kits



400 bar, Pressure Test Kit

0330

HYD-KIT4

Tech Sheet 10292

Same contents as HYD-KIT1
+ Deluxe Spradow Box

400 bar, Test Kit BSPP with In-line Tees

0330

HYD-KIT5

Tech Sheet 10292

Same contents as HYD-KIT2
+ Deluxe Spradow Box

400 bar, Test Kit BSPP/ Metric with In-line Tees

0330

HYD-KIT6

Tech Sheet 10292

Same contents as HYD-KIT3
+ Deluxe Spradow Box

You might also need
Glycerine Gauges
see pages 414-416



HYDRAULIC OIL COOLERS



AC Range Air Blast Oil Coolers

The LAC air oil cooler, with single-phase or three-phase AC motor, is optimised for use in the industrial sector. The maximum cooling capacity is 300kW at ETD +40°C. See Tech Sheet for full specification on this model.

- Maximum Working Temperature:** +120°C
- Maximum Static Working Pressure:** 21 bar
- Maximum Dynamic Working Pressure:** 14 bar



BSPP

0488	Thread	Voltage	KW/°C
LAC-1	1/2"	230/1/50	0.05
LAC-3	1"	230/3/50-275/3/60	0.36
LAC-6	1.1/4"	230/3/50	1.75
LAC-7	1.1/4"	230/3/50	2.1

Tech Sheet 60442

DC Range Air Blast Oil Coolers

The LDC air oil cooler with 24V DC motor is optimised for use in the mobile industry.

Together with a wide range of accessories, the LDC cooler is suitable for installation in most applications and environments.

The maximum cooling capacity is 30kW at +ETD 40°C. Also available with a 12V DC motor.

See Tech Sheet for full specification on this model.



BSPP

0488	Thread	Voltage	KW/°C
LDC-1	1"	24V	0.12
LDC-2	1"	24V	0.19
LDC-3	1"	24V	0.3
LDC-4	1"	24V	0.38
LDC-5	1"	24V	0.6
LDC-6	1.1/4"	24V	0.72

Tech Sheet 60443

Offline Air Blast Oil Cooler

The LOC cooling system with three-phase AC motor is optimised for use in the industrial sector. The system is supplied ready for installation. An integrated circulation pump makes it possible to cool and treat the oil in a separate circuit (offline cooling)

See Tech Sheet for full specification on this model.

- Maximum Working Temperature:** +100°C
- Maximum Static Working Pressure:** 21 bar
- Maximum Dynamic Working Pressure:** 14 bar



BSPP

0488	Thread	Voltage	KW/°C
LOC-1	1"	230/3/50-275/3/60	0.07
LOC-2	1"	230/3/50-275/3/60	0.2
LOC-3	1"	230/3/50-275/3/60	0.26
LOC-4	1"	230/3/50-275/3/60	0.45
LOC-5	1"	230/3/50-275/3/60	0.61
LOC-6	1.1/4"	230/3/50	1

Tech Sheet 60444

Hydraulic Motor In-line Coolers

The LHC air oil cooler with hydraulic motor is optimised for use in the mobile and industrial sectors.

The maximum cooling capacity is 300kW at ETD +40°C.

See Tech Sheet for full specification on this model

- Maximum Working Temperature:** +120°C
- Maximum Static Working Pressure:** 21 bar
- Maximum Dynamic Working Pressure:** 14 bar



BSPP

0488	Thread	Motor Option	KW/°C
LHC-1	1"	8.4cc	0.22
LHC-2	1"	14.4cc	0.38
LHC-3	1"	10.8cc	0.58
LHC-4	1"	10.8cc	0.76
LHC-5	1.1/4"	10.8cc	1.1
LHC-6	1.1/4"	8.4cc	1.3

Tech Sheet 60445

Compact Water/Oil Coolers

The Parker PWO is a compact and lightweight water/oil cooler with a high cooling capacity for its size.

Features:

- Light and compact
- Suitable for many applications
- Easy installation
- Cost-efficient and environmentally friendly

Material:

- Plates: EN 10028/7-1.4401 (AISI 316)
- Brazing: pure copper
- Connections: EN 10272-1.4401 (AISI 316)

For full specification on this item see Tech Sheet.

- Working Temperature:** -196°C to +225°C

- Maximum Working Pressure:** 31 bar at 155°C



BSPP

0488	Thread	Thread	KW/°C	Type
PWO-1	3/4"	1/2"	1.5-5	B5TH
PWO-2	3/4"	1/2"	4-7	B8TH
PWO-3	3/4"	1/2"	5-17	B8TH
PWO-4	3/4"	1/2"	7-27	B8TH
PWO-5	1"	3/4"	5-27	B10TH
PWO-6	1"	3/4"	10-50	B10TH
PWO-7	1"	3/4"	10-65	B10TH
PWO-8	1.1/4"	1"	10-60	B25TH
PWO-9	1.1/4"	1"	10-80	B25TH
PWO-10	1.1/4"	1"	20-95	B25TH
PWO-11	1.1/4"	1"	20-105	B25TH

Tech Sheet 60460

HYDRAULIC TOOLING & LIFTING EQUIPMENT

UK
CA



Cylinders



Pumps



Cylinder Kits



Accessories



Bottle Jacks



Toe Jacks

HYDRAULIC TOOLING & LIFTING EQUIPMENT



- Collar threads and base
- Hard chrome-plated piston plunger protects against corrosion and damage
- Polyurethane U cup seals provide a sure seal and long life
- Solid one-piece alloy steel body
- One-piece aluminium alloy bearing protects against cylinder wall damage
- Dust cap is standard on all cylinders



Maximum Working Pressure:
700 bar

Cylinders



5 Ton General Purpose, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
H0503	78	169	247
H0505	129	221	350
H0507	180	272	452
H0509	229	324	552

Tech Sheet 60403



15 Ton General Purpose, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
H1501	25	124	149
H1502	51	149	200
H1504	101	200	301
H1506	152	270	422
H1508	203	321	524
H1510	245	372	626
H1512	305	423	728
H1514	356	474	830

Tech Sheet 60403



55 Ton General Purpose, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
H5502	51	176	227
H5504	103	227	330
H5506	159	283	442
H5510	260	385	645
H5513	337	461	798

Tech Sheet 60403



10 Ton General Purpose, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
H1001	25	92	117
H1002	51	123	174
H1004	102	174	276
H1006	151	250	401
H1008	202	301	503
H1010	253	352	605
H1012	304	403	707
H1014	356	450	806

Tech Sheet 60403



25 Ton General Purpose, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
H2501	26	143	169
H2502	51	168	219
H2504	102	219	321
H2506	155	272	427
H2508	206	323	529
H2510	257	374	631
H2512	310	426	736
H2514	362	476	838

Tech Sheet 60403

HYDRAULIC TOOLING & LIFTING EQUIPMENT



Maximum Working Pressure:
700 bar

Pumps

- Metal reservoirs resist cracking
- Built-in bypass device protects the hydraulic system from over-pumping damage (US Patent No. 5,946,912)
- Compact yet powerful air turbo motor (US Patent No. 5,341,723)
- Suggested air inlet range: 110-175 psi (7.6-12.1 bar)



Air Pump, Single Acting

0481	Thread	Oil Capacity Litres	Material
PA1500	3/8"	346.4	Aluminium
Tech Sheet 60403			

- Portable, lightweight and compact design
- Universal motor starts under full load
- 3m 24V AC pendant control for safety
- Weighs only 17kg with oil
- External pressure adjustment is available
- Designed for intermittent duty operation
- Gauge port on control valve



Universal Motor Pump

0481	Thread	LPM	HP	Voltage
PU20M4N01B	3/8"	0.46	1	110V AC
Tech Sheet 60406				

- Metal reservoirs resist cracking
- Internal pressure relief valve for overload protection
- Perfect for use with cylinders and hydraulic tools or OEM applications
- Two-speed pumps reduce user fatigue and increase productivity



Single Speed Hand Pump, Single Acting

0481	Thread	Oil Capacity cm ³	Material
P601S	3/8"	600	Steel
Tech Sheet 60403			



Two-speed Hand Pumps, Single Acting

0481	Thread	Oil Capacity cm ³	Material
P350	3/8"	350	Aluminium
P1000	3/8"	1000	Aluminium
Tech Sheet 60403			



Hand Pump, Double Acting

0481	Thread	Oil Capacity cm ³	Material
P2301M	3/8"	2200	Steel
Tech Sheet 60403			

HYDRAULIC TOOLING & LIFTING EQUIPMENT



- Stackable magnetic adaptors, various heights
- Eliminates dangerous cribbing

- Convenient carrying case
- US Patent No. 7,237,762 B2

 **Maximum Working Pressure:**
700 bar

Cylinder Kits

Adaptor sizes: 4, 11, 23 and 30mm.



5 Ton Flat Body Cylinder Kit, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
HF0503B	6	32	38
Tech Sheet 60405			

Adaptor sizes: 10, 20 and 40mm.



10 Ton Flat Body Cylinder Kit, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
HF1005B	11	43	54
Tech Sheet 60405			

Adaptor sizes: 10, 20 and 40mm.



20 Ton Flat Body Cylinder Kit, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
HF2005B	11	51	62
Tech Sheet 60405			

Adaptor sizes: 10, 20 and 40mm.



30 Ton Flat Body Cylinder Kit, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
HF3005B	13	59	72
Tech Sheet 60405			

Adaptor sizes: 10, 20 and 40mm.



50 Ton Flat Body Cylinder Kit, Single Acting

0481	Stroke mm	Min Height mm	Max Height mm
HF5006B	16	67	83
Tech Sheet 60405			

- Compact design for use in small spaces
- Ideal for pushing applications
- Plunger wiper helps seal out dirt and contamination
- Return spring ensures a quick retraction and extends the life of the spring
- Industrial hard chrome-plated plunger helps prevent scratching and corrosion
- Includes stackable 1", 2" and 3" aluminium adaptors that conveniently snap into the base of the plunger
- Includes high flow CH38F coupler and dust cap
- Convenient storage case
- Bolt-on tilt saddles available



10 Ton Low Profile Cylinder Kit


0481	Stroke mm	Min Height mm	Max Height mm
HL-1001-D	38	88	126
Tech Sheet 60404			

HYDRAULIC TOOLING & LIFTING EQUIPMENT

UK
CABVA
HYDRAULICS

Accessories

- Rubber bend restrictors
- High working pressure
- Optimum flexibility
- Lightweight

 **Working Temperature:**
-40°C to +100°C

 **Maximum Working Pressure:**
700 bar



Hose Assembly, Male NPT

0481	Thread	Length Metres
CS3814-1	3/8"	1
CS3814-2	3/8"	2
CS3814-3	3/8"	3
CS3814-4	3/8"	4
CS3814-6	3/8"	6

Tech Sheet 60403



High Flow Quick Release Coupling, NPT

0481	Thread
CH38	3/8"

Tech Sheet 60403

Bottle Jacks

- Easily adjustable extension screw (2-20 tons)
- Removable rubber carry ring for easy storage of pump handle (2-20 tons)
- Safety valve against over-loading
- Supplied with a carry grip (8 tons and over)



Manual

0481	Stroke mm	Min Height mm	Max Height mm
1412000	228	241	469
1420000	226	249	475
1430000	212	268	480
10500	178	305	483
10990	156	305	461

Tech Sheet 60403

Toe Jacks

- Low height
- Heat-treated and chrome-plated medium carbon steel cylinder
- Chrome-plated plunger improves seal life and optimises performance
- By-pass device protects hydraulic system from over-travel damage (US Patented)
- Hydraulic system is protected from internal damage by a patented by-pass mechanism (US Patent No. 5946912)

 **Maximum Working Pressure:**
700 bar

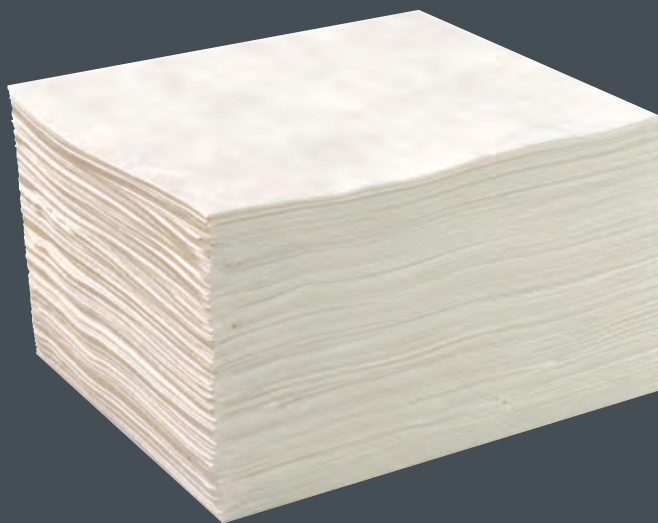


Manual

0481	Stroke mm	Min Height mm	Max Height mm
J13060	130	15	147
J13120	130	23	152
J13200	130	28	160
J13300	130	28	168

Tech Sheet 68802

Perforated for High Absorbency



The unique perforated design of the dimple roll allows the material to be used in the most efficient way.

FT Pro spill absorbents are a superior range of spill solutions designed for ultimate versatility and economical usage.



Unfold for larger spills.

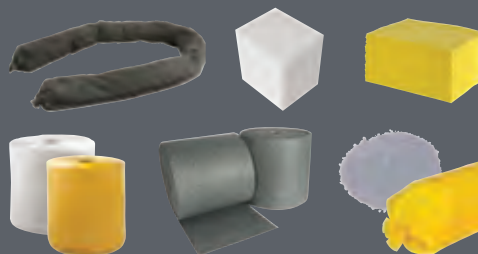


Fold to use as a boom for increased absorbency.



Tear off pieces to use only what you need.

Spill Kits available in reusable carry bags with barrier tape, gloves and safety goggles.



Large range of spill absorbents for many applications and spill types.

SPILL ABSORBENTS & SPILL PREVENTION



Oil Only Heavy-duty Spill Pads

Oil only absorbents are best used outdoors to recover oil-based spills such as petroleum, diesel and solvents.



100 Pads Per Pack

0365	Size cm	Absorbency Per Pack
HDOP-100	40 x 50	108 Litres

Oil Only Spill Dimple Pads

Oil only absorbents are best used outdoors to recover oil-based spills such as petroleum, diesel and solvents.



200 Pads Per Pack

0365	Size cm	Absorbency Per Pack
SOP-200	40 x 50	128 Litres

Oil Spill Perforated Dimple Rolls

Oil only absorbents are best used outdoors to recover oil-based spills such as petroleum, diesel and solvents.



2 x 40 Metre Rolls Per Pack

0365	Size	Absorbency Per Pack
OR-2-40	40cm x 40m	113 Litres

Oil Only Folded Perforated Dimple Rolls

Oil only absorbents are best used outdoors to recover oil-based spills such as petroleum, diesel and solvents.



18 Metre Rolls Per Pack

0365	Size	Absorbency Per Pack	Contents
FOR-3-18	11cm x 18m	105 Litres	3
FOR-1-18	11cm x 18m	35 Litres	1

Oil Only Spill Socks

Oil only absorbents are best used outdoors to recover oil-based spills such as petroleum, diesel and solvents.



20 Socks Per Pack

0365	Size cm	Absorbency Per Pack
SOS-20	7.6 x 120	85 Litres

General Purpose Spill Dimple Pads

As a general rule of thumb, if the spill happens indoors use a general purpose product to absorb both oil and water-based substances.



20 Pads Per Pack

0365	Size cm	Absorbency Per Pack
SGP-20	40 x 50	128 Litres

General Purpose Spill Perforated Dimple Rolls

As a general rule of thumb, if the spill happens indoors use a general purpose product to absorb both oil and water-based substances.



2 x 40 Metre Rolls Per Pack

0365	Size	Absorbency Per Pack
SGR-2-40	40cm x 40m	153 Litres

General Purpose Spill Folded Perforated Dimple Rolls

As a general rule of thumb, if the spill happens indoors use a general purpose product to absorb both oil and water-based substances.



18 Metre Rolls Per Pack

0365	Size	Absorbency Per Pack	Contents
FGR-3-18	11cm x 18m	105 Litres	3
FGR-1-18	11cm x 18m	35 Litres	1

General Purpose Spill Socks

As a general rule of thumb, if the spill happens indoors use a general purpose product to absorb both oil and water-based substances.



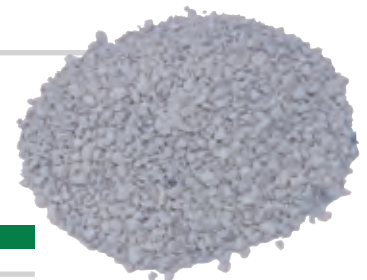
20 Socks Per Pack

0365	Size cm	Absorbency Per Pack
SGS-20	7.6 x 120	70 Litres

Loose Absorbents

16kg Bag

0751
CG16



Chemical Spill Pads

- Suitable for toxic, flammable, corrosive and aggressive liquids
- Fire retardant as per ASTM 726
- Low slip base layer, great for foot traffic



100 Pads Per Pack

0365	Size cm	Absorbency Per Pack
COP-100	40 x 50	78 Litres
Tech Sheet 67960		

Chemical Spill Perforated Dimple Rolls

- Suitable for toxic, flammable, corrosive and aggressive liquids
- Fire retardant as per ASTM 726
- Low slip base layer, great for foot traffic



2 x 40 Metre Rolls Per Pack

0365	Size	Absorbency Per Pack
CSR-2-40	40cm x 40m	114 Litres

Chemical Spill Socks

- Suitable for small hazardous, toxic or unknown based spills
- Absorbs both oil and water based fluids
- Once saturated, will not become slippery



20 Socks Per Pack

0365	Size cm	Absorbency Per Pack
CSS-20	8 x 120	80 Litres
Tech Sheet 67961		

Bags of Rags



0086	Weight Kg
BOR-10KG	10

Shoulder Bag Spill Kit

Kit includes:

- 1 x reusable carry bag.
- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 55 x oil only dimple pads.
- 6 x 1.2 metre oil only socks.



Oil Only

0365	Absorbency Per Pack
SOK-50	50 Litres

Kit includes:

- 1 x reusable carry bag.
- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 55 x general purpose dimple pads.
- 6 x 1.2 metre general purpose socks.



General Purpose

0365	Absorbency Per Pack
SGK-50	50 Litres

SPILL ABSORBENTS & SPILL PREVENTION



Carry Bag Spill Kit

Kit includes:

- 1 x reusable carry bag.
- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 30 x oil only dimple pads.
- 4 x 1.2 metre oil only socks.



Oil Only

0365 **Absorbency Per Pack**
SOK-30 30 Litres

Kit includes:

- 1 x reusable carry bag.
- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 30 x general purpose dimple pads.
- 4 x 1.2 metre general purpose socks.



General Purpose

0365 **Absorbency Per Pack**
SGK-30 30 Litres

Refill Kit

Kit includes:

- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 55 x oil only dimple pads.
- 6 x 1.2 metre oil only socks.



Oil Only

0365 **Absorbency Per Pack**
SOK-50-REFILL 50 Litres

Kit includes:

- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 30 x oil only dimple pads.
- 4 x 1.2 metre oil only socks.



Oil Only

0365 **Absorbency Per Pack**
SOK-30-REFILL 30 Litres

Kit includes:

- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 55 x general purpose dimple pads.
- 6 x 1.2 metre general purpose socks.



General Purpose

0365 **Absorbency Per Pack**
SGK-50-REFILL 50 Litres

Kit includes:

- 50 metres of barrier tape.
- 2 x cable ties.
- 2 x disposal sacks.
- 2 x pairs of disposable Dura-Touch gloves.
- 1 x vented safety goggles.
- 30 x general purpose dimple pads.
- 4 x 1.2 metre general purpose socks.



General Purpose

0365 **Absorbency Per Pack**
SGK-30-REFILL 30 Litres

ISO 32 Hydraulic Oil

Quality mineral hydraulic oil with good anti-wear performance, oxidation resistance, corrosion protection, low pour, air release and anti-foam properties.

Conforms to DIN 51524 11.



20 Litre Drum

0026	Volume Litres
2020-0333	20
Tech Sheet 544	

ISO 46 Hydraulic Oil

Hydraulic oil 46 is blended to ISO 46 viscosity grade requirements and is suitable for use in a wide range of mobile and static hydraulic equipment.

Benefits include: Excellent anti-wear, anti-corrosion, anti-rust performance, low air retention/air entrainment, low foaming and good thermal stability and resistance to oxidation.

Conforms to DIN 51524, Part 2 (HLP).



20 Litre Drum

0026	Volume Litres
ISO 46	20
Tech Sheet 10318	

10W Hydraulic Oil

Hydraulic Oil 10W is a high performance hydraulic oil formulated from solvent refined paraffinic base oils and high performance additives designed to meet a wide range of heavy-duty hydraulic equipment requirements.

Benefits include: Good deposit control, good anti-sludge and varnish resistance, excellent anti-wear and corrosion protection.

Oxidation stability, dispersant/detergent properties and wide temperature range.

High viscosity index promotes high oil pressure.

Conforms to API: SF/CD and MIL-L-2104C.



20 Litre Drum

0026	Volume Litres
10W OIL	20
Tech Sheet 3147	

ATF Dexron II

ATF Dexron II is a high performance multi-application fluid. The high viscosity index and low pour point makes this product ideal for use in hydraulic systems and power steering.

Conforms to GM Dexron II D and GM 6137-M.



20 Litre Drum

0026	Volume Litres
ATF II	20
Tech Sheet 3148	

For **Workshop Fluid Transfer**
see pages **1655-1656**



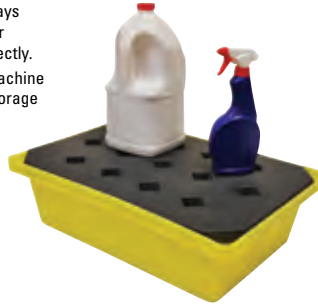
SPILL ABSORBENTS & SPILL PREVENTION



Trays

Made from 100% polyethylene, these spill trays come with a removable grid and are ideal for ensuring drips and spills are contained correctly.

Applications: Truck and machinery leaks, machine part cleaning, ink solvent storage, battery storage and chemical dosing points.



Banded Spill Trays

0480	Capacity Litres	Weight Kg	Height mm	Length mm	Width mm	Max Working Load Kg
ST20	22	3.5	175	595	395	55
ST30	31	4.5	170	805	405	55
ST40	43	7	170	800	605	105
ST60	63	10	200	1000	605	205
ST100	104	14	185	1195	795	205

Tech Sheet 67968

Drain Cover

An integral part of any spill response plan, drain covers go hand in hand with spill response kits. They can also be used proactively, to seal off drains prior to deliveries or refuelling taking place, to ensure leaks and spills are kept out of the drainage system.



Magnetic Drain Cover

0480	Height mm	Length mm	Thickness mm
MDC03	600	600	0.9

Tech Sheet 67970

Drum Spill Containment

Manufactured from medium density polyethylene, these pallets comply with the guidelines issued by environment agencies. They are robust, resistant to most chemicals and come with a removable grid.



Banded Drum Pallets

0480	Capacity Litres	Weight Kg	Height mm	Length mm	Width mm	Max Working Load Kg
BP2-205	240	24	330	1220	820	650
BP4-205	410	40	370	1310	1310	1250

Tech Sheet 67969

Absorbent Dispensing Stations

Ideal for day-to-day housekeeping or responding to minor spills, these polyethylene cabinets are specifically designed for dispensing absorbents. Accepts rolls up to 550mm diameter x 520mm wide.

Weight: 20kg.

Absorbents not included.



Open Front Absorbent Centre, Polyethylene

0480	Size
POLY-STATION	64cm x 58cm x 118cm

Floor standing with single roll holder and workstation cabinet. Welded together to provide a safe and secure fixing.

Weight: 29kg.

Absorbents not included.



Combined Absorbent Centre, Steel

0480	Size
WSHOP-STATION	66cm x 42cm x 150.5cm

Twin wall mounted absorbent roll holders.

Weight: 10.5kg.

Absorbents not included.



Wall Mountable Twin Roll Holder, Steel

0480	Size
WALL-STATION	66cm x 42cm x 89cm

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 2

2

Hydraulic Quick Release Couplings

2 Hydraulic Quick Release Couplings

2.00 Hydraulic QRCs

- ISO A Interchange Couplings & Plugs
- ISO B Interchange Couplings & Plugs
- ISO 5676 Trailer Brake Couplings & Plugs
- ISO 16028 Flat Face Couplings
- T Series Hydraulic Quick Release Coupling
- Screw-on Couplings
- High Pressure Spin-on Couplings
- Stainless Steel Couplings & Plugs
- Push/Pull Breakaway Steel Couplings
- Coupling & Plug Colour Rings
- Screw to Connect Couplings & Plugs
- Ultra High Pressure Couplings
- ISO 14540 Screw Couplings
- Wing Nut Screw Couplings
- TDG Swivel Joints
- Brass Couplings & Plugs
- Thread to Connect Couplings

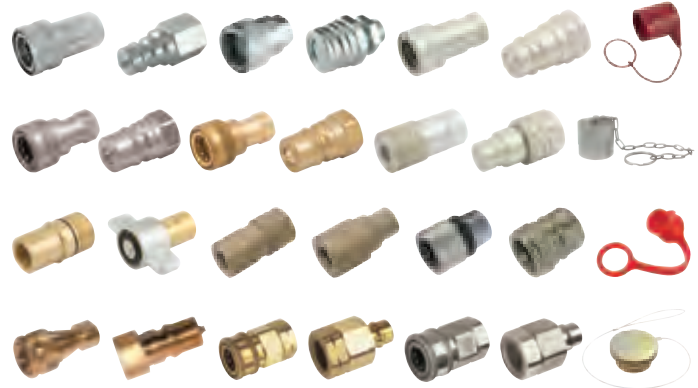
FT PRO

Parker

dnp

Snap-tite

287-320



PROFILE IDENTIFICATION

ISO A Interchange Plugs



HKPA16CS, FT Pro, ISO A Plugs Page 290



HKPA12CS, FT Pro, ISO A Plugs Page 290



HKPA08CS, FT Pro, ISO A Plugs Page 290



HKPA06CS, FT Pro, ISO A Plugs Page 290



HKPA06CS, FT Pro, ISO A Plugs Page 290

ISO B Interchange Plugs



HKP16B, FT Pro, ISO B Plugs Page 291



HKP12B, FT Pro, ISO B Plugs Page 291



HKP08B, FT Pro, ISO B Plugs Page 291



HKP06B, FT Pro, ISO B Plugs Page 291



HKP04B, FT Pro, ISO B Plugs Page 291



HKP02B, FT Pro, ISO B Plugs Page 291

PROFILE IDENTIFICATION

ISO 16028 Interchange, Flat Face



HKPFF16CS, FT Pro, ISO 16028 Flat Face Plug Page 292



HKPFF12CS, FT Pro, ISO 16028 Flat Face Plug Page 292



HKPFF08CS, FT Pro, ISO 16028 Flat Face Plug Page 292



HKPFF06CS, FT Pro, ISO 16028 Flat Face Plug Page 292



HKPFF04CS, FT Pro, ISO 16028 Flat Face Plug Page 292

Note: Due to the change in finished used by our suppliers. the product you receive may differ from that illustrated

FT PRO has a quality range of **hydraulic quick release couplings** which have been manufactured to the highest specification using quality materials.

The range consists of interchange couplings designed to meet or exceed ISO A, ISO B, Flat Faced ISO 16028, Trailer Brake ISO 5676, Spin on High Pressure 88, 97 and 98 Series, in a variation of coated steel, stainless steel and brass.

FT Pro quick release couplings are tried, tested and used extensively throughout the world's manufacturing facilities and in the mobile plant industry.

Applications:

- Hydraulics
- Offshore
- Construction
- Marine
- Agriculture
- High pressure water applications
- Mining
- OEM machine building


NOW INCLUDES VITON SEALING OPTIONS FOR MORE AGGRESSIVE MEDIA



ISO A INTERCHANGE COUPLINGS & PLUGS



ISO A Interchange

 Working Temperature:
 -25°C to +120°C Nitrile
 -25°C to +175°C Viton



Carbon Steel ISO A Coupling with Nitrile Seals, BSPP

8111	Thread	Max Pressure Bar
HKSA04CS	1/4"	350
HKSA06CS	3/8"	315
HKSA08CS	1/2"	250
HKSA12CS	3/4"	250
HKSA16CS	1"	230
HKSA20CS	1.1/4"	230
HKSA24CS	1.1/2"	180
HKSA32CS	2"	130

Tech Sheet 10002

Carbon Steel ISO A Coupling with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKSA04CS-NPT	1/4"	350
HKSA06CS-NPT	3/8"	315
HKSA08CS-NPT	1/2"	250
HKSA12CS-NPT	3/4"	250
HKSA16CS-NPT	1"	230
HKSA24CS-NPT	1.1/2"	180
HKSA32CS-NPT	2"	130

Tech Sheet 10002

Carbon Steel ISO A Coupling with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HKSA04CS-V	1/4"	350
HKSA06CS-V	3/8"	315
HKSA08CS-V	1/2"	250
HKSA12CS-V	3/4"	250
HKSA16CS-V	1"	230
HKSA20CS-V	1.1/4"	230
HKSA24CS-V	1.1/2"	180
HKSA32CS-V	2"	130

Tech Sheet 10002



ISO A Coupling Dust Protection Cap

8111	To Suit
ISOADC-4	1/4"
ISOADC-6	3/8"
ISOADC-8	1/2"
ISOADC-12	3/4"
ISOADC-16	1"

Tech Sheet 10002



Carbon Steel ISO A Plug with Nitrile Seals, BSPP

8111	Thread	Max Pressure Bar
HKPA04CS	1/4"	350
HKPA06CS	3/8"	315
HKPA08CS	1/2"	250
HKPA12CS	3/4"	250
HKPA16CS	1"	230
HKPA20CS	1.1/4"	230
HKPA24CS	1.1/2"	180
HKPA32CS	2"	130

Tech Sheet 10002

Carbon Steel ISO A Plug with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKPA04CS-NPT	1/4"	350
HKPA06CS-NPT	3/8"	315
HKPA08CS-NPT	1/2"	250
HKPA12CS-NPT	3/4"	250
HKPA16CS-NPT	1"	230
HKPA20CS-NPT	1.1/4"	230
HKPA24CS-NPT	1.1/2"	180
HKPA32CS-NPT	2"	130

Tech Sheet 10002

Carbon Steel ISO A Plug with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HKPA04CS-V	1/4"	350
HKPA06CS-V	3/8"	315
HKPA08CS-V	1/2"	250
HKPA12CS-V	3/4"	250
HKPA16CS-V	1"	230
HKPA20CS-V	1.1/4"	230
HKPA24CS-V	1.1/2"	180
HKPA32CS-V	2"	130

Tech Sheet 10002



ISO A Plug Dust Protection Plug

8111	To Suit
ISOADP-4	1/4"
ISOADP-6	3/8"
ISOADP-8	1/2"
ISOADP-12	3/4"
ISOADP-16	1"

Tech Sheet 10002

stainless steel



316 Stainless Steel ISO A Coupling with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HFSSFC7314-V	1/4"	250
HFSSFC7338-V	3/8"	200
HFSSFC7312-V	1/2"	200
HFSSFC7334-V	3/4"	160
HFSSFC7310-V	1"	125

Tech Sheet 10002

316 Stainless Steel ISO A Coupling with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKSA04SS-NPT	1/4"	250
HKSA06SS-NPT	3/8"	200
HKSA08SS-NPT	1/2"	200
HKSA12SS-NPT	3/4"	160
HKSA16SS-NPT	1"	125

Tech Sheet 10002

stainless steel



316 Stainless Steel ISO A Plug with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HFSSFP7314-V	1/4"	250
HFSSFP7338-V	3/8"	200
HFSSFP7312-V	1/2"	200
HFSSFP7334-V	3/4"	160
HFSSFP7310-V	1"	125

Tech Sheet 10002

316 Stainless Steel ISO A Plug with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKPA04SS-NPT	1/4"	250
HKPA06SS-NPT	3/8"	200
HKPA08SS-NPT	1/2"	200
HKPA12SS-NPT	3/4"	160
HKPA16SS-NPT	1"	125

Tech Sheet 10002

ISO B Interchange

° Working Temperature:
 -25°C to +120°C Nitrile
 -25°C to +175°C Viton



Carbon Steel ISO B Coupling with Nitrile Seal, BSPP

0249	Thread	Max Pressure Bar
HKS04CS	1/4"	350
HKS06CS	3/8"	315
HKS08CS	1/2"	250
HKS12CS	3/4"	230
HKS16CS	1"	200

Tech Sheet 10003

Carbon Steel ISO B Coupling with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKS02CS-NPT	1/8"	350
HKS04CS-NPT	1/4"	350
HKS06CS-NPT	3/8"	315
HKS08CS-NPT	1/2"	250
HKS12CS-NPT	3/4"	250
HKS16CS-NPT	1"	230

Tech Sheet 10003

Carbon Steel ISO B Plug with Nitrile Seal, BSPP



0249	Thread	Max Pressure Bar
HKP04CS	1/4"	350
HKP06CS	3/8"	315
HKP08CS	1/2"	250
HKP12CS	3/4"	230
HKP16CS	1"	200

Tech Sheet 10003

Carbon Steel ISO B Plug with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKP04CS-NPT	1/4"	350
HKP06CS-NPT	3/8"	315
HKP08CS-NPT	1/2"	250
HKP12CS-NPT	3/4"	250
HKP16CS-NPT	1"	230

Tech Sheet 10003

ISO B Plug & Coupling Dust Protection Cap



8111	To Suit
ISOBDP-4	1/4"
ISOBDP-6	3/8"
ISOBDP-8	1/2"
ISOBDP-12	3/4"
ISOBDP-16	1"

Tech Sheet 10003

stainless steel



316 Stainless Steel ISO B Coupling with Nitrile Seal, BSPP

0249	Thread	Max Pressure Bar
HKS02SS	1/8"	250
HKS04SS	1/4"	250
HKS06SS	3/8"	200
HKS08SS	1/2"	200
HKS12SS	3/4"	160
HKS16SS	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Coupling with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKS04SS-NPT	1/4"	250
HKS06SS-NPT	3/8"	200
HKS08SS-NPT	1/2"	200
HKS12SS-NPT	3/4"	160
HKS16SS-NPT	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Coupling with Viton Seal, BSPP

0249	Thread	Max Pressure Bar
HKS02SS-V	1/8"	250
HKS04SS-V	1/4"	250
HKS06SS-V	3/8"	200
HKS08SS-V	1/2"	200
HKS12SS-V	3/4"	160
HKS16SS-V	1"	125

Tech Sheet 10003

Brass ISO B Coupling with Nitrile Seal, BSPP



0249	Thread	Max Pressure Bar
HKS02B	1/8"	200
HKS04B	1/4"	180
HKS06B	3/8"	180
HKS08B	1/2"	160
HKS12B	3/4"	120
HKS16B	1"	120

Tech Sheet 10003

Brass ISO B Coupling with Viton Seals, BSPP

0249	Thread	Max Pressure Bar
HKS02B-V	1/8"	200
HKS04B-V	1/4"	180
HKS06B-V	3/8"	180
HKS08B-V	1/2"	160
HKS12B-V	3/4"	120
HKS16B-V	1"	120

Tech Sheet 10003

Other seals available on request

stainless steel



316 Stainless Steel ISO B Plug with Nitrile Seal, BSPP

0249	Thread	Max Pressure Bar
HKP02SS	1/8"	250
HKP04SS	1/4"	250
HKP06SS	3/8"	200
HKP08SS	1/2"	200
HKP12SS	3/4"	160
HKP16SS	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Plug with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKP04SS-NPT	1/4"	250
HKP06SS-NPT	3/8"	200
HKP08SS-NPT	1/2"	200
HKP12SS-NPT	3/4"	160
HKP16SS-NPT	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Plug with Viton Seal, BSPP

0249	Thread	Max Pressure Bar
HKP02SS-V	1/8"	250
HKP04SS-V	1/4"	250
HKP06SS-V	3/8"	200
HKP08SS-V	1/2"	200
HKP12SS-V	3/4"	160
HKP16SS-V	1"	125

Tech Sheet 10003

Brass ISO B Plug with Nitrile Seal, BSPP



0249	Thread	Max Pressure Bar
HKP02B	1/8"	200
HKP04B	1/4"	180
HKP06B	3/8"	180
HKP08B	1/2"	160
HKP12B	3/4"	120
HKP16B	1"	120

Tech Sheet 10003

Brass ISO B Plug with Viton Seals, BSPP

0249	Thread	Max Pressure Bar
HKP02B-V	1/8"	200
HKP04B-V	1/4"	180
HKP06B-V	3/8"	180
HKP08B-V	1/2"	160
HKP12B-V	3/4"	120
HKP16B-V	1"	120

Tech Sheet 10003

ISO 5676 TRAILER BRAKE, INTERCHANGE COUPLINGS & PLUGS



High Pressure Screw-on Coupling (Carbon Steel), 65 Series, ISO 5676

Working Temperature:
-25°C to +120°C Nitrile

Maximum Working Pressure:
220 bar

Used to connect the hydraulic braking system of tractors to their trailers.

Socket with Nitrile Seals, BSPP & Metric

8111	Thread
HFSFC6538	3/8"
HFSFC6512	1/2"
HFSFC6518	M18 x 1.5
HFSFC6522	M22 x 1.5

Tech Sheet 2126



Plug with Nitrile Seals, BSPP & Metric

8111	Thread
HFSFP6538	3/8"
HFSFP6512	1/2"
HFSFP6518	M18 x 1.5
HFSFP6522	M22 x 1.5

Tech Sheet 2126



ISO 16028 INTERCHANGE, FLAT FACE COUPLINGS



ISO 16028 Interchange

Working Temperature:
-25°C to +120°C Nitrile

Designed to meet or exceed the requirements of ISO 16028. Flush face and dry break design facilitates easy cleaning prior to connection. Manufactured from high strength steel construction.

Other seals available on request

Steel Flat Face Coupling with Nitrile Seals, BSPP

8111	Thread	Body	Max Pressure Bar
HKSFF04CS	1/4"	1/4"	315
HKSFF06CS	3/8"	3/8"	250
HKSFF0608CS	1/2"	3/8"	250
HKSFF08CS	1/2"	1/2"	250
HKSFF12CS	3/4"	1/2"	250
HKSFF1212CS	3/4"	3/4"	250
HKSFF16CS	1"	3/4"	250
HKSFF1616CS	1"	1"	200
HKSFF2016CS	1.1/4"	1"	200

Tech Sheet 10233



Steel Flat Face Plug with Nitrile Seals, BSPP

8111	Thread	Body	Max Pressure Bar
HKPFF04CS	1/4"	1/4"	315
HKPFF06CS	3/8"	3/8"	250
HKPFF0608CS	1/2"	3/8"	250
HKPFF08CS	1/2"	1/2"	250
HKPFF12CS	3/4"	1/2"	250
HKPFF1212CS	3/4"	3/4"	250
HKPFF16CS	1"	3/4"	250
HKPFF1616CS	1"	1"	200
HKPFF2016CS	1.1/4"	1"	200

Tech Sheet 10233



Dust Protection Cap, Plug

8111	To Suit
FFDP-04	1/4"
FFDP-06	3/8"
FFDP-08	1/2"
FFDP-12	3/4"
FFDP-16	1"

Tech Sheet 10233



Dust Protection Cap, Coupling

8111	To Suit
FFDC-04	1/4"
FFDC-06	3/8"
FFDC-08	1/2"
FFDC-12	3/4"
FFDC-16	1"

Tech Sheet 10233



ISO 16028, High Pressure Series

° Working Temperature:
-25°C to +120°C Nitrile

HP Series offers higher pressure ratings, superior flow ratings and lower pressure drops compared to our standard series. The change in the design increases the male bearing points and decreases the brinelling effect. The couplings are ideal for applications involving high pressure impulses on agriculture, mobile construction and plant equipment.

Other seals available on request.

Steel Flat Face Couplings with Nitrile Seals, BSPP

8111	Thread	Body	Max Pressure Bar
HPSFF04CS	1/4"	1/4"	420
HPSFF06CS	3/8"	3/8"	350
HPSFF0608CS	1/2"	3/8"	350
HPSFF08CS	1/2"	1/2"	330
HPSFF12CS	3/4"	1/2"	330
HPSFF01212CS	3/4"	3/4"	330
HPSFF16CS	1"	3/4"	330
HPSFF1616CS	1"	1"	300
HPSFF2016CS	1.1/4"	1"	300

Tech Sheet 10277



Steel Flat Face Plug with Nitrile Seals, BSPP

8111	Thread	Body	Max Pressure Bar
HPPFF04CS	1/4"	1/4"	420
HPPFF06CS	3/8"	3/8"	350
HPPFF0608CS	1/2"	3/8"	350
HPPFF08CS	1/2"	1/2"	330
HPPFF12CS	3/4"	1/2"	330
HPPFF01212CS	3/4"	3/4"	330
HPPFF16CS	1"	3/4"	330
HPPFF1616CS	1"	1"	300
HPPFF2016CS	1.1/4"	1"	300

Tech Sheet 10277



T SERIES HYDRAULIC QUICK RELEASE COUPLING

Manual Locking Coupling with Pressure Eliminator

° Working Temperature:
-25°C to +120°C Nitrile
-25°C to +175°C Viton

The T Series coupling is designed for high pressure systems. A manually operated locking ring provides extra security against unintentional disconnection. All come complete with poppet valves and pressure eliminator.

Other seals available on request.

Interchangeability: Parker Tema

Steel Coupling, Nitrile Seals, BSPP

0385	Thread	Max Pressure Bar
TSC06CS	3/8"	350
TSC08CS	1/2"	300
TSC12CS	3/4"	280
TSC16CS	1"	250

Tech Sheet 10278



Steel Plug, Nitrile Seals, BSPP

0385	Thread	Max Pressure Bar
TSP06CS	3/8"	350
TSP08CS	1/2"	300
TSP12CS	3/4"	280
TSP16CS	1"	250

Tech Sheet 10278



Steel Coupling, Viton Seals, BSPP

0385	Thread	Max Pressure Bar
TSC06CS-V	3/8"	350
TSC08CS-V	1/2"	300
TSC12CS-V	3/4"	280
TSC16CS-V	1"	250

Tech Sheet 10278

Steel Plug, Viton Seals, BSPP

0385	Thread	Max Pressure Bar
TSP06CS-V	3/8"	350
TSP08CS-V	1/2"	300
TSP12CS-V	3/4"	280
TSP16CS-V	1"	250

Tech Sheet 10278

HYDRAULIC COUPLINGS



Screw-on Couplings, 98 Series

Working Temperature:
-25°C to +120°C

Ideal for hydraulic dump trucks, oil field equipment, spreading equipment and applications requiring the ability to connect or disconnect under pressure.
With Standard Seals: Nitrile

Only plug and socket with
e re t together.



Brass Body/Zinc Plated Steel Wing Nut.



Coupling, NPTF

8111	Thread	Max Pressure Bar
HFBFP9834	3/4"	210
HFBFP9810	1"	210
HFBFP98114	1.1/4"	190
HFBFP98112	1.1/2"	175

Tech Sheet 2128

Plug, NPTF

8111	Thread	Max Pressure Bar
HFBFC9834	3/4"	210
HFBFC9810	1"	210
HFBFC98114	1.1/4"	190
HFBFC98112	1.1/2"	175

Tech Sheet 2128

HIGH PRESSURE SPIN-ON COUPLINGS (CARBON STEEL)



88 Series

Working Temperature:
-25°C to +120°C

Maximum Working Pressure:
700 bar

This series of couplings with their threaded union locking system and precision ball-type check valves, are designed for extreme high pressure applications such as found on portable hydraulic rams.

Interchangeability:
Hansen HP3 Series
Parker 3000 Series
Faster PVVM Series

DNP PVS Series
Stucchi IVHP Series
Safeway S30 Series



Coupling with Nitrile Seals, NPTF

8111	Thread
HFSFC8814	1/4"
HFSFC8838	3/8"

Tech Sheet 10005



88 Series Aluminium Dust Covers

8111	To Suit
HFSFC-14-DP	1/4"
HFSFC-38-DP	3/8"
HFSFP-14-DC	1/4"
HFSFP-38-DC	3/8"

Tech Sheet 10005



Plug with Nitrile Seals, NPTF

8111	Thread
HFSFP8814	1/4"
HFSFP8838	3/8"

Tech Sheet 10005



The leader in coupling innovation

- DNP combine sophisticated complex technology, highly skilled and experienced operators, tight production and assembly controls, and systematic vigorous testing in order to produce a vast range of superior couplings.
- Quality assurance ISO 9002.
- Interchangeable couplings with other major manufacturers.
- The range consists of over 60 varieties of couplings, including ISO A, ISO B, flat face, screw/ISO 14541 and push-pull, with working pressures up to 1500 bar.
- The range also includes multi-coupling plates which allow simultaneous coupling and uncoupling of a certain number of hydraulic and or electrical lines.

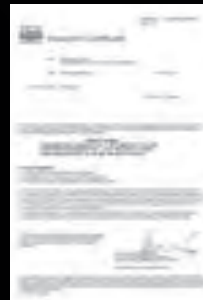


- Selected ranges (flat face – PVT4 BOP, PVTX BOP, PST4 BOP and ISO B – PBV1 BOP) come with Lloyds registered approval. The range is specially designed for blow-out preventer accumulator systems in the oil and gas market.



FULL RANGE
AVAILABLE

Tech Sheet 20574



To see the latest certification consult Tech Sheet 71604

HYDRAULIC QUICK RELEASE COUPLINGS



PAV1 Series, ISO A Steel Couplings

Standard: ISO 7241-1 A
Occlusion: Poppet
Locking: Radial balls
Material: Steel
Finishing: Zn-Fe (Cr III)

Available Threads: BSP, NPT, RC, SAE
Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed

Working Temperature: -25°C to +100°C Nitrile
 -25°C to +200°C Viton

Maximum Working Pressure: 350 bar



Coupling with Nitrile Seal, BSPP

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.002	1/4"	6.3	350
PAV1.1010.002	3/8"	10	350
PAV1.1313.002	1/2"	12.5	250
PAV1.2019.002	3/4"	20	250
PAV1.2525.002	1"	25	200
PAV1.3031.002	1.1/4"	31.5	200
PAV1.3939.002	1.1/2"	40	190
PAV1.5051.002	2"	50	160

Tech Sheet 20473

Coupling with Nitrile Seal, NPT

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.012	1/4"	6.3	350
PAV1.1010.012	3/8"	10	350
PAV1.1313.012	1/2"	12.5	250
PAV1.2019.012	3/4"	20	250
PAV1.2525.012	1"	25	200
PAV1.3031.012	1.1/4"	31.5	200
PAV1.3939.012	1.1/2"	40	190
PAV1.5051.012	2"	50	160

Tech Sheet 20473

Coupling with Viton Seal, BSPP

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.002 V	1/4"	6.3	350
PAV1.1010.002 V	3/8"	10	350
PAV1.1313.002 V	1/2"	12.5	250
PAV1.2019.002 V	3/4"	20	250
PAV1.2525.002 V	1"	25	200
PAV1.3031.002 V	1.1/4"	31.5	200
PAV1.3939.002 V	1.1/2"	40	190
PAV1.5051.002 V	2"	50	160

Tech Sheet 20473



Plug with Nitrile Seal, BSPP

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.003	1/4"	6.3	350
PAV1.1010.003	3/8"	10	350
PAV1.1313.003	1/2"	12.5	250
PAV1.2019.003	3/4"	20	250
PAV1.2525.003	1"	25	200
PAV1.3031.003	1.1/4"	31.5	200
PAV1.3939.003	1.1/2"	40	190
PAV1.5051.003	2"	50	160

Tech Sheet 20473

Plug with Nitrile Seal, NPT

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.013	1/4"	6.3	350
PAV1.1010.013	3/8"	10	350
PAV1.1313.013	1/2"	12.5	250
PAV1.2019.013	3/4"	20	250
PAV1.2525.013	1"	25	200
PAV1.3031.013	1.1/4"	31.5	200
PAV1.3939.013	1.1/2"	40	190
PAV1.5051.013	2"	50	160

Tech Sheet 20473

Plug with Viton Seal, BSPP

0457	Thread	ISO	Max Pressure Bar
PAV1.0606.003 V	1/4"	6.3	350
PAV1.1010.003 V	3/8"	10	350
PAV1.1313.003 V	1/2"	12.5	250
PAV1.2019.003 V	3/4"	20	250
PAV1.2525.003 V	1"	25	200
PAV1.3031.003 V	1.1/4"	31.5	200
PAV1.3939.003 V	1.1/2"	40	190
PAV1.5051.003 V	2"	50	160

Tech Sheet 20473

ISO A Protection Caps & Plugs



Plug for Coupling

0457	To Suit	Material
SPAV.06002	ISO 6.3	Plastic
SPAV.10002	ISO 10	Plastic
SPAV.13002	ISO 12.5	Plastic
SPAV.20002	ISO 20	Plastic
SPAV.25002	ISO 25	Plastic

Tech Sheet 20475



Cap for Plug

0457	To Suit	Material
SPAV.06003	ISO 6.3	Plastic
SPAV.10003	ISO 10	Plastic
SPAV.13003	ISO 12.5	Plastic
SPAV.20003	ISO 20	Plastic
SPAV.25003	ISO 25	Plastic

Tech Sheet 20475

BURNETT & HILLMAN
 HYDRAULIC ADAPTOR UK MANUFACTURER



For Burnett & Hillman Hydraulic Adaptors
 see pages 52-81

HYDRAULIC QUICK RELEASE COUPLINGS



PAVX Series, ISO A Stainless Steel Couplings

° Working Temperature:
-25°C to +200°C Viton

Maximum Working Pressure:
450 bar

Standard: ISO 7241-1 A
Occlusion: Poppet
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PAVX.0606.002	1/4"	6.3	450
PAVX.1010.002	3/8"	10	300
PAVX.1313.002	1/2"	12.5	300
PAVX.2019.002	3/4"	20	250
PAVX.2525.002	1"	25	200
PAVX.3031.002	1.1/4"	31.5	100
PAVX.3939.002	1.1/2"	40	80
PAVX.5051.002	2"	50	60

Tech Sheet 20474



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PAVX.0606.003	1/4"	6.3	450
PAVX.1010.003	3/8"	10	300
PAVX.1313.003	1/2"	12.5	300
PAVX.2019.003	3/4"	19	250
PAVX.2525.003	1"	25	200
PAVX.3031.003	1.1/4"	31.5	100
PAVX.3939.003	1.1/2"	40	80
PAVX.5051.003	2"	50	60

Tech Sheet 20474



PBVX Series, ISO B Stainless Steel Couplings

° Working Temperature:
-25°C to +200°C

Maximum Working Pressure:
400 bar

Standard: ISO 7241-1 B
Occlusion: Poppet
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVX.0404.002	1/8"	5	400
PBVX.0606.002	1/4"	6.3	350
PBVX.1010.002	3/8"	10	300
PBVX.1313.002	1/2"	12.5	300
PBVX.2019.002	3/4"	20	220
PBVX.2525.002	1"	25	200
PBVX.3931.002	1.1/4"	40	80
PBVX.3939.002	1.1/2"	40	80
PBVX.5051.002	2"	50	60

Tech Sheet 20478



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVX.0404.003	1/8"	5	400
PBVX.0606.003	1/4"	6.3	350
PBVX.1010.003	3/8"	10	300
PBVX.1313.003	1/2"	12.5	300
PBVX.2019.003	3/4"	20	220
PBVX.2525.003	1"	25	200
PBVX.3931.003	1.1/4"	40	80
PBVX.3939.003	1.1/2"	40	80
PBVX.5051.003	2"	50	60

Tech Sheet 20478



PTV1 Series, Nordic Interchange Steel Couplings

° Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
300 to 370 bar

Interchange: Tema T Series
Occlusion: Poppet
Locking: Radial balls
Material: Steel
Finishing: Zn-Fe (Cr III)

Available Threads: BSP, NPT
Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PTV1.1010.002	3/8"	10	370
PTV1.1313.002	1/2"	12.5	350
PTV1.2019.002	3/4"	19	300
PTV1.2525.002	1"	25	300

Tech Sheet 68086



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PTV1.1010.003	3/8"	10	370
PTV1.1313.003	1/2"	12.5	350
PTV1.2019.003	3/4"	19	300
PTV1.2525.003	1"	25	300

Tech Sheet 68086



HYDRAULIC QUICK RELEASE COUPLINGS



PPV3 Series, ISO A Push/Pull Breakaway Steel Couplings

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
350 bar

Push/pull design, ideal for mobile applications using hydraulic attachments, PPV series is designed to break away in case of accidental pulls, one hand to connect and disconnect.

Standard: ISO 7241-1 A
Sleeve: Double acting
Occlusion: Poppet
Locking: Radial balls

Material: steel
Finishing: Zn-Fe (Cr III)
Available Threads: BSP, NPT, SAE, metric
Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PPV3.0606.112	1/4"	6.3	350
PPV3.1010.112	3/8"	10	300
PPV3.1313.112	1/2"	12.5	250
PPV3.2019.112	3/4"	19	250
PPV3.2525.112	1"	25	225

Tech Sheet 20475



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PPV3.0606.113	1/4"	6.3	350
PPV3.1010.113	3/8"	10	300
PPV3.1313.113	1/2"	12.5	250
PPV3.2019.113	3/4"	19	250
PPV3.2525.113	1"	25	225

Tech Sheet 20475



Coupling, DIN 2353, Male Thread

0457	Thread	Size	ISO	Max Pressure Bar
PPV3.1012.302	M12 x 1.5	6L	10	300
PPV3.1014.302	M14 x 1.5	8L	10	300
PPV3.1016.302	M16 x 1.5	10L	10	300
PPV3.1018.302	M18 x 1.5	12L	10	300
PPV3.1016.402	M16 x 1.5	8S	10	300
PPV3.1018.402	M18 x 1.5	10S	10	300
PPV3.1020.402	M20 x 1.5	12S	10	300
PPV3.1314.302	M14 x 1.5	8L	12.5	250
PPV3.1316.302	M16 x 1.5	10L	12.5	250
PPV3.1318.302	M18 x 1.5	12L	12.5	250
PPV3.1322.302	M22 x 1.5	15L	12.5	250
PPV3.1326.302	M26 x 1.5	18L	12.5	250
PPV3.1318.402	M18 x 1.5	10S	12.5	250
PPV3.1320.402	M20 x 1.5	12S	12.5	250
PPV3.1322.402	M22 x 1.5	14S	12.5	250
PPV3.1324.402	M24 x 1.5	16S	12.5	250
PPV3.1330.402	M30 x 2	20S	12.5	250

Tech Sheet 20475



Plug, DIN 2353, Male Thread

0457	Thread	Size	ISO	Max Pressure Bar
PPV3.1012.303	M12 x 1.5	6L	10	300
PPV3.1014.303	M14 x 1.5	8L	10	300
PPV3.1016.303	M16 x 1.5	10L	10	300
PPV3.1018.303	M18 x 1.5	12L	10	300
PPV3.1016.403	M16 x 1.5	8S	10	300
PPV3.1018.403	M18 x 1.5	10S	10	300
PPV3.1020.403	M20 x 1.5	12S	10	300
PPV3.1314.303	M14 x 1.5	8L	12.5	250
PPV3.1316.303	M16 x 1.5	10L	12.5	250
PPV3.1318.303	M18 x 1.5	12L	12.5	250
PPV3.1322.303	M22 x 1.5	15L	12.5	250
PPV3.1326.303	M26 x 1.5	18L	12.5	250
PPV3.1318.403	M18 x 1.5	10S	12.5	250
PPV3.1320.403	M20 x 1.5	12S	12.5	250
PPV3.1322.403	M22 x 1.5	14S	12.5	250
PPV3.1324.403	M24 x 1.5	16S	12.5	250
PPV3.1330.403	M30 x 2	20S	12.5	250

Tech Sheet 20475



Coupling, DIN 2353, Male Bulkhead Thread

0457	Thread	Size	ISO	Max Pressure Bar
PPV3.1012.502	M12 x 1.5	6L	10	300
PPV3.1014.502	M14 x 1.5	8L	10	300
PPV3.1016.502	M16 x 1.5	10L	10	300
PPV3.1018.502	M18 x 1.5	12L	10	300

Tech Sheet 20475



Plug, DIN 2353, Male Bulkhead Thread

0457	Thread	Size	ISO	Max Pressure Bar
PPV3.1012.503	M12 x 1.5	6L	10	300
PPV3.1014.503	M14 x 1.5	8L	10	300
PPV3.1016.503	M16 x 1.5	10L	10	300
PPV3.1018.503	M18 x 1.5	12L	10	300
PPV3.1016.603	M16 x 1.5	8S	10	300
PPV3.1018.603	M18 x 1.5	10S	10	300
PPV3.1020.603	M20 x 1.5	12S	10	300
PPV3.1314.503	M14 x 1.5	8L	12.5	250
PPV3.1316.503	M16 x 1.5	10L	12.5	250
PPV3.1318.503	M18 x 1.5	12L	12.5	250
PPV3.1322.503	M22 x 1.5	15L	12.5	250
PPV3.1326.503	M26 x 1.5	18L	12.5	250
PPV3.1318.603	M18 x 1.5	10S	12.5	250
PPV3.1320.603	M20 x 1.5	12S	12.5	250
PPV3.1322.603	M22 x 1.5	14S	12.5	250
PPV3.1324.603	M24 x 1.5	16S	12.5	250
PPV3.1330.603	M30 x 2	20S	12.5	250

Tech Sheet 20475



The DNP range also includes multi-coupling plates which allow simultaneous coupling and uncoupling of a certain number of hydraulic and/or electrical lines.



HYDRAULIC QUICK RELEASE COUPLINGS

stainless steel



PLTX Series, ISO 16028 Flat Face Couplings, Stainless Steel

Standard: ISO 16028
Occlusion: Flat face
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT, SAE
Standard Seals: Viton
Optional Seals: EPDM, FFKM
Connection Under Pressure: Not allowed

Working Temperature:
 -25°C to +100°C

Maximum Working Pressure: 350 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLTX.0606.112	1/4"	6.3	400
PLTX.1310.112	3/8"	10	250
PLTX.1313.112	1/2"	10	250
PLTX.2013.112	1/2"	12.5	250
PLTX.2019.112	3/4"	12.5	250
PLTX.2519.112	3/4"	19	250
PLTX.2525.112	1"	19	250
PLTX.3031.112	1.1/4"	25	250
PLTX.3939.112	1.1/2"	40	150
PLTX.5051.112	2"	50	100

Tech Sheet 20483



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLTX.0606.113	1/4"	6.3	400
PLTX.1310.113	3/8"	10	250
PLTX.1313.113	1/2"	10	250
PLTX.2013.113	1/2"	12.5	250
PLTX.2019.113	3/4"	12.5	250
PLTX.2519.113	3/4"	19	250
PLTX.2525.113	1"	19	250
PLTX.3031.113	1.1/4"	25	250
PLTX.3939.113	1.1/2"	40	150
PLTX.5051.113	2"	50	100

Tech Sheet 20483

PLSX Series, Flat Face, Stainless Steel

Interchange: Snap-Tite 71
Occlusion: Flat face
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Working Temperature:
 -25°C to +100°C

Maximum Working Pressure: 350 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLSX.0606.112	1/4"	6.3	350
PLSX.1010.112	3/8"	10	350
PLSX.1013.112	1/2"	10	350
PLSX.1313.112	1/2"	12.5	350
PLSX.2019.112	3/4"	19	350
PLSX.2525.112	1"	25	350
PLSX.2531.112	1.1/4"	25	350

Tech Sheet 20485



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLSX.0606.113	1/4"	6.3	350
PLSX.1010.113	3/8"	10	350
PLSX.1013.113	1/2"	10	350
PLSX.1313.113	1/2"	12.5	350
PLSX.2019.113	3/4"	19	350
PLSX.2525.113	1"	25	350
PLSX.2531.113	1.1/4"	25	350

Tech Sheet 20485

PLS1 Series, Flat Face

Material: Steel
Finishing: Zn-Fe (Cr III)
Available Threads: BSP, NPT, SAE

Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLS1.0606.112	1/4"	6.3	350
PLS1.1010.112	3/8"	10	350
PLS1.1013.112	1/2"	10	350
PLS1.1313.112	1/2"	12.5	350
PLS1.2019.112	3/4"	19	350
PLS1.2525.112	1"	25	350
PLS1.2531.112	1.1/4"	25	350

Tech Sheet 20484



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLS1.0606.113	1/4"	6.3	350
PLS1.1010.113	3/8"	10	350
PLS1.1013.113	1/2"	10	350
PLS1.1313.113	1/2"	12.5	350
PLS1.2019.113	3/4"	19	350
PLS1.2525.113	1"	25	350
PLS1.2531.113	1.1/4"	25	350

Tech Sheet 20484

ISO 16028 Flat Face Protection Caps & Plugs

Plug for Coupling

Cap for Plug



Plug for Coupling

0457	To Suit	Material
SPLT.06002	ISO 6.3	Plastic
SPLT.13002	ISO 10	Plastic
SPLT.20002	ISO 12.5	Plastic
SPLT.25002	ISO 19	Plastic

Tech Sheet 20483

Cap for Plug

0457	To Suit	Material
SPLT.06003	ISO 6.3	Plastic
SPLT.13003	ISO 10	Plastic
SPLT.20003	ISO 12.5	Plastic
SPLT.25003	ISO 19	Plastic
SPLT.30003	ISO 25	Plastic

Tech Sheet 20483

ISO 16028 Automatic Caps



Cap for Coupling

0457	To Suit	Colour
SPLT.13302	ISO 10	Red
SPLT.13342	ISO 10	Black
SPPV.13302	ISO 12.5	Black
SPPV.13312	ISO 12.5	Black
SPPV.13322	ISO 12.5	Yellow
SPPV.13342	ISO 12.5	Red

Tech Sheet 20483

HYDRAULIC QUICK RELEASE COUPLINGS



PBV1 Series, ISO B Steel Couplings

Standard: ISO 7241-1 B

Occlusion: Poppet

Locking: Radial balls

Material: Steel

Finishing: Zn-Fe (Cr III)

Available Threads: BSP, NPT

Standard Seals: Nitrile

Optional Seals: Viton, EPDM

Connection Under Pressure: Not allowed

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
500 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PBV1.0404.002	1/8"	5	500
PBV1.0606.002	1/4"	6.3	250
PBV1.1010.002	3/8"	10	250
PBV1.1313.002	1/2"	12.5	250
PBV1.2019.002	3/4"	20	250
PBV1.2525.002	1"	25	250
PBV1.3931.002	1.1/4"	40	200
PBV1.3939.002	1.1/2"	40	200
PBV1.5051.002	2"	50	100

Tech Sheet 20476



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PBV1.0404.003	1/8"	5	500
PBV1.0606.003	1/4"	6.3	250
PBV1.1010.003	3/8"	10	250
PBV1.1313.003	1/2"	12.5	250
PBV1.2019.003	3/4"	20	250
PBV1.2525.003	1"	25	250
PBV1.3931.003	1.1/4"	40	200
PBV1.3939.003	1.1/2"	40	200
PBV1.5051.003	2"	50	100

Tech Sheet 20476

PBVM Series, ISO B Brass Couplings

Standard: ISO 7241-1 B

Occlusion: Poppet

Locking: Radial balls

Material: Brass

Finishing: Nickel plating on request

Available Threads: BSP, NPT

Standard Seals: Viton

Optional Seals: FFKM, EPDM

Connection Under Pressure: Not allowed

Working Temperature:
-25°C to +200°C

Maximum Working Pressure:
300 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVM.0404.002	1/8"	5	300
PBVM.0606.002	1/4"	6.3	200
PBVM.1010.002	3/8"	10	200
PBVM.1313.002	1/2"	12.5	180
PBVM.2019.002	3/4"	20	130
PBVM.2525.002	1"	25	130
PBVM.3931.002	1.1/4"	40	60
PBVM.3939.002	1.1/2"	40	60
PBVM.5051.002	2"	50	50

Tech Sheet 20477



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVM.0404.003	1/8"	5	300
PBVM.0606.003	1/4"	6.3	200
PBVM.1010.003	3/8"	10	200
PBVM.1313.003	1/2"	12.5	180
PBVM.2019.003	3/4"	20	130
PBVM.2525.003	1"	25	130
PBVM.3931.003	1.1/4"	40	60
PBVM.3939.003	1.1/2"	40	60
PBVM.5051.003	2"	50	50

Tech Sheet 20477

ISO B Protection Caps & Plugs

Cap for Plug



Plug for Coupling

Plug for Coupling

0457	To Suit	Material
SPBV.06002	ISO 6.3	Plastic
SPBV.10002	ISO 10	Plastic
SPBV.13002	ISO 12.5	Plastic
SPBV.20002	ISO 20	Plastic
SPBV.25002	ISO 25	Plastic

Tech Sheet 20477

Cap for Plug

0457	To Suit	Material
SPBV.06003	ISO 6.3	Plastic
SPBV.10003	ISO 10	Plastic
SPBV.13003	ISO 12.5	Plastic
SPBV.20003	ISO 20	Plastic
SPBV.25003	ISO 25	Plastic

Tech Sheet 20477



For High Pressure Metric Tube Couplings
see pages 138-140



HYDRAULIC QUICK RELEASE COUPLINGS



PLT1 Series, ISO 16028 Flat Face Couplings

Standard: ISO16028
Occlusion: Flat face
Locking: Radial balls
Material: Steel
Finishing: Zn-Fe (Cr III)
Available Threads: BSP, NPT, SAE
Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed

Working Temperature: -25°C to +100°C
Maximum Working Pressure: 300 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLT1.0606.002	1/4"	6.3	300
PLT1.1310.002	3/8"	10	250
PLT1.1313.002	1/2"	10	250
PLT1.2013.002	1/2"	12.5	250
PLT1.2019.002	3/4"	12.5	250
PLT1.2519.002	3/4"	19	250
PLT1.2525.002	1"	19	250
PLT1.3031.002	1.1/4"	25	250
PLT1.3939.002	1.1/2"	40	250
PLT1.5051.112	2"	50	250

Tech Sheet 20479



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLT1.0606.003	1/4"	6.3	300
PLT1.1310.003	3/8"	10	250
PLT1.1313.003	1/2"	10	250
PLT1.2013.003	1/2"	12.5	250
PLT1.2019.003	3/4"	12.5	250
PLT1.2519.003	3/4"	19	250
PLT1.2525.003	1"	19	250
PLT1.3031.003	1.1/4"	25	250
PLT1.3939.003	1.1/2"	40	250

Tech Sheet 20479

PLT4 Series, ISO 16028 Flat Face Couplings

High working pressures to 7,350 psi/500 bar, sleeve lock device, locking radial balls. PLT 4 series is ideal for non-spill high pressure and high impulse applications.

Standard: ISO16028
Occlusion: Flat face
Locking: Radial balls
Material: Steel
Finishing: Zn-Fe (Cr III) and Zn-Ni
Available Threads: BSP, NPT, SAE, metric
Standard Seals: Nitrile and PU
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed

Working Temperature: -25°C to +100°C
Maximum Working Pressure: 500 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLT4.0606.112	1/4"	6.3	500
PLT4.1310.112	3/8"	10	400
PLT4.1313.112	1/2"	10	350
PLT4.2013.112	1/2"	12.5	350
PLT4.2019.112	3/4"	12.5	350
PLT4.2519.112	3/4"	19	350
PLT4.2525.112	1"	19	350
PLT4.3025.112	1"	25	350
PLT4.3031.112	1.1/4"	25	350

Tech Sheet 20480

Coupling, SAE

0457	Thread	ISO	Max Pressure Bar
PLT4.1319.032	3/4"	10	350
PLT4.2027.032	1.1/16"	12.5	350

Tech Sheet 20480



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLT4.0606.113	1/4"	6.3	500
PLT4.1310.113	3/8"	10	400
PLT4.1313.113	1/2"	10	350
PLT4.2013.113	1/2"	12.5	350
PLT4.2019.113	3/4"	12.5	350
PLT4.2519.113	3/4"	19	350
PLT4.2525.113	1"	19	350
PLT4.3025.113	1"	25	350
PLT4.3031.113	1.1/4"	25	350

Tech Sheet 20480

Plug, SAE

0457	Thread	ISO	Max Pressure Bar
PLT4.1319.033	3/4"	10	350
PLT4.2027.033	1.1/16"	12.5	350

Tech Sheet 20480

PLK4 Series, ISO 16028 Flat Face Plug, Connect Under Pressure

Interchanges with any ISO16028 quick disconnect, connect under pressure to 3,675 psi/250 bar, high pressure up to 5,800 psi/400 bar, flat face, non-spill design, high resistance steel. PLK4 series is ideal for systems that need to be connected under residual pressure, high pressure applications, attachments that may have trapped pressure in the system.

Standard: ISO16028
Occlusion: Flat face
Locking: Radial balls
Material: High resistance steel
Finishing: Zn-Fe (Cr III) and Zn-Ni
Available Threads: BSP, NPT, SAE, metric
Standard Seals: Nitrile and PU
Optional Seals: Viton, EPDM
Connection Under Pressure: Allowed (male side only)
Maximum Residual Pressure: 250 bar

Working Temperature: -25°C to +100°C
Maximum Working Pressure: 400 bar



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLK4.0606.113	1/4"	6.3	400
PLK4.1310.113	3/8"	10	350
PLK4.1313.113	1/2"	10	350
PLK4.2013.113	1/2"	12.5	350
PLK4.2019.113	3/4"	12.5	350
PLK4.2519.113	3/4"	19	300
PLK4.2525.113	1"	19	300
PLK4.3025.113	1"	25	300
PLK4.3031.113	1.1/4"	25	300
PLK4.3939.113	1.1/2"	40	250
PLK4.5051.113	2"	50	250

Tech Sheet 20482

HYDRAULIC QUICK RELEASE COUPLINGS



PLT Colour Safe System

- For use with PLT1, PLT4, PLT5 and PLTX series couplings
- Helps keep workers safe
- Helps to prevent equipment damage
- Easy to use and implement



Coupling Colour Ring, ISO 6.3

0457	Colour
PLT.006.802	Red
PLT.006.812	Yellow
PLT.006.822	Green
PLT.006.832	Blue
PLT.006.852	White
PLT.006.862	Grey
PLT.006.882	Violet
PLT.006.892	Brown

Tech Sheet 68088

Coupling Colour Ring, ISO 10

0457	Colour
PLT.013.802	Red
PLT.013.812	Yellow
PLT.013.822	Green
PLT.013.832	Blue
PLT.013.852	White
PLT.013.862	Grey
PLT.013.872	Orange
PLT.013.882	Violet
PLT.013.892	Brown

Tech Sheet 68088

Coupling Colour Ring, ISO 12.5

0457	Colour
PLT.019.802	Red
PLT.019.812	Yellow
PLT.019.822	Green
PLT.019.832	Blue
PLT.019.852	White
PLT.019.862	Grey
PLT.019.872	Orange
PLT.019.882	Violet
PLT.019.892	Brown

Tech Sheet 68088

Coupling Colour Ring, ISO 19

0457	Colour
PLT.025.802	Red
PLT.025.812	Yellow
PLT.025.822	Green
PLT.025.832	Blue
PLT.025.842	Black
PLT.025.872	Orange

Tech Sheet 68088

Coupling Colour Ring, ISO 25

0457	Colour
PLT.030.802	Red
PLT.030.812	Yellow
PLT.030.822	Green
PLT.030.832	Blue
PLT.030.872	Orange

Tech Sheet 68088



For Hydraulic Hose
see pages 6-14



HYDRAULIC QUICK RELEASE COUPLINGS



PLT Colour Safe System

- Helps keep workers safe
- Helps to prevent equipment damage
- Easy to use and implement



Plug Colour Ring, ISO 6.3 for use with PLT1, PLT4 & PLTX

0457	Colour
PLT.006.803	Red
PLT.006.813	Yellow
PLT.006.833	Blue
PLT.006.853	White
PLT.006.863	Grey
PLT.006.873	Orange
PLT.006.883	Violet
PLT.006.893	Brown

Tech Sheet 68088

Plug Colour Ring, ISO 10 for use with PLT1

0457	Colour
PLT.613.803	Red
PLT.613.813	Yellow
PLT.613.823	Green
PLT.613.833	Blue
PLT.613.843	Black
PLT.613.853	White
PLT.613.873	Orange
PLT.613.893	Brown

Tech Sheet 68088

Plug Colour Ring, ISO 12.5 for use with PLT1, PLT4 & PLTX

0457	Colour
PLT.019.803	Red
PLT.019.813	Yellow
PLT.019.823	Green
PLT.019.833	Blue
PLT.019.853	White
PLT.019.863	Grey
PLT.019.873	Orange
PLT.019.883	Violet
PLT.019.893	Brown

Tech Sheet 68088

Plug Colour Ring, ISO 19 for use with PLT1, PLT4, PLT5 & PLTX

0457	Colour
PLT.025.803	Red
PLT.025.813	Yellow
PLT.025.823	Green
PLT.025.833	Blue
PLT.025.843	Black
PLT.025.873	Orange

Tech Sheet 68088

Plug Colour Ring, ISO 25 for use with PLT4.3031.113, PLT4.3031.013 & PLT4.3041.033

0457	Colour
PLT.030.803	Red
PLT.030.813	Yellow
PLT.030.823	Green
PLT.030.833	Blue
PLT.030.843	Black
PLT.030.873	Orange

Tech Sheet 68088



For **Pipe Repair Couplings**
see page **1557**



HYDRAULIC QUICK RELEASE COUPLINGS

PST4 Series, Screw to Connect Flat Face Couplings

Interchanges with Stucchi VEP, high-tech anti-corrosion plating salt spray tested for 700 hours before any appearance of surface red rust, high working pressures, connects and disconnects by hand up to 4,400 psi/300 bar, seal is blowout resistant to 4,400 psi/300 bar when connecting or disconnecting with residual pressure. Exceeds 1,000,000 impulse cycles, flat face design eliminates spillage upon disconnection, thread to connect style coupling eliminates brinelling issues, heavy-duty hex nut.

Interchangeability: Stucchi VEP
Occlusion: Flat face
Locking: Screw
Material: Steel
Finishing: Zn-Fe (Cr III) and Zn-Ni

Available Threads: BSP, NPT, SAE
Standard Seals: Nitrile and PU
Optional Seals: Viton, EPDM
Connection Under Pressure: Allowed (both male or female side)

Maximum Residual Pressure: 300 bar
Working Temperature: -25°C to +100°C

Maximum Working Pressure: 450 bar

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PST4.0606.112	1/4"	6.3	450
PST4.1310.112	3/8"	10	350
PST4.1313.112	1/2"	10	350
PST4.2013.112	1/2"	12.5	350
PST4.2019.112	3/4"	12.5	350
PST4.2519.112	3/4"	19	350
PST4.2525.112	1"	19	350
PST4.3025.112	1"	25	350
PST4.3031.112	1.1/4"	25	350
PST4.3939.112	1.1/2"	40	300

Tech Sheet 20486



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PST4.0606.113	1/4"	6.3	450
PST4.1310.113	3/8"	10	350
PST4.1313.113	1/2"	10	350
PST4.2013.113	1/2"	12.5	350
PST4.2019.113	3/4"	12.5	350
PST4.2519.113	3/4"	19	350
PST4.2525.113	1"	19	350
PST4.3025.113	1"	25	350
PST4.3031.113	1.1/4"	25	350
PST4.3939.113	1.1/2"	40	300

Tech Sheet 20486



PVV3 Series, ISO 14541 Screw Couplings

Standard: ISO 14541
Finishing: Zn-Fe (Cr III)
Occlusion: Poppet
Locking: Screw
Material: Steel

Available Threads: BSP, NPT, SAE, metric
Standard Seals: Nitrile
Optional Seals: Viton, EPDM

Connection Under Pressure: Allowed (both male or female side)
Maximum Residual Pressure: working pressure
Working Temperature: -25°C to +100°C
Maximum Working Pressure: 450 bar

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PVV3.0606.112	1/4"	6.3	450
PVV3.1010.112	3/8"	10	400
PVV3.1313.112	1/2"	12.5	400
PVV3.2019.112	3/4"	19	300
PVV3.2525.112	1"	25	300
PVV3.3031.112	1.1/4"	31.5	300
PVV3.3039.112	1.1/2"	31.5	300

Tech Sheet 20487



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PVV3.0606.113	1/4"	6.3	450
PVV3.1010.113	3/8"	10	400
PVV3.1313.113	1/2"	12.5	400
PVV3.2019.113	3/4"	19	300
PVV3.2525.113 T	1"	25	300
PVV3.3031.113 T	1.1/4"	31.5	300
PVV3.3039.113 T	1.1/2"	31.5	300

Tech Sheet 20487



VVS High Pressure Screw Couplings & Plugs

Interchange: VVS faster
Occlusion: Poppet
Locking: Screw
Material: Steel

Finishing: Zn-Fe (Cr III)
Available Threads: BSP, NPT
Standard Seals: Nitrile

Optional Seals: Viton, EPDM
Connection Under Pressure: Allowed (both male or female side)

Working Temperature: -25°C to +100°C

Working Pressure: 210 to 650 bar

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
VVV1.1010.002	3/8"	10	650
VVV1.1313.002	1/2"	12.5	600
VVV1.2019.002	3/4"	19	500
VVV1.2525.002	1"	25	460
VVV1.3031.002	1.1/4"	31.5	360
VVV1.3939.002	1.1/2"	40	360
VVV1.5051.002	2"	50	210

Tech Sheet 68087



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
VVV1.1010.003	3/8"	10	650
VVV1.1313.003	1/2"	12.5	600
VVV1.2019.003	3/4"	19	500
VVV1.2525.003	1"	25	460
VVV1.3031.003	1.1/4"	31.5	360
VVV1.3939.003	1.1/2"	40	360
VVV1.5051.003	2"	50	210

Tech Sheet 68087



PST4 Series, Protection Caps & Plugs

Plug for Coupling



Cap for Plug



Plug for Coupling

0457	To Suit	Material
SPST.06202	ISO 6.3	Aluminium
SPST.13202	ISO 10	Aluminium
SPST.20202	ISO 12.5	Aluminium
SPST.25202	ISO 19	Aluminium
SPST.30202	ISO 25	Aluminium
SPST.39202	ISO 40	Aluminium

Tech Sheet 20486

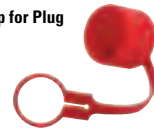
Cap for Plug

0457	To Suit	Material
SPST.06203	ISO 6.3	Aluminium
SPST.13203	ISO 10	Aluminium
SPST.20203	ISO 12.5	Aluminium
SPST.25203	ISO 19	Aluminium
SPST.30203	ISO 25	Aluminium
SPST.39203	ISO 40	Aluminium

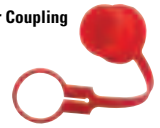
Tech Sheet 20486

ISO 14541 Protection Caps & Plugs

Cap for Plug



Plug for Coupling



Plug for Coupling

0457	To Suit	Material
SPVV.06002	ISO 6.3	Polypropylene
SPVV.10002	ISO 10	Polypropylene
SPVV.13002	ISO 12.5	Polypropylene
SPVV.20002	ISO 20	Polypropylene
SPVV.25002	ISO 25	Polypropylene
SPVV.30002	ISO 31.5	Polypropylene
SPVV.10202	ISO 10	Aluminium
SPVV.13202	ISO 12.5	Aluminium
SPVV.20202	ISO 20	Aluminium
SPVV.25202	ISO 25	Aluminium
SPVV.30202	ISO 31.5	Aluminium

Tech Sheet 20487

Cap for Plug

0457	To Suit	Material
SPVV.06003	ISO 6.3	Polypropylene
SPVV.10003	ISO 10	Polypropylene
SPVV.13003	ISO 12.5	Polypropylene
SPVV.20003	ISO 20	Polypropylene
SPVV.25003	ISO 25	Polypropylene
SPVV.30003	ISO 31.5	Polypropylene
SPVV.10203	ISO 10	Aluminium
SPVV.13203	ISO 12.5	Aluminium
SPVV.20203	ISO 20	Aluminium
SPVV.25203	ISO 25	Aluminium
SPVV.30203	ISO 31.5	Aluminium

Tech Sheet 20487

HYDRAULIC QUICK RELEASE COUPLINGS



PCJ5 Series, Ultra High Pressure Couplings

DNP standard, 15,000 psi/1,000 bar working pressure, high resistance steel, locking radial balls. Tested 100% with helium at low and high pressure. PCJ5 series is ideal for high pressure tools and torque equipment.

Occlusion: Poppet

Locking: Radial balls

Material: High resistance steel

Finishing: Zn-Fe (Cr III)

Available Threads: BSP, NPT

Standard Seals: Special compound

Safety Factor: 1:2.5

Test: with helium, 100% at low and high pressure

Connection Under Pressure: Not allowed

Working Temperature:
-35°C to +130°C

Maximum Working Pressure:
1000 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PCJ5.0606.002	1/4"	6.3	1000
PCJ5.0610.002	3/8"	6.3	1000
Tech Sheet 20488			

Coupling, NPT

0457	Thread	ISO	Max Pressure Bar
PCJ5.0606.012	1/4"	6.3	1000
PCJ5.0610.012	3/8"	6.3	1000
Tech Sheet 20488			



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PCJ5.0606.003	1/4"	6.3	1000
PCJ5.0610.003	3/8"	6.3	1000
Tech Sheet 20488			

Plug, NPT

0457	Thread	ISO	Max Pressure Bar
PCJ5.0606.013	1/4"	6.3	1000
PCJ5.0610.013	3/8"	6.3	1000
Tech Sheet 20488			

PCJ6 Series, Ultra High Pressure Couplings

DNP standard, 21,780 psi/1,500 bar working pressure, high resistance steel, locking radial balls. Tested 100% with helium at low and high pressure. PCJ6 series is ideal for high pressure tools and torque equipment.

Occlusion: Poppet

Locking: Radial balls

Material: High resistance steel

Finishing: Zn-Fe (Cr III)

Available Threads: BSP, NPT

Standard Seals: Special compound

Safety Factor: 1:2.5

Test: with helium, 100% at low and high pressure

Connection Under Pressure: Not allowed

Working Temperature:
-35°C to +130°C

Maximum Working Pressure:
1500 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PCJ6.0606.002	1/4"	6.3	1500
Tech Sheet 20489			

Coupling, NPT

0457	Thread	ISO	Max Pressure Bar
PCJ6.0606.012	1/4"	6.3	1500
Tech Sheet 20489			



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PCJ6.0606.003	1/4"	6.3	1500
Tech Sheet 20489			

Plug, NPT

0457	Thread	ISO	Max Pressure Bar
PCJ6.0606.013	1/4"	6.3	1500
Tech Sheet 20489			

PCJ5 Protection Caps & Plugs



Plug for Coupling

0457	To Suit	Material
SPCJ.06002	ISO 6.3	PVC
Tech Sheet 20488		



Cap For Plug

0457	To Suit	Material
SPCJ.06003	ISO 6.3	PVC
Tech Sheet 20488		

PCJ6 Protection Caps & Plugs



Plug for Coupling

0457	To Suit	Material
SPCJ.06042	ISO 6.3	PVC
Tech Sheet 20489		



Cap For Plug

0457	To Suit	Material
SPCJ.06043	ISO 6.3	PVC
Tech Sheet 20489		

HYDRAULIC QUICK RELEASE COUPLINGS



PVS Series, ISO 14540 Screw Couplings

Standard: ISO 14540

Occlusion: Ball

Locking: Screw

Material: Steel

Finishing: Zn-Fe (Cr III)

Threads: BSP, NPT

Standard Seals: Nitrile

Optional Seals: Viton, EPDM

Connection Under Pressure:

Allowed (both male or female side)

Maximum Residual Pressure: 100 bar

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
700 bar



Coupling, NPT

0457	Thread	ISO	Max Pressure Bar
PVS3.0606.022	1/4"	6.3	700
PVS3.1006.022	1/4"	10	700
PVS3.1010.022	3/8"	10	700

Tech Sheet 20490



Plug, NPT

0457	Thread	ISO	Max Pressure Bar
PVS1.0606.013	1/4"	6.3	700
PVS1.1006.013	1/4"	10	700
PVS1.1010.013	3/8"	10	700

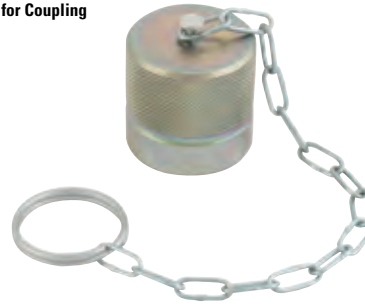
Tech Sheet 20490

ISO 14540 Protection Caps & Plugs

Cap for Plug



Plug for Coupling



Plug for Coupling

0457	To Suit	Material
SPVS.06100	ISO 6.3	Steel
SPVS.10100 C	ISO 10	Steel

Tech Sheet 20490

Cap for Plug

0457	To Suit	Material
SPVS.06101	ISO 6.3	Steel
SPVS.10103 C	ISO 10	Steel

Tech Sheet 20490

PFT1 Series, ISO 5676 Brake Couplings

Standard: ISO 5676

Occlusion: Flat face

Locking: Radial balls

Material: Steel

Finishing: Zn-Fe (Cr III)

Threads: BSP, SAE, metric

Standard Seals: Nitrile

Optional Seals: Viton, EPDM

Connection Under Pressure: not allowed

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
150 bar



Coupling, Female Thread

0457	Thread	ISO	Max Pressure Bar
PFT1.1310.002	3/8"	12.5	150
PFT1.1313.002	1/2"	12.5	150
PFT1.1318.102	M18 x 1.5	12.5	150

Tech Sheet 20491



Plug, Male Thread

0457	Thread	ISO	Max Pressure Bar
PFT3.1313.213	1/2"	12.5	150

Tech Sheet 20491

Plug, Male Thread Bulkhead

0457	Thread	ISO	Max Pressure Bar
PFT3.1318.503	M18 x 1.5	12.5	150
PFT3.1322.503	M22 x 1.5	12.5	150

Tech Sheet 20491

For **RSB Hydraulic Tube Clamps**
see pages 184-200



HYDRAULIC QUICK RELEASE COUPLINGS



VFF1 Series, Wing Nut Screw Couplings

Interchangeability: Snap-Tite 78
Threads: NPT
Standard Seals: Nitrile
Occlusion: Flat face
Optional Seals: Viton, EPDM
Locking: Screw
Material: Brass and steel
Connection Under Pressure: Not suggested
Steel Finishing: Zn-Fe (Cr III)

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
210 bar



Coupling, NPT

0457	Thread	ISO	Max Pressure Bar
VFF1.2013.012	1/2"	19	210
VFF1.2019.012	3/4"	19	210
VFF1.2525.012	1"	25	210
VFF1.3031.012	1.1/4"	31.5	190
VFF1.3939.012	1.1/2"	40	170

Tech Sheet 20492



Plug, NPT

0457	Thread	ISO	Max Pressure Bar
VFF1.2013.013	1/2"	19	210
VFF1.2019.013	3/4"	19	210
VFF1.2525.013	1"	25	210
VFF1.3031.013	1.1/4"	31.5	190
VFF1.3939.013	1.1/2"	40	170

Tech Sheet 20492

VFH1 Series, Wing Nut Screw Couplings

Wing style screw to connect, 5,000 psi/350 bar working pressure, heavy-duty design, high flow rate, heavy-duty acme threads. VFH1 series has a universal design that can be used in any industry, used frequently in oil field applications, applications needing high working pressures and high flow rates, oil field services such as coiled tubing units, snubbing units, power swivels and much more.

Interchangeability: Snap-Tite 75
Occlusion: Poppet
Locking: Screw
Material: Steel
Steel Finishing: Zn-Fe (Cr III)
Available Threads: NPT
Standard Seals: Nitrile

Optional Seals: Viton, EPDM
Connection Under Pressure: Allowed (both male or female side)
Maximum Residual Pressure: 100 bar

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
350 bar



Coupling, NPT

0457	Thread	ISO	Max Pressure Bar
VFH1.2019.012	3/4"	19	350
VFH1.2525.012	1"	25	350
VFH1.3031.012	1.1/4"	31.5	350
VFH1.3939.012	1.1/2"	40	350
VFH1.5051.012	2"	50	350

Tech Sheet 20493



Plug, NPT

0457	Thread	ISO	Max Pressure Bar
VFH1.2019.013	3/4"	19	350
VFH1.2525.013	1"	25	350
VFH1.3031.013	1.1/4"	31.5	350
VFH1.3939.013	1.1/2"	40	350
VFH1.5051.013	2"	50	350

Tech Sheet 20493

PVE1 Series, Screw Couplings

Interchange: Faster CVE
Occlusion: Poppet
Locking: Screw
Material: Steel
Finishing: Zn-Fe (Cr III)
Threads: BSP

Standard Seals: Nitrile
Optional Seals: Viton, EPDM and more
Connection Under Pressure: Not suggested

Working Temperature:
-25°C to +100°C

Maximum Working Pressure:
350 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PVE1.2019.002	3/4"	19	350
PVE1.2525.002	1"	25	350

Tech Sheet 68223



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PVE1.2019.003	3/4"	19	350
PVE1.2525.003	1"	25	350

Tech Sheet 68223

ISO 19 Protection Caps & Plugs



Female Dust Plug

0457	To Suit	Material
SPVE.20202	ISO 19	Steel
SPVE.25202	ISO 25	Steel

Tech Sheet 68223



Male Dust Cap

0457	To Suit	Material
SPVE.20203	ISO 19	Steel
SPVE.25203	ISO 25	Steel

Tech Sheet 68223

VICKERS
by Danfoss

Solenoid Operated Directional Valves

See section 1, pages 209-219



VICKERS
by Danfoss

Vane & Piston Pumps

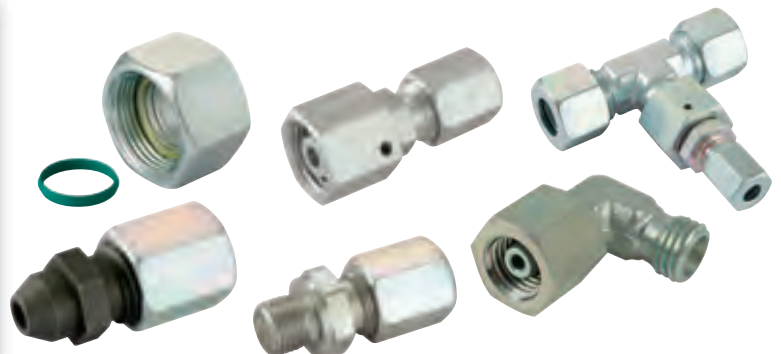
See section 1, pages 221-225



Danfoss
Waltech

Component Parts

See section 1, pages 115-137



HYDRAULIC COUPLINGS



6600 Series, ISO A Profil

° Working Temperature:
-40°C to +110°C

• Nitrile Seals as Standard

Other seals
available
on request.



Female Coupling, BSPP

0398	Thread	Max Pressure Bar
6603-4-4	1/4"	350
6603-6-6	3/8"	280
6603-8-10	1/2"	280
6603-12-12	3/4"	280
6603-16-16	1"	280

Tech Sheet 10676

Female Plug, BSPP

0398	Thread	Max Pressure Bar
6605-4-4	1/4"	350
6605-6-6	3/8"	280
6605-8-10	1/2"	280
6605-12-12	3/4"	280
6605-16-16	1"	280

Tech Sheet 10676

Colour may vary



Plug for Coupling

0398	To Suit
6659-6PL	3/8"
6659-8PL	1/2"
6659-12PL	3/4"
6659-16PL	1"

Tech Sheet 10676

Colour may vary



Cap for Plug

0398	To Suit
6657-6PL	3/8"
6657-8PL	1/2"
6657-12PL	3/4"
6657-16PL	1"

Tech Sheet 10676

2000 Series, ISO A Profil

° Working Temperature:
-25°C to +110°C

Colour may vary



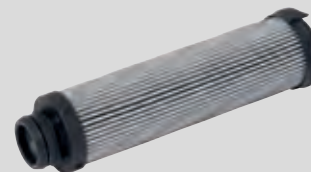
Dust Protection

0398	Body	To Suit
5025-3PR	3/8"	Coupling
5029-3PR	3/8"	Plug
5205-4M	1/2"	Coupling
5209-4M	1/2"	Plug

Tech Sheet 10677



For **Parker Hydraulic Filtration**
see page 247



HYDRAULIC COUPLINGS



60 Series, ISO B Profil

Working Temperature:
-40°C to +110°C

- Nitrile Seals as Standard

Other seals available on request.



Female Coupling, Steel, BSPP

0398	Thread	Max Pressure Bar
H1-62-BSPP	1/8"	350
H2-62-BSPP	1/4"	350
H3-62-BSPP	3/8"	280
H4-62-BSPP	1/2"	280
H6-62-BSPP	3/4"	175
H8-62-BSPP	1"	140

Tech Sheet 10678

Female Coupling, Brass, BSPP

0398	Thread	Max Pressure Bar
BH1-60-BSPP	1/8"	210
BH2-60-BSPP	1/4"	255
BH3-60-BSPP	3/8"	185
BH4-60-BSPP	1/2"	240
BH6-60-BSPP	3/4"	150
BH8-60-BSPP	1"	105

Tech Sheet 10678

Female Coupling, 303 Stainless Steel, BSPP

0398	Thread	Max Pressure Bar
SH2-62-BSPP	1/4"	350
SH3-62-BSPP	3/8"	350
SH4-62-BSPP	1/2"	350
SH6-62-BSPP	3/4"	210
SH8-62-BSPP	1"	210

Tech Sheet 10678

Female Coupling, Brass, NPT

0398	Thread	Max Pressure Bar
BH1-60	1/8"	210
BH2-60	1/4"	255
BH3-60	3/8"	185
BH4-60	1/2"	240
BH6-60	3/4"	150
BH8-60	1"	105

Tech Sheet 10678

Female Coupling, 303 Stainless Steel, NPT

0398	Thread	Max Pressure Bar
SH2-62	1/4"	350
SH3-62	3/8"	350
SH4-62	1/2"	350
SH6-62	3/4"	210
SH8-62	1"	210

Tech Sheet 10678

Female Plug, Steel, BSPP

0398	Thread	Max Pressure Bar
H1-63-BSPP	1/8"	350
H2-63-BSPP	1/4"	350
H3-63-BSPP	3/8"	280
H4-63-BSPP	1/2"	280
H6-63-BSPP	3/4"	175
H8-63-BSPP	1"	140

Tech Sheet 10678

Female Plug, Brass, BSPP

0398	Thread	Max Pressure Bar
BH1-61-BSPP	1/8"	210
BH2-61-BSPP	1/4"	255
BH3-61-BSPP	3/8"	185
BH4-61-BSPP	1/2"	240
BH6-61-BSPP	3/4"	150
BH8-61-BSPP	1"	105

Tech Sheet 10678

Female Plug, 303 Stainless Steel, BSPP

0398	Thread	Max Pressure Bar
SH2-63-BSPP	1/4"	350
SH3-63-BSPP	3/8"	350
SH4-63-BSPP	1/2"	350
SH6-63-BSPP	3/4"	210
SH8-63-BSPP	1"	210

Tech Sheet 10678

Female Plug, Brass, NPT

0398	Thread	Max Pressure Bar
BH1-61	1/8"	210
BH2-61	1/4"	255
BH3-61	3/8"	185
BH4-61	1/2"	240
BH6-61	3/4"	150
BH8-61	1"	105

Tech Sheet 10678

Female Plug, 303 Stainless Steel, NPT

0398	Thread	Max Pressure Bar
SH2-63	1/4"	350
SH3-63	3/8"	350
SH4-63	1/2"	350
SH6-63	3/4"	210
SH8-63	1"	210

Tech Sheet 10678



Plug for Coupling

0398	To Suit	Material
H1-65	1/8"	Aluminium
H1-65M	1/8"	Rubber
H2-65	1/4"	Aluminium
H2-65M	1/4"	Rubber
H3-65	3/8"	Aluminium
H3-65M	3/8"	Rubber
H4-65	1/2"	Aluminium
H4-65M	1/2"	Rubber
H6-65	3/4"	Aluminium
H6-65M	3/4"	Rubber
H8-65	1"	Aluminium
H8-65M	1"	Rubber

Tech Sheet 10678



Cap for Plug

0398	To Suit	Material
H1-66	1/8"	Aluminium
H1-66M	1/8"	Rubber
H2-66	1/4"	Aluminium
H2-66M	1/4"	Rubber
H3-66	3/8"	Aluminium
H3-66M	3/8"	Rubber
H4-66	1/2"	Aluminium
H4-66M	1/2"	Rubber
H6-66	3/4"	Aluminium
H6-66M	3/4"	Rubber
H8-66	1"	Aluminium
H8-66M	1"	Rubber

Tech Sheet 10678

HYDRAULIC COUPLINGS



QHPA Series

° Working Temperature:
-25°C to +110°C

• Nitrile Seals as Standard

Other seals
available
on request.



Male Coupling, DIN 2353 Thread

0398	Thread	Size	Max Pressure Bar	Body
QHPA53-D6X2-C	M14 x 1.5	8L	450	3/8"
QHPA53-D6X3-C	M14 x 1.5	10L	450	3/8"
QHPA53-D7X3-C	M14 x 1.5	10S	450	3/8"
QHPA53-D7X4-C	M14 x 1.5	12S	450	3/8"
QHPA54-D6X4-C	M14 x 1.5	12L	400	1/2"
QHPA54-D6X5-C	M14 x 1.5	15L	400	1/2"
QHPA54-D7X5-C	M14 x 1.5	14S	400	1/2"
QHPA54-D7X6-C	M14 x 1.5	16S	400	1/2"
QHPA56-D6X6-C	M14 x 1.5	18L	370	3/4"
QHPA56-D6X7-C	M14 x 1.5	22L	370	3/4"
QHPA56-D7X7-C	M14 x 1.5	20S	370	3/4"

Tech Sheet 10679

Male Coupling, DIN 3852, BSPP

0398	Thread	Max Pressure Bar	Body
QHPA53-F4B3-C	3/8"	450	3/8"
QHPA54-F4B4-C	1/2"	400	1/2"

Tech Sheet 10679

Male Plug, DIN 2353 Thread

0398	Thread	Size	Max Pressure Bar	Body
QHPA13-D6X2-C	M14 x 1.5	8L	450	3/8"
QHPA13-D6X3-C	M14 x 1.5	10L	450	3/8"
QHPA13-D7X3-C	M14 x 1.5	10S	450	3/8"
QHPA13-D7X4-C	M14 x 1.5	12S	450	3/8"
QHPA14-D6X4-C	M14 x 1.5	12L	400	1/2"
QHPA14-D7X5-C	M14 x 1.5	14S	400	1/2"
QHPA14-D7X6-C	M14 x 1.5	16S	400	1/2"
QHPA16-D6X6-C	M14 x 1.5	18L	370	3/4"
QHPA16-D6X7-C	M14 x 1.5	22L	370	3/4"
QHPA16-D7X7-C	M14 x 1.5	20S	370	3/4"

Tech Sheet 10679

Male Plug, DIN 3852, BSPP

0398	Thread	Max Pressure Bar	Body
QHPA13-F4B3-C	3/8"	450	3/8"
QHPA14-F4B4-C	1/2"	400	1/2"

Tech Sheet 10679

3000 Series

° Working Temperature:
-25°C to +110°C

Maximum Working Pressure:
700 bar



Male Coupling, NPT

0398	Thread
3050-2	1/4"
3050-3	3/8"

Tech Sheet 10680

Female Plug, NPT

0398	Thread
3010-2	1/4"
3010-3	3/8"

Tech Sheet 10680



Dust Protection

0398	Body	To Suit
3005-2	1/4"	Coupling
3009-2	1/4"	Plug
3005-3	3/8"	Coupling
3009-3	3/8"	Plug

Tech Sheet 10680

FF2500 Series

° Working Temperature:
-30°C to +100°C

Maximum Working Pressure:
800 bar



Female Coupling, BSPP

0398	Thread
FF2510	1/4"

Tech Sheet 10681

Female Plug, BSPP

0398	Thread
FF2520	1/4"

Tech Sheet 10681

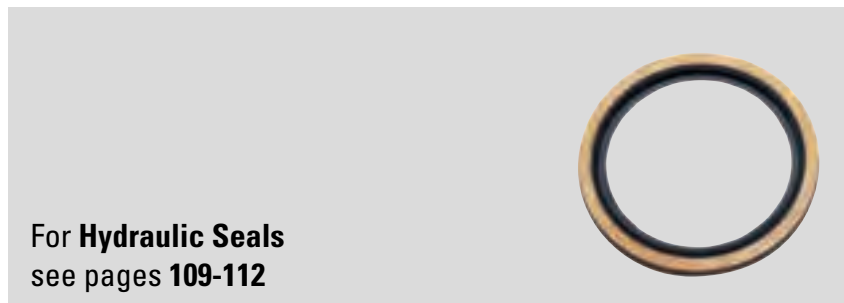
Colour may vary



Dust Protection

0398	Body	To Suit
FF2516	1/4"	Coupling
FF2526	1/4"	Plug

Tech Sheet 10681



For Hydraulic Seals
see pages 109-112

HYDRAULIC COUPLINGS



TDG Swivel Joints

Description: TDG swivel joints can be used in hydraulic systems where a rotating connection is required, for example in add-on units with rotational movements of up to 360°. TDG Swivel joints minimise the extreme wear occurring in the hoses of the hydraulic system.

A patented Pressure Relief Unit guarantees a long service life and smooth running even in the event of pressure hammers.



DN6 Female Thread, BSPP

0071	Thread	Thread	Hex Size mm	Max Pressure Bar
TE-250	1/4"	3/8"	22	250
Tech Sheet 10009				



DN11 Female Thread, BSPP

0071	Thread	Thread	Hex Size mm	Max Pressure Bar
TE-500	1/2"	3/4"	32	250
Tech Sheet 10009				

Standard Version: Body: Brass, Nitrile Seal.

Advantages: The housing is made of brass the rotating shaft is made so surface-treated steel or stainless steel. Sturdy construction with two needle roller bearings and an axis sliding bearing, adapted for combination with standardised hydraulic components. Has a maximum rotating speed 60 RPM.

Applications: Elevating mechanism, building machinery, materials handling technology and industrial plants.



DN11 Male/Female Thread, BSPP

0071	Thread	Thread	Hex Size mm	Max Pressure Bar
TE-500 B	1/2"	1/2"	32	250
Tech Sheet 10009				



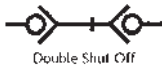
DN17 Female Thread, BSPP

0071	Thread	Thread	Hex Size mm	Max Pressure Bar
TE-750	3/4"	1"	40	250
TE-750 RF	3/4"	1"	40	250
TE-1000	1"	1.1/4"	50	200
TE-1000 RF	1"	1.1/4"	50	200
Tech Sheet 10009				

TFF5000/TFF7500/TFF10000 Series

Working Temperature:
 -40°C up to +100°C (Nitrile)
 -25°C up to +200°C (Viton)

Maximum Static Working Pressure:
 Safety Factor 4:1



TFF5000 Series Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-TFF5010	1/2"	400	Nitrile	With valve
Tech Sheet 2000				

TFF5000 Series Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-TFF5020	1/2"	400	Nitrile	With valve
Tech Sheet 2000				

TFF7500 Series Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-TFF7520	3/4"	400	Nitrile	With valve
Tech Sheet 2000				

TFF10000 Plugs with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-TFF10021	1"	300	Nitrile	With valve
Tech Sheet 2000				

TFF7500 Series Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-TFF7510	3/4"	400	Nitrile	With valve
Tech Sheet 2000				

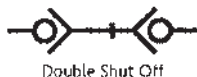
HYDRAULIC COUPLINGS



TIF2500/TIF3800/TIF5000 Series

° Working Temperature:
-40°C to +100°C (Nitrile)

Maximum Static Working Pressure:
Safety Factor 4:1



TIF2500 Series Couplings, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF2510	1/4"	1/4"	315	Nitrile
Tech Sheet 2001				

TIF2500 Series Plug, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF2520	1/4"	1/4"	315	Nitrile
Tech Sheet 2001				

TIF3800 Series Couplings, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF3810	3/8"	3/8"	250	Nitrile
TE-TIF3810-50	1/2"	3/8"	250	Nitrile
Tech Sheet 2001				

TIF3800 Series Couplings with Pressure Eliminator, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF3811	3/8"	3/8"	250	Nitrile
Tech Sheet 2001				

TIF3800 Series Plugs, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF3820	3/8"	3/8"	250	Nitrile
TE-TIF3820-50	1/2"	3/8"	250	Nitrile
Tech Sheet 2001				

TIF3800 Series Plugs with Pressure Eliminator, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF3821	3/8"	3/8"	250	Nitrile
Tech Sheet 2001				

TIF5000 Series Couplings, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF5010	1/2"	1/2"	250	Nitrile
TE-TIF5010 75	3/4"	1/2"	250	Nitrile
Tech Sheet 2001				

TIF5000 Series Couplings with Pressure Eliminator, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF5011	1/2"	1/2"	250	Nitrile
Tech Sheet 2001				

TIF5000 Series Plugs, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF5020	1/2"	1/2"	250	Nitrile
TE-TIF5020 75	3/4"	1/2"	250	Nitrile
Tech Sheet 2001				

TIF5000 Series Plugs with Pressure Eliminator, BSPP

0071	Thread	Body	Max Pressure Bar	Seal
TE-TIF5021	1/2"	1/2"	250	Nitrile
Tech Sheet 2001				

Dust Protection



Plug for Coupling

0071	To Suit
TE-TIF3816	Series TIF3800
TE-TIF10016	Series TIF10000
Tech Sheet 71769	



Cap for Plug

0071	To Suit
TE-TIF3826	Series TIF3800
TE-TIF10026	Series TIF10000
Tech Sheet 71769	

T2300 Series

° Temperature Range:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)
Depending on the medium



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-2310	1/8"	200	Nitrile	With valve
TE-2310 UV	1/8"	200	Nitrile	No valve
TE-2310 V	1/8"	200	Viton	With valve
Tech Sheet 2003				

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-2320	1/8"	200	Nitrile	With valve
TE-2320 UV	1/8"	200	-	No valve
TE-2320 V	1/8"	200	Viton	With valve
Tech Sheet 2003				

T2500 Series

Maximum Working Pressure:
Maximum static working pressure with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-2510	1/4"	450	Nitrile	With valve
TE-2510 UV	1/4"	450	Nitrile	No valve
TE-2510 V	1/4"	450	Viton	With valve
TE-2510 RV	1/4"	250	Viton	With valve
Tech Sheet 2004				

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-2520	1/4"	450	Nitrile	With valve
TE-2520 UV	1/4"	450	-	No valve
TE-2520 V	1/4"	450	Viton	With valve
TE-2520 RV	1/4"	250	Viton	With valve
Tech Sheet 2004				

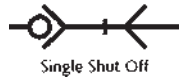
HYDRAULIC COUPLINGS



T3800 Series

Working Temperature:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Maximum Working Pressure:
Maximum static working pressure
with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-3810	3/8"	350	Nitrile	With valve
TE-3810 H	3/8"	350	Nitrile	No valve
TE-3810 UV	3/8"	350	Nitrile	No valve
TE-3810 HV	3/8"	350	Viton	No valve
TE-3810 V	3/8"	350	Viton	With valve
TE-3810 RV	3/8"	300	Viton	With valve

Tech Sheet 2005

Couplings with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-3811	3/8"	350	Nitrile	With valve
TE-3811 V	3/8"	350	Viton	With valve

Tech Sheet 2005

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-3820	3/8"	350	Nitrile	With valve
TE-3820 UV	3/8"	350	-	No valve
TE-3820 V	3/8"	350	Viton	With valve
TE-3820 RV	3/8"	300	Viton	With valve
TE-3820 RUV	3/8"	300	-	No valve

Tech Sheet 2005

Plugs with Pressure Eliminator, BSPP

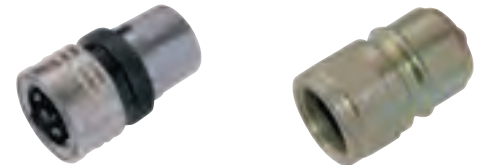
0071	Thread	Max Pressure Bar	Seal	Operation
TE-3821	3/8"	350	Nitrile	With valve
TE-3821 V	3/8"	350	Viton	With valve
TE-3821 RV	3/8"	300	Viton	With valve

Tech Sheet 2005

T5000 Series

Working Temperature:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Maximum Working Pressure:
Maximum static working pressure
with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-5010	1/2"	300	Nitrile	With valve
TE-5010 UV	1/2"	300	Nitrile	No valve
TE-5010 V	1/2"	300	Viton	With valve
TE-5010 RV	1/2"	300	Viton	With valve

Tech Sheet 2005

Couplings with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-5011	1/2"	300	Nitrile	With valve
TE-5011 V	1/2"	300	Viton	With valve
TE-5011 RV	1/2"	300	Viton	With valve

Tech Sheet 2005

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-5020	1/2"	320	Nitrile	With valve
TE-5020 UV	1/2"	320	-	No valve
TE-5020 V	1/2"	320	Viton	With valve
TE-5020 RV	1/2"	300	Viton	With valve

Tech Sheet 2005

Plugs with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-5021	1/2"	320	Nitrile	With valve
TE-5021 V	1/2"	320	Viton	With valve
TE-5021 RV	1/2"	300	Viton	With valve

Tech Sheet 2005

TEMA Coupling Letter Key

NO Letter = Standard, Nitrile seals with valve
H = No valve and no locking sleeve, Nitrile seals
UV = Standard Nitrile seals, unvalved
HV = No valve and no locking sleeve, viton seals
V = With valve and viton seals

RV = Stainless steel body with valve and viton seals
RUV = Stainless steel body, unvalved with viton seals
VUV = Unvalved with viton seals
S = Super nipple, special steel alloy construction, high durability

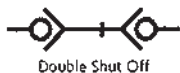
HYDRAULIC COUPLINGS



T7500 Series

° Working Temperature:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Maximum Working Pressure:
Maximum static working pressure
with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-7510	3/4"	280	Nitrile	With valve
TE-7510 UV	3/4"	280	Nitrile	No valve
TE-7510 V	3/4"	280	Viton	With valve
TE-7510 RV	3/4"	250	Viton	With valve
TE-7510 VUV	3/4"	280	Viton	No valve

Tech Sheet 2006

Couplings with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-7511	3/4"	280	Nitrile	With valve
TE-7511 V	3/4"	280	Viton	With valve

Tech Sheet 2006

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-7520	3/4"	300	Nitrile	With valve
TE-7520 UV	3/4"	300	-	No valve
TE-7520 V	3/4"	300	Viton	With valve

Tech Sheet 2006

Plugs with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-7521	3/4"	300	Nitrile	With valve
TE-7521 V	3/4"	300	Viton	With valve

Tech Sheet 2006

Super Plug to be Used for Very High Loads, BSPP

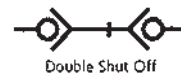
0071	Thread	Max Pressure Bar	Seal	Operation
TE-7520 S	3/4"	300	Nitrile	With valve

Tech Sheet 2006

T10000 Series

° Working Temperature:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Maximum Working Pressure:
Maximum static working
pressure with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-10010	1"	250	Nitrile	With valve
TE-10010 V	1"	250	Viton	With valve

Tech Sheet 2006

Couplings with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-10011	1"	250	Nitrile	With valve

Tech Sheet 2006

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-10020	1"	280	Nitrile	With valve
TE-10020 UV	1"	280	-	No valve
TE-10020 V	1"	280	Viton	With valve
TE-10020 RV	1"	250	Viton	With valve

Tech Sheet 2006

Plugs with Pressure Eliminator, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-10021	1"	280	Nitrile	With valve

Tech Sheet 2006



Customers who bought from this page also purchased
Glycerine Gauges
see page 264



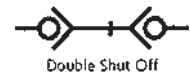
HYDRAULIC COUPLINGS



T15000 Series

Working Temperature:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Maximum Working Pressure:
Maximum static working pressure
with safety factor 4:1



Couplings, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-15010	1.1/2"	200	Nitrile	With valve
TE-15010 UV	1.1/2"	200	Nitrile	No valve
TE-15010 V	1.1/2"	200	Viton	With valve
TE-15010 VUV	1.1/2"	200	Viton	No valve

Tech Sheet 2007

Plugs, BSPP

0071	Thread	Max Pressure Bar	Seal	Operation
TE-15020	1.1/2"	200	Nitrile	With valve
TE-15020 UV	1.1/2"	200	-	No valve
TE-15020 V	1.1/2"	200	Viton	With valve

Tech Sheet 2007

High Pressure Series

The TEMA High Pressure 1000 couplings were specially developed for use in industrial machinery, salvage devices and testing equipment. The Series is galvanised and produced in steel. They are provided with safety locking and dust caps inclusive.



The TEMA High Pressure 1500 couplings were specially developed for use in bolt tensioning equipment. This series is produced in steel with the coupling body QPQ treated and black galvanised. They are provided with safety locking and dust caps inclusive.



THP1000 Series Couplings, BSPP

0071	Thread	Hex Size mm	Max Pressure Bar	Length mm
THP10104132	1/4"	24	1000	59
THP10104172	3/8"	24	1000	59

Tech Sheet 10010

THP1500 Series Couplings, BSPP

0071	Thread	Hex Size mm	Max Pressure Bar	Length mm
THP15104132	1/4"	24	1500	59

Tech Sheet 10010

THP1000 Series Plugs, BSPP

0071	Thread	Hex Size mm	Max Pressure Bar	Length mm
THP1020413	1/4"	22	1000	37
THP1020417	3/8"	24	1000	37

Tech Sheet 10010

THP1500 Series Plugs, BSPP

0071	Thread	Hex Size mm	Max Pressure Bar	Length mm
THP1520413	1/4"	22	1500	38

Tech Sheet 10010

Dust Protection Plugs



Plug

0071	To Suit	Type
TE-2516	Series T2500	B
TE-3816	Series T3800	B
TE-5016	Series T5000	B
TE-7516	Series T7500	B
TE-10016	Series T10000	B
THP16	High Pressure Series	C

Tech Sheet 71770

Dust Protection Caps



Cap

0071	To Suit	Type
TE-125	Series T2300	C
TE-2526	Series T2500	B
TE-3826	Series T3800	B
TE-5026	Series T5000	B
TE-7526	Series T7500	B
TE-10026	Series T10000	B

Tech Sheet 71770

Seal Kits



Nitrile & Viton

0071	To Suit	Material
TE-2500-PSN	Series T2500	Nitrile
TE-3800-PSN	Series T3800	Nitrile
TE-3800-PSV	Series T3800	Viton
TE-5000-PSN	Series T5000	Nitrile
TE-5000-PSV	Series T5000	Viton
TE-7500-PSN	Series T7500	Nitrile
TE-7500-PSV	Series T7500	Viton
TE-10000-PSN	Series T10000	Nitrile
TE-10000-PSV	Series T10000	Viton

Tech Sheet 71771

SERIES 70KB




ULTRA-FLO »

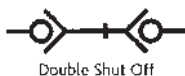
Description: The quick-connect-couplings series 71-76 are robust and simple models having best proven their quality for many years in many applications. Only couplings and plugs with the same size internal threads will match. These couplings are designed for manual operation, i.e. to couple the sleeve must be first pushed back

Advantages: The simple and robust design guarantees a maximum of safety.

Ideal for Applications: With liquids and in laboratory and food areas.

Technical Data: Only couplings and plugs of the same series will match.

 **Interchangeability:**
Industrial interchange ISO 7241-1 Series B,
BS 7198. Hansen 'HK'.



	RectuPom		Brass
Working Temperature	-20°C to +90°C		-20°C to +200°C
Working Pressures:	50°C (bar)	90°C (bar)	-20°C to +200°C (bar)
Series 71 1/8"	15	7.5	250
Series 72 1/4"	15	7.5	250
Series 73 3/8"	15	7.5	200
Series 74 1/2"	10	5	150
Series 75 3/4"	10	5	100
Series 76 1"	10	5	100

Couplings



RectuPom, BSPP

4605	Thread	Length mm
71KBIW10DPX	1/8"	49
72KBIW13DPX	1/4"	58
73KBIW17DPX	3/8"	64
74KBIW21DPX	1/2"	74
75KBIW26DPX	3/4"	96
76KBIW33DPX	1"	106

Tech Sheet 10011

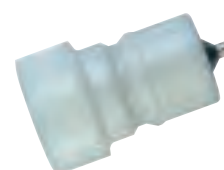


Brass, Viton Seals, BSPP

4605	Thread	Length mm
71KBIW10MVX	1/8"	49
72KBIW13MVX	1/4"	58
73KBIW17MVX	3/8"	64
74KBIW21MVX	1/2"	74
75KBIW26MVX	3/4"	96
76KBIW33MVX	1"	106

Tech Sheet 10011

Plugs



RectuPom, BSPP

4605	Thread	Length mm
71SBIW10DPX	1/8"	30
72SBIW13DPX	1/4"	35
73SBIW17DPX	3/8"	39
74SBIW21DPX	1/2"	46
75SBIW26DPX	3/4"	60

Tech Sheet 10011



Brass, Viton Seals, BSPP

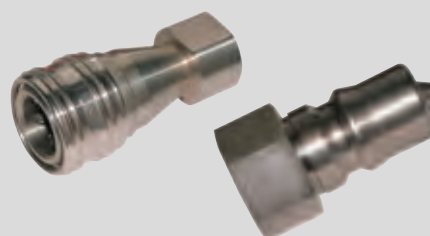
4605	Thread	Length mm
71SBIW10MVX	1/8"	30
72SBIW13MVX	1/4"	35
73SBIW17MVX	3/8"	39
74SBIW21MVX	1/2"	46
75SBIW26MVX	3/4"	60
76SBIW33MVX	1"	65

Tech Sheet 10011

Grade 316 available upon request



For **Series 70, Stainless Steel 303, Viton Seals, BSPP**
see page 320



H SERIES

Steel Plated Couplings



BSPP, Valved

0067	Thread	Max Pressure Bar
VHC4-4RP	1/4"	450
VHC6-6RP	3/8"	310
VHC8-8RP	1/2"	280
VHC12-12RP	3/4"	245
VHC16-16RP	1"	140
VHC20-20RP	1.1/4"	125
Tech Sheet 1336		

BSPP, Unvalved

0067	Thread	Max Pressure Bar
PHC4-4RP	1/4"	760
PHC6-6RP	3/8"	760
PHC8-8RP	1/2"	760
PHC12-12RP	3/4"	625
PHC16-16RP	1"	415
PHC20-20RP	1.1/4"	345
Tech Sheet 1336		

Steel Plated Plugs



BSPP, Valved

0067	Thread
VHN4-4RP	1/4"
VHN6-6RP	3/8"
VHN8-8RP	1/2"
VHN12-12RP	3/4"
VHN16-16RP	1"
VHN20-20RP	1.1/4"
VHN24-24RP	1.1/2"
Tech Sheet 1336	

BSPP, Unvalved

0067	Thread
PHN4-4RP	1/4"
PHN6-6RP	3/8"
PHN8-8RP	1/2"
PHN12-12RP	3/4"
PHN16-16RP	1"
Tech Sheet 1336	

Brass Couplings



BSPP, Valved

0067	Thread	Max Pressure Bar
BVHC4-4RP	1/4"	155
BVHC6-6RP	3/8"	155
BVHC8-8RP	1/2"	140
BVHC12-12RP	3/4"	140
BVHC16-16RP	1"	125
BVHC20-20RP	1.1/4"	25
BVHC24-24RP	1.1/2"	25
BVHC32-32RP	2"	30
Tech Sheet 1336		

BSPP, Unvalved

0067	Thread	Max Pressure Bar
BPHC4-4RP	1/4"	280
BPHC6-6RP	3/8"	280
BPHC8-8RP	1/2"	280
BPHC12-12RP	3/4"	245
BPHC16-16RP	1"	210
BPHC24-24RP	1.1/2"	70
Tech Sheet 1336		

Brass Plugs



BSPP, Valved

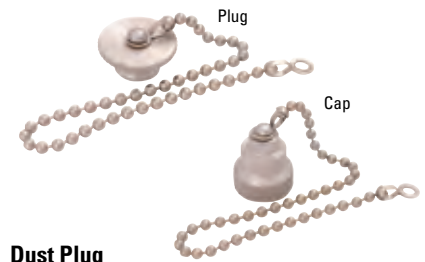
0067	Thread
BVHN4-4RP	1/4"
BVHN6-6RP	3/8"
BVHN8-8RP	1/2"
BVHN12-12RP	3/4"
BVHN16-16RP	1"
BVHN20-20RP	1.1/4"
BVHN24-24RP	1.1/2"
BVHN32-32RP	2"
Tech Sheet 1336	

BSPP, Unvalved

0067	Thread
BPHN4-4RP	1/4"
BPHN6-6RP	3/8"
BPHN8-8RP	1/2"
BPHN12-12RP	3/4"
BPHN16-16RP	1"
BPHN32-32RP	2"
Tech Sheet 1336	



H Series Aluminium Dust Protection



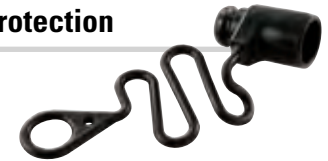
Dust Plug

0067	To Suit
AMPH-8	1/2"
AMPH-16	1"
AMPH-20	1.1/4"
AMPH-24	1.1/2"
AMPH-32	2"
Tech Sheet 1336	

Dust Cap

0067	To Suit
ADCH-4	1/4"
ADCH-6	3/8"
ADCH-16	1"
ADCH-20	1.1/4"
ADCH-32	2"
Tech Sheet 1336	

H Series Plastic Dust Protection



Cap & Plug

0067	To Suit
PDCP-4	1/4"
PDCP-6	3/8"
Tech Sheet 1336	



For H Series,
316 Stainless Steel
 Couplings and Plugs
 see page 320

SERIES 71



The Series 71 has been designed to eliminate fluid loss and air inclusion. The dirt tolerant, heavy-duty construction withstands abusive treatment.

Couplings

Flush Face/Dry Break Steel Valved, BSPP



0067	Thread	Max Pressure Bar
71-3C4-4RP	1/4"	690
71-3C6-6RP	3/8"	690
71-3C8-8RP	1/2"	690
71-3C12-12RP	3/4"	520
71-3C16-16RP	1"	520

Tech Sheet 612

Plugs

Flush Face/Dry Break Steel Valved, BSPP



0067	Thread
71-3N4-4RP	1/4"
71-3N6-6RP	3/8"
71-3N8-8RP	1/2"
71-3N12-12RP	3/4"
71-3N16-16RP	1"

Tech Sheet 612



For **Pneumatic Valves & Accessories**
see page **564**



SERIES 75



Series 75 is designed and constructed for high pressure hydraulic service. Although these couplings are used in a broad variety of heavy-duty applications.

A primary usage is in oil fields and offshore drilling, cranes, power tongs and swivels, diving etc.

Thread to Connect Couplings

Steel Valved, BSPP



0067	Thread	Max Pressure Bar
75C12-12RP	3/4"	345
75C16-16RP	1"	345
75C20-20RP	1.1/4"	345
75C24-24RP	1.1/2"	345

Tech Sheet 615

Thread to Connect Plugs

Steel Valved, BSPP



0067	Thread
75N12-12RP	3/4"
75N16-16RP	1"
75N20-20RP	1.1/4"
75N24-24RP	1.1/2"

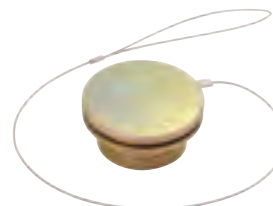
Tech Sheet 615

Metal Dust Plug & Dust Cap

Dust Plug

0067	To Suit
75MDP-12	3/4"
75MDP-16	1"
75MDP-20	1.1/4"
75MDP-24	1.1/2"
75MDP-32	2"

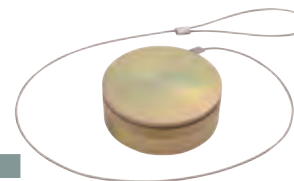
Tech Sheet 615



Dust Cap

0067	To Suit
75MDC-12	3/4"
75MDC-16	1"
75MDC-20	1.1/4"
75MDC-24	1.1/2"
75MDC-32	2"

Tech Sheet 615



SERIES 70KB

ULTRA-FLO »»»

Description: The quick-connect-couplings Series 71-76 are robust and simple models having best proven their quality for many years in many applications. Only couplings and plugs with the same size internal threads will match. These couplings are designed for manual operation, i.e. to couple the sleeve must be first pushed back.

Advantages: The simple and robust design guarantees a maximum of safety.

Ideal for Applications: With liquids and in laboratory and food areas.

Technical Data: Only couplings and plugs of the same series will match.



Interchangeability:

Industrial interchange ISO 7241-1 Series B, BS 7198. Hansen 'HK'.



Double Shut Off



		Stainless Steel 303	
Working Temperature		-20°C to +200°C	
		Working Pressures:	50°C (bar)
Series 71	1/8"	250	190
Series 72	1/4"	250	190
Series 73	3/8"	250	190
Series 74	1/2"	250	190
Series 75	3/4"	160	120
Series 76	1"	100	75

Stainless Steel 303, Viton Seals, BSPP

4605	Thread	Length mm
71KBIW10RVX	1/8"	49
72KBIW13RVX	1/4"	58

Tech Sheet 10011



Stainless Steel 303, Viton Seals, BSPP

4605	Thread	Length mm
71SBIW10RVX	1/8"	30
72SBIW13RVX	1/4"	35

Tech Sheet 10011



H SERIES

316 Stainless Steel Couplings

BSPP, Valved

0067	Thread	Max Pressure Bar
SVHC4-4RP	1/4"	345
SVHC6-6RP	3/8"	280
SVHC8-8RP	1/2"	260
SVHC12-12RP	3/4"	140
SVHC16-16RP	1"	140
SVHC24-24RP	1.1/2"	105
SVHC32-32RP	2"	35

Tech Sheet 1336



BSPP, Unvalved

0067	Thread	Max Pressure Bar
SPHC4-4RP	1/4"	690
SPHC6-6RP	3/8"	555
SPHC8-8RP	1/2"	555
SPHC12-12RP	3/4"	485

Tech Sheet 1336

316 Stainless Steel Plugs

BSPP, Valved

0067	Thread
SVHN4-4RP	1/4"
SVHN6-6RP	3/8"
SVHN8-8RP	1/2"
SVHN12-12RP	3/4"
SVHN16-16RP	1"
SVHN20-20RP	1.1/4"
SVHN24-24RP	1.1/2"
SVHN32-32RP	2"

Tech Sheet 1336



BSPP, Unvalved

0067	Thread
SPHN4-4RP	1/4"
SPHN6-6RP	3/8"
SPHN8-8RP	1/2"
SPHN12-12RP	3/4"
SPHN16-16RP	1"
SPHN24-24RP	1.1/2"
SPHN32-32RP	2"

Tech Sheet 1336

SERIES 71

The Series 71 has been designed to eliminate fluid loss and air inclusion. The dirt tolerant, heavy-duty construction withstand abusive treatment.

Flush Face/Dry Break 316 Valved, BSPP

0067	Thread	Max Pressure Bar
S71-3C4-4RP	1/4"	345
S71-3C6-6RP	3/8"	345
S71-3C8-8RP	1/2"	345
S71-3C12-12RP	3/4"	345
S71-3C16-16RP	1"	280

Tech Sheet 612



Flush Face/Dry Break 316 Valved, BSPP

0067	Thread
S71-3N4-4RP	1/4"
S71-3N6-6RP	3/8"
S71-3N8-8RP	1/2"
S71-3N12-12RP	3/4"
S71-3N16-16RP	1"

Tech Sheet 612



stainless
steel



stainless
steel



stainless
steel



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 3

3

Pneumatic Quick Release Couplings

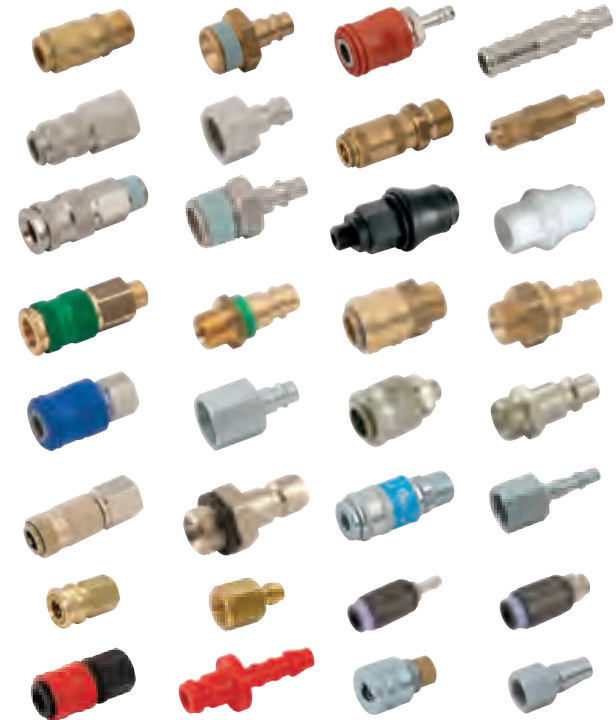
3 Pneumatic Quick Release Couplings **324-406**

3.00 Pneumatic Quick Release Couplings

- Mini Couplings & Plugs
- High Flow Couplings & Plugs
- Heavy-duty Couplings & Plugs
- Twist Air Couplings & Plugs
- Small Couplings & Plugs
- Japanese Profile Couplings & Plugs
- Aro Profile Couplings & Plugs
- Self Venting Couplings & Plugs
- English Profile Couplings & Plugs
- ISO 6150 'C' Profile Couplings & Plugs
- English Industrial Profile Couplings & Plugs
- International Profile Couplings & Plugs
- Worldwide Profile Couplings & Plugs
- Safety Locking Couplings & Plugs
- Colour Coded Couplings & Plugs
- Thermoplastic Couplings & Plugs
- Industrial Interchange High Flow Couplings & Plugs
- ISO 6150 B Couplings & Plugs
- European Profile Couplings & Plugs
- Self Venting Couplings & Plugs
- Stainless Steel Couplings & Plugs
- Parker Profile Couplings & Plugs
- Atlas Copco Profile Couplings & Plugs
- Low Pressure Fluid & Pneumatic Couplings & Plugs
- German Industrial Profile Couplings & Plugs
- Breathing Air Couplings & Plugs
- Schrader Couplings & Plugs
- Scandinavian Profile Couplings & Plugs
- Moldtite Couplings & Plugs
- Plastic Injection Moulding Couplings
- Acetal Resin Couplings & Plugs
- Air Line Couplings & Plugs
- Instantair Couplings & Plugs
- Swing Couplings & Hose Tails
- Straight-Through Couplings & Plugs
- Air Brake Components



324-406



KEEP ON CONNECTING



Your Partner for Air & Other Fluids
Low Pressure Solutions

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 RECTUS



Manufactured in Europe

 Parker

ENGINEERING YOUR SUCCESS.

PLUG PROFILE

Plug Profile: ISO 6150 B Standard-Series Self-Venting-Series	23SF 23KA/24KA 1400KA/1423KA 24KE/1400KE	30SF 30KA	37SF 37KA		
Plug Profile: ISOC Standard-Series Self-Venting-Series	303SB 303KB	18SF 18KA	84SF 84KA		
Plug Profile: Europe Standard-Series Self-Venting-Series	20SF 20KA	21SF 21KA	25SF*/26SF** 25KA/26KA/1600KA 1625KA 26KE/1600KE	27SF 27KA/1700KA 1727KA 1700KE	** Steel zinc plated *** Brass
Plug Profile: Walther Standard-Series	50SF 50KA	51SF 51KA	52SF 52KA	57SF 57KA	
Plug Profile: Scandinavia Standard-Series	1100SF 1100KA	1300SF 1300KA	1800SF 1800KA	1900SF 1900KA	2100SF 2100KA
Plug Profile: Asia Standard-Series	13SF 13KA		Plug Profile: Atlas Copco Standard-Series	33SF 33KA	34SF 34KA
Plug Profile: Aro Standard-Series Self-Venting-Series	22SF 14KA/22KA 14KE		Plug Profile: UK Standard-Series	17SF 17KA	19SF 19KA

Pictures are smaller than actual products.

BE-17 Couplings



Male Thread, BSPT

0531	Thread
B1704M	1/4"
B1706M	3/8"
B1708M	1/2"



Female Thread, BSPP

0531	Thread
B1704F	1/4"
B1706F	3/8"
B1708F	1/2"



Hose Tail

0531	Thread
B1704H	1/4" (6mm)
B1705H	5/16" (8mm)
B1706H	3/8" (10mm)
B1708H	1/2" (12mm)

BE-17 Plugs



Male Thread, BSPT

0531	Thread
B1702MP	1/8"
B1704MP	1/4"
B1706MP	3/8"
B1708MP	1/2"



Female Thread, BSPP

0531	Thread
B1702FP	1/8"
B1704FP	1/4"
B1706FP	3/8"



BE-17 Plugs, Hose Tail

0531	To Suit Hose ID
B1704HP	1/4" (6mm)
B1705HP	5/16" (8mm)
B1706HP	3/8" (10mm)
B1708HP	1/2" (12mm)

BE-19 Couplings



Male Thread, BSPT

0532	Thread
B1904M	1/4"
B1906M	3/8"
B1908M	1/2"



Female Thread, BSPP

0532	Thread
B1904F	1/4"
B1906F	3/8"
B1908F	1/2"



Hose Tail

0532	To Suit Hose ID
B1904H	1/4" (6mm)
B1905H	5/16" (8mm)
B1906H	3/8" (10mm)
B1908H	1/2" (12mm)

BE-19 Plugs



Male Thread, BSPT

0532	Thread
B1902MP	1/8"
B1904MP	1/4"
B1906MP	3/8"
B1908MP	1/2"



Female Thread, BSPP

0532	Thread
B1904FP	1/4"
B1906FP	3/8"
B1908FP	1/2"



Hose Tail

0532	To Suit Hose ID
B1904HP	1/4"
B1905HP	5/16"
B1906HP	3/8"
B1908HP	1/2"

BE RANGES



BE-21 Mini Couplings



Male Thread, BSPT

0533	Thread
B2102M	1/8"
B2104M	1/4"



Panel Mounting, Male Thread, BSPP

0533	Thread
B2102BH	1/8"
B2104BH	1/4"



Female Thread, BSPP

0533	Thread
B2102F	1/8"
B2104F	1/4"



Quick Fit Tube

0533	To Suit Tube mm
B2106Q	6 x 4
B2108Q	8 x 6



Quick Fit Panel Mounting

0533	To Suit Tube mm
B2106QBH	6 x 4
B2108QBH	8 x 6

BE-21 Mini Couplings, Hose Tail



0533	To Suit Hose ID
B2104H	6mm
B2105H	9mm
B2106H	3/8" (10mm)

BE-21 Mini Plugs



Male Thread, BSPP

0533	Thread
B2102MP	1/8"
B2104MP	1/4"



Female Thread, BSPP

0533	Thread
B2102FP	1/8"
B2104FP	1/4"



Quick Fit

0533	To Suit Tube mm
B2106QP	6 x 4
B2108QP	8 x 6



Hose Tail

0533	To Suit Hose ID
B2103HP	3/16" (5mm)
B2104HP	6mm
B2105HP	9mm

BE-23 ISO Couplings



Male Thread, BSPT

0534	Thread
B2304M	1/4"
B2306M	3/8"
B2308M	1/2"



Female Thread, BSPP

0534	Thread
B2304F	1/4"
B2306F	3/8"
B2308F	1/2"



Hose Tail

0534	To Suit Hose ID
B2305H	5/16"
B2306H	3/8"

BE-23 ISO Plugs



Male Thread, BSPT

0534	Thread
B2304MP	1/4"



Female Thread, BSPP

0534	Thread
B2304FP	1/4"
B2306FP	3/8"



Hose Tail

0534	To Suit Hose ID
B2304HP	1/4"
B2306HP	3/8"
B2308HP	1/2"



Safety, Male Thread, BSPT

0534	Thread
B2304MPS	1/4"

BE-25B Brass Couplings



Male Thread, BSPT

0535	Thread
B25B04M	1/4"
B25B06M	3/8"
B25B08M	1/2"



Female Thread, BSPP

0535	Thread
B25B04F	1/4"
B25B06F	3/8"
B25B08F	1/2"



Hose Tail

0535	To Suit Hose ID
B25B05H	5/16" (8mm)
B25B06H	3/8" (10mm)
B25B08H	1/2" (13mm)

BE-25B Brass Plugs



Male Thread, BSPT

0535	Thread
B25B04MP	1/4"
B25B06MP	3/8"
B25B08MP	1/2"



Hose Tail

0535	To Suit Hose ID
B25B04HP	1/4" (6mm)
B25B05HP	5/16" (8mm)
B25B06HP	3/8" (10mm)
B25B08HP	1/2" (12mm)

BE-25 Couplings



Male Thread, BSPT

0535	Thread
B2504M	1/4"
B2506M	3/8"
B2508M	1/2"



Female Thread, BSPP

0535	Thread
B2504F	1/4"
B2506F	3/8"
B2508F	1/2"



Hose Tail

0535	To Suit Hose ID
B2504H	1/4" (6mm)
B2505H	5/16" (8mm)
B2506H	3/8" (10mm)
B2508H	1/2" (12mm)

BE-25 Plugs



Male Thread, BSPT

0535	Thread
B2502MP	1/8"
B2504MP	1/4"
B2506MP	3/8"
B2508MP	1/2"



Female Thread, BSPP

0535	Thread
B2502FP	1/8"
B2504FP	1/4"
B2506FP	3/8"
B2508FP	1/2"



Hose Tail

0535	To Suit Hose ID
B2504HP	1/4" (6mm)
B2505HP	5/16" (8mm)
B2506HP	3/8" (10mm)
B2508HP	1/2" (12mm)



Safety, Male Thread, BSPT

0535	Thread
B2506MPS	3/8"

BE RANGES



BE-27 High Flow Couplings



Male Thread, BSPT

0536	Thread
B2708M	1/2"



Female Thread, BSPP

0536	Thread
B2706F	3/8"
B2708F	1/2"



Hose Tail

0536	To Suit Hose ID
B2706H	3/8"
B2708H	1/2"

BE-27 High Flow Plugs



Male Thread, BSPT

0536	Thread
B2704MP	1/4"
B2708MP	1/2"



Female Thread, BSPP

0536	Thread
B2708FP	1/2"



Hose Tail

0536	To Suit Hose ID
B2706HP	3/8"
B2710HP	5/8"

BE-68 Heavy-duty Couplings



Male Thread, BSPP

0538	Thread
B6808M	1/2"
B6812M	3/4"



Female Thread, BSPP

0538	Thread
B6804F	1/4"
B6808F	1/2"
B6812F	3/4"



Hose Tail

0538	To Suit Hose ID
B6806H	3/8" (10mm)
B6808H	1/2" (12mm)
B6812H	3/4" (19mm)

BE-68 Heavy-duty Plugs



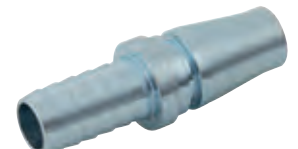
Male Thread, BSPT

0538	Thread
B6804MP	1/4"
B6806MP	3/8"
B6808MP	1/2"
B6812MP	3/4"



Female Thread, BSPP

0538	Thread
B6804FP	1/4"
B6806FP	3/8"
B6808FP	1/2"



Hose Tail

0538	To Suit Hose ID
B6806HP	3/8" (10mm)
B6808HP	1/2" (12mm)

TWIST-AIR COUPLINGS



Working Temperature:
-15°C to +80°C
Standard seal NBR

Maximum Static Working Pressure
Static and random rotation:
PB 17 bar (250 psi)



Triple Outlet Connector



3 x Coupling Outlets, 1 x 1/4" BSPP Inlet

9000
M3-TA

Under continuous rotation:
PB 10 bar (145 psi)
Interchangeability:
Twist air PCL series
Flow rate: 900 L/min
Material: Mild steel zinc plated
Application:
General purpose pneumatic twist coupling.



Profile

Twist-Air Socket Halves



Male Thread, BSPP

9000	Old Ref	Thread	Length mm
TAC14M	PT8825	1/4"	58
TAC38M	PT8827	3/8"	54



Female Thread, BSPP

9000	Old Ref	Thread	Length mm
TAC14F	PT8823	1/4"	55
TAC38F	PT8800	3/8"	58



Hose Tail

9000	Old Ref.	To Suit Hose ID	Length mm
TAC14HT	PT8800/SU4	1/4"	91
TAC516HT	PT8800/SU5	5/16"	94
TAC38HT	PT8800/SU6	3/8"	96

Twist-Air Plug Halves - Swivel



Male Thread, BSPP

9000	Old Ref	Thread	Length mm
TAPS14M	PT8836	1/4"	46
TAPS38M	PT8838	3/8"	50



Female Thread, BSPP

9000	Old Ref	Thread	Length mm
TAPS14F	PT8834	1/4"	50
TAPS38F	PT8804	3/8"	51



Hose Tail

9000	Old Ref.	To Suit Hose ID	Length mm
TAPS14HT	PT8804/SU4	1/4"	85
TAPS516HT	PT8804/SU5	5/16"	88
TAPS38HT	PT8804/SU6	3/8"	90

Twist-Air Plug Halves - Non-swivel



Male Thread, BSPP

9000	Old Ref	Thread	Length mm
TAP14M	PT8808	1/4"	42
TAP38M	PT8817	3/8"	41



Female Thread, BSPP

9000	Old Ref	Thread	Length mm
TAP14F	PT8806	1/4"	41
TAP38F	PT8802	3/8"	44



Hose Tail

9000	Old Ref.	To Suit Hose ID	Length mm
TAP14HT	PT8802/SU4	1/4"	77
TAP516HT	PT8802/SU5	5/16"	81
TAP38HT	PT8802/SU6	3/8"	83

SERIES 02 SMALL QUICK COUPLINGS



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Profile

Material:

Brass and NBR seal (standard series) coupling and plug.

Application:

Medical and dental equipment, robotics instrumentation, air brush systems and pneumatic systems.

Couplings



Male Thread, Metric

2010	Thread	Hex Size mm	Length mm
02KAAM03MPX	M3	6	19
Tech Sheet 10276			



Hose Tail

2010	To Suit Hose ID mm	Hex Size mm	Length mm
02KATF02MPX	2	6	21
Tech Sheet 10276			

Plugs



Male Thread, Metric

2010	Thread	Hex Size mm	Length mm
02SFAM03MXX	M3	6	11
Tech Sheet 10276			



Hose Tail

2010	To Suit Hose ID mm	Length mm
02SFTF03MXX	3	13
Tech Sheet 10276		

Other materials, seals and finishes available on request, please contact our technical department for further details.



You might also need
FT Pro Micro One Touch + Plastic Push-in Fittings
see pages **787-791**



SERIES 13 JAPANESE PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Interchangeability:
Rectus 03,
Nitto Kohki 200 (Japan)

Material:
Brass and NBR seal (standard series) coupling.
Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPT

1310	Thread	Hex Size mm	Length mm
13KAAK13MPX	1/4"	22	49
13KAAK17MPX	3/8"	22	49
13KAAK21MPX	1/2"	22	53

Tech Sheet 501



Female Thread, BSPP

1310	Thread	Hex Size mm	Length mm
13KAIW13MPX	1/4"	22	45
13KAIW17MPX	3/8"	22	45
13KAIW21MPX	1/2"	24	48

Tech Sheet 501



Hose Tail

1310	To Suit Hose ID	Hex Size mm	Length mm
13KATF06MPX	6mm (1/4")	21	62
13KATF08MPX	8mm (5/16")	21	62
13KATF10MPX	10mm (3/8")	21	62
13KATF13MPX	13mm (1/2")	21	62

Tech Sheet 501

Plugs



Male Thread, BSPT

1310	Thread	Hex Size mm	Length mm
13SFAK13SXN	1/4"	14	37
13SFAK17SXN	3/8"	17	37
13SFAK21SXN	1/2"	22	44

Tech Sheet 501



Female Thread, BSPP

1310	Thread	Hex Size mm	Length mm
13SFIW13SXN	1/4"	17	33
13SFIW17SXN	3/8"	19	33
13SFIW21SXN	1/2"	24	36

Tech Sheet 501



Hose Tail

1310	To Suit Hose ID	Length mm
13SFTF06SXN	6mm (1/4")	48
13SFTF08SXN	8mm (5/16")	48
13SFTF10SXN	10mm (3/8")	48
13SFTF13SXN	13mm (1/2")	48

Tech Sheet 501

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 14 ARO PROFILE



Working Temperature:
-20°C to +100°C
Standard Seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 psi)



Interchangeability:
Rectus 22, ARO 210, Parker 50,
JWL 522, JWL 532.

Material:
Brass and NBR seal (standard series) coupling.
Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPP

2210	Thread	Hex Size mm	Length mm
14KAAW13MPX	1/4"	22	43
14KAAW17MPX	3/8"	22	43
14KAAW21MPX	1/2"	22	46

Tech Sheet 502



Female Thread, BSPP

2210	Thread	Hex Size mm	Length mm
14KAIW13MPX	1/4"	22	43
14KAIW17MPX	3/8"	22	43
14KAIW21MPX	1/2"	24	46

Tech Sheet 502



Hose Tail

2210	To Suit Hose ID mm	Hex Size mm	Length mm
14KATF06MPX	6	21	60
14KATF08MPX	8	21	60
14KATF09MPX	9	21	60
14KATF10MPX	10	21	60
14KATF13MPX	13	21	60

Tech Sheet 502

Plugs



Male Thread, BSPT

2210	Thread	Hex Size mm	Length mm
22SFAK13SXN	1/4"	14	41
22SFAK17SXN	3/8"	17	41
22SFAK21SXN	1/2"	22	46

Tech Sheet 30001



Female Thread, BSPP

2210	Thread	Hex Size mm	Length mm
22SFIW13SXN	1/4"	17	35
22SFIW17SXN	3/8"	19	35
22SFIW21SXN	1/2"	24	38

Tech Sheet 30001



Hose Tail

2210	To Suit Hose ID	Length mm
22SFTF06SXN	6	49
22SFTF08SXN	8	49
22SFTF10SXN	10	49
22SFTF13SXN	13	49

Tech Sheet 30001

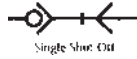
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 14 SELF VENTING LOW PRESSURE



Working Temperature:
-20°C to +60°C

Maximum Static Working Pressure:
PB 12 bar (174 PSI)



Material:
Brass nickel plated, thermoplastic sleeve, NBR seal.

Application:
General purpose pneumatic coupling, self-venting on disconnection as per ISO 4414.



Profile

Couplings



Male Thread, BSPT

0194	Thread	Hex Size mm	Length mm
14KEAK13MPN	1/4"	22	58
14KEAK21MPN	1/2"	24	63



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
14KEIW13MPN	1/4"	22	57
14KEIW17MPN	3/8"	22	57
14KEIW21MPN	1/2"	24	60



Hose Tail

0194	To Suit Hose ID mm	Hex Size mm	Length mm
14KETF06MPN	6	22	71
14KETF08MPN	8	22	71
14KETF09MPN	9	22	71
14KETF10MPN	10	22	71
14KETF13MPN	13	22	71

Plugs



Male Thread, BSPT

2210	Thread	Hex Size mm	Length mm
22SFAK13SXN	1/4"	14	41
22SFAK17SXN	3/8"	17	41
22SFAK21SXN	1/2"	22	46

Tech Sheet 30001



Female Thread, BSPP

2210	Thread	Hex Size mm	Length mm
22SFIW13SXN	1/4"	17	35
22SFIW17SXN	3/8"	19	35
22SFIW21SXN	1/2"	24	38

Tech Sheet 30001



Hose Tail

2210	To Suit Hose ID	Length mm
22SFTF06SXN	6	49
22SFTF08SXN	8	49
22SFTF10SXN	10	49
22SFTF13SXN	13	49

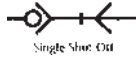
Tech Sheet 30001

SERIES 17 QUICK COUPLING ENGLISH PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



ULTRA-FLO »»»

Interchangeability:
Standard Schrader series NW5
Flow Rate: 865 L/min

Material:
Steel nickel plated, Steel zinc plated, Brass nickel plated, NBR seal (standard series coupling).
Application:
General purpose pneumatic coupling, garages, workshops.

Couplings

Male Thread, BSPT



1710	Thread	Hex Size mm	Length mm
17KAAK13SPN	1/4"	19	63
17KAAK17SPN	3/8"	19	62
17KAAK21SPN	1/2"	22	63

Tech Sheet 503

Female Thread, BSPP



1710	Thread	Hex Size mm	Length mm
17KAIW13SPN	1/4"	19	58
17KAIW17SPN	3/8"	19	57
17KAIW21SPN	1/2"	24	60

Tech Sheet 503

Hose Tail



1710	To Suit Hose ID	Hex Size mm	Length mm
17KATF06SPN	6mm (1/4")	19	76
17KATF08SPN	8mm (5/16")	19	76
17KATF10SPN	10mm (3/8")	19	76
17KATF13SPN	13mm (1/2")	19	76

Tech Sheet 503

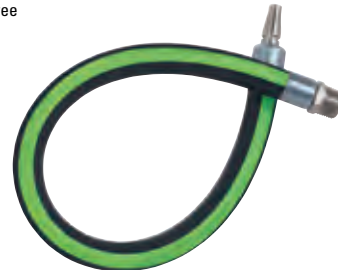
Leader Hoses

A 'Leader Hose' is a length of flexible hose which should be fitted between an air tool and the connecting coupling. By absorbing the impact of a pneumatic impact tool, a leader hose will significantly increase the life expectancy of the coupling.

3/8" Bore Rubber-Tech Hose, Series 17 Plug x Male Thread, BSPT

1710	Thread	Length mm
LH17/13K	1/4"	381
LH17/17K	3/8"	381
LH17/21K	1/2"	381

Tech Sheet 503



Plugs

Male Thread, BSPT



1710	Thread	Hex Size mm	Length mm
17SFAK10SXX	1/8"	11	37
17SFAK13SXX	1/4"	14	42
17SFAK17SXX	3/8"	17	42
17SFAK21SXX	1/2"	21	43

Tech Sheet 503

Female Thread, BSPP



1710	Thread	Hex Size mm	Length mm
17SFIW10SXX	1/8"	14	33
17SFIW13SXX	1/4"	17	36
17SFIW17SXX	3/8"	19	39
17SFIW21SXX	1/2"	24	41

Tech Sheet 503

Hose Tail



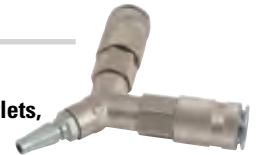
1710	To Suit Hose ID	Length mm
17SFTF06SXX	6mm (1/4")	58
17SFTF08SXX	8mm (5/16")	52
17SFTF10SXX	10mm (3/8")	52
17SFTF13SXX	13mm (1/2")	52

Tech Sheet 503



Profile

Y Connector



2 x Coupling Outlets, 1 x Plug Inlet

1710	Length mm
17Y	114

Tech Sheet 503

Triple Outlet Connectors



3 x Coupling Outlets, 1 x 3/8" BSPP Inlet

1710	Length mm
17W	111

Tech Sheet 503

WARNING – Leader Hoses



The Health and Safety Executive guide states - "the plug should not be screwed directly into the inlet port, but should be fitted onto a short isolation hose, thus isolating the plug and coupling from the tool vibration".

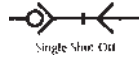
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 18 QUICK COUPLING ISO 6150 'C' PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Interchangeability:
ISO 6150 C, Staubli RBE06

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
Industrial pneumatic coupling, robust design.



Profile

Couplings



Male Thread, BSPT

0194	Thread	Hex Size mm	Length mm
18KAAK13MPN	1/4"	19	63
18KAAK17MPN	3/8"	19	62
18KAAK21MPN	1/2"	22	63

Tech Sheet 2098



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
18KAIW13MPN	1/4"	19	58
18KAIW17MPN	3/8"	19	57
18KAIW21MPN	1/2"	24	60

Tech Sheet 2098



Hose Tail

0194	To Suit Hose ID mm	Hex Size mm	Length mm
18KATF06MPN	6	19	76
18KATF08MPN	8	19	76

Tech Sheet 2098

Plugs



Male Thread, BSPT

0194	Thread	Length mm
18SFAK13SXN	1/4"	41

Tech Sheet 2098



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
18SFIW13SXN	1/4"	19	43
18SFIW17SXN	3/8"	19	44

Tech Sheet 2098



Hose Tail

0194	To Suit Hose ID mm	Length mm
18SFTF06SXN	6	56
18SFTF08SXN	8	56
18SFTF10SXN	10	56

Tech Sheet 2098

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 18 QUICK COUPLING ISO 6150 'C' PROFILE SELF VENTING LOW PRESSURE



Working Temperature:
-20°C to +60°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Material:
Brass nickel plated, NBR seal
(standard series coupling).

Application:
General purpose pneumatic coupling, self-venting on disconnection.

Couplings



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
18KEIW21SPN	1/2"	24	65
Tech Sheet 504			



Profile

Plugs



Male Thread, BSPT

0194	Thread	Length mm
18SFAK13SXN	1/4"	41
Tech Sheet 504		



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
18SFIW13SXN	1/4"	19	43
18SFIW17SXN	3/8"	19	44
Tech Sheet 504			



Hose Tail

0194	To Suit Hose ID mm	Length mm
18SFTF06SXN	6	56
18SFTF08SXN	8	56
18SFTF10SXN	10	56
Tech Sheet 504		



You might also need
FT Pro Pneumatic Tube
see page **898**



Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 19 QUICK COUPLING ENGLISH INDUSTRIAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Interchangeability:
Standard PCL series.

Material:
Steel nickel plated, Brass nickel plated,
NBR seal (standard series coupling).

Application:
General purpose pneumatic coupling, original PCL.



Profile

Couplings



Male Thread, BSPT

1910	Thread	Hex Size mm	Length mm
19KAAK13MPX	1/4"	19	63
19KAAK17MPX	3/8"	19	63
19KAAK21MPX	1/2"	22	68

Tech Sheet 505



Female Thread, BSPP

1910	Thread	Hex Size mm	Length mm
19KAIW13MPX	1/4"	19	58
19KAIW17MPX	3/8"	19	58
19KAIW21MPX	1/2"	24	60

Tech Sheet 505



Hose Tail

1910	To Suit Hose ID	Hex Size mm	Length mm
19KATF06MPX	6mm (1/4")	19	76
19KATF08MPX	8mm (5/16")	19	76
19KATF10MPX	10mm (3/8")	19	76
19KATF13MPX	13mm (1/2")	19	76

Tech Sheet 505

Plugs



Male Thread, BSPT

1910	Thread	Hex Size mm	Length mm
19SFAK13SXN	1/4"	14	50
19SFAK17SXN	3/8"	17	50
19SFAK21SXN	1/2"	21	57

Tech Sheet 505



Female Thread, BSPP

1910	Thread	Hex Size mm	Length mm
19SFIW13SXN	1/4"	17	46
19SFIW17SXN	3/8"	17	47
19SFIW21SXN	1/2"	19	47

Tech Sheet 505



Hose Tail

1910	To Suit Hose ID	Length mm
19SFTF05SXN	5mm	60
19SFTF06SXN	6mm (1/4")	60
19SFTF08SXN	8mm (5/16")	60
19SFTF10SXN	10mm (3/8")	60
19SFTF13SXN	13mm (1/2")	60

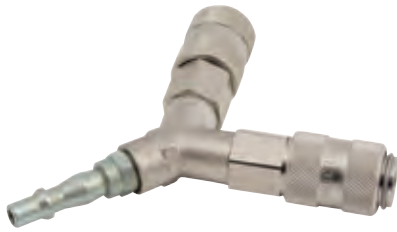
Tech Sheet 505

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 19



Y Connector



2 x Coupling Outlets, 1 x Plug Inlet

1910	Length mm
19Y	117

Triple Outlet Connectors



3 x Coupling Outlets, 1 x 3/8" BSPP Inlet

1910	Length mm
19W	111



3 x Coupling Outlets, 1 x 1/4" BSPP Inlet

1910
M3-19

Free Angle Rotating Joint



Male Thread, BSPT

1910	Thread
19FAAK13	1/4"
19FAAK17	3/8"
19FAAK21	1/2"



Female Thread, BSPP

1910	Thread
19FAIW13	1/4"

Leader Hoses



3/8" Bore Rubber-Tech Hose, Series 19 Plug x Male Thread, BSPT

1910	Thread	Length mm
LH19/13K	1/4"	381
LH19/17K	3/8"	381
LH19/21K	1/2"	381
Tech Sheet 1337		

A 'Leader Hose' is a length of flexible hose which should be fitted between an air tool and the connecting coupling. By absorbing the impact of a pneumatic impact tool, a leader hose will significantly increase the life expectancy of the coupling.

WARNING – Leader Hoses



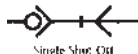
The Health and Safety Executive guide states - "the plug should not be screwed directly into the inlet port, but should be fitted onto a short isolation hose, thus isolating the plug and coupling from the tool vibration".

SERIES 20 QUICK COUPLING INTERNATIONAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Profile

Interchangeability:
Rectus 91, Walther 06-003
Flow Rate:
165 L/min

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
General purpose pneumatic coupling, medical, dental, robotics, instrumentation.

Couplings



Male Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20KAAM05MPN	M5	9	26
20KAAW10MPN	1/8"	11	28

Tech Sheet 506



Female Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20KAIM05MPN	M5	9	26
20KAIW10MPN	1/8"	12	28

Tech Sheet 506



Hose Tail

2010	To Suit Hose ID mm	Length mm
20KATF03MPN	3	35
20KATF04MPN	4	35
20KATF05MPN	5	35

Tech Sheet 506



Quick Fit Tube Connection

2010	To Suit Tube mm	Hex Size mm	Length mm
20KAK004MPN	3 x 4	9	34
20KAK006MPN	4 x 6	9	34

Tech Sheet 506



Panel Mount, Quick Fit Tube Connection

2010	To Suit Tube mm	Hex Size mm	Length mm
20KAKS04MPN	3 x 4	12	45
20KAKS06MPN	4 x 6	12	45

Tech Sheet 506



Panel Mount, Standard Hose Tail

2010	To Suit Hose ID mm	Hex Size mm	Length mm
20SFTS03MXN	3	12	45

Tech Sheet 506

Plugs



Male Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20SFAM05MXN	M5	7	18
20SFAW10MXN	1/8"	11	20

Tech Sheet 506



Female Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20SFIM05MXN	M5	7	17
20SFIW10MXN	1/8"	12	19

Tech Sheet 506



Hose Tail

2010	To Suit Hose ID mm	Length mm
20SFTF03MXN	3	24
20SFTF04MXN	4	24
20SFTF05MXN	5	24

Tech Sheet 506



Quick Fit Tube Connection

2010	To Suit Tube mm	Hex Size mm	Length mm
20SFK004MXN	3 x 4	7	25
20SFK005MXN	3 x 5	7	25

Tech Sheet 506



Panel Mount, Quick Fit Tube Connection

2010	To Suit Tube mm	Hex Size mm	Length mm
20SFKS06MXN	3 x 6	12	38

Tech Sheet 506

Other materials, seals and finishes available on request, please contact our technical department for further details.

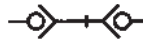
SERIES 20 QUICK COUPLING INTERNATIONAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 psi)



Couple Shut Off



Profile

Material:
Brass, NBR seal
(standard series coupling).

Application:
General purpose pneumatic coupling, medical, dental, robotics, instrumentation.

Couplings



Male Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20KBAM05MPX	M5	9	26
20KBAW10MPX	1/8"	11	28

Tech Sheet 507



Female Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20KBIM05MPX	M5	9	26
20KBIW10MPX	1/8"	12	28

Tech Sheet 507



Quick Fit Tube Connection

2010	Thread	Hex Size mm	Length mm
20KBK006MPX	4 x 6	9	34

Tech Sheet 507



Hose Tail

2010	To Suit Hose ID mm	Hex Size mm	Length mm
20KBTf03MPX	3	11	35
20KBTf04MPX	4	11	35

Tech Sheet 507

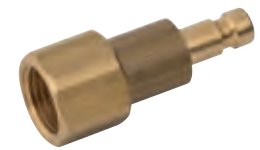
Plugs



Male Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20SBAM05MPX	M5	9	28
20SBAW10MPX	1/8"	11	30

Tech Sheet 507



Female Thread, Metric & BSPP

2010	Thread	Hex Size mm	Length mm
20SBIM05MPX	M5	9	26
20SBIW10MPX	1/8"	12	30

Tech Sheet 507



Quick Fit Tube Connection

2010	To Suit Tube mm	Hex Size mm	Length mm
20SBK006MPX	4 x 6	9	30.5

Tech Sheet 507



Hose Tail

2010	To Suit Hose ID mm	Hex Size mm	Length mm
20SBTF04MPX	4	8	36

Tech Sheet 507

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 QUICK COUPLING WORLDWIDE PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Profile

Interchangeability:
Rectus 90, Camozzi, EW0.

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
General purpose pneumatic coupling, medical, dental, robotics, instrumentation.

Couplings



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KAAW10MPN	1/8"	14	36
21KAAW13MPN	1/4"	17	38
21KAAW17MPN	3/8"	19	38

Tech Sheet 508



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KAIW10MPN	1/8"	14	36
21KAIW13MPN	1/4"	17	38
21KAIW17MPN	3/8"	19	38

Tech Sheet 508



Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21KATF04MPN	4mm	14	46
21KATF06MPN	6mm (1/4")	14	46
21KATF08MPN	8mm (5/16")	14	46
21KATF09MPN	9mm	14	46
21KATF10MPN	10mm (3/8")	14	46

Tech Sheet 508



Panel Mount, Standard Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21KATS04MPN	4mm	14	60
21KATS06MPN	6mm (1/4")	17	60
21KATS08MPN	8mm (5/16")	17	60

Tech Sheet 508



Quick Fit Tube Connection

2110	To Suit Tube mm	Hex Size mm	Length mm
21KAKO06MPN	4 x 6	14	42
21KAKO08MPN	6 x 8	14	42

Tech Sheet 508



Panel Mount, Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KAAS13MPN	1/4"	17	43

Tech Sheet 508



Panel Mount, Quick Fit Tube Connection

2110	To Suit Tube mm	Hex Size mm	Length mm
21KAKS06MPN	4 x 6	14	54
21KAKS08MPN	6 x 8	17	54

Tech Sheet 508



Quick Fit Tube Connection with Spring Guard

2110	To Suit Tube mm	Hex Size mm	Length mm
21KAKK06MPN	4 x 6	14	125
21KAKK08MPN	6 x 8	14	130

Tech Sheet 508

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 QUICK COUPLING WORLDWIDE PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)

Plugs



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SFAW10MXN	1/8"	14	25
21SFAW13MXN	1/4"	17	28
21SFAW17MXN	3/8"	17	28

Tech Sheet 508



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SFIW10MXN	1/8"	14	25
21SFIW13MXN	1/4"	17	25
21SFIW17MXN	3/8"	19	26

Tech Sheet 508



Hose Tail

2110	To Suit Hose ID	Length mm
21SFTF04MXN	4mm	32
21SFTF05MXN	5mm	32
21SFTF06MXN	6mm (1/4")	32
21SFTF08MXN	8mm (5/16")	32
21SFTF09MXN	9mm	33
21SFTF10MXN	10mm (3/8")	33

Tech Sheet 508



Panel Mount, Standard Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21SFTS04MXN	4mm	14	50
21SFTS06MXN	6mm (1/4")	14	50
21SFTS09MXN	9mm	14	50

Tech Sheet 508



Quick Fit Tube Connection

2110	To Suit Tube mm	Length mm
21SFK006MXN	4 x 6	32
21SFK008MXN	6 x 8	32

Tech Sheet 508



Panel Mount, Quick Fit Tube Connection

2110	To Suit Tube mm	Hex Size mm	Length mm
21SFKS06MXN	4 x 6	14	44
21SFKS08MXN	6 x 8	17	44

Tech Sheet 508



Quick Fit Tube Connection with Spring Guard

2110	To Suit Tube mm	Hex Size mm	Length mm
21SFKK06MXN	4 x 6	12	115
21SFKK08MXN	6 x 8	14	120

Tech Sheet 508



You might also need
Brass Quick-Fit Push-on Fittings
see pages 1156-1159



Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 QUICK COUPLING WORLDWIDE PROFILE PUSH-IN



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 psi)



Profile

Flow Rate:
560 L/min

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
Usable for air, oil and water. Ideally suited where tubing is often changed.

Couplings



Push-in

2010	OD mm	Hex Size mm	Length mm
21KARP06MPN	6	14	43.5
21KARP08MPN	8	17	48

Tech Sheet 508

Plugs



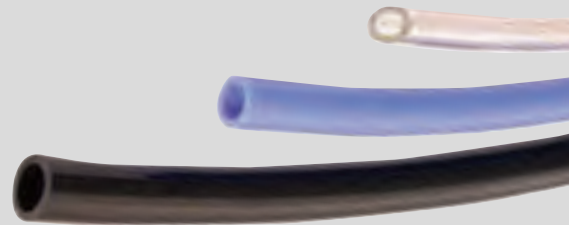
Push-in

2010	OD mm	Hex Size mm	Length mm
21SFRP06MPN	6	17	30.5
21SFRP08MPN	8	17	37

Tech Sheet 508



You might also need
Parker Legris Pneumatic Tube
see page 908



Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 QUICK COUPLING WORLDWIDE PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Flow Rate:
310 L/min

Material:
Brass, NBR seal (standard series coupling).

Application:
General purpose pneumatic coupling, medical, dental, robotics, instrumentation.



Profile

Couplings



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KBAW10MPX	1/8"	14	36
21KBAW13MPX	1/4"	17	38

Tech Sheet 509



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KBIW10MPX	1/8"	14	36
21KBIW13MPX	1/4"	17	38

Tech Sheet 509



Quick Fit Tube Connection

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBO06MPX	6 x 4	14	42
21KBO08MPX	8 x 6	14	42

Tech Sheet 509



Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21KBTf04MPX	4mm (1/8")	14	46
21KBTf06MPX	6mm (1/4")	14	46
21KBTf08MPX	8mm (5/16")	14	46

Tech Sheet 509

Plugs



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SBAW10MPX	1/8"	14	40

Tech Sheet 509



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SBIW10MPX	1/8"	14	40

Tech Sheet 509



Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21SBTF08MPX	8mm (5/16")	14	50

Tech Sheet 509



Quick Fit Tube Connection

2110	To Suit Tube mm	Hex Size mm	Length mm
21SBK006MPX	6 x 4	14	46
21SBK008MPX	8 x 6	14	46

Tech Sheet 509

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 SAFETY QUICK COUPLING WORLDWIDE PROFILE SAFETY LOCKING



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
Air breathing systems, medical, laboratories, diving suits etc.



Profile

Couplings



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KSAW10MPN	1/8"	14	36
21KSAW13MPN	1/4"	17	38

Tech Sheet 10279



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21KSIW10MPN	1/8"	14	36
21KSIW13MPN	1/4"	17	38

Tech Sheet 10279



Hose Tail

2110	To Suit Hose ID	Hex Size mm	Length mm
21KSTF06MPN	6mm (1/4")	14	46
21KSTF08MPN	8mm (5/16")	14	46
21KSTF10MPN	10mm (3/8")	14	46

Tech Sheet 10279

Plugs



Male Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SSAW10MXN	1/8"	14	25
21SSAW13MXN	1/4"	17	28

Tech Sheet 10279



Female Thread, BSPP

2110	Thread	Hex Size mm	Length mm
21SSIW10MXN	1/8"	14	25
21SSIW13MXN	1/4"	17	26

Tech Sheet 10279



Hose Tail

2110	To Suit Hose ID	Length mm
21SSTF06MXN	6mm (1/4")	32
21SSTF08MXN	8mm (5/16")	32
21SSTF10MXN	10mm (3/8")	33

Tech Sheet 10279

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 CODED QUICK COUPLINGS



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Brass nickel plated, NBR seal (standard series coupling).
Application:
Non-interchangeable, each coupling and plug has an individual shape so they can only be connected to each other, colour coded, one hand operation.



Profile

Couplings



Male Thread, BSPP

2110	Colour	Thread	Length mm
21KAAW10MPN0	Green	1/8"	47
21KAAW10MPN3	Brown	1/8"	47
21KAAW10MPN6	Blue	1/8"	47
21KAAW10MPN8	Red	1/8"	47
21KAAW13MPN0	Green	1/4"	47
21KAAW13MPN3	Brown	1/4"	47
21KAAW13MPN6	Blue	1/4"	47
21KAAW13MPN8	Red	1/4"	47

Tech Sheet 510



Female Thread, BSPP

2110	Colour	Thread	Length mm
21KAIW10MPN0	Green	1/8"	47
21KAIW10MPN6	Blue	1/8"	47
21KAIW10MPN8	Red	1/8"	47
21KAIW13MPN0	Green	1/4"	47
21KAIW13MPN6	Blue	1/4"	47
21KAIW13MPN8	Red	1/4"	47

Tech Sheet 510



Hose Tail

2110	Colour	To Suit Hose ID mm	Length mm
21KATF10MPN8	Red	10	69

Tech Sheet 510

Plugs



Male Thread, BSPP

2110	Colour	Thread	Length mm
21SFAW10MXN0	Green	1/8"	39.5
21SFAW10MXN3	Brown	1/8"	39.5
21SFAW10MXN6	Blue	1/8"	39.5
21SFAW10MXN8	Red	1/8"	39.5
21SFAW13MXN0	Green	1/4"	41.5
21SFAW13MXN3	Brown	1/4"	41.5
21SFAW13MXN6	Blue	1/4"	41.5
21SFAW13MXN8	Red	1/4"	41.5

Tech Sheet 510



Female Thread, BSPP

2110	Colour	Thread	Length mm
21SFIW10MXN0	Green	1/8"	38.5
21SFIW10MXN3	Brown	1/8"	38.5
21SFIW10MXN6	Blue	1/8"	38.5
21SFIW10MXN8	Red	1/8"	38.5
21SFIW13MXN0	Green	1/4"	39
21SFIW13MXN3	Brown	1/4"	39
21SFIW13MXN6	Blue	1/4"	39
21SFIW13MXN8	Red	1/4"	39

Tech Sheet 510



Hose Tail

2110	Colour	To Suit Hose ID mm	Length mm
21SFTF04MXN0	Green	4	47
21SFTF04MXN6	Blue	4	47
21SFTF06MXN8	Red	6	47

Tech Sheet 510

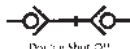
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 QUICK COUPLING WORLDWIDE PROFILE THERMOPLASTIC



Working Temperature:
Rectupom -20°C to +80°C
RectuChem -20°C to +120°C

Working Pressure:
Rectupom 10 bar @ 20°C
RectuChem 8 bar @ 20°C



Interchangeability:
Rectus design

Material:
RectuPom – thermoplastic POM Black
RectuChem – thermoplastic PVDF White

Application:
Suitable for liquids, gases, drinking water, laboratories,
medical technology and food areas.



Profile

Couplings



Male Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21KBAW10DPX	1/8"	17	50
21KBAW13DPX	1/4"	17	52
Tech Sheet 10280			



Female Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21KBIW10DPX	1/8"	17	53
21KBIW13DPX	1/4"	17	53
Tech Sheet 10280			



Hose Tail, RectuPom

2110	To Suit Hose ID mm	Hex Size mm	Length mm
21KBTf04DPX	4	17	60
21KBTf06DPX	6	17	60
Tech Sheet 10280			



Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBK006DPX	4 x 6	17	56
Tech Sheet 10280			



Female Thread, BSPP, RectuChem

2110	Thread	Hex Size mm	Length mm
21KBIW10FVX	1/8"	17	53
Tech Sheet 10280			



Quick Fit Tube Connection, RectuChem

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBK006FVX	4 x 6	17	56
Tech Sheet 10280			



Panel Mount, Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBS06DPX	4 x 6	17	68
Tech Sheet 10280			

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 21 THERMOPLASTIC QUICK COUPLING WORLDWIDE PROFILE



Plugs



Male Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21SFAW10DXX	1/8"	14	25
21SFAW13DXX	1/4"	17	28
Tech Sheet 10280			



Female Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21SFIW13DXX	1/4"	17	25
Tech Sheet 10280			



Hose Tail, RectuPom

2110	To Suit Hose ID mm	Length mm
21SFTF06DXX	6	32
Tech Sheet 10280		



Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21SFK006DXX	4 x 6	14	32
Tech Sheet 10280			



Female Thread, BSPP, RectuChem

2110	Thread	Hex Size mm	Length mm
21SFIW13FXX	1/4"	17	26
Tech Sheet 10280			



Panel Mount, Standard Hose Tail, RectuChem

2110	To Suit Hose ID mm	Hex Size mm	Length mm
21SFTS04FXX	4	14	50
Tech Sheet 10280			



Quick Fit Tube Connection, RectuChem

2110	To Suit Tube mm	Hex Size mm	Length mm
21SFK008FXX	6 x 8	17	32
Tech Sheet 10280			

Other materials, seals and finishes available on request, please contact our technical department for further details.

You might also need
Translucent Silicone & FEP Tubing
see page 909



SERIES 21 THERMOPLASTIC QUICK COUPLING WORLDWIDE PROFILE



Plugs (with Valve)



Male Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21SBAW10DPX	1/8"	17	36
21SBAW13DPX	1/4"	17	38
Tech Sheet 10280			



Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21SBK006DPX	4 x 6	17	42
Tech Sheet 10280			



Quick Fit Tube Connection, RectuChem

2110	To Suit Tube mm	Hex Size mm	Length mm
21SBK008FVX	6 x 8	17	42
Tech Sheet 10280			



Female Thread, BSPP, RectuPom

2110	Thread	Hex Size mm	Length mm
21SBIW10DPX	1/8"	17	39
21SBIW13DPX	1/4"	17	41
Tech Sheet 10280			



Panel Mount, Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21SBKS06DPX	4 x 6	17	54
Tech Sheet 10280			

Sleeve Mounting for Front Panel Installation



Panel Mount, Quick Fit Tube Connection, RectuPom

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBKE06DPX	4 x 6	17	56
Tech Sheet 10280			



Panel Mount, Quick Fit Tube Connection, RectuChem

2110	To Suit Tube mm	Hex Size mm	Length mm
21KBKE06FVX	4 x 6	17	56
Tech Sheet 10280			



Panel Mount, Standard Hose Tail, RectuPom

2110	To Suit Hose ID mm	Hex Size mm	Length mm
21KBTE04DPX	4	17	60
Tech Sheet 10280			

Other materials, seals and finishes available on request, please contact our technical department for further details.



For FT Pro Polypropylene Hose Tails & Adaptors
see page 1149

SERIES 22 QUICK COUPLING ARO PROFILE



Working Temperature:
-20°C to +100°C



Maximum Working Pressure:
35 bar



Single Hand Out

Interchangeability:

Rectus 14, Aro 210, Parker 50,
Orion 44510, JWL 522 & JWL 532

Material:

Brass nickel plated, NBR seal (standard series coupling).

Application:

Coupling system with single-hand operation. High Flow valve for optimum flow and low pressure drop. Specially suited to use with gaseous media in industry. The steel sleeve counters oscillating forces



Profile

Couplings



Male Thread, BSPP

2210	Thread	Hex Size mm	Length mm
22KAAK13MPN	1/4"	19	61
22KAAK17MPN	3/8"	19	60

Tech Sheet 30001



Female Thread, BSPP

2210	Thread	Hex Size mm	Length mm
22KAIW13MPN	1/4"	19	56
22KAIW21MPN	1/2"	24	58

Tech Sheet 30001



Hose Tail

2210	To Suit Hose ID mm	Hex Size mm	Length mm
22KATF06MPN	6	19	74
22KATF08MPN	8	19	74
22KATF13MPN	13	19	74

Tech Sheet 30001

Plugs



Male Thread, BSPT

2210	Thread	Hex Size mm	Length mm
22SFAK13SXN	1/4"	14	41
22SFAK17SXN	3/8"	17	41
22SFAK21SXN	1/2"	22	46

Tech Sheet 30001



Female Thread, BSPP

2210	Thread	Hex Size mm	Length mm
22SFIW13SXN	1/4"	17	35
22SFIW17SXN	3/8"	19	35
22SFIW21SXN	1/2"	24	38

Tech Sheet 30001



Hose Tail

2210	To Suit Hose ID	Length mm
22SFTF06SXN	6	49
22SFTF08SXN	8	49
22SFTF10SXN	10	49
22SFTF13SXN	13	49

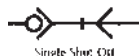
Tech Sheet 30001

SERIES 23 INDUSTRIAL INTERCHANGE HIGH FLOW QUICK CONNECT AIR COUPLINGS



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Norgren Dynaquip DC3,
Hanson 3000, Parker,
US C4109 1/4", ISO 6150

Flow Rate:
900 L/min
Material:
Brass nickel plated, NBR seal (standard series coupling).

Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPT

2310	Thread	Hex Size mm	Length mm
23KAAK13MPN	1/4"	19	60
23KAAK17MPN	3/8"	19	60
23KAAK21MPN	1/2"	22	61
Tech Sheet 511			



Female Thread, BSPP

2310	Thread	Hex Size mm	Length mm
23KAIW13MPN	1/4"	19	56
23KAIW17MPN	3/8"	19	55
23KAIW21MPN	1/2"	24	58
Tech Sheet 511			



Hose Tail

2310	To Suit Hose ID	Hex Size mm	Length mm
23KATF06MPN	6mm (1/4")	19	74
23KATF08MPN	8mm (5/16")	19	74
23KATF09MPN	9mm	19	74
23KATF10MPN	10mm (3/8")	19	74
23KATF13MPN	13mm (1/2")	19	74
Tech Sheet 511			

Plugs



Male Thread, BSPT

2310	Thread	Hex Size mm	Length mm
23SFAK10SXN	1/8"	13	39
23SFAK13SXN	1/4"	14	42
23SFAK17SXN	3/8"	17	42
23SFAK21SXN	1/2"	22	48
Tech Sheet 511			



Female Thread, BSPP

2310	Thread	Hex Size mm	Length mm
23SFIW10SXN	1/8"	14	36
23SFIW13SXN	1/4"	17	36
23SFIW17SXN	3/8"	19	36
23SFIW21SXN	1/2"	24	39
Tech Sheet 511			



Hose Tail

2310	To Suit Hose ID	Length mm
23SFTF06SXN	6mm (1/4")	51
23SFTF08SXN	8mm (5/16")	51
23SFTF09SXN	9mm	51
23SFTF10SXN	10mm (3/8")	51
23SFTF13SXN	13mm (1/2")	51
Tech Sheet 511		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 24 QUICK COUPLING ISO 6150 B PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Series 23, Norgren DC3,
Hanson 3000.

Material:
Brass
Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
24KAAW13MPX	1/4"	22	43
24KAAW17MPX	3/8"	22	43
24KAAW21MPX	1/2"	22	46

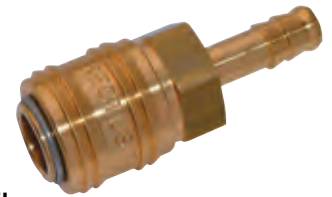
Tech Sheet 513



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
24KAIW13MPX	1/4"	22	43
24KAIW17MPX	3/8"	22	43
24KAIW21MPX	1/2"	22	46

Tech Sheet 513



Hose Tail

0194	To Suit Hose ID	Hex Size mm	Length mm
24KATF06MPX	6mm (1/4")	21	60
24KATF08MPX	8mm (5/16")	21	60
24KATF10MPX	10mm (3/8")	21	60
24KATF13MPX	13mm (1/2")	21	60

Tech Sheet 513

Plugs



Male Thread, BSPP

2310	Thread	Hex Size mm	Length mm
23SFAK10SXN	1/8"	13	39
23SFAK13SXN	1/4"	14	42
23SFAK17SXN	3/8"	17	42
23SFAK21SXN	1/2"	22	48

Tech Sheet 513



Female Thread, BSPP

2310	Thread	Hex Size mm	Length mm
23SFIW10SXN	1/8"	14	36
23SFIW13SXN	1/4"	17	36
23SFIW17SXN	3/8"	19	36
23SFIW21SXN	1/2"	24	39

Tech Sheet 513



Hose Tail

2310	To Suit Hose ID	Length mm
23SFTF06SXN	6mm (1/4")	51
23SFTF08SXN	8mm (5/16")	51
23SFTF09SXN	9mm	51
23SFTF10SXN	10mm (3/8")	51
23SFTF13SXN	13mm (1/2")	51

Tech Sheet 513

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus 26, 1600, 1625,
JWL 520, 530.

Flow Rate:
1800 L/min

Material:
Brass nickel plated
Application:
General purpose pneumatic coupling
Euro standard design.

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Profile

Couplings



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KAAK13MPN	1/4"	19	60
25KAAK17MPN	3/8"	19	60
25KAAK21MPN	1/2"	22	61

Tech Sheet 514



Female Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KAIW13MPN	1/4"	19	56
25KAIW17MPN	3/8"	19	55
25KAIW21MPN	1/2"	24	58

Tech Sheet 514



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KATF06MPN	6mm (1/4")	19	74
25KATF08MPN	8mm (5/16")	19	74
25KATF09MPN	9mm	19	74
25KATF10MPN	10mm (3/8")	19	74
25KATF13MPN	13mm (1/2")	19	74

Tech Sheet 514



Quick Fit Tube Connection

2510	To Suit Tube mm	Hex Size mm	Length mm
25KAKO08MPN	6 x 8	19	60

Tech Sheet 514



Panel Mount, Standard Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KATS08MPN	8mm (5/16")	19	80
25KATS10MPN	10mm (3/8")	19	87

Tech Sheet 514



Quick Fit Tube Connection with Spring Guard

2510	To Suit Tube mm	Hex Size mm	Length mm
25KAKK08MPN	6 x 8	19	144
25KAKK10MPN	8 x 10	19	155

Tech Sheet 514

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)

Interchangeability:
Rectus design

Material:
Steel zinc plated
Application:
General purpose pneumatic coupling

Plugs



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25SFAK10SXN	1/8"	13	33
25SFAK13SXN	1/4"	14	37
25SFAK17SXN	3/8"	17	37
25SFAK21SXN	1/2"	22	43

Tech Sheet 514



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SFIW10SXN	1/8"	14	30
25SFIW13SXN	1/4"	17	38.5
25SFIW17SXN	3/8"	19	39.5
25SFIW21SXN	1/2"	24	44

Tech Sheet 514



Hose Tail

2510	To Suit Hose ID	Length mm
25SFTF06SXN	6mm (1/4")	48
25SFTF08SXN	8mm (5/16")	48
25SFTF09SXN	9mm	48
25SFTF10SXN	10mm (3/8")	48
25SFTF13SXN	13mm (1/2")	48

Tech Sheet 514

Y Connector



2 x Coupling Outlets, 1 x Plug Inlet

2510	Length mm
25Y	114

Tech Sheet 514

Triple Outlet Connectors



3 x Coupling Outlets, 1 x 3/8" BSPP Inlet

2510	Length mm
25W	119

Tech Sheet 514



3 x Coupling Outlets, 1 x 1/4" BSPP Inlet

2510	Length mm
M3-25	114

Tech Sheet 514



For Compressors
see page 1699-1703



Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 QUICK COUPLING EUROPEAN PROFILE



Free Angle Rotating Joint



Male Thread, BSPT, Steel Nickel Plated

2510	Thread
25FAAK13SPN	1/4"



Male Thread x Female Thread, BSPP, Steel Nickel Plated

2510	Thread
FA13A13ISPN	1/4"
FA17A17ISPN	3/8"

Leader Hoses

A 'Leader Hose' is a length of flexible hose which should be fitted between a air tool and the connecting coupling. By absorbing the impact of a pneumatic impact tool, a leader hose will significantly increase the life expectancy of the coupling.



3/8" Bore Rubber-Tech Hose, Series 25 Plug x Male Thread, BSPT

2510	Thread	Length mm
LH25/13K	1/4"	381
LH25/17K	3/8"	381

WARNING – Leader Hoses

The Health and Safety Executive guide states - "the plug should not be screwed directly into the inlet port, but should be fitted onto a short isolation hose, thus isolating the plug and coupling from the tool vibration".

Flexible Connectors

This rotating joint, when installed between the airline and hand tool, reduces operator wrist and elbow strain. It also acts as a universal joint and prevents kinks appearing in the airline.



Male Thread, BSP x Female Thread, BSPP

0560	Male Thread	Female Thread
FC04	1/4"	1/4"



Male Thread, BSPT x Female Thread, BSPP

0560	Male Thread	Female Thread
FE101	1/4"	1/4"

Recoil Eliminator (Anti-Whip)



Hose Tail, Steel Nickel Plated

2510	To Suit Hose ID	Hex Size mm	Length mm
25SRTF10SXN	10mm (3/8")	21	60

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Double shut off

Interchangeability:
Rectus design

Material:
Brass, NBR seal (standard series coupling).

Application:
General purpose pneumatic coupling, double shut off,
Rectus Ultra-Flo valve.



Profile

Couplings



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KBAK13BPX	1/4"	19	60
25KBAK17BPX	3/8"	19	59
25KBAK21BPX	1/2"	22	57.5

Tech Sheet 515



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25KBIW13BPX	1/4"	19	56
25KBIW17BPX	3/8"	19	55
25KBIW21BPX	1/2"	24	58

Tech Sheet 515



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KBTf06BPX	6mm (1/4")	19	74
25KBTf08BPX	8mm (5/16")	19	74
25KBTf10BPX	10mm (3/8")	19	74
25KBTf13BPX	13mm (1/2")	19	74

Tech Sheet 515

Plugs



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SBAW13MPX	1/4"	22	43
25SBAW17MPX	3/8"	22	43
25SBAW21MPX	1/2"	22	46

Tech Sheet 515



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SBIW13MPX	1/4"	22	43
25SBIW17MPX	3/8"	22	43
25SBIW21MPX	1/2"	22	46

Tech Sheet 515



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25SBTF06MPX	6mm (1/4")	21	60
25SBTF08MPX	8mm (5/16")	21	60
25SBTF10MPX	10mm (3/8")	21	60
25SBTF13MPX	13mm (1/2")	21	60

Tech Sheet 515

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 1600 SAFETY QUICK COUPLING SELF VENTING



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 12 bar (174 PSI)



Interchangeability:
Rectus design

Material:
Steel nickel plated

Application:
General purpose pneumatic coupling self-venting safety
feature EN 983, ISO 4414, ISO 6150.

New updated version of the 25KE self venting couplings. Still interchangeable with original 25 Series couplings.



Profile

Couplings



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
1600KEAK13SPN	1/4"	19	64.5

Tech Sheet 60256



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
1600KEIW13SPN	1/4"	19	59
1600KEIW17SPN	3/8"	19	59
1600KEIW21SPN	1/2"	24	61.5

Tech Sheet 60256



Hose Tail

0194	To Suit Hose ID	Hex Size mm	Length mm
1600KETF09SPN	9mm	19	79.5
1600KETF10SPN	10mm (3/8")	19	79.5
1600KETF13SPN	13mm (1/2")	19	79.5

Tech Sheet 60256

Plugs



Male Thread, BSPT, Steel Nickel Plated

2510	Thread	Hex Size mm	Length mm
25SFAK10SXN	1/8"	13	33
25SFAK13SXN	1/4"	14	37
25SFAK17SXN	3/8"	17	37
25SFAK21SXN	1/2"	22	43

Tech Sheet 514



Female Thread, BSPP, Steel Nickel Plated

2510	Thread	Hex Size mm	Length mm
25SFIW10SXN	1/8"	14	30
25SFIW13SXN	1/4"	17	38.5
25SFIW17SXN	3/8"	19	39.5
25SFIW21SXN	1/2"	24	44

Tech Sheet 514



Hose Tail, Steel Nickel Plated

2510	To Suit Hose ID	Length mm
25SFTF06SXN	6mm (1/4")	48
25SFTF08SXN	8mm (5/16")	48
25SFTF09SXN	9mm	48
25SFTF10SXN	10mm (3/8")	48
25SFTF13SXN	13mm (1/2")	48

Tech Sheet 514

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 PREMIUM CODED QUICK COUPLING



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Application:
Non-interchangeable, each coupling and plug has an individual shape so they can only be connected to each other, colour coded, one hand operation.



Profile

Couplings



Male Thread, BSPP

2510	Colour	Thread	Length mm
25KAAW13BPX6	Blue	1/4"	60
25KAAW13BPX8	Red	1/4"	60
25KAAW17BPX6	Blue	3/8"	60
25KAAW17BPX8	Red	3/8"	60
25KAAW21BPX8	Red	1/2"	61

Tech Sheet 517



Female Thread, BSPP

2510	Colour	Thread	Length mm
25KAIW13BPX0	Green	1/4"	55
25KAIW13BPX3	Brown	1/4"	55
25KAIW13BPX6	Blue	1/4"	55
25KAIW13BPX8	Red	1/4"	55
25KAIW17BPX6	Blue	3/8"	55
25KAIW17BPX8	Red	3/8"	55
25KAIW21BPX3	Brown	1/2"	58
25KAIW21BPX6	Blue	1/2"	58
25KAIW21BPX8	Red	1/2"	58

Tech Sheet 517



Hose Tail

2510	Colour	To Suit Hose ID mm	Length mm
25KATF06BPX3	Brown	6	74
25KATF06BPX6	Blue	6	74
25KATF06BPX8	Red	6	74
25KATF09BPX6	Blue	9	74
25KATF09BPX8	Red	9	74

Tech Sheet 517

Plugs



Male Thread, BSPP

2510	Colour	Thread	Length mm
25SFAW13MXX6	Blue	1/4"	37
25SFAW13MXX8	Red	1/4"	37
25SFAW17MXX6	Blue	3/8"	37

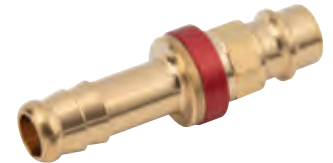
Tech Sheet 517



Female Thread, BSPP

2510	Colour	Thread	Length mm
25SFIW13MXX0	Green	1/4"	33
25SFIW13MXX3	Brown	1/4"	33
25SFIW13MXX6	Blue	1/4"	33
25SFIW13MXX8	Red	1/4"	33
25SFIW17MXX0	Green	3/8"	33
25SFIW17MXX6	Blue	3/8"	33
25SFIW17MXX8	Red	3/8"	33

Tech Sheet 517



Hose Tail

2510	Colour	To Suit Hose ID mm	Length mm
25SFTF09MXX6	Blue	9	50.5
25SFTF09MXX8	Red	9	50.5

Tech Sheet 517

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 SAFETY QUICK COUPLING PARKER PROFILE SAFETY LOCK



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Coupling: Steel nickel plated. NBR seal (standard series coupling).
Plug: Steel zinc plated.

Application:
Two-handed disconnection prevents accidental disconnection.
The coupling and plug must firstly be pushed together before the sleeve is pulled back.



Profile

Couplings



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KSAK13SPN	1/4"	19	60
Tech Sheet 519			



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KSTF10SPN	10mm (3/8")	19	74
25KSTF13SPN	13mm (1/2")	19	74
Tech Sheet 519			

Plugs



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25SSAK13SXN	1/4"	14	37
25SSAK17SXN	3/8"	17	37
25SSAK21SXN	1/2"	22	43
Tech Sheet 519			



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SSIW13SXN	1/4"	17	33
25SSIW17SXN	3/8"	19	33
Tech Sheet 519			



Hose Tail

2510	To Suit Hose ID	Length mm
25SSTF08SXN	8mm (5/16")	48
25SSTF10SXN	10mm (3/8")	48
25SSTF13SXN	13mm (1/2")	48
Tech Sheet 519		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 QUICK COUPLING EUROPEAN PROFILE STAINLESS STEEL

stainless
steel



Working Temperature:
-15°C to +200°C
Standard seal FKM

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus 26

Material:
Stainless steel coupling and plug
Application:
General purpose pneumatic coupling, stainless steel.



Profile

Couplings



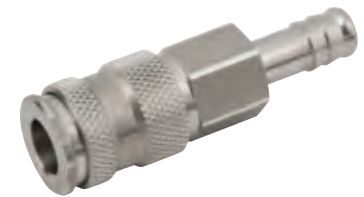
Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25KAAW13RVX	1/4"	19	59
25KAAW17RVX	3/8"	19	57.5
Tech Sheet 518			



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25KAIW13RVX	1/4"	19	56
25KAIW17RVX	3/8"	19	55
25KAIW21RVX	1/2"	24	56
Tech Sheet 518			



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KATF10RVX	10mm (3/8")	19	74
25KATF13RVX	13mm (1/2")	19	74
Tech Sheet 518			

Plugs



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SFAW13RXX	1/4"	17	33.5
25SFAW17RXX	3/8"	19	33
25SFAW21RXX	1/2"	24	38
Tech Sheet 518			



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SFIW13RXX	1/4"	17	38.5
25SFIW17RXX	3/8"	19	39.5
25SFIW21RXX	1/2"	24	44
Tech Sheet 518			



Hose Tail

2510	To Suit Hose ID	Length mm
25SFTF06RXX	6mm (1/4")	48
25SFTF08RXX	8mm (5/16")	48
25SFTF10RXX	10mm (3/8")	48
25SFTF13RXX	13mm (1/2")	48
Tech Sheet 518		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 25 SAFETY QUICK COUPLING PARKER PROFILE SAFETY LOCKING



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design
Flow Rate:
Double valved 710 L/min

Material:
Brass nickel plated
Application:
General purpose pneumatic coupling



Profile

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Couplings (Steel sleeve)



Male Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KDAK13BPNS	1/4"	19	60



Female Thread, BSPT

2510	Thread	Hex Size mm	Length mm
25KDIW13BPNS	1/4"	19	56
25KDIW21BPNS	1/2"	24	58



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KDTF08BPNS	8mm (5/16")	19	74

Plugs (Valved)



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SDAW13MPN	1/4"	22	43
25SDAW17MPN	3/8"	22	43
25SDAW21MPN	1/2"	22	46



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SDIW13MPN	1/4"	22	43
25SDIW17MPN	3/8"	22	43
25SDIW21MPN	1/2"	24	46



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25SDTF08MPN	8mm (5/16")	21	60
25SDTF10MPN	10mm (3/8")	21	60
25SDTF13MPN	13mm (1/2")	21	60

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 26 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Festo KD Series

Material:
Brass
Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KAAW10MPX	1/8"	22	43
26KAAW13MPX	1/4"	22	39
26KAAW17MPX	3/8"	22	41
26KAAW21MPX	1/2"	22	44
Tech Sheet 520			



Female Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KAIW13MPX	1/4"	22	41
26KAIW17MPX	3/8"	22	41
26KAIW21MPX	1/2"	24	44
Tech Sheet 520			



Hose Tail

2610	To Suit Hose ID	Hex Size mm	Length mm
26KATF06MPX	6mm (1/4")	21	58
26KATF08MPX	8mm (5/16")	21	58
26KATF09MPX	9mm	21	58
26KATF10MPX	10mm (3/8")	21	58
26KATF13MPX	13mm (1/2")	21	58
Tech Sheet 520			

Plugs



Male Thread, BSPP

2610	Thread	Hex Size mm	Length mm
25SFAW10MXX	1/8"	14	31
25SFAW13MXX	1/4"	17	33
25SFAW17MXX	3/8"	19	33
25SFAW21MXX	1/2"	24	38
Tech Sheet 520			



Female Thread, BSPP

2610	Thread	Hex Size mm	Length mm
25SFIW10MXX	1/8"	14	30
25SFIW13MXX	1/4"	17	33
25SFIW17MXX	3/8"	19	33
25SFIW21MXX	1/2"	24	35
Tech Sheet 520			



Hose Tail

2610	To Suit Hose ID	Length mm
25SFTF06MXX	6mm (1/4")	48
25SFTF08MXX	8mm (5/16")	48
25SFTF09MXX	9mm	48
25SFTF10MXX	10mm (3/8")	48
25SFTF13MXX	13mm (1/2")	48
Tech Sheet 520		

Y Connector



2 x Coupling Outlets, 1 x Plug Inlet

2610	Length mm
26Y	90
Tech Sheet 520	

Triple Outlet Connector



3 x Coupling Outlets, 1 x 3/8" BSPP Inlet

2610	Length mm
26W	96
Tech Sheet 520	

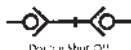
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 26 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Brass
Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KBAW13MPX	1/4"	22	39
26KBAW17MPX	3/8"	22	41
26KBAW21MPX	1/2"	24	42

Tech Sheet 520



Female Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KBIW13MPX	1/4"	22	41
26KBIW17MPX	3/8"	22	41
26KBIW21MPX	1/2"	24	44

Tech Sheet 520



Hose Tail

2610	To Suit Hose ID	Hex Size mm	Length mm
26KBTf06MPX	6mm (1/4")	21	58
26KBTf08MPX	8mm (5/16")	21	58
26KBTf10MPX	10mm (3/8")	21	58
26KBTf13MPX	13mm (1/2")	21	58

Tech Sheet 520

Plugs



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SBAW13MPX	1/4"	22	43
25SBAW17MPX	3/8"	22	43
25SBAW21MPX	1/2"	22	46

Tech Sheet 520



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SBIW13MPX	1/4"	22	43
25SBIW17MPX	3/8"	22	43
25SBIW21MPX	1/2"	22	46

Tech Sheet 520



Hose Tail

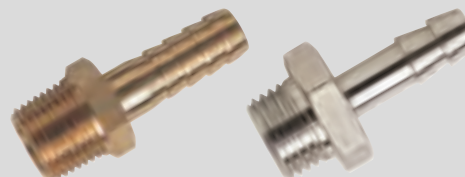
2510	To Suit Hose ID	Hex Size mm	Length mm
25SBTF06MPX	6mm (1/4")	21	60
25SBTF08MPX	8mm (5/16")	21	60
25SBTF10MPX	10mm (3/8")	21	60
25SBTF13MPX	13mm (1/2")	21	60

Tech Sheet 520

Other materials, seals and finishes available on request, please contact our technical department for further details.



For **Brass & Nickel Plated Brass** Hose Tails
see pages 1140-1146



SERIES 26 SAFETY QUICK COUPLING EUROPEAN PROFILE SELF VENTING



Working Temperature:
-20°C to +60°C
Standard seal nitrile

Maximum Static Working Pressure:
PB 12 bar (174 PSI)



Interchangeability:
Rectus design



EN 983
ISO 4414
ISO 6150

Material:
Brass nickel plated, nitrile seal

Application:
General purpose pneumatic coupling self-venting safety feature.



Profile

Couplings



Male Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KEAW13MPN	1/4"	22	55
26KEAW17MPN	3/8"	22	55
26KEAW21MPN	1/2"	24	58

Tech Sheet 10281



Female Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KEIW13MPN	1/4"	22	57
26KEIW17MPN	3/8"	22	57
26KEIW21MPN	1/2"	24	60

Tech Sheet 10281



Hose Tail

2610	To Suit Hose ID	Hex Size mm	Length mm
26KETF06MPN	6mm (1/4")	22	71
26KETF08MPN	8mm (5/16")	22	71
26KETF09MPN	9mm	22	71
26KETF10MPN	10mm (3/8")	22	71
26KETF13MPN	13mm (1/2")	22	71

Tech Sheet 10281

Plugs



Male Thread, BSPT, Steel Nickel Plated

2510	Thread	Hex Size mm	Length mm
25SFAK10SXN	1/8"	13	33
25SFAK13SXN	1/4"	14	37
25SFAK17SXN	3/8"	17	37
25SFAK21SXN	1/2"	22	43

Tech Sheet 514



Female Thread, BSPP, Steel Nickel Plated

2510	Thread	Hex Size mm	Length mm
25SFIW10SXN	1/8"	14	30
25SFIW13SXN	1/4"	17	38.5
25SFIW17SXN	3/8"	19	39.5
25SFIW21SXN	1/2"	24	44

Tech Sheet 514



Hose Tail, Steel Nickel Plated

2510	To Suit Hose ID	Length mm
25SFTF06SXN	6mm (1/4")	48
25SFTF08SXN	8mm (5/16")	48
25SFTF09SXN	9mm	48
25SFTF10SXN	10mm (3/8")	48
25SFTF13SXN	13mm (1/2")	48

Tech Sheet 514

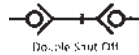
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 26 SAFETY PUSH BUTTON QUICK COUPLING ISO 6150 B ISO 6150 C & EUROPEAN SELF VENTING



Working Temperature:
-20°C up to +100°C

Maximum Working Pressure:
12 bar



Profile:

Euro Profile

Interchangeability:

Rectus 25, 1600/1625, JWL 520 and 530.

Material:

Anodised aluminium, brass nickel plated.

Application:

Parker's Safety Quick Coupling Series KP is a safety coupling with pushing button integrating self-venting system according to ISO 6150 B, ISO 6150 and EURO. The self-venting takes place during disconnection in 2 steps - no risk of pressurised hoses being tossed around. When the pushing button is pressed one time, the plug is released yet remains locked in. The coupling valve closes and the air is vented from the air line at the same time. Only then, by pressing the button again, can uncoupling take place safely. The system fulfils the requirements of ISO 4414 - increased safety standards in the work place and make the use easy.

The right plug for self-venting series KP can be found as follows:

- ISO 6150 B; DN 5,5: Plug series 23
- ISO 6150 B; DN 8: Plug series 30
- ISO 6150 C; DN 5,5: Plug series 18
- ISO 6150 B; DN 8: Plug series 84
- EURO; DN 7,4: Plug series 25

Nominal Diameter:

7.4mm

Flow Rate:

1225 L/min (6 bar, dP 0.5 bar)



Profile

Couplings



Male Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KPAW13APX	1/4"	22	72
26KPAW17APX	3/8"	22	72
26KPAW21APX	1/2"	22	75

Tech Sheet 110818



Female Thread, BSPP

2610	Thread	Hex Size mm	Length mm
26KPIW13APX	1/4"	22	70.5
26KPIW17APX	3/8"	22	72.5
26KPIW21APX	1/2"	22	74.5

Tech Sheet 110818



Hose Tail

2610	Thread	Hex Size mm	Length mm
26KPTF06APX	6	22	85.5
26KPTF08APX	8	22	85.5
26KPTF10APX	10	22	85.5
26KPTF13APX	13	22	85.5

Tech Sheet 110818




For **Rubber Alloy Hose Assemblies**
see page 1411



SERIES 27 QUICK COUPLING EUROPEAN PROFILE



 **Working Temperature:**
Couplings:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus 41, 100, 1727.

Material:
Brass, nickel plated, NBR seal (standard series) coupling.

Application:
General purpose high-flo pneumatic
Coupling self venting safety feature
Machinery construction, trade and automotive.



Profile

Couplings



Male Thread, BSPT

2710	Thread	Hex Size mm	Length mm
27KAAK13MPN	1/4"	24	63
27KAAK17MPN	3/8"	24	63
27KAAK21MPN	1/2"	24	65
27KAAK26MPN	3/4"	27	65

Tech Sheet 521



Female Thread, BSPP

2710	Thread	Hex Size mm	Length mm
27KAIW13MPN	1/4"	24	56
27KAIW17MPN	3/8"	24	56
27KAIW21MPN	1/2"	24	56
27KAIW26MPN	3/4"	27	60

Tech Sheet 521



Hose Tail

2710	To Suit Hose ID	Hex Size mm	Length mm
27KATF06MPN	6mm (1/4")	24	76
27KATF09MPN	9mm	24	76
27KATF10MPN	10mm (3/8")	24	76
27KATF13MPN	13mm (1/2")	24	76
27KATF16MPN	16mm (5/8")	24	76
27KATF19MPN	19mm (3/4")	24	76

Tech Sheet 521



For Parker LF3000® Push-In
see page 793



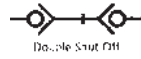
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 27 QUICK COUPLING EUROPEAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Brass
Application:
General purpose high-flo pneumatic couplin



Profile

Couplings



Male Thread, BSPT

0194	Thread	Hex Size mm	Length mm
27KBAK21BPX	1/2"	24	65

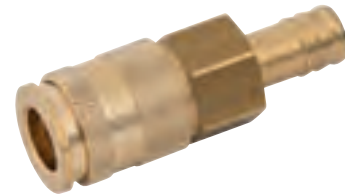
Tech Sheet 522



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
27KBIW17BPX	3/8"	24	56
27KBIW21BPX	1/2"	24	56
27KBIW26BPX	3/4"	32	60

Tech Sheet 522



Hose Tail

0194	To Suit Hose ID mm	Hex Size mm	Length mm
27KBTf10BPX	10mm (3/8")	24	76
27KBTf13BPX	13mm (1/2")	24	76
27KBTf19BPX	19mm (3/4")	24	76

Tech Sheet 522

Plugs



Male Thread, BSPT

0194	Thread	Hex Size mm	Length mm
27SBAK21MPX	1/2"	24	62.5
27SBAK26MPX	3/4"	27	62.5

Tech Sheet 522



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
27SBIW21MPX	1/2"	24	54.5

Tech Sheet 522



Hose Tail


0194	To Suit Hose ID	Hex Size mm	Length mm
27SBTF13MPX	13mm (1/2")	24	74


Tech Sheet 522

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 1700 SAFETY QUICK COUPLING SELF VENTING



 **Working Temperature:**
-20°C to +100°C
Standard seal NBR

 **Maximum Static Working Pressure:**
PB 12 bar (174 PSI)



Material:
Brass, nickel plated, NBR seal
(standard series) coupling.

Application:
General purpose pneumatic coupling self venting
safety feature.
Machinery construction, trade and automotive.

New updated version of the 27KE self venting couplings.
Still interchangeable with original 27 Series couplings.



Profile

Couplings



Male Thread, BSPT

0194	Thread	Hex Size mm	Length mm
1700KEAW17SPN	3/8"	24	67
1700KEAW21SPN	1/2"	24	70
1700KEAW26SPN	3/4"	30	74

Tech Sheet 60257



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
1700KEIW17SPN	3/8"	24	64.5
1700KEIW21SPN	1/2"	24	68
1700KEIW26SPN	3/4"	32	74

Tech Sheet 60257

Plugs



Male Thread, BSPT

2710	Thread	Hex Size mm	Length mm
27SFAK13SXN	1/4"	17	40
27SFAK17SXN	3/8"	17	40
27SFAK21SXN	1/2"	22	45
27SFAK26SXN	3/4"	27	48

Tech Sheet 60257



Female Thread, BSPP

2710	Thread	Hex Size mm	Length mm
27SFIW13SXN	1/4"	17	33
27SFIW17SXN	3/8"	19	33
27SFIW21SXN	1/2"	24	37
27SFIW26SXN	3/4"	32	42

Tech Sheet 60257



Hose Tail

2710	To Suit Hose ID	Length mm
27SFTF06SXN	6mm (1/4")	48
27SFTF09SXN	9mm	48
27SFTF10SXN	10mm (3/8")	48
27SFTF13SXN	13mm (1/2")	48
27SFTF16SXN	16mm (5/8")	48
27SFTF19SXN	19mm (3/4")	48

Tech Sheet 60257

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 30 QUICK COUPLING ISO 6150 B PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
US-MIL-SPEC-C-4109
ISO 6150B, Gromelle 900 Aro,
Hansen 4000, Parker 30 3/8"

Material:
Brass, nickel plated, NBR seal (standard series) coupling.
Application:
General purpose pneumatic coupling, machinery
construction, trade and automotive.



Profile

Couplings



Male Thread, BSPP

3710	Thread	Hex Size mm	Length mm
30KAAW13SPN	1/4"	22	49
30KAAW17SPN	3/8"	22	49
30KAAW21SPN	1/2"	22	52
Tech Sheet 800			



Female Thread, BSPP

3710	Thread	Hex Size mm	Length mm
30KAIW13SPN	1/4"	22	49
30KAIW17SPN	3/8"	22	49
30KAIW21SPN	1/2"	22	52
Tech Sheet 800			



Hose Tail

3710	To Suit Hose ID	Hex Size mm	Length mm
30KATF08SPN	8mm (5/16")	21	66
30KATF10SPN	10mm (3/8")	21	66
Tech Sheet 800			

Plugs



Male Thread, BSPP

3710	Thread	Hex Size mm	Length mm
30SFAW13SXN	1/4"	17	42
30SFAW17SXN	3/8"	19	42
30SFAW21SXN	1/2"	24	46
Tech Sheet 800			



Female Thread, BSPP

3710	Thread	Hex Size mm	Length mm
30SFIW13SXN	1/4"	17	40
30SFIW17SXN	3/8"	19	42
30SFIW21SXN	1/2"	24	43
Tech Sheet 800			



Hose Tail

3710	To Suit Hose ID	Length mm
30SFTF06SXN	6mm (1/4")	55
30SFTF08SXN	8mm (5/16")	55
30SFTF10SXN	10mm (3/8")	55
30SFTF13SXN	13mm (1/2")	55
Tech Sheet 800		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 33 QUICK COUPLING ATLAS COPCO PROFILE



Working Temperature:
-20°C to +100°C
Standard seal nitrile



Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Single Shot Out

Interchangeability:
Atlas QIC 10

Material:
Steel nickel plated, nitrile seal
Application:
General purpose high-flo pneumatic couplin



Profile

Couplings



Male Thread, BSPT

3310	Thread	Hex Size mm	Length mm
33KAAK13SPN	1/4"	19	60
33KAAK17SPN	3/8"	19	59
33KAAK21SPN	1/2"	22	60
Tech Sheet 523			



Female Thread, BSPP

3310	Thread	Hex Size mm	Length mm
33KAIW13SPN	1/4"	19	55
33KAIW17SPN	3/8"	19	54
33KAIW21SPN	1/2"	24	57
Tech Sheet 523			



Hose Tail

3310	To Suit Hose ID	Hex Size mm	Length mm
33KATF06SPN	6mm (1/4")	19	73
33KATF08SPN	8mm (5/16")	19	73
33KATF13SPN	13mm (1/2")	19	73
Tech Sheet 523			

Plugs



Male Thread, BSPT

3310	Thread	Hex Size mm	Length mm
33SFAK13SXN	1/4"	14	42
33SFAK17SXN	3/8"	17	42
33SFAK21SXN	1/2"	22	47
Tech Sheet 523			



Female Thread, BSPP

3310	Thread	Hex Size mm	Length mm
33SFIW13SXN	1/4"	17	37
33SFIW17SXN	3/8"	17	37
33SFIW21SXN	1/2"	24	42
Tech Sheet 523			



Hose Tail

3310	To Suit Hose ID	Length mm
33SFTF06SXN	6mm (1/4")	52
33SFTF08SXN	8mm (5/16")	52
33SFTF10SXN	10mm (3/8")	52
33SFTF13SXN	13mm (1/2")	52
Tech Sheet 523		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 34 QUICK COUPLING ATLAS COPCO PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Atlas Copco QIC 15

Material:
Steel nickel plated, nitrile seal
Application:
General purpose pneumatic coupling



Profile

ULTRA-FLO »»»

Couplings



Male Thread, BSPT

3310	Thread	Hex Size mm	Length mm
34KAAK17SPN	3/8"	24	70
34KAAK21SPN	1/2"	24	72
34KAAK26SPN	3/4"	27	72
Tech Sheet 524			



Female Thread, BSPP

3310	Thread	Hex Size mm	Length mm
34KAIW21SPN	1/2"	24	64
34KAIW26SPN	3/4"	32	68
Tech Sheet 524			



Hose Tail

3310	To Suit Hose ID	Hex Size mm	Length mm
34KATF10SPN	10mm (3/8")	24	84
34KATF13SPN	13mm (1/2")	24	84
Tech Sheet 524			

Plugs



Male Thread, BSPT

3310	Thread	Hex Size mm	Length mm
34SFAK13SXN	1/4"	17	46
34SFAK17SXN	3/8"	19	46
34SFAK21SXN	1/2"	22	52
Tech Sheet 524			



Female Thread, BSPP

3310	Thread	Hex Size mm	Length mm
34SFIW17SXN	3/8"	19	40
34SFIW21SXN	1/2"	24	44
Tech Sheet 524			



Hose Tail

3310	To Suit Hose ID	Length mm
34SFTF10SXN	10mm (3/8")	55
34SFTF13SXN	13mm (1/2")	55
34SFTF16SXN	16mm (5/8")	55
Tech Sheet 524		

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 40 QUICK COUPLING PARKER PROFILE LOW PRESSURE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Material:
Brass, nitrile seal



Profile

Couplings



Female Thread, BSPP

4010	Thread	Hex Size mm	Length mm
40KAIW17MPX	3/8"	27	46
40KAIW21MPX	1/2"	27	46
Tech Sheet 30002			

Plugs



Male Thread, BSPT

4010	Thread	Hex Size mm	Length mm
40SFAK17SXN	3/8"	17	40
Tech Sheet 30002			



Female Thread, BSPP

4010	Thread	Hex Size mm	Length mm
40SFIW17SXN	3/8"	19	35
40SFIW21SXN	1/2"	24	39
Tech Sheet 30002			



Hose Tail

4010	To Suit Hose ID mm	Length mm
40SFTF08SXN	8	51
40SFTF10SXN	10	51
40SFTF13SXN	13	51
Tech Sheet 30002		

For **Valves & Actuation**
see **Section 7** page **919**

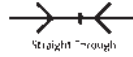


SERIES 41 QUICK COUPLING PARKER PROFILE LOW PRESSURE FLUID & PNEUMATIC



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus 27

Material:
Brass nickel plated
Application:
Straight through coupling designed for water.
High flow water applications



Profile

Couplings



Male Thread, BSPP

4110	Thread	Length mm
41KFAW21MPN	1/2"	31
Tech Sheet 525		



Female Thread, BSPP & Metric

4110	Thread	Hex Size mm	Length mm
41KFIW21MPN	1/2"	24	32
Tech Sheet 525			



Hose Tail

4110	To Suit Hose ID	Length mm
41KFTF13MPN	13mm (1/2")	48
41KFTF16MPN	16mm (5/8")	48
41KFTF19MPN	19mm (3/4")	48
Tech Sheet 525		

Plugs



Male Thread, BSPP

4110	Thread	Hex Size mm	Length mm
41SFAW21MXN	1/2"	24	40
41SFAW26MXN	3/4"	32	45
Tech Sheet 525			



Female Thread, BSPP

4110	Thread	Hex Size mm	Length mm
41SFIW21MXN	1/2"	24	37
41SFIW26MXN	3/4"	32	42
Tech Sheet 525			



Hose Tail

4110	To Suit Hose ID	Length mm
41SFTF10MXN	10mm (3/8")	48
41SFTF13MXN	13mm (1/2")	48
41SFTF16MXN	16mm (5/8")	48
41SFTF19MXN	19mm (3/4")	48
Tech Sheet 525		

Other materials, seals and finishes available on request, please contact our technical department for further details.

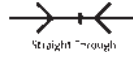
SERIES 45 QUICK COUPLING PARKER PROFILE ISO BAR



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 15 bar



Interchangeability:
Hanson, Parker

Material:
Steel nickel plated

Application:
Straight through coupling, maximum flow, high pressure
water and steam washers.



Profile

Couplings



Male Thread, BSPP, Viton Seals

4510	Thread	Hex Size mm	Length mm
45KFIW17MVX	3/8"	24	37
Tech Sheet 10282			

Plugs



Male Thread, BSPP, Steel Nickel Plated

4510	Thread	Hex Size mm	Length mm
45SFAW17SXN	3/8"	22	40
Tech Sheet 10282			



Female Thread, BSPP, Steel Nickel Plated

4510	Thread	Hex Size mm	Length mm
45SFIW17SXN	3/8"	22	42
Tech Sheet 10282			



For **Pneumatic Valves & Accessories**
see page **565**



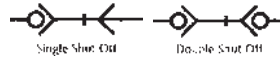
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 48 QUICK COUPLING PARKER PROFILE THERMOPLASTIC



Working Temperature:
RectuPom -20°C to +80°C NBR
RectuChem -20°C to +120°C NBR

Working Pressure @ +20°C:
RectuPom 0-10 bar
RectuChem 0-8 bar
RectuChem+ 1-8 bar



Interchangeability:
Rectus design

Material:
RectuPom – thermoplastic POM Black
RectuChem – thermoplastic PVDF White
Application:
Suitable for liquids, gases, drinking water, laboratories, medical technology and food areas.



Profile

Couplings



Male Thread, BSPP, RectuPom

0194	Thread	Hex Size mm	Length mm
48KBAW17DPX	3/8"	21	67
48KBAW21DPX	1/2"	21	74
Tech Sheet 10283			



Female Thread, BSPP, RectuPom

0194	Thread	Hex Size mm	Length mm
48KBIW13DPX	1/4"	21	64
48KBIW17DPX	3/8"	21	64
Tech Sheet 10283			



Hose Tail, RectuPom

0194	To Suit Hose ID mm	Hex Size mm	Length mm
48KBTf06DPX	6	21	81
48KBTf09DPX	9	21	81
48KBTf13DPX	13	21	84
Tech Sheet 10283			



Male Thread, BSPP, RectuChem

0194	Thread	Hex Size mm	Length mm
48KBAW13FVX	1/4"	21	71
48KBAW17FVX	3/8"	21	67
Tech Sheet 10283			



Female Thread, BSPP, RectuChem

0194	Thread	Hex Size mm	Length mm
48KBIW21FVX	1/2"	21	75
Tech Sheet 10283			



Hose Tail, RectuChem

0194	To Suit Hose ID mm	Hex Size mm	Length mm
48KBTf06FVX	6	21	81
48KBTf13FVX	13	21	84
Tech Sheet 10283			

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 48 QUICK COUPLING PARKER PROFILE THERMOPLASTIC



Plugs



Male Thread, BSPP, RectuPom

0194	Thread	Hex Size mm	Length mm
48SFAW13DXX	1/4"	17	39
Tech Sheet 10283			



Male Thread, BSPP, RectuChem

0194	Thread	Hex Size mm	Length mm
48SFAW13FXX	1/4"	17	39
48SFAW17FXX	3/8"	21	39
Tech Sheet 10283			



Female Thread, BSPP, RectuPom

0194	Thread	Hex Size mm	Length mm
48SFIW13DXX	1/4"	17	38.5
48SFIW17DXX	3/8"	21	35.5
Tech Sheet 10283			



Hose Tail, RectuPom

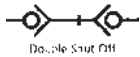
0194	To Suit Hose ID mm	Length mm
48SFTF13DXX	13	65.5
Tech Sheet 10283		



Hose Tail, RectuChem

0194	To Suit Hose ID mm	Length mm
48SFTF09FXX	9	65.5
Tech Sheet 10283		

Plugs (with Valve)



Female Thread, BSPP, RectuPom

0194	Thread	Hex Size mm	Length mm
48SBIW17DPX	3/8"	21	48
Tech Sheet 10283			



Female Thread, BSPP, RectuChem

0194	Thread	Hex Size mm	Length mm
48SBIW21FVX	1/2"	21	59
Tech Sheet 10283			



Hose Tail, RectuPom

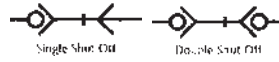
0194	To Suit Hose ID mm	Hex Size mm	Length mm
48SBTF06DPX	6	21	65.5
48SBTF09DPX	9	21	65.5
Tech Sheet 10283			

SERIES 51 QUICK COUPLING GERMAN INDUSTRIAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 50 bar (725 PSI)



Interchangeability:
Rectus design

Material:
Steel nickel plated
Application:
Robust steel coupling for compressed air.
Pneumatic fluid handling



Profile

Couplings



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
51KBIW13SPN	1/4"	22	61
51KBIW17SPN	3/8"	22	61
Tech Sheet 2099			

Plugs



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
51SFAW13SXN	1/4"	17	35
Tech Sheet 2099			



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
51SFIW13SXN	1/4"	17	34
51SFIW17SXN	3/8"	19	34
Tech Sheet 2099			



stainless steel

For **Angle Seat Valves**
see page **1051**



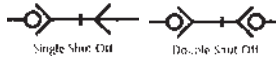
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 52 QUICK COUPLING GERMAN INDUSTRIAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 50 bar (725 PSI)



Interchangeability:
Rectus design

Material:
Steel nickel plated, NBR seal.
Application:
Robust steel coupling for compressed air.
Pneumatic fluid handling



Profile

Couplings



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
52KBAW13SPN	1/4"	22	62
52KBAW17SPN	3/8"	22	62
52KBAW21SPN	1/2"	22	65
Tech Sheet 2100			



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
52KBIW13SPN	1/4"	22	62
52KBIW17SPN	3/8"	22	60
52KBIW21SPN	1/2"	22	65
Tech Sheet 2100			



Hose Tail

0194	To Suit Hose ID mm	Hex Size mm	Length mm
52KBTf11SPN	11	21	80
Tech Sheet 2100			

Plugs



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
52SFAW17SXN	3/8"	19	35
Tech Sheet 2100			



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
52SBAW13SPN	1/4"	22	48
52SBAW17SPN	3/8"	22	48
52SBAW21SPN	1/2"	22	48
Tech Sheet 2100			



Hose Tail

0194	To Suit Hose ID mm	Length mm
52SFTf06SXN	6	46
Tech Sheet 2100		

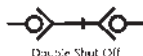
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 57 QUICK COUPLING GERMAN INDUSTRIAL PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus design

Material:
Brass nickel plated, NBR seal.
Application:
Robust steel coupling for compressed air.
Pneumatic fluid handling



Profile

ULTRA-FLO »»

Couplings



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
57KBAW26SPN	3/4"	34	100
57KBAW33SPN	1"	41	100

Tech Sheet 2101



Female Thread, BSPP

0194	Thread	Hex Size mm	Length mm
57KBIW21SPN	1/2"	34	100
57KBIW26SPN	3/4"	34	100
57KBIW33SPN	1"	41	101

Tech Sheet 2101



Hose Tail

0194	To Suit Hose ID mm	Hex Size mm	Length mm
57KBTf19SPN	19	34	122

Tech Sheet 2101

Plugs



Male Thread, BSPP

0194	Thread	Hex Size mm	Length mm
57SBAW21SPN	1/2"	27	83
57SBAW26SPN	3/4"	34	85
57SBAW33SPN	1"	41	85

Tech Sheet 2101



Female Thread, BSPP


0194	Thread	Hex Size mm	Length mm
57SBIW21SPN	1/2"	27	85
57SBIW26SPN	3/4"	34	85


Tech Sheet 2101

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 68 SCHRADER



 **Working Temperature:**
-10°C to +80°C
Standard seal NBR

 **Maximum Static Working Pressure:**
PB 17 bar (246 PSI)



Interchangeability:
Schrader heavy-duty

Material:
Steel nickel plated, NBR seal (standard series coupling).

Application:
General purpose pneumatic coupling



Profile

Couplings



Male Thread, BSPP

1710	Thread	Hex Size mm	Length mm
68KAAW17SPN	3/8"	30	66
68KAAW21SPN	1/2"	30	68
68KAAW26SPN	3/4"	30	68



Female Thread, BSPP

1710	Thread	Hex Size mm	Length mm
68KAIW13SPN	1/4"	30	74
68KAIW17SPN	3/8"	30	74
68KAIW21SPN	1/2"	30	68
68KAIW26SPN	3/4"	32	68



Hose Tail

1710	To Suit Hose ID	Hex Size mm	Length mm
68KATF10SPN	10mm (3/8")	30	81
68KATF13SPN	13mm (1/2")	30	81
68KATF19SPN	19mm (3/4")	30	81



For Superior Rubber Alloy Air Hose
& Assemblies
see page 1410



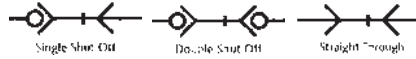
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 86 QUICK COUPLINGS INTERNATIONAL PROFILE MOULD COUPLING (MOLD)



Working Temperature:
-15°C to +200°C
Standard seal FKM

Maximum Static Working Pressure:
PB 15 bar (217 PSI)



Interchangeability:
D-M-E, Foster FJT,
Parker Mold Mate.

Material:
Brass, seals FKM standard, silicone available.

Application:
Brass coupling for connection of coolant lines to moulds and dies.

Product Description:
Parker's Quick Coupling Series 86/87/88 were especially developed for connecting coolant lines and injection molds. The countersunk plugs can easily be connected and disconnected because of the extended sleeve. The angular connections prevent kinks from forming in the hose.

This coupling series is available in single shut-off, double shut-off, straight-through versions and is also available with SAFE-LOCK™ technology. The shut-off couplings (with valve) are equipped with nickel plated sleeves for quick and accurate visual differentiation.

Markets: Industrial

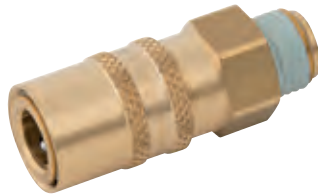
Features and Benefits:

- SAFE-LOCK™ technology reliably prevents accidental uncoupling of the system under pressure.
- Shut off couplings are equipped with nickel plated sleeve for quick and accurate visual differentiation.



Profile

Couplings



Male Thread, BSPP, Straight Through

4610	Thread	Hex Size mm	Length mm
86KFAW13MVX	1/4"	15	43

Tech Sheet 527



Female Thread, BSPP, Straight Through

4610	Thread	Hex Size mm	Length mm
86KFIW10MVX	1/8"	15	39
86KFIW13MVX	1/4"	15	41

Tech Sheet 527



Straight Hose Tail, Straight

4610	To Suit Hose ID	Hex Size mm	Length mm
86KFTF06MVX	6mm (1/4")	15	56
86KFTF09MVX	9mm (3/8")	15	56

Tech Sheet 527

Male Thread, BSPP, Double Shut Off

4610	Thread	Hex Size mm	Length mm
86KBAW13MVX	1/4"	15	43

Tech Sheet 527

Female Thread, BSPP, Double Shut Off

4610	Thread	Hex Size mm	Length mm
86KBIW13MVX	1/4"	15	41

Tech Sheet 527

Straight Hose Tail, Double Shut Off

4610	To Suit Hose ID	Hex Size mm	Length mm
86KBTf06MVX	6mm (1/4")	15	56
86KBTf09MVX	9mm (3/8")	15	56

Tech Sheet 527



45° Hose Tail, Double Shut Off

4610	To Suit Hose ID	Hex Size mm	Length mm
86KBTH09MVX	9mm (3/8")	15	61

Tech Sheet 527



90° Hose Tail, Straight

4610	To Suit Hose ID	Hex Size mm	Length mm
86KFTR09MVX	9mm (3/8")	15	44

Tech Sheet 527

90° Hose Tail, Double Shut Off

4610	To Suit Hose ID	Hex Size mm	Length mm
86KBTR09MVX	9mm (3/8")	15	44

Tech Sheet 527

Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 86 QUICK COUPLING INTERNATIONAL PROFILE

Straight Through Plugs



Male Thread, BSPT

4610	Thread	Hex Size mm	Length mm
86SFAK10MXX	1/8"	11	24
86SFAK13MXX	1/4"	14	28.5
86SFAK17MXX	3/8"	17	26.5

Tech Sheet 527

Shut-off Plug



Male Thread, BSPT

4610	Thread	Hex Size mm	Length mm
86SBAK13MVX	1/4"	17	23.5

Tech Sheet 527

Replacement Bodyseals



Viton & Silicone

4610
86-VITON
86-SILICONE

Tech Sheet 527



Snap-tite ISO's see pages 318-320

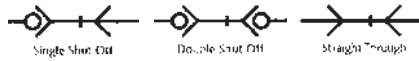


Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 87 QUICK COUPLING INTERNATIONAL PROFILE MOULD COUPLINGS

Working Temperature:
-15°C to +200°C
Standard seal FKM

Maximum Static Working Pressure:
PB 15 bar (217 PSI)



Interchangeability:
D-M-E, Jiffy-Tite, Jiffy-Matic, Foster FJT,
Parker Mould Mate

Material:
Brass, viton or silicone seals

Application:
Brass coupling for connection of coolant lines to moulds and dies

Couplings



Straight Hose Tail, Straight

4610	To Suit Hose ID	Hex Size mm	Length mm
87KFTF09MVX	9mm (3/8")	19	71
87KFTF13MVX	13mm (1/2")	19	71
Tech Sheet 526			

Straight Hose Tail, Double Shut Off

4610	To Suit Hose ID	Hex Size mm	Length mm
87KBTFO9MVX	9mm (3/8")	19	71
87KBTFO13MVX	13mm (1/2")	19	71
Tech Sheet 526			



45° Hose Tail, Straight

4610	To Suit Hose ID	Hex Size mm	Length mm
87KFTH09MVX	9mm (3/8")	19	79
87KFTH13MVX	13mm (1/2")	19	79
Tech Sheet 526			

45° Hose Tail, Double Shut Off

4610	To Suit Hose ID	Hex Size mm	Length mm
87KBTH09MVX	9mm (3/8")	19	79
87KBTH13MVX	13mm (1/2")	19	79
Tech Sheet 526			



90° Hose Tail, Straight

4610	To Suit Hose ID	Hex Size mm	Length mm
87KFTRO9MVX	9mm (3/8")	19	65
87KFTR13MVX	13mm (1/2")	19	65
Tech Sheet 526			



Profile

Straight Through Plugs



Male Thread, Brass, BSPT

4610	Thread	Hex Size mm	Length mm
87SFAK13MXX	1/4"	14	32
87SFAK17MXX	3/8"	17	32
87SFAK21MXX	1/2"	22	39
Tech Sheet 526			

Shut-off Plug



Male Thread, Brass, BSPT

4610	Thread	Hex Size mm	Length mm
87SBAK17MVX	3/8"	17	34
87SBAK21MVX	1/2"	22	39
Tech Sheet 526			

Replacement Bodyseals



Viton & Silicone

4610
87-VITON
87-SILICONE
Tech Sheet 526

Female Thread, Steel, Nickel Plated, BSPP



4610	Thread	Hex Size mm	Length mm
87SFIW13SXN	1/4"	19	37
87SFIW17SXN	3/8"	19	37
Tech Sheet 526			

SERIES 95 BREATHING AIR QUICK COUPLINGS



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Single Shut Off

Flow Rate:
1700 L/min

Material:
Brass nickel plated, NBR seal (standard series coupling)

Application:
Single shut off quick connect coupling commonly used on portable breathing air kits and hose line trolley packs

ULTRA-FLO »»



Profile

Couplings



Male Thread, BSPT

9510	Thread	Hex Size mm	Length mm
95KSAK13BPN	1/4"	19	61
95KSAK17BPN	3/8"	19	61
95KSAK21BPN	1/2"	22	61

Tech Sheet 528



Female Thread, BSPP

9510	Thread	Hex Size mm	Length mm
95KSIW13BPN	1/4"	19	56
95KSIW17BPN	3/8"	19	55

Tech Sheet 528



Hose Tail

9510	To Suit Hose ID	Hex Size mm	Length mm
95KSTF08BPN	8mm (5/16")	19	74
95KSTF09BPN	9mm (3/8")	19	74
95KSTF13BPN	13mm (1/2")	19	74

Tech Sheet 528

Plugs



Male Thread, BSPT

9510	Thread	Hex Size mm	Length mm
96SSAK13MXN	1/4"	14	38.5
96SSAK17MXN	3/8"	17	38.5

Tech Sheet 528



Female Thread, BSPP

9510	Thread	Hex Size mm	Length mm
96SSIW13MXN	1/4"	17	33
96SSIW17MXN	3/8"	19	33

Tech Sheet 528



Hose Tail

9510	To Suit Hose ID	Length mm
96SSTF06MXN	6mm (1/4")	48
96SSTF09MXN	9mm (3/8")	48

Tech Sheet 528

Male Thread, BSPT, 316 Stainless Steel

stainless steel

9510	Thread	Hex Size mm	Length mm
96SSAK13EXX	1/4"	14	38.5

Tech Sheet 528

Dust Protection



Caps & Plugs

9510	To Suit
SK23S	Coupling
SK12S	Plug

Tech Sheet 528

Hose Tail, 316 Stainless Steel

stainless steel

9510	To Suit Hose ID	Length mm
96SSTF10EXX	10mm (3/8")	48

Tech Sheet 528

SCHRADER COUPLINGS & PLUGS




Features:

- Twist-lock action
- Wide choice of adaptors
- Non-whip
- Rugged design

Application:

Twist-lock units are designed for single-handed connection and disconnection. A twist on the cap will release the adaptor and the air line will automatically reseal. When coupled, the check unit allows the adaptors to swivel, to eliminate kinking of the hose.

 **Working Temperature:**
-10°C to +80°C

 **Working Pressure:**
0 to 17 bar

Standard Duty Couplings



Male Thread, BSPT

4801	Thread	Length mm
9793D-12	1/4"	55
9792D-12	3/8"	55
Tech Sheet 68771		



Female Thread, BSPP

4801	Thread	Length mm
8952DL-12	1/4"	45
Tech Sheet 68771		

Heavy-duty Couplings



Female Thread, BSPP

4801	Thread	Length mm
1054EL-12	1/4"	58
1095EL-12	3/8"	58
1461EL-12	1/2"	58
1462EL-12	3/4"	63
Tech Sheet 68771		

Standard Duty Plugs



Male Thread, BSPT

4801	Thread	Length mm
8051B-11	1/8"	42
8050B-11	1/4"	44
Tech Sheet 68771		

Hose Tail



4801	To Suit Hose ID	Length mm
8787-11	6mm (1/4")	57
9750-11	8mm (5/16")	57
8788-11	10mm (3/8")	57
Tech Sheet 68771		

Female Thread, BSPP, Non-whip



4801	Thread	Length mm
9031	1/4"	55
Tech Sheet 68771		

Heavy-duty Plugs



Male Thread, BSPT

4801	Thread	Length mm
8624B-11	1/4"	48
9739-11	3/8"	48
8807-11	1/2"	54
Tech Sheet 68771		



Male Thread, BSPP

4801	Thread	Length mm
1462B-11	3/4"	55
Tech Sheet 68771		

Female Thread, BSPP



4801	Thread	Length mm
1261L-11	1/4"	43
1096B-11	3/8"	47
Tech Sheet 68771		

Hose Tail



4801	To Suit Hose ID	Length mm
1097-11	10mm (3/8")	71
1098-11	12mm (1/2")	71
Tech Sheet 68771		

Female Thread, BSPP, Non-whip



4801	Thread	Length mm
9042	3/8"	57.5
Tech Sheet 68771		

SERIES 1100 SCANDINAVIAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR



Maximum Static Working Pressure:
30 bar



Single Shut Off

Material:

Coupling: Brass nickel plated

Plug: Steel zinc plated

Seals: NBR

Interchangeability:

Tema design

Application:

Robust design with small dimensions. Series 1100 is used mainly for applications in the area of compressed air and liquids. Optimally suited to smaller pneumatic systems and to compressed air tools with a consumption of up to 900 litres per minute. Coupling systems with two hand operation i.e. both hands are required when connect/disconnect.



Profile

Couplings



BSPP, Nitrile Seals, Single Shut Off

0073	Thread	Length mm
TE-1100 A	1/4" Male	38
TE-1100	1/8" Female	37
Tech Sheet 529		

Plugs



BSPP, Single Shut Off

0073	Thread	Length mm
TE-11410	1/8" Female	27
Tech Sheet 529		



Hose Tail, Single Shut Off

0073	To Suit Hose ID mm	Length mm
TE-11006	6	33
Tech Sheet 529		



For **Parker Rectus RectuChem Fittings**
see pages **347-349**



Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 1300 SCANDINAVIAN PROFILE



Working Temperature:
-20°C to +100°C
Standard seal NBR

Maximum Static Working Pressure:
35 bar



Profile

Features:

- Single hand operation

Material:

Coupling: Brass nickel plated

Plug: Brass nickel plated

Seals: NBR

Rectus Series 31.

Application:

Series 1300 is used mainly for applications in the area of compressed air and liquids. Optimally suited to smaller to medium-sized pneumatic systems and to compressed air tools. The coupling series stands out for its compact design and high flow rates with the UltraFlo valve. Coupling body made of nitrocarburized steel.

Interchangeability:

Couplings



BSPP, Nitrile Seals NBR

0073	Thread	Length mm
TE-1300	1/4" Female	49
TE-1300 A	3/8" Male	49
TE-1300 B	3/8" Female	50
Tech Sheet 530		

BSPP, Valved Viton Seals

0073	Thread	Length mm
TE-1300 V	1/4" Female	49
Tech Sheet 530		

Dust Protection



Plug

0073	To Suit
TE-1325	Series 1300
Tech Sheet 530	

Plugs



BSPP

0073	Thread	Length mm
TE-13210	1/4" Male	38
TE-13410	1/4" Female	36
Tech Sheet 530		



Hose Tail


0073	To Suit Hose ID mm	Length mm
TE-13010	10	44
Tech Sheet 530		

For JWL Air Boy® Thrust Blow Gun
see page 1601

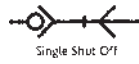
Other materials, seals and finishes available on request, please contact our technical department for further details.

SERIES 1800 SCANDINAVIAN PROFILE



 **Working Temperature:**
-20°C to +100°C
Standard seal NBR

 **Maximum Static Working Pressure:**
35 bar



Features:

- Single hand operation
- Particularly suited to medium-sized to large pneumatic systems and compressed air tools

Material:

Coupling: Brass nickel plated

Plug: Steel zinc plated

Seals: NBR

Interchangeability:

Rectus 32

Application:

Series 1800 is used mainly for applications in the area of compressed air and liquids. The coupling system stands out for its robust, compact design, high flow and high corrosion resistance due to the ultra high flow valve



Profile

Couplings



BSPP, Valved Nitrile Seal

0073	Thread	Length mm
TE-1800	3/8" Female	54
TE-1800 A	1/2" Male	54
TE-1800 B	1/2" Female	55
TE-1800 C	3/4" Female	57

Tech Sheet 531

Plugs



BSPP

0073	Thread	Length mm
TE-18110	1/4" Male	39
TE-18210	3/8" Male	38
TE-18220	1/2" Male	40
TE-18405	1/4" Female	36
TE-18410	3/8" Female	36
TE-18420	1/2" Female	39

Tech Sheet 531



Hose Tail

0073	To Suit Hose ID mm	Length mm
TE-18008	8	42

Tech Sheet 531



For **Parker Legris Universal Blow Gun**
see page 1602



Other materials, seals and finishes available on request, please contact our technical department for further details.

C9000 ADVANCED QUICK ACTING COUPLERS – ISO 6150B PROFILE SAFETY



Couplings



Male, BSPP

1014	Thread
LE-9401U06 13	1/4"
LE-9401U06 17	3/8"
LE-9401U06 21	1/2"

Tech Sheet 1344



Male, BSPT

1014	Thread
LE-9405U06 13	1/4"
LE-9405U06 17	3/8"
LE-9405U06 21	1/2"

Tech Sheet 1344



Hose Tail

1014	To Suit Hose ID mm
LE-9421U06 06	6
LE-9421U06 08	8
LE-9421U06 10	10

Tech Sheet 1344



Female, BSPP

1014	Thread
LE-9414U06 13	1/4"
LE-9414U06 17	3/8"
LE-9414U06 21	1/2"

Tech Sheet 1344

Plugs



Male, BSPP

1014	Thread
LE-9087U06 13	1/4"
LE-9087U06 17	3/8"
LE-9087U06 21	1/2"

Tech Sheet 1344



Hose Tail

1014	To Suit Hose ID mm
LE-9094U06 06	6
LE-9094U06 08	8
LE-9094U06 10	10

Tech Sheet 1344



Female, BSPP

1014	Thread
LE-9086 23 13	1/4"
LE-9086 23 21	1/2"

Tech Sheet 1344

C9000 ADVANCED QUICK ACTING COUPLERS - EURO PROFILE SAFETY



Couplings



Male, BSPP

1014	Thread
LE-9401E07 13	1/4"
LE-9401E07 17	3/8"
LE-9401E07 21	1/2"

Tech Sheet 1344



Hose Tail

1014	Thread
LE-9421E07 10	10
LE-9421E07 13	13

Tech Sheet 1344



Female, BSPP

1014	Thread
LE-9414E07 13	1/4"
LE-9414E07 17	3/8"
LE-9414E07 21	1/2"

Tech Sheet 1344

Plugs



Male, BSPP

1014	Thread
LE-9087E07 17	3/8"
LE-9087E07 21	1/2"

Tech Sheet 1344



Hose Tail

1014	To Suit Hose ID mm
LE-9094E07 08	8
LE-9094E07 10	10
LE-9094E07 13	13

Tech Sheet 1344



Female, BSPP

1014	Thread
LE-9086 25 13	1/4"
LE-9086 25 17	3/8"
LE-9086 25 21	1/2"

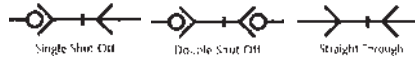
Tech Sheet 1344

SERIES 10/11 MOLDTITE



Working Temperature:
-15°C to +200°C
Standard seal FKM

Maximum Static Working Pressure:
PB 15 bar (217 PSI)
Safety factor of 4 to 1



Material:
Brass

Application:
Mold coupling



Profile

Couplings



Straight Hose Tail, 9mm Profile, with Valve

0194	To Suit Hose ID
2053-5613	9mm (3/8")

Straight Hose Tail, 13mm Profile, with Valve

0194	To Suit Hose ID
2053-5639	13mm (1/2")



Straight Hose Tail, 13mm Profile, Straight Through

0194	To Suit Hose ID
2053-5621	13mm (1/2")



45° Hose Tail, 13mm Profile, Non-valved

0194	To Suit Hose ID
2053-5662	13mm (1/2")



90° Hose Tail, 9mm Profile, Valved

0194	To Suit Hose ID
2053-5696	9mm (3/8")

90° Hose Tail, 13mm Profile, Valved

0194	To Suit Hose ID
2053-5712	13mm (1/2")

Ambersil



For Maintenance Sprays
see pages 1570-1577

Non-valved, Straight Through Plugs



Male Thread, BSPT, 9mm Profile

0194	Thread
2053-5746	1/8"

Male Thread, BSPT, 13mm Profile

0194	Thread
2053-5761	1/4"

Valved Shut-off Plug



Male Thread, BSPT, 9mm Profile

0194	Thread
2053-5787	1/4"

Male Thread, BSPT, 13mm Profile

0194	Thread
2053-5795	3/8"

Other materials, seals and finishes available on request, please contact our technical department for further details.

QUICK COUPLINGS FOR PLASTIC INJECTION MOULDING



° Working Temperature: -15°C to +110°C
(when using identification collets 513 and 523)
Working Temperature: 0°C to +200°C (when using
without identification collets 513 and 523)

Maximum Working Pressure:
15 bar (1.5Mpa).

These Couplings are designed to be connected with cooling systems of plastic injection mouldings. They have a particular structure that assures reduced Size and allows coupling using a single hand.

Temperature and Pressures:

The working pressures and working temperatures depend on the type of tube used; therefore the values must be determined in accordance with the tubes features. The following values apply only to Aignep products.

- Parallel gas in conformity with ISO 228.
- Water, cooling water, oil.
- Flexible tubes in plastic and rubber.

410-510 DN8 Series



412 Straight Female Socket, BSPP

0220	Thread
412-1/4	1/4"
Tech Sheet 20602	



415 Straight Female Socket with Hose Tail

0220	To Suit Hose ID mm
415-08	8
415-10	10
415-12	12
Tech Sheet 20602	



416 135° Socket

0220	To Suit Hose ID mm
416-08	8
416-12	12
Tech Sheet 20602	



418 90° Female Socket

0220	To Suit Hose ID mm
418-10	10
418-12	12
Tech Sheet 20602	



511 Female Plug, BSPP

0220	Thread
511-18	1/8"
511-14	1/4"
511-38	3/8"
Tech Sheet 20602	



513 Collets to suit 511 Female Plugs

0220	Colour
513-RED	Red
513-BLUE	Blue
Tech Sheet 20602	

420-520 DN12 Series



422 Straight Female Socket, BSPP

0220	Thread
422-12	1/2"
Tech Sheet 20602	



425 Straight Female Socket with Hose Tail

0220	To Suit Hose ID mm
425-13	13
425-16	16
Tech Sheet 20602	



521 Female Plug, BSPP

0220	Thread
521-38	3/8"
521-12	1/2"
Tech Sheet 20602	



523 Collets, to suit 521 Female Plugs

0220	Colour
523-RED	Red
Tech Sheet 20602	

ACETAL RESIN QUICK RELEASE COUPLINGS



The special quick connector offers a fast and reliable push-to-connect mechanism. The outer sleeve locks the plug into the socket. When the plug is disconnected, the socket acts as a shut-off valve. Various plugs can be connected and used, suitable for hydraulic or pneumatic systems.



Temperature:
4 to 90°C



Working Pressure:
Up to 14 bar (200 psi) at 20°C

Part	Material
Body	Nylon 6-6
Internal parts	Acetal
Spring & ball	Stainless steel

Couplings



Female Thread, BSPT

0497	Thread
81000	1/4"

Plugs



Male Thread, BSPT

0497	Thread
81400	1/4"



Female Thread, BSPT

0497	Thread
81500	1/4"



Hose Tail

0497	To Suit Hose ID mm
81606	6
81608	8
81610	10
81612	12



For **Tefen Nylon Hose Tails**
see page **1150**



AIR LINE COUPLINGS



Airflow Air Line Couplings (Fixed Application)

- Suitable for fixed applications where the coupling is used over a workbench and a single action is preferred
- Compatible with the Standard Air Line plugs

- Steel Construction – robust and hard wearing, ideal for use in the engineering/workshop environment
- Benchmark in the UK for quality and reliability

Interchangeability: Rectus 19
Nominal Bore: 4.8mm

Working Temperature: -40°C to +100°C

Maximum Working Pressure: 14 bar



Male Thread, BSPT

7001	Thread
AC21CM02	1/4"
AC21EM02	3/8"
AC21JM02	1/2"

Tech Sheet 20603



Female Thread, BSPP

7001	Thread
AC21CF02	1/4"
AC21EF02	3/8"
AC21JF02	1/2"

Tech Sheet 20603



Hose Tail

7001	To Suit Hose ID
AC21R02	6mm (1/4")
AC21S02	8mm (5/16")
AC21T02	10mm (3/8")

Tech Sheet 20603

Twin Coupling, Airflo

- Single action - designed for FIXED applications
- Compatible with Standard Adaptors
- Steel Construction - robust and hard-wearing, ideal for use in the engineering/workshop environment
- Positive locking mechanism
- British Standard Profil



'Y' 2 x Coupling, 1 x Plug

7001
AC6103

Tech Sheet 20606

Vertex Air Line Couplings (Trailing Hose Application)

- Double action mechanism
- Ideal where operators are using air tools or handheld inflators for trailing hose application

- Compatible with the Standard Air Line plugs
- Steel Construction – robust and hard wearing, ideal for use in the engineering/workshop environment

Interchangeability: Rectus 19
Nominal Bore: 4.8mm

Working Temperature: -40°C to +100°C

Maximum Working Pressure: 14 bar



Male Thread, BSPT

7001	Thread
AC91CM	1/4"
AC91EM	3/8"
AC91JM	1/2"

Tech Sheet 20603



Female Thread, BSPP

7001	Thread
AC91CF	1/4"
AC91EF	3/8"
AC91JF	1/2"

Tech Sheet 20603



Hose Tail

7001	Thread
AC91R	7mm (1/4")
AC91S	8mm (5/16")
AC91T	10mm (3/8")

Tech Sheet 20603


AIR LINE COUPLINGS



Safeflow Safety Coupling

Compatible with the Standard Air Line plugs
Enhances workshop safety; prevents hose whip
Nominal Bore: 4.8mm

Maximum flow rate 43cfm at 100lbf/in²
Approvals: conforms to ISO 4414:1998 and EN 983:1996
Interchangeability: Rectus 19

 **Maximum Working Pressure:**
200lbf/in² (14 bar)



Male Thread, BSPT

7001	Thread
SC21CM	1/4"
SC21EM	3/8"
SC21JM	1/2"
Tech Sheet 20605	



Female Thread, BSPP


7001	Thread
SC21CF	1/4"
SC21EF	3/8"
SC21JF	1/2"
Tech Sheet 20605	

Standard Air Line Plugs

- For use with all PCL Airflo , Vertex and Safeflow Coupling
- Steel Construction – robust and hard wearing, ideal for use in the engineering/workshop environment

Interchangeability:
Rectus 19
Nominal Bore: 4.8mm

 **Working Temperature:**
-40°C to +100°C

 **Maximum Working Pressure:** 14 bar



Male Thread, BSPT

7001	Thread
ACA2593	1/4"
ACA6909	3/8"
ACA6584	1/2"
Tech Sheet 20604	



Female Thread, BSPP

7001	Thread
ACA2746	1/4"
ACA6582	3/8"
ACA6583	1/2"
Tech Sheet 20604	



Hose Tail

7001	To Suit Hose ID
ACA1793	6mm (1/4")
ACA2487	8mm (5/16")
ACA2488	10mm (3/8")
Tech Sheet 20604	

Coupling Kit

Designed for the service engineer, or to keep in a workshop in case of a pneumatic air line failure, this small, compact kit contains all the parts you need to repair any standard air line failure.

Contents:

- 1 x AC91CM, AC91CF, HC6560, HC6892, HC6893, HC5656, HC1217, HC2479, HC6895, HC6896 and PTFE tape
- 2 x ACA2593, ACA2746, 000 and 00



Emergency Coupling Kit

7000
ACKIT01

AIR LINE COUPLINGS



60 Series Air Line Couplings

- Hardened shoulder helps prevent accidental disconnection
- Swivel feature prevents kinking of the hose
- Ideal for fixed and trailing hose applications in garage, tyre shop and industrial environments

Working Temperature: -40°C to +100°C
Maximum Working Pressure: 14 bar
Nominal Bore: 7.1mm



Male Thread, BSPT

7000	Thread
AC4CM02	1/4"
AC4EM02	3/8"
AC4JM02	1/2"

Tech Sheet 20606



Female Thread, BSPP

7000	Thread
AC4CF02	1/4"
AC4EF02	3/8"
AC4JF02	1/2"

Tech Sheet 20606

60 Series Air Line Plugs



Male Thread, BSPT

7000	Thread
ACA2657	1/4"
ACA2661	3/8"

Tech Sheet 20606



Female Thread, BSPP

7000	Thread
ACA2653	1/4"
ACA2660	3/8"

Tech Sheet 20606



Hose Tail

7000	To Suit Hose ID
ACA2654	8mm (5/16")
ACA2658	10mm (3/8")
ACA2659	13mm (1/2")

Tech Sheet 20606

100 Series Air Line Couplings

- Hardened shoulder helps prevent accidental disconnection
- Swivel feature prevents kinking of the hose
- Specially designed valves and large aperture adaptors provide increased airflow for heavy duty application

Ideal for larger air tool applications in garage and tyre shop environments
Nominal Bore: 10.3mm

Working Temperature: -40°C to +100°C
Maximum Working Pressure: 14 bar



Male Thread, BSPT

7000	Thread
AC5EM02	3/8"
AC5JM02	1/2"

Tech Sheet 20607



Female Thread, BSPP

7000	Thread
AC5EF02	3/8"
AC5JF02	1/2"

Tech Sheet 20607

100 Series Air Line Plugs



Male Thread, BSPT

7000	Thread
ACA2999	3/8"
ACA3035	1/2"

Tech Sheet 20607



Female Thread, BSPP

7000	Thread
ACA2994	3/8"

Tech Sheet 20607



Hose Tail

7000	To Suit Hose ID
ACA3037	10mm (3/8")
ACA3036	13mm (1/2")

Tech Sheet 20607

AIR LINE COUPLINGS



Mini Couplings

- Small-bore couplings has proved popular in the robotics, medical, instrumentation and automation industries
- Lightweight and compact design
- Brass chrome plated

Nominal Bore: 5.0mm
Flow rate @ 6 bar (0.5 bar P.D.)
560 L/min

Interchangeability:
Camozzi Mini, Legris 21, Norgren 233,
Rectus 21 and Schrader Mini

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
35 bar (508 psi)



Male Thread, BSPP

7000	Thread
AC11AM	1/8"
AC11CM	1/4"

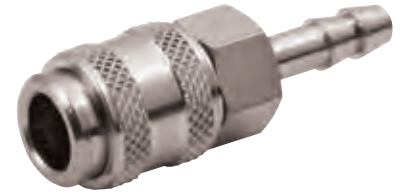
Tech Sheet 10662



Female Thread, BSPP

7000	Thread
AC11AF	1/8"
AC11CF	1/4"

Tech Sheet 10662

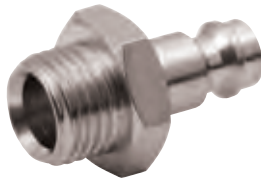


Hose Tail

7000	To Suit Hose ID
AC1106	6mm (1/4")
AC1109	9mm

Tech Sheet 10662

Mini Plugs



Male Thread, BSPP

7000	Thread
AA11AM	1/8"
AA11CM	1/4"

Tech Sheet 10662



Female Thread, BSPP

7000	Thread
AA11AF	1/8"
AA11CF	1/4"

Tech Sheet 10662



Hose Tail

7000	To Suit Hose ID
AA1106	6mm (1/4")
AA1109	9mm

Tech Sheet 10662



For **PCL Ergo Extreme Blow Guns**
see page 1605



AIR LINE COUPLINGS



XF-Euro Couplings

- High flow rate of 130 cfm @ 100 ps
- Hardened steel construction with corrosive resistant finish
- Steel shoulder helps prevent accidental disconnection
- Enhances tool efficiency
- Compatible with XF-Euro profile adaptor

Nominal Bore: 7.4 mm
Flow rate @ 6 bar (0.5 bar P.D.)
2200 L/min

Interchangeability:
Legris 25/26, Norgren 234/238, Rectus 25/26
and Schrader InterCheck 35

Working Temperature:
-40°C to +100°C

Maximum Working Pressure:
35 bar (508 psi)



Male Thread, BSPT

7000	Thread
AC71CM	1/4"
AC71EM	3/8"
AC71JM	1/2"

Tech Sheet 10663



Female Thread, BSPP

7000	Thread
AC71CF	1/4"
AC71EF	3/8"
AC71JF	1/2"

Tech Sheet 10663



Hose Tail

7000	To Suit Hose ID
AC7106	6mm (1/4")
AC7108	8mm (5/16")
AC7109	9mm
AC7110	10mm (3/8")
AC7113	13mm (1/2")

Tech Sheet 10663

XF-Euro Safety Couplings

Maximum Working Pressure:
16 bar

Nominal Bore: 7.4mm
Flow Rate @ 6 bar (0.5 Bar P.D.) 1750 l/min

Designed to conform with compressed air Health
and Safety Guide HS(G)39 and ISO 4414:2010



Male Thread, BSPT

7000	Thread
AS71CM	1/4"
AS71EM	3/8"
AS71JM	1/2"

Tech Sheet 10664



Female Thread, BSPP

7000	Thread
AS71CF	1/4"
AS71EF	3/8"
AS71JF	1/2"

Tech Sheet 10664

XF-Euro Plugs



Male Thread, BSPT

7000	Thread
AA7101	1/8"
AA7102	1/4"
AA7103	3/8"
AA7104	1/2"

Tech Sheet 10663



Female Thread, BSPP

7000	Thread
AA7105	1/8"
AA7106	1/4"
AA7107	3/8"
AA7108	1/2"

Tech Sheet 10663



Hose Tail

7000	To Suit Hose ID
AA7109	4mm
AA7110	6mm (1/4")
AA7111	8mm (5/16")
AA7114	9mm
AA7112	10mm (3/8")
AA7113	13mm (1/2")

Tech Sheet 10663

AIR LINE COUPLINGS




PF Couplings

- Competitive alternative to Schrader Couplings and Adaptors
 - Steel Construction with corrosive resistant finish for longer life
- ☒ Superior ☒ low characteristics

Nominal Bore: 5.0mm
Flow rate @ 6 bar (0.5 bar P.D.)
2200 L/min

Interchangeability:
Rectus 17 and Schrader Standard

° **Working Temperature:**
-20°C to +80°C

 **Maximum Working Pressure:**
35 bar (508 psi)



Male Thread, BSPT

7000	Thread
AC77CM	1/4"
AC77EM	3/8"
AC77JM	1/2"

Tech Sheet 10665



Female Thread, BSPP

7000	Thread
AC77CF	1/4"
AC77EF	3/8"
AC77JF	1/2"

Tech Sheet 10665

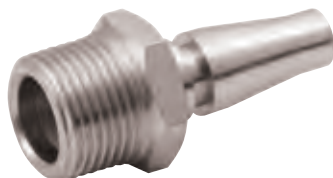


Hose Tail

7000	To Suit Hose ID
AC7706	6mm (1/4")
AC7708	8mm (5/16")
AC7710	10mm (3/8")
AC7713	13mm (1/2")

Tech Sheet 10665

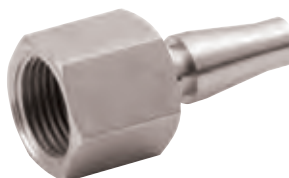
PF Plugs



Male Thread, BSPT

7000	Thread
AA7702	1/4"
AA7703	3/8"

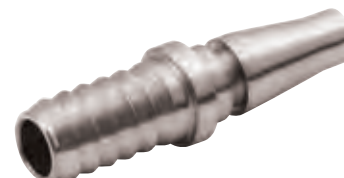
Tech Sheet 10665



Female Thread, BSPP

7000	Thread
AA7706	1/4"
AA7707	3/8"

Tech Sheet 10665



Hose Tail

7000	To Suit Hose ID
AA7710	6mm (1/4")
AA7711	8mm (5/16")
AA7712	10mm (3/8")

Tech Sheet 10665

PCL Couplings & Adaptors

The UK benchmark for quality and reliability



AIR LINE COUPLINGS



ISO B12 Couplings

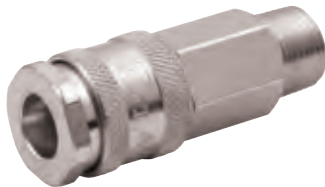
- Commonly used in Scandinavian markets, where this a-lap profile is required
- Steel construction with a corrosion resistant finish for longer life
- Steel shoulder helps prevent accidental disconnection

Nominal Bore: 5.5mm
Flow rate @ 6 bar (0.5 bar P.D.)
1100 L/min

Interchangeability:
Rectus 23/24, Hanson 3000
and Legris 24

Working Temperature:
-40°C to +100°C

Maximum Working Pressure:
35 bar (508 psi)



Male Thread, BSPT

7000	Thread
AC75CM	1/4"
AC75EM	3/8"
AC75JM	1/2"

Tech Sheet 10667



Female Thread, BSPP

7000	Thread
AC75CF	1/4"
AC75EF	3/8"
AC75JF	1/2"

Tech Sheet 10667



Hose Tail

7000	To Suit Hose ID
AC7506	6mm (1/4")
AC7508	8mm (5/16")
AC7510	10mm (3/8")
AC7513	13mm (1/2")

Tech Sheet 10667

ISO B12 Plugs



Male Thread, BSPT

7000	Thread
AA7502	1/4"
AA7503	3/8"
AA7504	1/2"

Tech Sheet 10667



Female Thread, BSPP

7000	Thread
AA7506	1/4"
AA7507	3/8"

Tech Sheet 10667



Hose Tail

7000	To Suit Hose ID
AA7510	6mm (1/4")
AA7512	10mm (3/8")
AA7513	13mm (1/2")

Tech Sheet 10667



HAND PROTECTION

A newly expanded range of hand protection products caters for all work and safety needs. Only the best materials and manufacturing methods are used in the production of this extensive and highly specialised range.

For **Portwest Hand Protection**
see page **1756**



AIR LINE COUPLINGS



"A" Style Couplings

- Commonly used in American and most African markets where this specific profile of adaptor is required
- Steel Construction with corrosive resistant finish for longer life

Nominal Bore: 5.5mm
Flow rate @ 6 bar (0.5 bar P.D.)
650 L/min

Interchangeability:
ARO 210, JWL 522/532, Rectus 14/22
and Schrader Euro

Working Temperature:
-40°C to +100°C

Maximum Working Pressure:
14 bar



Male Thread, BSPT

7000	Thread
AC61CM	1/4"
AC61EM	3/8"
AC61JM	1/2"

Tech Sheet 10668



Female Thread, BSPP

7000	Thread
AC61CF	1/4"
AC61EF	3/8"
AC61JF	1/2"

Tech Sheet 10668

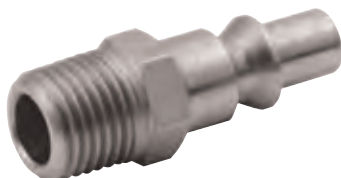


Hose Tail

7000	To Suit Hose ID
AC61R	6mm (1/4")
AC61S	8mm (5/16")
AC61T	10mm (3/8")

Tech Sheet 10668

"A" Style Plugs



Male Thread, BSPT

7000	Thread
ACA6923	1/4"

Tech Sheet 10668



Female Thread, BSPP

7000	Thread
ACA6924	1/4"

Tech Sheet 10668



Hose Tail

7000	To Suit Hose ID
ACA6912	6mm (1/4")
ACA6922	8mm (5/16")
ACA6930	10mm (3/8")

Tech Sheet 10668



For FT PRO Flow Regulators
see page 1160



AIR LINE COUPLINGS



KF Couplings

- Ideal for portable air tool and industrial applications
- Excellent flow characteristic
- Commonly used in Asian and Oceania markets where this adaptor profile is required
- Steel Construction with corrosive resistant finish for longer life

Nominal Bore: 7.6mm

Flow rate @ 6 bar (0.5 bar P.D.)
2100 L/min

Interchangeability

Nitto Kohki 200 and Rectus 13

Working Temperature:
-40°C to +100°C



Maximum Working Pressure:
35 bar (508 psi)



Male Thread, BSPT

7000	Thread
AC78CM	1/4"
AC78EM	3/8"
AC78JM	1/2"

Tech Sheet 10669



Female Thread, BSPP

7000	Thread
AC78CF	1/4"
AC78EF	3/8"
AC78JF	1/2"

Tech Sheet 10669



Hose Tail

7000	To Suit Hose ID
AC7806	6mm (1/4")
AC7808	8mm (5/16")
AC7810	10mm (3/8")
AC7813	13mm (1/2")

Tech Sheet 10669

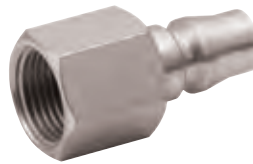
KF Plugs



Male Thread, BSPT

7000	Thread
AA7802	1/4"
AA7803	3/8"
AA7804	1/2"

Tech Sheet 10669



Female Thread, BSPP

7000	Thread
AA7806	1/4"
AA7807	3/8"
AA7808	1/2"

Tech Sheet 10669



Hose Tail

7000	To Suit Hose ID
AA7810	6mm (1/4")
AA7811	8mm (5/16")
AA7812	10mm (3/8")
AA7813	13mm (1/2")

Tech Sheet 10669

Multi-Fit Couplings

- Has the additional flexibility of accepting 3 key adaptor profiles; XF-Euro, "A" Style and ISO B12
- Steel Construction with corrosive resistant finish for longer life
- Offers enhanced tool efficiency

Nominal Bore: 5.0mm

Flow rate @ 6 bar (0.5 bar P.D.)
1800 L/min

Coupling can be used in conjunction with any of the following plugs ISO B12, XF, and Euro

Interchangeability:

Rectus 23/25/26, Hanson 3000 and Dynaquip DC 3

Working Temperature:
-20°C to +100°C



Maximum Working Pressure:
35 bar (508 psi)



Male Thread, BSPT

7000	Thread
AC73CM	1/4"
AC73EM	3/8"
AC73JM	1/2"

Tech Sheet 10666



Female Thread, BSPP

7000	Thread
AC73CF	1/4"
AC73EF	3/8"
AC73JF	1/2"

Tech Sheet 10666



Hose Tail

7000	To Suit Hose ID
AC7306	6mm (1/4")
AC7308	8mm (5/16")
AC7310	10mm (3/8")
AC7313	13mm (1/2")

Tech Sheet 10666

INSTANTAIR COUPLINGS

- Bayonet type quick acting couplings to maximum efficiency and prevent accidental uncoupling
- Zinc plated steel / Brass chrome plated

Nominal Bore: 5.6mm

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
17 bar



Steel Zinc Plated Instantair Couplings



Male Thread, BSPT

7000	Broomwade Reference	Thread
AC51CM	PT8825	1/4"
AC51EM	PT8827	3/8"
AC51JM	PT9095	1/2"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AC51CF	PT8823	1/4"
AC51EF	PT8800	3/8"
AC51JF	PT9096	1/2"
Tech Sheet 536		



Hose Tail

7000	Broomwade Reference	To Suit Hose ID
AC51R	PT8800/SU4	6mm (1/4")
AC51S	PT8800/SU5	8mm (5/16")
AC51T	PT8800/SU6	10mm (3/8")
Tech Sheet 536		

Steel Zinc Plated Instantair Adaptors



Male Thread, BSPP

7000	Broomwade Reference	Thread
AA5102	PT8808	1/4"
AA5103	PT8817	3/8"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AA5106	PT8806	1/4"
AA5107	PT8802	3/8"
Tech Sheet 536		



Hose Tail

7000	Broomwade Reference	To Suit Hose ID
AA5110	PT8802/SU4	6mm (1/4")
AA5111	PT8802/SU5	8mm (5/16")
AA5112	PT8802/SU6	10mm (3/8")
Tech Sheet 536		

Steel Zinc Plated Instantair Swivel Adaptors



Male Thread, BSPP

7000	Broomwade Reference	Thread
AA5302	PT8836	1/4"
AA5303	PT8838	3/8"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AA5306	PT8834	1/4"
AA5307	PT8804	3/8"
Tech Sheet 536		



Hose Tail

7000	Broomwade Reference	To Suit Hose ID
AA5310	PT8804/SU4	6mm (1/4")
AA5312	PT8804/SU6	10mm (3/8")
Tech Sheet 536		

INSTANTAIR COUPLINGS



Brass Chrome Plated Instantair Couplings



Male Thread, BSPP

7000	Broomwade Reference	Thread
AC52CM	PT8826	1/4"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AC52CF	PT8824	1/4"
Tech Sheet 536		

INSTANTAIR COUPLINGS



• 1/2" Instantair Couplings and Adaptors are not interchangeable with the Standard Instantair range

• Offer higher flow characteristics, they are ideal for heavy duty industrial applications

Nominal Bore: 8mm



Maximum Working Pressure:
17 bar

Steel Zinc Plated Instantair 1/2" Couplings



Male Thread, BSPP

7000	Broomwade Reference	Thread
AC59JM	PT8811	1/2"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AC59JF	PT8812	1/2"
Tech Sheet 536		



Hose Tail

7000	Broomwade Reference	To Suit Hose ID
AC59V	PT8813	13mm (1/2")
Tech Sheet 536		

Steel Zinc Plated Instantair 1/2" Swivel Adaptors



Male Thread, BSPP

7000	Broomwade Reference	Thread
AA5904	PT8820	1/2"
Tech Sheet 536		



Female Thread, BSPP

7000	Broomwade Reference	Thread
AA5908	PT8821	1/2"
Tech Sheet 536		



Hose Tail

7000	Broomwade Reference	To Suit Hose ID
AA5913	PT8819	13mm (1/2")
Tech Sheet 536		

OETIKER RANGES



19 Series SC Type P Couplings



Male Thread, BSPP

0550	Thread
20500434	1/4"
20500441	3/8"
20500442	1/2"



Female Thread, BSPP

0550	Thread
20500438	1/4"
20500439	3/8"
20500440	1/2"



Hose Tail

0550	To Suit Hose ID
20500443	1/4"
20500444	5/16"
20500445	3/8"

23 Series SC Type B1 Swing Couplings



Male Thread, BSPP

0551	Thread
20500314	1/4"
20500315	3/8"
20500316	1/2"



Female Thread, BSPP

0551	Thread
20500307	1/4"
20500308	3/8"
20500309	1/2"



Hose Tail

0551	To Suit Hose ID
20500320	1/4" (6mm)
20500321	5/16" (8mm)
20500322	3/8" (10mm)

25 & 26 Series SC Type C Swing Couplings



Male Thread, BSPP

0552	Thread
20500351	1/4"
20500352	3/8"
20500353	1/2"



Female Thread, BSPP

0552	Thread
20500345	1/4"
20500346	3/8"
20500347	1/2"



Hose Tail

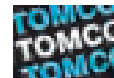
0552	To Suit Hose ID
20500356	5/16"
20500357	3/8"
20500358	1/2"



For Fueling Equipment & Accessories
see page 1620



SERIES 'ST' STRAIGHT-THROUGH COUPLINGS



Working Temperature:
-40°C to +100°C

Working Pressure (PSI) Series 'ST'

Size	Steel Plug	Brass Plug	All Stainless
1/8"	2,600	2,500	4,200
1/4"	5,500	5,200	6,700
3/8"	3,500	2,700	5,500
1/2"	2,700	2,200	-
3/4"	1,700	1,700	-

Standard Seals: Nitrile

Only couplings and plugs of the same size, will interchange.

Interchangeability: Hansen ST

Couplings



Brass, Male Thread, NPTF

8110	Thread	Length mm
TB1S-10	1/8"	27
TB2S-15	1/4"	44
TB3S-20	3/8"	45
TB4S-25	1/2"	52
TB6S-30	3/4"	57

Tech Sheet 535

stainless steel



Stainless Steel, Male Thread, NPTF

8110	Thread	Length mm
T2S-15-303	1/4"	44
T3S-20-303	3/8"	45

Tech Sheet 535



Brass, Female Thread, NPTF

8110	Thread	Length mm
TB1S-11	1/8"	27
TB2S-16	1/4"	39
TB3S-21	3/8"	41
TB4S-26	1/2"	48
TB6S-31	3/4"	52

Tech Sheet 535

stainless steel



Stainless Steel, Female Thread, NPTF

8110	Thread	Length mm
T1S-11-303	1/8"	27
T2S-16-303	1/4"	39

Tech Sheet 535

Plugs



Brass, Male Thread, NPTF

8110	Thread
TB1T-10	1/8"
TB2T-15	1/4"
TB3T-20	3/8"
TB4T-25	1/2"
TB6T-30	3/4"

Tech Sheet 535



Steel, Male Thread, NPTF

8110	Thread
T1T-10	1/8"
T4T-25	1/2"

Tech Sheet 535

stainless steel



Stainless Steel, Male Thread, NPTF

8110	Thread
T1T-10-303	1/8"
T2T-15-303	1/4"

Tech Sheet 535



Brass, Female Thread, NPTF

8110	Thread
TB1T-11	1/8"
TB2T-16	1/4"
TB3T-21	3/8"
TB4T-26	1/2"
TB6T-31	3/4"

Tech Sheet 535



Steel, Female Thread, NPTF

8110	Thread
T2T-16	1/4"
T3T-21	3/8"
T6T-31	3/4"

Tech Sheet 535

AIR BRAKE COMPONENTS

British Standard BS AU138B 2000, Air Line Couplings



Male, Emergency

0042	Thread
18-980/1	M22
Tech Sheet 20608	



Combined Male with Self Sealing Valve, Service

0042	Thread
18-978/1	M16
18-982/1	M22
Tech Sheet 20608	



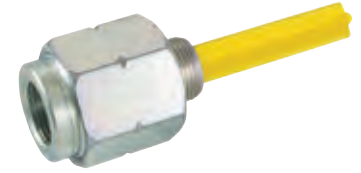
Combined Female with Self Sealing Valve, Emergency

0042	Thread
18-979/1	M16
18-981/1	M22
Tech Sheet 20608	



Female with Lift Valve, Service

0042	Thread
18-983/1	M22
Tech Sheet 20608	



Self Sealing Valve

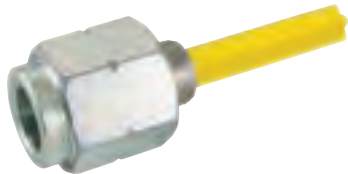
0042	Thread
18-868/1	M22 x 1.5
Tech Sheet 20610	



Operating Plug

0042	Thread
18-867/1	M22 x 1.5
Tech Sheet 20610	

Air Line Couplings



Self Sealing Valve

0042	Thread
18-868	M22 x 1.5
SSVC-12	1/2"
Tech Sheet 20609	



Operating Plug

0042	Thread
18-867	M22 x 1.5
OSC-12	1/2"
Tech Sheet 20609	



Self Sealing Valve for C or CA Coupling

0042	Thread
SSV-12	1/2"
Tech Sheet 20611	

Quality Assured, Air Line Couplings

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 4

Monitor & Test

4

4.01 Pressure Gauges **409-418**

4.02 Temperature & Pressure Switches **419-429**

4.03 Industrial Filtration **430-435**

4.04 Sight Glasses & Flow Switches **436-445**

4.05 Thermometers for Industry **446**

4.01 Pressure Gauges



409-418

- Dry Pressure Gauges & Accessories
- Glycerine Gauges & Accessories
- Temperature Gauges
- HVAC Gauges & Accessories



4.02 Temperature & Pressure Switches



419-429

- Digital Flow Pressure Sensors
- Temperature Switches
- Pressure Transducers
- Adjustable Pressure Switches
- Pressure Switches
- Vacuum Switches
- Flow Sensors
- Pressure Sensors



4.03 Industrial Filtration



430-435

- Filters & Drains (Air, Water & Vacuum)
- Condensate Management
- Air Receivers & Accessories
- Reservoir Tanks
- Compressor Oil



4.04 Sight Glasses & Flow Switches



436-445

- Sight Glasses & Indicators
- Flow Switches
- Flow Indicators
- Variable Area Flow Meters
- Flow Meters
- Float Level Switches
- Liquid Level Gauges
- Visual Indicators
- Cold Water Flow Meters



4.05 Thermometers for Industry



446

- K Type Handheld Thermometers
- K Type Probes
- Room Thermometers
- Bimetal Indicators
- Dial Pipe Thermometers
- Magnetic Dial Thermometers





Dry Pressure Gauges

FT Pro dry gauges are a market leading range offering a reliable solution for pressure monitoring within pneumatic systems.

Used extensively throughout the world's manufacturing facilities, all units have been 100% pressure tested and inspected, so quality can be guaranteed.

Applications:

- Construction
- Chemical
- Agriculture
- Offshore
- Mining
- Automotive
- OEM machine
- Rail building
- Industrial



DRY GAUGES



Steel Case, Centre Back Connection

- Robust metal case
- Brass thread
- BSP taper



BSPT Brass Connection

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2018-1681	1/8"	40	0-15	0-1
2018-1699	1/8"	40	0-30	0-2
2018-1707	1/8"	40	0-60	0-4
2018-1723	1/8"	40	0-100	0-6
2018-1731	1/8"	40	0-160	0-10
2018-1749	1/8"	40	0-200	0-12
2018-1756	1/8"	40	0-300	0-20
2018-1764	1/8"	50	0-15	0-1
2018-1772	1/8"	50	0-30	0-2
2018-1780	1/8"	50	0-60	0-4
2018-1798	1/8"	50	0-100	0-6
2018-1806	1/8"	50	0-160	0-10
2018-1814	1/8"	50	0-200	0-12
2018-1822	1/8"	50	0-300	0-20

Tech Sheet 20581

BSPT Brass Connection

0236	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PGR050114	1/4"	50	0-15	0-1
PGR050314	1/4"	50	0-30	0-2
PGR050414	1/4"	50	0-60	0-4
PGR050614	1/4"	50	0-100	0-6
PGR051014	1/4"	50	0-160	0-10
PGR051214	1/4"	50	0-200	0-12
PGR052014	1/4"	50	0-300	0-20
PGR060114	1/4"	63	0-15	0-1
PGR061014	1/4"	63	0-160	0-10
PGR061214	1/4"	63	0-200	0-12
PGR062014	1/4"	63	0-300	0-20

Tech Sheet 20581



Panel Mount Brackets, to suit Steel Dry Gauges

0338	To Suit mm
KPMB40R	40
KPMB50R	50

ABS Case, Bottom Connection



BSPT Brass Connection

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G50-01B	1/8"	50	0-15	0-1
G50-02B	1/8"	50	0-30	0-2
G50-04B	1/8"	50	0-60	0-4
G50-06B	1/8"	50	0-100	0-6
G50-10B	1/8"	50	0-160	0-10
G50-12B	1/8"	50	0-200	0-12
G50-01C	1/4"	50	0-15	0-1
G50-02C	1/4"	50	0-30	0-2
G50-025C	1/4"	50	0-40	0-2.5
G50-04C	1/4"	50	0-60	0-4
G50-06C	1/4"	50	0-100	0-6
G50-10C	1/4"	50	0-160	0-10
G50-12C	1/4"	50	0-200	0-12
G50-16C	1/4"	50	0-250	0-16
G63-01D	1/4"	63	0-15	0-1
G63-04D	1/4"	63	0-60	0-4
G100-04B	3/8"	100	0-60	0-4
G100-06B	3/8"	100	0-100	0-6
G100-10B	3/8"	100	0-160	0-10
G100-14B	3/8"	100	0-200	0-14

Tech Sheet 20582

ABS Case, Centre Back Connection



BSPT Brass Connection

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G40-01R	1/8"	40	0-15	0-1
G40-02R	1/8"	40	0-30	0-2
G40-04R	1/8"	40	0-60	0-4
G40-06R	1/8"	40	0-100	0-6
G40-07R	1/8"	40	0-100	0-7
G40-10R	1/8"	40	0-160	0-10
G40-12R	1/8"	40	0-200	0-12
G40-16R	1/8"	40	0-250	0-16
G40-20R	1/8"	40	0-300	0-20
G50-01R	1/8"	50	0-15	0-1
G50-02R	1/8"	50	0-30	0-2
G50-04R	1/8"	50	0-60	0-4
G50-06R	1/8"	50	0-100	0-6
G50-10R	1/8"	50	0-160	0-10
G50-12R	1/8"	50	0-200	0-12
G50-16R	1/8"	50	0-250	0-16
G50-20R	1/8"	50	0-300	0-20
G50-02T	1/4"	50	0-30	0-2
G50-04T	1/4"	50	0-60	0-4
G50-06T	1/4"	50	0-100	0-6
G50-10T	1/4"	50	0-160	0-10
G50-12T	1/4"	50	0-200	0-12
G50-16T	1/4"	50	0-250	0-16
G50-20T	1/4"	50	0-300	0-20
G63-10T	1/4"	63	0-160	0-10
G63-12T	1/4"	63	0-200	0-12
G63-16T	1/4"	63	0-250	0-16

Tech Sheet 20584

Our gauges are available with a certificate at a nominal charge. Please call our Business Development Team for price and delivery.

Pressure Gauge Bottom Entry, Steel Case



BSPT Brass Connection

0236	Thread	Gauge Diameter mm	Pressure Range Bar
PGB050118	1/8"	50	0-1
PGB050318	1/8"	50	0-2
PGB050418	1/8"	50	0-4
PGB050618	1/8"	50	0-6
PGB051018	1/8"	50	0-10
PGB051418	1/8"	50	0-14
PGB052018	1/8"	50	0-20
PGB050114	1/4"	50	0-1
PGB050314	1/4"	50	0-2
PGB050414	1/4"	50	0-4
PGB050614	1/4"	50	0-6
PGB051014	1/4"	50	0-10
PGB051214	1/4"	50	0-12
PGB051414	1/4"	50	0-14
PGB052014	1/4"	50	0-20
PGB060114	1/4"	63	0-1
PGB060314	1/4"	63	0-2
PGB060414	1/4"	63	0-4
PGB061014	1/4"	63	0-10
PGB061214	1/4"	63	0-12
PGB062014	1/4"	63	0-20
PGB100138	3/8"	100	0-1
PGB100338	3/8"	100	0-2
PGB100438	3/8"	100	0-4
PGB100638	3/8"	100	0-6
PGB101038	3/8"	100	0-10
PGB101238	3/8"	100	0-12
PGB102038	3/8"	100	0-20

Flange Type Pressure Gauges, Centre Back Connection



BSPT Brass Connection

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2018-1830	1/4"	50	0-160	0-10
2018-1848	1/4"	50	0-200	0-12

Tech Sheet 20587

Panel Mount, Stainless Steel Case, Centre Back Connection



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G50-12PM	1/8"	50	0-200	0-12

Tech Sheet 20588

Panel Mount Gauge, Centre Back Connection



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range Bar
56144010	1/8"	40	0-10
56145010	1/8"	50	0-10

Tech Sheet 20386

Panel Mount, Centre Back Connection



BPST

0236	Thread	Gauge Diameter mm	Pressure Range Bar	Pressure Range PSI
GCPM402	1/8"	40	0-2	0-30
GCPM404	1/8"	40	0-4	0-60
GCPM407	1/8"	40	0-6	0-100
GCPM4010	1/8"	40	0-11	0-160
GCPM4014	1/8"	40	0-14	0-200
GCPM4020	1/8"	40	0-20	0-300
GCPM502	1/8"	50	0-2	0-30
GCPM504	1/8"	50	0-4	0-60
GCPM507	1/8"	50	0-6	0-100
GCPM5010	1/8"	50	0-11	0-160
GCPM5014	1/8"	50	0-14	0-200

Panel Mounted Gauge, U Clamp, Back Entry



BSPB

0237	Thread	Gauge Diameter mm	Pressure Range Bar
VGBU040118	1/8"	40	-1-0
PGBU040418	1/8"	40	0-4
VGBU060114	1/4"	63	-1-0
PGBU061014	1/4"	63	0-10

Panel Mounted Gauge, Back Entry



BSPB

0237	Thread	Gauge Diameter mm	Pressure Range Bar
VGBP040118	1/8"	40	-1-0
PGBP040418	1/8"	40	0-4
PGBP040618	1/8"	40	0-6
PGBP041018	1/8"	40	0-10
PGBP041218	1/8"	40	0-12
VGBP060114	1/4"	63	-1-0
PGBP060414	1/4"	63	0-4
PGBP060614	1/4"	63	0-6
PGBP061014	1/4"	63	0-10
PGBP061214	1/4"	63	0-12

Vacuum Gauges, Panel Mount, Back Connection



BSPT

0236	Male Thread	Gauge Diameter mm	Max Pressure ar
GCVPM40/02	1/8"	40	-1
GCVPM50/02	1/8"	50	-1

DRY GAUGES



Capsule Gauges, Bottom Connection

1 Millibar = 0.001 bar



Millibar Scale, BSPT

0021	Thread	Gauge Diameter mm	Pressure Range Millibar
CG63-100B	1/4"	63	0-100
CG63-250B	1/4"	63	0-250
CG63-400B	1/4"	63	0-400
CG63-600B	1/4"	63	0-600

Tech Sheet 20586

Welding Gauges, Oxygen, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range Bar	Pressure Range PSI
OG50-050	1/4"	50	0-5	0-80
OG50-010	1/4"	50	0-10	0-160

Tech Sheet 20590

Welding Gauges, Acetylene, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range Bar	Pressure Range PSI
AG50-0015	1/4"	50	0-1.5	0-30

Tech Sheet 20592

All Stainless Steel Dry Gauges, Bottom Connection



63mm Diameter, 1/4" BSPP

0021	Pressure Range PSI	Pressure Range Bar
SSG63-001B	0-15	0-1
SSG63-004B	0-60	0-4
SSG63-012B	0-200	0-12
SSG63-025B	0-400	0-25
SSG63-060B	0-1000	0-60
SSG63-200B	0-3000	0-200
SSG63-400B	0-6000	0-400

Tech Sheet 20589

All Stainless Steel Dry Gauges, Centre Back Connection



63mm Diameter, 1/4" BSPP

0021	Pressure Range PSI	Pressure Range Bar
2038-8484	0-200	0-12
2038-8492	0-300	0-20
2038-8526	0-4000	0-250

Tech Sheet 20591

Vacuum Gauges, Centre Back Connection



BSPT, ABS Case

0021	Thread	Gauge Diameter mm	Max Pressure Hg	Max Pressure Bar
VG40-01R	1/8"	40	-30	-1
VG50-01R	1/8"	50	-30	-1
VG50-01T	1/4"	50	-30	-1
VG63-01T	1/4"	63	-30	-1
VG100-01T	3/8"	100	-30	-1

Tech Sheet 20583

stainless steel

Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GCV63/04D	1/4" BSPT	63	-1
GCV100/06D	3/8" BSPT	100	-1

Vacuum Gauges, Bottom Connection



BSPT, ABS Case

0021	Thread	Gauge Diameter mm	Max Pressure Hg	Max Pressure Bar
VG40-01B	1/8"	40	-30	-1
VG50-01B	1/8"	50	-30	-1
VG50-01C	1/4"	50	-30	-1
VG63-01C	1/4"	63	-30	-1
VG100-01D	3/8"	100	-30	-1

Tech Sheet 20585

stainless steel

Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GBV63/04D	1/4" BSPT	63	-1
GBV100/06D	3/8" BSPT	100	-1

DRY GAUGES



ABS Case, Centre Back Connection

Accuracy:
40mm and 50mm diameter: +/- 2.5%



BSPT

0056	Thread	Gauge Diameter mm	Max Pressure PSI	Max Pressure Bar
WG40-18R-1	1/8"	40	15	1
WG40-18R-2.5	1/8"	40	40	2.5
WG40-18R-4	1/8"	40	60	4
WG40-18R-6	1/8"	40	90	6
WG40-18R-10	1/8"	40	160	10
WG40-18R-16	1/8"	40	230	16
WG40-18R-25	1/8"	40	400	25
WG50-18R-1	1/8"	50	15	1
WG50-18R-2.5	1/8"	50	40	2.5
WG50-18R-4	1/8"	50	60	4
WG50-18R-6	1/8"	50	90	6
WG50-18R-10	1/8"	50	160	10
WG50-18R-16	1/8"	50	230	16
WG50-18R-25	1/8"	50	400	25

Tech Sheet 10524

Flush Panel Mount, Centre Back Connection



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar
WG63-14FPM-1BAR	1/4"	63	1
WG63-14FPM-2BAR	1/4"	63	2
WG63-14FPM-4BAR	1/4"	63	4
WG63-14FPM-7BAR	1/4"	63	7
WG63-14FPM-11BAR	1/4"	63	11
WG63-14FPM-14BAR	1/4"	63	14
WG63-14FPM-20BAR	1/4"	63	20
WG63-14FPM-28BAR	1/4"	63	28
WG63-14FPM-40BAR	1/4"	63	40

Panel Mount Gauge Bracket



Bracket

0056	To Suit
WGB-63	63mm Rear
WGB-100	100mm Rear

ABS Case, Bottom Connection

Accuracy:
40mm and 50mm diameter: +/- 2.5%
63mm diameter: +/- 1.6%



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar
WG40-18B-1BAR	1/8"	40	1
WG40-18B-2BAR	1/8"	40	2
WG40-18B-14BAR	1/8"	40	14
WG50-18B-4BAR	1/8"	50	4
WG50-18B-7BAR	1/8"	50	7
WG50-18B-11BAR	1/8"	50	11
WG50-18B-14BAR	1/8"	50	14
WG50-18B-20BAR	1/8"	50	20
WG50-18B-40BAR	1/8"	50	40
WG50-18B-70BAR	1/8"	50	70
WG50-18B-200BAR	1/8"	50	200
WG63-14B-1BAR	1/4"	63	1
WG63-14B-2BAR	1/4"	63	2
WG63-14B-4BAR	1/4"	63	4
WG63-14B-7BAR	1/4"	63	7
WG63-14B-11BAR	1/4"	63	11
WG63-14B-14BAR	1/4"	63	14
WG63-14B-20BAR	1/4"	63	20
WG63-14B-28BAR	1/4"	63	28
WG63-14B-40BAR	1/4"	63	40
WG63-14B-70BAR	1/4"	63	70
WG63-14B-140BAR	1/4"	63	140
WG63-14B-400BAR	1/4"	63	400

Tech Sheet 10523

Accuracy:
100mm diameter: +/- 1.0%



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar
WG100-38B-1BAR	3/8"	100	1
WG100-38B-2BAR	3/8"	100	2
WG100-38B-4BAR	3/8"	100	4
WG100-38B-7BAR	3/8"	100	7
WG100-38B-11BAR	3/8"	100	11
WG100-38B-14BAR	3/8"	100	14
WG100-38B-20BAR	3/8"	100	20
WG100-38B-28BAR	3/8"	100	28
WG100-38B-40BAR	3/8"	100	40

Tech Sheet 10523

GLYCERINE GAUGES & ACCESSORIES



Stainless Steel Case, Bottom Connection

stainless
steel



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001BG	1/4"	63	0-15	0-1
G63-002BG	1/4"	63	0-30	0-2
G63-004BG	1/4"	63	0-60	0-4
G63-006BG	1/4"	63	0-100	0-6
G63-012BG	1/4"	63	0-200	0-12
G63-020BG	1/4"	63	0-300	0-20
G63-025BG	1/4"	63	0-400	0-25
G63-040BG	1/4"	63	0-600	0-40
G63-060BG	1/4"	63	0-1000	0-60
G63-120BG	1/4"	63	0-2000	0-120
G63-200BG	1/4"	63	0-3000	0-200
G63-250BG	1/4"	63	0-4000	0-250
G63-400BG	1/4"	63	0-6000	0-400
G63-600BG	1/4"	63	0-9000	0-600
VG63-01BG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20593

stainless
steel



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001BG	1/4"	63	0-15	0-1
PG63-002BG	1/4"	63	0-30	0-2
PG63-004BG	1/4"	63	0-60	0-4
PG63-006BG	1/4"	63	0-100	0-6
PG63-012BG	1/4"	63	0-200	0-12
PG63-014BG	1/4"	63	0-200	0-14
PG63-020BG	1/4"	63	0-300	0-20
PG63-025BG	1/4"	63	0-400	0-25
PG63-040BG	1/4"	63	0-600	0-40
PG63-060BG	1/4"	63	0-1000	0-60
PG63-120BG	1/4"	63	0-2000	0-120
PG63-200BG	1/4"	63	0-3000	0-200
PG63-250BG	1/4"	63	0-4000	0-250
PG63-400BG	1/4"	63	0-6000	0-400
PG63-600BG	1/4"	63	0-9000	0-600

Tech Sheet 20594

Stainless Steel Case, Centre Back Connection

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB

stainless
steel



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001RG	1/4"	63	0-15	0-1
G63-002RG	1/4"	63	0-30	0-2
G63-004RG	1/4"	63	0-60	0-4
G63-006RG	1/4"	63	0-100	0-6
G63-010RG	1/4"	63	0-160	0-10
G63-012RG	1/4"	63	0-200	0-12
G63-020RG	1/4"	63	0-300	0-20
G63-025RG	1/4"	63	0-400	0-25
G63-040RG	1/4"	63	0-600	0-40
G63-060RG	1/4"	63	0-1000	0-60
G63-120RG	1/4"	63	0-2000	0-120
G63-200RG	1/4"	63	0-3000	0-200
G63-250RG	1/4"	63	0-4000	0-250
G63-400RG	1/4"	63	0-6000	0-400
G63-600RG	1/4"	63	0-9000	0-600
VG63-01RG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20595

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB

stainless
steel



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001RG	1/4"	63	0-15	0-1
PG63-002RG	1/4"	63	0-30	0-2
PG63-004RG	1/4"	63	0-60	0-4
PG63-006RG	1/4"	63	0-100	0-6
PG63-012RG	1/4"	63	0-200	0-12
PG63-014RG	1/4"	63	0-200	0-12
PG63-020RG	1/4"	63	0-300	0-20
PG63-025RG	1/4"	63	0-400	0-25
PG63-040RG	1/4"	63	0-600	0-40
PG63-060RG	1/4"	63	0-1000	0-60
PG63-120RG	1/4"	63	0-2000	0-120
PG63-200RG	1/4"	63	0-3000	0-200
PG63-250RG	1/4"	63	0-4000	0-250
PG63-400RG	1/4"	63	0-6000	0-400
PG63-600RG	1/4"	63	0-9000	0-600

Tech Sheet 20596

Panel Mounting Brackets

stainless
steel



For G63 & PG63 Centre Back Connection
below 100 bar

0021
G63-PM

stainless
steel



For G63 & PG63 Centre Back Connection
above 100 bar

0021
G63-PM-RHOMB

Gauge Snubbers

Working Pressure:
20 to 300 bar



High Pressure

0234	Male Thread	Female Thread
130.4	1/4"	1/4"
130.3	3/8"	3/8"
130.2	1/2"	1/2"

Tech Sheet 28

Gauge snubbers are a great way of protecting gauges from damage, with sudden impact pressure i.e. when full line pressure is introduced to the gauge damage can occur. With the use of the snubber the gauge will be protected.

Working Pressure:
0 to 20 bar



Low Pressure

0234	Male Thread	Female Thread
131.8	1/8"	1/8"
131.4	1/4"	1/4"
131.3	3/8"	3/8"
131.2	1/2"	1/2"

Tech Sheet 28

Back Rubber Gauge Protectors



0021	Description
G63-OB	Open
G63-CB	Closed

All Stainless Steel Gauges, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SSG63-001BG	1/4"	63	0-15	0-1
SSG63-004BG	1/4"	63	0-60	0-4
SSG63-012BG	1/4"	63	0-200	0-12
SSG63-025BG	1/4"	63	0-400	0-25
SSG63-060BG	1/4"	63	0-1000	0-60
SSG63-200BG	1/4"	63	0-3000	0-200
SSG63-250BG	1/4"	63	0-4000	0-250
SSG63-400BG	1/4"	63	0-6000	0-400

Tech Sheet 20598

All Stainless Steel Gauges, Centre Back Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2020-0340	1/4"	50	0-200	0-12
2020-0341	1/4"	50	0-300	0-20
2020-0342	1/4"	50	0-600	0-40
2020-0343	1/4"	50	0-900	0-60
2020-0344	1/4"	50	0-4000	0-250
2038-8534	1/4"	63	0-200	0-12
2038-8567	1/4"	63	0-900	0-60
2038-8575	1/4"	63	0-4000	0-250

Tech Sheet 20600

Stainless Steel Case, Heavy-duty, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002G	1/2"	100	0-36	0-2.5
HG100-004G	1/2"	100	0-58	0-4
HG100-006G	1/2"	100	0-87	0-6
HG100-010G	1/2"	100	0-145	0-10
HG100-016G	1/2"	100	0-232	0-16
HG100-040G	1/2"	100	0-580	0-40
HG100-100G	1/2"	100	0-1450	0-100
HG100-160G	1/2"	100	0-2320	0-160
HG100-250G	1/2"	100	0-3625	0-250
HG100-400G	1/2"	100	0-5800	0-400



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SHG100-002BG	1/2"	100	0-30	0-2
SHG100-006BG	1/2"	100	0-100	0-6
SHG100-016BG	1/2"	100	0-250	0-16
SHG100-040BG	1/2"	100	0-600	0-40
SHG100-100BG	1/2"	100	0-1500	0-100
SHG100-250BG	1/2"	100	0-4000	0-250
SHG100-600BG	1/2"	100	0-9000	0-600

Tech Sheet 20599



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2038-8435	1/2"	100	0-200	0-12
2038-8443	1/2"	100	0-300	0-20
2038-8450	1/2"	100	0-600	0-40
2038-8476	1/2"	100	0-4000	0-250

Tech Sheet 20601



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002B	1/2"	100	0-36	0-2.5
HG100-004B	1/2"	100	0-58	0-4
HG100-006B	1/2"	100	0-87	0-6
HG100-010B	1/2"	100	0-145	0-10
HG100-016B	1/2"	100	0-232	0-16
HG100-040B	1/2"	100	0-580	0-40
HG100-100B	1/2"	100	0-1450	0-100
HG100-160B	1/2"	100	0-2320	0-160
HG100-250B	1/2"	100	0-3625	0-250
HG100-400B	1/2"	100	0-5800	0-400

Tech Sheet 20597

Vacuum Gauges, Centre Back Connection

stainless steel



Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GCV63/04	1/4" BSPP	63	-1
GCV100/06	3/8" BSPP	100	-1

Vacuum Gauges, Bottom Connection

stainless steel



Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GBV63/04	1/4" BSPP	63	-1
GBV100/06	3/8" BSPP	100	-1

GLYCERINE GAUGES



Heavy-duty, Bottom Connection

Accuracy:

63mm diameter: +/- 1.6%
100mm diameter: +/- 1.0%



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar	Max Pressure PSI
WG63-14B-1G	1/4"	63	1	15
WG63-14B-1.6G	1/4"	63	1.6	25
WG63-14B-2.5G	1/4"	63	2.5	40
WG63-14B-4G	1/4"	63	4	60
WG63-14B-6G	1/4"	63	6	90
WG63-14B-10G	1/4"	63	10	160
WG63-14B-16G	1/4"	63	16	230
WG63-14B-25G	1/4"	63	25	400
WG63-14B-40G	1/4"	63	40	600
WG63-14B-60G	1/4"	63	60	900
WG63-14B-100G	1/4"	63	100	1600
WG63-14B-160G	1/4"	63	160	2300
WG63-14B-250G	1/4"	63	250	4000
WG63-14B-400G	1/4"	63	400	6000
WG63-14B-600G	1/4"	63	600	9000
WG100-38B-2.5G	3/8"	100	2.5	40
WG100-38B-4G	3/8"	100	4	60
WG100-38B-6G	3/8"	100	6	90
WG100-38B-10G	3/8"	100	10	160
WG100-38B-16G	3/8"	100	16	230
WG100-38B-40G	3/8"	100	40	600
WG100-12B-100G	1/2"	100	100	1600
WG100-12B-160G	1/2"	100	160	2300
WG100-12B-250G	1/2"	100	250	4000
WG100-12B-400G	1/2"	100	400	6000
WG100-12B-600G	1/2"	100	600	9000

Tech Sheet 10525

Vacuum Gauges, Bottom Connection

Accuracy:

63mm diameter: +/- 1.6%



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Hg	Max Pressure Bar
WG63-14B/-30HG	1/4"	63	-30	-1

Tech Sheet 10525

Heavy-duty, Centre Back Connection



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Bar	Max Pressure PSI
WG63-14R-1G	1/4"	63	1	15
WG63-14R-1.6G	1/4"	63	1.6	25
WG63-14R-2.5G	1/4"	63	2.5	40
WG63-14R-4G	1/4"	63	4	60
WG63-14R-6G	1/4"	63	6	90
WG63-14R-10G	1/4"	63	10	160
WG63-14R-16G	1/4"	63	16	230
WG63-14R-25G	1/4"	63	25	400
WG63-14R-40G	1/4"	63	40	600
WG63-14R-60G	1/4"	63	60	900
WG63-14R-100G	1/4"	63	100	1600
WG63-14R-160G	1/4"	63	160	2300
WG63-14R-250G	1/4"	63	250	3600
WG63-14R-400G	1/4"	63	400	6000
WG63-14R-600G	1/4"	63	600	9000
WG100-38R-2.5G	3/8"	100	2.5	40
WG100-38R-4G	3/8"	100	4	60
WG100-38R-6G	3/8"	100	6	90
WG100-38R-10G	3/8"	100	10	160
WG100-38R-16G	3/8"	100	16	230
WG100-38R-40G	3/8"	100	40	600
WG100-12R-100G	1/2"	100	100	1600
WG100-12R-160G	1/2"	100	160	2300
WG100-12R-250G	1/2"	100	250	4000
WG100-12R-400G	1/2"	100	400	6000
WG100-12R-600G	1/2"	100	600	9000

Tech Sheet 10525

Vacuum Gauges, Centre Back Connection



BSPP

0056	Thread	Gauge Diameter mm	Max Pressure Hg	Max Pressure Bar
WG63-14R/-30HG	1/4"	63	-30	-1

Tech Sheet 10525

All pressure gauges can be supplied with a calibration certificate at a nominal charge.
Please call our Business Development Team for price and delivery.

TEMPERATURE GAUGES



Bi-metallic Thermometers, Aluminium Case, Centre Back Connection

Pressure Rating of Thermowell:
6 bar max



BSPP

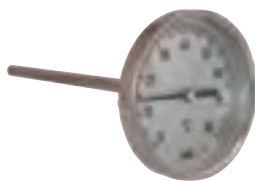
0056	Thread	Gauge Diameter mm	Temperature Range °C
WTG63-60	1/2"	63	0-60
WTG63-120	1/2"	63	0-120
WTG63-200	1/2"	63	0-200
WTG100-60	1/2"	100	0-60
WTG100-120	1/2"	100	0-120
WTG100-200	1/2"	100	0-200

Tech Sheet 10526

Bi-metallic Thermometers, Stainless Steel Case, Centre Back Connection

Pressure Rating of Thermowell:
25 bar max

stainless steel



BSPP

0056	Thread	Gauge Diameter mm	Temperature Range °C
WTG63160-60	1/2"	63	0-60
WTG63160-120	1/2"	63	0-120
WTG160-60	1/2"	100	0-60
WTG160-120	1/2"	100	0-120

Tech Sheet 10527

Refrigeration Gauges, Plastic Case, Bottom Connection



1/4" Flare

0056	Thread	Gauge Diameter mm	Temperature Range °C	Temperature Range °C
WG63-716B-1/9	7/16" UNF	63	-1/+9	-1/+9

Bi-metallic Thermometers

Other temperatures are available.
Please call our Technical Department for details.

Pressure Rating of Thermowell:
35 bar max

stainless steel



Stainless Steel Case, BSPP

0056	Thread	Gauge Diameter mm	Temperature Range °C
WTG100-TE-60	1/2"	100	0-60
WTG100-TE-120	1/2"	100	0-120

Tech Sheet 10527

GLYCERINE GAUGES

stainless steel



Bi-metallic Thermometers

Stainless steel case and stainless steel stem, 100mm insertion.

Applications:

- Machine and plant engineering, piping, industrial heating
- BSPP Male



Stainless Steel Case, Back Entry, BSPP

0021	Thread	Gauge Diameter mm	Temperature Range °C
2052-8774	1/4"	63	0-60
2052-8782	1/4"	63	0-120
2052-8790	1/4"	63	0-200
2052-8808	1/4"	63	0-300
2052-8816	1/2"	100	0-60
2052-8824	1/2"	100	0-120
2052-8840	1/2"	100	0-200

Stainless steel case and stainless steel stem, 100mm insertion.

Applications:

- Machine and plant engineering, piping, industrial heating
- BSPP Male



Stainless Steel Case, Bottom Entry, BSPP

0021	Thread	Gauge Diameter mm	Temperature Range °C
2052-8873	1/4"	63	0-120
2052-8907	1/2"	100	0-60
2052-8915	1/2"	100	0-120
2052-8923	1/2"	100	0-200

Temperature Gauges, Bottom Connection



BSPP

1480	Thread	Gauge Diameter mm	Stem Length	Range
T401A215A	1/2"	100	5cm	-30 to +60°
T401A251A	1/2"	100	5cm	0 to +120°
T401A251C	1/2"	100	10cm	0 to +120°

Temperature Gauges, Back Connection



BSPP

1480	Thread	Gauge Diameter mm	Stem Length	Range
T401F215A	1/2"	100	5cm	-30 to +60°
T401F215C	1/2"	100	10cm	-30 to +60°
T401F251A	1/2"	100	5cm	0 to +120°
T401F251C	1/2"	100	10cm	0 to +120°

Mild Steel Syphons



BSPP

1480	Thread	Type
ACC01582	3/8"	U
ACC01583	1/2"	U
ACC02082	3/8"	Ring
ACC02083	1/2"	Ring

Brass Gauge Cocks



BSPP

1480	Thread	Type
ACC00005	1/4"	F/F
ACC00006	3/8"	F/F
ACC00007	1/2"	F/F
ACC00022	3/8"	M/F

AIR CONTROL




new
product

For **JWL Air Boy Car Tyre Inflators**
 see page **1723**

**Digital Flow & Pressure
Sensor PR03**



See section 4
page 420

**Plastic Push-in Fittings
55000 & 56000 Series**



See section 6
pages 817-820

**Metal Push-in Fittings
50000, 55000 58000
& 89000**



See section 6
pages 852-861

**316 Stainless Steel
Push-in Fittings**



See section 6
pages 878-879

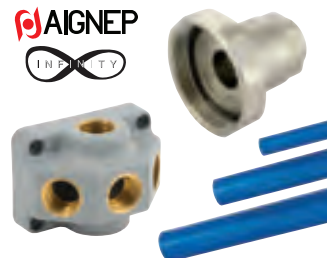
**Gas Mini Ball Valves,
Brass**



See section 7
page 942

AIGNEP

**Aluminium Ring
Main System**



See section 8
pages 1082-1084

**EXCELLENT SOLUTIONS
IN FLUID TECHNOLOGY**



DIGITAL FLOW & PRESSURE SENSOR PR03

Pressure Switches

The sensor is available in three sizes for 1/4", 1/2" and 3/4", to suit the different flow rates required in the various industrial applications in which it can be used. The largest size allows measurements up to a maximum of 2000 l/min.

The new digital flowmeter offers the following advantage

• It is the most accurate flow rate

• It shows flow in real time

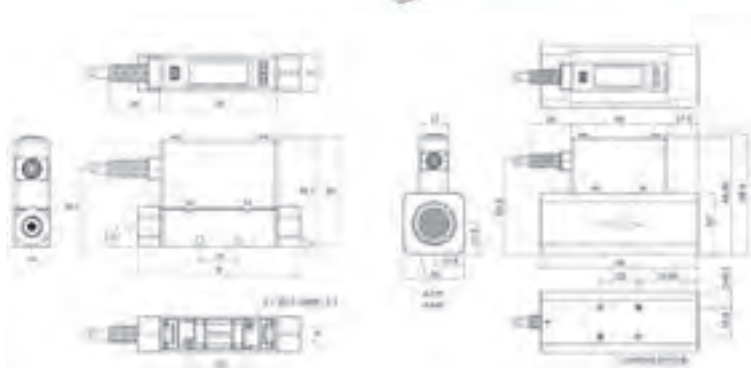
- Detect any changes in fluid status



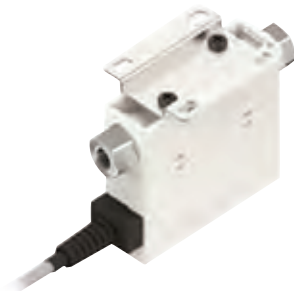
Series PR03

9025	Regulation Range	Thread	Output
PR030103P1	0-100 l/min	1/4"	PNP + Analog Output (1-5V)
PR030203P1	0-200 l/min	1/4"	PNP + Analog Output (1-5V)
PR030505P1	0-500 l/min	1/2"	PNP + Analog Output (1-5V)
PR032007P1	0-2000 l/min	3/4"	PNP + Analog Output (1-5V)
PR030103P2	0-100 l/min	1/4"	PNP + Analog Output (4-20mA)
PR030203P2	0-200 l/min	1/4"	PNP + Analog Output (4-20mA)
PR030505P2	0-500 l/min	1/2"	PNP + Analog Output (4-20mA)
PR032007P2	0-2000 l/min	3/4"	PNP + Analog Output (4-20mA)

Tech Sheet 71761



Digital Flow & Pressure Sensor PR03

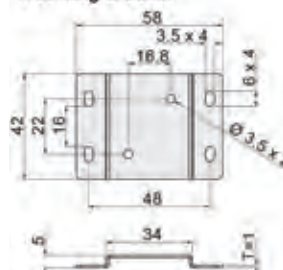


Mounting Bracket

9025	
PR03B01	For 100-200 l/min

Tech Sheet 71761

Mounting Bracket



Mounting Bracket

9025	
PR03B05	For 500 l/min
PR03B20	For 2000 l/min

Tech Sheet 71761

TEMPERATURE SWITCHES



TBF Series, Push-on Terminal DIN 46248 Normally Closed

° Maximum Working Temperature:
+125°C

Maximum Static Pressure:
200 bar

Economic range
Material: Brass



Fixed Set Point, 3/8" BSPP Male

9025	Set Temperature °C
TBF-EV025-C38	25
TBF-EV035-C38	35
TBF-EV045-C38	45
TBF-EV050-C38	50
TBF-EV055-C38	55
TBF-EV060-C38	60
TBF-EV065-C38	65
TBF-EV070-C38	70
TBF-EV075-C38	75
TBF-EV080-C38	80
TBF-EV085-C38	85
TBF-EV090-C38	90
TBF-EV095-C38	95
TBF-EV100-C38	100
TBF-EV105-C38	105
TBF-EV110-C38	110
TBF-EV125-C38	125

Tech Sheet 68798

Fixed Set Point, 1/2" BSPP Male

9025	Set Temperature °C
TBF-EV025-C12	25
TBF-EV035-C12	35
TBF-EV045-C12	45
TBF-EV050-C12	50
TBF-EV055-C12	55
TBF-EV060-C12	60
TBF-EV065-C12	65
TBF-EV070-C12	70
TBF-EV075-C12	75
TBF-EV080-C12	80
TBF-EV085-C12	85
TBF-EV090-C12	90
TBF-EV095-C12	95
TBF-EV100-C12	100
TBF-EV105-C12	105
TBF-EV110-C12	110
TBF-EV125-C12	125

Tech Sheet 68798

EBC Series, PG 09 DIN 43650 Connector SPDT IP65

° Maximum Working Temperature:
+80°C

Maximum Static Pressure:
200 bar

Material: Brass



Fixed Set Point, 1/2" BSPP Male

9025	Set Temperature °C
EBC50C	50
EBC60C	60
EBC70C	70

Tech Sheet 110835

Fixed Set Point, 3/8" BSPP Male

9025	Set Temperature °C
EBC50B	50
EBC60B	60
EBC70B	70

Tech Sheet 110835

NTB Series, PG 09 DIN 43650 Connector Normally Open IP65

° Maximum Working Temperature:
+120°C

Maximum Static Pressure:
200 bar

Material:
Anodised aluminium



Fixed Set Point with 360° Rotating Head, 1/2" BSPP Male

9025	Set Temperature °C
NTB25CA	25
NTB31CA	31
NTB38CA	38
NTB47CA	47
NTB60CA	60
NTB70CA	70
NTB80CA	80
NTB90CA	90
NTB100CA	100
NTB105CA	105

Tech Sheet 68797

Fixed Set Point with 360° Rotating Head, 3/8" BSPP Male

9025	Set Temperature °C
NTB25BA	25
NTB31BA	31
NTB38BA	38
NTB47BA	47
NTB60BA	60
NTB70BA	70
NTB80BA	80
NTB90BA	90
NTB100BA	100
NTB105BA	105

Tech Sheet 68797

PRESSURE TRANSDUCERS

Material: AISI 316

Working Temperature:
-25°C to +100°C

stainless
steel



PG 09 DIN 43650 Connector IP65

0-10V Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-VMDMR14	-1 to 4	4
PTE2GA-VMDMR14	0-2	4
PTE4GA-VMDMR14	-1 to 9	10
PTE5GA-VMDMR14	0-5	10
PTE10GA-VMDMR14	0-10	15
PTE20GA-VMDMR14	0-20	35
PTE50GA-VMDMR14	0-50	100
PTE100GA-VMDMR14	0-100	150
PTE200GA-VMDMR14	0-200	300
PTE400GA-VMDMR14	0-400	500

Tech Sheet 110836

4-20mA Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-IMDMR14	-1 to 4	4
PTE2GA-IMDMR14	0-2	4
PTE4GA-IMDMR14	-1 to 9	10
PTE5GA-IMDMR14	0-5	10
PTE10GA-IMDMR14	0-10	15
PTE20GA-IMDMR14	0-20	35
PTE50GA-IMDMR14	0-50	100
PTE100GA-IMDMR14	0-100	150
PTE200GA-IMDMR14	0-200	300
PTE400GA-IMDMR14	0-400	500

Tech Sheet 110836

M12 x 1.5 Pole Male Connector IP67

0-10V Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-VMR14	-1 to 4	4
PTE2GA-VMR14	0-2	4
PTE4GA-VMR14	-1 to 9	10
PTE5GA-VMR14	0-5	10
PTE10GA-VMR14	0-10	15
PTE20GA-VMR14	0-20	35
PTE50GA-VMR14	0-50	100
PTE100GA-VMR14	0-100	150
PTE200GA-VMR14	0-200	300
PTE400GA-VMR14	0-400	500

Tech Sheet 110836

4-20mA Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-IMR14	-1 to 4	4
PTE2GA-IMR14	0-2	4
PTE4GA-IMR14	-1 to 9	10
PTE5GA-IMR14	0-5	10
PTE10GA-IMR14	0-10	15
PTE20GA-IMR14	0-20	35
PTE50GA-IMR14	0-50	100
PTE100GA-IMR14	0-100	150
PTE200GA-IMR14	0-200	300
PTE400GA-IMR14	0-400	500

Tech Sheet 110836

FT PRO

For **Wired Plugs**
see page **1043**



ADJUSTABLE PRESSURE SWITCHES



PMN Series, Normally Closed, DIN 462488

Seal: Nitrile

° Working Temperature:
-5°C to +60°C



Push-on 6.3 x 0.8,
1/4" BSPT Male, Brass

9025	Pressure Range Bar	Max Pressure Bar
PMN1C-BN14K	0.1-1	300
PMN2C-BN14K	0.15-2	300
PMN5C-BN14K	1-5	300
PMN10C-BN14K	2-10	300
PMN20C-BN14K	10-20	300
PMN50C-BN14K	20-50	300
PMN80C-BN14K	50-80	300

Tech Sheet 68789

Push-on 6.3 x 0.8, 1/4" BSPT Male,
Zinc Plated Steel

9025	Pressure Range Bar	Max Pressure Bar
PMN150C-FN14K	50-150	300
PMN250C-FN14K	100-250	600
PMN300C-FN14K	50-300	600

Tech Sheet 68789

PMN Series, Normally Open

Seal: Nitrile

° Working Temperature:
-5°C to +60°C



Push-on 6.3 x 0.8,
1/4" BSPT Male, Brass

9025	Pressure Range Bar	Max Pressure Bar
PMN1A-BN14K	0.1-1	300
PMN5A-BN14K	1-5	600
PMN2A-BN14K	0.15-2	300
PMN10A-BN14K	2-10	300
PMN50A-BN14K	20-50	300
PMN80A-BN14K	50-80	300

Tech Sheet 68789

Push-on 6.3 x 0.8, 1/4" BSPT Male,
Zinc Plated Steel

9025	Pressure Range Bar	Max Pressure Bar
PMN150A-FN14K	50-150	300
PMN250A-FN14K	100-250	600
PMN300A-FN14K	50-300	600

Tech Sheet 68789

PMC Series, PG 09 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C



1/8" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar	Max Pressure Bar
PMC2	0.15-2	30
PMC5	0.2-5	60
PMC10	0.5-10	100
PMC25	10-25	100
PMC80	25-80	150

Tech Sheet 68791

PPC Series, PG 90 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure: 600 bar



1/4" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar
PPC150	30-150
PPC300	150-300

Tech Sheet 68791

PPCF Series, PG 09 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure: 600 bar



1/4" BSPT Female, Anodised Aluminium

9025	Pressure Range Bar
PPCF150	30-150
PPCF300	150-300

Tech Sheet 68791

PSK Series, PG 09 DIN 43650 with Graduated Knobs

Seal: Nitrile

° Working Temperature:
-5°C to +90°C



1/4" BSPP Female, Yellow Anodised Aluminium

9025	Pressure Range Bar	Max Pressure Bar
PSK10	1-10	30
PSK100	10-100	300
PSK360	100-300	600

Tech Sheet 38793

PRESSURE SWITCHES



High Temperature MS Series, PG 09 DIN 43650, SPDT IP65

Material: Brass
Seal: High temperature nitrile

Working Temperature:
-25°C to +140°C

Maximum Static Pressure:
300 bar



Push-on 6.3 x 0.8, 1/4" BSPT Male

9025	Pressure Range Bar
MS2SC-BNT14K	0.2-2
MS10SC-BNT14K	1-10
MS50SC-BNT14K	10-50
MS100SC-BNT14K	10-100

Tech Sheet 110833

High Temperature PS Series, PG 09 DIN 43650, SPDT IP65

Material: Steel
Seal: High temperature nitrile

Working Temperature:
-25°C to +140°C

Maximum Static Pressure:
600 bar



Push-on 6.3 x 0.8, 1/4" BSPT Male

9025	Pressure Range Bar
PS150SC-FNT14K	30-150
PS300SC-FNT14K	50-300

Tech Sheet 110833

Adjustable Hysteresis PSM Series, PG 09 DIN 43650, SPDT IP65

Material: Brass
Adjustable hysteresis 10% - 30% of set-point

Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
300 bar



1/4" BSPT Male

9025	Pressure Range Bar
PSM2-BN14K	0.2-2
PSM5-BN14K	1-5
PSM10-BN14K	1-10
PSM50-BN14K	10-50
PSM100-BN14K	10-100

Tech Sheet 110834

Adjustable Hysteresis PSP Series, PG 09 DIN 43650, SPDT IP65

Material: Zinc plated steel
Adjustable hysteresis: 10% to 30% of set-point

Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
600 bar



1/4" BSPT Male

9025	Pressure Range Bar
PSP150-FN14K	30-150
PSP300-FN14K	50-300

Tech Sheet 110834

You may also be interested in...
Adjustable Pressure Switches
...see page 423



VACUUM SWITCHES



VCN Series, Push-on Terminal DIN 46248, Normally Closed

Material: Brass

Seal: Nitrile

° Working Temperature:
-5°C to +60°C

Maximum Static Pressure:
20 bar

1/4" BSPT Male



9025	Pressure Range Bar
VCN2C-BN14K	-0.2 to -0.9
Tech Sheet 38794	

VCN Series, Push-on Terminal DIN 46248, Normally Open

1/4" BSPT Male, Brass

9025	Pressure Range Bar
VCN2A-BN14K	-0.2 to -0.9
Tech Sheet 38794	

VMC Series, PG 09 DIN 43650, SPDT IP65

Material: Anodised aluminium

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
20 bar



Fixed Hysteresis, 1/8" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar
VMC1N	-0.2 to -0.5
Tech Sheet 38794	

VSM Series, PG 09 DIN 43650, SPDT IP65

Material: Brass

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
20 bar



Adjustable Hysteresis, 1/4" BSPP Male, Brass

9025	Pressure Range Bar
VSM1-BNR14	-0.1 to -0.5
VSM2-BNR14	-0.5 to -0.9
Tech Sheet 38794	

Switch Protection

IP54, Cap 1

9025	To Suit Series
CAP54-1	VCN, VCM, PMN, PMM, PM250



IP54, Cap 10

9025	To Suit Series
CAP54-10	VCN, VCM, PMN, PMM



IP54, Cap 12

9025	To Suit Series
CAP54-12	VSM, PSM, PSP



IP54, Cap 16

9025	To Suit Series
CAP54-16	VS, MS, PS



IP65, Cap 3

9025	To Suit Series
CAP65-3	VCM, PMN, PMM, PM250



IP65, Cap 13

9025	To Suit Series
CAP65-13	VS, MS, PS



IP67, Cap M12

9025	To Suit Series
CAP67-M12	VSM, NMC, MS, PS, PSM, PSP, PMC, PPC, PPCF, PMC, PPC, PPL, PSK, MPS



New:
cylinder sensor SDBT-SMX

The first self-learning sensor

FESTO

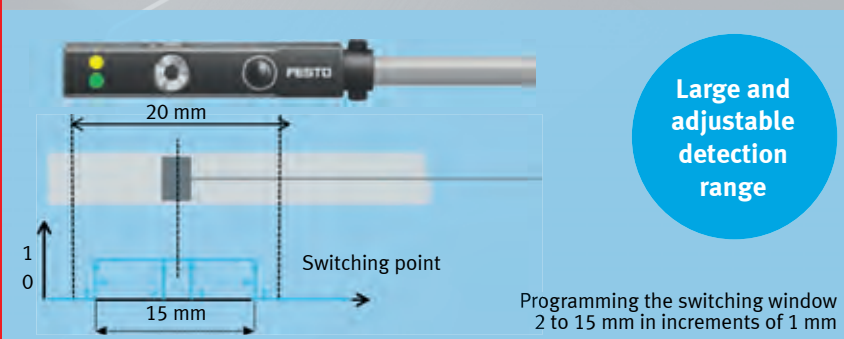
The cylinder sensor detects the piston and automatically learns the switching point during commissioning.



Automatically set without any hassle



Just one type for all switching outputs



Large and adjustable detection range

Programming the switching window 2 to 15 mm in increments of 1 mm

The benefits of SDBT-MSX:

Auto teach-in

The switching point is taught in automatically, so there no longer is a need for precision adjustment.

- Fit, connect - ready!
- Several cylinders at the same time

Touch button

Programming button for the switching functions NPN/PNP, NO/NC and the switching window.

- Just one type for all switching functions

Programmable switching window





Setting the switching signal between 2 and 15 mm, for example for early detection of high speeds.

- Flexible position detection

SFAB SERIES, FLOW SENSORS

FESTO

Airflow Sensor

-  **Ambient Temperature:**
 - 0°C to +50°C
 -  **Working Pressure:**
 - 0 to 10 bar
- Freely selectable pulse output for consumption measurement
 -  nalo filter for setting the rise time
 -  filter for smoothing the display values



4-20mA, H Rail Mounted Push-in with M12 x 1, 5 Pin Plug

0010	OD mm	Maximum LPM	Manufacturer's Code
565401	10	600	SFAB-600U-HQ10-2SA-M12
565405	10	1000	SFAB-1000U-HQ10-2SA-M12
Tech Sheet 71588			





0-10V, H Rail Mounted Push-in with M12 x 1, 5 Pin Plug

0010	OD mm	Maximum LPM	Manufacturer's Code
565402	10	600	SFAB-600U-HQ10-2SV-M12
565406	10	1000	SFAB-1000U-HQ10-2SV-M12
Tech Sheet 71589			

SFAM SERIES, FLOW SENSORS

FESTO

Airflow Sensor

-  **Ambient Temperature:**
 - 0°C to +50°C
 -  **Working Pressure:**
 - 0 to 16 bar
- Freely selectable pulse output for consumption measurement
 -  nalo filter for setting the rise time
 -  filter for smoothing the display values



4-20mA, Manifold Assembly

0010	LPM	Manufacturer's Code
564930	1000	SFAM-62-1000L-M-2SA-M12
564934	3000	SFAM-62-3000L-M-2SA-M12
564938	5000	SFAM-62-5000L-M-2SA-M12
573346	5000	SFAM-90-5000L-M-2SA-M12
573348	10000	SFAM-90-10000L-M-2SA-M12
573350	15000	SFAM-90-15000L-M-2SA-M12
Tech Sheet 71590		

0-10V, Manifold Assembly

0010	LPM	Manufacturer's Code
564932	1000	SFAM-62-1000L-M-2SV-M12
564936	3000	SFAM-62-3000L-M-2SV-M12
564940	5000	SFAM-62-5000L-M-2SV-M12
573347	5000	SFAM-90-5000L-M-2SV-M12
573349	10000	SFAM-90-10000L-M-2SV-M12
573351	15000	SFAM-90-15000L-M-2SV-M12
Tech Sheet 71591		

PRESSURE SENSORS

SPAN Series with Display

- For network monitoring, regulator monitoring, leak test and object detection
- For monitoring compressed air and non corrosive gases
- Relative measurement method based on a piezo-resistive measuring cell
- Serial communication integrated using IO-Link® 1.1
- Compact design
- High-contrast, blue backlit display



 **Ambient Temperature:**
0°C to +50°C

Male Thread, BSPP with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035544	1/8"	0 to 10	SPAN-P10R-G18M-PN-PN-L1
Tech Sheet 70713			

Male Thread, BSPT with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035547	1/8"	0 to 10	SPAN-P10R-R18M-PN-PN-L1
Tech Sheet 70715			

Male Thread, BSPP with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035533	1/8"	0 to 10	SPAN-P10R-G18M-PNLK-PNVBA-L1
Tech Sheet 70714			

Male Thread, BSPT with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035536	1/8"	0 to 10	SPAN-P10R-R18M-PNLK-PNVBA-L1
Tech Sheet 70716			



Female Thread, Metric & BSPP with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035539	M5	0 to 10	SPAN-P10R-M5F-PNLK-PNVBA-L1
Tech Sheet 70712			

Female Thread, Metric & BSPP with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035550	M5	0 to 10	SPAN-P10R-M5F-PN-PN-L1
Tech Sheet 70711			

4mm Push-in Connector with PNP, NPN or IO-Link Output

0009	Pressure Range Bar	Manufacturer's Code
8035541	0 to 10	SPAN-P10R-Q4-PNLK-PNVBA-L1
Tech Sheet 70718		

4mm Push-in Connector with PNP or NPN Output

0009	Pressure Range Bar	Manufacturer's Code
8035552	0 to 10	SPAN-P10R-Q4-PN-PN-L1
Tech Sheet 70717		

FESTO



Accessories

Mounting Brackets, PU

0010	Manufacturer's Code
8003354	SAMH-PU-A
Tech Sheet 71593	

Accessory to: SPAN



Wall Mounting Brackets, PN

0009	Manufacturer's Code
8035563	SAMH-PN-W
Tech Sheet 71594	

Accessory to: SPAN, SCDN



NEBS Series, Connecting Cables For Sensors



4 Pin PCB Plug Connector x 4 Wire Open End with Label Holder

0009	Cable Length Metres	Connection Angle	Manufacturer's Code
572576	2.5	Straight	NEBS-L1G4-K-2.5-LE4
572577	5	Straight	NEBS-L1G4-K-5-LE4
Tech Sheet 70286			

Accessories to: SPAN, SFAH, SCDN sensors

PRESSURE SWITCHES

Electro-Mechanical Pressure Switch

- Gold-plated contacts
- High cycle life
- Vibration resistant to 15g

Working Temperature:
-10°C to +85°C



18D Pneumatic

0036	Thread	Switching Pressure Difference
0880600000000000	1/4"	1,00 to 5,00 bar
0880160000000000	1/4"	0.15 to 0.18 bar
0880260000000000	1/4"	0.2 to 0.35 bar
0880460000000000	1/4"	0.40 to 1,20

Tech Sheet 71726

Electronic Pressure Sensor Digital

- Compact, robust and light weight
- Pressure display colour change configurable
- High overpressure and vacuum resistance
- Housing: Stainless steel (1.4404 / 316L)

Working Temperature:
0°C to +70°C



54D Pneumatic

0036	Thread	Working Pressure
54D-V101G-DD0-AA	1/8"	-1 to 1
54D-V110G-DD0-AA	1/8"	-1 to 10
54D-P016G-DD0-AA	1/8"	0 to 16
54D-V101G-DA1-AA	1/8"	-1 to 1
54D-V110G-DA1-AA	1/8"	-1 to 10
54D-P016G-DA1-AA	1/8"	0 to 16

0523449000000000 1.5m Cable, 4-pin -
0523447000000000 5m Cable, 4-pin -

Tech Sheet 71728

Electro-Mechanical Pressure Switch, Digital

- Multicolour 4-digit display
- Upper body can be rotated 345° relative to the process connection for easy alignment of the display
- Suitable for harsh industrial and process control environments
- Housing: Stainless steel (1.4404 / 316L)

Working Temperature:
-25°C to +80°C



34D Pneumatic/Hydraulic/Air/Fluid

0036	Thread	Working Pressure
34D-V101G-DD1-AA	1/4	-1 to 1
34D-V110G-DD1-AA	1/4	-1 to 10
34D-P016G-DD1-AA	1/4	0 to 16
34D-V101G-DA1-AA	1/4	-1 to 1
34D-V110G-DA1-AA	1/4	-1 to 10
34D-P016G-DA1-AA	1/4	0 to 16

34D-BRKT-ANGLED Wall mounting kit -
0523058000000000 1.5m Cable, 4-pin -
0523053000000000 5m Cable, 4-pin -

Tech Sheet 71727

Electronic Pressure Switch with IO-Link

- IO-Link output option
- Set points parameters set via software
- Robust pressure sensor
- Excellent long life
- Suitable for harsh industrial environments
- High over pressure resistance

Working Temperature:
-40°C to +90°C



60D Pneumatic/Hydraulic/Air/Fluid

0036	Thread	Working Pressure
60D-V110G-DD1-AA	1/4	-1 to 1
60D-P100G-DD1-AA	1/4	0 to 100

Tech Sheet 71729

Electronic Pressure Sensor

- Robust pressure sensor
- Excellent long life
- Suitable for harsh industrial environments
- High over pressure resistance

Working Temperature:
-40°C to +90°C



60S Pneumatic/Hydraulic/Air/Fluid

0036	Thread	Working Pressure
60S-V110G-A42-AA	1/4	-1 to 1
60S-P010G-A42-AA	1/4	-1 to 10
60S-P016G-A42-AA	1/4	0 to 16

Tech Sheet 71730

PARKER D.H FILTERS & DRAINS AIR, WATER, VACUUM



Parker D.H Filters & Drains



Electronic Zero Loss Condensate Drains

0050	Capacity Compressor 1 m ³ /h	Capacity Dryer 1 m ³ /h	Connection
ED3004-G230	2400	480	1 x G1/2"
ED3007-G230	4200	840	2 x G1/2"



Oil-X Combination Point of Use Filter

0050	Size	L/S	CFM
AC015CBFI	1/2"	13	27



Combination Replacement Element Kit

0050	Description
015AC	2nd Stage Element



Replacement Element Kit Oil-X Evolution AA Filters

0050	Range
015AA	015AA
020AA	020AA
025AA	025AA



Oil-X Evolution Filter Accessories, 1/4" to 3" Models

0050	Filter Model	Description
FXKE1	005-010	Filter Fixing Clamp Kit
FXKE3	025-030	Filter Fixing Clamp Kit
605009902	AC010-AC030	Oil Indicator
EF1	AO/AA GRADE	Replacement Drains



Oil-X Plus Replacement AO/AA Elements for Oil-X Filters (94-04)

0050	Housing Type	Description
K030AO	0030G	Pre Filter Element
K145AO	0080G	Pre Filter Element
K009AA	0009G	High Efficiency Element
K030AA	0030G	High Efficiency Element
K145AA	0080G	High Efficiency Element

Oil-X Plus Activated Carbon Elements (94-04)

0050	Housing Type	Description
K006AC	AC-0006G	Activated Carbon Element

Old Model Oil-X Plus Filter Spares (94-04)

0050	Housing Type	Description
605006520	0006G-0009G	Automatic Drain Kit
605006250	0017G-01045G	Automatic Drain Kit



For Transair Ring Main System
see page 1063

KEEP ON CONNECTING



Your Partner for Air & Other Fluids
Low Pressure Solutions

 legris

 RECTUS



Manufactured in Europe

 Parker

ENGINEERING YOUR SUCCESS.

CONDENSATE MANAGEMENT

Refrigerated Dryers & Filters 600 - 150000 L/min



Final Filters (0.01 Micron)

0640	CFM	G	DxH mm
HM10	30	3/8"	100x220
HM18	59	1/2"	100x250
HM30	88	3/4"	120x290
HM34	118	3/4"	120x360



Refrigerated Dryers

0640	Gas	CFM	Bar	G
RD6.A	R134a	21	16	1/2"
RD9.A	R134a	34	16	1/2"
RD12.A	R134a	42	16	1/2"
RD18.A	R134a	64	16	1/2"
RD25.A	R134a	88	14	1"
RD32.A	R134a	113	14	1.1/4"
RD43.A	R407c	152	14	1.1/4"
RD52.A	R407c	184	14	1.1/4"
RD63.A	R407c	222	14	1.1/2"
RD80.A	R407c	283	14	1.1/2"

Donaldson Membrane Dryers



Donaldson VarioDry Membrane Dryers

0640	m ³ /h-(CFM) Inlet	m ³ /h-(CFM) Outlet	Connection
SPN0006	6.0 (3.53)	5.5 (3.24)	G 1/4"
SPN0009	9.0 (5.30)	8.1 (4.80)	G 1/4"
SPN0012	12.0 (7.10)	10.8 (6.40)	G 1/4"
SPN0018	18.0 (10.62)	16.2 (9.50)	G 1/2"
SPN0024	24.0 (14.12)	21.6 (12.71)	G 1/2"
SPN0036	36.0 (21.19)	32.4 (19.07)	G 1/2"
SPN0048	48.0 (28.25)	43.2 (25.43)	G 1/2"
SPN0063	63.0 (37.08)	56.7 (33.37)	G 1/2"



For Stainless Steel Tube Fittings
see pages 165-178

Installation: always in combination with a full receiver kit, water drain and safety relief valve. Ensure the compressor never takes in air/solvent mix. This could cause the tank to explode.

The air receiver or tank allows the storage and control of compressed air. A device on most compressors maintains pressure at a predetermined pressure range, allowing the compressor to operate automatically as the air is used, switching on and off accordingly. The air receiver must also be fitted with a safety device to prevent over pressurisation, a means of draining condensate and various outlet sockets. The size of air receiver (usually measured in litres) will normally be proportional to the size or capacity of air compressor fitted.

Material: carbon steel

Finishing: external RAL 5015 blue paint

Fluid content: compressed air and nitrogen (group 2)

All air receivers for the European market are supplied with a declaration of conformity

In compliance with the applicable EU Directives or according to the major international standards:

SPVD 2014/29/UE Directive (ex 2009/105/EC)

PED 2014/68/UE Directive (ex 97/23/EC)

ABS American Bureau of Shipping

DNV Det Norske Veritas

B.V. Bureau Veritas

LRS Lloyd's Register of Naval Ship

GL Germanischer Lloyd

Available upon request:

- Internal and external hot dip galvanization
- 16 bar rated
- Alternative port sizes

Vessel options include:

- Stainless steel vessels
- Pressurised water vessels
- High pressure vessels
- Vacuum vessels
- Oxygen vessels
- Oversized vessels

Working Temperature:

11 bar versions: 10°C to +100°C

12 bar versions: 10°C to +50°C

Maximum Working Pressure:

11 bar SPVD 2014/29/UE

12 bar PED 2014/68/UE



Additional carriage charges will apply to this product and will vary dependant on location. This overrides any other carriage agreements. For further details please contact us.



Ensure the compressor never takes in air/solvent mix. This could cause the tank to explode.

Receiver Kits

For illustration purposes only, each kit contains different components based on the specific connections of each air receiver



Each kit to suit vertical air receivers contains a mechanical float condensate drain (50 litre onwards), safety relief valve, ball valve, gauge and connection materials

To suit Vertical Air Receivers, RAL 5015

0085	To Suit Type	To Suit Litres
AVK-24B	VEC01295	24
AVK-50B	VEC01296	50
AVK-100B	VEC00644	100
AVK-150B	VEC00709	50
AVK-200B	VEC00645	200
AVK-270B	VEC00478	270
AVK-500B	VEC00493	500
AVK-720B	VEC00507	720
AVK-900B	VEC00511	900
AVK-1000B	VEC00518	1000
AVK-1500B	VEC00525	1500
AVK-2000B	VEC00528	2000
AVK-3000B	VEC00535	3000

Each kit to suit horizontal air receivers contains a drain valve, safety relief valve, ball valve, gauge and connection materials

To suit Horizontal Air Receivers, RAL 5015

0085	To Suit Type	To Suit Litres
AHK-5B	VEC01294	5
AHK-10B	VEC01249	10
AHK-15B	VEC01237	15
AHK-24B	VEC01250	24
AHK-50B	VEC01251	50
AHK-100B	VEC00633	100
AHK-150B	VEC00634	150
AHK-200B	VEC00635	200
AHK-270B	VEC00474	270
AHK-500B	VEC00728	500
AHK-720B	VEC00873	720
AHK-900B	VEC00707	900
AHK-1000B	VEC00515	1000
AHK-1500B	VEC00739	1500
AHK-2000B	VEC00680	2000
AHK-3000B	VEC00534	3000

Horizontal with Fixing Bracket



BSPP Ported, RAL 5015

0458	Litres	Max Pressure Bar	Kg
VEC01294	5	11	7
VEC01249	10	11	8
VEC01237	15	11	9
VEC01250	24	11	10
VEC01251	50	11	19
VEC01095	100	11	29
VEC02139	150	11	44
VEC01732	200	11	55
VEC01733	270	11	67
VEC00728	500	11	130
VEC00873*	720	11	178
VEC00707*	900	11	194
VEC00515*	1000	12	210
VEC00739*	1500	12	325
VEC00680*	2000	12	394
VEC00534*	3000	12	605

Tech Sheet 20570

Vertical with Fixing Bracket



BSPP Ported, RAL 5015

0458	Litres	Max Pressure Bar	Kg
VEC01295	24	11	10
VEC01296	50	11	19
VEC00644	100	11	29
VEC00709	150	11	44
VEC00645	200	11	55
VEC00478	270	11	67
VEC00493	500	11	115
VEC00511*	900	11	194
VEC00518*	1000	12	210
VEC00525*	1500	12	320
VEC00528*	2000	12	388
VEC00535*	3000	12	594

Tech Sheet 20570



*Direct delivery, to Mainland UK only, on any air receiver above 500 litres. Please contact your Account Manager.

AIR RECEIVERS & ACCESSORIES



Vertical with Fixing Bracket

Installation: always in combination with a full receiver kit, water drain and safety relief valve. Ensure the compressor never takes in air/solvent mix. This could cause the tank to explode.

Additional carriage charges will apply to this product and will vary dependant on location. This overrides any other carriage agreements. For further details please contact us.

Working Temperature:
11 bar versions: 10°C to +100°C
12 bar versions: 10°C to +50°C

Maximum Working Pressure:
11 bar SPVD 2014/29/UE
12 bar PED 2014/68/UE



Ensure the compressor never takes in air/solvent mix. This could cause the tank to explode.



BSPP Ported, Galvanised

0458	Litres	Max Pressure Bar	Weight Kg
VEC00901	100	11	32
VEC00908	200	11	57
VEC00909	270	11	70
VEC00906	500	11	119
VEC00519	1000	12	214
VEC00529	2000	12	394
VEC00536	3000	12	600

Tech Sheet 60120

Receiver Kits

For illustration purposes only, each kit contains different components based on the specific connections of each air receiver



Each kit to suit vertical air receivers contains a mechanical float condensate drain (50 litre onwards), safety relief valve, ball valve, gauge and connection materials

To suit Vertical Air Receivers, Galvanised

0085	To Suit Type	To Suit Litres
AVK-100G	VEC00901	100
AVK-200G	VEC00908	200
AVK-270G	VEC00909	270
AVK-500G	VEC00906	500
AVK-720G	VEC00907	720
AVK-900G	VEC00512	900
AVK-1000G	VEC00519	1000
AVK-2000G	VEC00529	2000
AVK-3000G	VEC00536	3000

Reservoir Tanks



1/2" Inlet/Outlet Reservoir Tanks

0088	Litres	Height mm	Ø mm
7710061	2.5	166	160
7710062	5	175	210
7710063	7	240	210
7710064	12	365	229

Tech Sheet 808

Long Life Compressor Oil

ISO 46 low carbon formation characteristics. Suitable for screw, reciprocating, axial flow and rotary vane compressors.



0085	Litres
2020-6025	5

Tech Sheet 1382



For **M-Press Press Fit Piping System**
see pages **1116-1134**



*Direct delivery, to Mainland UK only, on any air receiver above 500 litres. Please contact your Account Manager.

No Loss Pneumatic & Electric Drain



No Loss Pneumatic Condensate Drain 1/2"

0600	Inlet/Outlet BSPP	Pressure (bar)
TVR-20B	1/2" Male/Female	20



Zero Loss Electric Drain - 106 CFM Capacity

0600	Capacity (CFM)	Thread
TZLD100	106	G1/2"



Zero Loss Electric Drain - 350 CFM Capacity

0600	Capacity (CFM)	Thread
TZLD300	353 (Compressor)	G1/2"

Condensate Separators



Disposable Condensate Separator

0600	Capacity (CFM)
TCS60	60



Condensate Separator - 100 CFM Capacity

0600	Capacity (CFM)
TCS100	100



TCS100 Service Kit

0600	Description
TCS100-KIT	Service Kit TCS100



For **Automatic Drain Valves**
see pages 1024-1025



SIGHT GLASSES & FLOW INDICATORS

200 Series - All Stainless Steel

A low cost, all stainless steel sight flow indicator straight through type.

 **Maximum Working Pressure:**
10 bar at 200°C

stainless steel




RHODES

233 Model Through Type

0115	Thread	OD mm	Length mm
RHO-FIS-146410-1	1/2" BSPT	15	70

Tech Sheet 10037

A low cost, all stainless steel sight flow indicator fitted with a flap and scale plate to give an indication of the flow rate

 **Maximum Working Pressure:**
10 bar at 200°C

stainless steel



RHODES

234 Model with Flap & Plate

0115	Thread	OD mm	Length mm
RHO-FIS-146510-1	1/2" BSPT	15	70
RHO-FIS-146510-2	1/2" BSPP	15	70
RHO-FIS-146515-2	3/4" BSPP	20	70

Tech Sheet 10037

400 Series - Straight Through Sight Flow Indicator with Spinner/Ball

 **Maximum Working Pressure:**
16 bar at 100°C

stainless steel




RHODES

Stainless Steel with Spinner

0115	Thread	Min LPH	Max LPH
RHO-FIS-140300-1	1/4" BSPT	30	200
RHO-FIS-140305-1	3/8" BSPT	50	450
RHO-FIS-140305-2	3/8" BSPP	50	450
RHO-FIS-140310-1	1/2" BSPT	60	600
RHO-FIS-140310-2	1/2" BSPP	60	600
RHO-FIS-140315-1	3/4" BSPT	120	1600
RHO-FIS-140320-1	1" BSPT	300	1600

Tech Sheet 10038

400 Series - Straight Through Sight Flow Indicator with Spinner/Ball

 **Maximum Working Pressure:**
7 bar at 100°C


RHODES



With Spinner, Gun Metal

0115	Thread	Min LPH	Max LPH
RHO-FIG-170300-1	1/4" BSPT	30	200
RHO-FIG-170300-2	1/4" BSPP	30	200
RHO-FIG-170305-1	3/8" BSPT	50	450
RHO-FIG-170305-2	3/8" BSPP	50	450
RHO-FIG-170310-1	1/2" BSPT	60	600
RHO-FIG-170310-2	1/2" BSPP	60	600
RHO-FIG-170315-1	3/4" BSPT	120	1600
RHO-FIG-170315-2	3/4" BSPP	120	1600
RHO-FIG-170320-1	1" BSPT	300	1600
RHO-FIG-170320-2	1" BSPP	300	1600

Tech Sheet 10038

 **Maximum Working Pressure:**
7 bar at 100°C

RHODES



With Ball, Gun Metal

0115	Thread	Min LPH	Max LPH
RHO-FIG-176600-1	1/4" BSPT	30	200
RHO-FIG-176600-2	1/4" BSPP	30	200
RHO-FIG-176605-1	3/8" BSPT	50	450
RHO-FIG-176610-1	1/2" BSPT	60	600
RHO-FIG-176610-2	1/2" BSPP	60	600
RHO-FIG-176615-1	3/4" BSPT	120	1600
RHO-FIG-176615-2	3/4" BSPP	120	1600
RHO-FIG-176615-3	3/4" NPT	120	1600
RHO-FIG-176620-1	1" BSPT	300	1600
RHO-FIG-176620-2	1" BSPP	300	1600

Tech Sheet 10038

Bronze Sight Glass/Indicator

 **Maximum Working Temperature:**
150°C

Specification
Hardened single glass inspection window.

 **Maximum Working Pressure:**
16 bar

FT PRO



BSPP

0118	Thread
2021-1330	1/2"
2021-1348	3/4"
2021-1355	1"

Tech Sheet 821


Can't see the product you're looking for? Contact us. More often than not, we can acquire that product.



Are you looking for...
a stainless steel flanged PN16 sight glass?
...see page 963

FLOW SWITCHES

Adjustable IF-E Series, Normally Open, IP65

 Working Temperature:
-10°C to +80°C

 Maximum Working Pressure:
50 bar


Viscosity up to 1 cSt,
PG 09 DIN 43650, BSPP Female



9025	Thread	LPM
IFE0.5R2.5	1/8"	0.1-2.5
IFE1R3	1/8"	0.3-3
IFE2R9	1/4"	2-9
IFE3R18	3/8"	3-18
IFE5R35	3/4"	6-35
IFE6R60	1"	15-60
IFE4R24	1/2"	3-24

Tech Sheet 110837

Adjustable IF_VE Series, Visual, Normally Open, IP65

 Working Temperature:
-10°C to +100°C

 Maximum Working Pressure:
15 bar



Viscosity up to 14.4 cSt, PG 09 DIN 43650, BSPP Female

9025	Thread	LPM
IF1VE1/A-M6	1/4"	0.1-1
IF2VE3/A-M6	1/4"	0.2-3
IF3VE6/A-M6	1/4"	1-6
IF4VE16/A-M6	1/2"	2-16
IF5VE60/A-M6	1"	5-60

Tech Sheet 110832

Viscosity up to 39.8 cSt, PG 09 DIN 43650, BSPP Female

9025	Thread	LPM
IF1VE1/A-M7	1/4"	0.1-1
IF3VE6/A-M7	1/4"	1-6
IF4VE16/A-M7	1/2"	2-16
IF5VE60/A-M7	1"	5-60

Tech Sheet 110832

Viscosity up to 70.4 cSt, PG09 DIN 43650, BSPP Female

9025	Thread	LPM
IF1VE1/A-M8	1/4"	0.1 - 1 LPM
IF2VE3/A-M8	1/4"	0.2 - 3 LPM
IF3VE6/A-M8	1/4"	1 - 6 LPM
IF4VE16/A-M8	1/2"	2 - 16 LPM
IF5VE60/A-M8	1"	5 - 60 LPM

Tech Sheet 110832

FPL Series, Paddle SPDT IP65

 Maximum Working Temperature:
+120°C



1" BSPP Male, Brass

9025	Nm³/h	Max Pressure Bar
FPL1E	1-2.1	11

Tech Sheet 114

1" BSPP Male, Stainless Steel

9025	Nm³/h	Max Pressure Bar
FPL2E	46.5-94.2	30

Tech Sheet 114



BSPP Female, Brass with T Fitting

9025	Thread	Nm³/h	Max Pressure Bar
FPL1E-12	1/2"	1-2.1	11
FPL1E-34	3/4"	1-2.1	11
FPL1E-1	1"	1-2.1	11
FPL1E-114	1.1/4"	1-2.1	11
FPL1E-112	1.1/2"	1-2.1	11
FPL1E-2	2"	1-2.1	11

Tech Sheet 20003

FLOW INDICATORS



CFV Series, Propeller

° Maximum Working Temperature:
+90°C



Viscosity up to 250 cSt, BSPP Female

9025	Thread	LPM
CFV1B-N	1/4"	1-10
CFV2B-N	3/8"	2-20
CFV3B-N	1/2"	3-30
CFV4B-N	3/4"	4-40
CFV5B-N	1"	6-60

Tech Sheet 110829

IF...V Series, Visual Indicator

° Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
15 bar



Viscosity up to 14.4 cSt, Female

9025	Thread	LPM
IF1V1/A-M6	1/4"	0.1-1
IF2V3/A-M6	1/4"	0.2-3
IF3V6/A-M6	1/4"	1-6
IF4V16/A-M6	1/2"	2-16
IF5V60/A-M6	1"	5-60

Tech Sheet 110830

Viscosity up to 39.8 cSt, BSPP Female

9025	Thread	LPM
IF1V1/A-M7	1/4"	0.1-1
IF2V3/A-M7	1/4"	0.2-3
IF3V6/A-M7	1/4"	1-6
IF4V16/A-M7	1/2"	2-16
IF5V60/A-M7	1"	5-60

Tech Sheet 110830

Viscosity up to 70.4 cSt, BSPP Female

9025	Thread	LPM
IF1V1/A-M8	1/4"	0.1-1
IF2V3/A-M8	1/4"	0.2-3
IF3V6/A-M8	1/4"	1-6
IF4V16/A-M8	1/2"	2-16
IF5V60/A-M8	1"	5-60

Tech Sheet 110830

You may also be interested in...

Flow Meters
...see page 440



VARIABLE AREA FLOW METERS



TFM Series, Vertical Type

° Working Temperature:
0°C to +60°C

Maximum Working Pressure:
10 bar



Gas/Air, BSPT Female, Silicone Gasket

9025	Thread	Nm ³ /h
TFM01VG10	1/2"	1-10
TFM02VG16	1/2"	1.6-16
TFM03VG40	1/2"	4-40
TFM04VG60	1"	6-60
TFM05VG160	1"	16-160
TFM06VG250	1"	25-250
TFM07VG350	1"	35-350

Tech Sheet 110831

Gas/Air, BSPT Male, Silicone Gasket

9025	Thread	Nm ³ /h
TFM08VG250	1.1/2"	25-250
TFM09VG350	1.1/2"	35-350
TFM10VG400	1.1/2"	80-400
TFM11VG500	2"	100-500
TFM12VG600	2"	120-600
TFM13VG850	2"	300-850
TFM14VG1200	2"	400-1200
TFM15VG1400	2"	550-1400

Tech Sheet 110831

Liquid, BSPT Female, Silicone Gasket

9025	Thread	LPM
TFM01VL4	1/2"	0.5-4
TFM02VL7	1/2"	1-7
TFM03VL18	1/2"	8-18
TFM05VL70	1"	10-70
TFM07VL150	1"	20-150
TFM10VL220	1.1/2"	80-220
TFM11VL300	2"	80-300
TFM12VL360	2"	80-360
TFM13VL450	2"	150-450
TFM14VL550	2"	190-550
TFM15VL750	2"	220-750

Tech Sheet 110831

FMP Series, Panel Type

° Working Temperature:
0°C to +60°C

Maximum Working Pressure:
10 bar



Gas/Air, BSPT Male, Silicone Gasket

9025	Thread	Nm ³ /h
FMP01VG1	1/2"	0.1-1
FMP02VG6	1/2"	0.6-6
FMP06VG10	1/2"	1-10
FMP07VG16	1/2"	1.6-16
FMP08VG25	1/2"	2.5-25
FMP09VG40	1/2"	4-40
FMP10VG100	1"	10-100
FMP11VG100	1"	20-100
FMP12VG160	1"	16-160
FMP13VG250	1"	25-250
FMP14VG300	1"	30-300
FMP15VG350	1"	35-350

Tech Sheet 110838

Liquid, BSPT Male, Silicone Gasket

9025	Thread	LPM
FMP03VL100	1/2"	10-100 LPH
FMP04VL160	1/2"	16-160 LPH
FMP06VL4	1/2"	0.5-4
FMP07VL7	1/2"	1-7
FMP08VL11	1/2"	1-11
FMP09VL18	1/2"	2-18
FMP10VL35	1"	5-35
FMP11VL50	1"	10-50
FMP12VL70	1"	10-70
FMP15VL170	1"	10-170

Tech Sheet 110838

FLOW METERS

Low Pressure Flow Meters



Water

0061	Thread	LPM
2018-2929	1/4" Male	0.04-0.4
2018-2937	1/2" Female	0.3-3.75
2018-2938	1/2" Female	1-19
Tech Sheet 2008		

Air

0061	Thread	SCFM
2040-1626	1/2"	1-15
2040-1634	1/2"	2-20
Tech Sheet 2008		

Flow Meters



Standard Water Meters, 3/4" BSPT

0061	Thread	LPM
2018-2838	3/4"	2-15
2018-2853	3/4"	4-35
2018-2887	3/4"	15-65
2018-2903	3/4"	20-100
Tech Sheet 2009		



Water Meters & Flowalert Signal, 3/4" BSPT

0061	Thread	LPM
2018-2911	3/4"	20-100
Tech Sheet 2009		

Water & Oil



Water, BSPP, fm

0061	Thread	LPM	Max Pressure Bar
2018-1947	1/4"	1-7.5	122
2018-1970	3/4"	10-115	183
2039-9432	1"	15-150	183
Tech Sheet 2010			

Note: Other flow rate units available on request



Oil, BSPP, fm

0061	Thread	LPM	Max Pressure Bar
2039-9119	1/4"	0.2-1.9	122
2039-9184	3/4"	5-38	183
2018-1913	3/4"	10-115	183
2039-9200	1"	10-115	183
2039-9218	1"	19-150	183
Tech Sheet 2010			

FLOAT LEVEL SWITCHES



° Working Temperature:
-10°C to +80°C



Fixed Thermostat, Normally Closed IP65

Top Entry 100mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA100-T40	40
LM1FA100-T50	50
LM1FA100-T60	60
LM1FA100-T70	70
LM1FA100-T80	80

Tech Sheet 110840

Top Entry 150mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA150-T40	40
LM1FA150-T50	50
LM1FA150-T60	60
LM1FA150-T70	70
LM1FA150-T80	80

Tech Sheet 110840

Top Entry 200mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA200-T40	40
LM1FA200-T50	50
LM1FA200-T60	60
LM1FA200-T70	70
LM1FA200-T80	80

Tech Sheet 110840

Top Entry 250mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA250-T40	40
LM1FA250-T50	50
LM1FA250-T60	60
LM1FA250-T70	70
LM1FA250-T80	80

Tech Sheet 110840

Top Entry 300mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA300-T40	40
LM1FA300-T50	50
LM1FA300-T60	60
LM1FA300-T70	70
LM1FA300-T80	80

Tech Sheet 110840

Top Entry 350mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA350-T40	40
LM1FA350-T50	50
LM1FA350-T60	60
LM1FA350-T70	70
LM1FA350-T80	80

Tech Sheet 110840

Top Entry 400mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA400-T40	40
LM1FA400-T50	50
LM1FA400-T60	60
LM1FA400-T70	70
LM1FA400-T80	80

Tech Sheet 110840

Top Entry 450mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA450-T40	40
LM1FA450-T50	50
LM1FA450-T60	60
LM1FA450-T70	70
LM1FA450-T80	80

Tech Sheet 110840

Top Entry 500mm, PG 09 DIN 43650 Connection

9025	Actuation Temperature °C
LM1FA500-T40	40
LM1FA500-T50	50
LM1FA500-T60	60
LM1FA500-T70	70
LM1FA500-T80	80

Tech Sheet 110840

ATEX Stop Ring SPDT IP65

Top Entry, PG 09 DIN 43650 Connection

9025	Length mm
LM2FA100	100
LM2FA150	150
LM2FA200	200
LM2FA250	250
LM2FA300	300
LM2FA350	350
LM2FA400	400
LM2FA450	450
LM2FA500	500

Tech Sheet 110839

DIY Kit Normally Closed IP65, 1" BSPP Male

Top Entry, PG 09 DIN 43650 Connection

9025	Length mm
LM1TB-1000	1000
LM1TB-0500	500

Tech Sheet 110840

FLOAT LEVEL SWITCHES

Polypropylene Normally Open or Normally Closed

 **Working Temperature:**
-10°C to +80°C

- Fluid specific gravity: >0.8
- Cable length: 300mm




Side Entry, 1/2" NPT

9025

MFS10-N1-2

Tech Sheet 112

 **Working Temperature:**
-40°C to +120°C

- Fluid specific gravity >0.8
- Cable length: 300mm



Top Entry, 1/8" BSPP

9025

MFS17-C-2

Tech Sheet 112

Stainless Steel Normally Closed IP65

- Normally open/normally closed contacts.
- Specific Gravity > 0.
- PG09 DIN 43650 connection

stainless steel



Side Entry, BSPT Male

9025

RFS-12P-2-SUS304

Thread
1/2"

Tech Sheet 111

FLOAT LEVEL SWITCHES

stainless steel



Stainless Steel Normally Closed IP65

 **Working Temperature:**
-10°C to +80°C

 **Maximum Working Pressure:**
10 bar

- Fluid specific gravity: ≥ 0.
- Maximum fluid viscosity 150 cS
- Cable length: 500mm



Side Entry, BSPP Male

9025

LEM7A

Thread

1/8"

 **Working Temperature:**
-10°C to +80°C

 **Maximum Working Pressure:**
10 bar

- Fluid specific gravity: ≥ 0.
- Maximum fluid viscosity 150 cS
- Cable length: 500mm



Top Entry, BSPT Male

9025

LEM7NC

Thread

1/8"

LIQUID LEVEL GAUGES



EcoFit Gauges

EcoFit liquid level gauges are available up to 1 metre, each gauge above 400mm is supplied with an upper tank bracket. Thread sizes available in G1/4", G3/8", G1/2" BSPP Male

- Suitable for many industrial and domestic usages, subject to pressure and material compatibility

Maximum Working Temperature: +60°C

BSPP

0171	Thread	Centres mm
SEE80100	1/4"	100
SEE80125	1/4"	125
SEE80150	1/4"	150
SEE80200	1/4"	200
SEE80250	1/4"	250
SEE80300	1/4"	300
SEE80350	1/4"	350
SEE80400	1/4"	400
SEE80450	1/4"	450
SEE80500	1/4"	500
SEE80600	1/4"	600
SEE80650	1/4"	650
SEE80700	1/4"	700
SEE80750	1/4"	750
SEE80800	1/4"	800
SEE80850	1/4"	850
SEE80900	1/4"	900
SEE80950	1/4"	950
SEE801000	1/4"	1000
SEE82100	3/8"	100
SEE82125	3/8"	125
SEE82150	3/8"	150
SEE82200	3/8"	200
SEE82250	3/8"	250
SEE82300	3/8"	300
SEE82350	3/8"	350
SEE82400	3/8"	400
SEE82450	3/8"	450
SEE82500	3/8"	500
SEE82600	3/8"	600
SEE82650	3/8"	650
SEE82700	3/8"	700
SEE82750	3/8"	750
SEE82800	3/8"	800
SEE82900	3/8"	900
SEE821000	3/8"	1000
SEE84100	1/2"	100
SEE84125	1/2"	125
SEE84150	1/2"	150
SEE84200	1/2"	200
SEE84250	1/2"	250
SEE84300	1/2"	300
SEE84350	1/2"	350
SEE84400	1/2"	400
SEE84450	1/2"	450
SEE84500	1/2"	500
SEE84600	1/2"	600
SEE84650	1/2"	650
SEE84700	1/2"	700
SEE84750	1/2"	750
SEE84800	1/2"	800
SEE84900	1/2"	900
SEE841000	1/2"	1000

Tech Sheet 20616



Pressure: Atmospheric
Lower Body: Brass, nickel plated
Fixing Bolts: Brass, nickel plated
Seals: Viton
Sight Tube: Polycarbonate
Guard Tube: Polycarbonate
Top Cap: Brass
Adaptor: Brass
Tank Seals: Walkertite washer

EasyFit Gauges

EasyFit liquid level gauges are available up to 1 metre. Suitable for many industrial and domestic usages, subject to pressure and material compatibility.

Maximum Working Temperature: +60°C

Maximum Working Pressure: 14 bar (subject to centre distance selected)

BSPP

0171	Thread	Centres mm
SEE27100	1/4"	100
SEE27150	1/4"	150
SEE27200	1/4"	200
SEE27250	1/4"	250
SEE27300	1/4"	300
SEE27350	1/4"	350
SEE27400	1/4"	400
SEE27450	1/4"	450
SEE27500	1/4"	500
SEE27600	1/4"	600
SEE27650	1/4"	650
SEE27700	1/4"	700
SEE27800	1/4"	800
SEE27850	1/4"	850
SEE27900	1/4"	900
SEE27950	1/4"	950
SEE271000	1/4"	1000
SEE29100	3/8"	100
SEE29150	3/8"	150
SEE29200	3/8"	200
SEE29250	3/8"	250
SEE29300	3/8"	300
SEE29350	3/8"	350
SEE29400	3/8"	400
SEE29450	3/8"	450
SEE29500	3/8"	500
SEE29600	3/8"	600
SEE29650	3/8"	650
SEE29700	3/8"	700
SEE29800	3/8"	800
SEE29850	3/8"	850
SEE29900	3/8"	900
SEE29950	3/8"	950
SEE291000	3/8"	1000
SEE31100	1/2"	100
SEE31150	1/2"	150
SEE31200	1/2"	200
SEE31250	1/2"	250
SEE31300	1/2"	300
SEE31350	1/2"	350
SEE31400	1/2"	400
SEE31450	1/2"	450
SEE31500	1/2"	500
SEE31600	1/2"	600
SEE31650	1/2"	650
SEE31700	1/2"	700
SEE31800	1/2"	800
SEE31850	1/2"	850
SEE31900	1/2"	900
SEE31950	1/2"	950
SEE311000	1/2"	1000

Tech Sheet 20617



Lower Body: Brass
Fixing Bolts: Brass
Seals: Viton
Sight Tube: Polycarbonate
Guard Tube: Polycarbonate
Adaptor: Brass
Tank Seals: Dowty sealing washer

LIQUID LEVEL GAUGES

QuickFit Gauges

QuickFit liquid level gauges are available up to 1 metre.

- Suitable for many industrial and domestic usages, subject to pressure and material compatibility

Maximum Working Temperature: +65°C

Maximum Working Pressure: 3 bar

BSPP

0171	Thread	Centres mm
SEE99100	1/4"	100
SEE99150	1/4"	150
SEE99200	1/4"	200
SEE99250	1/4"	250
SEE99300	1/4"	300
SEE99350	1/4"	350
SEE99400	1/4"	400
SEE99450	1/4"	450
SEE99500	1/4"	500
SEE99600	1/4"	600
SEE99650	1/4"	650
SEE99700	1/4"	700
SEE99800	1/4"	800
SEE99850	1/4"	850
SEE99900	1/4"	900
SEE99950	1/4"	950
SEE991000	1/4"	1000
SEE97100	3/8"	100
SEE97150	3/8"	150
SEE97200	3/8"	200
SEE97250	3/8"	250
SEE97300	3/8"	300
SEE97350	3/8"	350
SEE97400	3/8"	400
SEE97450	3/8"	450
SEE97500	3/8"	500
SEE97600	3/8"	600
SEE97650	3/8"	650
SEE97700	3/8"	700
SEE97800	3/8"	800
SEE97850	3/8"	850
SEE97900	3/8"	900
SEE97950	3/8"	950
SEE971000	3/8"	1000
SEE95100	1/2"	100
SEE95150	1/2"	150
SEE95200	1/2"	200
SEE95250	1/2"	250
SEE95300	1/2"	300
SEE95350	1/2"	350
SEE95400	1/2"	400
SEE95450	1/2"	450
SEE95500	1/2"	500
SEE95600	1/2"	600
SEE95650	1/2"	650
SEE95700	1/2"	700
SEE95800	1/2"	800
SEE95850	1/2"	850
SEE95900	1/2"	900
SEE95950	1/2"	950
SEE951000	1/2"	1000

Tech Sheet 20618

Lower Body: Brass, nickel plated

Fixing Bolts: Brass, nickel plated

Seals: Viton

Sight Tube: Polycarbonate

Adaptor: Brass

Tank Seals: Dowty sealing washer



QuickMount Gauges

Available in G1/2", G3/4" BSPP male. G3/4" stainless steel model also.

Without Valve, BSPP

0171	Thread	Centres mm
SEE22500P12	1/2"	500
SEE22550P12	1/2"	550
SEE22600P12	1/2"	600
SEE22650P12	1/2"	650
SEE22700P12	1/2"	700
SEE22750P12	1/2"	750
SEE22800P12	1/2"	800
SEE22850P12	1/2"	850
SEE22900P12	1/2"	900
SEE22950P12	1/2"	950
SEE221000P12	1/2"	1000
SEE221125P12	1/2"	1125
SEE221250P12	1/2"	1250
SEE221500P12	1/2"	1500
SEE221600P12	1/2"	1600
SEE221700P12	1/2"	1700

Tech Sheet 10435

With Valve, Brass Fittings, BSPP

0171	Thread	Centres mm
SEE22280P	3/4"	280
SEE22400P	3/4"	400
SEE22500P	3/4"	500
SEE22600P	3/4"	600
SEE22610P	3/4"	610
SEE22710P	3/4"	710
SEE22750P	3/4"	750
SEE22770P	3/4"	770
SEE22800P	3/4"	800
SEE22825P	3/4"	825
SEE22850P	3/4"	850
SEE22880P	3/4"	880
SEE22900P	3/4"	900
SEE22950P	3/4"	950
SEE221000P	3/4"	1000
SEE221300P	3/4"	1300
SEE221400P	3/4"	1400

Tech Sheet 10435

With Valve, Stainless Steel Fittings, BSPP

0171	Thread	Centres mm
SEE22S500P	3/4"	500
SEE22S550P	3/4"	550
SEE22S600P	3/4"	600
SEE22S1000P	3/4"	1000
SEE22S2800P	3/4"	2800
SEE22S4200P	3/4"	4200
SEE22S500B	3/4"	500
SEE22S550B	3/4"	550
SEE22S600B	3/4"	600
SEE22S650B	3/4"	650
SEE22S700B	3/4"	700
SEE22S750B	3/4"	750
SEE22S800B	3/4"	800
SEE22S850B	3/4"	850
SEE22S900B	3/4"	900
SEE22S1000B	3/4"	1000
SEE22S2800B	3/4"	2800

Tech Sheet 10435

The QuickMount valve assemblies are G3/4" BSPP which are manual screwdown with Auto Safety Shut-off (ASV) as the standard configuration, G1/2" BSPP does not come with the safety shut-off valve.

Valves Assemblies: Brass or stainless steel

Collar: Brass

Seals: Viton

Sight Tube: Polycarbonate

Guard Tube: 'C' section aluminium

Tank Seals: Walkertite washer

Tank Seals: Walkertite washer

Maximum Working Temperature: +100°C

Maximum Pressure: 14 bar



VISUAL INDICATORS



High Pressure Visual Indicators

- Indicate the presence or absence of a pneumatic signal
- Wide angle of visibility
- Contrasting colours combinations for positive identification

Medium:

Compressed air, filtered dry or lubricate
Operation: Visual indicator, diaphragm operated

Materials:

Molded plastic body and internal components, brass connector, steel spring, synthetic rubber diaphragm

Operating Temperature:
+2°C to +66°C*
*Consult our technical service for use below +2°C

Operating Pressure:
0.7 to 8.6 bar full actuation
0-0.14 bar full de-actuation



BSPP

0036	Unactuated Colour	Actuated Colour	Connection
5VS-401-800	Black	Red	G1/8
5VS-402-800	Black	Green	G1/8
5VS-410-800	Red	Black	G1/8
5VS-412-800	Red	Green	G1/8
5VS-420-800	Green	Black	G1/8
5VS-421-800	Green	Red	G1/8

Tech Sheet 71749

COLD WATER FLOW METER

Single-jet Water Meter

Compact design for most metering applications

Meter Type: Single-jet impeller design

Meter Body Material: Brass, epoxy coated

Drinking Water Approved: (75/33/EEC)

Accuracy: Class B

Installation: Horizontal or vertical

Connection: BSP (nuts, tails and washers supplied)

Maximum Working Temperature:
+30°C

Maximum Working Pressure:
16 bar



Super Dry Dial

0241	Thread	Length	Gauge Diameter mm	LPM
WATERC1.5D	1/2"	110	15	1.5
WATERC2.5D	3/4"	130	20	2.5

Tech Sheet 10364

THERMOMETERS FOR INDUSTRY



Handheld Thermometers, Type K

- Free traceable Certificate of Calibration included
- Robust waterproof case offering IP66/67 protection
- Backlight, max/min and hold functions
- Integrated rubber seal for durability and complete watertightness
- Designed for reliability and ease of use
- Ideal for industry applications
- Excludes probe

Working Temperature:
-100°C to +1372°C



Therma Waterproof

0065	Colour	IP Rating
232-101	Black	66/67
Tech Sheet 20016		

K Type Probes



To suit all Thermometers, K Type

0065	Probe Type
123-030	Ribbon Surface
123-046	Waterproof Surface
123-212	High Temperature
Tech Sheet 20069	

Please see tech sheet 20069 for all available K Type products

Room Thermometers

- Accuracy +/- 1°C

Working Temperature:
-30°C to +50°C



Available

0065	Description
803-232	White 200mm
803-233	Factory Act 200mm
Tech Sheet 10273	

Bimetal Indicators

Working Temperature:
-30°C to +30°C



52mm Thermometer

0065	
800-100	
Tech Sheet 20615	

Dial Pipe Thermometers

- Wrap-around stainless steel, spring mounting
- 50mm dial
- Stainless steel dial pipe thermometer, supplied with a wrap-around stainless steel spring kit (53mm long) that enables the user to mount each thermometer to a pipe
- For larger pipes it is possible to attach the thermometer to pipework using either tie wraps or wire (not supplied)



50mm Dial

0065	Temperature Range °C
800-951	0°C to +120°C
Tech Sheet 10271	

Magnetic Dial Thermometers

- 50mm dial
- Stainless steel dial thermometer incorporating a magnetic sensing pad for mounting on ferrous metals



50mm Dial

0065	Temperature Range °C
800-950	0°C to +120°C
Tech Sheet 10272	



For Diesel Transfer Pumps
Drain Valves see page 1636



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 5

Pneumatic & Vacuum

5.01 ISO 6432 Cylinders & Accessories **450-477**

5.02 ISO 15552 Cylinders & Accessories **478-515**

5.03 Compact Cylinders & Accessories **516-536**

5.04 Cartridge & Roundline Cylinders **537-541**

5.05 Grippers & Drives **542-544**

5.06 Manual & Mechanical Valves **545-574**

5.07 Solenoid Valves **575-599**

5.08 Pilot Valves **600-610**

5.09 Logic, Specialist & ISO Mount Valves **611-636**

5.10 Air Preparation **637-704**

5.11 Air Boosters **705-706**

5.12 Suction Cups **707-749**

5.13 Suction Cup Fittings **750-754**

5.14 Vacuum Pumps **755-757**

5.15 Point of use complete Pump & Cup Units **758-760**

5.16 Vacuum Filters **761-762**

SECTION 5

5.01 ISO 6432 Cylinders & Accessories

- Pneumatic Mini Cylinders
- Round Cylinders
- Mountings
- Stainless Steel Mini Cylinders
- Mini Air Cylinders
- Attachments & Accessories
- Mini-ISO Cylinders



450-477



5.02 ISO 15552 Cylinders & Accessories

- ISO 15552 Cylinders
- Mountings
- Accessories
- Reed Switches
- Attachments



478-515



5.03 Compact Cylinders & Accessories

- Compact Cylinders
- ISO 21287 Compact Cylinders
- ISO 21287 Cylinders
- Reed Switches
- Proximity Sensors
- ISO Compact Cylinders
- Repair Kits
- DFM Guided Drives
- Mountings & Accessories



516-536



5.04 Cartridge & Roundline Cylinders

- Pneumatic Cylinder & Transmitters
- Round RNDC Cylinders
- Roundline Cylinders & Mountings
- Round RNDC Cylinder Accessories



537-541



5.05 Grippers & Drives

- Pneumatic Grippers
- Semi-Rotary Drives



542-544



5.06 Manual & Mechanical Valves

- Panel Mount Valves
- Top Lever Valves
- Mechanically & Manually Actuated Valves
- Mechanical & Manual Valves
- Aerial Valves
- Directional Control Valves
- VME Roller Valves
- Push/Pull Valves
- Lever Valves
- Plunger Valves



545-574



5.07 Solenoid Valves

- Solenoid Valves
- Electrically Actuated Directional Control Valves
- Solenoid Actuated Poppet Valves
- Solenoid Control Valves
- In-line Valves
- Pneumatic Valves
- In-line Piston Spool Valves
- Manifolds



575-599



5.08 Pilot Valves

- Pilot Valves
- Directional Control Valves
- 3/2 Pneumatic Valves
- Pneumatically Operated Valves
- Solenoid Valves
- 5/2 Pneumatic Valves
- 5/3 Pneumatic Valves



600-610



Pneumatics & Vacuum

5.09 Logic, Specialist & ISO Mount Valves

- Logic Valves
- Timers & Controls
- ISO Valves
- Non-return Valves
- Directional Control Valves
- Pressure & Vacuum Valves
- Industrial Vibrators
- Ball & Check Valves
- Mufflers
- Proportional Valves
- Exhaust Flow Regulators
- Automatic Valves
- Silencers
- Pneumatic Logic Valves



611-636

5.10 Air Preparation

- Filters, Regulators & Lubriactors
- Soft Start Valves
- Porting Blocks
- Pressure Regulators
- Filter Regulators
- Modular Valves
- Minature FRLs
- Pressure Switches
- Air Treatment Units
- Fixing Brackets
- Accessories



637-704

5.11 Air Boosters

- Pressure Booster
- Air Pressure Boosters



705-706

5.12 Suction Cups

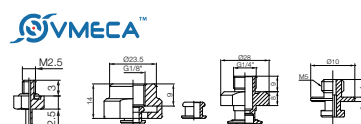
- Single Bellows
- Direct Mount Bellows
- Double Bellows
- Bellows & Cross Groove
- Long Multi Bellows
- Dual Lip Suction Cups
- Oval Universal Cups
- Universal Cups
- Flat Cups
- Flat & Curve Cups
- Mark Free Cups
- Flat Structure
- Deep Cups
- Foam Rubber Cups



707-749

5.13 Suction Cup Fittings

- VU/VB/VF/VBL/VBU/VBX/VFC Series
- BL5040 Series
- VOBL 35 x 90 Series
- FF Series
- BL5040 Series



750-754

5.14 Vacuum Pumps

- Green Pumps
- VSM Pumps
- VCS Pumps
- Magic Pumps
- Turtle Pumps



755-757

5.15 Point of use complete Pump & Cup Units

- Vacuum Grippers
- Suction Lips



758-760

5.16 Vacuum Filters

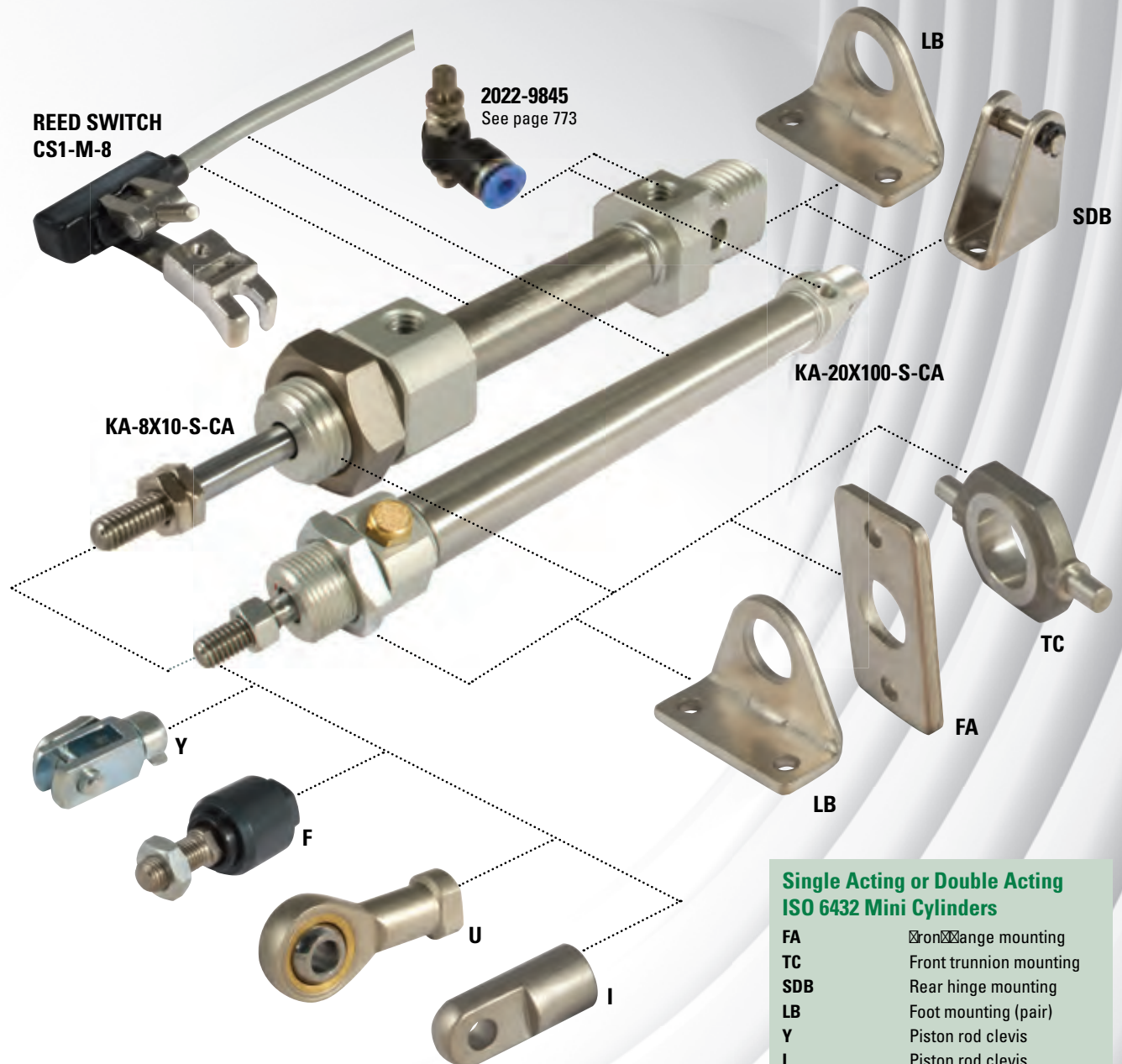
- In-line Vacuum Filters
- Replacement Elements
- Vacuum Pump Filters
- Blower Intake Filter
- High Volume Muffler



761-762

PNEUMATIC ISO 6432 MINI CYLINDERS

Accessories & Mounting Selector



REED SWITCH
CS1-M-8

2022-9845
See page 773

KA-8X10-S-CA

KA-20X100-S-CA

LB

SDB

TC

FA

LB

Y

F

U

I

Single Acting or Double Acting ISO 6432 Mini Cylinders

FA	Iron-Steel mounting
TC	Front trunnion mounting
SDB	Rear hinge mounting
LB	Foot mounting (pair)
Y	Piston rod clevis
I	Piston rod clevis
F	Non-rotating joint
U	Piston rod universal joint
Reed Switches	Two wire N/O with LED

Cylinders
Pages 452-454

Mountings
Pages 454-455

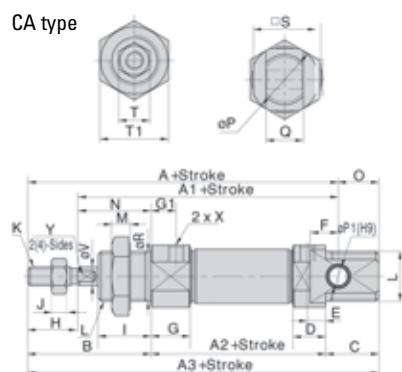
Reed Switches
Page 455

Cylinder Guides
Page 456

Technical Information

KA Series

CA type



Bore	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	D	E	F	G	G1	H	I
8	76	64	46	86	74	—	—	28	12	9.5	5	9.5	5	6	11.5	7	12	12
10	76	64	46	86	74	—	—	28	12	9.5	5	9.5	5	6	11.5	7	12	12
12	91	75	50	105	88	—	—	38	17	10.5	6	10.5	6	9	12.5	8	16	17
16	98	82	56	111	94	111	94	38	17	10.5	6	10.5	6	9	12.5	8	16	17
20	115	95	62	126	106	126	106	44	20	14.5	7.5	14.5	7.5	12	14.5	7.5	20	20
25	126	104	65	137	114.5	137	115	50	22	16	8	16	8	12	16	8	22	22
32	—	—	—	—	125	140	126	58	14	16.5	9	—	—	—	16.5	9	20	30
40	—	—	—	—	158	174	158	69	16	22	12	—	—	—	—	12	24	35

Bore	J	K	L	M	N	O	P	P1	Q	R	S	T	T1	X	V	W	Y
8	2.5	M4 x 0.7	M12 x 1.25	6	16	10	17	4	8	12	15	7	17	M5 x 0.8	4	—	—
10	2.5	M4 x 0.7	M12 x 1.25	6	16	10	17	4	8	12	15	7	17	M5 x 0.8	4	—	—
12	5	M6 x 1.0	M16 x 1.5	6	22	14	20	6	12	16	18	10	22	M5 x 0.8	6	—	5
16	5	M6 x 1.0	M16 x 1.5	6	22	13	22	6	12	16	20	10	22	M5 x 0.8	6	13.5	5
20	6	M8 x 1.25	M22 x 1.5	7	24	11	29	8	16	22	25	12	29	1/8"	8	16.5	6
25	6	M10 x 1.25	M22 x 1.5	7	28	11	33.5	8	16	22	30	17	29	1/8"	10	18.5	8
32	6	M10 x 1.25	M30 x 1.5	7	38	—	37.5	—	—	30	34.5	17	36	1/8"	12	10.5	10
40	7	M12 x 1.25	M38 x 1.5	8	45	—	46.5	—	—	38	42.5	17	46	1/4"	16	12.5	14

KB Series

Ø16 to Ø25

Bore	A	A1	A2	A3	A4	A5	B	C	D
16	98	82	56	111	94	111	38	17	12.1
20	115	95	62	126	106	126	44	20	14.5
25	126	104	65	137	113.5	137	50	22	16

Bore	D1	D2	D3	E	F	G	G1	G2
16	7	9	12.1	6	9	12.5	7.5	9.5
20	7.5	10.5	14.5	8	12	14.5	7.5	10.5
25	8	10.5	14.5	8	12	16	8	12

Bore	H	I	J	K	L	M	O	N
16	16	17	5	M6 x 1.0	M16 x 1.5	6	13	22
20	20	20	6	M8 x 1.25	M22 x 1.5	7	11	24
25	22	22	6	M10 x 1.25	M22 x 1.5	7	11	28

Bore	P	Q	R	S	T	T1	V	W	X
16	22	12	5	20	10	22	6	13.5	M5 x 0.8
20	29	16	6	25	12	29	8	16.5	1.8"
25	33.5	16	9	30	17	29	10	18.5	1/8"

Ø32 & Ø40

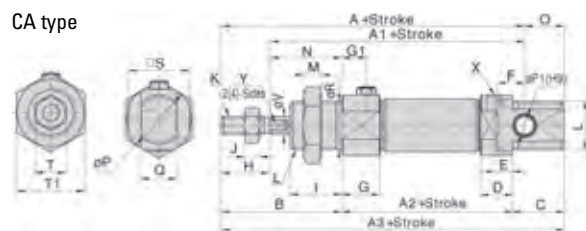
Bore	A2	A4	A5	B	C	D	D1	D2	D3	D4
32	68	124	140	58	14	16.5	9	11.5	14.5	7.5
40	89	157.5	174	69	16	22	12	12	21.5	11.5

Bore	D5	G	G1	G2	H	I	J	K
32	11	16.5	9	11.8	20	30	6	M10 x 1.25
40	14	22	12	12	24	35	7	M12 x 1.25

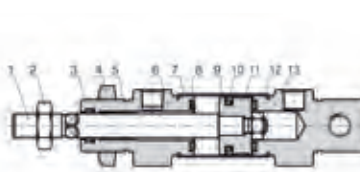
Bore	L	M	N	P	S	T	T1	V	W	X
32	M30 x 1.5	7	38	37.5	34.5	17	36	12	10.5	1/8"
40	M38 x 1.5	8	45	46.5	42.5	17	46	16	12.5	1/4"

KC Series

CA type



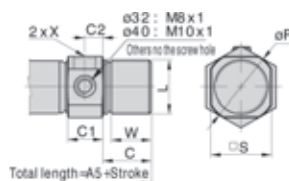
Inner Structure



No.	Item	Material
1	Rod	304
2	Rod nut	Carbon steel
3	Front cover packing	NBR
4	Front cover nut	Carbon steel
5	Bushing	Wear-resistant material
6	Front cover	Aluminium
7	Barrel	304
8	Bumper	TPU
9	Piston	303*
10	Piston O-ring	NBR
11	Wear ring	Wear-resistant material
12	Nut	Carbon steel
13	Back cover	Aluminium alloy

*16-40 bore: aluminium alloy.

CM type



Bore	A			A1		
	Stroke	0-50	51-100	101-150	0-50	51-100
8	101	—	—	89	—	—
10	101	—	—	89	—	—
12	116	—	—	100	—	—
16	123	148	—	107	132	—
20	140	165	190	120	145	170
25	151	176	201	129	154	179
32	—	—	—	—	—	—
40	—	—	—	—	—	—

Bore	A4			A5		
	Stroke	0-50	51-100	101-150	0-50	51-100
8	99	—	—	—	—	—
10	99	—	—	—	—	—
12	113	—	—	—	—	—
16	119	144	—	136	161	—
20	131	156	181	151	176	201
25	139.5	164.5	189.5	162	187	212
32	150	175	200	165	190	215
40	183	208	233	199	224	249

Bore	A2			A3		
	Stroke	0-50	51-100	101-150	0-50	51-100
8	71	—	—	111	—	—
10	71	—	—	111	—	—
12	75	—	—	130	—	—
16	81	106	—	136	161	—
20	87	112	137	151	176	201
25	90	115	140	162	187	212
32	—	—	—	—	—	—
40	—	—	—	—	—	—

Bore	A6							
	Stroke	0-50	51-100	101-150	B	C	C1	C2
8	—	—	—	—	28	12	9.5	5
10	—	—	—	—	28	12	9.5	5
12	—	—	—	—	38	17	10.5	5
16	119	144	—	—	38	17	10.5	5
20	131	156	181	44	20	14.5	7.5	
25	140	165	190	50	22	16	8	
32	151	176	201	58	14	16.5	9	
40	183	208	233	69	16	22	12	

PNEUMATIC CYLINDERS



ISO 6432 Mini Cylinders

Medium:

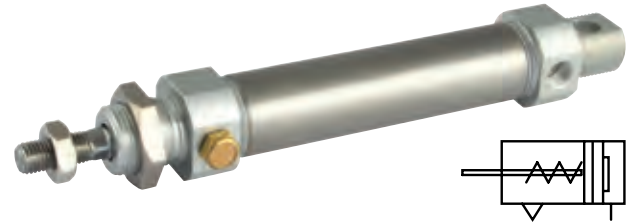
Clean compressed air. Filtered (40µm) and lubricated cushioning-bumper.

Please note: Bore sizes 8mm-12mm and 32mm-40mm are available on a lead time of 2 weeks. Please contact your local distributor for details.



Working Temperature:
-20°C to +70°C

Working Pressure:
2 to 10 bar



Stainless Steel Piston Rod and Barrel as Standard

Magnetic Single Acting

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KC-8X10-S-CA	8	10	M5	M12 x 1.25	M4 x 0.7
KC-8X15-S-CA	8	15	M5	M12 x 1.25	M4 x 0.7
KC-8X20-S-CA	8	20	M5	M12 x 1.25	M4 x 0.7
KC-8X25-S-CA	8	25	M5	M12 x 1.25	M4 x 0.7
KC-8X30-S-CA	8	30	M5	M12 x 1.25	M4 x 0.7
KC-8X40-S-CA	8	40	M5	M12 x 1.25	M4 x 0.7
KC-8X50-S-CA	8	50	M5	M12 x 1.25	M4 x 0.7
KC-10X10-S-CA	10	10	M5	M12 x 1.25	M4 x 0.7
KC-10X15-S-CA	10	15	M5	M12 x 1.25	M4 x 0.7
KC-10X20-S-CA	10	20	M5	M12 x 1.25	M4 x 0.7
KC-10X25-S-CA	10	25	M5	M12 x 1.25	M4 x 0.7
KC-10X30-S-CA	10	30	M5	M12 x 1.25	M4 x 0.7
KC-10X40-S-CA	10	40	M5	M12 x 1.25	M4 x 0.7
KC-10X50-S-CA	10	50	M5	M12 x 1.25	M4 x 0.7
KC-12X10-S-CA	12	10	M5	M16 x 1.5	M6 x 1.0
KC-12X15-S-CA	12	15	M5	M16 x 1.5	M6 x 1.0
KC-12X20-S-CA	12	20	M5	M16 x 1.5	M6 x 1.0
KC-12X25-S-CA	12	25	M5	M16 x 1.5	M6 x 1.0
KC-12X30-S-CA	12	30	M5	M16 x 1.5	M6 x 1.0
KC-12X40-S-CA	12	40	M5	M16 x 1.5	M6 x 1.0
KC-12X50-S-CA	12	50	M5	M16 x 1.5	M6 x 1.0
KC-16X10-S-CA	16	10	M5	M16 x 1.5	M6 x 1.0
KC-16X15-S-CA	16	15	M5	M16 x 1.5	M6 x 1.0
KC-16X20-S-CA	16	20	M5	M16 x 1.5	M6 x 1.0
KC-16X25-S-CA	16	25	M5	M16 x 1.5	M6 x 1.0
KC-16X30-S-CA	16	30	M5	M16 x 1.5	M6 x 1.0
KC-16X40-S-CA	16	40	M5	M16 x 1.5	M6 x 1.0
KC-16X50-S-CA	16	50	M5	M16 x 1.5	M6 x 1.0
KC-16X60-S-CA	16	60	M5	M16 x 1.5	M6 x 1.0
KC-16X75-S-CA	16	75	M5	M16 x 1.5	M6 x 1.0
KC-16X80-S-CA	16	80	M5	M16 x 1.5	M6 x 1.0
KC-16X100-S-CA	16	100	M5	M16 x 1.5	M6 x 1.0
KC-20X10-S-CA	20	10	1/8"	M22 x 1.5	M8 x 1.25
KC-20X15-S-CA	20	15	1/8"	M22 x 1.5	M8 x 1.25
KC-20X20-S-CA	20	20	1/8"	M22 x 1.5	M8 x 1.25
KC-20X25-S-CA	20	25	1/8"	M22 x 1.5	M8 x 1.25
KC-20X30-S-CA	20	30	1/8"	M22 x 1.5	M8 x 1.25
KC-20X40-S-CA	20	40	1/8"	M22 x 1.5	M8 x 1.25
KC-20X50-S-CA	20	50	1/8"	M22 x 1.5	M8 x 1.25
KC-20X60-S-CA	20	60	1/8"	M22 x 1.5	M8 x 1.25
KC-20X75-S-CA	20	75	1/8"	M22 x 1.5	M8 x 1.25
KC-20X80-S-CA	20	80	1/8"	M22 x 1.5	M8 x 1.25

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KC-20X100-S-CA	20	100	1/8"	M22 x 1.5	M8 x 1.25
KC-20X125-S-CA	20	125	1/8"	M22 x 1.5	M8 x 1.25
KC-20X150-S-CA	20	150	1/8"	M22 x 1.5	M8 x 1.25
KC-25X10-S-CA	25	10	1/8"	M22 x 1.5	M10 x 1.25
KC-25X20-S-CA	25	20	1/8"	M22 x 1.5	M10 x 1.25
KC-25X25-S-CA	25	25	1/8"	M22 x 1.5	M10 x 1.25
KC-25X30-S-CA	25	30	1/8"	M22 x 1.5	M10 x 1.25
KC-25X40-S-CA	25	40	1/8"	M22 x 1.5	M10 x 1.25
KC-25X50-S-CA	25	50	1/8"	M22 x 1.5	M10 x 1.25
KC-25X60-S-CA	25	60	1/8"	M22 x 1.5	M10 x 1.25
KC-25X75-S-CA	25	75	1/8"	M22 x 1.5	M10 x 1.25
KC-25X80-S-CA	25	80	1/8"	M22 x 1.5	M10 x 1.25
KC-25X100-S-CA	25	100	1/8"	M22 x 1.5	M10 x 1.25
KC-25X125-S-CA	25	125	1/8"	M22 x 1.5	M10 x 1.25
KC-25X150-S-CA	25	150	1/8"	M22 x 1.5	M10 x 1.25
KC-32X10-S-CM	32	10	1/8"	M30 x 1.5	M10 x 1.25
KC-32X15-S-CM	32	15	1/8"	M30 x 1.5	M10 x 1.25
KC-32X20-S-CM	32	20	1/8"	M30 x 1.5	M10 x 1.25
KC-32X25-S-CM	32	25	1/8"	M30 x 1.5	M10 x 1.25
KC-32X30-S-CM	32	30	1/8"	M30 x 1.5	M10 x 1.25
KC-32X40-S-CM	32	40	1/8"	M30 x 1.5	M10 x 1.25
KC-32X50-S-CM	32	50	1/8"	M30 x 1.5	M10 x 1.25
KC-32X60-S-CM	32	60	1/8"	M30 x 1.5	M10 x 1.25
KC-32X75-S-CM	32	75	1/8"	M30 x 1.5	M10 x 1.25
KC-32X80-S-CM	32	80	1/8"	M30 x 1.5	M10 x 1.25
KC-32X100-S-CM	32	100	1/8"	M30 x 1.5	M10 x 1.25
KC-32X125-S-CM	32	125	1/8"	M30 x 1.5	M10 x 1.25
KC-32X150-S-CM	32	150	1/8"	M30 x 1.5	M10 x 1.25
KC-40X10-S-CM	40	10	1/4"	M38 x 1.5	M12 x 1.25
KC-40X15-S-CM	40	15	1/4"	M38 x 1.5	M12 x 1.25
KC-40X20-S-CM	40	20	1/4"	M38 x 1.5	M12 x 1.25
KC-40X25-S-CM	40	25	1/4"	M38 x 1.5	M12 x 1.25
KC-40X30-S-CM	40	30	1/4"	M38 x 1.5	M12 x 1.25
KC-40X40-S-CM	40	40	1/4"	M38 x 1.5	M12 x 1.25
KC-40X50-S-CM	40	50	1/4"	M38 x 1.5	M12 x 1.25
KC-40X60-S-CM	40	60	1/4"	M38 x 1.5	M12 x 1.25
KC-40X75-S-CM	40	75	1/4"	M38 x 1.5	M12 x 1.25
KC-40X80-S-CM	40	80	1/4"	M38 x 1.5	M12 x 1.25
KC-40X100-S-CM	40	100	1/4"	M38 x 1.5	M12 x 1.25
KC-40X125-S-CM	40	125	1/4"	M38 x 1.5	M12 x 1.25
KC-40X150-S-CM	40	150	1/4"	M38 x 1.5	M12 x 1.25

Tech Sheet 3001

ISO 6432 Mini Cylinders

Medium:

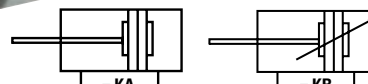
Clean compressed air. Filtered (40µm) and lubricated cushioning
KA-Bumper, KB-Adjustable.

Please note: Bore sizes 32mm-40mm are available on a lead time.
For more information see details.



Working Temperature:
-20°C to +70°C

Working Pressure:
1 to 10 bar



Stainless Steel Piston Rod and Barrel as Standard

Magnetic Double Acting

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KA-8X15-S-CA	8	15	M5	M12 x 1.25	M4 x 0.7
KA-8X20-S-CA	8	20	M5	M12 x 1.25	M4 x 0.7
KA-8X25-S-CA	8	25	M5	M12 x 1.25	M4 x 0.7
KA-8X30-S-CA	8	30	M5	M12 x 1.25	M4 x 0.7
KA-8X40-S-CA	8	40	M5	M12 x 1.25	M4 x 0.7
KA-8X50-S-CA	8	50	M5	M12 x 1.25	M4 x 0.7
KA-8X60-S-CA	8	60	M5	M12 x 1.25	M4 x 0.7
KA-8X75-S-CA	8	75	M5	M12 x 1.25	M4 x 0.7
KA-8X80-S-CA	8	80	M5	M12 x 1.25	M4 x 0.7
KA-8X100-S-CA	8	100	M5	M12 x 1.25	M4 x 0.7
KA-8X125-S-CA	8	125	M5	M12 x 1.25	M4 x 0.7
KA-8X150-S-CA	8	150	M5	M12 x 1.25	M4 x 0.7
KA-10X10-S-CA	10	10	M5	M12 x 1.25	M4 x 0.7
KA-10X15-S-CA	10	15	M5	M12 x 1.25	M4 x 0.7
KA-10X20-S-CA	10	20	M5	M12 x 1.25	M4 x 0.7
KA-10X25-S-CA	10	25	M5	M12 x 1.25	M4 x 0.7
KA-10X30-S-CA	10	30	M5	M12 x 1.25	M4 x 0.7
KA-10X40-S-CA	10	40	M5	M12 x 1.25	M4 x 0.7
KA-10X50-S-CA	10	50	M5	M12 x 1.25	M4 x 0.7
KA-10X60-S-CA	10	60	M5	M12 x 1.25	M4 x 0.7
KA-10X75-S-CA	10	75	M5	M12 x 1.25	M4 x 0.7
KA-10X80-S-CA	10	80	M5	M12 x 1.25	M4 x 0.7
KA-10X100-S-CA	10	100	M5	M12 x 1.25	M4 x 0.7
KA-10X125-S-CA	10	125	M5	M12 x 1.25	M4 x 0.7
KA-10X150-S-CA	10	150	M5	M12 x 1.25	M4 x 0.7
KA-10X160-S-CA	10	160	M5	M12 x 1.25	M4 x 0.7
KA-10X175-S-CA	10	175	M5	M12 x 1.25	M4 x 0.7
KA-10X200-S-CA	10	200	M5	M12 x 1.25	M4 x 0.7
KA-12X10-S-CA	12	10	M5	M16 x 1.5	M6 x 1.0
KA-12X15-S-CA	12	15	M5	M16 x 1.5	M6 x 1.0
KA-12X20-S-CA	12	20	M5	M16 x 1.5	M6 x 1.0
KA-12X25-S-CA	12	25	M5	M16 x 1.5	M6 x 1.0
KA-12X30-S-CA	12	30	M5	M16 x 1.5	M6 x 1.0
KA-12X40-S-CA	12	40	M5	M16 x 1.5	M6 x 1.0
KA-12X50-S-CA	12	50	M5	M16 x 1.5	M6 x 1.0
KA-12X60-S-CA	12	60	M5	M16 x 1.5	M6 x 1.0
KA-12X75-S-CA	12	75	M5	M16 x 1.5	M6 x 1.0
KA-12X80-S-CA	12	80	M5	M16 x 1.5	M6 x 1.0
KA-12X100-S-CA	12	100	M5	M16 x 1.5	M6 x 1.0
KA-12X125-S-CA	12	125	M5	M16 x 1.5	M6 x 1.0
KA-12X150-S-CA	12	150	M5	M16 x 1.5	M6 x 1.0
KA-12X175-S-CA	12	175	M5	M16 x 1.5	M6 x 1.0
KA-12X200-S-CA	12	200	M5	M16 x 1.5	M6 x 1.0
KA-12X250-S-CA	12	250	M5	M16 x 1.5	M6 x 1.0
KB-16X10-S-CA	16	10	M5	M16 x 1.5	M6 x 1.0
KB-16X15-S-CA	16	15	M5	M16 x 1.5	M6 x 1.0
KB-16X20-S-CA	16	20	M5	M16 x 1.5	M6 x 1.0
KB-16X25-S-CA	16	25	M5	M16 x 1.5	M6 x 1.0
KB-16X30-S-CA	16	30	M5	M16 x 1.5	M6 x 1.0

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KB-16X40-S-CA	16	40	M5	M16 x 1.5	M6 x 1.0
KB-16X50-S-CA	16	50	M5	M16 x 1.5	M6 x 1.0
KB-16X60-S-CA	16	60	M5	M16 x 1.5	M6 x 1.0
KB-16X75-S-CA	16	75	M5	M16 x 1.5	M6 x 1.0
KB-16X80-S-CA	16	80	M5	M16 x 1.5	M6 x 1.0
KB-16X100-S-CA	16	100	M5	M16 x 1.5	M6 x 1.0
KB-16X125-S-CA	16	125	M5	M16 x 1.5	M6 x 1.0
KB-16X150-S-CA	16	150	M5	M16 x 1.5	M6 x 1.0
KB-16X160-S-CA	16	160	M5	M16 x 1.5	M6 x 1.0
KB-16X175-S-CA	16	175	M5	M16 x 1.5	M6 x 1.0
KB-16X200-S-CA	16	200	M5	M16 x 1.5	M6 x 1.0
KB-16X250-S-CA	16	250	M5	M16 x 1.5	M6 x 1.0
KB-16X300-S-CA	16	300	M5	M16 x 1.5	M6 x 1.0
KB-20X10-S-CA	20	10	1/8"	M22 x 1.5	M8 x 1.25
KB-20X15-S-CA	20	15	1/8"	M22 x 1.5	M8 x 1.25
KB-20X20-S-CA	20	20	1/8"	M22 x 1.5	M8 x 1.25
KB-20X25-S-CA	20	25	1/8"	M22 x 1.5	M8 x 1.25
KB-20X30-S-CA	20	30	1/8"	M22 x 1.5	M8 x 1.25
KB-20X40-S-CA	20	40	1/8"	M22 x 1.5	M8 x 1.25
KB-20X50-S-CA	20	50	1/8"	M22 x 1.5	M8 x 1.25
KB-20X60-S-CA	20	60	1/8"	M22 x 1.5	M8 x 1.25
KB-20X75-S-CA	20	75	1/8"	M22 x 1.5	M8 x 1.25
KB-20X80-S-CA	20	80	1/8"	M22 x 1.5	M8 x 1.25
KB-20X100-S-CA	20	100	1/8"	M22 x 1.5	M8 x 1.25
KB-20X125-S-CA	20	125	1/8"	M22 x 1.5	M8 x 1.25
KB-20X150-S-CA	20	150	1/8"	M22 x 1.5	M8 x 1.25
KB-20X160-S-CA	20	160	1/8"	M22 x 1.5	M8 x 1.25
KB-20X175-S-CA	20	175	1/8"	M22 x 1.5	M8 x 1.25
KB-20X200-S-CA	20	200	1/8"	M22 x 1.5	M8 x 1.25
KB-20X250-S-CA	20	250	1/8"	M22 x 1.5	M8 x 1.25
KB-20X300-S-CA	20	300	1/8"	M22 x 1.5	M8 x 1.25
KB-20X350-S-CA	20	350	1/8"	M22 x 1.5	M8 x 1.25
KB-20X400-S-CA	20	400	1/8"	M22 x 1.5	M8 x 1.25
KB-20X450-S-CA	20	450	1/8"	M22 x 1.5	M8 x 1.25
KB-20X500-S-CA	20	500	1/8"	M22 x 1.5	M8 x 1.25
KB-25X10-S-CA	25	10	1/8"	M22 x 1.5	M10 x 1.25
KB-25X15-S-CA	25	15	1/8"	M22 x 1.5	M10 x 1.25
KB-25X20-S-CA	25	20	1/8"	M22 x 1.5	M10 x 1.25
KB-25X25-S-CA	25	25	1/8"	M22 x 1.5	M10 x 1.25
KB-25X30-S-CA	25	30	1/8"	M22 x 1.5	M10 x 1.25
KB-25X40-S-CA	25	40	1/8"	M22 x 1.5	M10 x 1.25
KB-25X50-S-CA	25	50	1/8"	M22 x 1.5	M10 x 1.25
KB-25X60-S-CA	25	60	1/8"	M22 x 1.5	M10 x 1.25
KB-25X75-S-CA	25	75	1/8"	M22 x 1.5	M10 x 1.25
KB-25X80-S-CA	25	80	1/8"	M22 x 1.5	M10 x 1.25
KB-25X100-S-CA	25	100	1/8"	M22 x 1.5	M10 x 1.25
KB-25X125-S-CA	25	125	1/8"	M22 x 1.5	M10 x 1.25
KB-25X150-S-CA	25	150	1/8"	M22 x 1.5	M10 x 1.25

Tech Sheet 3001

Further sizes in this range continued on next page

PNEUMATIC CYLINDERS



ISO 6432 Mini Cylinders

Medium:

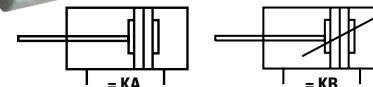
Clean compressed air. Filtered (40µm) and lubricated cushioning KA-Bumper, KB-Adjustable.

Please note: Bore sizes 32mm-40mm are available on a lead time.

For more information, please refer to the technical drawing for details.

Working Temperature:
-20°C to +70°C

Working Pressure:
1 to 10 bar



Stainless Steel Piston Rod and Barrel as Standard

Magnetic Double Acting

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KB-25X160-S-CA	25	160	1/8"	M22 x 1.5	M10 x 1.25
KB-25X175-S-CA	25	175	1/8"	M22 x 1.5	M10 x 1.25
KB-25X200-S-CA	25	200	1/8"	M22 x 1.5	M10 x 1.25
KB-25X250-S-CA	25	250	1/8"	M22 x 1.5	M10 x 1.25
KB-25X300-S-CA	25	300	1/8"	M22 x 1.5	M10 x 1.25
KB-25X350-S-CA	25	350	1/8"	M22 x 1.5	M10 x 1.25
KB-25X400-S-CA	25	400	1/8"	M22 x 1.5	M10 x 1.25
KB-25X450-S-CA	25	450	1/8"	M22 x 1.5	M10 x 1.25
KB-25X500-S-CA	25	500	1/8"	M22 x 1.5	M10 x 1.25
KB-25X600-S-CA	25	600	1/8"	M22 x 1.5	M10 x 1.25
KB-32X10-S-CM	32	10	1/8"	M30 x 1.5	M10 x 1.25
KB-32X15-S-CM	32	15	1/8"	M30 x 1.5	M10 x 1.25
KB-32X20-S-CM	32	20	1/8"	M30 x 1.5	M10 x 1.25
KB-32X25-S-CM	32	25	1/8"	M30 x 1.5	M10 x 1.25
KB-32X30-S-CM	32	30	1/8"	M30 x 1.5	M10 x 1.25
KB-32X40-S-CM	32	40	1/8"	M30 x 1.5	M10 x 1.25
KB-32X50-S-CM	32	50	1/8"	M30 x 1.5	M10 x 1.25
KB-32X60-S-CM	32	60	1/8"	M30 x 1.5	M10 x 1.25
KB-32X75-S-CM	32	75	1/8"	M30 x 1.5	M10 x 1.25
KB-32X80-S-CM	32	80	1/8"	M30 x 1.5	M10 x 1.25
KB-32X100-S-CM	32	100	1/8"	M30 x 1.5	M10 x 1.25
KB-32X125-S-CM	32	125	1/8"	M30 x 1.5	M10 x 1.25
KB-32X150-S-CM	32	150	1/8"	M30 x 1.5	M10 x 1.25
KB-32X160-S-CM	32	160	1/8"	M30 x 1.5	M10 x 1.25
KB-32X175-S-CM	32	175	1/8"	M30 x 1.5	M10 x 1.25
KB-32X200-S-CM	32	200	1/8"	M30 x 1.5	M10 x 1.25
KB-32X250-S-CM	32	250	1/8"	M30 x 1.5	M10 x 1.25
KB-32X300-S-CM	32	300	1/8"	M30 x 1.5	M10 x 1.25

0334	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KB-32X350-S-CM	32	350	1/8"	M30 x 1.5	M10 x 1.25
KB-32X400-S-CM	32	400	1/8"	M30 x 1.5	M10 x 1.25
KB-32X450-S-CM	32	450	1/8"	M30 x 1.5	M10 x 1.25
KB-32X500-S-CM	32	500	1/8"	M30 x 1.5	M10 x 1.25
KB-32X600-S-CM	32	600	1/8"	M30 x 1.5	M10 x 1.25
KB-40X10-S-CM	40	10	1/4"	M38 x 1.5	M12 x 1.25
KB-40X15-S-CM	40	15	1/4"	M38 x 1.5	M12 x 1.25
KB-40X20-S-CM	40	20	1/4"	M38 x 1.5	M12 x 1.25
KB-40X25-S-CM	40	25	1/4"	M38 x 1.5	M12 x 1.25
KB-40X30-S-CM	40	30	1/4"	M38 x 1.5	M12 x 1.25
KB-40X40-S-CM	40	40	1/4"	M38 x 1.5	M12 x 1.25
KB-40X50-S-CM	40	50	1/4"	M38 x 1.5	M12 x 1.25
KB-40X60-S-CM	40	60	1/4"	M38 x 1.5	M12 x 1.25
KB-40X75-S-CM	40	75	1/4"	M38 x 1.5	M12 x 1.25
KB-40X80-S-CM	40	80	1/4"	M38 x 1.5	M12 x 1.25
KB-40X100-S-CM	40	100	1/4"	M38 x 1.5	M12 x 1.25
KB-40X125-S-CM	40	125	1/4"	M38 x 1.5	M12 x 1.25
KB-40X150-S-CM	40	150	1/4"	M38 x 1.5	M12 x 1.25
KB-40X160-S-CM	40	160	1/4"	M38 x 1.5	M12 x 1.25
KB-40X175-S-CM	40	175	1/4"	M38 x 1.5	M12 x 1.25
KB-40X200-S-CM	40	200	1/4"	M38 x 1.5	M12 x 1.25
KB-40X250-S-CM	40	250	1/4"	M38 x 1.5	M12 x 1.25
KB-40X300-S-CM	40	300	1/4"	M38 x 1.5	M12 x 1.25
KB-40X350-S-CM	40	350	1/4"	M38 x 1.5	M12 x 1.25
KB-40X400-S-CM	40	400	1/4"	M38 x 1.5	M12 x 1.25
KB-40X450-S-CM	40	450	1/4"	M38 x 1.5	M12 x 1.25
KB-40X500-S-CM	40	500	1/4"	M38 x 1.5	M12 x 1.25
KB-40X600-S-CM	40	600	1/4"	M38 x 1.5	M12 x 1.25

Tech Sheet 3001

ISO 6432 Mountings



Front Flange Mounting FA

0334	Bore mm
F-KA8FA	8/10
F-KA12FA	12/16
F-KA20FA	20/25

Tech Sheet 3002



Front Trunnion Mounting TC

0334	Bore mm
F-KA8TC	8/10
F-KA12TC	12/16
F-KA20TC	20/25
F-KA32TC	32
F-KA40TC	40

Tech Sheet 3003

ISO 6432 Mountings



Rear Hinge Mounting SDB

0334	Bore mm
F-KA8SDB	8/10
F-KA12SDB	12/16
F-KA20SDB	20/25
F-KA32SDB	32
F-KA40SDB	40
Tech Sheet 3004	



Foot Mounting LB, (Pair)

0334	Bore mm
F-KA8LB	8/10
F-KA12LB	12/16
F-KA20LB	20/25
F-KA32LB	32
F-KA40LB	40
Tech Sheet 3005	



Piston Rod Clevis Y

0334	Bore mm	Thread
F-M04070YE	8/10	M4 x 0.7
F-M06100YE	12/16	M6 x 1
F-M08125YE	20	M8 x 1.25
F-M1025YE	25/32	M10 x 1.25
Tech Sheet 3006		



Piston Rod Clevis I

0334	Bore mm	Thread
F-M06100II	12/16	M6 x 1
F-M08125II	20	M8 x 1.25
F-M10125II	25/32	M10 x 1.25
F-M12125II	40	M12 x 1.25
Tech Sheet 3007		



Piston Rod Floating Joint F

0334	Bore mm	Thread
F-M08125F	20	M8 x 1.25
F-M10125F	25/32	M10 x 1.25
F-M12125F	40	M12 x 1.25
Tech Sheet 3008		



Piston Rod Universal Joint U

0334	Bore mm	Thread
F-M04070U	8/10	M4 x 0.7
F-M06100U	12/16	M6 x 1
F-M08125U	20	M8 x 1.25
F-M10125U	25/32	M10 x 1.25
F-M12125U	40	M12 x 1.25
Tech Sheet 3009		

Reed Switches to suit ISO 6432



Two Wire, N/O with LED

0334	Bore mm	Voltage
CS1-M-8	8	5-240V AC/DC
CS1-M-10	10	5-240V AC/DC
CS1-M-12	12	5-240V AC/DC
CS1-M-16	16	5-240V AC/DC
CS1-M-20	20	5-240V AC/DC
CS1-M-25	25	5-240V AC/DC
CS1-M-32	32	5-240V AC/DC
CS1-M-40	40	5-240V AC/DC
Tech Sheet 3010		

PNEUMATIC CYLINDERS

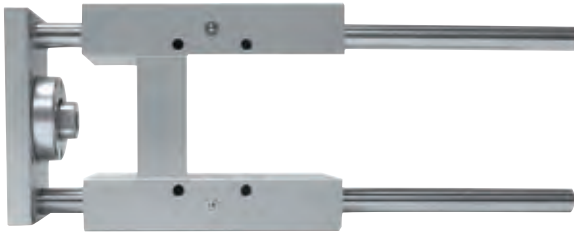


ISO 6432 Mini Cylinder Guides

The guide unit allows for standard ISO 6432 cylinder to move loads with high positioning accuracy.

Key Features

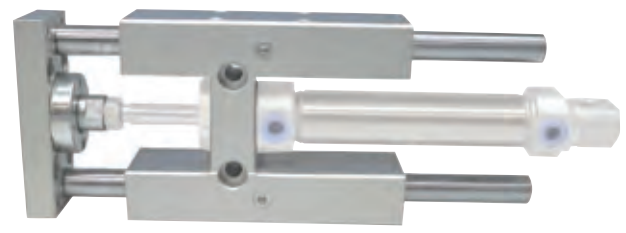
- Protection against rotation at high torques.
- High guide precision for cylinder guiding.
- Supplied plain or recirculating ball bearing guides.



With Slide Bearings

0334	Bore mm	Stroke mm
KRF-16X50-0	16	50
KRF-16X100-0	16	100
KRF-16X160-0	16	160
KRF-16X200-0	16	200
KRF-16X250-0	16	250
KRF-16X320-0	16	320
KRF-16X400-0	16	400
KRF-16X500-0	16	500
KRF-20X50-0	20	50
KRF-20X100-0	20	100
KRF-20X160-0	20	160
KRF-20X200-0	20	200
KRF-20X250-0	20	250
KRF-20X320-0	20	320
KRF-20X400-0	20	400
KRF-20X500-0	20	500
KRF-25X50-0	25	50
KRF-25X100-0	25	100
KRF-25X160-0	25	160
KRF-25X200-0	25	200
KRF-25X250-0	25	250
KRF-25X320-0	25	320
KRF-25X400-0	25	400
KRF-25X500-0	25	500

Tech Sheet 20893



With Ball Bearings

0334	Bore mm	Stroke mm
KRF-16X50-1	16	50
KRF-16X100-1	16	100
KRF-16X160-1	16	160
KRF-16X200-1	16	200
KRF-16X250-1	16	250
KRF-16X320-1	16	320
KRF-16X400-1	16	400
KRF-16X500-1	16	500
KRF-20X50-1	20	50
KRF-20X100-1	20	100
KRF-20X160-1	20	160
KRF-20X200-1	20	200
KRF-20X250-1	20	250
KRF-20X320-1	20	320
KRF-20X400-1	20	400
KRF-20X500-1	20	500
KRF-25X50-1	25	50
KRF-25X100-1	25	100
KRF-25X160-1	25	160
KRF-25X200-1	25	200
KRF-25X250-1	25	250
KRF-25X320-1	25	320
KRF-25X400-1	25	400
KRF-25X500-1	25	500

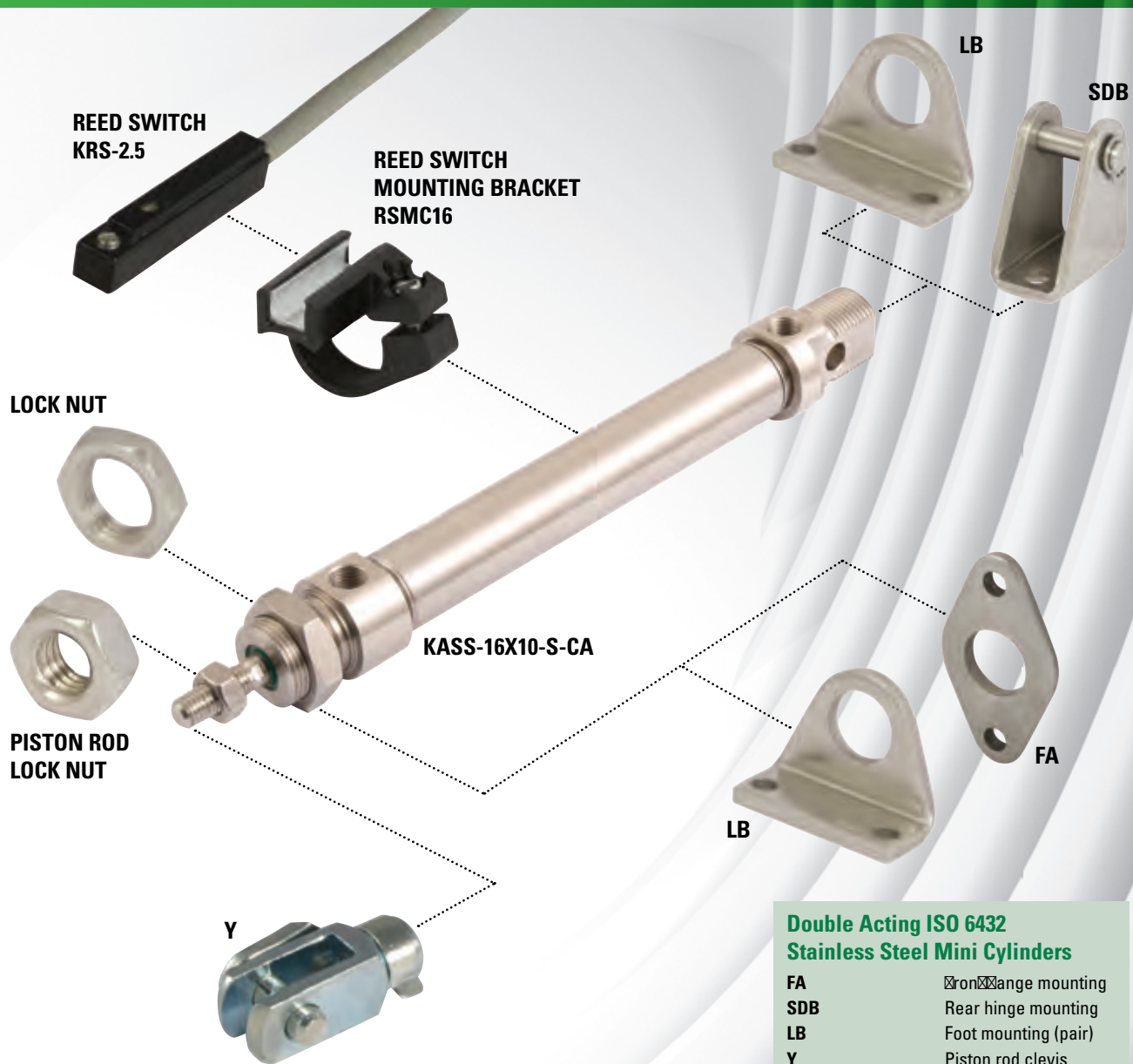
Tech Sheet 20894

PNEUMATIC STAINLESS STEEL ISO 6432 MINI CYLINDERS

Accessories & Mounting Selector

stainless
steel

FT PRO[®]



Double Acting ISO 6432 Stainless Steel Mini Cylinders

FA Flange mounting
SDB Rear hinge mounting
LB Foot mounting (pair)
Y Piston rod clevis

Lock Nut

Piston Rod Lock Nut

Reed Switches Two wire N/O with LED
Reed Switch Bracket

Cylinders

Pages 452-454

Mountings

Pages 454-455

Reed Switches

Page 455

Cylinder Guides

Page 456

PNEUMATIC STAINLESS STEEL ISO 6432 MINI CYLINDERS

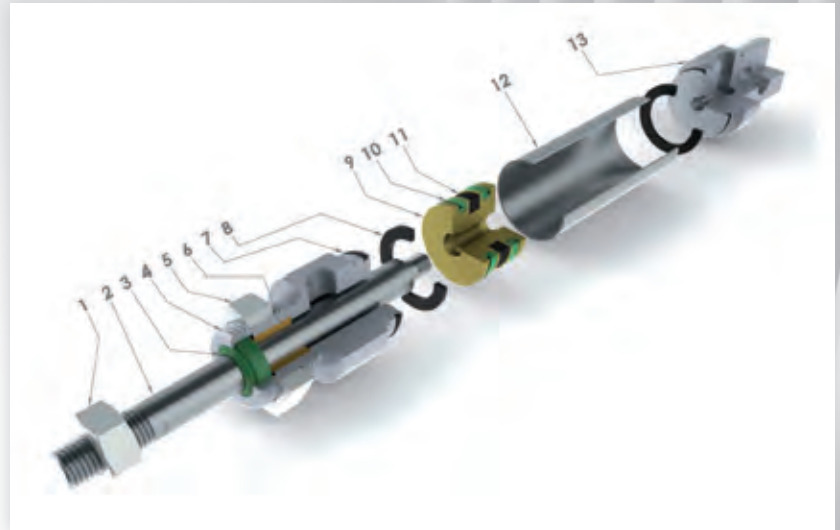
stainless
steel



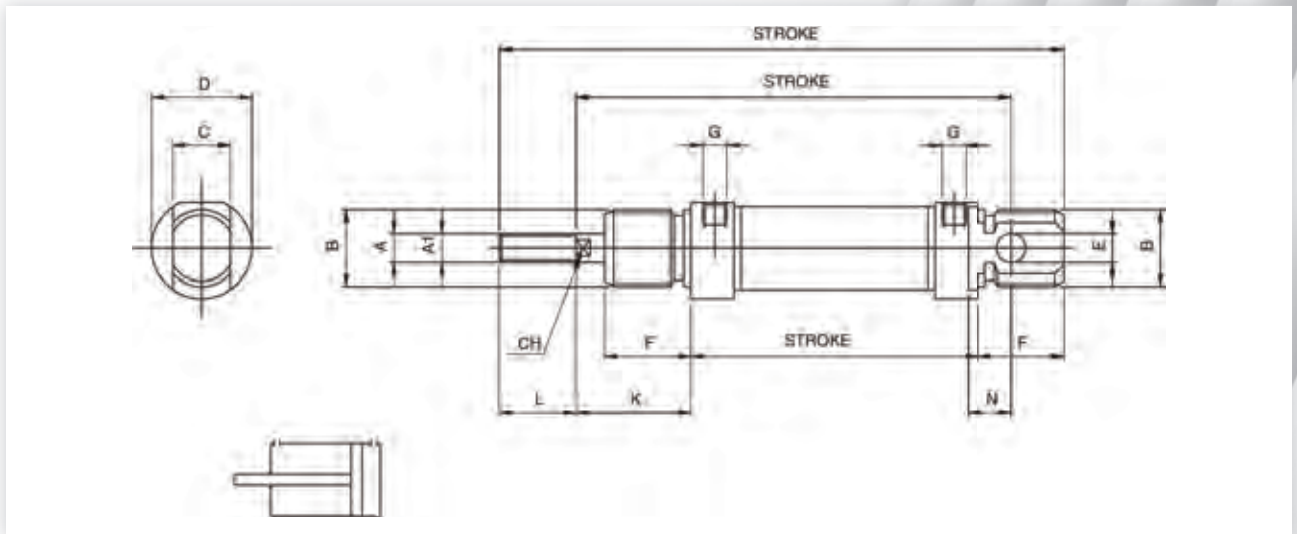
Technical Information

Component Parts & Materials

No.	Item	Material
1	Nut	Steel AISI 304
2	Piston rod	Steel AISI 306
3	Rod seal	Polyurethane
4	Front cover	Steel AISI 304
5	Nut	Steel AISI 304
6	Bearing	Sintered bronze
7	O-ring seals	Nitrile
8	Bumper	Neoprene
9	Piston	Brass
10	Piston seal	Polyurethane
11	Magnet	Plastoferrite
12	Mini cylinder shape body	Steel AISI 304
13	Back cover	Steel AISI 304



Double Acting Magnetic



KASS...

Ø mm	A	A1	B	C	D	E	F	G	K	L	M	N	P	R	CH
16	M6	6	M16 x 1.5	12	19	6	18	M5	22	16	109	9	53	82	5
20	M8	8	M22 x 1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10 x 1.25	10	M22 x 1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9

Stainless Steel ISO 6432 Mini Cylinders

Full stainless steel double acting, magnetic, bumper cushioned cylinders.

Available in:

Bore sizes: 16, 20 and 25mm

Stroke lengths: 10, 25, 50, 80, 100, 125, 160, 200, 250 and 320mm

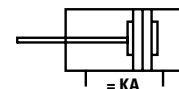
Intermediate strokes are available upon request, please contact our Business Development Team.

Available in **304 or 316L stainless steel**, but particularly suitable for use in corrosive environments.



Working Temperature:
0°C to +80°C

Operating Pressure:
2-10 bar



stainless steel

Magnetic Double Acting

0333	Bore mm	Stroke mm	Thread	Locknut Thread	Piston Rod Thread
KASS-16X10-S-CA	16	10	M5	M16 x 1.5	M6
KASS-16X25-S-CA	16	25	M5	M16 x 1.5	M6
KASS-16X50-S-CA	16	50	M5	M16 x 1.5	M6
KASS-16X80-S-CA	16	80	M5	M16 x 1.5	M6
KASS-16X100-S-CA	16	100	M5	M16 x 1.5	M6
KASS-16X125-S-CA	16	125	M5	M16 x 1.5	M6
KASS-16X160-S-CA	16	160	M5	M16 x 1.5	M6
KASS-16X200-S-CA	16	200	M5	M16 x 1.5	M6
KASS-16X250-S-CA	16	250	M5	M16 x 1.5	M6
KASS-16X320-S-CA	16	320	M5	M16 x 1.5	M6
KASS-20X10-S-CA	20	10	1/8"	M22 x 1.5	M8
KASS-20X25-S-CA	20	25	1/8"	M22 x 1.5	M8
KASS-20X50-S-CA	20	50	1/8"	M22 x 1.5	M8
KASS-20X80-S-CA	20	80	1/8"	M22 x 1.5	M8
KASS-20X100-S-CA	20	100	1/8"	M22 x 1.5	M8
KASS-20X125-S-CA	20	125	1/8"	M22 x 1.5	M8
KASS-20X160-S-CA	20	160	1/8"	M22 x 1.5	M8
KASS-20X200-S-CA	20	200	1/8"	M22 x 1.5	M8
KASS-20X250-S-CA	20	250	1/8"	M22 x 1.5	M8
KASS-20X320-S-CA	20	320	1/8"	M22 x 1.5	M8
KASS-25X10-S-CA	25	10	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X25-S-CA	25	25	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X50-S-CA	25	50	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X80-S-CA	25	80	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X100-S-CA	25	100	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X125-S-CA	25	125	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X160-S-CA	25	160	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X200-S-CA	25	200	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X250-S-CA	25	250	1/8"	M22 x 1.5	M10 x 1.25
KASS-25X320-S-CA	25	320	1/8"	M22 x 1.5	M10 x 1.25

Tech Sheet 10287



PNEUMATIC CYLINDERS

Stainless Steel ISO 6432 Mountings

stainless steel



Front Flange Mounting FA

0333	Bore mm
F-KASS16FA	16
F-KASS20FA	20/25

stainless steel



Foot Mounting LB, (single)

0333	Bore mm
F-KASS16LB	16
F-KASS20LB	20/25

stainless steel



Rear Hinge Mounting SDB

0333	Bore mm
F-KASS16SDB	16
F-KASS20SDB	20/25

stainless steel



Piston Rod Clevis Y

0333	Bore mm	Thread
F-KASS16Y	16	M6 x 1
F-KASS20Y	20	M8 x 1.25
F-KASS25Y	25	M10 x 1.25

stainless steel



Lock Nut

0333	Bore mm	Thread
F-KASS16LN	16	M16 x 1.5
F-KASS20LN	20/25	M22 x 1.5

stainless steel



Piston Rod Lock Nut

0333	Bore mm	Thread
F-KASS16PLN	16	M6
F-KASS20PLN	20	M8
F-KASS25PLN	25	M10 x 1.25

Reed Switches



Two Wire, N/O with LED

0333	Voltage
KRS-2.5	5-240V AC/DC


Reed Switch Mounting Brackets



0333	Bore mm
RSMC16	16
RSMC20	20
RSMC25	25



FESTO



Simply: part of the solution

The Festo ★ Core Range

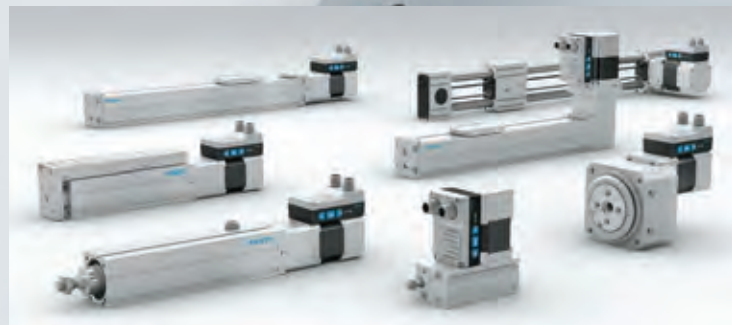
The benefits at a glance:

- Over 2200 products in the range
- Fast delivery
- Attractively priced

Core Range for automation

The Festo Core Range is our selection of the most important products and functions that solve the majority of your automation tasks.

Simplify your procurements -
Just look for the blue star!



CYLINDERS

For the full range and more information, please contact one of our sales team.

DSNU ROUND CYLINDER CETOP RP 52 P ISO 6432



Features



Product Description

DSNU

Cylinder
Type

- **16**

Bore Size
mm

- **100**

Stroke Size
mm

- **PPS**

Cushioning
PPS - Self adjusting
P - Polymer
PPV - Adjustable

- **A**

Magnetic

DIN ISO 6432 ROUND CYLINDERS, DSNU

FESTO



Double Acting, Elastic Polymer Cushioning Rings

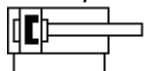
- Diameter 12-25mm: ISO 6432
- For very high demands on running characteristics, service life and load capacity
- Stainless Steel piston rod
- Comprehensive range of accessories

See page 468 for sensor mounts and sensors

Ambient Temperature:
-20°C to +80°C

Working Pressure:
1.5 to 10 bar (12mm Piston)
1 to 10 bar (Piston: 16, 20, 25)

Elastic Polymer Cushioning



Polymer, Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
19189	12	10	M6	DSNU-12-10-P-A
1908255	12	15	M6	DSNU-12-15-P-A
1908256	12	20	M6	DSNU-12-20-P-A
19190	12	25	M6	DSNU-12-25-P-A
1908257	12	30	M6	DSNU-12-30-P-A
19191	12	40	M6	DSNU-12-40-P-A
19192	12	50	M6	DSNU-12-50-P-A
1908258	12	60	M6	DSNU-12-60-P-A
19193	12	80	M6	DSNU-12-80-P-A
19194	12	100	M6	DSNU-12-100-P-A
19195	12	125	M6	DSNU-12-125-P-A
19196	12	160	M6	DSNU-12-160-P-A
19197	12	200	M6	DSNU-12-200-P-A
19198	16	10	M6	DSNU-16-10-P-A
1908259	16	15	M6	DSNU-16-15-P-A
1908260	16	20	M6	DSNU-16-20-P-A
19199	16	25	M6	DSNU-16-25-P-A
1908261	16	30	M6	DSNU-16-30-P-A
1908262	16	35	M6	DSNU-16-35-P-A
19200	16	40	M6	DSNU-16-40-P-A
19201	16	50	M6	DSNU-16-50-P-A
1908263	16	60	M6	DSNU-16-60-P-A
1908264	16	70	M6	DSNU-16-70-P-A
19202	16	80	M6	DSNU-16-80-P-A
19203	16	100	M6	DSNU-16-100-P-A
19204	16	125	M6	DSNU-16-125-P-A
1908265	16	150	M6	DSNU-16-150-P-A
19205	16	160	M6	DSNU-16-160-P-A
19206	16	200	M6	DSNU-16-200-P-A

Tech Sheet 70225

Polymer, Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
19207	20	10	M8	DSNU-20-10-P-A
1908282	20	15	M8	DSNU-20-15-P-A
1908283	20	20	M8	DSNU-20-20-P-A
19208	20	25	M8	DSNU-20-25-P-A
1908284	20	30	M8	DSNU-20-30-P-A
1908285	20	35	M8	DSNU-20-35-P-A
19209	20	40	M8	DSNU-20-40-P-A
19210	20	50	M8	DSNU-20-50-P-A
1908286	20	60	M8	DSNU-20-60-P-A
1908287	20	70	M8	DSNU-20-70-P-A
19211	20	80	M8	DSNU-20-80-P-A
19212	20	100	M8	DSNU-20-100-P-A
19213	20	125	M8	DSNU-20-125-P-A
1908288	20	150	M8	DSNU-20-150-P-A
19214	20	160	M8	DSNU-20-160-P-A
19215	20	200	M8	DSNU-20-200-P-A
19216	20	250	M8	DSNU-20-250-P-A
19217	20	300	M8	DSNU-20-300-P-A
34718	20	320	M8	DSNU-20-320-P-A
19218	25	10	M10 x 1.25	DSNU-25-10-P-A
1908305	25	15	M10 x 1.25	DSNU-25-15-P-A
1908306	25	20	M10 x 1.25	DSNU-25-20-P-A
19219	25	25	M10 x 1.25	DSNU-25-25-P-A
1908307	25	30	M10 x 1.25	DSNU-25-30-P-A
1908308	25	35	M10 x 1.25	DSNU-25-35-P-A
19220	25	40	M10 x 1.25	DSNU-25-40-P-A
19221	25	50	M10 x 1.25	DSNU-25-50-P-A
1908309	25	60	M10 x 1.25	DSNU-25-60-P-A
1908310	25	70	M10 x 1.25	DSNU-25-70-P-A
19222	25	80	M10 x 1.25	DSNU-25-80-P-A
19223	25	100	M10 x 1.25	DSNU-25-100-P-A
19224	25	125	M10 x 1.25	DSNU-25-125-P-A
1908311	25	150	M10 x 1.25	DSNU-25-150-P-A
19225	25	160	M10 x 1.25	DSNU-25-160-P-A
19226	25	200	M10 x 1.25	DSNU-25-200-P-A
19227	25	250	M10 x 1.25	DSNU-25-250-P-A
19228	25	300	M10 x 1.25	DSNU-25-300-P-A
34719	25	320	M10 x 1.25	DSNU-25-320-P-A

Tech Sheet 70226

DIN ISO 6432 ROUND CYLINDERS, DSNU

FESTO



Double Acting, Adjustable Pneumatic Cushioning

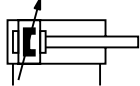
- Diameter 16-25mm: ISO 6432
- For very high demands on running characteristics, service life and load capacity
- Stainless Steel piston rod
- Comprehensive range of accessories

See page 468 for sensor mounts and sensors

Ambient Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Adjustable Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
1908266	16	10	M6	DSNU-16-10-PPV-A
1908267	16	15	M6	DSNU-16-15-PPV-A
1908268	16	20	M6	DSNU-16-20-PPV-A
33973	16	25	M6	DSNU-16-25-PPV-A
1908269	16	30	M6	DSNU-16-30-PPV-A
1908270	16	35	M6	DSNU-16-35-PPV-A
19229	16	40	M6	DSNU-16-40-PPV-A
19230	16	50	M6	DSNU-16-50-PPV-A
1908271	16	60	M6	DSNU-16-60-PPV-A
1908272	16	70	M6	DSNU-16-70-PPV-A
19231	16	80	M6	DSNU-16-80-PPV-A
19232	16	100	M6	DSNU-16-100-PPV-A
19233	16	125	M6	DSNU-16-125-PPV-A
1908273	16	150	M6	DSNU-16-150-PPV-A
19234	16	160	M6	DSNU-16-160-PPV-A
19235	16	200	M6	DSNU-16-200-PPV-A

Tech Sheet 70229

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
1908289	20	10	M8	DSNU-20-10-PPV-A
1908290	20	15	M8	DSNU-20-15-PPV-A
1908291	20	20	M8	DSNU-20-20-PPV-A
33974	20	25	M8	DSNU-20-25-PPV-A
1908292	20	30	M8	DSNU-20-30-PPV-A
1908293	20	35	M8	DSNU-20-35-PPV-A
19236	20	40	M8	DSNU-20-40-PPV-A
19237	20	50	M8	DSNU-20-50-PPV-A
1908294	20	60	M8	DSNU-20-60-PPV-A
1908295	20	70	M8	DSNU-20-70-PPV-A
19238	20	80	M8	DSNU-20-80-PPV-A
19239	20	100	M8	DSNU-20-100-PPV-A
19240	20	125	M8	DSNU-20-125-PPV-A
1908296	20	150	M8	DSNU-20-150-PPV-A
19241	20	160	M8	DSNU-20-160-PPV-A
19242	20	200	M8	DSNU-20-200-PPV-A
19243	20	250	M8	DSNU-20-250-PPV-A
19244	20	300	M8	DSNU-20-300-PPV-A
34720	20	320	M8	DSNU-20-320-PPV-A
1908312	25	10	M10 x 1.25	DSNU-25-10-PPV-A
1908313	25	15	M10 x 1.25	DSNU-25-15-PPV-A
1908314	25	20	M10 x 1.25	DSNU-25-20-PPV-A
33975	25	25	M10 x 1.25	DSNU-25-25-PPV-A
1908315	25	30	M10 x 1.25	DSNU-25-30-PPV-A
1908316	25	35	M10 x 1.25	DSNU-25-35-PPV-A
19245	25	40	M10 x 1.25	DSNU-25-40-PPV-A
19246	25	50	M10 x 1.25	DSNU-25-50-PPV-A
1908317	25	60	M10 x 1.25	DSNU-25-60-PPV-A
1908318	25	70	M10 x 1.25	DSNU-25-70-PPV-A
19247	25	80	M10 x 1.25	DSNU-25-80-PPV-A
19248	25	100	M10 x 1.25	DSNU-25-100-PPV-A
19249	25	125	M10 x 1.25	DSNU-25-125-PPV-A
1908319	25	150	M10 x 1.25	DSNU-25-150-PPV-A
19250	25	160	M10 x 1.25	DSNU-25-160-PPV-A
19251	25	200	M10 x 1.25	DSNU-25-200-PPV-A
19252	25	250	M10 x 1.25	DSNU-25-250-PPV-A
19253	25	300	M10 x 1.25	DSNU-25-300-PPV-A
34721	25	320	M10 x 1.25	DSNU-25-320-PPV-A

Tech Sheet 70230

FESTO

new
product



For Festo Tube Regulators
see page 814

DIN ISO 6432 ROUND CYLINDERS, DSNU

FESTO

Double Acting, Self-adjusting Pneumatic Cushioning



- Diameter 16-25mm: ISO 6432
- For very high demands on running characteristics, service life and load capacity
- Stainless Steel piston rod
- Comprehensive range of accessories

See page 468 for sensor mounts and sensors

° Ambient Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Self-adjusting Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
1908274	16	10	M6	DSNU-16-10-PPS-A
1908275	16	15	M6	DSNU-16-15-PPS-A
1908276	16	20	M6	DSNU-16-20-PPS-A
559263	16	25	M6	DSNU-16-25-PPS-A
1908277	16	30	M6	DSNU-16-30-PPS-A
1908278	16	35	M6	DSNU-16-35-PPS-A
559264	16	40	M6	DSNU-16-40-PPS-A
559265	16	50	M6	DSNU-16-50-PPS-A
1908279	16	60	M6	DSNU-16-60-PPS-A
1908280	16	70	M6	DSNU-16-70-PPS-A
559266	16	80	M6	DSNU-16-80-PPS-A
559267	16	100	M6	DSNU-16-100-PPS-A
559268	16	125	M6	DSNU-16-125-PPS-A
1908281	16	150	M6	DSNU-16-150-PPS-A
559269	16	160	M6	DSNU-16-160-PPS-A
559270	16	200	M6	DSNU-16-200-PPS-A

Tech Sheet 70231

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
1908297	20	10	M8	DSNU-20-10-PPS-A
1908298	20	15	M8	DSNU-20-15-PPS-A
1908299	20	20	M8	DSNU-20-20-PPS-A
559271	20	25	M8	DSNU-20-25-PPS-A
1908300	20	30	M8	DSNU-20-30-PPS-A
1908301	20	35	M8	DSNU-20-35-PPS-A
559272	20	40	M8	DSNU-20-40-PPS-A
559273	20	50	M8	DSNU-20-50-PPS-A
1908302	20	60	M8	DSNU-20-60-PPS-A
1908303	20	70	M8	DSNU-20-70-PPS-A
559274	20	80	M8	DSNU-20-80-PPS-A
559275	20	100	M8	DSNU-20-100-PPS-A
559276	20	125	M8	DSNU-20-125-PPS-A
1908304	20	150	M8	DSNU-20-150-PPS-A
559277	20	160	M8	DSNU-20-160-PPS-A
559278	20	200	M8	DSNU-20-200-PPS-A
559279	20	250	M8	DSNU-20-250-PPS-A
559280	20	300	M8	DSNU-20-300-PPS-A
559281	20	320	M8	DSNU-20-320-PPS-A
1908320	25	10	M10 x 1.25	DSNU-25-10-PPS-A
1908321	25	15	M10 x 1.25	DSNU-25-15-PPS-A
1908322	25	20	M10 x 1.25	DSNU-25-20-PPS-A
559282	25	25	M10 x 1.25	DSNU-25-25-PPS-A
1908323	25	30	M10 x 1.25	DSNU-25-30-PPS-A
1908324	25	35	M10 x 1.25	DSNU-25-35-PPS-A
559283	25	40	M10 x 1.25	DSNU-25-40-PPS-A
559284	25	50	M10 x 1.25	DSNU-25-50-PPS-A
1908325	25	60	M10 x 1.25	DSNU-25-60-PPS-A
1908326	25	70	M10 x 1.25	DSNU-25-70-PPS-A
559285	25	80	M10 x 1.25	DSNU-25-80-PPS-A
559286	25	100	M10 x 1.25	DSNU-25-100-PPS-A
559287	25	125	M10 x 1.25	DSNU-25-125-PPS-A
1908327	25	150	M10 x 1.25	DSNU-25-150-PPS-A
559288	25	160	M10 x 1.25	DSNU-25-160-PPS-A
559289	25	200	M10 x 1.25	DSNU-25-200-PPS-A
559290	25	250	M10 x 1.25	DSNU-25-250-PPS-A
559291	25	300	M10 x 1.25	DSNU-25-300-PPS-A
559292	25	320	M10 x 1.25	DSNU-25-320-PPS-A

Tech Sheet 70232

FESTO

new product



For Festo Differential Pressure Regulators see page 816

ROUND CYLINDERS, DSNU-S

FESTO



Compact Double Acting, Elastic Polymer Cushioning Rings

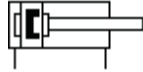
- Compact variant of standards-based cylinder DSNU
- Diameter 12-25mm
- Space saving

See page 468 for sensor mounts and sensors

Ambient Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Elastic Polymer Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
5211896	12	10	M6	DSNU-S-12-10-P-A
5211897	12	15	M6	DSNU-S-12-15-P-A
5211898	12	20	M6	DSNU-S-12-20-P-A
5211899	12	25	M6	DSNU-S-12-25-P-A
5211900	12	30	M6	DSNU-S-12-30-P-A
5211901	12	40	M6	DSNU-S-12-40-P-A
5211903	12	50	M6	DSNU-S-12-50-P-A
5211904	12	60	M6	DSNU-S-12-60-P-A
5211905	12	80	M6	DSNU-S-12-80-P-A
5211906	12	100	M6	DSNU-S-12-100-P-A
5211908	12	125	M6	DSNU-S-12-125-P-A
5211909	12	150	M6	DSNU-S-12-150-P-A
5216087	16	10	M6	DSNU-S-16-10-P-A
5216088	16	15	M6	DSNU-S-16-15-P-A
5216089	16	20	M6	DSNU-S-16-20-P-A
5216090	16	25	M6	DSNU-S-16-25-P-A
5216091	16	30	M6	DSNU-S-16-30-P-A
5216093	16	40	M6	DSNU-S-16-40-P-A
5216094	16	50	M6	DSNU-S-16-50-P-A
5216095	16	60	M6	DSNU-S-16-60-P-A
5216096	16	80	M6	DSNU-S-16-80-P-A
5216098	16	100	M6	DSNU-S-16-100-P-A
5216099	16	125	M6	DSNU-S-16-125-P-A
5216100	16	150	M6	DSNU-S-16-150-P-A
5216101	16	200	M6	DSNU-S-16-200-P-A

Tech Sheet 70227

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
5224633	20	10	M8	DSNU-S-20-10-P-A
5224634	20	15	M8	DSNU-S-20-15-P-A
5224635	20	20	M8	DSNU-S-20-20-P-A
5224636	20	25	M8	DSNU-S-20-25-P-A
5224637	20	30	M8	DSNU-S-20-30-P-A
5224639	20	40	M8	DSNU-S-20-40-P-A
5224641	20	50	M8	DSNU-S-20-50-P-A
5224642	20	60	M8	DSNU-S-20-60-P-A
5224643	20	80	M8	DSNU-S-20-80-P-A
5224644	20	100	M8	DSNU-S-20-100-P-A
5224645	20	125	M8	DSNU-S-20-125-P-A
5224646	20	150	M8	DSNU-S-20-150-P-A
5224647	20	200	M8	DSNU-S-20-200-P-A
5228227	25	10	M8	DSNU-S-25-10-P-A
5228228	25	15	M8	DSNU-S-25-15-P-A
5228229	25	20	M8	DSNU-S-25-20-P-A
5228230	25	25	M8	DSNU-S-25-25-P-A
5228231	25	30	M8	DSNU-S-25-30-P-A
5228232	25	40	M8	DSNU-S-25-40-P-A
5228233	25	50	M8	DSNU-S-25-50-P-A
5228234	25	60	M8	DSNU-S-25-60-P-A
5228235	25	80	M8	DSNU-S-25-80-P-A
5228236	25	100	M8	DSNU-S-25-100-P-A
5228237	25	125	M8	DSNU-S-25-125-P-A
5228238	25	150	M8	DSNU-S-25-150-P-A
5228239	25	200	M8	DSNU-S-25-200-P-A

Tech Sheet 70228

ROUND CYLINDERS, DSNU-S

FESTO

Compact Double Acting, Self-adjusting Pneumatic Cushioning



- Compact variant of standards-based cylinder DSNU
- Diameter 16-25mm
- Space saving

See page 468 for sensor mounts and sensors

° Ambient Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Self-adjusting Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
5217238	16	25	M6	DSNU-S-16-25-PPS-A
5217239	16	30	M6	DSNU-S-16-30-PPS-A
5217240	16	40	M6	DSNU-S-16-40-PPS-A
5217241	16	50	M6	DSNU-S-16-50-PPS-A
5217242	16	60	M6	DSNU-S-16-60-PPS-A
5217243	16	80	M6	DSNU-S-16-80-PPS-A
5217244	16	100	M6	DSNU-S-16-100-PPS-A
5217245	16	125	M6	DSNU-S-16-125-PPS-A
5217246	16	150	M6	DSNU-S-16-150-PPS-A
5217248	16	200	M6	DSNU-S-16-200-PPS-A

Tech Sheet 70233

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
5225836	20	25	M8	DSNU-S-20-25-PPS-A
5225837	20	30	M8	DSNU-S-20-30-PPS-A
5225838	20	40	M8	DSNU-S-20-40-PPS-A
5225839	20	50	M8	DSNU-S-20-50-PPS-A
5225840	20	60	M8	DSNU-S-20-60-PPS-A
5225841	20	80	M8	DSNU-S-20-80-PPS-A
5225842	20	100	M8	DSNU-S-20-100-PPS-A
5225843	20	125	M8	DSNU-S-20-125-PPS-A
5225844	20	150	M8	DSNU-S-20-150-PPS-A
5225846	20	200	M8	DSNU-S-20-200-PPS-A
5228452	25	25	M8	DSNU-S-25-25-PPS-A
5228453	25	30	M8	DSNU-S-25-30-PPS-A
5228454	25	40	M8	DSNU-S-25-40-PPS-A
5228455	25	50	M8	DSNU-S-25-50-PPS-A
5228456	25	60	M8	DSNU-S-25-60-PPS-A
5228457	25	80	M8	DSNU-S-25-80-PPS-A
5228458	25	100	M8	DSNU-S-25-100-PPS-A
5228459	25	125	M8	DSNU-S-25-125-PPS-A
5228460	25	150	M8	DSNU-S-25-150-PPS-A
5228461	25	200	M8	DSNU-S-25-200-PPS-A

Tech Sheet 70234

FESTO



For **Festo Air Prep MS Series**
see pages 657-662

CYLINDER ATTACHMENTS & ACCESSORIES

FESTO


Mounting Components for Drive Units



**Foot Mounting, ISO 6432, Version S1,
For DSNU Standard Cylinder**

0009	To Suit Bore mm	Quantity	Manufacturer's Code
5125	12/16	1	HBN-12/16X1
5126	12/16	2	HBN-12/16X2
5127	20/25	1	HBN-20/25X1
5128	20/25	2	HBN-20/25X2

Tech Sheet 70217



**Foot Mounting, ISO 6432, Version S3,
For DSNU-S Space Saving Cylinder**

0009	To Suit Bore mm	Quantity	Manufacturer's Code
5407772	12/16	1	HBN-S-12/16X1
5407787	20/25	1	HBN-S-20/25X1
5407847	20/25	2	HBN-S-20/25X2

Tech Sheet 70218



Clevis Foot Swivel Mounting, ISO 6432

0009	To Suit Bore mm	Manufacturer's Code
6058	12/16	LBN-12/16
6059	20/25	LBN-20/25

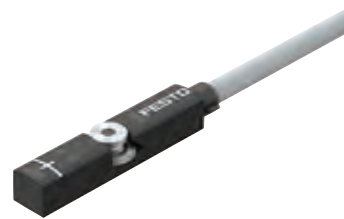
Tech Sheet 70216

Mounting Components for Sensors



SMBR, Clip Mounting Kits

0009	Type
175091	SMBR-8
175092	SMBR-8-10
175093	SMBR-8-12
175094	SMBR-8-16
175095	SMBR-8-20
175096	SMBR-8-25
175097	SMBR-8-32
175098	SMBR-8-40
175099	SMBR-8-50
175100	SMBR-8-63



**Proximity Sensors For T-Slot,
Non-contacting**

0009	Type N/O Contact
574334	SMT-8M-A-PS-24V-E-0.3-M8D (PNP)
574339	SMT-8M-A-NS-24V-E-0.3-M8D (NPN)



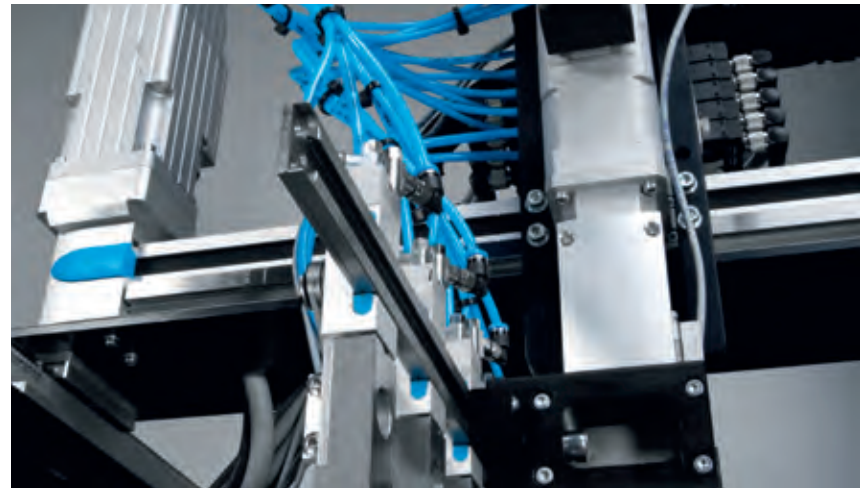
Cable Type NEBU

0009	Designation
541334	Connecting cable

T Slot



C Slot



ISO 6432 MINI CYLINDERS



ISO 6432 Single Acting Cylinders

Technical Data for all ISO 6432 Cylinders

° Temperature Range:
10°C to +80°C

Maximum Operating Pressure:
10 bar

• Fluid: lubricated or unlubricated air
• Inrush pressure: Ø10-12 = 0.8 bar, Ø16-25 = 0.6 bar

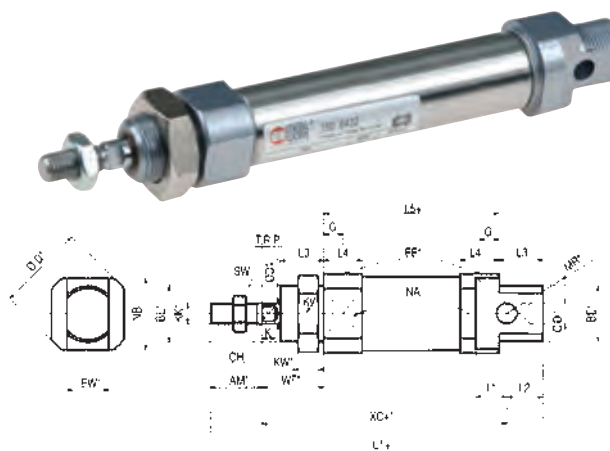
• Forces generated at 6 bar thrust/retraction:
Ø16: 108N/95N, Ø20: 169N/148N, Ø25: 265N/228N

Dimensions

Ø	AM	BE	ØCD	ØD	ØD1	G	EE	EW	L	L1	L2	L3	L4	L5	KK	XC	WF	KW	KV	MR	NA	NB	SW	CH	K
10	12	M12 x 1.25	4	17	4	6	M5	8	6	86	10	12	10	46	M4	64	16	7	19	12	15	15	7	3	3
12	16	M16 x 1.5	6	19	6	6	M5	12	9	104	13	17	10	49	M6	75	22	8	24	16	17	17	10	5	3
16	16	M16 x 1.5	6	23	6	6	M5	12	9	111	13	17	10	56	M6	82	22	8	24	16	20	20	10	5	3.5
20	20	M22 x 1.5	8	34	8	8	G1/8	16	12	129	14	17	15	68	M8	95	24	10	32	18	28	28	13	7	4.6
25	22	M22 x 1.5	8	34	10	9	G1/8	16	12	143	17	20	18	73	M10 x 1.25	104	28	10	32	21	30	30	17	8	5

Non-magnetic

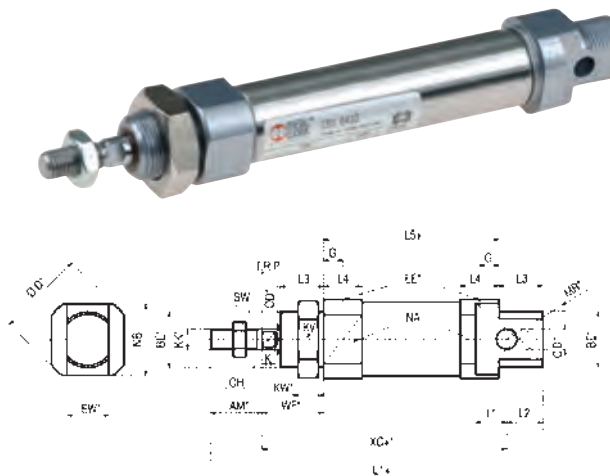
9146	Diameter mm	Stroke mm
1110100010XN	10	10
1110100025XN	10	25
1110100050XN	10	50
1110120010CN	12	10
1110120025CN	12	25
1110120050CN	12	50
1110160010CN	16	10
1110160025CN	16	25
1110160050CN	16	50
1110200010CN	20	10
1110200025CN	20	25
1110200050CN	20	50
1110250010CN	25	10
1110250025CN	25	25
1110250050CN	25	50



ISO 6432 Double Acting Cylinders

Magnetic

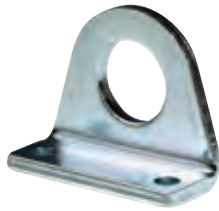
9146	Diameter mm	Stroke mm
1120160010CN	16	10
1120160025CN	16	25
1120160050CN	16	50
1120160080CN	16	80
1120160100CN	16	100
1120160125CN	16	125
1120160160CN	16	160
1120160200CN	16	200
1120200010CN	20	10
1120200025CN	20	25
1120200050CN	20	50
1120200080CN	20	80
1120200100CN	20	100
1120200125CN	20	125
1120200160CN	20	160
1120200200CN	20	200
1120200250CN	20	250
1120250010CN	25	10
1120250025CN	25	25
1120250050CN	25	50
1120250080CN	25	80
1120250100CN	25	100
1120250125CN	25	125
1120250160CN	25	160
1120250200CN	25	200
1120250250CN	25	250
1120250320CN	25	320



ISO 6432 MINI CYLINDERS ACCESSORIES



Foot Mounting



To suit ISO 6432 Cylinders

9146	To Suit Size mm
W0950080001	10
W0950120001	12-16
W0950200001	20-25

Flange Mounting



To suit ISO 6432 Cylinders

9146	To Suit Size mm
W0950080002	10
W0950120002	12-16
W0950200002	20-25

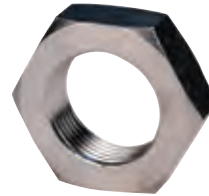
Counter Support



To suit ISO 6432 Cylinders

9146	To Suit Size mm
W0950080005	10
W0950120005	12-16
W0950200005	20-25

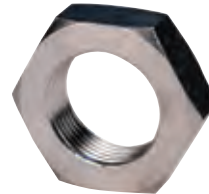
Cylinder Head Nut



To suit ISO 6432 Cylinders

9146	To Suit Size mm	Thread
W0950080010	10	M12 x 1.25
W0950120010	16	M16 x 1.5
W0950200010	25	M22 x 1.5

Piston Rod Nut



To suit ISO 6432 Cylinders

9146	To Suit Size mm	Thread
W0950080011	10	M4
W0950120011	16	M6
W0950200011	20	M8
W0950322010	25	M10 x 1.25

Fork Clevis



To suit ISO 6432 Cylinders

9146	To Suit Size mm	Thread
W0950080020	10	M4
W0950120020	12-16	M6
W0950200020	20	M8
W0950322020	25	M10 x 1.25

Spherical Rod Eye



To suit ISO 6432 Cylinders

9146	To Suit Size mm	Thread
W0950080025	10	M4
W0950120025	12-16	M6
W0950200025	20	M8
W0950322025	25	M10 x 1.25

Reed Switch & Bracket



To suit ISO 6432 Cylinders

9146	Description/To Suit
W0950000201	Reed Switch
W0950000510	10
W0950000512	12
W0950000516	16
W0950000520	20
W0950000525	25

ISO 6432 MINI AIR CYLINDERS, ALL STAINLESS STEEL


ISO 6432 Mini Cylinders, Double Acting

Technical Specification

- ISO 6432 stainless steel micro-cylinders are available in various versions with a wide range of accessories
- With or without magnet execution
- Double-acting, single or through-rod
- Gaskets: polyurethane or FKM/FPM (for high temperatures)
- Fixing accessories

Fluid

Lubricated or non-lubricated air

 **Temperature Range:**
10°C to +80°C

 **Maximum Operating Pressure:**
10 bar



1. Piston rod: AISI 316 steel
2. Head: AISI 304 steel
3. Piston rod gasket: polyurethane or FKM/FPM
4. Guide bushing: sintered bronze
5. Barrel: AISI 304 steel
6. Piston: brass
7. Piston gasket: polyurethane or FKM/FPM
8. Magnet: plastoferrite
9. Static O-rings: NBR or FKM/FPM



Magnetic

9146	Ø mm	Stroke mm
W1800160010	16	10
W1800160025	16	25
W1800160050	16	50
W1800160080	16	80
W1800160100	16	100
W1800160125	16	125
W1800160160	16	160
W1800160200	16	200
W1800160250	16	250
W1800160320	16	320
W1800200010	20	10
W1800200025	20	25
W1800200050	20	50
W1800200080	20	80
W1800200100	20	100
W1800200125	20	125
W1800200160	20	160

9146	Ø mm	Stroke mm
W1800200200	20	200
W1800200250	20	250
W1800200320	20	320
W1800200400	20	400
W1800250010	25	10
W1800250025	25	25
W1800250050	25	50
W1800250080	25	80
W1800250100	25	100
W1800250125	25	125
W1800250160	25	160
W1800250200	25	200
W1800250250	25	250
W1800250320	25	320
W1800250400	25	400
W1800250500	25	500

ISO 6432 MINI AIR CYLINDER ACCESSORIES, ALL STAINLESS STEEL

Foot Mountings



To suit ISO 6432 Mini Cylinders

9146	To Suit Size mm
W095X120001	16
W095X200001	20/25

Female Hinges



To suit ISO 6432 Mini Cylinders

9146	To Suit Size mm
W095X120005	16
W095X200005	20/25

Rod Nuts



To suit ISO 6432 Mini Cylinders

9146	To Suit Size mm	Thread
W095X120011	16	M6 x 1
W095X200011	20	M8 x 1
W095X322011	25/32	M10 x 1.25

Cylinder Head Nuts



To suit ISO 6432 Mini Cylinders

9146	To Suit Size mm	Thread
W095X120010	16	M16 x 1.25
W095X200010	20/25	M22 x 1.5

Flange



To suit ISO 6432 Mini Cylinders

9146	Size to Suit mm
W095X120002	16
W095X200002	20/25

Fork Clevis



To suit ISO 6432 Cylinders

9146	To Suit Size mm	Thread
W095X120020	16	M6 x 1
W095X200020	20	M8 x 1
W095X322020	25/32	M10 x 1.25

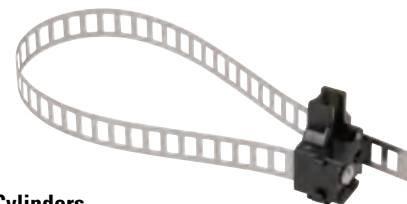
Reed Switch



To suit ISO 6432 Mini Cylinders

9146	Description
W0952028184	With M8 Connection

Mounting for Reed Switch



To suit ISO 6432 Mini Cylinders

9146	To Suit Size mm
W0950001103	8-63

We have access to **over 10,000 product lines available** via Norgren's European Distribution Centre. Contact our business development team with your Norgren requirements.

Norgren's extensive product range comprises of other leading brands including: **Veht, Herion, Buschjost, Martonair, Festo, SMC, Rexroth, Eaton.**



VACUUM

Vacuum is most commonly used for picking and placing components in assembly automation systems. Generated from a compressed air supply, this can be controlled very simply in order to

perform most common tasks. The range includes a range of pumps, cups, switches and accessories; easily selected and applied.



PRESSURE SWITCHES

Pressure switches can be used to automatically monitor pressure levels in a compressed air system. They can however also be used for more complex monitoring functions in air, water or hydraulic applications.



ACTUATORS

Pneumatic actuators (sometimes called cylinders) are the product used to provide motion and force to industrial automation applications. Linear and rotary output, they are available in all manner of sizes and styles to suit most requirements.

Norgren has a long history of production of this kind of device – an early example of a pneumatic actuator was the original Martonair air hoist. They now include rodded, rodless, compact, roundline, guided and other ranges.



AIR PREPARATION

Correct air preparation is essential for best performance. Norgren has a great reputation in this area, and its ranges have been at the forefront of industry for many years.



VALVES

In industrial automation, valves can be as simple or complex as required. Norgren has many brand names associated with its valve ranges – Herion,

Buschjost, Walter, FAS, Webber, Watson Smith, Maxseal, Enots and Martonair.

ISO 6432 CYLINDERS & MOUNTINGS



ISO 6432 Cylinders

- Magnetic piston as standard
- Generally conforms to ISO 6432
- High strength, double crimped end cap design
- Corrosion resistant

Working Temperature:
-10°C to +80°C

Working Pressure:
2 to 10 bar

Standard:
ISO 6432

Buffer:
Polyurethane

Operation:
Single acting (sprung in),
magnetic piston, buffer cushioning

- Nose mounting nut and piston rod locknut as standard
 - Optional port arrangement for compact installation
- Medium:**
Compressed air, filtered, lubricated or non-lubricated

Barrel:
Stainless steel
(austenitic)

Piston Rod:
Stainless steel
(austenitic)

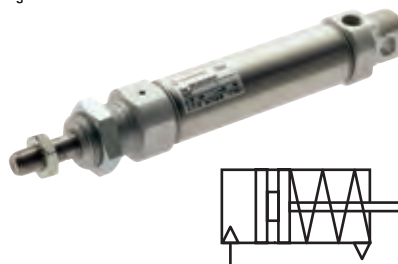
Seals:
Nitrile rubber

End Covers:
Clear anodised
aluminium alloy

Single Acting RM/28000/M

0036	Bore mm	Stroke mm	Thread
RM/28010/M/10	10	10	M5
RM/28010/M/25	10	25	M5
RM/28010/M/50	10	50	M5
RM/28020/M/10	20	10	G1/8
RM/28020/M/25	20	25	G1/8
RM/28020/M/50	20	50	G1/8
RM/28025/M/10	25	10	G1/8
RM/28025/M/25	25	25	G1/8
RM/28025/M/50	25	50	G1/8

Tech Sheet 10316



Working Temperature:
-10°C to +80°C

Working Pressure:
1 to 10 bar

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Standard:
ISO 6432

Buffer:
Polyurethane

Operation:
Double acting, magnetic
piston with buffer or
adjustable cushioning

Barrel:
Stainless steel
(austenitic)

Piston Rod:
Stainless steel
(austenitic)

Wiper:
Polyurethane

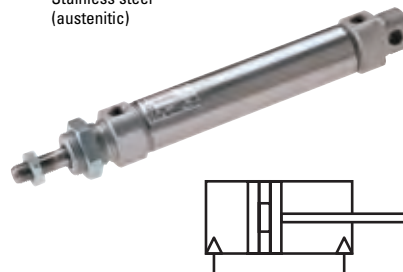
Seals:
Nitrile rubber

End Covers:
Clear anodised
aluminium alloy

Double Acting RM/8000/M

0036	Bore mm	Stroke mm	Thread
RM/8010/M/25	10	25	M5
RM/8010/M/50	10	50	M5
RM/8010/M/80	10	80	M5
RM/8010/M/100	10	100	M5
RM/8012/M/25	12	25	M5
RM/8012/M/50	12	50	M5
RM/8016/M/25	16	25	M5
RM/8016/M/50	16	50	M5
RM/8016/M/100	16	100	M5
RM/8020/M/25	20	25	G1/8
RM/8020/M/50	20	50	G1/8
RM/8020/M/80	20	80	G1/8
RM/8020/M/100	20	100	G1/8
RM/8025/M/25	25	25	G1/8
RM/8025/M/50	25	50	G1/8
RM/8025/M/80	25	80	G1/8
RM/8025/M/100	25	100	G1/8

Tech Sheet 10316



ISO 6432 Mountings



Female Piston Rod Clevis

0036	Bore mm
QM/8010/25	10
QM/8012/25	12 & 16
QM/8020/25	20
QM/8025/25	25

Tech Sheet 10316



Piston Rod Eye

0036	Bore mm
QM/8010/32	10
QM/8012/32	12 & 16
QM/8020/32	20
QM/8025/32	25

Tech Sheet 10316



Clevis Foot Mounting

0036	Bore mm
QM/947	10
QM/8012/24	12 & 16
QM/8020/24	20 & 25

Tech Sheet 10316

ISO 6432 CYLINDERS

Proximity Switches to suit Series 24, 32, 60 & 61



T Slot

0158	Description	Voltage
CST 220	2 Wire	10-110V AC/DC
CST 232	3 Wire	5-30V AC/DC
CST 332	Hall Effect, 3 Wire, PNP	27V DC

Tech Sheet 20084



T Slot, M8

0158	Description	Voltage
CST 250	2 Wire	10-110V AC/DC
CST 262	3 Wire	5-30V AC/DC
CST 362	Hall Effect, 3 Wire, PNP	27V DC

Tech Sheet 20084

Extension Lead

0158	Length Metres
GG08B3C25050	5

Tech Sheet 20084

Proximity Switch Brackets



Series 24

0158	OD mm
S-CST 02	16
S-CST 03	20
S-CST 04	25

Tech Sheet 20084



Series 60

0158	OD mm
S-CST 25	32-63
S-CST 26	80-100

Tech Sheet 20084

Series 24, Double Acting Cylinders

Single and double-acting
Standard CETOP RP52P DIN/ISO 6432
Stainless steel rod and tube
Anodized AL end-blocks

Type of construction: flanged

Operation: single-acting or double-acting

Materials: end-blocks = anodized AL, tube and rod = stainless steel, piston = AL, seals = NBR - PU, other parts = see coding

Brackets: screw, flange, feet, trunnion

Stroke min – max: Ø 16: 10 - 600 mm; Ø 20 - Ø 25: 10 - 1000 mm

Bores: Ø 16, 20, 25

Fluid: Filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied the lubrication should never be interrupted.

Speed: 10 to 1000 mm/sec (without load)

Operating temperature:
0°C to 80°C (with dry air -20°C)

Operating pressure:
1 to 10 bar (double-acting);
2 to 10 bar (single-acting)



M5, Ø16mm

0158	Stroke mm
24N2A16A010	10
24N2A16A025	25
24N2A16A040	40
24N2A16A050	50
24N2A16A080	80
24N2A16A100	100
24N2A16A125	125
24N2A16A160	160
24N2A16A200	200

Tech Sheet 1844

G1/8", Ø25mm

0158	Stroke mm
24N2A25A010	10
24N2A25A025	25
24N2A25A040	40
24N2A25A050	50
24N2A25A080	80
24N2A25A100	100
24N2A25A125	125
24N2A25A160	160
24N2A25A200	200
24N2A25A250	250
24N2A25A300	300
24N2A25A320	320
24N2A25A400	400
24N2A25A500	500

Tech Sheet 1844

G1/8", Ø20mm

0158	Stroke mm
24N2A20A010	10
24N2A20A025	25
24N2A20A040	40
24N2A20A050	50
24N2A20A080	80
24N2A20A100	100
24N2A20A125	125
24N2A20A160	160
24N2A20A200	200
24N2A20A250	250
24N2A20A300	300

Tech Sheet 1844



For Super-Rapid Compact Fittings
see page 832

ISO 6432 CYLINDERS



Mini-ISO Cylinders



Micro Cylinders Double Acting 8mm-16mm

0110	Bore mm	Stroke mm
1280.10.15.M	10	15
1280.10.100.M	10	100
1280.12.15.M	12	15
1280.12.50.M	12	50
1280.12.100.M	12	100
1280.12.250.M	12	250
1280.12.300.M	12	300
1280.16.50.M	16	50
1280.16.75.M	16	75
1280.16.80.M	16	80
1280.16.100.M	16	100
1280.16.150.M	16	150
1280.16.160.M	16	160
1280.16.200.M	16	200

Micro Cylinders Double Acting 20mm-32mm

0110	Bore mm	Stroke mm
1280.20.15.M	20	15
1280.20.25.M	20	25
1280.20.50.M	20	50
1280.20.75.M	20	75
1280.20.80.M	20	80
1280.20.150.M	20	150
1280.20.200.M	20	200
1280.20.250.M	20	250
1280.20.300.M	20	300
1280.20.350.M	20	350
1280.25.15.M	25	15
1280.25.25.M	25	25
1280.25.50.M	25	50
1280.25.75.M	25	75
1280.25.80.M	25	80
1280.25.100.M	25	100
1280.25.125.M	25	125
1280.25.200.M	25	200
1280.25.250.M	25	250
1280.25.300.M	25	300
1280.25.400.M	25	400
1280.32.50.M	32	50
1280.32.150.M	32	150
1280.32.250.M	32	250
1280.32.400.M	32	400



Micro Cylinders Double Acting No Rear Eye 8mm-16mm

0110	Bore mm	Stroke mm
1281.12.150.M	12	150
1281.16.80.M	16	80
1281.16.150.M	16	150

Micro Cylinders Double Acting No Rear Eye 20mm-32mm

0110	Bore mm	Stroke mm
1281.20.50.M	20	50
1281.20.200.M	20	200
1281.25.50.M	25	50
1281.25.75.M	25	75
1281.25.160.M	25	160
1281.32.50.M	32	50
1281.32.75.M	32	75
1281.32.200.M	32	200
1281.32.300.M	32	300



For Pneumax Air Preparation
see page 700

Mini-ISO Cylinder Mountings



1580U Reed Switch c/w LED

0110	Description
1580U	LED Reed Switch N/O



1500.U Switch Clamps 12mm-32mm

0110	Bore mm
1280.16.F	16



Rod Clevis c/w Pin 8mm-32mm

0110	Bore mm
1200.12.04	12



1580.U Switch Clamps 8mm-32mm

0110	Bore mm
1280.8.FS	8



Foot Bracket 8mm-32mm

0110	Bore mm
1200.8.01	8



Rod Clevis c/w Pin & Clip 8mm-32mm

0110	Bore mm
1200.25.04/1	25



1500U Reed Switch c/w LED

0110	Description
1500.U	LED Reed Switch N/O



Flange Bracket 8mm-32mm

0110	Bore mm
1200.8.02	8



Rod Nut & Locking Ring 8mm-32mm

0110	Bore mm
1200.8.05	8



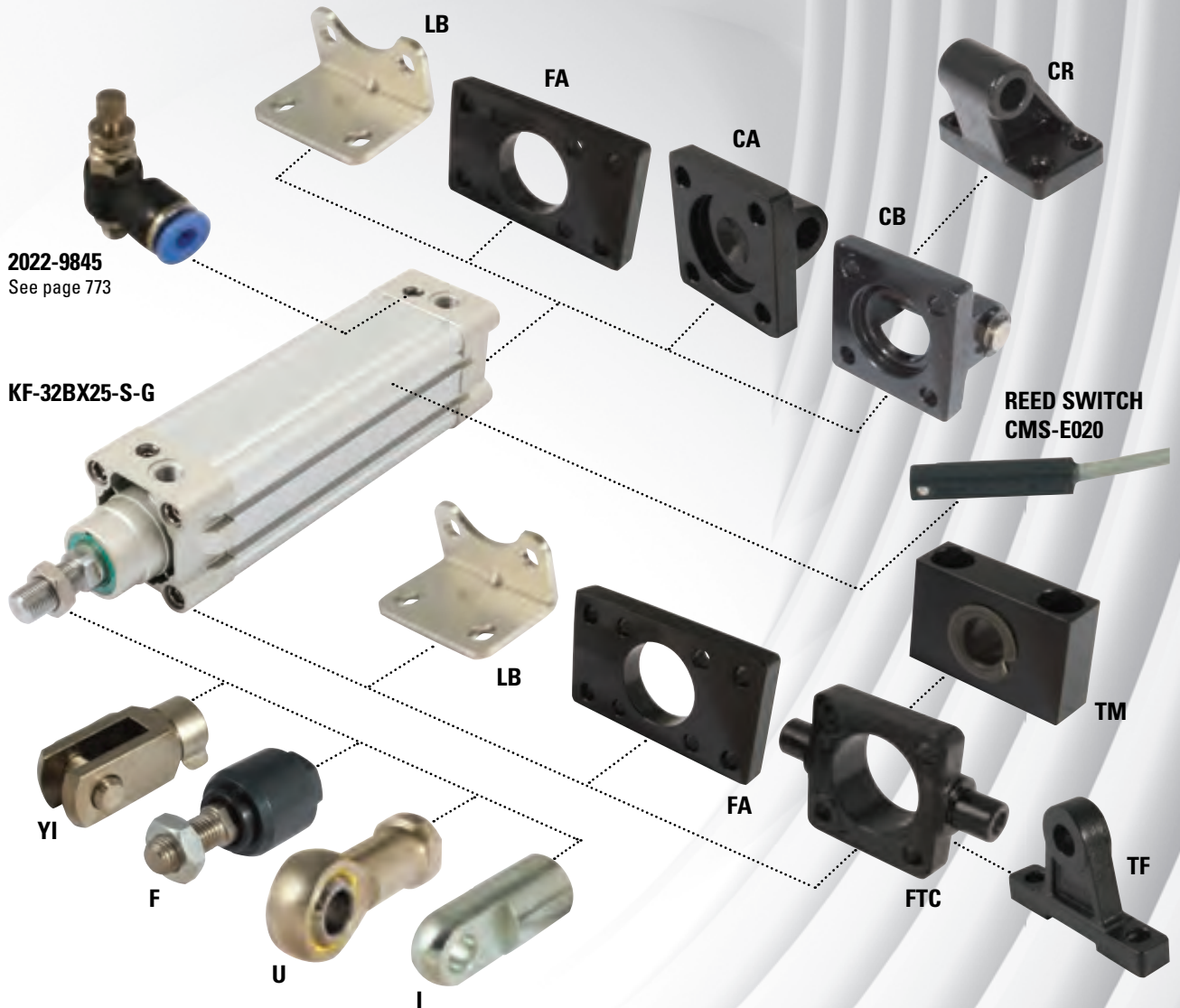
Rear Eye Bracket 8mm-32mm

0110	Bore mm
1200.32.03	32

PNEUMATIC GEN 1 & 2 ISO 1552 CYLINDERS

Accessories & Mounting Selector

stainless steel



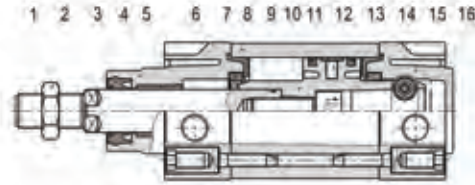
ISO 1552 Cylinders	
FA	Front and rear flange mounting
FTC	Front trunnion mounting
TF	Front trunnion clevis mounting
TM	Trunnion support mounting
CA	Rear eye mounting
CB	Rear clevis mounting
CR	Rear bracket mounting
LB	Foot mounting (pair)
YI	Piston rod clevis
I	Piston rod clevis
F	Piston rod floating joint
U	Piston rod universal joint
Reed Switches	Two wire N/O with LED

Cylinders	Reed Switches
Pages 480-483	Page 485
Mountings	Cylinder Guides
Pages 484-485	Page 486

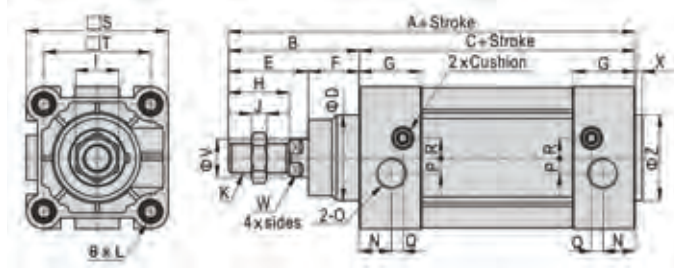
Technical Information

Inner Structure & Material of Major Parts

No.	Item	Material
1	Rod nut	Stainless steel
2	Piston rod	Blank: medium carbon steel B: 304 stainless steel
3	Front cover packing	TPU
4	Front cover	Aluminium alloy
5	Bushing	Wear-resistant material
6	Cushioning O-ring	TPU
7	Barrel	Aluminium alloy
8	O-ring	Nitrile
9	Piston	Aluminium alloy
10	Piston seal	TPU
11	Wear ring	Wear-resistant material
12	Magnet	Plastic/rubber (Ø125)
13	Bolt	Carbon steel
14	Buffer gasket	TPU
15	Back cover	Aluminium alloy
16	Screw	Carbon steel/stainless steel



Dimensions



Bore Size/Item	A	B	C	D	E	F	G	H	I	J	K	L	N	P	Q	R	S	T	V	W	X	Z
32	142	48	94	30	29	19	27.5	22	17	6	M10 x 1.25	M6	13.5	5.8	6	6.3	46.5	32.5	12	10	3	30
40	159	54	105	35	33	21	32	24	17	7	M12 x 1.25	M6	17.5	6	5.5	9	54	38	16	13	3.5	35
50	175	69	106	40	42	27	31	32	23	8	M16 x 1.5	M8	14	8	5	10.5	64	46.5	20	17	3.5	40
63	190	69	121	45	42	27	33	32	23	8	M16 x 1.5	M8	17	8	6	10.5	75	56.5	20	17	4	45
80	214	86	128	45	53	33	33	40	26	10	M20 x 1.5	M10	16.5	8	8.5	12.5	93	72	25	22	4	45
100	229	91	138	55	55	36	37	40	26	10	M20 x 1.5	M10	19.5	10	7	12	110	89	25	22	4	55
125	279	119	160	60	74	45	46	54	41	13.5	M27 x 2	M12	23	11	12	11	135	110	32	27	4	60

PNEUMATIC CYLINDERS



Gen 1 ISO 15552 Cylinders

Medium:

Clean compressed air. Filtered (40µm) and lubricated adjustable cushioning.

Piston Rod Material: Chrome plated carbon steel.

Please note: Bore sizes 125mm are available on a lead time.

For more information, please refer to the technical data sheet for details.



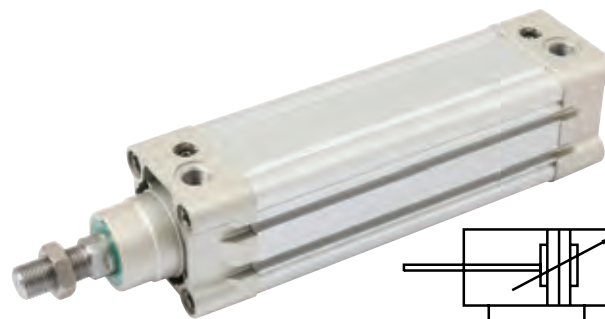
Working Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Chrome Plated Carbon Steel Piston Rod as Standard

Magnetic Double Acting, Adjustable Cushioning, BSPP

0414	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-32X25-S-G	32	25	1/8"	M10 x 1.25
KI-32X50-S-G	32	50	1/8"	M10 x 1.25
KI-32X75-S-G	32	75	1/8"	M10 x 1.25
KI-32X80-S-G	32	80	1/8"	M10 x 1.25
KI-32X100-S-G	32	100	1/8"	M10 x 1.25
KI-32X125-S-G	32	125	1/8"	M10 x 1.25
KI-32X150-S-G	32	150	1/8"	M10 x 1.25
KI-32X160-S-G	32	160	1/8"	M10 x 1.25
KI-32X175-S-G	32	175	1/8"	M10 x 1.25
KI-32X200-S-G	32	200	1/8"	M10 x 1.25
KI-32X250-S-G	32	250	1/8"	M10 x 1.25
KI-32X300-S-G	32	300	1/8"	M10 x 1.25
KI-32X350-S-G	32	350	1/8"	M10 x 1.25
KI-32X400-S-G	32	400	1/8"	M10 x 1.25
KI-32X450-S-G	32	450	1/8"	M10 x 1.25
KI-32X500-S-G	32	500	1/8"	M10 x 1.25
KI-40X25-S-G	40	25	1/4"	M12 x 1.25
KI-40X50-S-G	40	50	1/4"	M12 x 1.25
KI-40X75-S-G	40	75	1/4"	M12 x 1.25
KI-40X80-S-G	40	80	1/4"	M12 x 1.25
KI-40X100-S-G	40	100	1/4"	M12 x 1.25
KI-40X125-S-G	40	125	1/4"	M12 x 1.25
KI-40X150-S-G	40	150	1/4"	M12 x 1.25
KI-40X160-S-G	40	160	1/4"	M12 x 1.25
KI-40X175-S-G	40	175	1/4"	M12 x 1.25
KI-40X200-S-G	40	200	1/4"	M12 x 1.25
KI-40X250-S-G	40	250	1/4"	M12 x 1.25
KI-40X300-S-G	40	300	1/4"	M12 x 1.25
KI-40X350-S-G	40	350	1/4"	M12 x 1.25
KI-40X400-S-G	40	400	1/4"	M12 x 1.25
KI-40X450-S-G	40	450	1/4"	M12 x 1.25
KI-40X500-S-G	40	500	1/4"	M12 x 1.25
KI-40X600-S-G	40	600	1/4"	M12 x 1.25
KI-40X700-S-G	40	700	1/4"	M12 x 1.25
KI-40X800-S-G	40	800	1/4"	M12 x 1.25
KI-50X25-S-G	50	25	1/4"	M16 x 1.5
KI-50X50-S-G	50	50	1/4"	M16 x 1.5
KI-50X75-S-G	50	75	1/4"	M16 x 1.5
KI-50X80-S-G	50	80	1/4"	M16 x 1.5
KI-50X100-S-G	50	100	1/4"	M16 x 1.5
KI-50X125-S-G	50	125	1/4"	M16 x 1.5
KI-50X150-S-G	50	150	1/4"	M16 x 1.5
KI-50X160-S-G	50	160	1/4"	M16 x 1.5
KI-50X175-S-G	50	175	1/4"	M16 x 1.5
KI-50X200-S-G	50	200	1/4"	M16 x 1.5
KI-50X250-S-G	50	250	1/4"	M16 x 1.5



0414	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-50X300-S-G	50	300	1/4"	M16 x 1.5
KI-50X350-S-G	50	350	1/4"	M16 x 1.5
KI-50X400-S-G	50	400	1/4"	M16 x 1.5
KI-50X450-S-G	50	450	1/4"	M16 x 1.5
KI-50X500-S-G	50	500	1/4"	M16 x 1.5
KI-50X600-S-G	50	600	1/4"	M16 x 1.5
KI-50X700-S-G	50	700	1/4"	M16 x 1.5
KI-50X800-S-G	50	800	1/4"	M16 x 1.5
KI-50X900-S-G	50	900	1/4"	M16 x 1.5
KI-50X1000-S-G	50	1000	1/4"	M16 x 1.5
KI-63X25-S-G	63	25	3/8"	M16 x 1.5
KI-63X50-S-G	63	50	3/8"	M16 x 1.5
KI-63X75-S-G	63	75	3/8"	M16 x 1.5
KI-63X80-S-G	63	80	3/8"	M16 x 1.5
KI-63X100-S-G	63	100	3/8"	M16 x 1.5
KI-63X125-S-G	63	125	3/8"	M16 x 1.5
KI-63X150-S-G	63	150	3/8"	M16 x 1.5
KI-63X160-S-G	63	160	3/8"	M16 x 1.5
KI-63X175-S-G	63	175	3/8"	M16 x 1.5
KI-63X200-S-G	63	200	3/8"	M16 x 1.5
KI-63X250-S-G	63	250	3/8"	M16 x 1.5
KI-63X300-S-G	63	300	3/8"	M16 x 1.5
KI-63X350-S-G	63	350	3/8"	M16 x 1.5
KI-63X400-S-G	63	400	3/8"	M16 x 1.5
KI-63X450-S-G	63	450	3/8"	M16 x 1.5
KI-63X500-S-G	63	500	3/8"	M16 x 1.5
KI-63X600-S-G	63	600	3/8"	M16 x 1.5
KI-63X700-S-G	63	700	3/8"	M16 x 1.5
KI-63X800-S-G	63	800	3/8"	M16 x 1.5
KI-63X900-S-G	63	900	3/8"	M16 x 1.5
KI-63X1000-S-G	63	1000	3/8"	M16 x 1.5
KI-80X25-S-G	80	25	3/8"	M20 x 1.5
KI-80X50-S-G	80	50	3/8"	M20 x 1.5
KI-80X75-S-G	80	75	3/8"	M20 x 1.5
KI-80X80-S-G	80	80	3/8"	M20 x 1.5
KI-80X100-S-G	80	100	3/8"	M20 x 1.5
KI-80X125-S-G	80	125	3/8"	M20 x 1.5
KI-80X150-S-G	80	150	3/8"	M20 x 1.5
KI-80X160-S-G	80	160	3/8"	M20 x 1.5
KI-80X175-S-G	80	175	3/8"	M20 x 1.5
KI-80X200-S-G	80	200	3/8"	M20 x 1.5
KI-80X250-S-G	80	250	3/8"	M20 x 1.5
KI-80X300-S-G	80	300	3/8"	M20 x 1.5
KI-80X350-S-G	80	350	3/8"	M20 x 1.5
KI-80X400-S-G	80	400	3/8"	M20 x 1.5

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Further sizes in this range continued on next page

Gen 1 ISO 15552 Cylinders

Medium:

Clean compressed air. Filtered (40µm) and lubricated adjustable cushioning.

Piston Rod Material: Chrome plated carbon steel.

Please note: Bore sizes 125mm are available on a lead time.

For more information, please refer to the technical data sheet for details.



° Working Temperature:

-20°C to +80°C

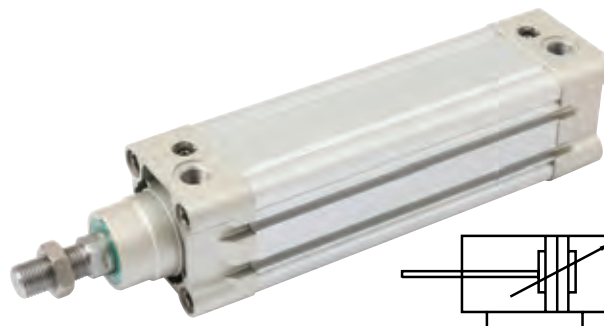
Working Pressure:

1 to 10 bar

Chrome Plated Carbon Steel Piston Rod as Standard

Magnetic Double Acting, Adjustable Cushioning, BSPP

0414	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-80X450-S-G	80	450	3/8"	M20 x 1.5
KI-80X500-S-G	80	500	3/8"	M20 x 1.5
KI-80X600-S-G	80	600	3/8"	M20 x 1.5
KI-80X700-S-G	80	700	3/8"	M20 x 1.5
KI-80X800-S-G	80	800	3/8"	M20 x 1.5
KI-80X900-S-G	80	900	3/8"	M20 x 1.5
KI-80X1000-S-G	80	1000	3/8"	M20 x 1.5
KI-100X25-S-G	100	25	1/2"	M20 x 1.5
KI-100X50-S-G	100	50	1/2"	M20 x 1.5
KI-100X75-S-G	100	75	1/2"	M20 x 1.5
KI-100X80-S-G	100	80	1/2"	M20 x 1.5
KI-100X100-S-G	100	100	1/2"	M20 x 1.5
KI-100X125-S-G	100	125	1/2"	M20 x 1.5
KI-100X150-S-G	100	150	1/2"	M20 x 1.5
KI-100X160-S-G	100	160	1/2"	M20 x 1.5
KI-100X175-S-G	100	175	1/2"	M20 x 1.5
KI-100X200-S-G	100	200	1/2"	M20 x 1.5
KI-100X250-S-G	100	250	1/2"	M20 x 1.5
KI-100X300-S-G	100	300	1/2"	M20 x 1.5
KI-100X350-S-G	100	350	1/2"	M20 x 1.5
KI-100X400-S-G	100	400	1/2"	M20 x 1.5
KI-100X450-S-G	100	450	1/2"	M20 x 1.5
KI-100X500-S-G	100	500	1/2"	M20 x 1.5
KI-100X600-S-G	100	600	1/2"	M20 x 1.5
KI-100X700-S-G	100	700	1/2"	M20 x 1.5



0414	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-100X800-S-G	100	800	1/2"	M20 x 1.5
KI-100X900-S-G	100	900	1/2"	M20 x 1.5
KI-100X1000-S-G	100	1000	1/2"	M20 x 1.5
KI-125X25-S-G	125	25	1/2"	M27 x 2
KI-125X50-S-G	125	50	1/2"	M27 x 2
KI-125X75-S-G	125	75	1/2"	M27 x 2
KI-125X80-S-G	125	80	1/2"	M27 x 2
KI-125X100-S-G	125	100	1/2"	M27 x 2
KI-125X125-S-G	125	125	1/2"	M27 x 2
KI-125X150-S-G	125	150	1/2"	M27 x 2
KI-125X160-S-G	125	160	1/2"	M27 x 2
KI-125X175-S-G	125	175	1/2"	M27 x 2
KI-125X200-S-G	125	200	1/2"	M27 x 2
KI-125X250-S-G	125	250	1/2"	M27 x 2
KI-125X300-S-G	125	300	1/2"	M27 x 2
KI-125X350-S-G	125	350	1/2"	M27 x 2
KI-125X400-S-G	125	400	1/2"	M27 x 2
KI-125X450-S-G	125	450	1/2"	M27 x 2
KI-125X500-S-G	125	500	1/2"	M27 x 2
KI-125X600-S-G	125	600	1/2"	M27 x 2
KI-125X700-S-G	125	700	1/2"	M27 x 2
KI-125X800-S-G	125	800	1/2"	M27 x 2
KI-125X900-S-G	125	900	1/2"	M27 x 2
KI-125X1000-S-G	125	1000	1/2"	M27 x 2

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For FT Air Preparation
see page 637



For Reed Switches see page 455

PNEUMATIC CYLINDERS



Gen 2 ISO 15552 Cylinders

Medium:

Clean compressed air. Filtered (40µm) and lubricated adjustable cushioning.

Piston Rod Material: Stainless steel 304.

Please note: Bore sizes 125mm are available on a lead time.

For more information, please refer to the technical data sheet for details.



Working Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Stainless Steel Piston Rod as Standard

Magnetic Double Acting, Adjustable Cushioning, BSPP

0413	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-32BX25-S-G	32	25	1/8"	M10 x 1.25
KI-32BX50-S-G	32	50	1/8"	M10 x 1.25
KI-32BX75-S-G	32	75	1/8"	M10 x 1.25
KI-32BX80-S-G	32	80	1/8"	M10 x 1.25
KI-32BX100-S-G	32	100	1/8"	M10 x 1.25
KI-32BX125-S-G	32	125	1/8"	M10 x 1.25
KI-32BX150-S-G	32	150	1/8"	M10 x 1.25
KI-32BX160-S-G	32	160	1/8"	M10 x 1.25
KI-32BX175-S-G	32	175	1/8"	M10 x 1.25
KI-32BX200-S-G	32	200	1/8"	M10 x 1.25
KI-32BX250-S-G	32	250	1/8"	M10 x 1.25
KI-32BX300-S-G	32	300	1/8"	M10 x 1.25
KI-32BX350-S-G	32	350	1/8"	M10 x 1.25
KI-32BX400-S-G	32	400	1/8"	M10 x 1.25
KI-32BX450-S-G	32	450	1/8"	M10 x 1.25
KI-32BX500-S-G	32	500	1/8"	M10 x 1.25
KI-40BX25-S-G	40	25	1/4"	M12 x 1.25
KI-40BX50-S-G	40	50	1/4"	M12 x 1.25
KI-40BX75-S-G	40	75	1/4"	M12 x 1.25
KI-40BX80-S-G	40	80	1/4"	M12 x 1.25
KI-40BX100-S-G	40	100	1/4"	M12 x 1.25
KI-40BX125-S-G	40	125	1/4"	M12 x 1.25
KI-40BX150-S-G	40	150	1/4"	M12 x 1.25
KI-40BX160-S-G	40	160	1/4"	M12 x 1.25
KI-40BX175-S-G	40	175	1/4"	M12 x 1.25
KI-40BX200-S-G	40	200	1/4"	M12 x 1.25
KI-40BX250-S-G	40	250	1/4"	M12 x 1.25
KI-40BX300-S-G	40	300	1/4"	M12 x 1.25
KI-40BX350-S-G	40	350	1/4"	M12 x 1.25
KI-40BX400-S-G	40	400	1/4"	M12 x 1.25
KI-40BX450-S-G	40	450	1/4"	M12 x 1.25
KI-40BX500-S-G	40	500	1/4"	M12 x 1.25
KI-40BX600-S-G	40	600	1/4"	M12 x 1.25
KI-40BX700-S-G	40	700	1/4"	M12 x 1.25
KI-40BX800-S-G	40	800	1/4"	M12 x 1.25
KI-50BX25-S-G	50	25	1/4"	M16 x 1.5
KI-50BX50-S-G	50	50	1/4"	M16 x 1.5
KI-50BX75-S-G	50	75	1/4"	M16 x 1.5
KI-50BX80-S-G	50	80	1/4"	M16 x 1.5
KI-50BX100-S-G	50	100	1/4"	M16 x 1.5
KI-50BX125-S-G	50	125	1/4"	M16 x 1.5
KI-50BX150-S-G	50	150	1/4"	M16 x 1.5
KI-50BX160-S-G	50	160	1/4"	M16 x 1.5
KI-50BX175-S-G	50	175	1/4"	M16 x 1.5
KI-50BX200-S-G	50	200	1/4"	M16 x 1.5
KI-50BX250-S-G	50	250	1/4"	M16 x 1.5



0413	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-50BX300-S-G	50	300	1/4"	M16 x 1.5
KI-50BX350-S-G	50	350	1/4"	M16 x 1.5
KI-50BX400-S-G	50	400	1/4"	M16 x 1.5
KI-50BX450-S-G	50	450	1/4"	M16 x 1.5
KI-50BX500-S-G	50	500	1/4"	M16 x 1.5
KI-50BX600-S-G	50	600	1/4"	M16 x 1.5
KI-50BX700-S-G	50	700	1/4"	M16 x 1.5
KI-50BX800-S-G	50	800	1/4"	M16 x 1.5
KI-50BX900-S-G	50	900	1/4"	M16 x 1.5
KI-50BX1000-S-G	50	1000	1/4"	M16 x 1.5
KI-63BX25-S-G	63	25	3/8"	M16 x 1.5
KI-63BX50-S-G	63	50	3/8"	M16 x 1.5
KI-63BX75-S-G	63	75	3/8"	M16 x 1.5
KI-63BX80-S-G	63	80	3/8"	M16 x 1.5
KI-63BX100-S-G	63	100	3/8"	M16 x 1.5
KI-63BX125-S-G	63	125	3/8"	M16 x 1.5
KI-63BX150-S-G	63	150	3/8"	M16 x 1.5
KI-63BX160-S-G	63	160	3/8"	M16 x 1.5
KI-63BX175-S-G	63	175	3/8"	M16 x 1.5
KI-63BX200-S-G	63	200	3/8"	M16 x 1.5
KI-63BX250-S-G	63	250	3/8"	M16 x 1.5
KI-63BX300-S-G	63	300	3/8"	M16 x 1.5
KI-63BX350-S-G	63	350	3/8"	M16 x 1.5
KI-63BX400-S-G	63	400	3/8"	M16 x 1.5
KI-63BX450-S-G	63	450	3/8"	M16 x 1.5
KI-63BX500-S-G	63	500	3/8"	M16 x 1.5
KI-63BX600-S-G	63	600	3/8"	M16 x 1.5
KI-63BX700-S-G	63	700	3/8"	M16 x 1.5
KI-63BX800-S-G	63	800	3/8"	M16 x 1.5
KI-63BX900-S-G	63	900	3/8"	M16 x 1.5
KI-63BX1000-S-G	63	1000	3/8"	M16 x 1.5
KI-80BX25-S-G	80	25	3/8"	M20 x 1.5
KI-80BX50-S-G	80	50	3/8"	M20 x 1.5
KI-80BX75-S-G	80	75	3/8"	M20 x 1.5
KI-80BX80-S-G	80	80	3/8"	M20 x 1.5
KI-80BX100-S-G	80	100	3/8"	M20 x 1.5
KI-80BX125-S-G	80	125	3/8"	M20 x 1.5
KI-80BX150-S-G	80	150	3/8"	M20 x 1.5
KI-80BX160-S-G	80	160	3/8"	M20 x 1.5
KI-80BX175-S-G	80	175	3/8"	M20 x 1.5
KI-80BX200-S-G	80	200	3/8"	M20 x 1.5
KI-80BX250-S-G	80	250	3/8"	M20 x 1.5
KI-80BX300-S-G	80	300	3/8"	M20 x 1.5
KI-80BX350-S-G	80	350	3/8"	M20 x 1.5
KI-80BX400-S-G	80	400	3/8"	M20 x 1.5

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Further sizes in this range continued on next page

Gen 2 ISO 15552 Cylinders

Medium:

Clean compressed air. Filtered (40µm) and lubricated adjustable cushioning.

Piston Rod Material: Stainless steel 304

Please note: Bore sizes 125mm are available on a lead time.

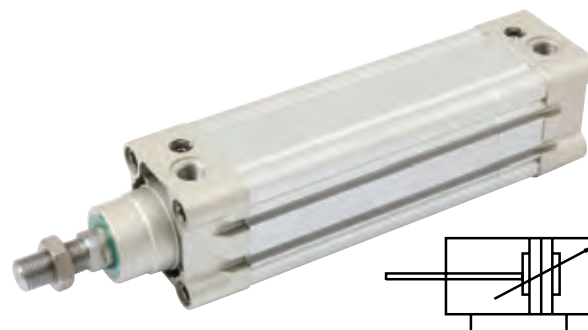
For more information, please refer to the technical data sheet for details.



° Working Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Stainless Steel Piston Rod as Standard



Magnetic Double Acting, Adjustable Cushioning, BSPP

0413	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-80BX450-S-G	80	450	3/8"	M20 x 1.5
KI-80BX500-S-G	80	500	3/8"	M20 x 1.5
KI-80BX600-S-G	80	600	3/8"	M20 x 1.5
KI-80BX700-S-G	80	700	3/8"	M20 x 1.5
KI-80BX800-S-G	80	800	3/8"	M20 x 1.5
KI-80BX900-S-G	80	900	3/8"	M20 x 1.5
KI-80BX1000-S-G	80	1000	3/8"	M20 x 1.5
KI-100BX25-S-G	100	25	1/2"	M20 x 1.5
KI-100BX50-S-G	100	50	1/2"	M20 x 1.5
KI-100BX75-S-G	100	75	1/2"	M20 x 1.5
KI-100BX80-S-G	100	80	1/2"	M20 x 1.5
KI-100BX100-S-G	100	100	1/2"	M20 x 1.5
KI-100BX125-S-G	100	125	1/2"	M20 x 1.5
KI-100BX150-S-G	100	150	1/2"	M20 x 1.5
KI-100BX160-S-G	100	160	1/2"	M20 x 1.5
KI-100BX175-S-G	100	175	1/2"	M20 x 1.5
KI-100BX200-S-G	100	200	1/2"	M20 x 1.5
KI-100BX250-S-G	100	250	1/2"	M20 x 1.5
KI-100BX300-S-G	100	300	1/2"	M20 x 1.5
KI-100BX350-S-G	100	350	1/2"	M20 x 1.5
KI-100BX400-S-G	100	400	1/2"	M20 x 1.5
KI-100BX450-S-G	100	450	1/2"	M20 x 1.5
KI-100BX500-S-G	100	500	1/2"	M20 x 1.5
KI-100BX600-S-G	100	600	1/2"	M20 x 1.5
KI-100BX700-S-G	100	700	1/2"	M20 x 1.5

0413	Bore mm	Stroke mm	Thread	Piston Rod Thread
KI-100BX800-S-G	100	800	1/2"	M20 x 1.5
KI-100BX900-S-G	100	900	1/2"	M20 x 1.5
KI-100BX1000-S-G	100	1000	1/2"	M20 x 1.5
KI-125BX25-S-G	125	25	1/2"	M27 x 2
KI-125BX50-S-G	125	50	1/2"	M27 x 2
KI-125BX75-S-G	125	75	1/2"	M27 x 2
KI-125BX80-S-G	125	80	1/2"	M27 x 2
KI-125BX100-S-G	125	100	1/2"	M27 x 2
KI-125BX125-S-G	125	125	1/2"	M27 x 2
KI-125BX150-S-G	125	150	1/2"	M27 x 2
KI-125BX160-S-G	125	160	1/2"	M27 x 2
KI-125BX175-S-G	125	175	1/2"	M27 x 2
KI-125BX200-S-G	125	200	1/2"	M27 x 2
KI-125BX250-S-G	125	250	1/2"	M27 x 2
KI-125BX300-S-G	125	300	1/2"	M27 x 2
KI-125BX350-S-G	125	350	1/2"	M27 x 2
KI-125BX400-S-G	125	400	1/2"	M27 x 2
KI-125BX450-S-G	125	450	1/2"	M27 x 2
KI-125BX500-S-G	125	500	1/2"	M27 x 2
KI-125BX600-S-G	125	600	1/2"	M27 x 2
KI-125BX700-S-G	125	700	1/2"	M27 x 2
KI-125BX800-S-G	125	800	1/2"	M27 x 2
KI-125BX900-S-G	125	900	1/2"	M27 x 2
KI-125BX1000-S-G	125	1000	1/2"	M27 x 2

Tech Sheet 10657



For **Reed Switches**
see page **485**



PNEUMATIC CYLINDERS



ISO 15552 Mountings



Front/Rear Flange Mounting FA

0334	Bore mm
F-KF32FA	32
F-KF40FA	40
F-KF50FA	50
F-KF63FA	63
F-KF80FA	80
F-KF100FA	100
F-KF125FA	125

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Front Trunnion Mounting FTC

0334	Bore mm
F-KF32FTC	32
F-KF40FTC	40
F-KF50FTC	50
F-KF63FTC	63
F-KF80FTC	80
F-KF100FTC	100
F-KF160FTC	160

Tech Sheet 3013



Front Trunnion Clevis Mounting TF

0334	Bore mm
F-KF32TF	32
F-KF40TF	40/50
F-KF63TF	63/80
F-KF125TF	100/125

Tech Sheet 3014



Trunnion Support Mounting TM

0334	Bore mm
F-KF32TM	32
F-KF40TM	40/50
F-KF63TM	63/80
F-KF125TM	100/125
F-KF160TM	160/200

Tech Sheet 3015



Rear Eye Mounting CA

0334	Bore mm
F-KF32CA	32
F-KF40CA	40
F-KF50CA	50
F-KF63CA	63
F-KF80CA	80
F-KF100CA	100
F-KF125CA	125
F-KF160CA	160
F-KF200CA	200

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Rear Clevis Mounting CB

0334	Bore mm
F-KF32CB	32
F-KF40CB	40
F-KF50CB	50
F-KF63CB	63
F-KF80CB	80
F-KF100CB	100
F-KF125CB	125
F-KF160CB	160
F-KF200CB	200

Tech Sheet 3017



Rear Bracket Mounting CR

0334	Bore mm
F-KF32CR	32
F-KF40CR	40
F-KF50CR	50
F-KF63CR	63
F-KF80CR	80
F-KF100CR	100
F-KF125CR	125
F-KF160CR	160
F-KF200CR	200

Tech Sheet 3018



Foot Mounting LB, (Pair)

0334	Bore mm
F-KF32LB	32
F-KF40LB	40
F-KF50LB	50
F-KF63LB	63
F-KF80LB	80
F-KF100LB	100
F-KF125LB	125
F-KF160LB	160

Tech Sheet 3019



Piston Rod Clevis YI

0334	Bore mm	Thread
F-M10125YI	32	M10 x 1.25
F-M12125YI	40	M12 x 1.25
F-M16150YI	50/63	M16 x 1.5
F-M20150YI	80/100	M20 x 1.5
F-M27200YI	125	M27 x 2
F-M36200YI	160/200	M36 x 2

Tech Sheet 3020

ISO 15552 Mountings



Piston Rod Clevis I

0334	Bore mm	Thread
F-M10125II	25/32	M10 x 1.25
F-M12125II	40	M12 x 1.25
F-M16150II	50/63	M16 x 1.5
F-M20150II	80/100	M20 x 1.5
F-M27200II	125	M27 x 2

Tech Sheet 3021



Piston Rod Floating Joint F

0334	Bore mm	Thread
F-M10125F	25/32	M10 x 1.25
F-M12125F	40	M12 x 1.25
F-M16150F	50/63	M16 x 1.5
F-M20150F	80/100	M20 x 1.5

Tech Sheet 3022



Piston Rod Universal Joint U

0334	Bore mm	Thread
F-M10125U	25/32	M10 x 1.25
F-M12125U	40	M12 x 1.25
F-M16150U	50/63	M16 x 1.5
F-M20150U	80/100	M20 x 1.5
F-M27200U	125	M27 x 2
F-M36200U	160/200	M36 x 2

Tech Sheet 3023

Reed Switches to suit ISO 15552

° Working Temperature:
-10°C to +70°C



Two Wire, N/O with LED

0413	Length mm	Voltage
CSM-E020	2	5-240V AC/DC
CSM-E050	5	5-240V AC/DC

Tech Sheet 20890

Three Wire, NO Current Flows Out (PNP)

0413	Length mm	Voltage
DSM-EP020	2	5-30V DC
DSM-EP050	5	5-30V DC

Tech Sheet 20890

Three Wire, NO Current Flows In (NPN)

0413	Length mm	Voltage
DSM-EN020	2	5-30V DC
DSM-EN050	5	5-30V DC

Tech Sheet 20890



For FT Pro One Touch+ Plastic
Push-in Fittings Emergency Kits
see page 781



PNEUMATIC CYLINDERS

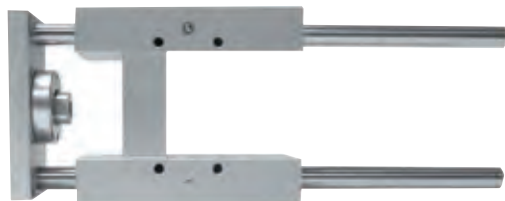


ISO 15552 Standard Cylinder Guides

The guide unit allows for standard ISO 15552 cylinder to move loads with high positioning accuracy.

Benefits

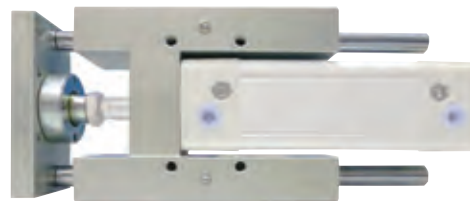
- Protection against rotation at high torques.
- High guide precision for cylinder guiding.
- Supplied plain or recirculating ball bearing guides.



With Slide Bearings

0334	Bore mm	Stroke mm
KRF-32X50-0	32	50
KRF-32X100-0	32	100
KRF-32X160-0	32	160
KRF-32X200-0	32	200
KRF-32X250-0	32	250
KRF-32X320-0	32	320
KRF-32X400-0	32	400
KRF-32X500-0	32	500
KRF-40X50-0	40	50
KRF-40X100-0	40	100
KRF-40X160-0	40	160
KRF-40X200-0	40	200
KRF-40X250-0	40	250
KRF-40X320-0	40	320
KRF-40X400-0	40	400
KRF-40X500-0	40	500
KRF-50X50-0	50	50
KRF-50X100-0	50	100
KRF-50X160-0	50	160
KRF-50X200-0	50	200
KRF-50X250-0	50	250
KRF-50X320-0	50	320
KRF-50X400-0	50	400
KRF-50X500-0	50	500
KRF-63X50-0	63	50
KRF-63X100-0	63	100
KRF-63X160-0	63	160
KRF-63X200-0	63	200
KRF-63X250-0	63	250
KRF-63X320-0	63	320
KRF-63X400-0	63	400
KRF-63X500-0	63	500
KRF-80X50-0	80	50
KRF-80X100-0	80	100
KRF-80X160-0	80	160
KRF-80X200-0	80	200
KRF-80X250-0	80	250
KRF-80X320-0	80	320
KRF-80X400-0	80	400
KRF-80X500-0	80	500
KRF-100X50-0	100	50
KRF-100X100-0	100	100
KRF-100X160-0	100	160
KRF-100X200-0	100	200
KRF-100X250-0	100	250
KRF-100X320-0	100	320
KRF-100X400-0	100	400
KRF-100X500-0	100	500

Tech Sheet 20891



With Ball Bearings

0334	Bore mm	Stroke mm
KRF-32X50-1	32	50
KRF-32X100-1	32	100
KRF-32X160-1	32	160
KRF-32X200-1	32	200
KRF-32X250-1	32	250
KRF-32X320-1	32	320
KRF-32X400-1	32	400
KRF-32X500-1	32	500
KRF-40X50-1	40	50
KRF-40X100-1	40	100
KRF-40X160-1	40	160
KRF-40X200-1	40	200
KRF-40X250-1	40	250
KRF-40X320-1	40	320
KRF-40X400-1	40	400
KRF-40X500-1	40	500
KRF-50X50-1	50	50
KRF-50X100-1	50	100
KRF-50X160-1	50	160
KRF-50X200-1	50	200
KRF-50X250-1	50	250
KRF-50X320-1	50	320
KRF-50X400-1	50	400
KRF-50X500-1	50	500
KRF-63X50-1	63	50
KRF-63X100-1	63	100
KRF-63X160-1	63	160
KRF-63X200-1	63	200
KRF-63X250-1	63	250
KRF-63X320-1	63	320
KRF-63X400-1	63	400
KRF-63X500-1	63	500
KRF-80X50-1	80	50
KRF-80X100-1	80	100
KRF-80X160-1	80	160
KRF-80X200-1	80	200
KRF-80X250-1	80	250
KRF-80X320-1	80	320
KRF-80X400-1	80	400
KRF-80X500-1	80	500
KRF-100X50-1	100	50
KRF-100X100-1	100	100
KRF-100X160-1	100	160
KRF-100X200-1	100	200
KRF-100X250-1	100	250
KRF-100X320-1	100	320
KRF-100X400-1	100	400
KRF-100X500-1	100	500

Tech Sheet 20892

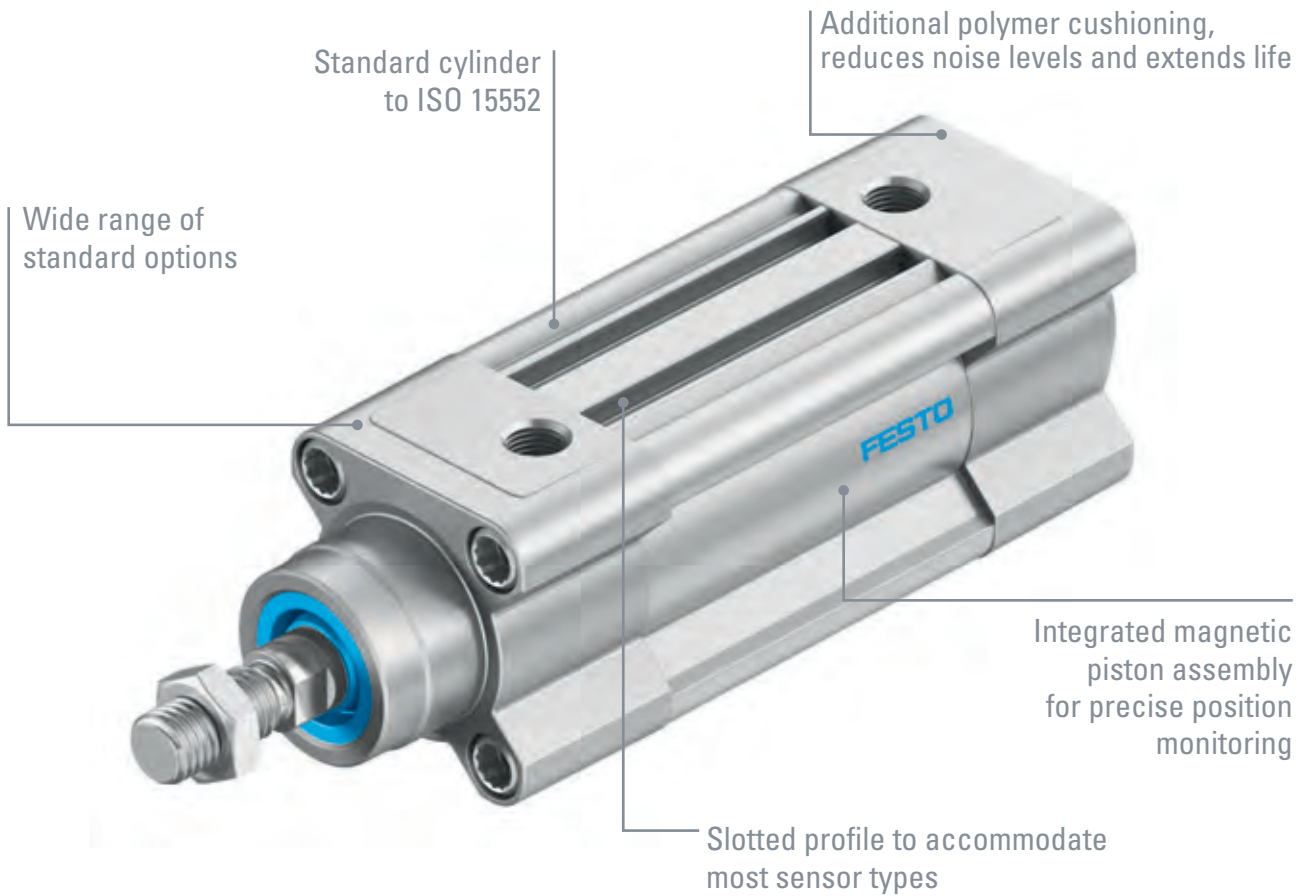
CYLINDERS

For the full range and more information, please contact one of our sales team.

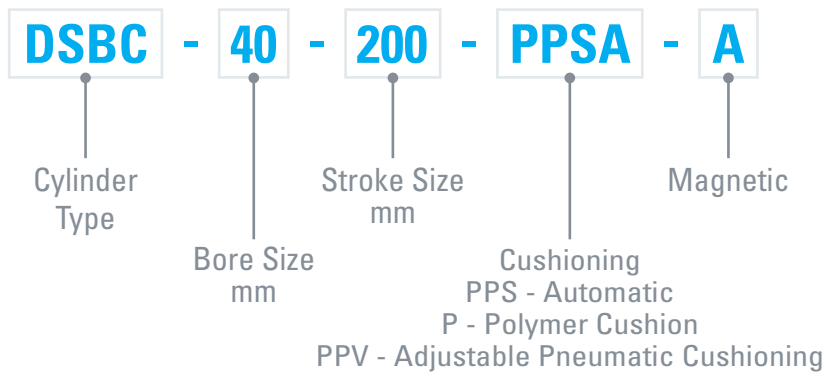
DSBC STANDARD CYLINDER



Features



Product Description



ISO 15552 STANDARD CYLINDERS, DSBC

FESTO



Double Acting, Adjustable Pneumatic Cushioning

- Strokes of up to 2800mm
- Excellent flexibility thanks to wide range of variants
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere
- T-Slot

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
2123069	32	20	M10 x 1.25	DSBC-32-20-PPVA-N3
1376422	32	25	M10 x 1.25	DSBC-32-25-PPVA-N3
2123070	32	30	M10 x 1.25	DSBC-32-30-PPVA-N3
1376423	32	40	M10 x 1.25	DSBC-32-40-PPVA-N3
1376424	32	50	M10 x 1.25	DSBC-32-50-PPVA-N3
2123071	32	60	M10 x 1.25	DSBC-32-60-PPVA-N3
2123072	32	70	M10 x 1.25	DSBC-32-70-PPVA-N3
1376425	32	80	M10 x 1.25	DSBC-32-80-PPVA-N3
1376426	32	100	M10 x 1.25	DSBC-32-100-PPVA-N3
1376427	32	125	M10 x 1.25	DSBC-32-125-PPVA-N3
2123073	32	150	M10 x 1.25	DSBC-32-150-PPVA-N3
1376428	32	160	M10 x 1.25	DSBC-32-160-PPVA-N3
1376429	32	200	M10 x 1.25	DSBC-32-200-PPVA-N3
1376430	32	250	M10 x 1.25	DSBC-32-250-PPVA-N3
2123074	32	300	M10 x 1.25	DSBC-32-300-PPVA-N3
1376431	32	320	M10 x 1.25	DSBC-32-320-PPVA-N3
1376432	32	400	M10 x 1.25	DSBC-32-400-PPVA-N3
1376433	32	500	M10 x 1.25	DSBC-32-500-PPVA-N3

Tech Sheet 70239

Magnetic

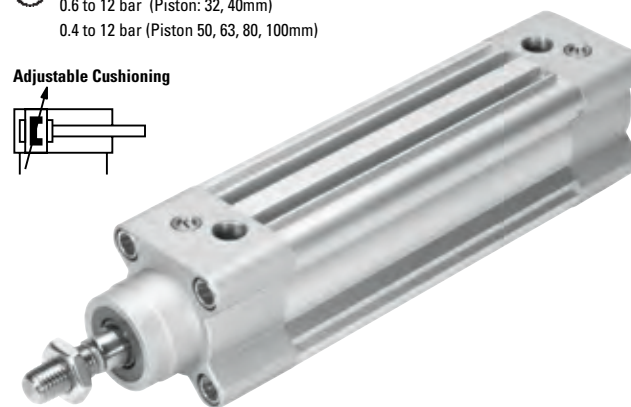
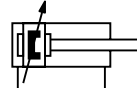
0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
2123166	40	20	M12 x 1.25	DSBC-40-20-PPVA-N3
1376656	40	25	M12 x 1.25	DSBC-40-25-PPVA-N3
2123167	40	30	M12 x 1.25	DSBC-40-30-PPVA-N3
1376657	40	40	M12 x 1.25	DSBC-40-40-PPVA-N3
1376658	40	50	M12 x 1.25	DSBC-40-50-PPVA-N3
2123224	40	60	M12 x 1.25	DSBC-40-60-PPVA-N3
2123225	40	70	M12 x 1.25	DSBC-40-70-PPVA-N3
1376659	40	80	M12 x 1.25	DSBC-40-80-PPVA-N3
1376660	40	100	M12 x 1.25	DSBC-40-100-PPVA-N3
1376661	40	125	M12 x 1.25	DSBC-40-125-PPVA-N3
2123226	40	150	M12 x 1.25	DSBC-40-150-PPVA-N3
1376662	40	160	M12 x 1.25	DSBC-40-160-PPVA-N3
1376663	40	200	M12 x 1.25	DSBC-40-200-PPVA-N3
1376664	40	250	M12 x 1.25	DSBC-40-250-PPVA-N3
2123227	40	300	M12 x 1.25	DSBC-40-300-PPVA-N3
1376665	40	320	M12 x 1.25	DSBC-40-320-PPVA-N3
1376666	40	400	M12 x 1.25	DSBC-40-400-PPVA-N3
1376667	40	500	M12 x 1.25	DSBC-40-500-PPVA-N3
2098969	50	20	M16 x 1.5	DSBC-50-20-PPVA-N3
1366948	50	25	M16 x 1.5	DSBC-50-25-PPVA-N3
2098970	50	30	M16 x 1.5	DSBC-50-30-PPVA-N3
1366949	50	40	M16 x 1.5	DSBC-50-40-PPVA-N3
1366950	50	50	M16 x 1.5	DSBC-50-50-PPVA-N3
2098972	50	60	M16 x 1.5	DSBC-50-60-PPVA-N3
2098973	50	70	M16 x 1.5	DSBC-50-70-PPVA-N3
1366951	50	80	M16 x 1.5	DSBC-50-80-PPVA-N3
1366952	50	100	M16 x 1.5	DSBC-50-100-PPVA-N3
1366953	50	125	M16 x 1.5	DSBC-50-125-PPVA-N3
2098974	50	150	M16 x 1.5	DSBC-50-150-PPVA-N3
1366954	50	160	M16 x 1.5	DSBC-50-160-PPVA-N3
1366955	50	200	M16 x 1.5	DSBC-50-200-PPVA-N3
1366956	50	250	M16 x 1.5	DSBC-50-250-PPVA-N3
2098975	50	300	M16 x 1.5	DSBC-50-300-PPVA-N3
1366957	50	320	M16 x 1.5	DSBC-50-320-PPVA-N3
1366958	50	400	M16 x 1.5	DSBC-50-400-PPVA-N3
1366959	50	500	M16 x 1.5	DSBC-50-500-PPVA-N3

Tech Sheet 70240

° Ambient Temperature:
-20°C to +80°C

Working Pressure:
0.6 to 12 bar (Piston: 32, 40mm)
0.4 to 12 bar (Piston 50, 63, 80, 100mm)

Adjustable Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
2125490	63	20	M16 x 1.5	DSBC-63-20-PPVA-N3
1383578	63	25	M16 x 1.5	DSBC-63-25-PPVA-N3
2125491	63	30	M16 x 1.5	DSBC-63-30-PPVA-N3
1383579	63	40	M16 x 1.5	DSBC-63-40-PPVA-N3
1383580	63	50	M16 x 1.5	DSBC-63-50-PPVA-N3
2125492	63	60	M16 x 1.5	DSBC-63-60-PPVA-N3
2125493	63	70	M16 x 1.5	DSBC-63-70-PPVA-N3
1383581	63	80	M16 x 1.5	DSBC-63-80-PPVA-N3
1383582	63	100	M16 x 1.5	DSBC-63-100-PPVA-N3
1383583	63	125	M16 x 1.5	DSBC-63-125-PPVA-N3
2125494	63	150	M16 x 1.5	DSBC-63-150-PPVA-N3
1383584	63	160	M16 x 1.5	DSBC-63-160-PPVA-N3
1383585	63	200	M16 x 1.5	DSBC-63-200-PPVA-N3
1383586	63	250	M16 x 1.5	DSBC-63-250-PPVA-N3
2125495	63	300	M16 x 1.5	DSBC-63-300-PPVA-N3
1383587	63	320	M16 x 1.5	DSBC-63-320-PPVA-N3
1383588	63	400	M16 x 1.5	DSBC-63-400-PPVA-N3
1383589	63	500	M16 x 1.5	DSBC-63-500-PPVA-N3
2126594	80	20	M20 x 1.5	DSBC-80-20-PPVA-N3
1383333	80	25	M20 x 1.5	DSBC-80-25-PPVA-N3
2126595	80	30	M20 x 1.5	DSBC-80-30-PPVA-N3
1383334	80	40	M20 x 1.5	DSBC-80-40-PPVA-N3
1383335	80	50	M20 x 1.5	DSBC-80-50-PPVA-N3
2126597	80	60	M20 x 1.5	DSBC-80-60-PPVA-N3
2126598	80	70	M20 x 1.5	DSBC-80-70-PPVA-N3
1383336	80	80	M20 x 1.5	DSBC-80-80-PPVA-N3
1383337	80	100	M20 x 1.5	DSBC-80-100-PPVA-N3
1383338	80	125	M20 x 1.5	DSBC-80-125-PPVA-N3
2126599	80	150	M20 x 1.5	DSBC-80-150-PPVA-N3
1383339	80	160	M20 x 1.5	DSBC-80-160-PPVA-N3
1383340	80	200	M20 x 1.5	DSBC-80-200-PPVA-N3
1383341	80	250	M20 x 1.5	DSBC-80-250-PPVA-N3
2126600	80	300	M20 x 1.5	DSBC-80-300-PPVA-N3
1383342	80	320	M20 x 1.5	DSBC-80-320-PPVA-N3
1383343	80	400	M20 x 1.5	DSBC-80-400-PPVA-N3
1383344	80	500	M20 x 1.5	DSBC-80-500-PPVA-N3

Tech Sheet 70241

ISO 15552 STANDARD CYLINDERS, DSBC

FESTO



Double Acting, Self-adjusting Pneumatic Cushioning

- Strokes of up to 2800mm
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere
- Excellent flexibility thanks to wide range of variants
- T-Slot

Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
2123085	32	20	M10 x 1.25	DSBC-32-20-PPSA-N3
1376467	32	25	M10 x 1.25	DSBC-32-25-PPSA-N3
2123086	32	30	M10 x 1.25	DSBC-32-30-PPSA-N3
1376468	32	40	M10 x 1.25	DSBC-32-40-PPSA-N3
1376469	32	50	M10 x 1.25	DSBC-32-50-PPSA-N3
2123087	32	60	M10 x 1.25	DSBC-32-60-PPSA-N3
2123088	32	70	M10 x 1.25	DSBC-32-70-PPSA-N3
1376470	32	80	M10 x 1.25	DSBC-32-80-PPSA-N3
1376471	32	100	M10 x 1.25	DSBC-32-100-PPSA-N3
1376472	32	125	M10 x 1.25	DSBC-32-125-PPSA-N3
2123089	32	150	M10 x 1.25	DSBC-32-150-PPSA-N3
1376473	32	160	M10 x 1.25	DSBC-32-160-PPSA-N3
1376474	32	200	M10 x 1.25	DSBC-32-200-PPSA-N3
1376475	32	250	M10 x 1.25	DSBC-32-250-PPSA-N3
2123090	32	300	M10 x 1.25	DSBC-32-300-PPSA-N3
1376476	32	320	M10 x 1.25	DSBC-32-320-PPSA-N3
1376477	32	400	M10 x 1.25	DSBC-32-400-PPSA-N3
1376478	32	500	M10 x 1.25	DSBC-32-500-PPSA-N3

Tech Sheet 70242

Magnetic

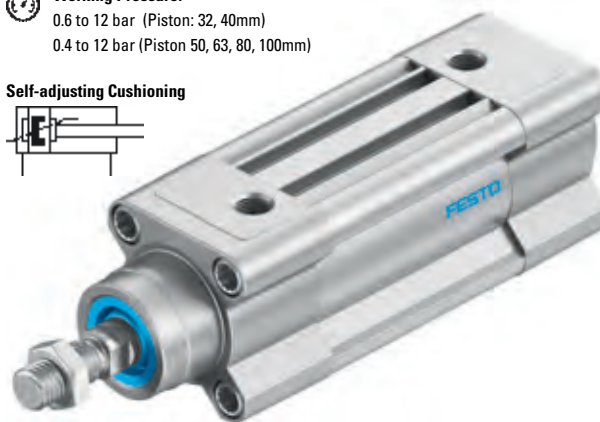
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2123780	40	20	M12 x 1.25	DSBC-40-20-PPSA-N3
1376903	40	25	M12 x 1.25	DSBC-40-25-PPSA-N3
2123781	40	30	M12 x 1.25	DSBC-40-30-PPSA-N3
1376904	40	40	M12 x 1.25	DSBC-40-40-PPSA-N3
1376905	40	50	M12 x 1.25	DSBC-40-50-PPSA-N3
2123782	40	60	M12 x 1.25	DSBC-40-60-PPSA-N3
2123783	40	70	M12 x 1.25	DSBC-40-70-PPSA-N3
1376906	40	80	M12 x 1.25	DSBC-40-80-PPSA-N3
1376907	40	100	M12 x 1.25	DSBC-40-100-PPSA-N3
1376908	40	125	M12 x 1.25	DSBC-40-125-PPSA-N3
2123784	40	150	M12 x 1.25	DSBC-40-150-PPSA-N3
1376909	40	160	M12 x 1.25	DSBC-40-160-PPSA-N3
1376910	40	200	M12 x 1.25	DSBC-40-200-PPSA-N3
1376911	40	250	M12 x 1.25	DSBC-40-250-PPSA-N3
2123785	40	300	M12 x 1.25	DSBC-40-300-PPSA-N3
1376912	40	320	M12 x 1.25	DSBC-40-320-PPSA-N3
1376913	40	400	M12 x 1.25	DSBC-40-400-PPSA-N3
1376914	40	500	M12 x 1.25	DSBC-40-500-PPSA-N3
2102628	50	20	M16 x 1.5	DSBC-50-20-PPSA-N3
1376301	50	25	M16 x 1.5	DSBC-50-25-PPSA-N3
2102629	50	30	M16 x 1.5	DSBC-50-30-PPSA-N3
1376304	50	40	M16 x 1.5	DSBC-50-40-PPSA-N3
1376305	50	50	M16 x 1.5	DSBC-50-50-PPSA-N3
2102630	50	60	M16 x 1.5	DSBC-50-60-PPSA-N3
2102631	50	70	M16 x 1.5	DSBC-50-70-PPSA-N3
1376306	50	80	M16 x 1.5	DSBC-50-80-PPSA-N3
1376307	50	100	M16 x 1.5	DSBC-50-100-PPSA-N3
1376308	50	125	M16 x 1.5	DSBC-50-125-PPSA-N3
2102632	50	150	M16 x 1.5	DSBC-50-150-PPSA-N3
1376309	50	160	M16 x 1.5	DSBC-50-160-PPSA-N3
1376310	50	200	M16 x 1.5	DSBC-50-200-PPSA-N3
1376311	50	250	M16 x 1.5	DSBC-50-250-PPSA-N3
2102633	50	300	M16 x 1.5	DSBC-50-300-PPSA-N3
1376312	50	320	M16 x 1.5	DSBC-50-320-PPSA-N3
1376313	50	400	M16 x 1.5	DSBC-50-400-PPSA-N3
1376314	50	500	M16 x 1.5	DSBC-50-500-PPSA-N3

Tech Sheet 70243

Ambient Temperature:
-20°C to +80°C

Working Pressure:
0.6 to 12 bar (Piston: 32, 40mm)
0.4 to 12 bar (Piston 50, 63, 80, 100mm)

Self-adjusting Cushioning



Magnetic

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
2126684	63	20	M16 x 1.5	DSBC-63-20-PPSA-N3
1383632	63	25	M16 x 1.5	DSBC-63-25-PPSA-N3
2126685	63	30	M16 x 1.5	DSBC-63-30-PPSA-N3
1383633	63	40	M16 x 1.5	DSBC-63-40-PPSA-N3
1383634	63	50	M16 x 1.5	DSBC-63-50-PPSA-N3
2126686	63	60	M16 x 1.5	DSBC-63-60-PPSA-N3
2126687	63	70	M16 x 1.5	DSBC-63-70-PPSA-N3
1383635	63	80	M16 x 1.5	DSBC-63-80-PPSA-N3
1383636	63	100	M16 x 1.5	DSBC-63-100-PPSA-N3
1383637	63	125	M16 x 1.5	DSBC-63-125-PPSA-N3
2126688	63	150	M16 x 1.5	DSBC-63-150-PPSA-N3
1383638	63	160	M16 x 1.5	DSBC-63-160-PPSA-N3
1383639	63	200	M16 x 1.5	DSBC-63-200-PPSA-N3
1383640	63	250	M16 x 1.5	DSBC-63-250-PPSA-N3
2126689	63	300	M16 x 1.5	DSBC-63-300-PPSA-N3
1383641	63	320	M16 x 1.5	DSBC-63-320-PPSA-N3
1383642	63	400	M16 x 1.5	DSBC-63-400-PPSA-N3
1383643	63	500	M16 x 1.5	DSBC-63-500-PPSA-N3
2126636	80	20	M20 x 1.5	DSBC-80-20-PPSA-N3
1383366	80	25	M20 x 1.5	DSBC-80-25-PPSA-N3
2126637	80	30	M20 x 1.5	DSBC-80-30-PPSA-N3
1383367	80	40	M20 x 1.5	DSBC-80-40-PPSA-N3
1383368	80	50	M20 x 1.5	DSBC-80-50-PPSA-N3
2126638	80	60	M20 x 1.5	DSBC-80-60-PPSA-N3
2126639	80	70	M20 x 1.5	DSBC-80-70-PPSA-N3
1383369	80	80	M20 x 1.5	DSBC-80-80-PPSA-N3
1383370	80	100	M20 x 1.5	DSBC-80-100-PPSA-N3
1383371	80	125	M20 x 1.5	DSBC-80-125-PPSA-N3
2126640	80	150	M20 x 1.5	DSBC-80-150-PPSA-N3
1383372	80	160	M20 x 1.5	DSBC-80-160-PPSA-N3
1383373	80	200	M20 x 1.5	DSBC-80-200-PPSA-N3
1383374	80	250	M20 x 1.5	DSBC-80-250-PPSA-N3
2126641	80	300	M20 x 1.5	DSBC-80-300-PPSA-N3
1383375	80	320	M20 x 1.5	DSBC-80-320-PPSA-N3
1383376	80	400	M20 x 1.5	DSBC-80-400-PPSA-N3
1383377	80	500	M20 x 1.5	DSBC-80-500-PPSA-N3

Tech Sheet 70244

CYLINDER ATTACHMENTS & ACCESSORIES

FESTO


ISO 15552 Cylinders Mounting Components for Drive Units



Standard Swivel Flange with Spherical Rod Eye, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
174397	32	SNCS-32
174398	40	SNCS-40
174399	50	SNCS-50
174400	63	SNCS-63
174401	80	SNCS-80

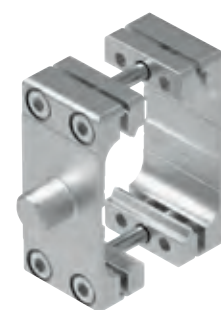
Tech Sheet 70220



Standard Swivel Flange, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
174383	32	SNC-32
174384	40	SNC-40
174385	50	SNC-50
174386	63	SNC-63
174387	80	SNC-80

Tech Sheet 70222



Trunnion Mounting Kit, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
2213233	32	DAMT-V1-32-A
2214899	40	DAMT-V1-40-A
2214909	50	DAMT-V1-50-A
2214971	63	DAMT-V1-63-A
163529	80	DAMT-V1-80-A

Tech Sheet 70224



Wide Swivel Flange, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
174404	32	SNCL-32
174405	40	SNCL-40
174406	50	SNCL-50
174407	63	SNCL-63
174408	80	SNCL-80

Tech Sheet 70221



Wide Swivel Flange, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
174390	32	SNCB-32
174391	40	SNCB-40
174392	50	SNCB-50
174393	63	SNCB-63
174394	80	SNCB-80

Tech Sheet 70223



SGS, Rod Eyes

0009	Thread	Manufacturer's Code
9254	M6	SGS-M6
9255	M8	SGS-M8
9261	M10 x 1.25	SGS-M10X1.25
9262	M12 x 1.25	SGS-M12X1.25
9263	M16 x 1.5	SGS-M16X1.5
9264	M20 x 1.5	SGS-M20X1.5

Tech Sheet 71576



Clevis Foot Mounting, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
33890	32	LNG-32
33891	40	LNG-40
33892	50	LNG-50
33893	63	LNG-63
33894	80	LNG-80

Tech Sheet 70215



Foot Mountings, ISO 15552

0009	To Suit Bore mm	Manufacturer's Code
174369	32	HNC-32
174370	40	HNC-40
174371	50	HNC-50
174372	63	HNC-63
174373	80	HNC-80

Tech Sheet 70219

For use with all cylinders.



Rod Clevis

0009	Thread	Manufacturer's Code
3110	M6	SG-M6
3111	M8	SG-M8
6144	M10 x 1.25	SG-M10X1.25
6145	M12 x 1.25	SG-M12X1.25
6146	M16 x 1.25	SG-M16X1.5
6147	M20 x 1.5	SG-M20X1.5

Tech Sheet 71577

ISO 15552 CYLINDERS



Double Acting Cylinders

Technical Data for ISO 15552 Cylinders

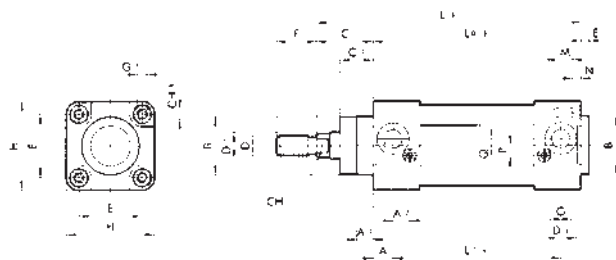
- Fluid: unlubricated air (lubrication, if used, must be continuous)
- Sensor magnet: all versions come complete with magnet
- Piston rod material: C40 chromed steel Ø32-63
- Piston seal: NBR

🌡️ **Temperature Range:**
10°C to +70°C

🔧 **Maximum Operating Pressure:**
10 bar

Dimensions

Ø	A	A1	A2	B	C	C1	CH	CH1	D	D1	D2	E	E1	F	G	G1	H	Ø	L	L0	L1	L2	M	N	P	Q
32	10	7	10	30	26	16	10	6	M10 x 1.25	12	15	32.5	5	22	G1/8	M6	47	32	120	94	74	146	9	4.5	6	4
40	12	9	10	35	30	20	13	6	M12 x 1.25	16	19	38	5	24	G1/4	M6	53	40	135	105	81	165	9	4.5	6	4
50	14	14	10	40	37	25	17	8	M16 x 1.5	20	19	46.5	5	32	G1/4	M8	65	50	143	106	78	180	12	5.5	6	6
63	16	14	10	45	37	25	17	8	M16 x 1.5	20	23	56.5	5	32	G3/8	M8	75	63	158	121	89	195	12	5.5	6	6
80	18	12	12	45	46	33	22	10	M20 x 1.5	25	23	72	8	40	G3/8	M10	95	80	174	128	92	220	16	5.5	10	7
100	20	14	12	55	51	38	22	10	M20 x 1.5	25	27	89	8	40	G1/2	M10	115	100	189	138	98	240	16	5.5	10	7
125	25	21	10	60	65	45	27	12	M27 x 2	32	27	110	8	54	G1/2	M12	140	125	225	160	110	290	19	6.5	12	8



Magnetic & Cushioned

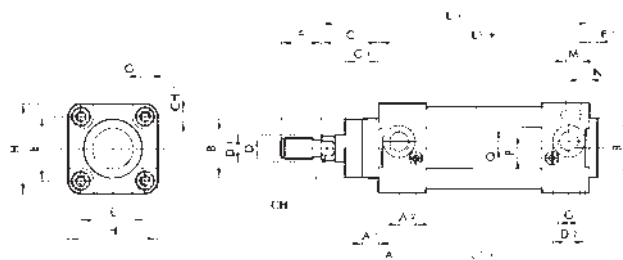
9195	Diameter (mm)	Stroke (mm)
1213320025CN	32	25
1213320050CN	32	50
1213320080CN	32	80
1213320100CN	32	100
1213320125CN	32	125
1213320160CN	32	160
1213320200CN	32	200
1213320250CN	32	250
1213320320CN	32	320
1213320400CN	32	400
1213320500CN	32	500
1213400025CN	40	25
1213400050CN	40	50
1213400080CN	40	80
1213400100CN	40	100
1213400125CN	40	125
1213400160CN	40	160

9195	Diameter (mm)	Stroke (mm)
1213400200CN	40	200
1213400250CN	40	250
1213400320CN	40	320
1213400400CN	40	400
1213400500CN	40	500
1213500025CN	50	25
1213500050CN	50	50
1213500080CN	50	80
1213500100CN	50	100
1213500125CN	50	125
1213500160CN	50	160
1213500200CN	50	200
1213500250CN	50	250
1213500320CN	50	320
1213500400CN	50	400
1213500500CN	50	500

ISO 15552 CYLINDERS



Double Acting Cylinders



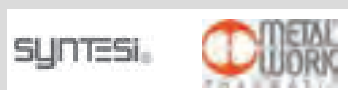
More Sizes Available
Up to 320mm diameter
& 2600mm stroke



Magnetic & Cushioned

9195	Diameter (mm)	Stroke (mm)
1213630025CN	63	25
1213630050CN	63	50
1213630080CN	63	80
1213630100CN	63	100
1213630125CN	63	125
1213630160CN	63	160
1213630200CN	63	200
1213630250CN	63	250
1213630320CN	63	320
1213630400CN	63	400
1213630500CN	63	500
1213800025AN	80	25
1213800050AN	80	50
1213800080AN	80	80
1213800100AN	80	100
1213800125AN	80	125
1213800160AN	80	160
1213800200AN	80	200
1213800250AN	80	250
1213800320AN	80	320
1213800400AN	80	400

9195	Diameter (mm)	Stroke (mm)
1213800500AN	80	500
1213A10025AN	100	25
1213A10050AN	100	50
1213A10080AN	100	80
1213A10100AN	100	100
1213A10125AN	100	125
1213A10160AN	100	160
1213A10200AN	100	200
1213A10250AN	100	250
1213A10320AN	100	320
1213A10400AN	100	400
1213A10500AN	100	500
1213A20100AN	125	100
1213A20125AN	125	125
1213A20160AN	125	160
1213A20200AN	125	200
1213A20250AN	125	250
1213A20320AN	125	320
1213A20400AN	125	400
1213A20500AN	125	500



For **Metal Work Standard Series FRL's 'Syntesi'**
see pages **668-672**




ISO 15552 CYLINDERS




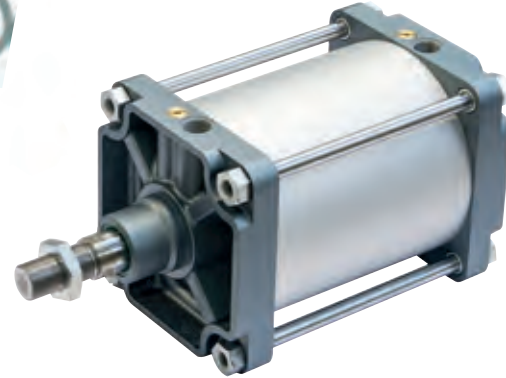
Double Acting Cylinders

Technical Data for ISO 15552 Cylinders Ø 160-320

- Design: round barrel with tie rods
- Sensor magnet: all versions come complete with magnet
- Piston rod material: C45 steel, chromed
- Piston seal: NBR
- Options: available with mounted intermediate hinge

 **Temperature Range:**
10°C to +80°C

 **Maximum Operating Pressure:**
10 bar



Magnetic & Cushioned

9195	Diameter mm	Stroke mm
W1211600025	160	25
W1211600050	160	50
W1211600080	160	80
W1211600100	160	100
W1211600125	160	125
W1211600160	160	160
W1211600200	160	200
W1211600250	160	250
W1211600320	160	320
W1211600400	160	400
W1211600500	160	500
W1212000025	200	25
W1212000050	200	50
W1212000080	200	80
W1212000100	200	100
W1212000125	200	125
W1212000160	200	160
W1212000200	200	200
W1212000250	200	250
W1212000320	200	320
W1212000400	200	400
W1212000500	200	500

9195	Diameter mm	Stroke mm
W1212500025	250	25
W1212500050	250	50
W1212500080	250	80
W1212500100	250	100
W1212500125	250	125
W1212500160	250	160
W1212500200	250	200
W1212500250	250	250
W1212500320	250	320
W1212500400	250	400
W1212500500	250	500
W1213200025	320	25
W1213200050	320	50
W1213200080	320	80
W1213200100	320	100
W1213200125	320	125
W1213200160	320	160
W1213200200	320	200
W1213200250	320	250
W1213200320	320	320
W1213200400	320	400
W1213200500	320	500

For dimensions and further technical information refer to sales team.

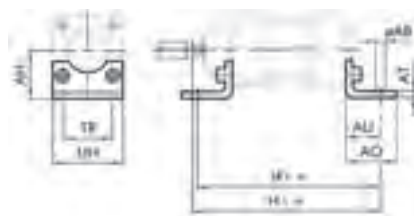
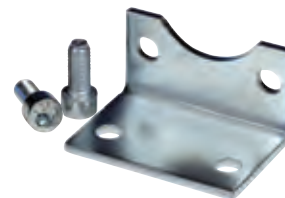
ISO 15552 CYLINDERS ACCESSORIES



Foot Mounting

To suit ISO 15552 Cylinders

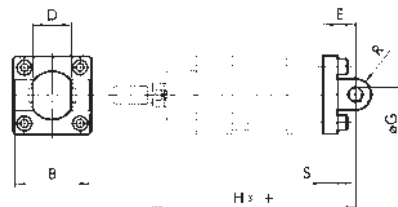
9146	Ø	AB	AH	AO	AT	AU	TR	UH	H1	H2
W0950322001	32	7	32	35	4	24	32	45	144	142
W0950402001	40	9	36	43	4	28	36	52	163	161
W0950502001	50	9	45	47	4	32	45	65	175	170
W0950632001	63	9	50	47	6	32	50	75	190	185
W0950802001	80	12	63	61	6	41	63	95	215	210
W0951002001	100	14	71	66	6	41	75	115	230	220
W0951252001	125	16	90	60	7	45	90	140	270	250
W0951602001	160	18	115	80	10	60	115	180	319	300
W0952002001	200	22	135	100	10	70	135	220	345	320



Female Hinge

To suit ISO 15552 Cylinders

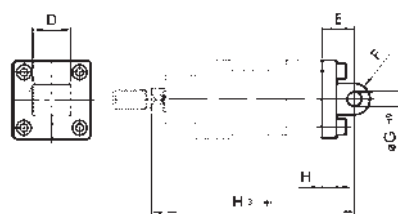
9146	Ø	B	D	E	ØG	H3	R	S
W0950322003	32	45	26	22	10	142	11	10
W0950402003	40	52	28	25	12	160	13	10
W0950502003	50	60	32	27	12	170	13	12
W0950632003	63	70	40	32	16	190	17	12
W0950802003	80	90	50	36	16	210	17	16
W0951002003	100	110	60	41	20	230	21	16
W0951252003	125	130	70	50	25	275	26	20
W0951602003	160	170	90	55	30	314	25	20
W0952002003	200	170	90	60	30	335	25	25



Male Hinge

To suit ISO 15552 Cylinders

9146	Ø	D	E	F	ØG	H	H2
W0950322004	32	26	22	11	10	10	142
W0950402004	40	28	25	13	12	10	160
W0950502004	50	32	27	13	12	12	170
W0950632004	63	40	32	17	16	12	190
W0950802004	80	50	36	17	16	16	210
W0951002004	100	60	41	21	20	16	230
W0951252004	125	70	50	26	25	20	1590
W0951602004	160	90	55	25	30	20	314
W0952002004	200	90	60	25	30	25	335

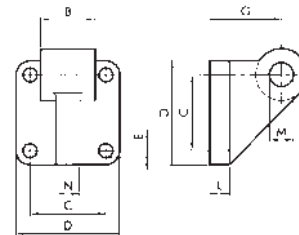


ISO 15552 CYLINDERS ACCESSORIES

Male 90° Hinge

To suit ISO 15552 Cylinders

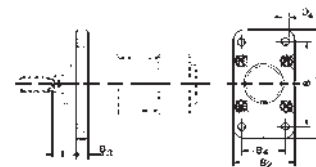
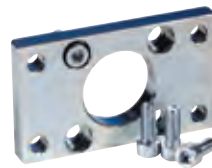
9146	Ø	B	C	D	E	G	L	M	N
W0950322108	32	25.5	25	45	7	32	10	10	10
W0950402108	40	27.5	32	52	7	36	10	12	12
W0950502108	50	31.5	32	65	9	45	12	12	12
W0950632108	63	39.5	40	75	9	50	16	16	15
W0950802108	80	49.5	40	95	11	63	16	16	15
W0951002108	100	59.5	50	115	11	21	20	20	22
W0951252008	125	70	50	25	14	90	16	25	22



Flange Mounting

To suit ISO 15552 Cylinders

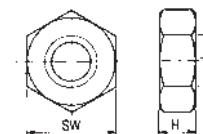
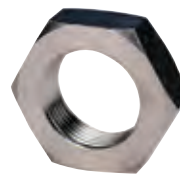
9146	Ø	B	B1	B2	B3	B4	ØD4	T
W0950322002	32	64	80	50	10	32	7	16
W0950402002	40	72	90	55	10	36	9	20
W0950502002	50	90	110	65	12	45	9	25
W0950632002	63	100	120	75	12	50	9	25
W0950802002	80	126	153	95	16	63	12	30
W0951002002	100	150	178	115	16	75	14	35
W0951252002	125	180	220	140	20	90	16	45
W0951602002	160	230	270	180	20	115	18	59
W0952002002	200	270	312	225	25	135	22	70



Piston Rod Nut

To suit ISO 15552 Cylinders

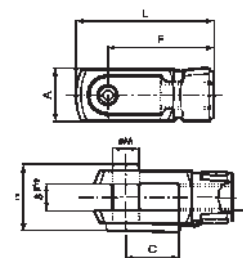
9146	Ø	D	H	SW
W0950322010	32	M10 x 1.25	6	17
W0950402010	40	M12 x 1.25	7	19
W0950502010	50-63	M16 x 1.5	8	24
W0950802010	80-100	M20 x 1.5	9	30
W0951252010	125	M27 x 2	12	74
W0951602010	160/200	M36 x 2	14	55



Fork Clevis

To suit ISO 15552 Cylinders

9146	Ø	M	A	B	C	L	F	D
W0950322020	32	10	20	10	20	52	40	M10 x 1.25
W0950402020	40	12	24	12	24	62	48	M12 x 1.25
W0950502020	50/63	16	32	16	32	83	64	M16 x 1.5
W0950802020	80/100	20	40	20	40	106	80	M20 x 1.5
W0951252020	125	30	55	30	55	148	110	M27 x 2
W0951602008	160/200	90	63	154	18	140	20	30
W0951602020	160/200	35	70	35	72	188	144	M36 x 2



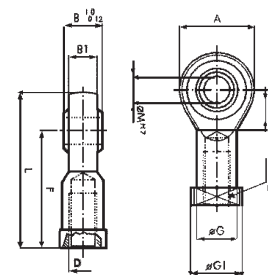
ISO 15552 CYLINDERS ACCESSORIES



Spherical Rod Eye

To suit ISO 15552 Cylinders

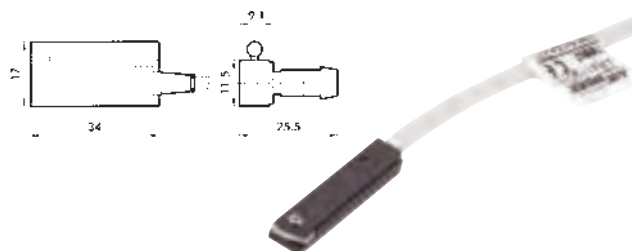
9146	Ø	M	B1	B	A	L	F	D	CH	ØG
W0950322025	32	10	10.5	14	28	57	43	M10 x 1.25	17	15
W0950402025	40	12	12	16	32	66	50	M12 x 1.25	19	17.5
W0950502025	50/63	16	15	21	42	85	64	M16 x 1.5	22	22
W0950802025	80/100	20	18	25	50	102	77	M20 x 1.5	30	27.5
W0951252025	125	30	25	37	70	145	110	M27 x 2	41	40
W0952002025	160/200	35	28	43	80	165	125	M36 x 2	58	46



Reed Switch

Technical Data

Type		Contact
Maximum AC/DC voltage	V	Reed + varistor + LED 2 wires Reed + varistor + LED NO 220 ISO cylinder
Maximum current at +25°C	mA	1,000
Power with inductive load	VA	15
Power with resistive load	Watt	50
Switch-on time	M sec	1.2
Switch-off time	M sec	0.1
Cable length		2.5m
Cable material		Soft PVC
Switch-on point	Gauss	110
Switch-off point	Gauss	95
Contact resistance		0.1



To suit ISO 15552 Cylinders

9146	Description
W0950000201	Reed Sensor ACC.DSM2-C525

Reed Switch Bracket



To suit ISO 15552 Cylinders

9146	Description	Cylinder Diameter
W0950000711	Bracket ACC. D.32 DST 80	32-40
W0950000712	Bracket ACC. D.50 DST 81	50-63
W0950000713	Bracket ACC. D.80-100-125 DST 82	80-125
0951602093	Bracket ACC. D.160-200	160-200

Seal Kits



To suit ISO 15552 Cylinders

9146	Ø	Material
0090320502	32	NBR
0090400502	40	NBR
0090500502	50	NBR
0090630502	63	NBR
0090800502	80	NBR
0091000502	100	NBR
0091250502	125	NBR

Sensor Tester with M8 & M12 Connections

This sensor tester features the following:

- A green light and acoustic signal indicating correct operation
- Sensors can be checked without having to be disassembled
- M8 and M12 connections and terminal board for direct connection to the wires
- PNP or NPN switching button

Technical Data

- Container material: PA 6.6 blue
- Degree of protection: IP00
- Connections: M8 and M12 plug-socket type with 40cm cable
- Additional connections: three terminals for wire connection
- Power supply: 9V DC (battery type 6LR61)
- Internal voltage: 15V DC
- Green light: tester switched on
- Yellow light: sensor in operation
- Red light: battery fla



Automatic Switch Off

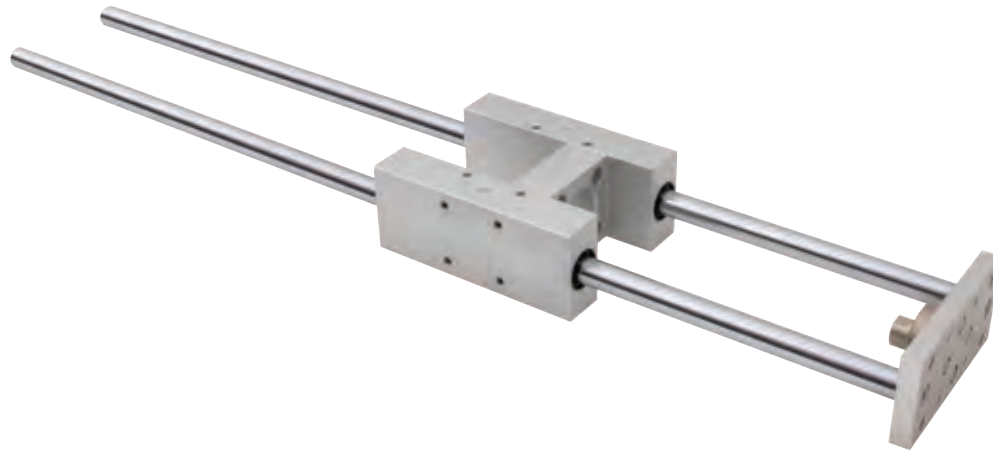
9146	Dimensions (mm)
W0950060000	63 x 88 x 24

CYLINDER GUIDE UNITS FOR ISO15552 CYLINDER



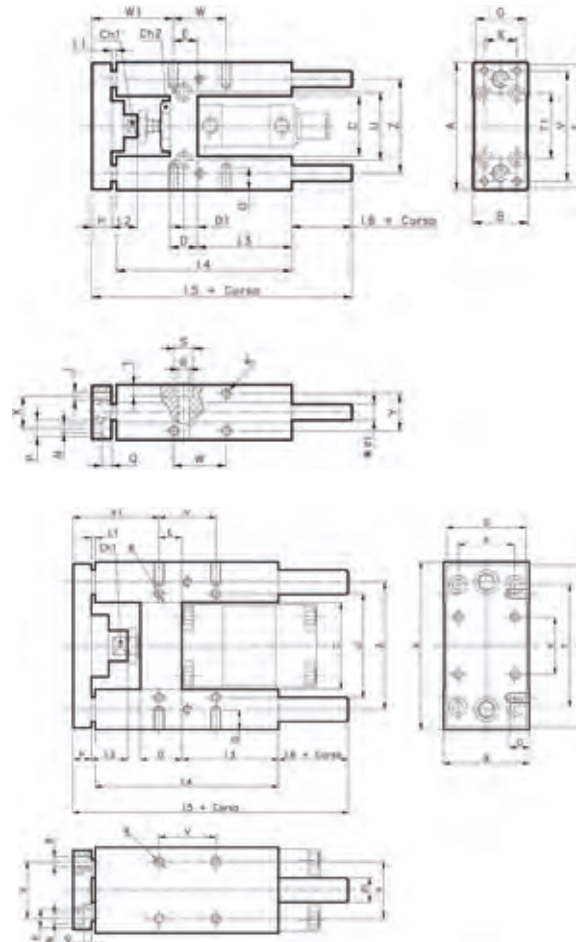
Profile (GD4) & (GDM)

More Sizes Available
Up to 100mm diameter
& 1000mm stroke



With Self-lubricating Bushings

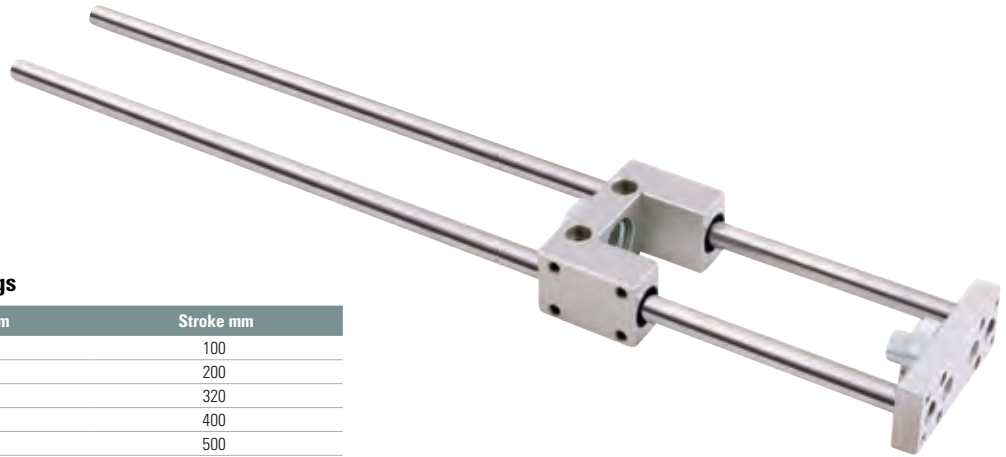
9147	Diameter mm	Stroke mm
HGU020-0100	20	100
HGU020-0200	20	200
HGU020-0250	20	250
HGU020-0320	20	320
HGU020-0400	20	400
HGU020-0500	20	500
HGU032-0100	32	100
HGU032-0200	32	200
HGU032-0250	32	250
HGU032-0320	32	320
HGU032-0400	32	400
HGU032-0500	32	500
HGU040-0100	40	100
HGU040-0200	40	200
HGU040-0250	40	250
HGU040-0320	40	320
HGU040-0400	40	400
HGU040-0500	40	500
HGU050-0100	50	100
HGU050-0200	50	200
HGU050-0250	50	250
HGU050-0320	50	320
HGU050-0400	50	400
HGU050-0500	50	500
HGU063-0100	63	100
HGU063-0200	63	200
HGU063-0250	63	250
HGU063-0320	63	320
HGU063-0400	63	400
HGU063-0500	63	500



CYLINDER GUIDE UNITS FOR ISO15552 CYLINDER

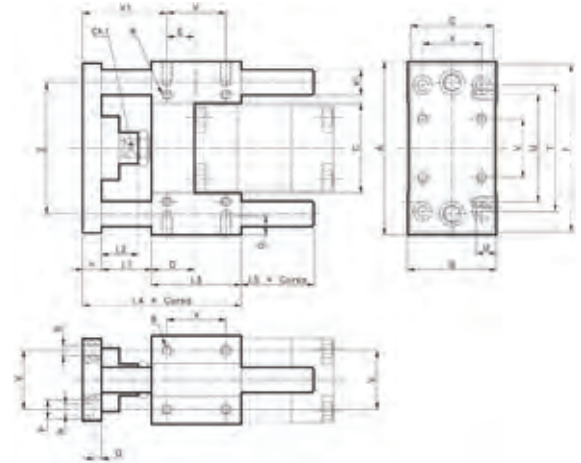


Profile (GD4) & (GDM)



With Self-lubricating Bushings

9147	Diameter mm	Stroke mm
UGU020-0100	20	100
UGU020-0200	20	200
UGU020-0320	20	320
UGU020-0400	20	400
UGU020-0500	20	500
UGU032-0100	32	100
UGU032-0200	32	200
UGU032-0250	32	250
UGU032-0320	32	320
UGU032-0400	32	400
UGU032-0500	32	500
UGU040-0100	40	100
UGU040-0200	40	200
UGU040-0250	40	250
UGU040-0320	40	320
UGU040-0400	40	400
UGU040-0500	40	500
UGU050-0100	50	100
UGU050-0200	50	200
UGU050-0250	50	250
UGU050-0320	50	320
UGU050-0400	50	400
UGU050-0500	50	500
UGU063-0100	63	100
UGU063-0200	63	200
UGU063-0250	63	250
UGU063-0320	63	320
UGU063-0400	63	400
UGU063-0500	63	500

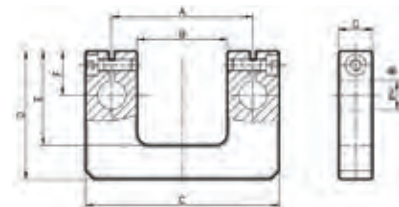


Rear End Plate



To suit Guide Units

9147	Description
KG3043.20	For 20/25mm Guide Units
KG3043.32	For 32mm Guide Units
KG3043.40	For 40mm Guide Units
KG3043.50	For 50mm Guide Units
KG3043.63	For 63mm Guide Units



ISO 15552 CYLINDERS, SERIES HCR (HIGH CORROSION RESISTANCE)



Uses stainless steel fixing

In some applications, cylinders are exposed to aggressive environments (e.g. the dairy, fruit and vegetable, and food industry) or to substances and washings with aggressive detergents (e.g. caustic soda, hydrochloric acid and lactic acid). Under these conditions, the HCR series cylinders ensure better corrosion resistance.

Cylinders made to ISO 15552, designed and built with materials and/or surface treatments that are highly resistant to corrosion

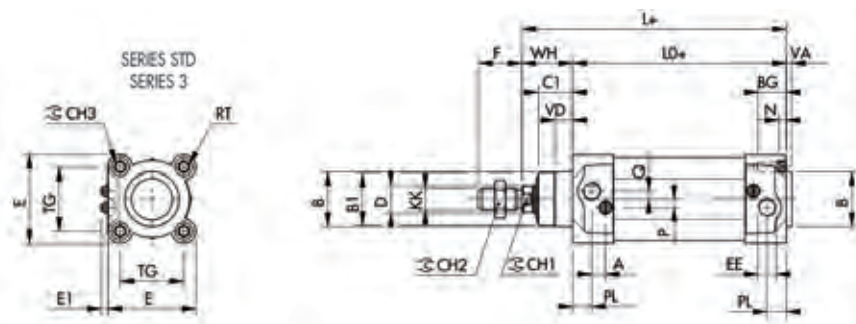
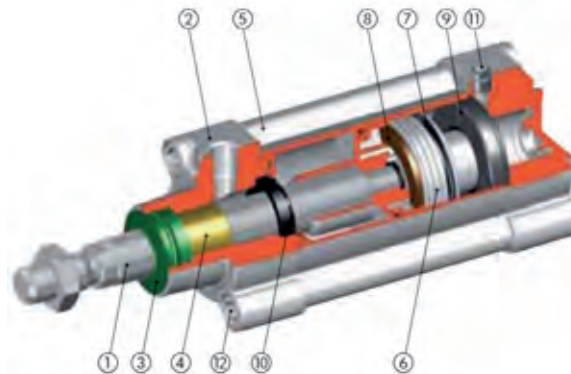
They come in various versions and with specific range of accessories

- with or without magnet
- with single or through piston rod

Also available with liner in the STD series or series 3



1.	Piston rod: AISI 316, thickness chromed
2.	Head: anodised pressure die-cast aluminium, epoxy-vinyl ester and epoxy-resin powder coating
3.	Piston rod gasket: special polyurethane
4.	Guide bushing: steel strip with bronze and PTFE insert
5.	Barrel: drawn anodised calibrated aluminium
6.	Semi-piston: made of self-lubricating technopolymer with built-in cushioning olives (aluminium with technopolymer shoe for Ø 80, 10 and 125)
7.	Piston gasket: NBR
8.	Magnet: plastoferrite
9.	Buffer + static O-rings: NBR
10.	Cushioning gasket: NBR
11.	Needle: AISI 316, screws: AISI 316
12.	Screws: AISI 316



Ø	PL	VD	A	B	B1	WH	C1	CH1	CH2	CH3	KK	D	TG	VA	F	EE	RT	E	E1 min	E1 max	L	LO	ZM	BG	N	P	Q
32	10	6.5	10	30	28	26	16	10	17	6	M10 x 1.25	12	32.5	4	22	G1/8	M6	46	5.5	8.4	120	94	146	14.5	4.5	6	4
40	12	8	10	35	33	30	20	13	19	6	M12 x 1.25	16	38	4	24	G1/4	M6	54	4.5	8.4	135	105	165	14.5	4.5	6	4
50	14	13	10	40	38	37	25	17	24	8	M16 x 1.5	20	46.5	4	32	G1/4	M8	64.5	4.5	8.9	143	106	180	17.5	5.5	6	6
63	16	14	10	45	40	37	25	17	24	8	M16 x 1.5	20	56.5	4	32	G3/8	M8	75.5	4.1	9.5	158	121	195	17.5	5.5	6	6
80	18	12	12	45	43	46	33	22	30	10	M20 x 1.5	25	72	4	40	G3/8	M10	94	6.2	12.2	174	128	220	21.5	5.5	10	7
100	20	14	12	55	49	51	38	22	30	10	M20 x 1.5	25	89	4	40	G1/2	M10	111	6.7	12.2	189	138	240	21.5	5.5	10	7
125	25	20	10	60	54	65	45	27	41	12	M27 x 2	32	110	6	54	G1/2	M12	135	5.7	12.7	225	160	290	25.5	6.5	12	8

ISO 15552 CYLINDERS, SERIES HCR (HIGH CORROSION RESISTANCE)



ISO 15552 HCR Double Acting Cylinders

Uses stainless steel accessories



Magnetic & Cushioned

9195	Diameter mm	Stroke mm
1213320025BL	32	25
1213320050BL	32	50
1213320080BL	32	80
1213320100BL	32	100
1213320125BL	32	125
1213320160BL	32	160
1213320200BL	32	200
1213320250BL	32	250
1213320320BL	32	320
1213320400BL	32	400
1213320500BL	32	500
1213400025BL	40	25
1213400050BL	40	50
1213400080BL	40	80
1213400100BL	40	100
1213400125BL	40	125
1213400160BL	40	160
1213400200BL	40	200
1213400250BL	40	250
1213400320BL	40	320
1213400400BL	40	400
1213400500BL	40	500
1213500025BL	50	25
1213500050BL	50	50
1213500080BL	50	80
1213500100BL	50	100
1213500125BL	50	125
1213500160BL	50	160
1213500200BL	50	200
1213500250BL	50	250
1213500320BL	50	320
1213500400BL	50	400
1213500500BL	50	500
1213630025BL	63	25
1213630050BL	63	50
1213630080BL	63	80
1213630100BL	63	100

9195	Diameter mm	Stroke mm
1213630125BL	63	125
1213630160BL	63	160
1213630200BL	63	200
1213630250BL	63	250
1213630320BL	63	320
1213630400BL	63	400
1213630500BL	63	500
1213800025WL	80	25
1213800050WL	80	50
1213800080WL	80	80
1213800100WL	80	100
1213800125WL	80	125
1213800160WL	80	160
1213800200WL	80	200
1213800250WL	80	250
1213800320WL	80	320
1213800400WL	80	400
1213800500WL	80	500
1213A10025WL	100	25
1213A10050WL	100	50
1213A10080WL	100	80
1213A10100WL	100	100
1213A10125WL	100	125
1213A10160WL	100	160
1213A10200WL	100	200
1213A10250WL	100	250
1213A10320WL	100	320
1213A10400WL	100	400
1213A10500WL	100	500
1213A20100WL	125	100
1213A20125WL	125	125
1213A20160WL	125	160
1213A20200WL	125	200
1213A20250WL	125	250
1213A20320WL	125	320
1213A20400WL	125	400
1213A20500WL	125	500

For correct magnetic sensors & fitting
contact sales department

ISO 15552 AIR CYLINDERS, ALL STAINLESS STEEL

Technical Specifications

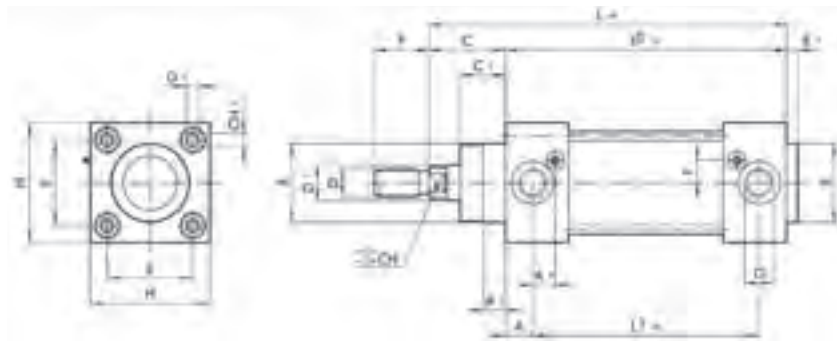
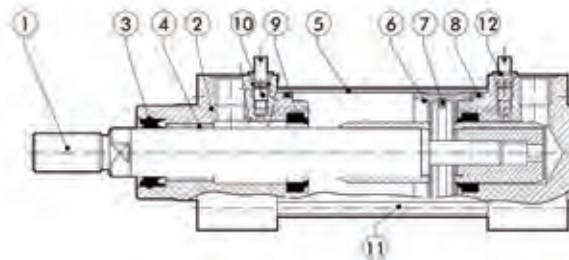
Fluid: lubricated or non-lubricated air

° Temperature Range:
10°C to +80°C

Maximum Operating Pressure:
10 bar



1. Piston rod: AISI 316 steel
2. Head: AISI 304 steel
3. Piston rod gasket: polyurethane or FKM/FPM
4. Guide bushing: sintered bronze
5. Barrel: AISI 304 steel
6. Enbloc gasket: NBR or FKM/FPM
7. Magnet: plastoferrite
8. Static O-rings: NBR or FKM/FPM
9. Cushioning gasket: polyurethane or FKM/FPM
10. Cushioning needle: AISI 304 steel
11. Tie rod: AISI 316 steel
12. Needle-retaining ring: technopolymer



Ø	A	A ₁	A ₂	B	C	C ₁	CH	CH ₁	D	D ₁	E	E ₁	F	G	G ₁	H	L	L ₀	L ₁	L ₂	P
32	13	9	11.3	30	26	18	10	6	M10 x 1.25	12	32.5	4	22	G1/8	M6	50	120	94	68	146	6
40	14	9	13	35	30	22	13	6	M12 x 1.25	16	38	4	24	G1/4	M6	55	135	105	77	165	8
50	14	9	12.7	40	37	25.5	17	8	M16 x 1.5	20	46.5	4	32	G1/4	M8	65	143	106	78	180	11.8
63	16	9	15.8	45	37	25	17	8	M16 x 1.5	20	56.5	4	32	G3/8	M8	75	158	121	89	195	11.7
80	17	10	16.3	45	46	35	22	-	M20 x 1.5	25	72	4	40	G3/8	M10	95	174	128	94	220	15.5
100	18	10	15.5	55	51	38	22	-	M20 x 1.5	25	89	4	40	G1/2	M10	110	189	138	102	240	15.5
125	18	11	20	60	65	46	27	-	M27 x 2	32	110	6	54	G1/2	M12	140	225	160	124	290	15

ISO 15552 AIR CYLINDERS, ALL STAINLESS STEEL



ISO 15552 Cylinders, Double Acting

Technical Specifications

Fluid: lubricated or non-lubricated air

 **Temperature Range:**
10°C to +80°C

 **Maximum Operating Pressure:**
10 bar



Magnetic

9146	Diameter mm	Stroke mm
W1840320025	32	25
W1840320050	32	50
W1840320080	32	80
W1840320100	32	100
W1840320125	32	125
W1840320160	32	160
W1840320200	32	200
W1840320250	32	250
W1840320320	32	320
W1840320400	32	400
W1840320500	32	500
W1840400025	40	25
W1840400050	40	50
W1840400080	40	80
W1840400100	40	100
W1840400125	40	125
W1840400160	40	160
W1840400200	40	200
W1840400250	40	250
W1840400320	40	320
W1840400400	40	400
W1840400500	40	500
W1840500025	50	25
W1840500050	50	50
W1840500080	50	80
W1840500100	50	100
W1840500125	50	125
W1840500160	50	160
W1840500200	50	200
W1840500250	50	250
W1840500320	50	320
W1840500400	50	400
W1840500500	50	500

9146	Diameter mm	Stroke mm
W1840630025	63	25
W1840630050	63	50
W1840630080	63	80
W1840630100	63	100
W1840630125	63	125
W1840630160	63	160
W1840630200	63	200
W1840630250	63	250
W1840630320	63	320
W1840630400	63	400
W1840630500	63	500
W1840800025	80	25
W1840800050	80	50
W1840800080	80	80
W1840800100	80	100
W1840800125	80	125
W1840800160	80	160
W1840800200	80	200
W1840800250	80	250
W1840800320	80	320
W1840800400	80	400
W1840800500	80	500
W1841000025	100	25
W1841000050	100	50
W1841000080	100	80
W1841000100	100	100
W1841000125	100	125
W1841000160	100	160
W1841000200	100	200
W1841000250	100	250
W1841000320	100	320
W1841000400	100	400
W1841000500	100	500

ISO 15552 AIR CYLINDER ACCESSORIES, ALL STAINLESS STEEL



Foot Mounting



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322001	32
W095X402001	40
W095X502001	50
W095X632001	63
W095X802001	80
W095XA12001	100

Male 90° Hinge



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322008	32
W095X402008	40
W095X502008	50
W095X632008	63
W095X802008	80
W095XA12008	100

Male Hinge



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322004	32
W095X402004	40
W095X502004	50
W095X632004	63
W095X802004	80
W095XA12004	100

Female Hinge



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322003	32
W095X402003	40
W095X502003	50
W095X632003	63
W095X802003	80
W095XA12003	100



For Syntesi Metal Work
Standard Series FRL's
see page 666

ISO 15552 AIR CYLINDER ACCESSORIES, ALL STAINLESS STEEL



Hinge Pin



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322050	32
W095X402050	40
W095X502050	50
W095X632050	63
W095X802050	80
W095XA12050	100

Fork Clevis



To suit ISO 15552 Cylinders

9146	To Suit Size mm	Thread
W095X322020	25/32	M10 x 1.25
W095X402020	40	M12 x 1.25
W095X502020	50/63	M16 x 1.5
W095X802020	80/100	M20 x 1.5

Intermediate Hinge



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322007	32
W095X402007	40
W095X502007	50
W095X632007	63
W095X802007	80
W095XA12007	100

Flange



To suit ISO 15552 Cylinders

9146	To Suit Size mm
W095X322002	32
W095X402002	40
W095X502002	50
W095X632002	63
W095X802002	80
W095XA12002	100

Rod Nuts



To suit ISO 15552 Cylinders

9146	To Suit Size	Thread
W095X322011	25/32	M10 x 1.25
W095X402011	40	M12 x 1.25
W095X502011	50/63	M16 x 1.5
W095X802011	80/100	M20 x 1.5

Reed Switch



To suit ISO 15552 Cylinders

9146	Thread
W0952022180	With Moulded Cable
W0952028184	With M8 Connection

Mounting for Reed Switch



To suit ISO 15552 Cylinders

9146
W0950001100

ISO 15552 CYLINDERS & MOUNTINGS



ISO 15552 Cylinders

- Cylinder conforms to ISO 15552
- High performance adaptive cushioning system "ACS"
- Polyurethane seals ensure efficient low friction operation and long life
- Switches can be mounted flush with the profile barrel
- Comprehensive range of standard mountings

Medium: Compressed air, filtered,

lubricated or non-lubricated

Operation: Double acting, adjustable cushioning.

Profile: Anodised aluminium

Piston Rod: Stainless steel (martensitic)

Piston Rod Seals: Polyurethane

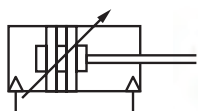
Piston Seals: Polyurethane

O-Rings: Nitrile Rubber

End Covers: Pressure diecast aluminium

Working Temperature:
-20°C to +80°C

Working Pressure:
1 to 16 bar



PROFILE BARREL



Double Acting, 8020 Series

0036	Bore mm	Stroke mm	Thread
PRA/802032/M/25	32	25	1/8"
PRA/802032/M/50	32	50	1/8"
PRA/802032/M/80	32	80	1/8"
PRA/802032/M/100	32	100	1/8"
PRA/802032/M/125	32	125	1/8"
PRA/802032/M/160	32	160	1/8"
PRA/802032/M/200	32	200	1/8"
PRA/802032/M/250	32	250	1/8"
PRA/802032/M/320	32	320	1/8"
PRA/802040/M/50	40	50	1/4"
PRA/802040/M/80	40	80	1/4"
PRA/802040/M/100	40	100	1/4"
PRA/802040/M/160	40	160	1/4"
PRA/802040/M/200	40	200	1/4"
PRA/802050/M/25	50	25	1/4"
PRA/802050/M/50	50	50	1/4"
PRA/802050/M/80	50	80	1/4"
PRA/802050/M/100	50	100	1/4"
PRA/802050/M/125	50	125	1/4"
PRA/802050/M/160	50	160	1/4"
PRA/802050/M/200	50	200	1/4"
PRA/802050/M/250	50	250	1/4"
PRA/802050/M/320	50	320	1/4"
PRA/802063/M/25	63	25	3/8"
PRA/802063/M/50	63	50	3/8"
PRA/802063/M/80	63	80	3/8"
PRA/802063/M/100	63	100	3/8"
PRA/802063/M/125	63	125	3/8"
PRA/802063/M/160	63	160	3/8"
PRA/802063/M/200	63	200	3/8"
PRA/802063/M/250	63	250	3/8"
PRA/802063/M/320	63	320	3/8"
PRA/802080/M/25	80	25	3/8"
PRA/802080/M/50	80	50	3/8"
PRA/802080/M/80	80	80	3/8"
PRA/802080/M/160	80	160	3/8"
PRA/802080/M/200	80	200	3/8"
PRA/802080/M/250	80	250	3/8"
PRA/802100/M/50	100	50	1/2"
PRA/802100/M/100	100	100	1/2"
PRA/802100/M/125	100	125	1/2"
PRA/802100/M/160	100	160	1/2"
PRA/802100/M/250	100	250	1/2"
PRA/802100/M/320	100	320	1/2"

Tech Sheet 71373

Self adjusting cushioning feature

ROUND BARREL



Tie rod double acting cylinder, round barrel RA/802 Series

0036	Bore mm	Stroke mm	Thread
RA/802032/M/25	32	25	1/8"
RA/802032/M/50	32	50	1/8"
RA/802032/M/80	32	80	1/8"
RA/802032/M/100	32	100	1/8"
RA/802032/M/125	32	125	1/8"
RA/802032/M/160	32	160	1/8"
RA/802032/M/200	32	200	1/8"
RA/802032/M/250	32	250	1/8"
RA/802032/M/320	32	320	1/8"
RA/802040/M/25	40	25	1/4"
RA/802040/M/50	40	50	1/4"
RA/802040/M/80	40	80	1/4"
RA/802040/M/100	40	100	1/4"
RA/802040/M/125	40	125	1/4"
RA/802040/M/200	40	200	1/4"
RA/802040/M/250	40	250	1/4"
RA/802040/M/320	40	320	1/4"
RA/802050/M/25	50	25	1/4"
RA/802050/M/50	50	50	1/4"
RA/802050/M/80	50	80	1/4"
RA/802050/M/160	50	160	1/4"
RA/802050/M/200	50	200	1/4"
RA/802050/M/250	50	250	1/4"
RA/802063/M/25	63	25	3/8"
RA/802063/M/50	63	50	3/8"
RA/802063/M/100	63	100	3/8"
RA/802063/M/250	63	250	3/8"
RA/802063/M/320	63	320	3/8"
RA/802080/M/25	80	25	3/8"
RA/802080/M/50	80	50	3/8"
RA/802080/M/80	80	80	3/8"
RA/802080/M/100	80	100	3/8"
RA/802080/M/160	80	160	3/8"
RA/802080/M/200	80	200	3/8"

Tech Sheet 71751

ISO 15552 CYLINDERS & MOUNTINGS



ISO 15552 Mountings



Female Piston Rod Clevis

0036	Bore mm
QM/8025/25	25
QM/8050/25	50/63
QM/8080/25	80/100

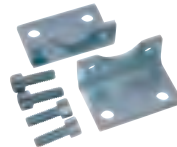
Tech Sheet 10317



Piston Rod Eye

0036	Bore mm
QM/8050/32	50/63
QM/8080/32	80/100

Tech Sheet 10317



Foot Mounting

0036	Bore mm
QA/8032/21	32
QA/8050/21	50
QA/8063/21	63
QA/8080/21	80
QA/8100/21	100

Tech Sheet 10317



Rear Swivel Flange

0036	Bore mm
QA/8032/23	32
QA/8040/23	40
QA/8050/23	50
QA/8063/23	63
QA/8080/23	80
QA/8100/23	100

Tech Sheet 10317



Standard Service Kits

0036	Bore mm
QA/8032/00	32
QA/8040/00	40
QA/8050/00	50
QA/8063/00	63
QA/8100/00	100

Tech Sheet 10317



Reed Switch

0036	Length Metre
M/50/LSU/2V	2
M/50/LSU/5V	5
M/50/LSU/10V	10

Tech Sheet 10317

IMPERIAL CYLINDERS



Imperial Cylinders

- Large range of bore sizes – ideal for a wide variety of industrial applications
- Extensive choice of mountings
- Long established design – proven ruggedness and reliability
- Adjustable cushioning

Working Temperature:
-5°C to +80°C

Working Pressure:
2 to 10 bar

Medium: Compressed air, filtered, lubricated or non-lubricated

Operation: Double acting, adjustable cushioning

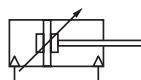
Piston Rod and Tie Rods: Stainless steel (martensitic)

Barrel: Anodised aluminium

Piston and End Covers:

Aluminium

Seals: Nitrile



Double Acting Imperial RM/900

0036	Bore Inch	Stroke mm	Thread
RM/925/75	2.1/2"	75	G3/8
RM/925/100	2.1/2"	100	G3/8
RM/925/150	2.1/2"	150	G3/8
RM/930/75	3"	75	G3/8
RM/930/100	3"	100	G3/8
RM/930/150	3"	150	G3/8
RM/930/300	3"	300	G3/8
RM/940/100	4"	100	G3/8
RM/940/150	4"	150	G3/8
RM/940/300	4"	300	G3/8

Tech Sheet 20131

In-line Positioner Cylinders

Medium: Compressed air, filtered, non-lubricated.

Response time: 10 secs max. for 200mm stroke.

Working Temperature:
-20°C to +80°C

Working Pressure:
2 to 10 bar

Materials:

Piston Rod and Valve Spool: Stainless steel. Piston rod end and zero.

Adjuster: Zinc plated steel

Valve Bush: Brass cylinder barrel and piston.

Valve Body: Aluminium alloy



M/1525, M1540 - G1/4

0036	Bore Inch	Stroke mm
M/1525/75	2.1/2"	75
M/1525/125	2.1/2"	125
M/1525/200	2.1/2"	200
M/1540/75	4"	75
M/1540/125	4"	125
M/1540/200	4"	200

Tech Sheet 10360

ISO 1552 CYLINDERS



Series 61, Double Acting Cylinders Aluminium Profile ISO 1555

- In compliance with ISO 15552 standards and with the previous DIN/ISO 6431 – VDMA 24562 standards.
- Rolled stainless steel rod
- Clean design with adjustable pneumatic cushioning
- Special designs available

Type of construction: with tie-rods (inside the profile)

Operation: double-acting, single-acting, tandem.

Low friction version: double-acting only.

Materials: standard = aluminium end-blocks and piston, rolled stainless steel AISI 420B rod, anodised aluminium tube, zinc-plated steel tie-rods and tie-rod nuts, PU seals. Low friction = standard materials with NBR piston seal and NBR rod seal (FKM rod seal on request).

Type of mounting: with front rear flange, foot mounting, with front/rear/centre/ swivel trunnion.

Strokes, min – max: 10 to 2500mm.

Speed: 10 to 1000mm/sec, no load (standard versions). 5 to 1000mm/sec, no load (low friction version).

Fluid: filtered air, without lubrication. For standard versions only: if lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.

Full range of ISO cylinders available including large bore (160, 200 and 250mm) and stainless steel options.

Non-stock strokes available on request.

Operating temperature:
0°C to +80°C (with dry air: +20°C).

Operating pressure:
1 to 10 bar (standard versions).
0.1 to 10 bar (low friction version).



G1/8", Ø32mm

0158	Stroke mm
61M2P032A0025	25
61M2P032A0050	50
61M2P032A0075	75
61M2P032A0080	80
61M2P032A0100	100
61M2P032A0125	125
61M2P032A0150	150
61M2P032A0160	160
61M2P032A0200	200
61M2P032A0250	250
61M2P032A0300	300
61M2P032A0320	320
61M2P032A0400	400
61M2P032A0500	500
61M2P032A0600	600
61M2P032A0700	700
61M2P032A0800	800
61M2P032A0900	900
61M2P032A1000	1000

Tech Sheet 1841

G1/4", Ø40mm

0158	Stroke mm
61M2P040A0025	25
61M2P040A0050	50
61M2P040A0075	75
61M2P040A0080	80
61M2P040A0100	100
61M2P040A0125	125
61M2P040A0150	150
61M2P040A0160	160
61M2P040A0200	200
61M2P040A0250	250
61M2P040A0300	300
61M2P040A0320	320
61M2P040A0400	400
61M2P040A0500	500
61M2P040A0600	600
61M2P040A0700	700
61M2P040A0800	800
61M2P040A0900	900
61M2P040A1000	1000

Tech Sheet 1841

G1/4", Ø50mm

0158	Stroke mm
61M2P050A0025	25
61M2P050A0050	50
61M2P050A0075	75
61M2P050A0080	80
61M2P050A0100	100
61M2P050A0125	125
61M2P050A0150	150
61M2P050A0160	160
61M2P050A0200	200
61M2P050A0250	250
61M2P050A0300	300
61M2P050A0320	320
61M2P050A0400	400
61M2P050A0500	500
61M2P050A0600	600
61M2P050A0800	800
61M2P050A0900	900
61M2P050A1000	1000

Tech Sheet 1841

G3/8", Ø63mm

0158	Stroke mm
61M2P063A0025	25
61M2P063A0050	50
61M2P063A0075	75
61M2P063A0080	80
61M2P063A0100	100
61M2P063A0125	125
61M2P063A0150	150
61M2P063A0160	160
61M2P063A0200	200
61M2P063A0250	250
61M2P063A0300	300
61M2P063A0320	320
61M2P063A0400	400
61M2P063A0500	500
61M2P063A0600	600
61M2P063A0700	700
61M2P063A0800	800
61M2P063A0900	900
61M2P063A1000	1000

Tech Sheet 1841

G3/8", Ø80mm

0158	Stroke mm
61M2P080A0025	25
61M2P080A0050	50
61M2P080A0075	75
61M2P080A0080	80
61M2P080A0100	100
61M2P080A0125	125
61M2P080A0150	150
61M2P080A0160	160
61M2P080A0200	200
61M2P080A0250	250
61M2P080A0300	300
61M2P080A0320	320
61M2P080A0500	500
61M2P080A0600	600
61M2P080A0700	700
61M2P080A0800	800
61M2P080A0900	900
61M2P080A1000	1000

Tech Sheet 1841

G1/2", Ø100mm

0158	Stroke mm
61M2P100A0025	25
61M2P100A0050	50
61M2P100A0080	80
61M2P100A0100	100
61M2P100A0125	125
61M2P100A0150	150
61M2P100A0160	160
61M2P100A0200	200
61M2P100A0250	250
61M2P100A0300	300
61M2P100A0320	320
61M2P100A0400	400
61M2P100A0500	500
61M2P100A0600	600
61M2P100A0700	700
61M2P100A0800	800
61M2P100A0900	900
61M2P100A1000	1000

Tech Sheet 1841

G1/2", Ø125mm

0158	Stroke mm
61M2P125A0025	25
61M2P125A0050	50
61M2P125A0075	75
61M2P125A0080	80
61M2P125A0100	100
61M2P125A0125	125
61M2P125A0150	150
61M2P125A0160	160
61M2P125A0200	200
61M2P125A0250	250
61M2P125A0300	300
61M2P125A0320	320
61M2P125A0400	400
61M2P125A0500	500
61M2P125A0600	600
61M2P125A0700	700
61M2P125A0800	800
61M2P125A0900	900
61M2P125A1000	1000

Tech Sheet 1841

ISO 1552 CYLINDERS

Series 63, Double Acting Cylinders ISO 1552

Series 63 pneumatic cylinders comply with the ISO 1552 standard. They have been developed to guarantee high performance whilst also offering significant reduction in weight.

The new adjustable pneumatic and mechanical cushioning system ensures Series 63 also reduces the noise caused by the impact of the piston on the end block.

Type of construction: profile (with screws)

Operation: double-acting.

Materials: aluminium end blocks, technopolymer (nominal bore 32mm) or aluminium (nominal bore 40 to 125mm) piston, rolled stainless steel AISI 420B piston rod, zinc-plated steel piston rod nut, anodised aluminium tube, NBR-PU rod, piston and cushion seals.

Type of Mounting: with front/rear flange, foot mounting, with centre/front/rear/swivel trunnion.


Strokes, min – max: 10 to 2500mm.

Non-stock strokes available on request.

Speed: 10 to 500mm/sec, no load.

Fluid: filtered air, in class 7.8.4, according to ISO 8573-1, without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied, the lubrication should never be interrupted.

Non-stock strokes available on request.

 **Operating temperature:**
°C to +80°C (with dry air: -20°C).

 **Operating pressure:**
1 to 10 bar.



G1/8", Ø32mm

0158	Stroke mm
63MP2C032A0025	25
63MP2C032A0050	50
63MP2C032A0075	75
63MP2C032A0080	80
63MP2C032A0100	100
63MP2C032A0125	125
63MP2C032A0150	150
63MP2C032A0160	160
63MP2C032A0200	200
63MP2C032A0250	250
63MP2C032A0300	300
63MP2C032A0320	320
63MP2C032A0400	400
63MP2C032A0500	500
63MP2C032A0600	600
63MP2C032A0700	700
63MP2C032A0800	800
63MP2C032A0900	900

Tech Sheet 68272

G1/4", Ø50mm

0158	Stroke mm
63MP2C050A0025	25
63MP2C050A0050	50
63MP2C050A0075	75
63MP2C050A0080	80
63MP2C050A0100	100
63MP2C050A0125	125
63MP2C050A0150	150
63MP2C050A0160	160
63MP2C050A0200	200
63MP2C050A0250	250
63MP2C050A0300	300
63MP2C050A0320	320
63MP2C050A0400	400
63MP2C050A0500	500
63MP2C050A0600	600
63MP2C050A0700	700
63MP2C050A0800	800
63MP2C050A0900	900

Tech Sheet 68272

G1/4", Ø40mm

0158	Stroke mm
63MP2C040A0025	25
63MP2C040A0050	50
63MP2C040A0075	75
63MP2C040A0080	80
63MP2C040A0100	100
63MP2C040A0125	125
63MP2C040A0150	150
63MP2C040A0160	160
63MP2C040A0200	200
63MP2C040A0250	250
63MP2C040A0300	300
63MP2C040A0320	320
63MP2C040A0400	400
63MP2C040A0500	500
63MP2C040A0600	600
63MP2C040A0700	700
63MP2C040A0800	800
63MP2C040A0900	900

Tech Sheet 68272

G3/8", Ø63mm

0158	Stroke mm
63MP2C063A0025	25
63MP2C063A0050	50
63MP2C063A0075	75
63MP2C063A0080	80
63MP2C063A0100	100
63MP2C063A0125	125
63MP2C063A0150	150
63MP2C063A0160	160
63MP2C063A0200	200
63MP2C063A0250	250
63MP2C063A0300	300
63MP2C063A0320	320
63MP2C063A0400	400
63MP2C063A0500	500
63MP2C063A0600	600
63MP2C063A0700	700
63MP2C063A0800	800
63MP2C063A0900	900

Tech Sheet 68272

G3/8", Ø80mm

0158	Stroke mm
63MP2C080A0025	25
63MP2C080A0050	50
63MP2C080A0075	75
63MP2C080A0080	80
63MP2C080A0100	100
63MP2C080A0125	125
63MP2C080A0150	150
63MP2C080A0160	160
63MP2C080A0200	200
63MP2C080A0250	250
63MP2C080A0300	300
63MP2C080A0320	320
63MP2C080A0400	400
63MP2C080A0500	500
63MP2C080A0600	600
63MP2C080A0700	700
63MP2C080A0800	800
63MP2C080A0900	900
63MP2C080A0985	985

Tech Sheet 68272

G1/2", Ø100mm

0158	Stroke mm
63MP2C100A0025	25
63MP2C100A0050	50
63MP2C100A0075	75
63MP2C100A0080	80
63MP2C100A0100	100
63MP2C100A0125	125
63MP2C100A0150	150
63MP2C100A0160	160
63MP2C100A0200	200
63MP2C100A0250	250
63MP2C100A0300	300
63MP2C100A0320	320
63MP2C100A0400	400
63MP2C100A0500	500
63MP2C100A0600	600
63MP2C100A0700	700
63MP2C100A0800	800
63MP2C100A0900	900

Tech Sheet 68272

G1/2", Ø125mm

0158	Stroke mm
63MP2C125A0025	25
63MP2C125A0050	50
63MP2C125A0075	75
63MP2C125A0080	80
63MP2C125A0100	100
63MP2C125A0125	125
63MP2C125A0150	150
63MP2C125A0160	160
63MP2C125A0200	200
63MP2C125A0250	250
63MP2C125A0300	300
63MP2C125A0320	320
63MP2C125A0400	400
63MP2C125A0500	500
63MP2C125A0600	600
63MP2C125A0700	700
63MP2C125A0800	800
63MP2C125A0900	900

Tech Sheet 68272



ISO 15552 CYLINDERS



Series 40, Double Acting Cylinders ISO 15552

Series 40 cylinders have been designed in compliance with ISO 15552 standards and with previous DIN/ISO 6431-VDMA 24562 standards.

A permanent magnet on the piston of these cylinders is able to send, through proximity switches mounted on the cylinder sliding axis, electrical signals to indicate its position.

Type of construction: with tie-rods.

Operation: double-acting.

Materials: aluminium end blocks and piston, rolled stainless steel AISI 420B (nominal bore 160-200mm) piston rod, zinc-plated piston rod nut, anodised aluminium tube, zinc-plated steel tie-rods and tie-rod nuts, NBR-PU rod, piston and cushion seals, brass rod scraper.

Operating temperature:
0°C to +80°C (with dry air: -20°C).

Operating pressure:
1 to 10 bar.

Type of Mounting: with tie-rods, with front/rear flange, foot mounting, with centre/front rear/swivel trunnion.

Strokes, min – max: 10 to 2500mm.

Speed: 10 to 500mm/sec, no load.

Fluid: filtered air without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied, the lubrication should never be interrupted.

250 and 320mm bore cylinders are available upon request.



G3/4", Ø160mm

0158	Stroke mm
40M2L160A0050	50
40M2L160A0080	80
40M2L160A0100	100
40M2L160A0150	150
40M2L160A0200	200
40M2L160A0250	250
40M2L160A0300	300
40M2L160A0400	400
40M2L160A0500	500
40M2L160A0600	600
40M2L160A0700	700
40M2L160A0800	800
40M2L160A0900	900
40M2L160A1000	1000
40M2L160A1250	1250
40M2L160A1500	1500
40M2L160A1750	1750
40M2L160A2000	2000

Tech Sheet 68271

G3/4", Ø200mm

0158	Stroke mm
40M2L200A0050	50
40M2L200A0080	80
40M2L200A0100	100
40M2L200A0150	150
40M2L200A0200	200
40M2L200A0250	250
40M2L200A0300	300
40M2L200A0400	400
40M2L200A0500	500
40M2L200A0600	600
40M2L200A0700	700
40M2L200A0800	800
40M2L200A0900	900
40M2L200A1000	1000
40M2L200A1250	1250
40M2L200A1500	1500
40M2L200A1750	1750
40M2L200A2000	2000

Tech Sheet 68271



For **In-line Flow Control Valves**
see page **636**



ISO & VDMA CYLINDER MOUNTINGS

Piston Rod Mountings



Piston Rod Swivel Ball Ends, Mod GA

0158	Bore mm	To Suit Unit
GA 8/10	8/10	24
GA 12/16	12/16	24
GA 20	20	24
GA 25/32	25/32	60,61,63
GA 40	40	60,61,63
GA 50/63	50/63	60,61,63
GA 80/100	80/100	60,61,63
GA 41 125	125	60,61,63
GA 160/200	160/200	40

Tech Sheet 1844



Piston Rod Fork Ends, Mod G

0158	Bore mm	To Suit Unit
G 12/16	12/16	24
G 20	20	24
G 25/32	25/32	24,60,61,63
G 40	40	60,61,63
G 50/63	50/63	60,61,63
G 80/100	80/100	60,61,63
G 41 125	125	60,61,63
G 160/200	160/200	40

Tech Sheet 1844



Self Aligning Rod, Mod GK

0158	Bore mm	To Suit Unit
GK 25 32	25/32	60,61,63
GK 40	40	60,61,63
GK 50 63	50/63	60,61,63
GK 80 100	80/100	60,61,63
GK 125	125	60,61,63
GK 160 200	160/200	40

Tech Sheet 1844



Piston Rod Socket Joint, Mod GY

0158	Bore mm	To Suit Unit
GY 32	32	60,61,63
GY 40	40	60,61,63
GY 50 63	50/63	60,61,63
GY 80 100	80/100	60,61,63

Tech Sheet 1844



Piston Rod Lock Nut, Mod U

0158	Bore mm	To Suit Unit
U 12/16	12/16	24
U 20	20	24
U 25/32	25/32	24,60,61,63
U 40	40	60,61,63
U 50/63	50/63	60,61,63
U 80/100	80/100	60,61,63
U 41 125	125	60,61,63
U 160/200	160/200	40

Tech Sheet 1844

Foot Mountings



Foot Mountings (Pair), Mod B

0158	Bore mm	To Suit Unit
B 12/16	12/16	24
B 20/25	20/25	24
B 41 32	32	60,61,63
B 41 40	40	60,61,63
B 41 50	50	60,61,63
B 41 63	63	60,61,63
B 41 80	80	60,61,63
B 41 100	100	60,61,63
B 41 125	125	60,61,63
B 41 160	160	40
B 41 200	200	40

Tech Sheet 1844

Flange Mountings



Front & Rear Flange Mounts, Mod E

0158	Bore mm	To Suit Unit
E 12/16	12/16	24
E 20/25	20/25	24

Tech Sheet 1844

Front & Rear Flange Mounts, Mod D & E

0158	Bore mm	To Suit Unit
D E 41 32	32	60,61,63
D E 41 40	40	60,61,63
D E 41 50	50	60,61,63
D E 41 63	63	60,61,63
D E 41 80	80	60,61,63
D E 41 100	100	60,61,63
D E 41 125	125	60,61,63
D E 41 160	160	40
D E 41 200	200	40

Tech Sheet 1844

Trunnion Mountings



Rear Male Trunnion Mounts, Mod L

0158	Bore mm	To Suit Unit
L 41 32	32	60,61,63
L 41 40	40	60,61,63
L 41 50	50	60,61,63
L 41 63	63	60,61,63
L 41 80	80	60,61,63
L 41 125	125	60,61,63
L 41 160	160	40
L 41 200	200	40

Tech Sheet 1844

Rear Female Trunnion Mounts, Mod C & C H



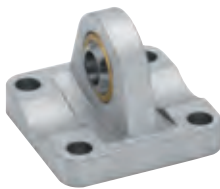
0158	Bore mm	To Suit Unit
C 41 32	32	60,61,63
C 41 40	40	60,61,63
C 41 50	50	60,61,63
C 41 63	63	60,61,63
C H 41 80	80	60,61,63
C H 41 100	100	60,61,63
C H 41 125	125	60,61,63
C H 41 160	160	40
C H 41 200	200	40

Tech Sheet 1844

ISO & VDMA CYLINDER MOUNTINGS

Trunnion Mountings

Rear Trunnion Ball Joint Mounts, Mod R



0158	Bore mm	To Suit Unit
R 41 32	32	60,61,63
R 41 40	40	60,61,63
R 41 50	50	60,61,63
R 41 63	63	60,61,63
R 41 80	80	60,61,63
R 41 100	100	60,61,63
R 41 125	125	60,61,63

Tech Sheet 1844

Rear Trunnion Mounts, Mod I



0158	Bore mm	To Suit Unit
I 12/16	12/16	24
I 20/25	20/25	24

Tech Sheet 1844

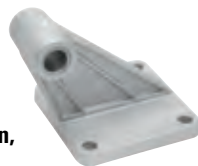
Rear 90° Male Trunnion Mounts, Mod ZC



0158	Bore mm	To Suit Unit
ZC 32	32	60,61,63
ZC 40	40	60,61,63
ZC 50	50	60,61,63
ZC 63	63	60,61,63
ZC 80	80	60,61,63
ZC 100	100	60,61,63
ZC 125	125	60,61,63

Tech Sheet 1844

90° Swivel Combination Trunnion, Mod ZS



0158	Bore mm	To Suit Unit
ZS 160	160	40
ZS 200	200	40

Tech Sheet 1844

Front Female Trunnion Mounts, Mod H & CH



0158	Bore mm	To Suit Unit
H 41 32	32	60,61,63
H 41 40	40	60,61,63
H 41 50	50	60,61,63
H 60 63	63	60,61,63

Tech Sheet 1844

Centre Trunnion Mounts, Mod F



0158	Bore mm	To Suit Unit
F 32	32	60,61,63
F 40	40	60,61,63
F 50	50	60,61,63
F 63	63	60,61,63
F 80	80	60,61,63
F 100	100	60,61,63
F 125	125	60,61,63
F 160	160	40
F 200	200	40

Tech Sheet 1844

61 Series Centre Trunnion Mounts, Mod F



0158	Bore mm
F 61 32	32
F 61 40	40
F 61 50	50
F 61 80	80
F 61 100	100
F 61 125	125

Tech Sheet 1844

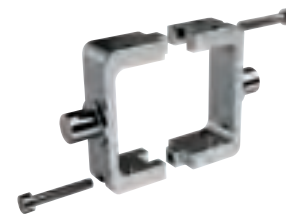
Centre Trunnion Counter Brackets, Mod BF



0158	Bore mm	To Suit Unit
BF 40 50	40/50	60,61,63
BF 63 80	63/80	60,61,63
BF 100 125	100/125	60,61,63
BF 160 200	160/200	40

Tech Sheet 1844

Centre Trunnion for 63 Series Profile Cylinders, Mod F



0158	Bore mm	To Suit Unit
F 63 32	32	63
F 63 40	40	63
F 63 50	50	63
F 63 63	63	63
F 63 80	80	63
F 63 100	100	63
F 63 125	125	63

Tech Sheet 1844

Clevis Pin, to suit C & CH Mountings



0158	Bore mm	To Suit Unit
S 32	32	60,61,63
S 40	40	60,61,63
S 50	50	60,61,63
S 63	63	60,61,63
S 80	80	60,61,63
S 100	100	60,61,63
S 125	125	60,61,63
S 160 200	160/200	40

Tech Sheet 1844

ISO 15552 CYLINDERS



ISO 15552 Cylinders ISO 15552

The P1F, in bore sizes Ø32 to 125mm, is a standard profile linear pneumatic cylinder conforming to the ISO 15552 standard. It utilises internal composite technology (piston) to save weight, while assuring the high performance and functionality expected of an ISO cylinder. With aluminium sandblasted front and rear end covers, multi-layer PTFE-coated steel bearing with stainless steel piston rod, pneumatic cushioning and magnetic piston with polyurethane (PUR) seals as standard, this is our industrial profile ISO cylinder.

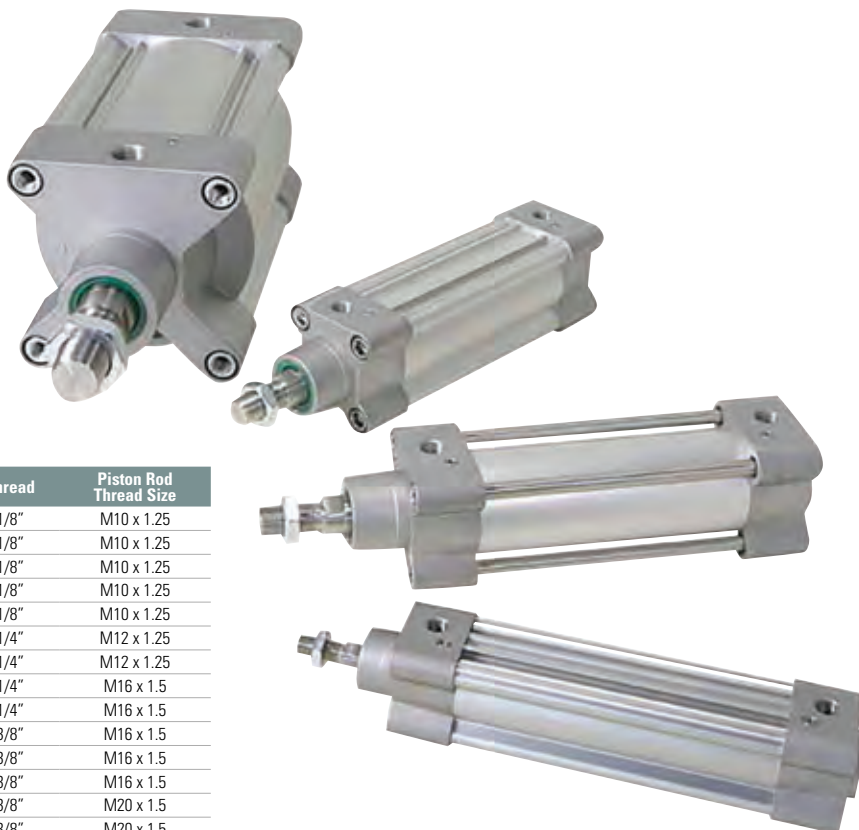
Challenges encountered within rigorous environments require leading engineered solutions and products. Meeting these exacting needs, the P1F provides the answer for high and low temperature applications. It is engineered to provide superior performance in harsh conditions, using proven class-leading seal technology for reliable operation, and long service life in temperatures down to -40°C and up to +150°C. With robust corrosion-resistant body and optional metal scraper, the P1F leads the way in today's changing climate.

Applications:

- Factory automation
- Machine tools
- Packaging machinery
- Vehicle assembly facilities
- Material handling
- Outdoor
- Transport

Working Temperature:
-20 to +80 (Standard)

Maximum Working Pressure:
10 bar



ISO 15552

0678	Bore mm	Stroke mm	Thread	Piston Rod Thread Size
P1F-S032MS-0050	32	50	1/8"	M10 x 1.25
P1F-S032MS-0080	32	80	1/8"	M10 x 1.25
P1F-S032MS-0100	32	100	1/8"	M10 x 1.25
P1F-S032MS-0125	32	125	1/8"	M10 x 1.25
P1F-S032MS-0160	32	160	1/8"	M10 x 1.25
P1F-S040MS-0050	40	50	1/4"	M12 x 1.25
P1F-S040MS-0125	40	125	1/4"	M12 x 1.25
P1F-S050MS-0080	50	80	1/4"	M16 x 1.5
P1F-S050MS-0100	50	100	1/4"	M16 x 1.5
P1F-S063MS-0100	63	100	3/8"	M16 x 1.5
P1F-S063MS-0200	63	200	3/8"	M16 x 1.5
P1F-S063MS-0500	63	500	3/8"	M16 x 1.5
P1F-S080MS-0100	80	100	3/8"	M20 x 1.5
P1F-S080MS-0200	80	200	3/8"	M20 x 1.5
P1F-S100MS-0025	100	25	1/2"	M20 x 1.5
P1F-S100MS-0200	100	200	1/2"	M20 x 1.5
P1F-S125MS-0250	125	250	1/2"	M27 x 2

Tech Sheet 68754



For Parker LF 3000 Push-in Fittings
see pages 793-799

ISO VDMA CYLINDER ACCESSORIES



Parker VDMA Cylinders



ISO6431 VDMA Flange MF1/MF2

0678	Cylinder Dia mm
P1C-4KMB	32



ISO6431/VDMA Foot Bracket MS1

0678	Cylinder Dia mm
P1C-4LMF	40



ISO6431/VDMA Clevis Bracket GA

0678	Cylinder Dia mm
P1C-4KMCA	32



ISO6431/VDMA Clevis Bracket MP2

0678	Cylinder Dia mm
P1C-4LMT	40
P1C-4NMT	63



ISO6431 VDMA Rear Pivot Bracket with Rigid Bearing

0678	Cylinder Dia mm
P1C-4KMD	32



ISO6431/VDMA Clevis Bracket MP4

0678	Cylinder Dia mm
P1C-4KME	32
P1C-4LME	40
P1C-4NME	63



Reed Sensors & Mountings

0678	Description
P8S-GSFLX	Reed Switch c/w 3m PVC Cable
9126344341	3m Cable with 8mm Round Connector
9126344342	10m Cable with 8mm Round Connector



Solid State PNP Sensor & Cable

0678	Description
P8S-GPMHX	PNP Sensor c/w 0.27m Lead
P8S-GPFLX	PNP 3 Metre Flying Lead.



ISO6431 VDMA Cylinder Repair Kits

0678	Bore mm
P1D-6KRN	32
P1D-6LRN	40
P1D-6MRN	50
P1D-6NRN	63
P1D-6PRN	80
P1D-6RRN	125



ISO Cylinder Repair Kits


0678	Bore mm
32-2110AR	32
40-2110AR	40

ISO 15552 CYLINDERS



Cylinders series 1319 ISO5552 VDMA Ecolight

 **Working Temperature:**
-5°C to +70°C
with standard seals

 **Maximum Pressure:**
10 bar



Ecolight Cylinders ISO 15552 VDMA 32mm-50mm

0110	Bore mm	Stroke mm	Port Size
1391.32.50.01	32	50	1/8"
1391.32.100.01	32	100	1/8"
1391.32.125.01	32	125	1/8"
1391.32.150.01	32	150	1/8"
1391.32.200.01	32	200	1/8"
1391.32.250.01	32	250	1/8"
1391.32.300.01	32	300	1/8"
1391.32.350.01	32	350	1/8"
1391.32.450.01	32	450	1/8"
1391.32.500.01	32	500	1/8"
1391.40.50.01	40	50	1/4"
1391.40.100.01	40	100	1/4"
1391.40.150.01	40	150	1/4"
1391.40.200.01	40	200	1/4"
1391.40.250.01	40	250	1/4"
1391.40.300.01	40	300	1/4"
1391.40.350.01	40	350	1/4"
1391.40.400.01	40	400	1/4"
1391.40.500.01	40	500	1/4"
1391.40.600.01	40	600	1/4"
1391.50.25.01	50	25	1/4"
1391.50.50.01	50	50	1/4"
1391.50.75.01	50	75	1/4"
1391.50.100.01	50	100	1/4"
1391.50.125.01	50	125	1/4"
1391.50.150.01	50	150	1/4"
1391.50.200.01	50	200	1/4"
1391.50.250.01	50	250	1/4"
1391.50.300.01	50	300	1/4"
1391.50.350.01	50	350	1/4"
1391.50.400.01	50	400	1/4"
1391.50.500.01	50	500	1/4"
1391.50.1000.01	50	1000	1/4"

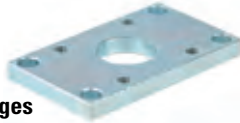
Ecolight Cylinders ISO 15552 VDMA 63mm-100mm

0110	Bore mm	Stroke mm	Port Size
1391.63.25.01	63	25	3/8"
1391.63.100.01	63	100	3/8"
1391.63.150.01	63	150	3/8"
1391.63.200.01	63	200	3/8"
1391.63.250.01	63	250	3/8"
1391.63.300.01	63	300	3/8"
1391.63.350.01	63	350	3/8"
1391.63.450.01	63	450	3/8"
1391.80.200.01	80	200	3/8"
1391.80.250.01	80	250	3/8"
1391.80.300.01	80	300	3/8"
1391.80.500.01	80	500	3/8"
1391.80.1000.01	80	1000	3/8"
1391.100.25.01	100	25	1/2"
1391.100.50.01	100	50	1/2"
1391.100.75.01	100	75	1/2"
1391.100.125.01	100	125	1/2"
1391.100.150.01	100	150	1/2"
1391.100.200.01	100	200	1/2"
1391.100.250.01	100	250	1/2"
1391.100.300.01	100	300	1/2"
1391.100.350.01	100	350	1/2"
1391.100.400.01	100	400	1/2"
1391.100.450.01	100	450	1/2"
1391.100.500.01	100	500	1/2"
1391.100.600.01	100	600	1/2"
1391.100.800.01	100	800	1/2"

Ecolight Cylinders ISO 15552 VDMA 125mm-200mm

0110	Bore mm	Stroke mm	Port Size
1391.125.300.01	125	300	1/2"
1391.160.700.01	160	700	3/4"

VDMA Cylinder Mountings



**Front & Rear Flanges
- Aluminium**

0110	Bore mm
1390.63.03F	63
1390.80.03F	80
1390.100.03F	100



Foot Brackets - Steel

0110	Bore mm
1320.40.05/1F	40



**Front Cylinder Clevis
- Aluminium**

0110	Bore mm
1380.50.08F	50
1380.63.08F	63
1380.100.08F	100



**Rear Clevis MP2
- Aluminium**

0110	Bore mm
1380.32.09F	32
1380.40.09F	40
1380.50.09F	50
1380.63.09F	63
1380.80.09F	80
1380.100.09F	100



**Rear Clevis MP4
- Aluminium**

0110	Bore mm
1380.40.09/1F	40
1380.50.09/1F	50
1380.63.09/1F	63
1380.100.09/1F	100



**Simple Rear Trunnion
complete with Support
(Not ISO) - Aluminium**

0110	Bore mm
1380.40.11F	40
1380.50.11F	50
1380.63.11F	63
1380.100.11F	100



**Square Angle Trunnion
- Aluminium**

0110	Bore mm
1380.32.35F	32
1380.63.35F	63
1380.80.35F	80
1380.100.35F	100



**Standard Trunnion
(not ISO) - Aluminium**

0110	Bore mm
1380.32.10F	32



**Rear Narrow Clevis
- Aluminium**

0110	Bore mm
1380.80.30F	80



**Rear Male Clevis
complete with
Jointed Head - Aluminium**

0110	Bore mm
1380.32.15F	32
1380.40.15F	40
1380.50.15F	50
1380.80.15F	80



**Rod Clevis complete
with Pin - Steel**

0110	Bore mm
1320.40.13F	40
1320.50.13F	50
1320.80.13F	80
1320.100.13F	100



**Rod Clevis complete
with Clip - Steel**

0110	Bore mm
1320.32.13/1F	32
1320.40.13/1F	40
1320.50.13/1F	50
1320.63.13/1F	63
1320.80.13/1F	80
1320.100.13/1F	100



Rod Lock Nuts

0110	Bore mm
1320.32.18F	32



Ball Joint

0110	Bore mm
1320.32.32F	32
1320.40.32F	40
1320.50.32F	50
1320.63.32F	63



Self Aligning Joint

0110	Bore mm
1320.32.33F	32
1320.40.33F	40



1580U Reed Switch complete with LED

0110	Description
1580U	LED Reed Switch N/O



**1500U Reed Switch
complete with LED**

0110	Description
1500.U	LED Reed Switch N/O



1500U Sensor Clamp

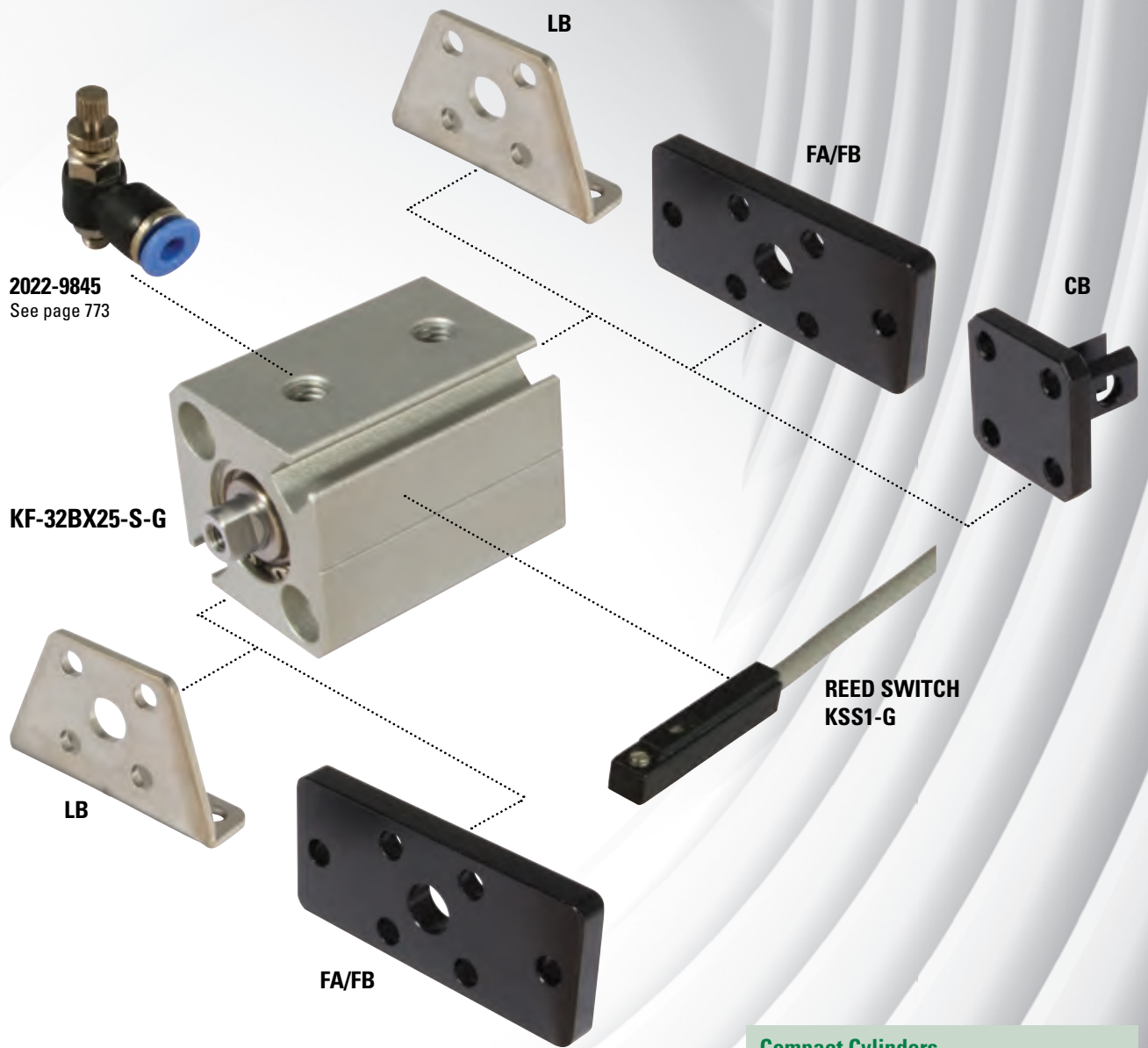
0110	Bore mm
1390.A	32 & 40

PNEUMATIC COMPACT MAGNETIC CYLINDERS

Accessories & Mounting Selector

stainless
steel

FT PRO®



2022-9845
See page 773

KF-32BX25-S-G

LB

FA/FB

CB

LB

REED SWITCH
KSS1-G

FA/FB

Cylinders
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Mountings
Pages 520

Reed Switches
Page 520

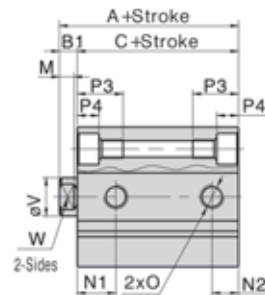
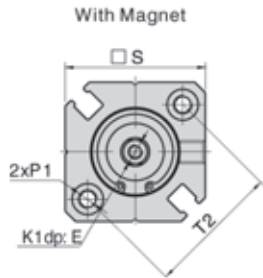
Compact Cylinders

CB	Rear clevis mounting
FA/FB	Front and rear flange mounting
LB	Foot mounting (pair)
Reed Switches	Two wire N/O with LED

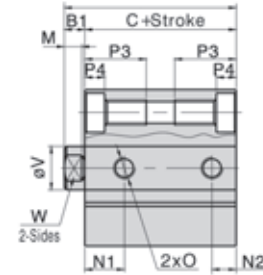
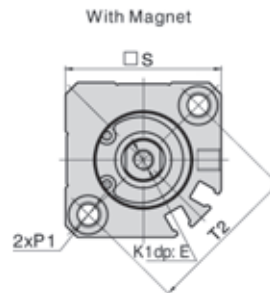
Technical Information

Dimensions

Ø12 and Ø16



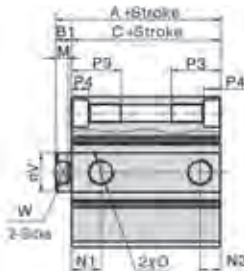
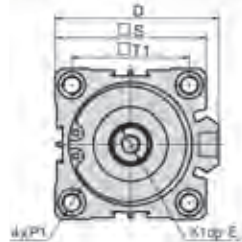
Ø20 and Ø25



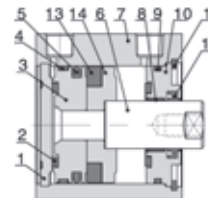
Model Item/ Bore	With Magnet							N1		N2		O	P1	P3	P4	S	T1	T2	V	W
	A	C	B1	D	E	K1	M	Without Magnet	With Magnet	Without Magnet	With Magnet									
12	31.5	28	3.5	-	6	M3 x 0.5	3.5	7.5	9	5	7	M5 x 0.8	2 sides: Ø6.5 Thread: M4 x 0.7 Through hole: Ø3.4	11	3.5	25	15.5	22	6	5
16	34	30.5	3.5	-	8	M4 x 0.7	3	8	9.5		5.5	M5 x 0.8	2 sides: Ø9 Thread: M6 x 1.0 Through hole: Ø5.2	11	3.5	29	20	28	8	6
20	36	31.5	4.5	-	7	M5 x 0.8	4	9	9.5		5.5	M5 x 0.8	2 sides: Ø9 Thread: M6 x 1.0 Through hole: Ø5.2	17	7	36	25.5	36	10	8
25	37.5	32.5	5	25	12	M6 x 1.0	4.5	11			5.5	M5 x 0.8	2 sides: Ø9 Thread: M6 x 1.0 Through hole: Ø5.2	17	7	40	28	40	12	10

Dimensions

Ø32 and Ø100 (stroke ≤100)



Inner Structure



Model	With Magnet							N1		N2		
	A	C	B1	D	E	K1	M	Without Magnet	With Magnet	Without Magnet	With Magnet	
32	St.=5	40	33	7	49.5	13	M8 x 1.25	6	7.5	10.5	6.5	7.5
	St.>5	40	33	7	49.5	13	M8 x 1.25	6	10.5		7.5	
40	St.=5	46.5	39.5	7	57	13	M8 x 1.25	6	11		8	
	St.>5	46.5	39.5	7	57	13	M8 x 1.25	6	11		8	
50	St.=5	48.5	40.5	8	71	15	M10 x 1.5	6.5	9	10.5	9	10.5
	St.>5	48.5	40.5	8	71	15	M10 x 1.5	6.5	10.5		10.5	
63	St.=5	54	46	8	84	15	M10 x 1.5	6.5	14	15	9.5	10.5
	St.>5	54	46	8	84	15	M10 x 1.5	6.5	15		10.5	
80	St.=5	63.5	53.5	10	104	20	M16 x 2.0	8.5	16		14	
	St.>5	63.5	53.5	10	104	20	M16 x 2.0	8.5	16		14	
100	St.=5	75	63	12	123.5	26	M20 x 2.5	9.5	20		17.5	
	St.>5	75	63	12	123.5	26	M20 x 2.5	9.5	20		17.5	

Item/Bore	O	P1	P3	P4	S	T1	T2	V	W
32	1/8"	2 sides: Ø9 Thread: M6 x 1.0 Through hole: Ø5.2	17	7	45	34	-	16	14
40	1/8"	2 sides: Ø9 Thread: M6 x 1.0 Through hole: Ø5.2	17	7	53	40	-	16	14
50	1/4"	2 sides: Ø11 Thread: M8 x 1.25 Through hole: Ø6.5	22	8	64	50	-	20	17
63	1/4"	2 sides: Ø14 Thread: M10 x 1.5 Through hole: Ø8.7	28.5	10.5	77	60	-	20	17
80	3/8"	2 sides: Ø17.5 Thread: M12 x 1.75 Through hole: Ø10.7	35.5	13.5	98	77	-	25	22
100	3/8"	2 sides: Ø17.5 Thread: M12 x 1.75 Through hole: Ø10.7	35.5	13.5	117	94	-	32	27

No.	Bore/Item	Material				
		12 & 16	20	25	32	10-100
1	Back cover	-		Aluminium Alloy		
2	Bumper		TPU			NBR
3	Piston	Brass		Aluminium Alloy		
4	Wear ring		-			Wear-resistant material
5	Piston O-ring			NBR		
6	Piston Rod	Carbon steel with 20µm chrome plated				
7	Body	Aluminium alloy				
8	Bushing		-			Wear-resistant material
9	Cover Gasket	NBR				
10	Front Cover	Brass		Aluminium alloy		
11	C clip	Spring steel				
12	Front cover packing	NBR				
13	Magnet	Sintered metal (neodymium-iron-boron)		Plastic		
14	Magnet holder	Brass		Aluminium Alloy		

PNEUMATIC CYLINDERS




Compact Magnetic Cylinders


Medium:

Clean compressed air. Filtered (40µm) and lubricated cushioning-buffer.

Body: Aluminium

Seals: Nitrile

 **Working Temperature:**
-20°C to +80°C

 **Working Pressure:**
1 to 10 bar



See page 520 for Compact Cylinder Standard and Viton Seal Kits

Double Acting

0334	Bore mm	Stroke mm	Thread	Piston Rod Thread
KKS-12X5	12	5	M5 x 0.8	M3 x 0.5
KKS-12X10	12	10	M5 x 0.8	M3 x 0.5
KKS-12X20	12	20	M5 x 0.8	M3 x 0.5
KKS-12X25	12	25	M5 x 0.8	M3 x 0.5
KKS-12X30	12	30	M5 x 0.8	M3 x 0.5
KKS-12X40	12	40	M5 x 0.8	M3 x 0.5
KKS-12X50	12	50	M5 x 0.8	M3 x 0.5
KKS-16X5	16	5	M5 x 0.8	M4 x 0.7
KKS-16X10	16	10	M5 x 0.8	M4 x 0.7
KKS-16X15	16	15	M5 x 0.8	M4 x 0.7
KKS-16X25	16	25	M5 x 0.8	M4 x 0.7
KKS-16X30	16	30	M5 x 0.8	M4 x 0.7
KKS-16X35	16	35	M5 x 0.8	M4 x 0.7
KKS-16X50	16	50	M5 x 0.8	M4 x 0.7
KKS-16X55	16	55	M5 x 0.8	M4 x 0.7
KKS-16X60	16	60	M5 x 0.8	M4 x 0.7
KKS-20X5	20	5	M5 x 0.8	M5 x 0.8
KKS-20X10	20	10	M5 x 0.8	M5 x 0.8
KKS-20X15	20	15	M5 x 0.8	M5 x 0.8
KKS-20X20	20	20	M5 x 0.8	M5 x 0.8
KKS-20X25	20	25	M5 x 0.8	M5 x 0.8
KKS-20X30	20	30	M5 x 0.8	M5 x 0.8
KKS-20X40	20	40	M5 x 0.8	M5 x 0.8
KKS-20X45	20	45	M5 x 0.8	M5 x 0.8
KKS-20X50	20	50	M5 x 0.8	M5 x 0.8
KKS-20X70	20	70	M5 x 0.8	M5 x 0.8
KKS-20X80	20	80	M5 x 0.8	M5 x 0.8
KKS-20X90	20	90	M5 x 0.8	M5 x 0.8
KKS-20X100	20	100	M5 x 0.8	M5 x 0.8
KKS-25X5	25	5	M5 x 0.8	M6 x 1
KKS-25X10	25	10	M5 x 0.8	M6 x 1
KKS-25X15	25	15	M5 x 0.8	M6 x 1
KKS-25X20	25	20	M5 x 0.8	M6 x 1
KKS-25X25	25	25	M5 x 0.8	M6 x 1
KKS-25X30	25	30	M5 x 0.8	M6 x 1
KKS-25X35	25	35	M5 x 0.8	M6 x 1
KKS-25X40	25	40	M5 x 0.8	M6 x 1
KKS-25X45	25	45	M5 x 0.8	M6 x 1
KKS-25X50	25	50	M5 x 0.8	M6 x 1
KKS-25X60	25	60	M5 x 0.8	M6 x 1
KKS-25X70	25	70	M5 x 0.8	M6 x 1
KKS-25X75	25	75	M5 x 0.8	M6 x 1
KKS-25X80	25	80	M5 x 0.8	M6 x 1
KKS-25X90	25	90	M5 x 0.8	M6 x 1
KKS-25X100	25	100	M5 x 0.8	M6 x 1



0334	Bore mm	Stroke mm	Thread	Piston Rod Thread
KKS-32X5	32	5	1/8"	M8 x 1.25
KKS-32X10	32	10	1/8"	M8 x 1.25
KKS-32X15	32	15	1/8"	M8 x 1.25
KKS-32X20	32	20	1/8"	M8 x 1.25
KKS-32X25	32	25	1/8"	M8 x 1.25
KKS-32X30	32	30	1/8"	M8 x 1.25
KKS-32X35	32	35	1/8"	M8 x 1.25
KKS-32X40	32	40	1/8"	M8 x 1.25
KKS-32X45	32	45	1/8"	M8 x 1.25
KKS-32X50	32	50	1/8"	M8 x 1.25
KKS-32X60	32	60	1/8"	M8 x 1.25
KKS-32X70	32	70	1/8"	M8 x 1.25
KKS-32X75	32	75	1/8"	M8 x 1.25
KKS-32X80	32	80	1/8"	M8 x 1.25
KKS-32X100	32	100	1/8"	M8 x 1.25
KKS-32X125	32	125	1/8"	M8 x 1.25
KKS-32X150	32	150	1/8"	M8 x 1.25
KKS-40X5	40	5	1/8"	M8 x 1.25
KKS-40X10	40	10	1/8"	M8 x 1.25
KKS-40X15	40	15	1/8"	M8 x 1.25
KKS-40X20	40	20	1/8"	M8 x 1.25
KKS-40X25	40	25	1/8"	M8 x 1.25
KKS-40X30	40	30	1/8"	M8 x 1.25
KKS-40X35	40	35	1/8"	M8 x 1.25
KKS-40X40	40	40	1/8"	M8 x 1.25
KKS-40X45	40	45	1/8"	M8 x 1.25
KKS-40X50	40	50	1/8"	M8 x 1.25
KKS-40X60	40	60	1/8"	M8 x 1.25
KKS-40X75	40	75	1/8"	M8 x 1.25
KKS-40X100	40	100	1/8"	M8 x 1.25
KKS-40X125	40	125	1/8"	M8 x 1.25
KKS-50X10	50	10	1/4"	M10 x 1.5
KKS-50X15	50	15	1/4"	M10 x 1.5
KKS-50X20	50	20	1/4"	M10 x 1.5
KKS-50X25	50	25	1/4"	M10 x 1.5
KKS-50X30	50	30	1/4"	M10 x 1.5
KKS-50X40	50	40	1/4"	M10 x 1.5
KKS-50X45	50	45	1/4"	M10 x 1.5
KKS-50X50	50	50	1/4"	M10 x 1.5
KKS-50X60	50	60	1/4"	M10 x 1.5
KKS-50X70	50	70	1/4"	M10 x 1.5
KKS-50X75	50	75	1/4"	M10 x 1.5
KKS-50X80	50	80	1/4"	M10 x 1.5
KKS-50X90	50	90	1/4"	M10 x 1.5
KKS-50X100	50	100	1/4"	M10 x 1.5

Tech Sheet 3027

Further sizes in this range continued on next page

Compact Magnetic Cylinders

Medium:

Clean compressed air. Filtered (40µm) and lubricated cushioning-buffer.

Body: Aluminium

Seals: Nitrile

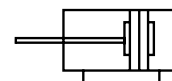


° Working Temperature:

-20°C to +80°C

Working Pressure:

1 to 10 bar



See page 520 for Compact Cylinder Standard and Viton Seal Kits

Double Acting

0334	Bore mm	Stroke mm	Thread	Piston Rod Thread
KKS-50X125	50	125	1/4"	M10 x 1.5
KKS-50X150	50	150	1/4"	M10 x 1.5
KKS-50X250	50	250	1/4"	M10 x 1.5
KKS-63X5	63	5	1/4"	M10 x 1.5
KKS-63X15	63	15	1/4"	M10 x 1.5
KKS-63X20	63	20	1/4"	M10 x 1.5
KKS-63X25	63	25	1/4"	M10 x 1.5
KKS-63X30	63	30	1/4"	M10 x 1.5
KKS-63X35	63	35	1/4"	M10 x 1.5
KKS-63X50	63	50	1/4"	M10 x 1.5
KKS-63X60	63	60	1/4"	M10 x 1.5
KKS-63X75	63	75	1/4"	M10 x 1.5
KKS-63X80	63	80	1/4"	M10 x 1.5
KKS-63X100	63	100	1/4"	M10 x 1.5
KKS-63X125	63	125	1/4"	M10 x 1.5
KKS-63X150	63	150	1/4"	M10 x 1.5
KKS-63X250	63	250	1/4"	M10 x 1.5
KKS-80X5	80	5	3/8"	M16 x 2
KKS-80X10	80	10	3/8"	M16 x 2
KKS-80X15	80	15	3/8"	M16 x 2
KKS-80X20	80	20	3/8"	M16 x 2
KKS-80X25	80	25	3/8"	M16 x 2
KKS-80X30	80	30	3/8"	M16 x 2
KKS-80X35	80	35	3/8"	M16 x 2
KKS-80X40	80	40	3/8"	M16 x 2
KKS-80X45	80	45	3/8"	M16 x 2
KKS-80X50	80	50	3/8"	M16 x 2
KKS-80X60	80	60	3/8"	M16 x 2
KKS-80X70	80	70	3/8"	M16 x 2
KKS-80X75	80	75	3/8"	M16 x 2

0334	Bore mm	Stroke mm	Thread	Piston Rod Thread
KKS-80X80	80	80	3/8"	M16 x 2
KKS-80X90	80	90	3/8"	M16 x 2
KKS-80X100	80	100	3/8"	M16 x 2
KKS-80X125	80	125	3/8"	M16 x 2
KKS-80X150	80	150	3/8"	M16 x 2
KKS-80X175	80	175	3/8"	M16 x 2
KKS-80X200	80	200	3/8"	M16 x 2
KKS-80X250	80	250	3/8"	M16 x 2
KKS-100X5	100	5	3/8"	M20 x 2.5
KKS-100X10	100	10	3/8"	M20 x 2.5
KKS-100X15	100	15	3/8"	M20 x 2.5
KKS-100X20	100	20	3/8"	M20 x 2.5
KKS-100X25	100	25	3/8"	M20 x 2.5
KKS-100X30	100	30	3/8"	M20 x 2.5
KKS-100X35	100	35	3/8"	M20 x 2.5
KKS-100X40	100	40	3/8"	M20 x 2.5
KKS-100X45	100	45	3/8"	M20 x 2.5
KKS-100X50	100	50	3/8"	M20 x 2.5
KKS-100X60	100	60	3/8"	M20 x 2.5
KKS-100X70	100	70	3/8"	M20 x 2.5
KKS-100X75	100	75	3/8"	M20 x 2.5
KKS-100X80	100	80	3/8"	M20 x 2.5
KKS-100X90	100	90	3/8"	M20 x 2.5
KKS-100X100	100	100	3/8"	M20 x 2.5
KKS-100X125	100	125	3/8"	M20 x 2.5
KKS-100X150	100	150	3/8"	M20 x 2.5
KKS-100X175	100	175	3/8"	M20 x 2.5
KKS-100X200	100	200	3/8"	M20 x 2.5
KKS-100X250	100	250	3/8"	M20 x 2.5

Tech Sheet 3027

PNEUMATIC CYLINDERS

Compact Cylinder Mountings



Rear Clevis Mounting CB

0334	Bore mm
KSS-20-CB	20
KSS-32-CB	32
KSS-40-CB	40
KSS-50-CB	50
KSS-63-CB	63
KSS-80-CB	80

Tech Sheet 3028



Front/Rear Flange Mounting FA/FB

0334	Bore mm
KSS-12-FAFB	12
KSS-16-FAFB	16
KSS-20-FAFB	20
KSS-25-FAFB	25
KSS-32-FAFB	32
KSS-40-FAFB	40
KSS-50-FAFB	50
KSS-63-FAFB	63
KSS-80-FAFB	80

Tech Sheet 3029



Foot Mountings LB (Pair)

0334	Bore mm	To Suit Stroke
KSS-12-LB	12	All
KSS-20-LB	20	>15
KSS-25-LB	25	>10
KSS-32-LB	32	>10
KSS-40-LB	40	All
KSS-50-LB	50	>15
KSS-63-LB	63	>10
KSS-100-LB	100	>15

Tech Sheet 3030

Foot Mountings LBS (Pair) Short Stroke

0334	Bore mm	To Suit Stroke
KSS-20-LBS-P1	20	<10
KSS-25-LBS-P1	25	<5
KSS-50-LBS-P1	50	<10

Tech Sheet 3030

Reed Switches to suit Compact Cylinders



Two Wire, N/O with LED 2 Metres

0334	Bore mm	Voltage
KSS1-G	32-100	5-240V AC/DC

Tech Sheet 3031

Repair Kits to suit Compact Cylinders



Standard

0334	Bore mm
KKSRK-12	12
KKSRK-16	16
KKSRK-20	20
KKSRK-25	25
KKSRK-32	32
KKSRK-40	40
KKSRK-50	50
KKSRK-63	63
KKSRK-80	80

Tech Sheet 20388

Viton

0334	Bore mm
KKSRK-12-V	12
KKSRK-20-V	20
KKSRK-50-V	50

Tech Sheet 20389

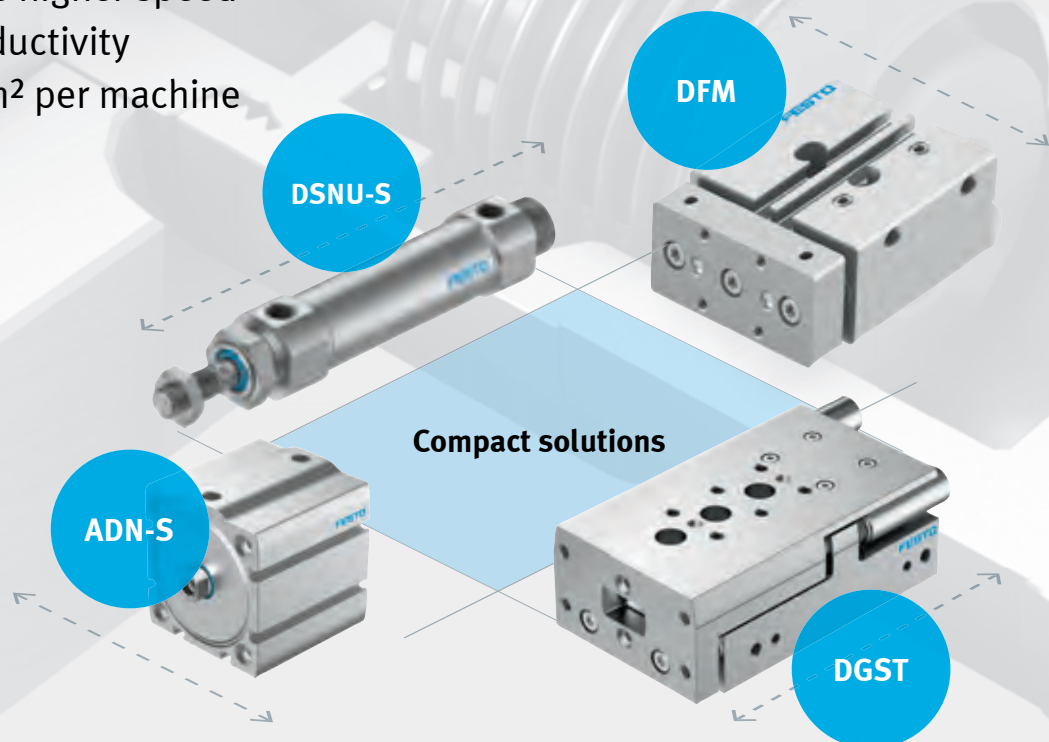
Save space, increase productivity

FESTO

Pneumatic components are often the preferred option for machines since they have a high power density. Smaller components are ever more popular because they are easy to use, save energy and help to boost productivity too.

Benefits of compact products

- Lower energy consumption
- Less material used
 - smaller CO₂ footprint
- More space for other movements
 - increased productivity
- Less mass means higher speed
 - increased productivity
- Less expensive m² per machine



CYLINDERS

For the full range and more information, please contact one of our sales team.

ADN COMPACT CYLINDER ISO 21287 (Male & Female Piston Rod)



Features

Up to 50% less fitting space compared to standard cylinders

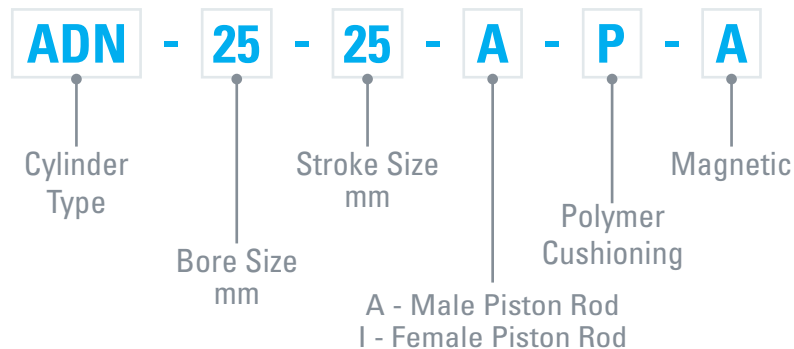
Comprehensive range of mounting accessories



High speeds and machine cycles due to excellent running and cushioning characteristics

Patented 3 component piston

Product Description



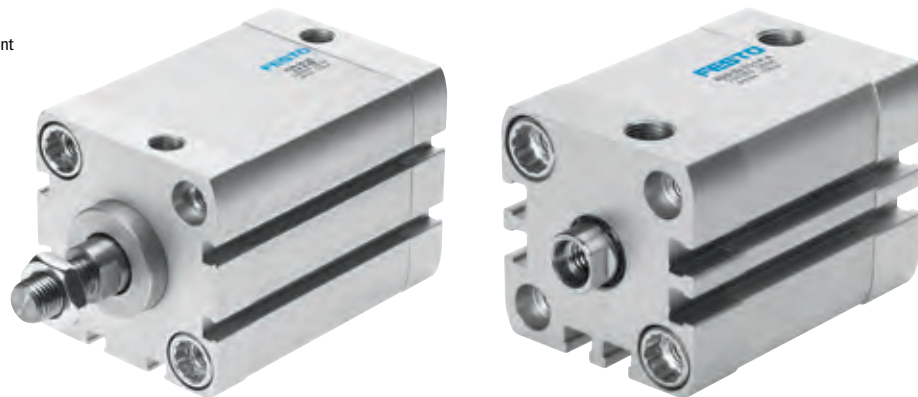
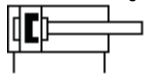


Double Acting, Elastic Cushioning Rings

- Compact cylinders with standard dimensions
- Comply with the standard ISO 21287
- Innovative technology for maximum speeds
- Flexible in use thanks to easy-to-configure variant
- T-Slot

Ambient Temperature:
-20°C to +80°C

Elastic Cushioning



Magnetic Male Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
536204	12	5	M5	ADN-12-5-A-P-A
536205	12	10	M5	ADN-12-10-A-P-A
536206	12	15	M5	ADN-12-15-A-P-A
536207	12	20	M5	ADN-12-20-A-P-A
536208	12	25	M5	ADN-12-25-A-P-A
536209	12	30	M5	ADN-12-30-A-P-A
536210	12	40	M5	ADN-12-40-A-P-A
536219	16	5	M5	ADN-16-5-A-P-A
536220	16	10	M5	ADN-16-10-A-P-A
536221	16	15	M5	ADN-16-15-A-P-A
536222	16	20	M5	ADN-16-20-A-P-A
536223	16	25	M5	ADN-16-25-A-P-A
536224	16	30	M5	ADN-16-30-A-P-A
536225	16	40	M5	ADN-16-40-A-P-A
536331	16	50	M5	ADN-16-50-A-P-A
536234	20	5	M8	ADN-20-5-A-P-A
536235	20	10	M8	ADN-20-10-A-P-A
536236	20	15	M8	ADN-20-15-A-P-A
536237	20	20	M8	ADN-20-20-A-P-A
536238	20	25	M8	ADN-20-25-A-P-A
536239	20	30	M8	ADN-20-30-A-P-A
536240	20	40	M8	ADN-20-40-A-P-A
536241	20	50	M8	ADN-20-50-A-P-A
536352	20	60	M8	ADN-20-60-A-P-A
536251	25	5	M8	ADN-25-5-A-P-A
536252	25	10	M8	ADN-25-10-A-P-A
536253	25	15	M8	ADN-25-15-A-P-A
536254	25	20	M8	ADN-25-20-A-P-A
536255	25	25	M8	ADN-25-25-A-P-A
536256	25	30	M8	ADN-25-30-A-P-A
536257	25	40	M8	ADN-25-40-A-P-A
536258	25	50	M8	ADN-25-50-A-P-A
536373	25	60	M8	ADN-25-60-A-P-A

Tech Sheet 20563

Magnetic Female Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
536211	12	5	M3	ADN-12-5-I-P-A
536212	12	10	M3	ADN-12-10-I-P-A
536213	12	15	M3	ADN-12-15-I-P-A
536214	12	20	M3	ADN-12-20-I-P-A
536215	12	25	M3	ADN-12-25-I-P-A
536216	12	30	M3	ADN-12-30-I-P-A
536217	12	40	M3	ADN-12-40-I-P-A
536226	16	5	M4	ADN-16-5-I-P-A
536227	16	10	M4	ADN-16-10-I-P-A
536228	16	15	M4	ADN-16-15-I-P-A
536229	16	20	M4	ADN-16-20-I-P-A
536230	16	25	M4	ADN-16-25-I-P-A
536231	16	30	M4	ADN-16-30-I-P-A
536232	16	40	M4	ADN-16-40-I-P-A
536341	16	50	M4	ADN-16-50-I-P-A
536242	20	5	M6	ADN-20-5-I-P-A
536243	20	10	M6	ADN-20-10-I-P-A
536244	20	15	M6	ADN-20-15-I-P-A
536245	20	20	M6	ADN-20-20-I-P-A
536246	20	25	M6	ADN-20-25-I-P-A
536247	20	30	M6	ADN-20-30-I-P-A
536248	20	40	M6	ADN-20-40-I-P-A
536249	20	50	M6	ADN-20-50-I-P-A
536362	20	60	M6	ADN-20-60-I-P-A
536259	25	5	M6	ADN-25-5-I-P-A
536260	25	10	M6	ADN-25-10-I-P-A
536261	25	15	M6	ADN-25-15-I-P-A
536262	25	20	M6	ADN-25-20-I-P-A
536263	25	25	M6	ADN-25-25-I-P-A
536264	25	30	M6	ADN-25-30-I-P-A
536265	25	40	M6	ADN-25-40-I-P-A
536266	25	50	M6	ADN-25-50-I-P-A
536383	25	60	M6	ADN-25-60-I-P-A

Tech Sheet 20562

ISO 21287 COMPACT CYLINDERS, ADN

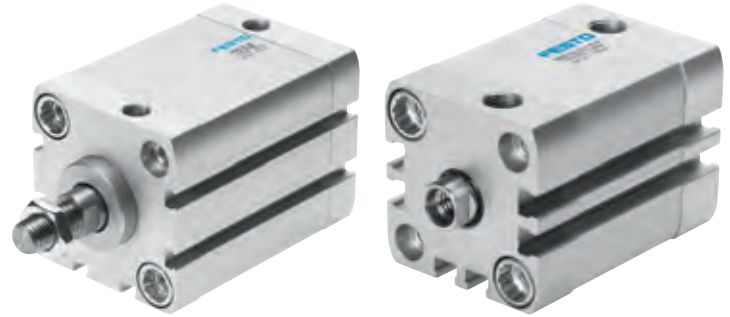
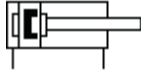
FESTO


Double Acting, Elastic Cushioning Rings

- Compact cylinders with standard dimensions
- Comply with the standard ISO 21287
- Innovative technology for maximum speeds
- Flexible in use thanks to easy-to-configure variant
- T-Slot

Ambient Temperature:
 -20°C to +80°C

Elastic Cushioning



Magnetic Male Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
536268	32	5	M10 x 1.25	ADN-32-5-A-P-A
536269	32	10	M10 x 1.25	ADN-32-10-A-P-A
536270	32	15	M10 x 1.25	ADN-32-15-A-P-A
536271	32	20	M10 x 1.25	ADN-32-20-A-P-A
536272	32	25	M10 x 1.25	ADN-32-25-A-P-A
536273	32	30	M10 x 1.25	ADN-32-30-A-P-A
536274	32	40	M10 x 1.25	ADN-32-40-A-P-A
536275	32	50	M10 x 1.25	ADN-32-50-A-P-A
536276	32	60	M10 x 1.25	ADN-32-60-A-P-A
536277	32	80	M10 x 1.25	ADN-32-80-A-P-A
536289	40	5	M10 x 1.25	ADN-40-5-A-P-A
536290	40	10	M10 x 1.25	ADN-40-10-A-P-A
536291	40	15	M10 x 1.25	ADN-40-15-A-P-A
536292	40	20	M10 x 1.25	ADN-40-20-A-P-A
536293	40	25	M10 x 1.25	ADN-40-25-A-P-A
536294	40	30	M10 x 1.25	ADN-40-30-A-P-A
536295	40	40	M10 x 1.25	ADN-40-40-A-P-A
536296	40	50	M10 x 1.25	ADN-40-50-A-P-A
536297	40	60	M10 x 1.25	ADN-40-60-A-P-A
536298	40	80	M10 x 1.25	ADN-40-80-A-P-A
536310	50	5	M12 x 1.25	ADN-50-5-A-P-A
536311	50	10	M12 x 1.25	ADN-50-10-A-P-A
536312	50	15	M12 x 1.25	ADN-50-15-A-P-A
536313	50	20	M12 x 1.25	ADN-50-20-A-P-A
536314	50	25	M12 x 1.25	ADN-50-25-A-P-A
536315	50	30	M12 x 1.25	ADN-50-30-A-P-A
536316	50	40	M12 x 1.25	ADN-50-40-A-P-A
536317	50	50	M12 x 1.25	ADN-50-50-A-P-A
536318	50	60	M12 x 1.25	ADN-50-60-A-P-A
536319	50	80	M12 x 1.25	ADN-50-80-A-P-A
536332	63	10	M12 x 1.25	ADN-63-10-A-P-A
536333	63	15	M12 x 1.25	ADN-63-15-A-P-A
536334	63	20	M12 x 1.25	ADN-63-20-A-P-A
536335	63	25	M12 x 1.25	ADN-63-25-A-P-A
536336	63	30	M12 x 1.25	ADN-63-30-A-P-A
536337	63	40	M12 x 1.25	ADN-63-40-A-P-A
536338	63	50	M12 x 1.25	ADN-63-50-A-P-A
536339	63	60	M12 x 1.25	ADN-63-60-A-P-A
536340	63	80	M12 x 1.25	ADN-63-80-A-P-A
536353	80	10	M16 x 1.5	ADN-80-10-A-P-A
536354	80	15	M16 x 1.5	ADN-80-15-A-P-A
536355	80	20	M16 x 1.5	ADN-80-20-A-P-A
536356	80	25	M16 x 1.5	ADN-80-25-A-P-A
536357	80	30	M16 x 1.5	ADN-80-30-A-P-A
536358	80	40	M16 x 1.5	ADN-80-40-A-P-A
536359	80	50	M16 x 1.5	ADN-80-50-A-P-A
536360	80	60	M16 x 1.5	ADN-80-60-A-P-A
536361	80	80	M16 x 1.5	ADN-80-80-A-P-A

Tech Sheet 71595

Magnetic Female Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
536278	32	5	M8	ADN-32-5-I-P-A
536279	32	10	M8	ADN-32-10-I-P-A
536280	32	15	M8	ADN-32-15-I-P-A
536281	32	20	M8	ADN-32-20-I-P-A
536282	32	25	M8	ADN-32-25-I-P-A
536283	32	30	M8	ADN-32-30-I-P-A
536284	32	40	M8	ADN-32-40-I-P-A
536285	32	50	M8	ADN-32-50-I-P-A
536286	32	60	M8	ADN-32-60-I-P-A
536287	32	80	M8	ADN-32-80-I-P-A
536299	40	5	M8	ADN-40-5-I-P-A
536300	40	10	M8	ADN-40-10-I-P-A
536301	40	15	M8	ADN-40-15-I-P-A
536302	40	20	M8	ADN-40-20-I-P-A
536303	40	25	M8	ADN-40-25-I-P-A
536304	40	30	M8	ADN-40-30-I-P-A
536305	40	40	M8	ADN-40-40-I-P-A
536306	40	50	M8	ADN-40-50-I-P-A
536307	40	60	M8	ADN-40-60-I-P-A
536308	40	80	M8	ADN-40-80-I-P-A
536320	50	5	M10	ADN-50-5-I-P-A
536321	50	10	M10	ADN-50-10-I-P-A
536322	50	15	M10	ADN-50-15-I-P-A
536323	50	20	M10	ADN-50-20-I-P-A
536324	50	25	M10	ADN-50-25-I-P-A
536325	50	30	M10	ADN-50-30-I-P-A
536326	50	40	M10	ADN-50-40-I-P-A
536327	50	50	M10	ADN-50-50-I-P-A
536328	50	60	M10	ADN-50-60-I-P-A
536329	50	80	M10	ADN-50-80-I-P-A
536342	63	10	M10	ADN-63-10-I-P-A
536343	63	15	M10	ADN-63-15-I-P-A
536344	63	20	M10	ADN-63-20-I-P-A
536345	63	25	M10	ADN-63-25-I-P-A
536346	63	30	M10	ADN-63-30-I-P-A
536347	63	40	M10	ADN-63-40-I-P-A
536348	63	50	M10	ADN-63-50-I-P-A
536349	63	60	M10	ADN-63-60-I-P-A
536350	63	80	M10	ADN-63-80-I-P-A
536363	80	10	M12	ADN-80-10-I-P-A
536364	80	15	M12	ADN-80-15-I-P-A
536365	80	20	M12	ADN-80-20-I-P-A
536366	80	25	M12	ADN-80-25-I-P-A
536367	80	30	M12	ADN-80-30-I-P-A
536368	80	40	M12	ADN-80-40-I-P-A
536369	80	50	M12	ADN-80-50-I-P-A
536370	80	60	M12	ADN-80-60-I-P-A
536371	80	80	M12	ADN-80-80-I-P-A

Tech Sheet 71596

ISO 21287 COMPACT CYLINDERS, ADN

FESTO



Double Acting, Self-adjusting Pneumatic Cushioning

- Compact cylinders with standard dimensions
- Comply with the standard ISO 21287
- Innovative technology for maximum speeds
- Flexible in use thanks to easy-to-configure variant
- Profile slot for proximity senso
- T-Slot

Ambient Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar

Self-adjusting Cushioning



Magnetic Male Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
572655	32	10	M10 x 1.25	ADN-32-10-A-PPS-A
572656	32	15	M10 x 1.25	ADN-32-15-A-PPS-A
572657	32	20	M10 x 1.25	ADN-32-20-A-PPS-A
572658	32	25	M10 x 1.25	ADN-32-25-A-PPS-A
572659	32	30	M10 x 1.25	ADN-32-30-A-PPS-A
572660	32	40	M10 x 1.25	ADN-32-40-A-PPS-A
572661	32	50	M10 x 1.25	ADN-32-50-A-PPS-A
572662	32	60	M10 x 1.25	ADN-32-60-A-PPS-A
572663	32	80	M10 x 1.25	ADN-32-80-A-PPS-A
572673	40	10	M10 x 1.25	ADN-40-10-A-PPS-A
572674	40	15	M10 x 1.25	ADN-40-15-A-PPS-A
572675	40	20	M10 x 1.25	ADN-40-20-A-PPS-A
572676	40	25	M10 x 1.25	ADN-40-25-A-PPS-A
572677	40	30	M10 x 1.25	ADN-40-30-A-PPS-A
572678	40	40	M10 x 1.25	ADN-40-40-A-PPS-A
572679	40	50	M10 x 1.25	ADN-40-50-A-PPS-A
572680	40	60	M10 x 1.25	ADN-40-60-A-PPS-A
572681	40	80	M10 x 1.25	ADN-40-80-A-PPS-A
572691	50	10	M12 x 1.25	ADN-50-10-A-PPS-A
572692	50	15	M12 x 1.25	ADN-50-15-A-PPS-A
572693	50	20	M12 x 1.25	ADN-50-20-A-PPS-A
572694	50	25	M12 x 1.25	ADN-50-25-A-PPS-A
572695	50	30	M12 x 1.25	ADN-50-30-A-PPS-A
572696	50	40	M12 x 1.25	ADN-50-40-A-PPS-A
572697	50	50	M12 x 1.25	ADN-50-50-A-PPS-A
572698	50	60	M12 x 1.25	ADN-50-60-A-PPS-A
572699	50	80	M12 x 1.25	ADN-50-80-A-PPS-A
572709	63	10	M12 x 1.25	ADN-63-10-A-PPS-A
572710	63	15	M12 x 1.25	ADN-63-15-A-PPS-A
572711	63	20	M12 x 1.25	ADN-63-20-A-PPS-A
572712	63	25	M12 x 1.25	ADN-63-25-A-PPS-A
572713	63	30	M12 x 1.25	ADN-63-30-A-PPS-A
572714	63	40	M12 x 1.25	ADN-63-40-A-PPS-A
572715	63	50	M12 x 1.25	ADN-63-50-A-PPS-A
572716	63	60	M12 x 1.25	ADN-63-60-A-PPS-A
572717	63	80	M12 x 1.25	ADN-63-80-A-PPS-A
572727	80	10	M16 x 1.5	ADN-80-10-A-PPS-A
572728	80	15	M16 x 1.5	ADN-80-15-A-PPS-A
572729	80	20	M16 x 1.5	ADN-80-20-A-PPS-A
572730	80	25	M16 x 1.5	ADN-80-25-A-PPS-A
572731	80	30	M16 x 1.5	ADN-80-30-A-PPS-A
572732	80	40	M16 x 1.5	ADN-80-40-A-PPS-A
572733	80	50	M16 x 1.5	ADN-80-50-A-PPS-A
572734	80	60	M16 x 1.5	ADN-80-60-A-PPS-A
572735	80	80	M16 x 1.5	ADN-80-80-A-PPS-A

Tech Sheet 71597

Magnetic Female Piston Rod Thread

0009	Piston Diameter mm	Stroke mm	Piston Rod Thread	Manufacturer's Code
572646	32	10	M8	ADN-32-10-I-PPS-A
572647	32	15	M8	ADN-32-15-I-PPS-A
572648	32	20	M8	ADN-32-20-I-PPS-A
572649	32	25	M8	ADN-32-25-I-PPS-A
572650	32	30	M8	ADN-32-30-I-PPS-A
572651	32	40	M8	ADN-32-40-I-PPS-A
572652	32	50	M8	ADN-32-50-I-PPS-A
572653-FESTO	32	60	M8	ADN-32-60-I-PPS-A
572654	32	80	M8	ADN-32-80-I-PPS-A
572664	40	10	M8	ADN-40-10-I-PPS-A
572665	40	15	M8	ADN-40-15-I-PPS-A
572666	40	20	M8	ADN-40-20-I-PPS-A
572667	40	25	M8	ADN-40-25-I-PPS-A
572668	40	30	M8	ADN-40-30-I-PPS-A
572669	40	40	M8	ADN-40-40-I-PPS-A
572670	40	50	M8	ADN-40-50-I-PPS-A
572671	40	60	M8	ADN-40-60-I-PPS-A
572672	40	80	M8	ADN-40-80-I-PPS-A
572682	50	10	M10	ADN-50-10-I-PPS-A
572683	50	15	M10	ADN-50-15-I-PPS-A
572684	50	20	M10	ADN-50-20-I-PPS-A
572685	50	25	M10	ADN-50-25-I-PPS-A
572686	50	30	M10	ADN-50-30-I-PPS-A
572687	50	40	M10	ADN-50-40-I-PPS-A
572688	50	50	M10	ADN-50-50-I-PPS-A
572689	50	60	M10	ADN-50-60-I-PPS-A
572690	50	80	M10	ADN-50-80-I-PPS-A
572700	63	10	M10	ADN-63-10-I-PPS-A
572701	63	15	M10	ADN-63-15-I-PPS-A
572702	63	20	M10	ADN-63-20-I-PPS-A
572703	63	25	M10	ADN-63-25-I-PPS-A
572704	63	30	M10	ADN-63-30-I-PPS-A
572705	63	40	M10	ADN-63-40-I-PPS-A
572706	63	50	M10	ADN-63-50-I-PPS-A
572707	63	60	M10	ADN-63-60-I-PPS-A
572708	63	80	M10	ADN-63-80-I-PPS-A
572718	80	10	M12	ADN-80-10-I-PPS-A
572719	80	15	M12	ADN-80-15-I-PPS-A
572720	80	20	M12	ADN-80-20-I-PPS-A
572721	80	25	M12	ADN-80-25-I-PPS-A
572722	80	30	M12	ADN-80-30-I-PPS-A
572723	80	40	M12	ADN-80-40-I-PPS-A
572724	80	50	M12	ADN-80-50-I-PPS-A
572725	80	60	M12	ADN-80-60-I-PPS-A
572726	80	80	M12	ADN-80-80-I-PPS-A

Tech Sheet 71598

PROXIMITY SENSORS

For T-Slot For DSBC/ADN/DSNU Cylinders

- Switching output via reed contact or non-contacting
- Insertable in the slot from above, does not protrude beyond the cylinder profil
- Variant suitable for use with energy chains and robots
- Cable clip and inscription labels included in the scope of delivery
- With switching status indication
- Selected types in accordance with ATEX directive for potentially explosive atmospheres

Ambient Temperature:
-40°C to +70°C



With Reed Contacts

0010	Function	Connection	Cable Length Metres	Manufacturer's Code
543872	N/O Contact, 2 Wire	Open End	2.5	SME-8M-ZS-24V-K-2,5-OE
543861	N/O Contact, 3 Wire	M8 Thread Rotatable	0.3	SME-8M-DS-24V-K-0,3-M8D
543862	N/O Contact, 3 Wire	Open End	2.5	SME-8M-DS-24V-K-2,5-OE
543863	N/O Contact, 3 Wire	Open End	5.0	SME-8M-DS-24V-K-5,0-OE
546799	N/C Contact, 3 Wire	Open End	7.5	SME-8M-DO-24V-K-7,5-OE

Tech Sheet 70211

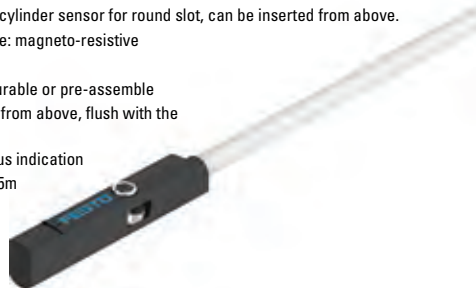
Non-contacting

0009	Function	Connection	Cable Length Metres	Manufacturer's Code
574334	PNP N/O Contact, 3 Wire	M8 Thread Rotatable	0.3	SMT-8M-A-PS-24V-E-0,3-M8D
574337	PNP N/O Contact, 3 Wire	M12 Thread Rotatable	0.3	SMT-8M-A-PS-24V-E-0,3-M12
574339	NPN N/O Contact, 3 Wire	M8 Thread Rotatable	0.3	SMT-8M-A-NS-24V-E-0,3-M8D
574335	PNP N/O Contact, 3 Wire	Open End	2.5	SMT-8M-A-PS-24V-E-2,5-OE
574338	NPN N/O Contact, 3 Wire	Open End	2.5	SMT-8M-A-NS-24V-E-2,5-OE
574341	PNP N/O Contact, 2 Wire	Open End	5.0	SMT-8M-A-ZS-24V-E-5,0-OE-EX2
574336	PNP N/O Contact, 3 Wire	Open End	5.0	SMT-8M-A-PS-24V-E-5,0-OE
574340	PNP N/C Contact, 3 Wire	Open End	7.5	SMT-8M-A-PO-24V-E-7,5-OE

Tech Sheet 70212

For C-Slot For ADN/ADVC/DFM

- Magneto-resistive cylinder sensor for round slot, can be inserted from above.
- Measuring principle: magneto-resistive
- For universal use
- Individually configurable or pre-assemble
- Inserted in the slot from above, flush with the cylinder profil
- LED switching status indication
- Cable length 0.3, 2.5m



Proximity Sensors SMT-10M, for C-Slot

0009	N/O Contact	Cable Length (m)	Type
551373	PNP	2.5	SMT-10M-PS-24V-E-2,5-L-OE
551375	PNP	0.3	SMT-10M-PS-24V-E-0,3-L-M8D
551377	NPN	2.5	SMT-10M-NS-24V-E-2,5-L-OE
551379	NPN	0.3	SMT-10M-NS-24V-E-0,3-L-M8D
551382	Non-contacting, 2-wire	2.5	SMT-10M-ZS-24V-E-2,5-L-OE

Tech Sheet 70212

For C-Slot For ADN/ADVC/DFM

- Switching output via reed contact or non-contacting
- Insertable in the slot from above, does not protrude beyond the cylinder profil
- Suitable for use with energy chains and robots
- Cable clip and inscription labels included in the scope of delivery
- With switching status indication

Ambient Temperature:
-40°C to +70°C



With Reed Contacts

0010	Function	Connection	Cable Length Metres	Manufacturer's Code
551367	N/O Contact, 3 Wire	M8 Thread Rotatable	0.3	SME-10M-DS-24V-E-0,3-L-M8D
551369	N/O Contact, 2 Wire	Open End	2.5	SME-10M-ZS-24V-E-2,5-L-OE
551365	N/O Contact, 3 Wire	Open End	2.5	SME-10M-DS-24V-E-2,5-L-OE

Tech Sheet 70213



- Modular cable system with unlimited combination options for sockets, cable lengths and cable qualities. Matches all devices with M8 and M12 plugs such as proximity switches, pressure switches, sensors, transmitters, flow sensors and others
- For thread M8 x 1 A-coded according to EN 61076-2-104
- For thread M12 x 1 A-coded according to EN 61076-2-101
- Pre-assembled at one or both ends
- Designs for static, standard, energy chain and robot applications
- Cable length 0.1 - 30m
- With PVC or PUR cable
- Ambient temperature -25 to +80 °C



Connecting Cable NEBU

0009	Number of wires	Cable Length (m)	Type
541333	3	2.5	NEBU-M8G3-K-2,5-LE3
541334	3	5	NEBU-M8G3-K-5-LE3
541338	3	2.5	NEBU-M8W3-K-2,5-LE3
541341	3	5	NEBU-M8W3-K-5-LE3

Tech Sheet 70212

CYLINDERS

For the full range and more information, please contact one of our sales team.

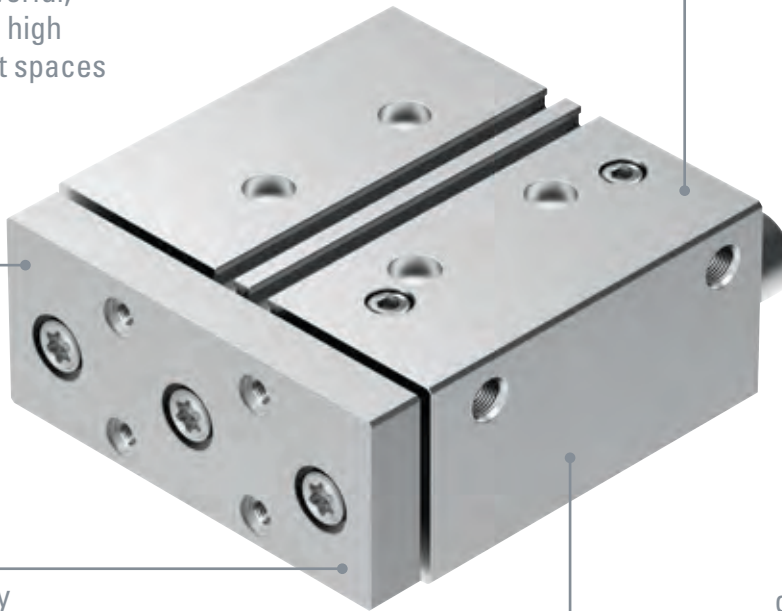
DFM GUIDED DRIVES



Features

Compact and powerful, can reliably move high loads even in tight spaces

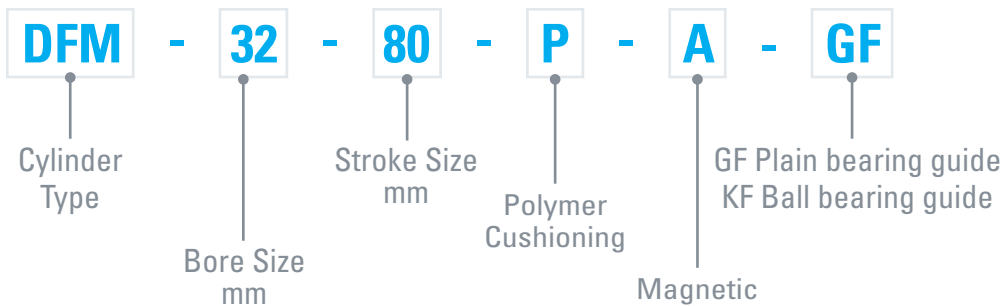
Plain or recirculating ball bearing guide



Choice of assembly and air port options for every application

Reliable and sturdy due to superior guide characteristics

Product Description



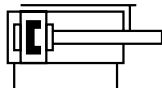
DFM GUIDED DRIVES



Sliding Guided Drives with Plain Bearing, Double Acting

- Drive and guide unit in a single housing
- Sturdy and precise
- Plain bearing guide
- High resistance to torques and lateral forces
- Wide range of applications
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- Sensor C Slot SMT 10G
- C Slot 6 to 10 bore
- T Slot 12 to 63 bore

Ambient Temperature:
-20°C to +80°C



Working Pressure:
2 to 8 bar (Piston: 6mm)
1.5 to 8 bar (Piston: 10mm)
2 to 10 bar (Piston: 12, 16, 20mm)
1.5 to 10 bar (Piston: 25, 32, 40mm)
1 to 10 bar (Piston: 50, 63mm)



M3 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
4149944	6	5	DFM-6-5-P-A-GF
4149945	6	10	DFM-6-10-P-A-GF
4149946	6	15	DFM-6-15-P-A-GF
4149947	6	20	DFM-6-20-P-A-GF
4154768	10	5	DFM-10-5-P-A-GF
4154769	10	10	DFM-10-10-P-A-GF
4154770	10	15	DFM-10-15-P-A-GF
4154799	10	20	DFM-10-20-P-A-GF

Tech Sheet 70196

M5 Connection, Magnetic Sensors T Slot SMT-8M

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170824	12	10	DFM-12-10-P-A-GF
170825	12	20	DFM-12-20-P-A-GF
170826	12	25	DFM-12-25-P-A-GF
170827	12	30	DFM-12-30-P-A-GF
170828	12	40	DFM-12-40-P-A-GF
170829	12	50	DFM-12-50-P-A-GF
170830	12	80	DFM-12-80-P-A-GF
170831	12	100	DFM-12-100-P-A-GF
170832	16	10	DFM-16-10-P-A-GF
170833	16	20	DFM-16-20-P-A-GF
170834	16	25	DFM-16-25-P-A-GF
170835	16	30	DFM-16-30-P-A-GF
170836	16	40	DFM-16-40-P-A-GF
170837	16	50	DFM-16-50-P-A-GF
170838	16	80	DFM-16-80-P-A-GF
170839	16	100	DFM-16-100-P-A-GF
170840	20	20	DFM-20-20-P-A-GF
170841	20	25	DFM-20-25-P-A-GF
170842	20	30	DFM-20-30-P-A-GF
170843	20	40	DFM-20-40-P-A-GF
170844	20	50	DFM-20-50-P-A-GF
170845	20	80	DFM-20-80-P-A-GF
170846	20	100	DFM-20-100-P-A-GF

Tech Sheet 70197

T Slot



C Slot



G1/8 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170847	25	20	DFM-25-20-P-A-GF
170848	25	25	DFM-25-25-P-A-GF
170849	25	30	DFM-25-30-P-A-GF
170850	25	40	DFM-25-40-P-A-GF
170851	25	50	DFM-25-50-P-A-GF
170852	25	80	DFM-25-80-P-A-GF
170853	25	100	DFM-25-100-P-A-GF
170854	32	20	DFM-32-20-P-A-GF
170855	32	25	DFM-32-25-P-A-GF
170856	32	30	DFM-32-30-P-A-GF
170857	32	40	DFM-32-40-P-A-GF
170858	32	50	DFM-32-50-P-A-GF
170859	32	80	DFM-32-80-P-A-GF
170860	32	100	DFM-32-100-P-A-GF
170861	32	125	DFM-32-125-P-A-GF
170862	32	160	DFM-32-160-P-A-GF
170863	32	200	DFM-32-200-P-A-GF
170864	40	25	DFM-40-25-P-A-GF
170865	40	50	DFM-40-50-P-A-GF
170866	40	80	DFM-40-80-P-A-GF
170867	40	100	DFM-40-100-P-A-GF
170868	40	125	DFM-40-125-P-A-GF
170869	40	160	DFM-40-160-P-A-GF
170870	40	200	DFM-40-200-P-A-GF

Tech Sheet 70198

G1/4 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170871	50	25	DFM-50-25-P-A-GF
170872	50	50	DFM-50-50-P-A-GF
170873	50	80	DFM-50-80-P-A-GF
170874	50	100	DFM-50-100-P-A-GF
170875	50	125	DFM-50-125-P-A-GF
170876	50	160	DFM-50-160-P-A-GF
170877	50	200	DFM-50-200-P-A-GF
170878	63	25	DFM-63-25-P-A-GF
170879	63	50	DFM-63-50-P-A-GF
170880	63	80	DFM-63-80-P-A-GF
170881	63	100	DFM-63-100-P-A-GF
170882	63	125	DFM-63-125-P-A-GF
170883	63	160	DFM-63-160-P-A-GF
170884	63	200	DFM-63-200-P-A-GF

Tech Sheet 70199

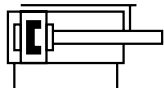


Recirculating Ball Bearing Guided Drives, Double Acting

- Drive and guide unit in a single housing
- Sturdy and precise
- Plain or Recirculating ball bearing guide
- High resistance to torques and lateral forces
- Wide range of applications
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- C Slot 6 to 10 bore
- T Slot 12 to 63 bore

Ambient Temperature:
-20°C to +80°C

Working Pressure:
2 to 10 bar (Piston: 12, 16, 20mm)
1.5 to 10 bar (Piston: 25, 32, 40mm)
1 to 10 bar (Piston: 50, 63mm)



M5 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170899	12	10	DFM-12-10-P-A-KF
170900	12	20	DFM-12-20-P-A-KF
170901	12	25	DFM-12-25-P-A-KF
170902	12	30	DFM-12-30-P-A-KF
170903	12	40	DFM-12-40-P-A-KF
170904	12	50	DFM-12-50-P-A-KF
170905	12	80	DFM-12-80-P-A-KF
170906	12	100	DFM-12-100-P-A-KF
170907	16	10	DFM-16-10-P-A-KF
170908	16	20	DFM-16-20-P-A-KF
170909	16	25	DFM-16-25-P-A-KF
170910	16	30	DFM-16-30-P-A-KF
170911	16	40	DFM-16-40-P-A-KF
170912	16	50	DFM-16-50-P-A-KF
170913	16	80	DFM-16-80-P-A-KF
170914	16	100	DFM-16-100-P-A-KF
170915	20	20	DFM-20-20-P-A-KF
170916	20	25	DFM-20-25-P-A-KF
170917	20	30	DFM-20-30-P-A-KF
170918	20	40	DFM-20-40-P-A-KF
170919	20	50	DFM-20-50-P-A-KF
170920	20	80	DFM-20-80-P-A-KF
170921	20	100	DFM-20-100-P-A-KF

Tech Sheet 70200

T Slot



C Slot



G1/8 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170922	25	20	DFM-25-20-P-A-KF
170923	25	25	DFM-25-25-P-A-KF
170924	25	30	DFM-25-30-P-A-KF
170925	25	40	DFM-25-40-P-A-KF
170926	25	50	DFM-25-50-P-A-KF
170927	25	80	DFM-25-80-P-A-KF
170928	25	100	DFM-25-100-P-A-KF
170929	32	20	DFM-32-20-P-A-KF
170930	32	25	DFM-32-25-P-A-KF
170931	32	30	DFM-32-30-P-A-KF
170932	32	40	DFM-32-40-P-A-KF
170933	32	50	DFM-32-50-P-A-KF
170934	32	80	DFM-32-80-P-A-KF
170935	32	100	DFM-32-100-P-A-KF
170936	32	125	DFM-32-125-P-A-KF
170937	32	160	DFM-32-160-P-A-KF
170938	32	200	DFM-32-200-P-A-KF
170939	40	25	DFM-40-25-P-A-KF
170940	40	50	DFM-40-50-P-A-KF
170941	40	80	DFM-40-80-P-A-KF
170942	40	100	DFM-40-100-P-A-KF
170943	40	125	DFM-40-125-P-A-KF
170944	40	160	DFM-40-160-P-A-KF
170945	40	200	DFM-40-200-P-A-KF

Tech Sheet 70201

G1/4 Connection, Magnetic

0009	Cylinder Bore mm	Cylinder Stroke Length mm	Manufacturer's Code
170946	50	25	DFM-50-25-P-A-KF
170947	50	50	DFM-50-50-P-A-KF
170948	50	80	DFM-50-80-P-A-KF
170949	50	100	DFM-50-100-P-A-KF
170950	50	125	DFM-50-125-P-A-KF
170951	50	160	DFM-50-160-P-A-KF
170952	50	200	DFM-50-200-P-A-KF
170953	63	25	DFM-63-25-P-A-KF
170954	63	50	DFM-63-50-P-A-KF
170955	63	80	DFM-63-80-P-A-KF
170956	63	100	DFM-63-100-P-A-KF
170957	63	125	DFM-63-125-P-A-KF
170958	63	160	DFM-63-160-P-A-KF
170959	63	200	DFM-63-200-P-A-KF

Tech Sheet 70202

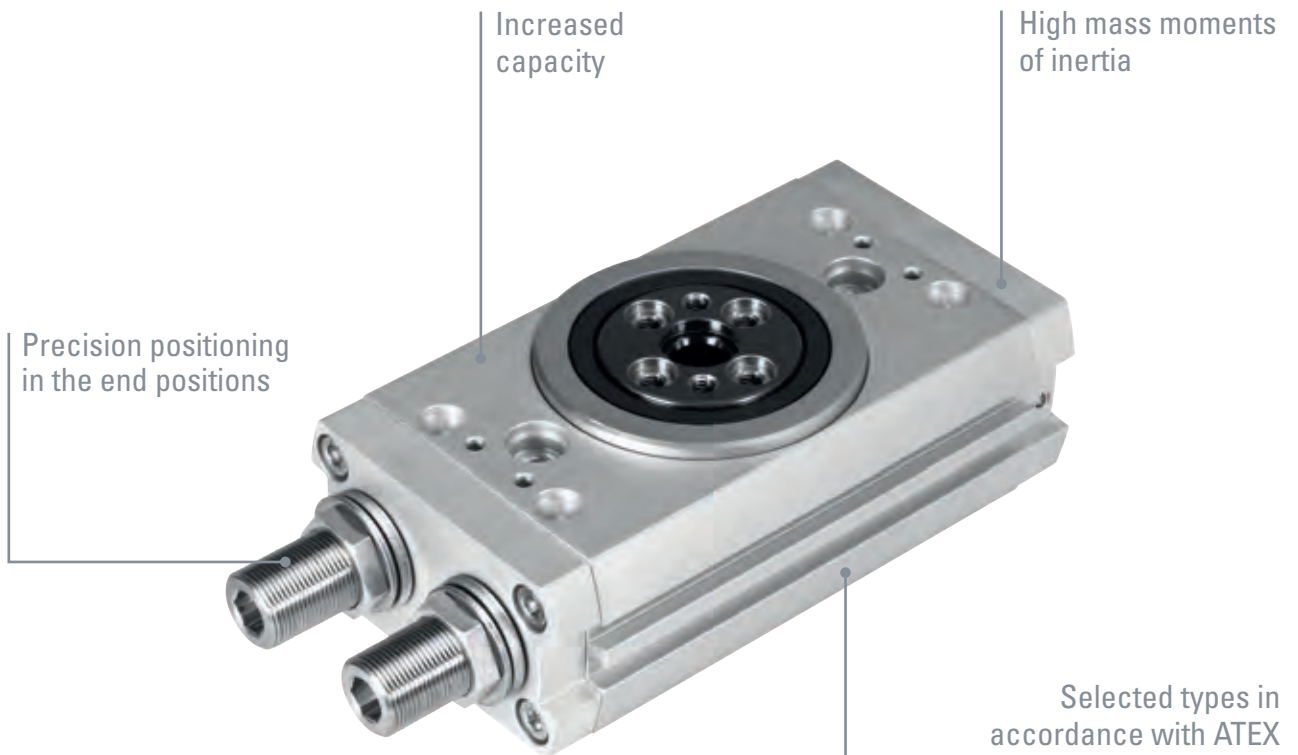
CYLINDERS

For the full range and more information, please contact one of our sales team.

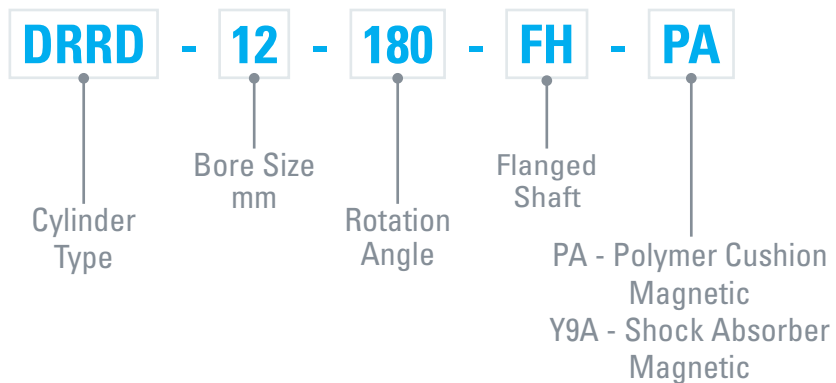
DRRD SEMI-ROTARY DRIVE



Features



Product Description



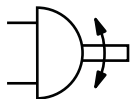


Rack & Pinion

- Modern and compact design
- Lighter than other semi-rotary drives
- Housing protected against splash water and dust
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- T-Slot 8M

Ambient Temperature:
-10°C to +60°C

Working Pressure:
3 to 8 bar



Elastic Cushioning Rings, M5 Connection

0009	Size mm	Manufacturer's Code
1577238	16	DRRD-16-180-FH-PA
1395606	20	DRRD-20-180-FH-PA
1359980	25	DRRD-25-180-FH-PA

Tech Sheet 70205

Elastic Cushioning Rings, G1/8 Connection

0009	Size mm	Manufacturer's Code
1578512	32	DRRD-32-180-FH-PA
1526825	35	DRRD-35-180-FH-PA
1503269	40	DRRD-40-180-FH-PA

Tech Sheet 70206

Self-adjusting Linear Shock Absorber, M5 Connection

0009	Size mm	Manufacturer's Code
1644389	16	DRRD-16-180-FH-Y9A
1427379	20	DRRD-20-180-FH-Y9A
1360248	25	DRRD-25-180-FH-Y9A

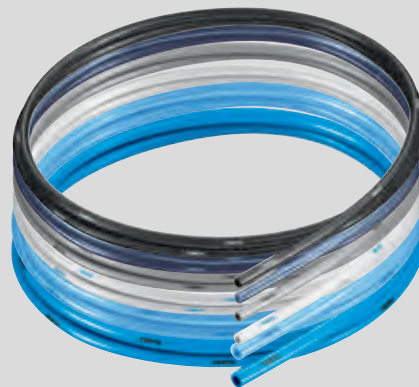
Tech Sheet 70207

Self-adjusting Linear Shock Absorber, G1/8 Connection

0009	Size mm	Manufacturer's Code
1578518	32	DRRD-32-180-FH-Y9A
1547102	35	DRRD-35-180-FH-Y9A
1526986	40	DRRD-40-180-FH-Y9A

Tech Sheet 70208

For **FESTO** pneumatic tubing
see pages **911-912**



ISO 21287 CYLINDERS



Compact Series Liner

Compact cylinder to ISO 21287, LINER series, available in different versions to meet all possible requirements. Below sizes listed are most popular, if you require an alternative size please contact the sales office

The heads have been eliminated for ease of installation, improved sturdiness and precision. The metal lining is designed to withstand heavy-duty work, tensile stress and impact. Technopolymer parts can withstand dynamic and pneumatic thrust. The lining virtually acts as a "bearing" to which most of user accessories are attached. The wide range of anchors provide numerous fixing points. Retractable magnetic limit switches can be mounted to identify the position in the cylinder grooves.



Double Acting, Male Piston Rod

9146	Bore mm	Stroke mm
2800200005XP	20	5
2800200010XP	20	10
2800200015XP	20	15
2800200020XP	20	20
2800200025XP	20	25
2800200040XP	20	40
2800200050XP	20	50
2800250005XP	25	5
2800250010XP	25	10
2800250015XP	25	15
2800250020XP	25	20
2800250025XP	25	25
2800250040XP	25	40
2800250050XP	25	50
2800320005CP	32	5
2800320010CP	32	10
2800320015CP	32	15
2800320020CP	32	20
2800320025CP	32	25
2800320040CP	32	40
2800320050CP	32	50
2800400005CP	40	5
2800400010CP	40	10
2800400015CP	40	15
2800400020CP	40	20
2800400025CP	40	25
2800400040CP	40	40
2800400050CP	40	50

9146	Bore mm	Stroke mm
2800500005CP	50	5
2800500010CP	50	10
2800500015CP	50	15
2800500020CP	50	20
2800500025CP	50	25
2800500040CP	50	40
2800500050CP	50	50
2800630005CP	63	5
2800630010CP	63	10
2800630015CP	63	15
2800630020CP	63	20
2800630025CP	63	25
2800630040CP	63	40
2800630050CP	63	50
2800800005AP	80	5
2800800010AP	80	10
2800800015AP	80	15
2800800020AP	80	20
2800800025AP	80	25
2800800040AP	80	40
2800800050AP	80	50
2800100005AP	100	5
2800100010AP	100	10
2800100015AP	100	15
2800100020AP	100	20
2800100025AP	100	25
2800100040AP	100	40
2800100050AP	100	50

Please contact our Sales Department for full range of accessories

ISO 21287 CYLINDERS



Compact Series Liner

Compact cylinder to ISO 21287, LINER series, available in different versions to meet all possible requirements. Below sizes listed are most popular, if you require an alternative size please contact the sales office

The heads have been eliminated for ease of installation, improved sturdiness and precision. The metal lining is designed to withstand heavy-duty work, tensile stress and impact. Technopolymer parts can withstand dynamic and pneumatic thrust. The lining virtually acts as a "bearing" to which most of user accessories are attached. The wide range of anchors provide numerous fixing points. Retractable magnetic limit switches can be mounted to identify the position in the cylinder grooves.



Double Acting, Female Piston Rod

9146	Bore mm	Stroke mm
2900200005XP	20	5
2900200010XP	20	10
2900200015XP	20	15
2900200020XP	20	20
2900200025XP	20	25
2900200040XP	20	40
2900200050XP	20	50
2900250005XP	25	5
2900250010XP	25	10
2900250015XP	25	15
2900250020XP	25	20
2900250025XP	25	25
2900250040XP	25	40
2900250050XP	25	50
2900320005CP	32	5
2900320010CP	32	10
2900320015CP	32	15
2900320020CP	32	20
2900320025CP	32	25
2900320040CP	32	40
2900320050CP	32	50
2900400005CP	40	5
2900400010CP	40	10
2900400015CP	40	15
2900400020CP	40	20
2900400025CP	40	25
2900400040CP	40	40
2900400050CP	40	50

9146	Bore mm	Stroke mm
2900500005CP	50	5
2900500010CP	50	10
2900500015CP	50	15
2900500020CP	50	20
2900500025CP	50	25
2900500040CP	50	40
2900500050CP	50	50
2900630005CP	63	5
2900630010CP	63	10
2900630015CP	63	15
2900630020CP	63	20
2900630025CP	63	25
2900630040CP	63	40
2900630050CP	63	50
2900800005AP	80	5
2900800010AP	80	10
2900800015AP	80	15
2900800020AP	80	20
2900800025AP	80	25
2900800040AP	80	40
2900800050AP	80	50
2900100005AP	100	5
2900100010AP	100	10
2900100015AP	100	15
2900100020AP	100	20
2900100025AP	100	25
2900100040AP	100	40
2900100050AP	100	50

Please contact our Sales Department for full range of accessories

COMPACT CYLINDERS & MOUNTINGS



Compact Cylinders

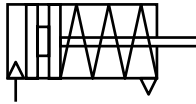
- One third the basic length of a corresponding VDMA/ISO model
- Low friction, long life seal design
- Fully non-corrodible specification
- Non-lube operation
- Optional non-rotating piston rod (non-rotating or guided piston rod on RM/92000/M)
- Standard magnetic piston for full control system versatility

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operation:
RM/91000/M Single acting, non-cushioned, magnetic sprung in RM/92000/M
Double acting, buffer cushioning

Barrel and End Caps:
Anodised aluminium alloy

Piston Rod:
RM/91000/M Stainless steel
(Ø 12 to 40mm austenitic)
RM/92000/M Stainless steel
(Ø 12 to 40mm austenitic,
Ø 50 to 100mm martensitic)
Seals:
PUR and/or NBR



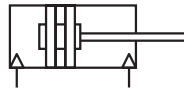
° Working Temperature:
-5°C to +80°C

Working Pressure:
2 to 10 bar

Single Acting RM/91000/M

0036	Bore mm	Stroke mm	Thread
RM/91032/M/25	32	25	G1/8
RM/91040/M/25	40	25	G1/8

Tech Sheet 10362



° Working Temperature:
-5°C to +80°C

Working Pressure:
1 to 10 bar

Double Acting RM/92000/M

0036	Bore mm	Stroke mm	Thread
RM/92012/M/10	12	10	M5
RM/92016/M/10	16	10	M5
RM/92016/M/15	16	15	M5
RM/92016/M/20	16	20	M5
RM/92020/M/10	20	10	M5
RM/92020/M/15	20	15	M5
RM/92020/M/25	20	25	M5
RM/92020/M/30	20	30	M5
RM/92020/M/40	20	40	M5
RM/92020/M/50	20	50	M5
RM/92025/M/10	25	10	M5
RM/92025/M/20	25	20	M5
RM/92025/M/25	25	25	M5
RM/92025/M/30	25	30	M5
RM/92025/M/40	25	40	M5
RM/92025/M/50	25	50	M5
RM/92032/M/10	32	10	G1/8
RM/92032/M/15	32	15	G1/8
RM/92032/M/20	32	20	G1/8
RM/92032/M/25	32	25	G1/8
RM/92032/M/30	32	30	G1/8
RM/92032/M/40	32	40	G1/8
RM/92032/M/50	32	50	G1/8
RM/92032/M/60	32	60	G1/8
RM/92032/M/80	32	80	G1/8
RM/92040/M/5	40	5	G1/8
RM/92040/M/10	40	10	G1/8
RM/92040/M/20	40	20	G1/8
RM/92040/M/25	40	25	G1/8
RM/92040/M/30	40	30	G1/8
RM/92040/M/50	40	50	G1/8
RM/92050/M/10	50	10	G1/8
RM/92050/M/20	50	20	G1/8
RM/92050/M/25	50	25	G1/8
RM/92050/M/30	50	30	G1/8
RM/92050/M/40	50	40	G1/8
RM/92050/M/50	50	50	G1/8
RM/92050/M/100	50	100	G1/8
RM/92063/M/15	63	15	G1/4
RM/92063/M/25	63	25	G1/4
RM/92063/M/40	63	40	G1/4
RM/92080/M/25	80	25	G1/4
RM/92080/M/40	80	40	G1/4
RM/92080/M/50	80	50	G1/4
RM/92080/M/60	80	60	G1/4
RM/92080/M/80	80	80	G1/4
RM/92100/M/30	100	30	G1/4
RM/92100/M/50	100	50	G1/4

Tech Sheet 10361

Compact Mountings



Female Piston Rod Clevis

0036	Bore mm
QM/57063/25	80 & 100

Tech Sheet 10361



Flange Mounting

0036	Bore mm
QM/90016/22	16
QM/90025/22	25
QM/90040/22	40
QM/90050/22	50
QM/90063/22	63
QM/90080/22	80
QM/90100/22	100

Tech Sheet 10361



For Norgren Excelon Plus
see page 686

ISO COMPACT CYLINDERS & MOUNTINGS



ISO Compact Cylinders & Mountings

- Conforms to ISO 21287
- Up to 30% shorter than full
- ISO/VDMA actuators
- Uses standard ISO/VDMA mountings

Working Temperature:
-5°C to +80°C

Working Pressure:
0 to 10 bar

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operation: RA/192000/MX, Double acting, magnetic piston, female piston rod thread, buffer cushioning

Materials:
Profile barrel: Anodized aluminium
End covers: Pressure diecast aluminium
Piston rod: Stainless steel
Piston rod seals: PUR
Piston seals: NBR
O-rings: NBR



RA/192000 Series

0036	Bore mm	Stroke mm	Thread
RA/192020/MX/10	20	10	M5
RA/192020/MX/15	20	15	M5
RA/192020/MX/20	20	20	M5
RA/192020/MX/25	20	25	M5
RA/192020/MX/30	20	30	M5
RA/192020/MX/40	20	40	M5
RA/192020/MX/50	20	50	M5
RA/192025/MX/10	25	10	M5
RA/192025/MX/15	25	15	M5
RA/192025/MX/20	25	20	M5
RA/192025/MX/25	25	25	M5
RA/192025/MX/30	25	30	M5
RA/192025/MX/40	25	40	M5
RA/192025/MX/50	25	50	M5
RA/192032/MX/10	32	10	1/8"
RA/192032/MX/15	32	15	1/8"
RA/192032/MX/20	32	20	1/8"
RA/192032/MX/25	32	25	1/8"
RA/192032/MX/30	32	30	1/8"
RA/192032/MX/40	32	40	1/8"
RA/192032/MX/50	32	50	1/8"
RA/192032/MX/60	32	60	1/8"
RA/192032/MX/80	32	80	1/8"
RA/192040/MX/10	40	10	1/8"
RA/192040/MX/15	40	15	1/8"
RA/192040/MX/20	40	20	1/8"
RA/192040/MX/25	40	25	1/8"
RA/192040/MX/30	40	30	1/8"

0036	Bore mm	Stroke mm	Thread
RA/192040/MX/40	40	40	1/8"
RA/192040/MX/50	40	50	1/8"
RA/192050/MX/10	50	10	1/8"
RA/192050/MX/15	50	15	1/8"
RA/192050/MX/20	50	20	1/8"
RA/192050/MX/25	50	25	1/8"
RA/192050/MX/30	50	30	1/8"
RA/192050/MX/40	50	40	1/8"
RA/192050/MX/50	50	50	1/8"
RA/192050/MX/60	50	60	1/8"
RA/192063/M/15	63	15	1/8"
RA/192063/M/25	63	25	1/8"
RA/192063/M/40	63	40	1/8"
RA/192063/M/50	63	50	1/8"
RA/192063/M/60	63	60	1/8"
RA/192063/M/80	63	80	1/8"
RA/192080/M/15	80	15	1/8"
RA/192080/M/25	80	25	1/8"
RA/192080/M/40	80	40	1/8"
RA/192080/M/50	80	50	1/8"
RA/192080/M/60	80	60	1/8"
RA/192080/M/80	80	80	1/8"
RA/192100/M/15	100	15	1/8"
RA/192100/M/25	100	25	1/8"
RA/192100/M/40	100	40	1/8"
RA/192100/M/50	100	50	1/8"
RA/192100/M/60	100	60	1/8"
RA/192100/M/80	100	80	1/8"

Tech Sheet 71752

Mountings



Front Flange

0036	Bore mm
QA/192020/22	20
QA/192025/22	25
QA/8032/22	32
QA/8040/22	40
QA/8050/22	50
QA/8063/22	63
QA/8080/22	80
QA/8100/22	100

Tech Sheet 71752



Piston Rod Clevis

0036	Bore mm
QM/8020/25	20
QM/8025/25	25
QM/8032/35	32
QM/8040/25	40
QM/8050/25	50
QM/8080/25	80

Tech Sheet 71752



Foot C

0036	Bore mm
QM/192020/21	20
QM/192025/21	25
QA/192032/21	32
QA/192040/21	40
QA/192050/21	50
QA/192063/21	63
QA/192080/21	80
QA/192100/21	100

Tech Sheet 71752



Rear Clevis

0036	Bore mm
QA/8032/23	32
QA/8040/23	40
QA/8050/23	50
QA/8063/23	63
QA/8080/23	80
QA/8100/23	100

Tech Sheet 71752

PNEUMATIC ACTUATION



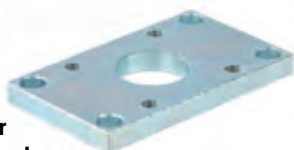
Compact Cylinders & Accessories

Compact Cylinders ISO 21287 Double Acting 20mm-100mm

0110	Bore mm	Stroke mm
1540.20.15.01.1	20	15
1540.20.50.01.1	20	50
1540.25.50.01.1	25	50
1540.25.60.01.1	25	60
1540.32.15.01.1	32	15
1540.32.20.01.1	32	20
1540.32.30.01.1	32	30
1540.32.60.01.1	32	60
1540.32.200.01.1	32	200
1540.40.75.01.1	40	75
1540.50.30.01.1	50	30
1540.50.35.01.1	50	35
1540.50.50.01.1	50	50
1540.50.100.01.1	50	100
1540.63.25.01.1	63	25
1540.63.50.01.1	63	50
1540.63.100.01.1	63	100
1540.100.80.01.1	100	80



Front & Rear Flanges - Steel



0110	Bore mm
1540.20.03F	20

Foot Brackets MS1 - Steel



0110	Bore mm
1540.20.05/1F	20

Rear Clevis MP2 - Aluminium



0110	Bore mm
1380.32.09F	32
1380.40.09F	40
1380.50.09F	50
1380.63.09F	63
1380.80.09F	80
1380.100.09F	100

Rear Narrow Clevis - Aluminium



0110	Bore mm
1380.80.30F	80

Rear Clevis MP4 - Aluminium



0110	Bore mm
1380.40.09/1F	40
1380.50.09/1F	50
1380.63.09/1F	63
1380.100.09/1F	100

Rear Male Clevis complete with Jointed Head - Aluminium



0110	Bore mm
1380.32.15F	32
1380.40.15F	40
1380.50.15F	50
1380.80.15F	80

Square Angle Trunnion - Aluminium



0110	Bore mm
1380.32.35F	32
1380.63.35F	63
1380.80.35F	80
1380.100.35F	100

1580U Reed Switch complete with LED



0110	Description
1580U	LED Reed Switch N/O

Please contact our Sales Department for full range of accessories

PNEUMATIC CYLINDER & TRANSMITTERS



Pencil Cylinder

The miniature cylinder with a piston diameter of 3mm is for general-purpose use in testing and other operations in very restricted spaces. Even with its small dimensions the cylinder offers the technical features of the proven series of larger miniature cylinders.



Single Acting

0047	Bore mm	Stroke mm
KU-40.100	3	6
Tech Sheet 10289		

Position Transmitter & Clamp

This unit acts as a 3/2 valve, it can be actuated either by a magnetic cylinder piston or by iron (FE). Use the clamp 33.006 to mount the transmitter onto the cylinder.

Suitable for sizes 8mm to 100mm. For other applications, the 4mm thread on the other side of the housing can be used.
Medium: Compressed air oil free

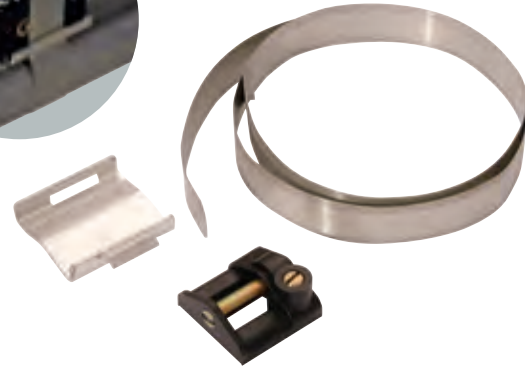
Transmitter not included

Working Temperature:
10° to + 60°C

Working Pressure:
2 to 6 bar



Transmitter
not included



Transmitter, Pneumatic

0047	ID mm
KU-33.21.326	3
Tech Sheet 10290	

Clamp

0047	To Suit
KU-33.006	8mm to 100mm Cylinders
Tech Sheet 10290	



For FT Pro hose reels
see pages 1449-1453



ROUND RNDC CYLINDERS



Double Acting Cylinders

Clean profile cylinders available in different versions

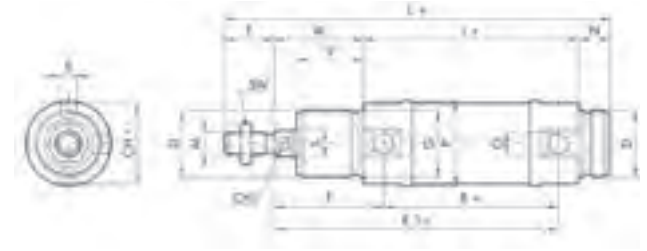
- Configuration with or without magnet
- Single and double acting
- Single or through-rod
- Pneumatic cushioning on request
- Range of gaskets available in NBR, polyurethane and FKM/FPM (for high temperatures)

Technical Specification

- Fluid: unlubricated air (lubrication, if used, must be continuous)
- Sensor magnet: all versions come complete with magnet
- Piston rod material: C45 chrome rod, technopolymers piston rod
- Piston seal: NBR

° Temperature Range:
10°C to +80°C

Maximum Operating Pressure:
10 bar

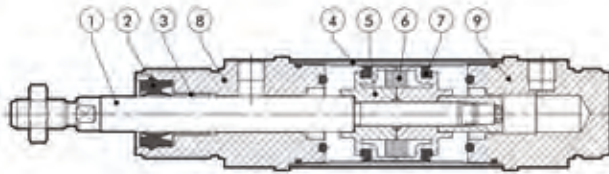


Dimensions

Ø	D	E	F	ØG	CH1	I	L	M	N	O	ØP	R	ØS	SW	T	CH2	V	W	L1
32	M30x1.5	M8x1	22	30	10	96	172	M10x1.25	14	G1/8	38	78	12	17	49	36	30	40	220
40	M38x1.5	M10x1	24	38	13	113	198	M12x1.25	16	G1/4	46	89	16	19	57	43	35	45	251
50	M45x1.5	M12x1.5	32	45	17	120	220	M16x1.5	18	G1/4	57	96	20	24	62	54	38	50	284

Components

1. Piston rod: C45 steel or stainless steel, thick chromed
2. Piston rod gasket: polyurethane, NBR or FKM/FPM
3. Guide bushing: steel strip with bronze and PTFE insert
4. Barrel: drawn anodised aluminium alloy
5. Half-piston: self-lubricating technopolymer with integrated cushioning olives
6. Magnet: plastoferrite
7. Piston gasket: polyurethane, NBR or FKM/FPM
8. Head: anodised aluminium alloy



Other variants
available
on request



Magnetic & Cushioned

9195	Diameter mm	Stroke mm
1120320025CN	32	25
1120320050CN	32	50
1120320080CN	32	80
1120320100CN	32	100
1120320125CN	32	125
1120320160CN	32	160
1120320200CN	32	200
1120320250CN	32	250
1120400025CN	40	25
1120400050CN	40	50
1120400080CN	40	80
1120400100CN	40	100

9195	Diameter mm	Stroke mm
1120400125CN	40	125
1120400160CN	40	160
1120400200CN	40	200
1120400250CN	40	250
1120500025CN	50	25
1120500050CN	50	50
1120500080CN	50	80
1120500100CN	50	100
1120500125CN	50	125
1120500160CN	50	160
1120500200CN	50	200
1120500250CN	50	250

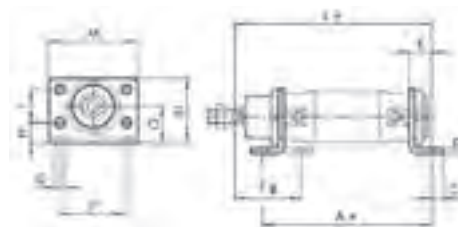
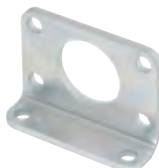
ROUND RNDC CYLINDER ACCESSORIES



Foot Mounting

To suit RNDC Cylinders

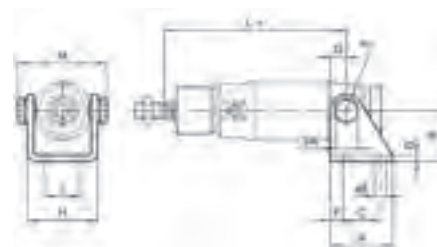
9146	Ø	A	B	C	D	E	F	G	H	I	L	M	N	O
W0950320002	32	124	50	7	4	14	52	7	14	28	150	66	49	28
W0950400002	40	153	60	10	5	20	60	9	18	30	178	80	58	33
W0950500002	50	160	64	10	6	20	70	9	20	40	190	90	70	40



Counter Support

To suit RNDC Cylinders

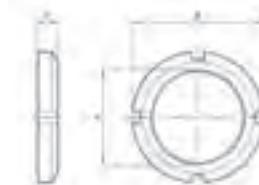
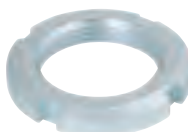
9146	Ø	A	B	C	D	E	F	G	H	I	L	M	R	SW
W0950320005	32	40	35	24	4	7	8	12	46.1	20	127	60	12	13
W0950400005	40	50	40	30	5	9	10	13	57.5	28	146	74	13	17
W0950500005	50	54	45	34	6	9	10	14	69.1	36	158	89	14	19



Head Lock Ring

To suit RNDC Cylinders

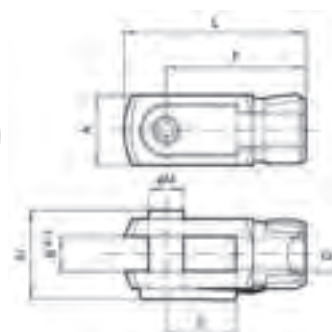
9146	Ø	A	B	C
W0950320010	32	M30 x 1.5	45	7
W0950400010	40	M38 x 1.5	50	8
W0950500010	50	M45 x 1.5	58	9



Fork Clevis

To suit RNDC Cylinders

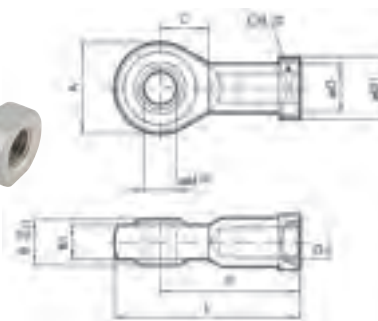
9146	Ø	ØM	A	B	C	L	F	D	N
W0950322020	32	10	20	10	20	52	40	M10 x 1.25	26
W0950402020	40	12	24	12	24	62	48	M12 x 1.25	32
W0950502020	50/63	16	32	16	32	83	64	M16 x 1.5	40



Spherical Rod Eye

To suit RNDC Cylinders

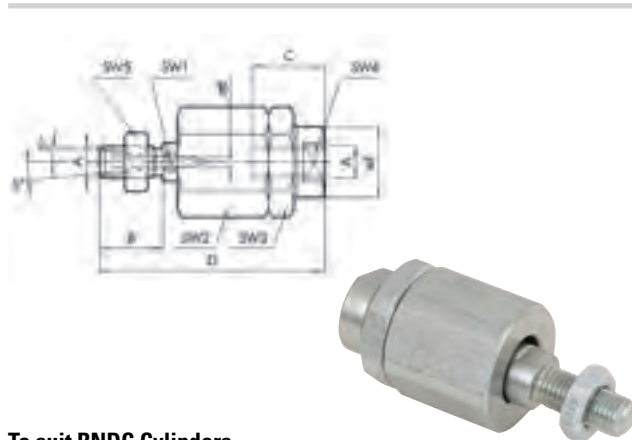
9146	Ø	ØM	C	B1	B	A	L	F	D	ØG	CH
W0950322025	32	10	15	10.5	14	28	57	43	M10 x 1.25	15	17
W0950402025	40	12	17	12	16	32	66	50	M12 x 1.25	17.5	19
W0950502025	50	16	22	15	21	42	85	64	M16 x 1.5	22	22



ROUND RNDC CYLINDER ACCESSORIES



Articulated Joint



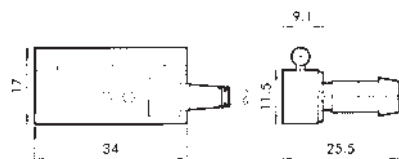
To suit RNDC Cylinders

9146	Ø	A	B	C	D	ØE	ØF	SW1	SW2	SW3	SW4	SW5
W0950322030	32	M10 x 1.25	20	20	71	4	22	12	30	30	19	17
W0950402030	40	M12 x 1.25	24	20	75	4	22	12	30	30	19	19
W0950502030	50	M16 x 1.5	32	32	103	4	32	20	41	41	30	24

Reed Switch & Bracket

Technical Data

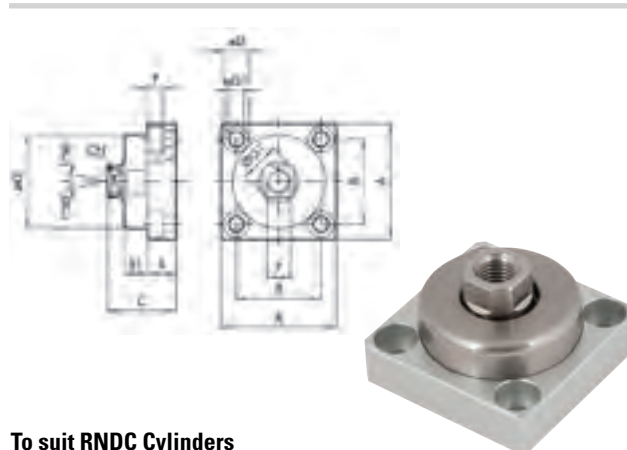
Type		Contact
Maximum AC/DC voltage	V	Reed + varistor + LED 2 wires
		Reed + varistor + LED NO
		220 ISO cylinder
Maximum current at +25°C	mA	1,000
Power with inductive load	VA	15
Power with resistive load	Watt	50
Switch-on time	M sec	1.2



To suit ISO 6432 Cylinders

9146	Description
W0950000201	Reed Switch

Flexible Collar



To suit RNDC Cylinders

9146	Ø	A	B	C	CH	ØD	ØD1	F	ØG	ØG1	P	S	S1
W0950326021	32	49	36	30	13	11	6.5	M10 x 1.25	39.5	17	6.5	12	10
W0950406021	40	59	42	36	15	14	8.5	M12 x 1.25	44	19	8.5	15	13.5
W0950506021	50	79	58	44	22	17	10.5	M16 x 1.5	59	26	10.5	20	15

Reed Switch & Bracket

Technical Data

Type		Contact
Switch-off time	M sec	0.1
Cable length		2.5m
Cable material		Soft PVC
Switch-on point	Gauss	110
Switch-off point	Gauss	95
Contact resistance		0.1



To suit RNDC Cylinders

9146	Description
W0950000132	Bracket for RNDC Ø32 Cylinder
W0950000140	Bracket for RNDC Ø40 Cylinder
W0950000150	Bracket for RNDC Ø50 Cylinder

ROUNDLINE CYLINDERS & MOUNTINGS



Roundline Cylinders

- One fifth shorter than the basic length of a corresponding VDMA/ISO cylinder
- Low friction, long life seals
- High strength, double crimped end cap design
- Standard magnetic piston for full control system versatility
- Non-lube operation
- Choice of porting option for compact installation

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation (Double Acting):

Double acting, buffer cushioning

Piston Rod (Single Acting):

Stainless steel (16 mm bore martensitic, 20 to 40 mm bore austenitic)

Piston Rod (Double Acting):

Stainless steel (16 mm bore martensitic, 20 to 63 mm bore austenitic)

Barrel: Stainless steel (austenitic)

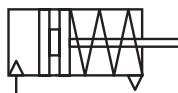
Seals and O-Rings: Nitrile

Wiper: Polyurethane

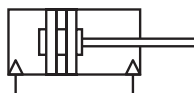
End Covers: Aluminium



Single Acting:



Double Acting:



° Working Temperature:
-5°C to +80°C

° Working Temperature:
-5°C to +80°C

Working Pressure:
2 to 10 bar

Working Pressure:
1 to 10 bar

Single Acting RT/57100/M, Side Port - Sprung In

0036	Bore mm	Stroke mm	Thread
RT/57116/M/25	16	25	M5
RT/57120/M/25	20	25	Rc 1/8
RT/57125/M/25	25	25	Rc 1/8
RT/57125/M/50	25	50	Rc 1/8
RT/57132/M/50	32	50	Rc 1/8
RT/57140/M/50	40	50	Rc 1/8

Tech Sheet 10315

Single Acting RT/57100/M, Axial Port - Sprung In

0036	Bore mm	Stroke mm	Thread
RT/57116/MC/25	16	25	M5

Tech Sheet 10315

Double Acting RT/57200/M, Side Port - Rear Eye

0036	Bore mm	Stroke mm	Thread
RT/57216/M/25	16	25	M5
RT/57216/M/80	16	80	M5
RT/57220/M/10	20	10	Rc 1/8
RT/57220/M/25	20	25	Rc 1/8
RT/57220/M/100	20	100	Rc 1/8
RT/57225/M/25	25	25	Rc 1/8
RT/57225/M/50	25	50	Rc 1/8
RT/57225/M/80	25	80	Rc 1/8
RT/57225/M/100	25	100	Rc 1/8
RT/57225/M/160	25	160	Rc 1/8
RT/57232/M/25	32	25	Rc 1/8
RT/57232/M/50	32	50	Rc 1/8
RT/57232/M/80	32	80	Rc 1/8
RT/57232/M/100	32	100	Rc 1/8
RT/57232/M/160	32	160	Rc 1/8
RT/57240/M/50	40	50	Rc 1/8
RT/57240/M/80	40	80	Rc 1/8
RT/57240/M/100	40	100	Rc 1/8

Tech Sheet 10315

Double Acting RT/57200/M, Side Port - Flat End

0036	Bore mm	Stroke mm	Thread
RT/57216/MF/10	16	10	M5
RT/57220/MF/50	20	50	Rc 1/8
RT/57225/MF/25	25	25	Rc 1/8
RT/57225/MF/50	25	50	Rc 1/8
RT/57240/MF/80	40	80	Rc 1/8

Tech Sheet 10315

Roundline Mountings



Clevis Foot Mounting

0036	Bore mm
QM/946	16
QM/57025/24	25
QM/57040/24	40

Tech Sheet 10315



Piston Rod Locknut

0036	Bore mm
M/P1501/60	20
M/P1501/89	25 & 32
M/P1501/90	40

Tech Sheet 10315



Female Piston Rod Clevis

0036	Bore mm
QM/57016/25	16
QM/57020/25	20
QM/57025/25	25
QM/57032/25	32

Tech Sheet 10315



Piston Rod Eye

0036	Bore mm
QM/8040/32	40

Tech Sheet 10315



Switch Mounting Bracket (QM33)

0036	Bore mm
QM/33/032/22	32
QM/33/040/22	40

Tech Sheet 10315

Pneumatic Grippers

- Uses a single piston structure to generate a large gripping force
- Integrated variable flow valve to conveniently adjust the speed of opening and closing of the fingers
- Precise positioning accuracy when gripping components
- Body profile adapted with grooves for mounting sensor switches
- Integrated magnet for added control
- Gripping jaw opening and closing angle 30° to -10°
- Single acting N/O available on request
- Interchangeability: SMC



KHFY: Double Acting



Double Acting, Angular Style

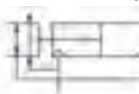
0415	Thread	Bore mm	Optimum Gripping Points Length mm
KHFY6	M3 x 0.5	6	30
KHFY10	M3 x 0.5	10	30
KHFY16	M5 x 0.8	16	40
KHFY20	M5 x 0.8	20	60
KHFY25	M5 x 0.8	25	70
KHFY32	M5 x 0.8	32	85

Tech Sheet 20470

- Integrated linear guide rail for high precision and rigidity
- Positioning pin at the base of the unit to prevent deviation of the rail and body
- Deeper hole on the body to improve precision and consistency when dismounting and positioning
- Variable positioning jaws
- Body profile adapted with grooves for mounting sensor switches
- Other finger types available on request
- Single acting N/O and N/C available on request
- Interchangeability: SMC



KHFZ: Double Acting



Double Acting, Parallel Style

0415	Thread	Bore mm	Optimum Gripping Points Length mm	Open Diameter mm	Closed Diameter mm
KHFZ10	M3 x 0.5	6	5-50	15.5	11.5
KHFZ16	M5 x 0.8	16	5-55	21.0	15.0
KHFZ20	M5 x 0.8	20	5-80	26.5	16.5
KHFZ25	M5 x 0.8	25	5-100	33.5	19.5

Tech Sheet 20471

How to select product:

→ **Information of the gripping force** → **Information of the gripping point** → **Information of the external force put on the gripping jaw.**

The selection of the gripping force:
The gripping work-pieces shown, on the impact condition of ordinary handling state, taking safety coefficient $a=4$, have a gripping force that is more than 10-20 times of the mass of the gripped objects

$\mu = 0.2$ $\mu = 0.1$

$$F = \frac{mg}{2 \times 0.2} \times 4 = 10 \times mg$$

$$F = \frac{mg}{2 \times 0.1} \times 4 = 20 \times mg$$

10 times of the mass of the gripped objects	20 times of the mass of the gripped objects
---	---

F: gripping force (N)

μ : friction coefficient between fittings and work-pieces

m: mass of work-pieces

g: acceleration of gravity ($=9.8\text{m/s}^2$)

The condition that the work-pieces won't drop is $2 \times \mu F > mg$, so:

$$F > \frac{mg}{2 \times \mu}$$

Safety coefficient is a, so F is:

$$F = \frac{mg}{2 \times \mu} \times a$$

Note: if the friction coefficient $\mu > 0.2$, for safety, please also select clamping force according to the principle of 10-20 times of the mass of the clamped objects. As for large acceleration and shock, it requires for greater safety coefficient.



Slim profile for discreet safe mounting to grippers.

Sensor Switch, Two-line, N/O

0415	Connection	Connecting Cable	Length Metres
KDS1-H-C08	Straight	M8 Quick Joint	0.15
KDS1-H-020	Straight	-	2
KDS1-H-030	Straight	-	3
KDS1-H-050	Straight	-	5
KDS1-HL-C08	90°	M8 Quick Joint	0.15
KDS1-HL-020	90°	-	2
KDS1-HL-030	90°	-	3
KDS1-HL-050	90° Connection	-	5

Tech Sheet 20472

Sensor Switch, Three-line NPN with No Contact (Current Flows In), N/O

0415	Connection	Connecting Cable	Length Metres
KDS1-H-N-C08	Straight	M8 Quick Joint	0.15
KDS1-H-N-020	Straight	-	2
KDS1-H-N-030	Straight	-	3
KDS1-H-N-050	Straight	-	5
KDS1-HL-N-C08	90°	M8 Quick Joint	0.15
KDS1-HL-N-020	90°	-	2
KDS1-HL-N-030	90°	-	3
KDS1-HL-N-050	90°	-	5

Tech Sheet 20472

Sensor Switch, Three-line PNP with No Contact (Current Flows Out), N/O

0415	Connection	Connecting Cable	Length Metres
KDS1-H-P-C08	Straight	M8 Quick Joint	0.15
KDS1-H-P-020	Straight	-	2
KDS1-H-P-030	Straight	-	3
KDS1-H-P-050	Straight	-	5
KDS1-HL-P-C08	90°	M8 Quick Joint	0.15
KDS1-HL-P-020	90°	-	2
KDS1-HL-P-030	90°	-	3
KDS1-HL-P-050	90°	-	5

Tech Sheet 20472

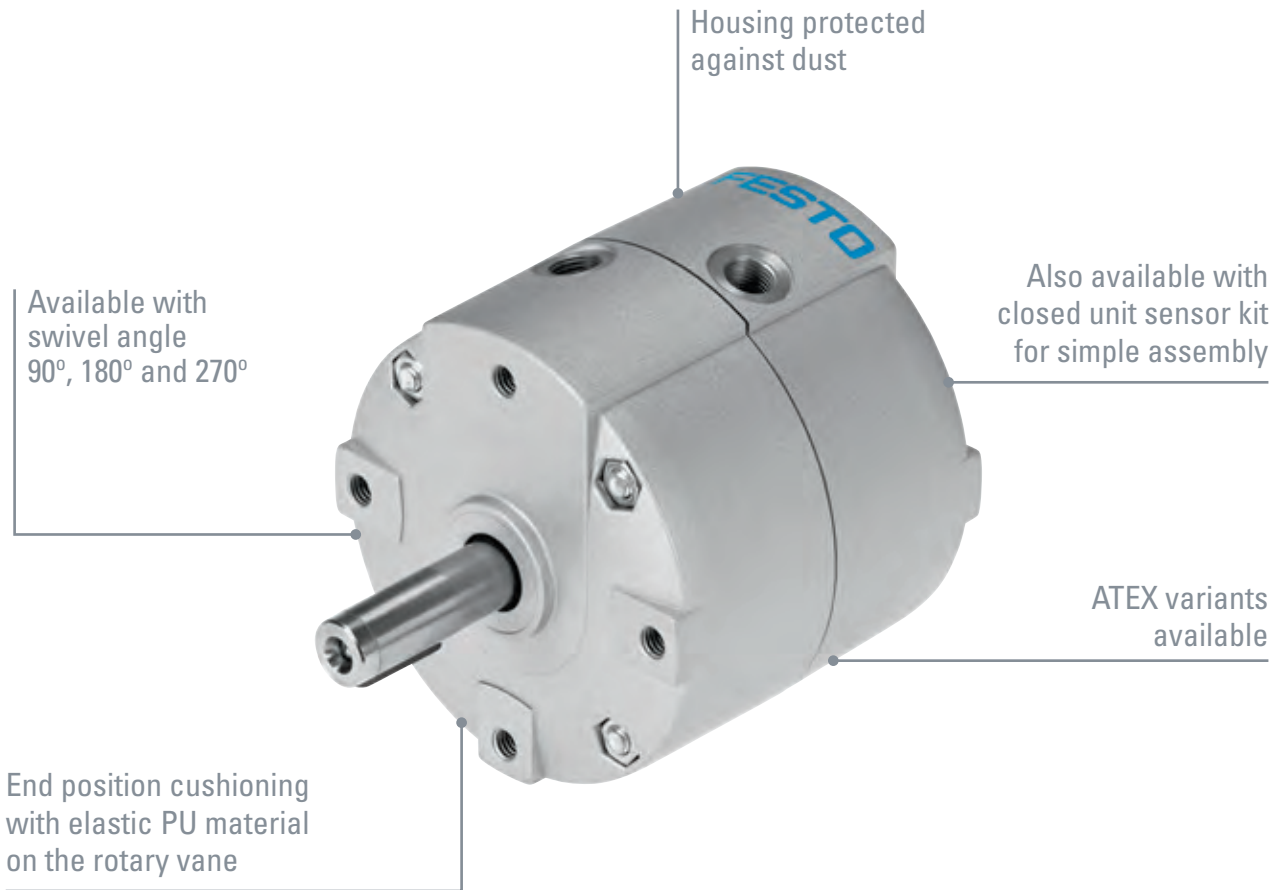
CYLINDERS

For the full range and more information, please contact one of our sales team.

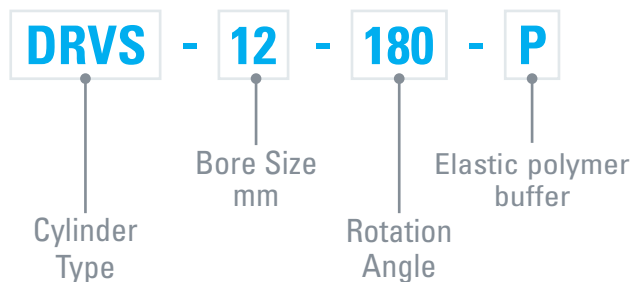
DRVS SEMI-ROTARY VANE DRIVE



Features



Product Description



SEMI-ROTARY DRIVES, DRVS

FESTO



Rotary Vane, Double Acting

- Modern and compact design
- Lighter than other semi-rotary drives
- Housing protected against splash water and dust
- Selected types in accordance with ATEX directive for potentially explosive atmospheres

Ambient Temperature:
-10°C to +60°C

Working Pressure:
3.5 to 8 bar (Size: 6, 8mm)
2.5 to 8 bar (Size: 12, 16mm)
2 to 8 bar (Size: 25, 32, 40mm)



Elastic Cushioning Rings, M3 Connection

0009	Size	Nominal Swivel Angle	Manufacturer's Code
1845706	6	90°	DRVS-6-90-P
1845707	6	180°	DRVS-6-180-P
1845708	8	90°	DRVS-8-90-P
1845709	8	180°	DRVS-8-180-P

Tech Sheet 20564

Elastic Cushioning Rings, M5 Connection

0009	Size	Nominal Swivel Angle	Manufacturer's Code
1845710	12	90°	DRVS-12-90-P
1845711	12	180°	DRVS-12-180-P
1845712	12	270°	DRVS-12-270-P
1845713	16	90°	DRVS-16-90-P
1845714	16	180°	DRVS-16-180-P
1845715	16	270°	DRVS-16-270-P
1845716	25	90°	DRVS-25-90-P
1845717	25	180°	DRVS-25-180-P
1845718	25	270°	DRVS-25-270-P

Tech Sheet 71599



Position Sensor

0009	Weight	For Drives	Type
2619969	25g	DSM 6, DRVS 6	SRBS-Q12-6-E270-EP-1-S-M8

Elastic Cushioning Rings, G1/8 Connection

0009	Size	Nominal Swivel Angle	Manufacturer's Code
1845719	32	90°	DRVS-32-90-P
1845720	32	180°	DRVS-32-180-P
1845721	32	270°	DRVS-32-270-P
1845722	40	90°	DRVS-40-90-P
1845723	40	180°	DRVS-40-180-P
1845724	40	270°	DRVS-40-270-P

Tech Sheet 71600

FESTO



For **Festo MS Series**
see page **658**

Panel Mount Valves, Manual & Mechanical 3/2 Way Valves

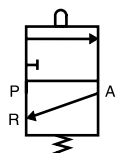
Medium: Clean compressed air. Filtered (40µm)

Material: Valve body aluminium alloy

Seals: Nitrile

Working Temperature:
-20°C to +70°C

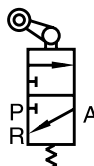
Maximum Working Pressure:
10 bar



Basic Valve, Metric & BSPP

0335	Thread
K3M3B-05	M5
K3M3B-06	1/8"
K3M3B-08	1/4"

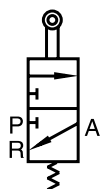
Tech Sheet 3097



One Way Roller Lever Valve, Metric & BSPP

0335	Thread
K3M3L-05	M5
K3M3L-06	1/8"
K3M3L-08	1/4"

Tech Sheet 3097



Roller Lever Valve, Metric & BSPP

0335	Thread
K3M3R-05	M5
K3M3R-06	1/8"
K3M3R-08	1/4"

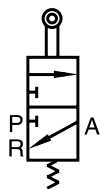
Tech Sheet 3097



Lever/Lever, Metric & BSPP

0335	Thread
K3M3Y-05	M5
K3M3Y-06	1/8"
K3M3Y-08	1/4"

Tech Sheet 3097

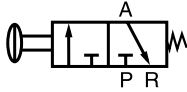


Roller Valve, Metric & BSPP

0335	Thread
K3M3V-05	M5
K3M3V-06	1/8"
K3M3V-08	1/4"

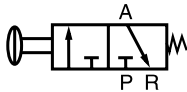
Tech Sheet 3097

Panel Mount Valves, Manual & Mechanical 3/2 Way Valves

Medium: Clean compressed air. Filtered (40µm)**Material:** Valve body aluminium alloy**Seals:** Nitrile**Working Temperature:**
-20°C to +70°C**Maximum Working Pressure:**
10 bar**Push Button (Shrouded), Metric & BSPP**

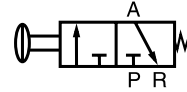
0335	Thread	Colour
K3M3PF-05-B	M5	Black
K3M3PF-05-G	M5	Green
K3M3PF-05-R	M5	Red
K3M3PF-06-B	1/8"	Black
K3M3PF-06-G	1/8"	Green
K3M3PF-06-R	1/8"	Red
K3M3PF-08-B	1/4"	Black
K3M3PF-08-G	1/4"	Green
K3M3PF-08-R	1/4"	Red

Tech Sheet 3097

**Push Button (External), Metric & BSPP**

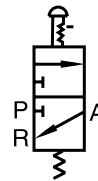
0335	Thread	Colour
K3M3PP-05-B	M5	Black
K3M3PP-05-G	M5	Green
K3M3PP-05-R	M5	Red
K3M3PP-06-B	1/8"	Black
K3M3PP-06-G	1/8"	Green
K3M3PP-06-R	1/8"	Red
K3M3PP-08-B	1/4"	Black
K3M3PP-08-G	1/4"	Green
K3M3PP-08-R	1/4"	Red

Tech Sheet 3097

**Palm Button, Metric & BSPP**

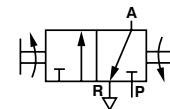
0335	Thread	Colour
K3M3PM-05-B	M5	Black
K3M3PM-05-G	M5	Green
K3M3PM-05-R	M5	Red
K3M3PM-06-B	1/8"	Black
K3M3PM-06-G	1/8"	Green
K3M3PM-06-R	1/8"	Red
K3M3PM-08-B	1/4"	Black
K3M3PM-08-G	1/4"	Green
K3M3PM-08-R	1/4"	Red

Tech Sheet 3097

**Palm Button, Latching, Metric & BSPP**

0335	Thread	Colour
K3M3PL-05-R	M5	Red
K3M3PL-06-R	1/8"	Red
K3M3PL-08-R	1/4"	Red

Tech Sheet 3097

**2 Position Selector Switch, Metric & BSPP**

0335	Thread
K3M3HS05	M5
K3M3HS06	1/8"
K3M3HS08	1/4"

Tech Sheet 3097

Manual 3/2 Way Valves

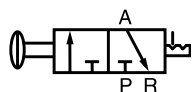
Medium: Clean compressed air. Filtered (40µm) and lubricated

Material: Aluminium alloy

Seals: Nitrile

Working Temperature: -20°C to +70°C

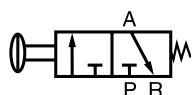
Maximum Working Pressure: 8 bar



Push/Pull, BSPP

0335	Thread
CKL110-06	1/8"
CKL210-08	1/4"
CKL310-10	3/8"

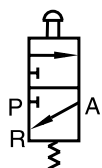
Tech Sheet 3032



Push Button (Shrouded), 1/8" BSPP

0335	Colour
KSCPF-06-B	Black
KSCPF-06-G	Green
KSCPF-06-R	Red

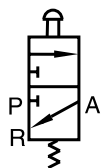
Tech Sheet 3038



Push Button (External), 1/8" BSPP

0335	Colour
KSCPP-06-B	Black
KSCPP-06-G	Green
KSCPP-06-R	Red

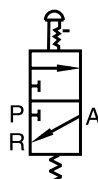
Tech Sheet 3038



Palm Button, 1/8" BSPP

0335	Colour
KSCPM-06-B	Black
KSCPM-06-G	Green
KSCPM-06-R	Red

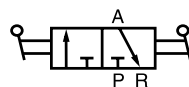
Tech Sheet 3038



Palm Button, Latching, 1/8" BSPP

0335	Colour
KSCPL-06-R	Red

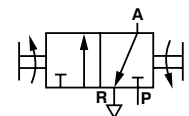
Tech Sheet 3038



Lever/Lever, 1/8" BSPP

0335	Colour
KSY-06	

Tech Sheet 3038



Switch, 1/8" BSPP

0335	Colour
KSCHS-06-B	Black
KSCHS-06-G	Green
KSCHS-06-R	Red

Tech Sheet 3038



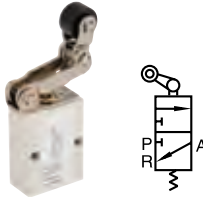
° Working Temperature:
-20°C to +70°C

Mechanical 3/2 Way Valves

Maximum Working Pressure:
8 bar

One Way Roller Lever, 1/8" BSPP

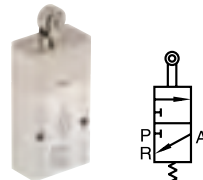
0335
KSCV-06
Tech Sheet 3038



Maximum Working Pressure:
8 bar

Roller, 1/8" BSPP

0335
KSCV-06
Tech Sheet 3038



Maximum Working Pressure:
8 bar

Roller Lever, 1/8" BSPP

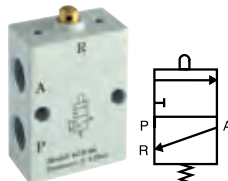
0335
KSCR-06
Tech Sheet 3038



Maximum Working Pressure:
8 bar

Plunger, 1/8" BSPP

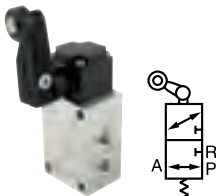
0335
KCB-06
Tech Sheet 3038



Maximum Working Pressure:
10 bar

Roller/Spring, 1/8" BSPP

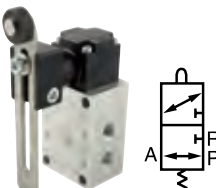
0335
ZMCR-06-W
Tech Sheet 10061



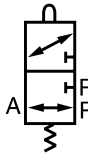
Maximum Working Pressure:
10 bar

Adjustable Roller/Spring, 1/8" BSPP

0335
ZMCJ-06-W
Tech Sheet 10061



Maximum Working Pressure:
10 bar



Antenna/Spring, 1/8" BSPP

0335
ZMCP-06-W
Tech Sheet 10061



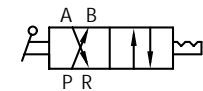
Manual 4/2 Way Valves

Maximum Working Pressure:
10 bar

Lever/Lever, BSPP

0335	Thread
DKHV210-06-S	1/8"
DKHV310-08-S	1/4"
DKHV310-10-S	3/8"
DKHV410-15-S	1/2"
DKHV410-20-S	3/4"

Tech Sheet 3033



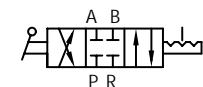
Manual 4/3 Way Valves

Maximum Working Pressure:
10 bar

Lever/Lever/Lever (Fully Sealed Mid Position), BSPP

0335	Thread
DKHV230-C-06-S	1/8"
DKHV330-C-08-S	1/4"
DKHV330-C-10-S	3/8"
DKHV430-C-15-S	1/2"
DKHV430-C-20-S	3/4"

Tech Sheet 3033



° Working Temperature:
-20°C to +70°C



Manual 5/2 Way Valves

Maximum Working Pressure:
8 bar



Push/Pull, BSPP

0335	Thread
DKL110-06	1/8"
DKL210-08	1/4"
DKL310-10	3/8"

Tech Sheet 3034



Maximum Working Pressure:
8 bar



Lever/Lever, BSPP

0335	Thread
DKH210-06	1/8"
DKH310-08	1/4"
DKH310-10	3/8"

Tech Sheet 3041



Manual 5/3 Way Valves

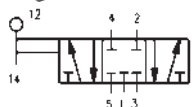
Maximum Working Pressure:
8 bar



Lever/Lever/Lever, Fully Sealed Mid Position, BSPP

0335	Thread
DKH230-C-06	1/8"
DKH230-C-08	1/4"
DKH330-C-10	3/8"

Tech Sheet 3045



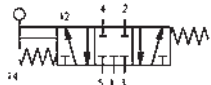
Maximum Working Pressure:
8 bar



Lever/Spring/Lever, Fully Sealed Mid Position, BSPP

0335	Thread
DKHA230-C-06	1/8"
DKHA230-C-08	1/4"
DKHA330-C-10	3/8"

Tech Sheet 3046



Manual 5/2 Way Foot Valves

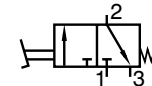
Maximum Working Pressure:
8 bar



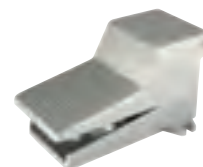
Foot/Spring, 1/4" BSPP

0335	Description
DKF210-08	-
DKF210-08G	Guarded

Tech Sheet 3055



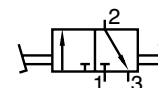
Maximum Working Pressure:
8 bar



Foot/Foot, 1/4" BSPP

0335	Description
DKF210-08L	-
DKF210-08LG	Guarded

Tech Sheet 3055



Flow Control Valves

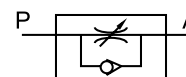
Maximum Working Pressure:
0.5 to 10 bar



Uni-directional, BSPP

0335	Thread
K100-06	1/8"
K200-08	1/4"
K300-10	3/8"
K300-15	1/2"

Tech Sheet 3056



3/2 Hand Slide Valves

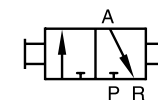
Maximum Working Pressure:
10 bar



Hand Slide Valves, BSPP

0335	Thread
KSV-06	1/8"
KSV-08	1/4"
KSV-10	3/8"
KSV-15	1/2"
KSV-20	3/4"
KSV-25	1"

Tech Sheet 3035



MECHANICAL VALVES, MINIATURE



Technical Data

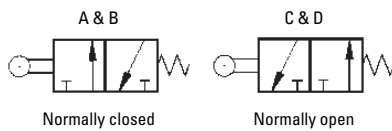
- Valve fitting port: push-in fitting for pip diameter, 4mm tube or M5 thread
- Fluid: filtered air without lubrication. Lubrication, if used, must be continuous
- Type: with poppet
- Nominal diameter: 2.5mm
- Conductance C: 16.5 NI/min – bar
- Critical ratio b: 0.003 bar/bar
- Flow rate at 6 bar P 0.5 bar: 35 NI/min
- Flow rate at 6 bar P 1 bar: 60 NI/min
- Actuation force, plunger at 6 bar: 8N

- Recommended lubricant: ISO and UNI FD22
- Installation: in any position

Operating Temperature Range:
10°C to +60°C

Operating Pressure:
0.5-10 bar

'VME' Roller Valve



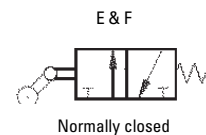
4mm Push-in Fittings

9149	Description	Figure
W3501000200	3/2 Way, Normally Closed, Bottom Ported	A
W3501001201	3/2 Way, Normally Closed, Side Ported	B
W3501000201	3/2 Way, Normally Open, Bottom Ported	C
W3501001200	3/2 Way, Normally Open, Side Ported	D

M5 Thread

9149	Description	Figure
W3501000211	3/2 Way, Normally Closed, Bottom Ported	A
W3501001211	3/2 Way, Normally Closed, Side Ported	B
W3501000210	3/2 Way, Normally Open, Bottom Ported	C
W3501001210	3/2 Way, Normally Open, Side Ported	D

'VME' One Way Roller Valve



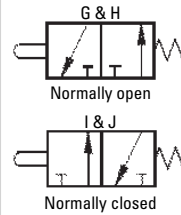
4mm Push-in Fittings

9149	Description	Figure
W3501000300	3/2 Way, Normally Closed, Bottom Ported	E
W3501001301	3/2 Way, Normally Closed, Side Ported	F

M5 Thread

9149	Description	Figure
W3501000311	3/2 Way, Normally Closed, Bottom Ported	E
W3501001311	3/2 Way, Normally Closed, Side Ported	F

'VME' Plunger Valve



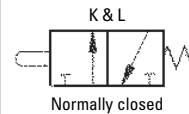
4mm Push-in Fittings

9149	Description	Figure
W3501000101	3/2 Way, Normally Open, Bottom Ported	G
W3501001100	3/2 Way, Normally Open, Side Ported	H
W3501000100	3/2 Way, Normally Closed, Bottom Ported	I
W3501001101	3/2 Way, Normally Closed, Side Ported	J

M5 Thread

9149	Description	Figure
W3501000110	3/2 Way, Normally Open, Bottom Ported	G
W3501001110	3/2 Way, Normally Open, Side Ported	H
W3501000111	3/2 Way, Normally Closed, Bottom Ported	I
W3501001111	3/2 Way, Normally Closed, Side Ported	J

'VME' Panel Mounted Plunger Valve



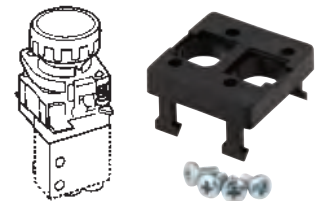
4mm Push-in Fittings

9149	Description	Figure
W3501000400	3/2 Way, Normally Closed, Bottom Ported	K
W3501001401	3/2 Way, Normally Closed, Side Ported	L

M5 Thread

9149	Description	Figure
W3501000411	3/2 Way, Normally Closed, Bottom Ported	K
W3501001411	3/2 Way, Normally Closed, Side Ported	L

Adaptor Plate



For 'VME' Push Button

9149	Description
0351000050	For Plunger Valves

MECHANICAL VALVES



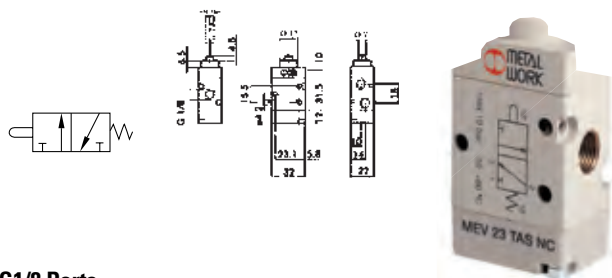
Technical Specification

- Nominal diameter: 5mm
- Flow rate at 6 bar P1Δ bar: 550 NI/min

Operating Temperature Range:
10°C to +60°C

Operating Pressure:
Direct control version: vacuum to 10 bar
Servo piloted version: 2.5 to 10 bar

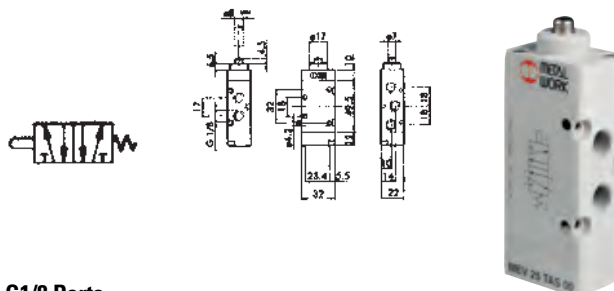
3/2 Plunger Valve



G1/8 Ports

9149	Description
7001000100	3/2 G1/8" Normally Closed

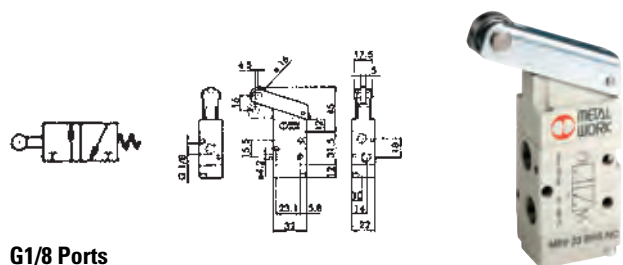
5/2 Plunger Valve



G1/8 Ports

9149	Description
7001000110	5/2 G1/8"

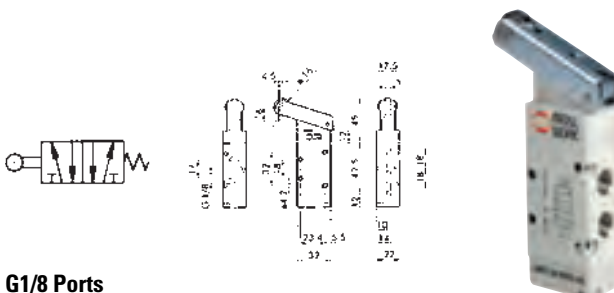
3/2 Roller Valve



G1/8 Ports

9149	Description
7001000500	3/2 G1/8" Normally Closed

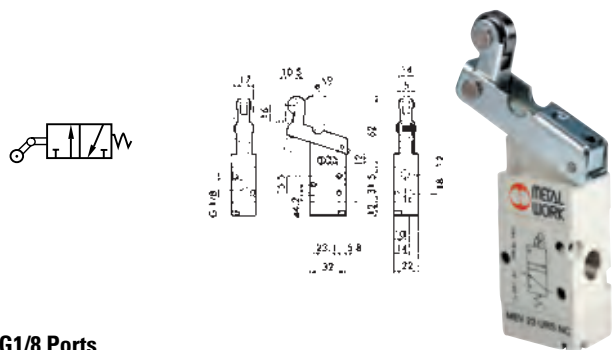
5/2 Roller Valve



G1/8 Ports

9149	Description
7001000510	5/2 G1/8"

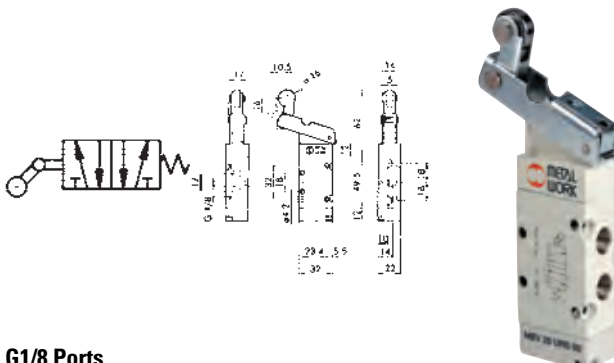
3/2 Unidirectional Lever Valve



G1/8 Ports

9149	Description
7001000600	3/2 G1/8" Normally Closed

5/2 Unidirectional Lever Valve



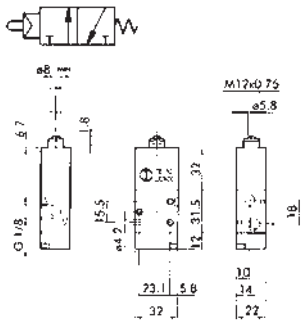
G1/8 Ports

9149	Description
7001000610	5/2 G1/8"

MECHANICAL VALVES



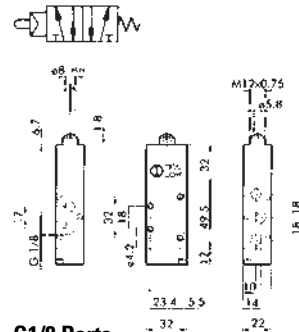
3/2 Sensitive Plunger Valve



G1/8 Ports

9149	Description
7001000200	3/2 G1/8" Normally Closed

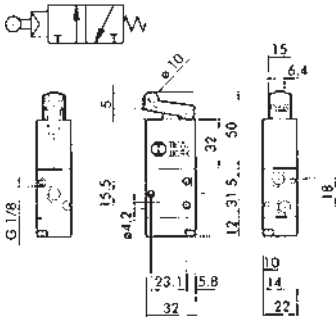
5/2 Sensitive Plunger Valve



G1/8 Ports

9149	Description
7001000210	5/2 G1/8"

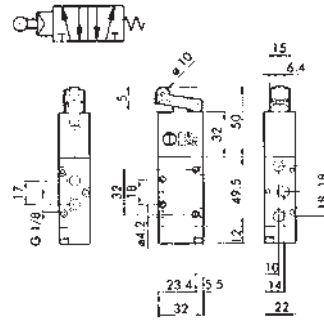
3/2 Sensitive Roller Lever Valve



G1/8 Ports

9149	Description
7001000400	3/2 G1/8" Normally Closed

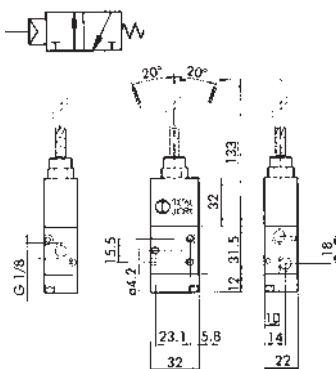
5/2 Sensitive Roller Lever Valve



G1/8 Ports

9149	Description
7001000410	5/2 G1/8"

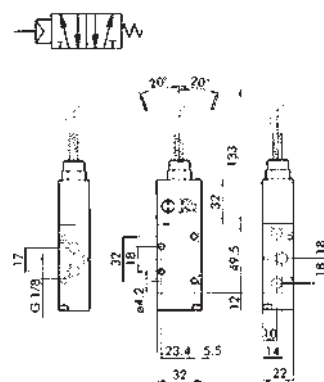
3/2 Sensitive Aerial Valve



G1/8 Ports

9149	Description
7001000700	3/2 G1/8" Normally Closed

5/2 Sensitive Aerial Valve



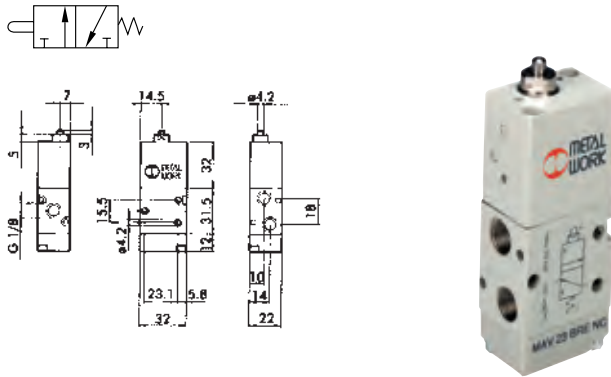
G1/8 Ports

9149	Description
7001000710	5/2 G1/8"

MECHANICAL VALVES



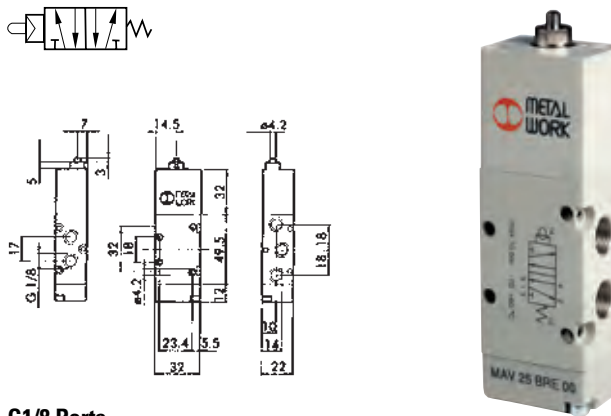
3/2 Plunger Valve for Manual Actuator



G1/8 Ports

9149	Description
7010001800	3/2 G1/8" Normally Closed

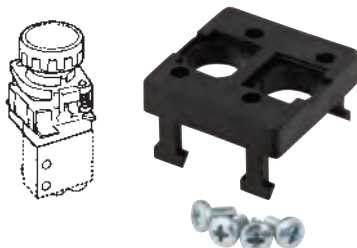
5/2 Plunger Valve for Manual Actuator



G1/8 Ports

9149	Description
7010001900	5/2 G1/8"

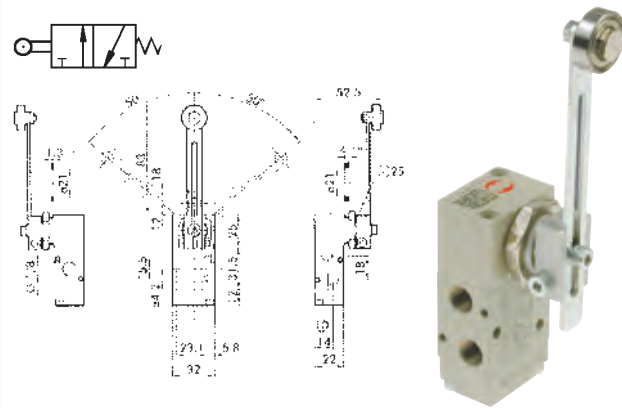
Adaptor Plate



For VME Push Button

9149	Description
0351000050	For Plunger Valves

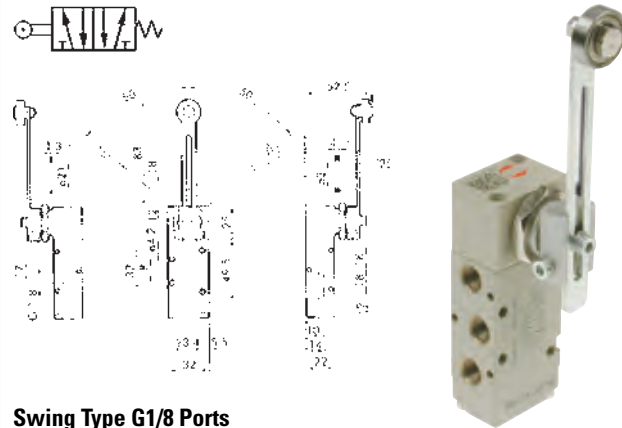
3/2 Roller Lever Valve



Swing Type G1/8 Ports

9149	Description
7001000900	3/2 G1/8" Ports Spring Return

5/2 Roller Lever Valve



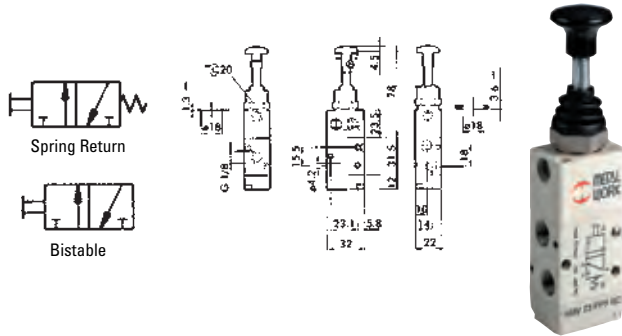
Swing Type G1/8 Ports

9149	Description
7001000910	5/2 G1/8" Ports Spring Return

HAND VALVES

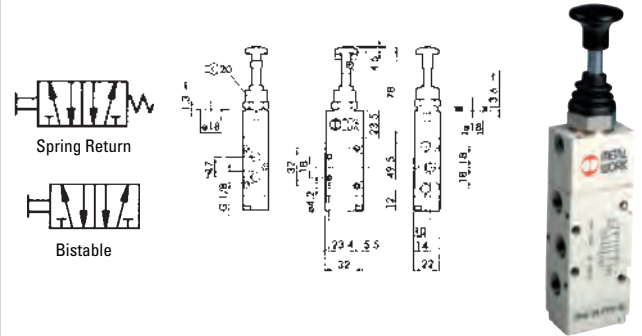


3/2 Push/Pull Valve



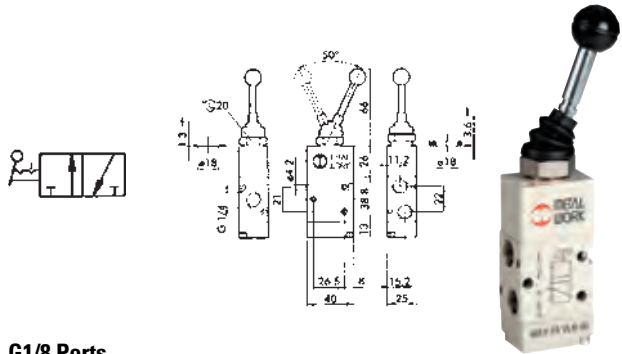
G1/8 Ports	Description
9149	
7010001200	3/2 NC Spring Return, G1/8"
7010001300	3/2 NC Bistable, G1/8"

5/2 Push/Pull Valve



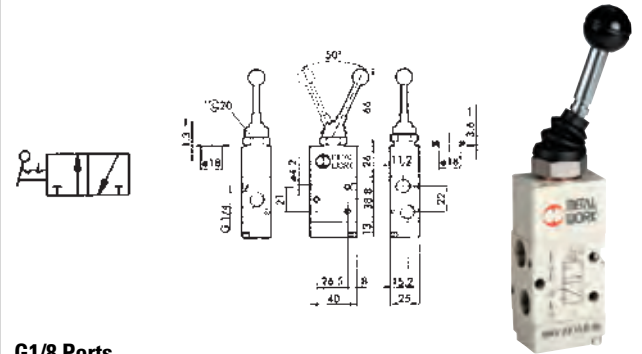
G1/8 Ports	Description
9149	
7010001500	5/2 Spring Return, G1/8"
7010001600	5/2 Bistable, G1/8"

3/2 Top Lever Valve



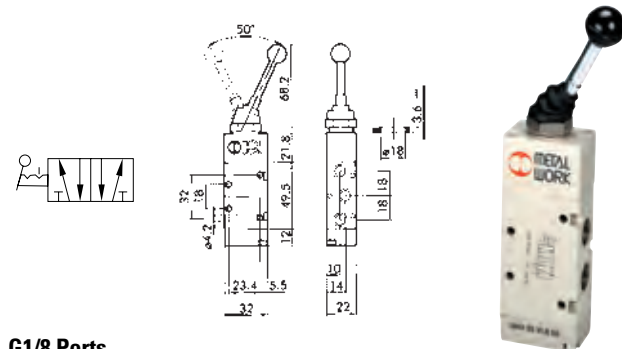
G1/8 Ports	Description
9149	
7010001400	3/2 Bistable, G1/8"

5/2 Top Lever Valve



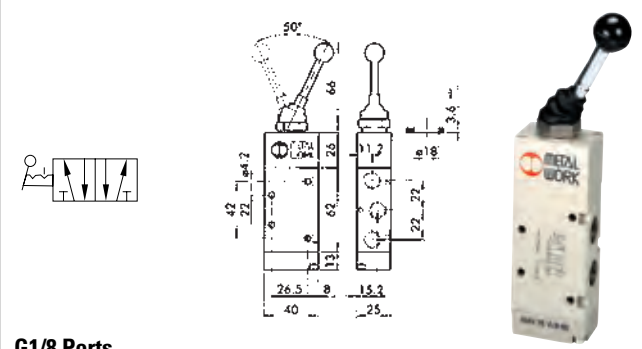
G1/8 Ports	Description
9149	
7020001400	3/2 Bistable, G1/4"

5/2 Top Lever Valve



G1/8 Ports	Description
9149	
7010001700	5/2 Bistable, G1/8"

5/2 Top Lever Valve

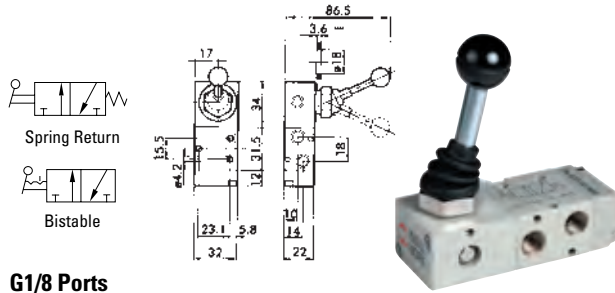


G1/8 Ports	Description
9149	
7020001700	5/2 Bistable, G1/4"

HAND VALVES



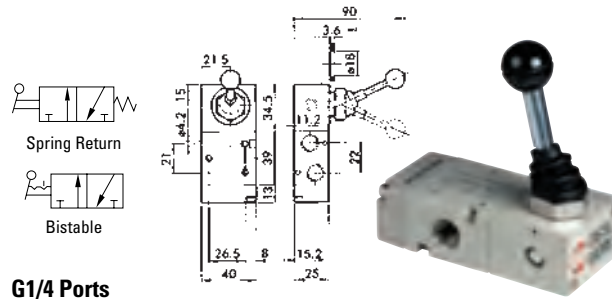
3/2 Lever Valve, 90°



G1/8 Ports

9149	Description
7010000100	3/2 NC Spring Return, G1/8"
7010000200	3/2 Bistable, G1/8"

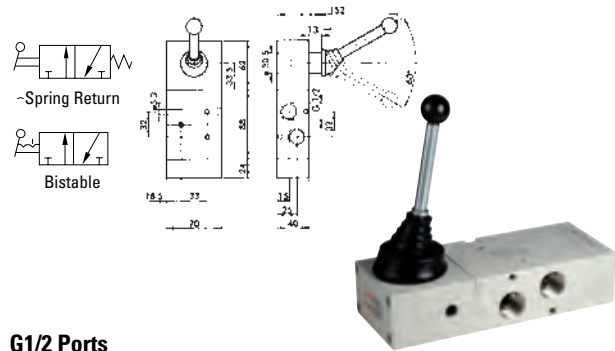
3/2 Lever Valve, 90°



G1/4 Ports

9149	Description
7020000100	3/2 NC Spring Return, G1/4"
7020000200	3/2 Bistable, G1/4"

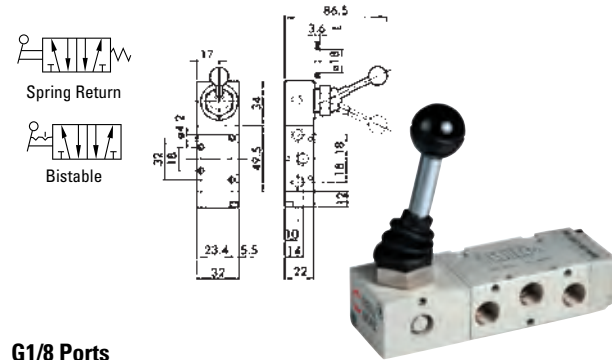
3/2 Lever Valve, 90°



G1/2 Ports

9149	Description
7030000100	3/2 NC Spring Return, G1/2"
7030000200	3/2 Bistable, G1/2"

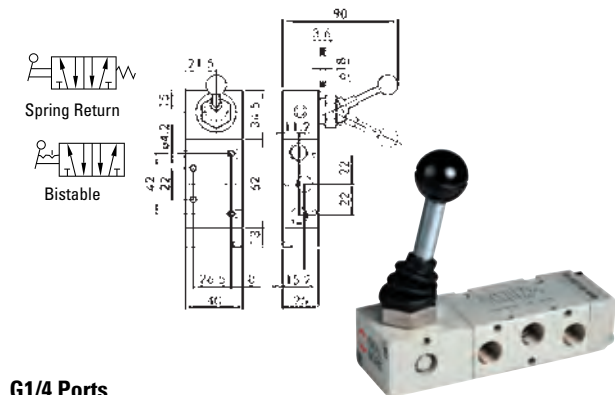
5/2 Lever Valve, 90°



G1/8 Ports

9149	Description
7010000300	5/2 Spring Return, G1/8"
7010000400	5/2 Bistable, G1/8"

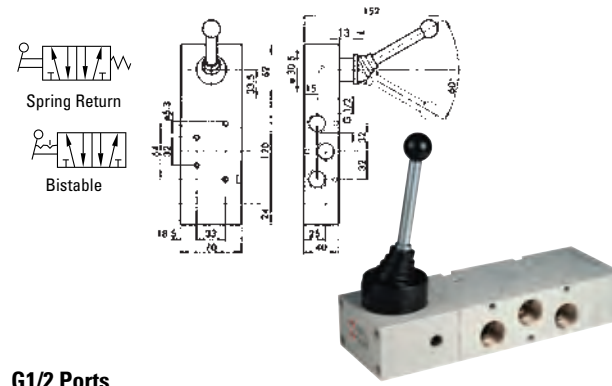
5/2 Lever Valve, 90°



G1/4 Ports

9149	Description
7020000300	5/2 Spring Return, G1/4"
7020000400	5/2 Bistable, G1/4"

5/2 Lever Valve, 90°

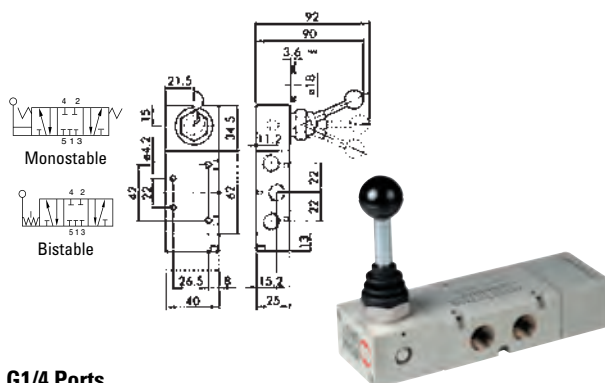


G1/2 Ports

9149	Description
7030000300	5/2 Spring Return, G1/2"
7030000400	5/2 Bistable, G1/2"

HAND VALVES

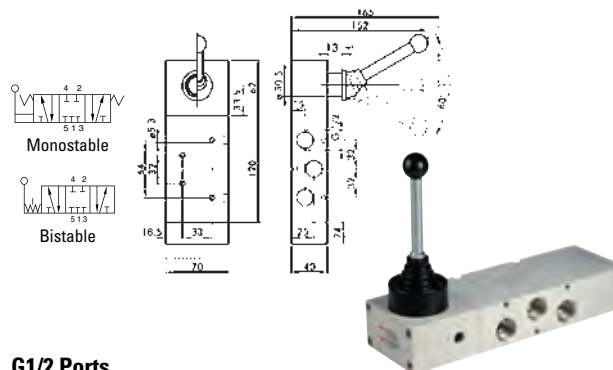
5/3 Lever Valve, Closed Centres



G1/4 Ports

9149	Description
7020001000	5/3 CC Monostable, G1/4"
7020000500	5/3 CC Bistable, G1/4"

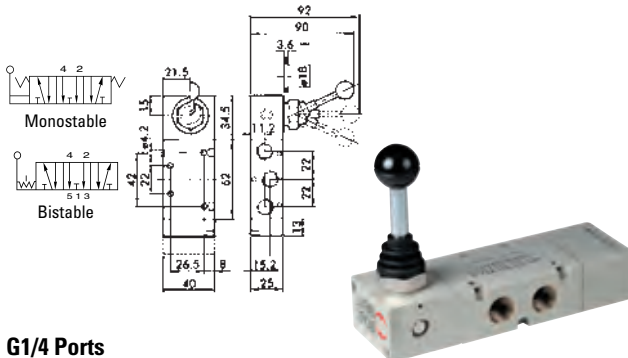
5/3 Lever Valve, Closed Centres



G1/2 Ports

9149	Description
7030001000	5/3 CC Monostable, G1/2"
7030000500	5/3 CC Bistable, G1/2"

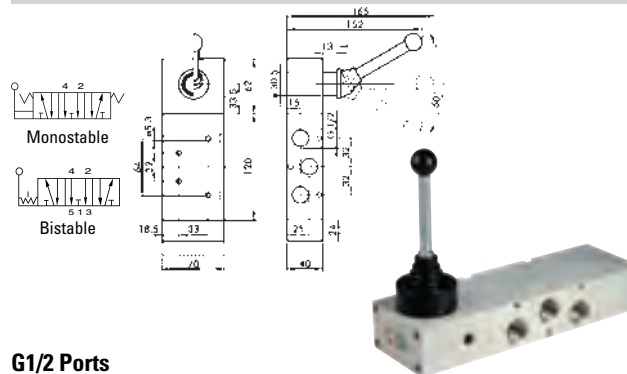
5/3 Lever Valve, Open Centres



G1/4 Ports

9149	Description
7020000900	5/3 OC Monostable, G1/4"
7020000600	5/3 OC Bistable, G1/4"

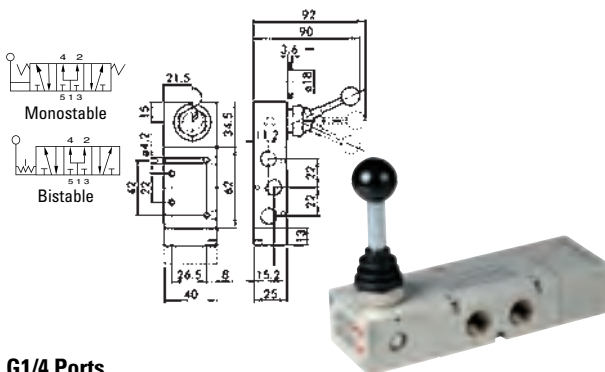
5/3 Lever Valve, Open Centres



G1/2 Ports

9149	Description
7030000900	5/3 CC Monostable, G1/2"
7030000600	5/3 CC Bistable, G1/2"

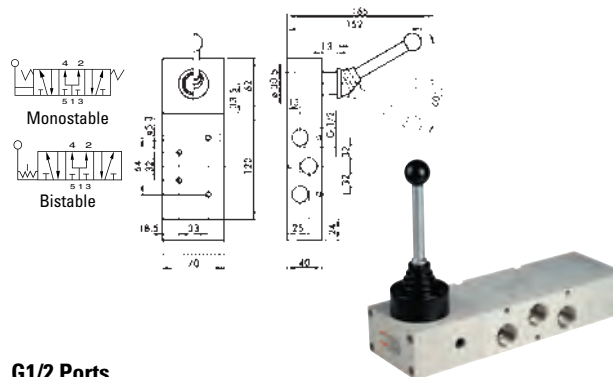
5/3 Lever Valve, Pressurised Centres



G1/4 Ports

9149	Description
7020001100	5/3 PC Monostable, G1/4"
7020000700	5/3 PC Bistable, G1/4"

5/3 Lever Valve, Pressurised Centres



G1/2 Ports

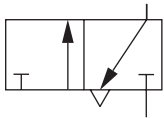
9149	Description
7030001100	5/3 PC Monostable, G1/2"
7030000700	5/3 PC Bistable, G1/2"

M/1553 In-line

- Extremely compact
- Extensive range of electrical style operating heads
- Very light operating forces
- Particularly suitable for control panels

° Working Temperature:
-20°C to +80°C

Working Pressure:
-0,9 to 10 bar



Medium:
Compressed air, filtered, lubricated and non-lubricate

Panel Mounting:
Hole size Ø 22 mm thickness 5 mm

Flow: 59 L/min

Body: Plastic

Roller Operator: Plastic

Plunger: Brass

Seals: Nitrile



Mechanical

0036	Thread	Function	Actuation
M/1553/14	M5	3/2	Plunger/Spring
M/1553/8	M5	3/2	Roller/Spring

Tech Sheet 10530

T-Lockouts

- Fully isolates supply pressure
- Lockable
- Rapid exhaust
- Ideal for isolating supply lines during maintenance and servicing
- High flo



CR14, BSPP

0036	BSPP Thread
CR143B	3/8"
CR143C	1/2"
CR144A	3/4" (1" body)

Tech Sheet 20742

Two-Hand Control Unit

° Working Temperature:
+5°C to +40°C

Working Pressure:
3 to 8 bar



XSHC04

0036
XSHC04

Tech Sheet 1346

S/666, S/667 In-line

- Poppet design – high flow with compact size
- Extensive range of mechanical and manual operators
- Long established design – proven reliability
- Normally open and normally closed models

° Working Temperature:
-20°C to +80°C

Working Pressure:
2-10 bar

Medium:
Compressed air, filtered lubricated and non-lubricated

Panel Mounting:
Hole size Ø 29 mm
(Ø 16 mm lever valves)

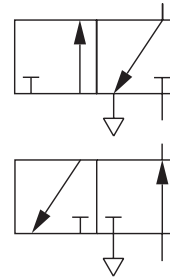
Thickness 9,5 mm
(4 mm lever valves)

Flow:
N/C: 197 L/min
N/O: 177 L/min

Body:
Die-cast zinc alloy

Piston: Plastic

Seals: Nitrile



Mechanical

0036	Thread	Function	Actuation
S/666/14	G1/8	3/2 N/C	Plunger/Spring
S/667/14	G1/8	3/2 N/O	Plunger/Spring
S/666/8	G1/8	3/2 N/C	Roller/Spring
S/667/8	G1/8	3/2 N/O	Roller/Spring
S/666/108	G1/8	3/2 N/C	Variable Roller/Spring

Tech Sheet 10531

Manual

0036	Thread	Function	Actuation	Colour
S/666/1	G1/8	3/2 N/C	Button/Spring	-
PS/666/1/R	G1/8	3/2 N/C	Button (Panel Mounting)/Spring	Red
PS/666/1/G	G1/8	3/2 N/C	Button (Panel Mounting)/Spring	Green
PS/666/1/N	G1/8	3/2 N/C	Button (Panel Mounting)/Spring	Black
S/666/6	G1/8	3/2 N/C	Lever/Spring (Panel Mounting)	-
S/666/7	G1/8	3/2 N/C	Lever/Lever (Panel Mounting)	-
S/666/117	G1/8	3/2 N/C	Lever (Long)/Lever (Panel Mounting)	-

Tech Sheet 10531

SUPER X ACTUATED IN-LINE



Mechanically & Manually

- Wide range of operators
- Suitable for multi-directional flow and dual supply applications
- High flow capacity
- Lightweight corrosion resistant materials

Medium:
Compressed air, filtered, lubricated and non-lubricated

Flow: Size L/min
G1/8 335
G1/4 965

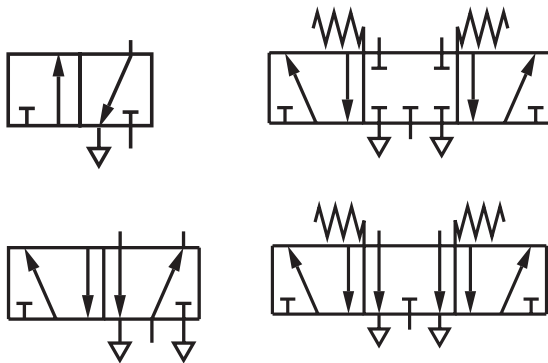
End Cover:
Aluminium or glass filled nylon

Seals:
Nitrile rubber

Body:
Die-cast aluminium alloy

Working Temperature:
0°C to +70°C

Maximum Working Pressure:
10 bar



Mechanical

0036	Thread	Function	Actuation
0304002	G1/8	3/2	Plunger/Spring
03040202	G1/8	3/2	Roller/Spring
03029302	G1/8	3/2	Roller Lever (Heavy-duty)/Spring
03029402	G1/8	3/2	One Way Trip (Heavy-duty)/Spring
03043202	G1/8	3/2	Antenna Valve
X3044002	G1/8	5/2	Plunger/Spring
X3045102	G1/8	5/2	Roller Lever/Spring
X3039302	G1/8	5/2	Roller Lever (Heavy-duty)/Spring
X3046302	G1/8	5/2	Sensitive Roller Lever/Spring
X3047202	G1/8	5/2	Antenna/Spring
03060002	G1/4	3/2	Plunger/Spring
03060202	G1/4	3/2	Roller/Spring
03061102	G1/4	3/2	Roller Lever/Spring
X3064002	G1/4	5/2	Plunger/Spring
X3064202	G1/4	5/2	Roller/Spring
X3065102	G1/4	5/2	Roller Lever/Spring

Tech Sheet 10582



Manual

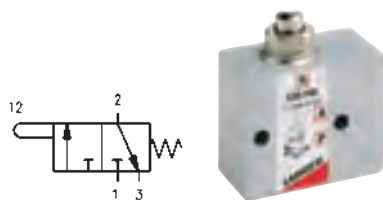
0036	Thread	Function	Actuation	Colour
03040402	G1/8	3/2	Button/Spring	Black
03040502	G1/8	3/2	Button/Spring	Green
03040602	G1/8	3/2	Button/Spring	Red
03036602	G1/8	3/2	Button Palm/Spring	Red
03036702	G1/8	3/2	Button Palm/Spring	Green
03036802	G1/8	3/2	Button Palm/Spring	Black
03041402	G1/8	3/2	Button (Shrouded)/Spring	Black
03041502	G1/8	3/2	Button (Shrouded)/Spring	Green
03041602	G1/8	3/2	Button (Shrouded)/Spring	Red
03040802	G1/8	3/2	Button/Pilot	Black
03043802	G1/8	3/2	Lever/Spring	Black
03042602	G1/8	3/2	Lever Knob/Spring	Black
03043702	G1/8	3/2	Lever/Lever	Black
03040302	G1/8	3/2	Toggle/Toggle	Black
03042502	G1/8	3/2	Knob/Knob	Black
X3045502	G1/8	5/2	Button (Shrouded)/Spring	Green
X3044802	G1/8	5/2	Button/Pilot	Black
X3046502	G1/8	5/2	Knob, Push/Knob, Pull	Black
X3047802	G1/8	5/2	Lever/Spring	Black
X3044302	G1/8	5/2	Toggle/Toggle	Black
X3047702	G1/8	5/2	Lever/Lever	Black
X3046402	G1/8	5/2	Knob/Knob or Pilot	Black
X3048202	G1/8	5/2	Pedal/Spring	Black
X3048402	G1/8	5/2	Pedal/Pedal	Black
X3343802	G1/8	5/3	Lever/Spring/Lever	Black
X3347802	G1/8	5/3	Lever/Spring/Lever	Black
X3343702	G1/8	5/3	Lever/Lever/Lever	Black
03060402	G1/4	3/2	Button/Spring	Black
03063802	G1/4	3/2	Lever/Spring	Black
03063702	G1/4	3/2	Lever/Lever	Black
03062502	G1/4	3/2	Knob/Knob	Black
X3064402	G1/4	5/2	Button/Spring	Black
X3067802	G1/4	5/2	Lever/Spring	Black
X3067702	G1/4	5/2	Lever/Lever	Black
X3066502	G1/4	5/2	Knob/Knob	Black
X3068202	G1/4	5/2	Pedal/Spring	Black
X3068402	G1/4	5/2	Pedal/Pedal	Black
X3363802	G1/4	5/3	Lever/Spring/Lever	Black
X3367802	G1/4	5/3	Lever/Spring/Lever	Black
X3363702	G1/4	5/3	Lever/Lever/Lever	Black

Tech Sheet 10582

DIRECTIONAL CONTROL VALVES



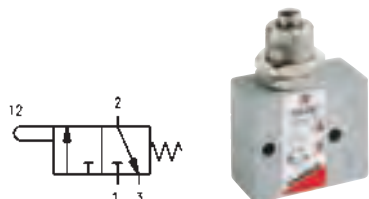
Series 2, Mechanically Operated Mini-Valves



3/2 Plunger Type Valves

0158	Thread
235 945	M5
234 945	Ø4mm

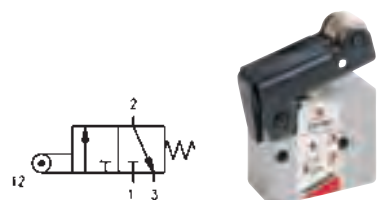
Tech Sheet 1850



3/2 Panel Mounted Plunger Type Valves

0158	Thread
235 985	M5
234 985	Ø4mm

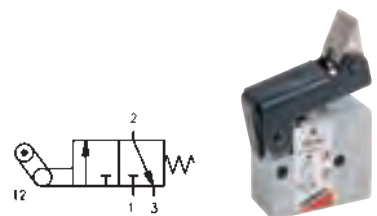
Tech Sheet 1850



3/2 Roller Lever Type Valves

0158	Thread
235 955	M5
234 955	Ø4mm

Tech Sheet 1850

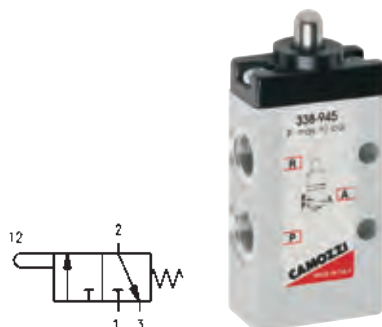


3/2 One Way Trip Type Valves

0158	Thread
235 965	M5
234 965	Ø4mm

Tech Sheet 1850

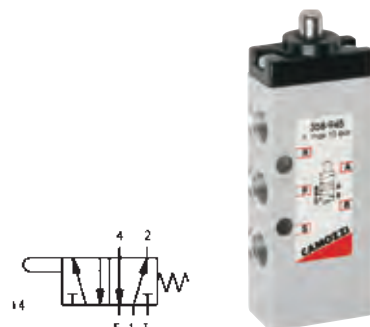
Series 3, Mechanically Operated Valves



G1/8\", 3/2 Plunger Type Valve

0158	Thread
338 945	G1/8"

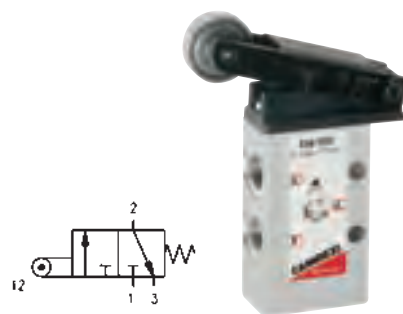
Tech Sheet 1851



G1/8\", 5/2 Plunger Type Valve

0158	Thread
358 945	G1/8"

Tech Sheet 1851



G1/8\", 3/2 Roller Lever Type Valve

0158	Thread
338 955	G1/8"

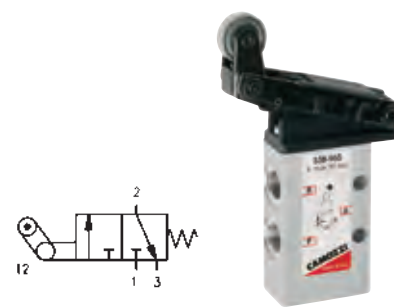
Tech Sheet 1851



G1/8\", 5/2 Roller Lever Type Valve

0158	Thread
358 955	G1/8"

Tech Sheet 1851



G1/8\", 3/2 Roller Lever One Way Trip Type Valve

0158	Thread
338 965	G1/8"

Tech Sheet 1851



G1/8\", 5/2 Roller Lever One Way Trip Type Valve

0158	Thread
358 965	G1/8"

Tech Sheet 1851

DIRECTIONAL CONTROL VALVES



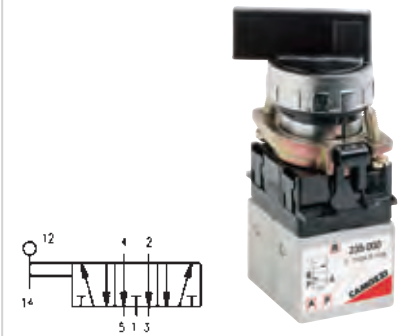
Series 2, Manually Operated Console Mini-Valves


3/2 Push Button Spring Return Valves

0158	Thread
235 895	M5
234 895	Ø4mm
Tech Sheet 1852	


3/2 Stable Palm Switch

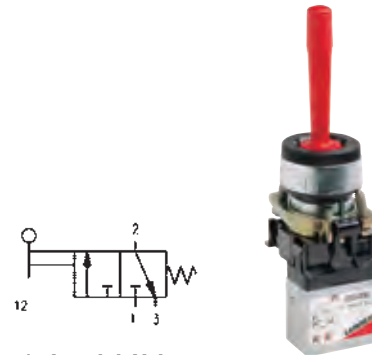
0158	Thread
235 970	M5
234 970	Ø4mm
Tech Sheet 1852	


5/3 3 Position Selector Switch

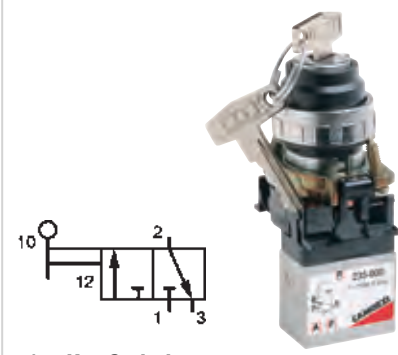
0158	Thread
285 870	M5
284 870	Ø4mm
Tech Sheet 1852	


3/2 Palm Switch Spring Return Valves

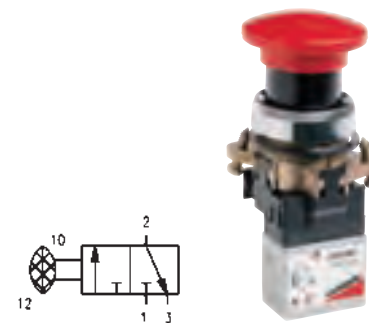
0158	Thread
235 975	M5
234 975	Ø4mm
Tech Sheet 1852	


3/2 Joystick Valve

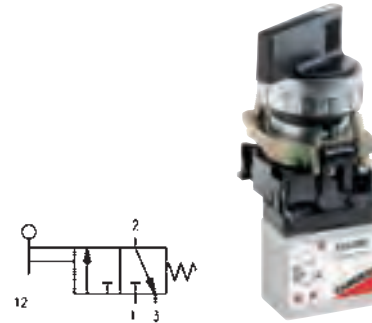
0158	Thread
235 905	M5
234 905	Ø4mm
Tech Sheet 1852	


3/2 3 Key Switch

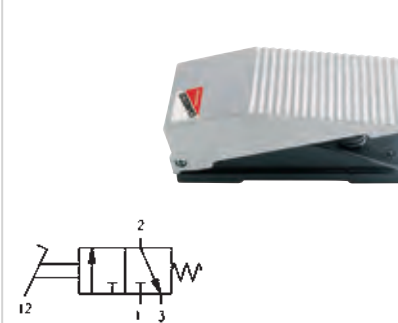
0158	Thread
235 904	M5
234 904	Ø4mm
Tech Sheet 1852	


3/2 Twist Lock Palm Switch

0158	Thread
235 972	M5
234 972	Ø4mm
Tech Sheet 1852	


3/2 2 Position Selector Switch

0158	Thread
235 990	M5
234 990	Ø4mm
Tech Sheet 1852	


3/2 Foot Operated Valves

0158	Thread
235 925	M5
234 925	Ø4mm
Tech Sheet 1852	

DIRECTIONAL CONTROL VALVES



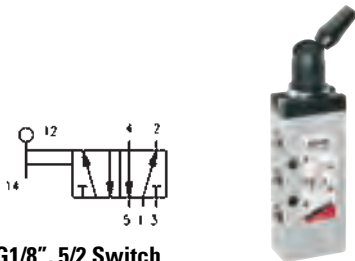
Series 3, 4 & VMS Manually Operated Valves



G1/8", 3/2 NC Switch

0158	Thread
338 990	G1/8"

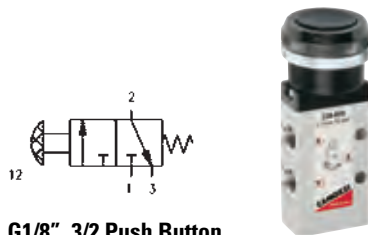
Tech Sheet 10309



G1/8", 5/2 Switch

0158	Thread
358 990	G1/8"

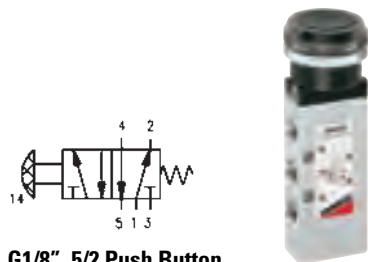
Tech Sheet 10309



G1/8", 3/2 Push Button

0158	Thread	Colour
338 895	G1/8"	Black
338 896	G1/8"	Green
338 897	G1/8"	Red

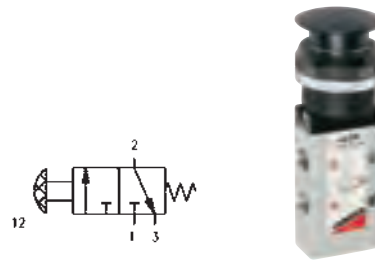
Tech Sheet 10309



G1/8", 5/2 Push Button

0158	Thread	Colour
358 895	G1/8"	Black
358 896	G1/8"	Green
358 897	G1/8"	Red

Tech Sheet 10309



G1/8", 3/2 Palm Switch

0158	Thread	Colour
338 975	G1/8"	Black
338 976	G1/8"	Green
338 977	G1/8"	Red

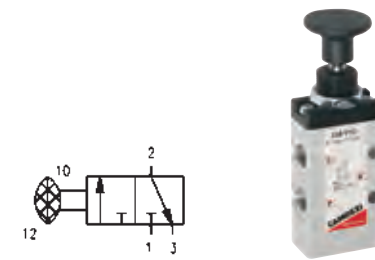
Tech Sheet 10309



G1/8", 5/2 Palm Switch

0158	Thread	Colour
358 975	G1/8"	Black
358 976	G1/8"	Green
358 977	G1/8"	Red

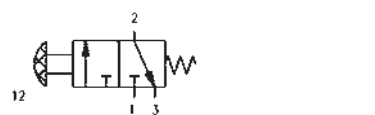
Tech Sheet 10309



G1/8", 3/2 Push/Pull Knob Bistable

0158	Thread
338 910	G1/8"

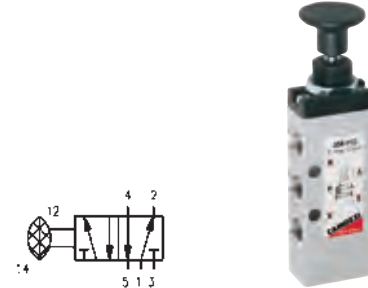
Tech Sheet 10309



G1/8", 3/2 Push Knob Monostable

0158	Thread
338 915	G1/8"

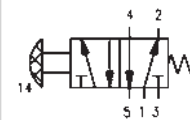
Tech Sheet 10309



G1/8", 5/2 Push/Pull Knob Bistable

0158	Thread
358 910	G1/8"

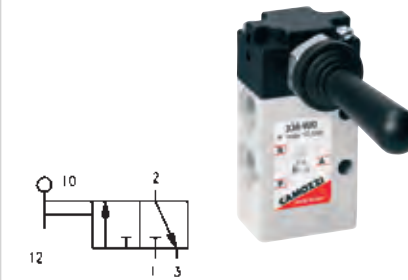
Tech Sheet 10309



G1/8", 5/2 Push Knob Monostable

0158	Thread
358 915	G1/8"

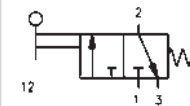
Tech Sheet 10309



G1/8", 3/2 Lever Valve Bistable

0158	Thread
338 900	G1/8"

Tech Sheet 10309



G1/8", 3/2 Lever Valve Monostable

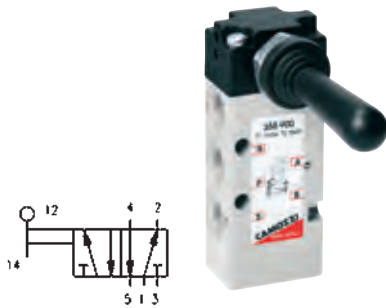
0158	Thread
338 905	G1/8"

Tech Sheet 10309

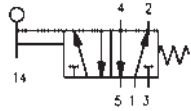
DIRECTIONAL CONTROL VALVES



Series 3, 4 & VMS Manually Operated Valves


G1/8", 5/2 Lever Valve Bistable

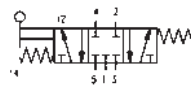
0158	Thread
358 900	G1/8"
Tech Sheet 10309	


G1/8", 5/2 Lever Valve Monostable

0158	Thread
358 905	G1/8"
Tech Sheet 10309	


G1/8", 5/3 CC Lever Valve Bistable

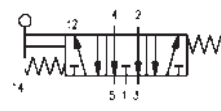
0158	Thread
368 900	G1/8"
Tech Sheet 10309	


G1/8", 5/3 CC Lever Valve Monostable

0158	Thread
368 905	G1/8"
Tech Sheet 10309	


G1/8", 5/3 CO Lever Valve Bistable

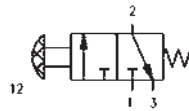
0158	Thread
378 900	G1/8"
Tech Sheet 10309	


G1/8", 5/3 CO Lever Valve Monostable

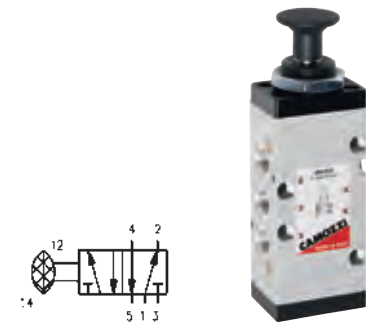
0158	Thread
378 905	G1/8"
Tech Sheet 10309	


G1/4", 3/2 Push/Pull Knob Bistable

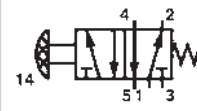
0158	Thread
434 910	G1/4"
Tech Sheet 10309	


G1/4", 3/2 Push Knob Monostable

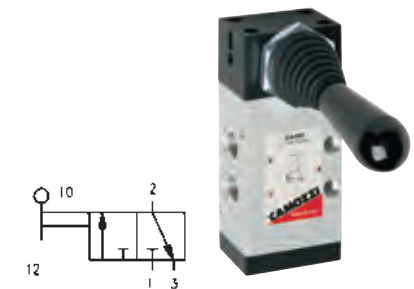
0158	Thread
434 915	G1/4"
Tech Sheet 10309	


G1/4", 5/2 Push/Pull Knob Bistable

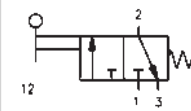
0158	Thread
454 910	G1/4"
Tech Sheet 10309	


G1/4", 5/2 Push Knob Monostable

0158	Thread
454 915	G1/4"
Tech Sheet 10309	


G1/4", 3/2 Lever Bistable

0158	Thread
434 900	G1/4"
Tech Sheet 10309	


G1/4", 3/2 Lever Monostable

0158	Thread
434 905	G1/4"
Tech Sheet 10309	

DIRECTIONAL CONTROL VALVES

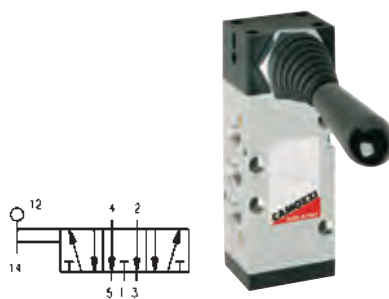


Series 3, 4 & VMS Manually Operated Valves



G1/4\", 5/2 Lever Valve Bistable

0158	Thread
454 900	G1/4"
Tech Sheet 10309	



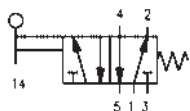
G1/4\", 5/3 CO Lever Valve Bistable

0158	Thread
474 900	G1/4"
Tech Sheet 10309	



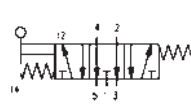
Slide Valves

0158	Thread
VMS 105 M5	M5
VMS 118 1/8	1/8"
VMS 114 1/4	1/4"
VMS 138 3/8	3/8"
VMS 112 1/2	1/2"
VMS 134 3/4	3/4"
Tech Sheet 10309	



G1/4\", 5/2 Lever Valve Monostable

0158	Thread
454 905	G1/4"
Tech Sheet 10309	



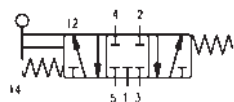
G1/4\", 5/3 CO Lever Valve Monostable

0158	Thread
474 905	G1/4"
Tech Sheet 10309	



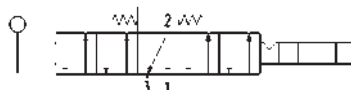
G1/4\", 5/3 CC Lever Valve Bistable

0158	Thread
464 900	G1/4"
Tech Sheet 10309	



G1/4\", 5/3 CC Lever Valve Monostable

0158	Thread
464 905	G1/4"
Tech Sheet 10309	



G1/8\", 3/2 Joystick Lever Valve

0158	Thread
234 9054	G1/8"
Tech Sheet 10309	

PNEUMATIC VALVES & ACCESSORIES

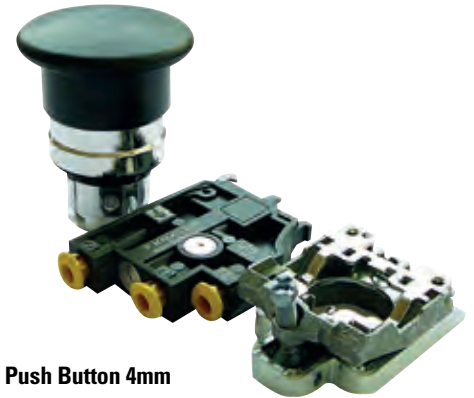


Parker Mechanical Valves



Push Button & Valve Spring Return 4mm Push-in

0678	Flow l/min	Description
PXB-B4131BA2	240	Black with 1 NC Valve



Mushroom Head Push Button 4mm Push-in

0678	Flow l/min	Description
PXB-B4131BC2	240	Black - Spring Return - with 1 NC Valve



Selector Switch & Valve 4mm Push-in

0678	Flow l/min	Description
PXB-B4131BD2	240	Black - 2 Positions - with 1 NC Valve



Latching Push Button 4mm Push-in

0678	Flow l/min	Description
PXB-B4131BT4	240	Red - Latching - with 1 NC Valve



stainless
steel

For **Parker Angle Seat Valves**
see page **1051**

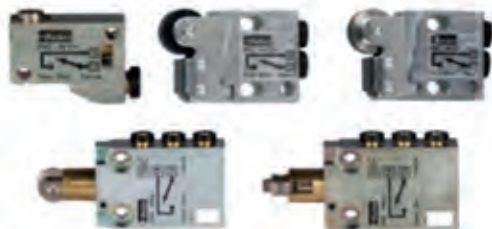


Mechanical Valves



Push Buttons & Valves (Separate Components)

0681	Description
PXB-B4931	Switch Valve - Flow 240 l/min NO/NC



Micro Plunger & Roller Limit Valves 4mm

0681	Actuator	Return
PXC-M601A110	Steel Plunger	Spring Return
PXC-M121	Plastic Roller	Spring Return
PXC-M521	Plastic Roller	Spring Return



B43 / B53 Lever Valves G1/8" - G1/4"

0681	Type	Actuator	Return	Thread BSPP
B43003ES	3-2	Palm Lever	Spring Return	1/8"
B43003LS	3-2	Lock Down Lever	Spring Return	1/8"
B43004LS	5-2	Lock Down Lever	Spring Return	1/8"
B53003LT	3-2	Lever	Lever	1/4"
B53004LT	5-2	Lever	Lever	1/4"



B43 / B53 Valves 3/2 & 5/2 Button Operated G1/8" - G1/4"

0681	Type	Actuator	Return	Thread BSPP
B43003BXS	3-2	Button	Spring	1/8"
B43003HXS	3-2	Button	Button	1/8"
B53003HX	3-2	Button	Button	1/4"
B53004HXS	5-2	Button	Spring	1/4"
B43004HXS	5-2	Button	Button	1/8"



B43/B53 3/2 Trip Valves G1/8" - G1/4"

0681	Type	Actuator	Return	Thread BSPP
B43003CS	3-2	Plunger	Spring Return	1/8"
B43003RS	3-2	Roller Lever	Spring Return	1/8"
B43003RTS	3-2	One Way Roller Trip	Spring Return	1/8"



B53 Spool Valve Panel Mounting Kit

0681	Description
M53004L-10A	B53 Series Panel Mounting Kit



B43 / B53 Foot Pedal 3/2 & 5/2 Valves G1/8" - G1/4"

0681	Type	Actuator	Return	Thread BSPP
B43003FS	3-2	Foot Pedal	Spring Return	1/8"
B53003FS	3-2	Foot Pedal	Spring Return	1/4"
B53004FS	3-2	Foot Pedal	Spring Return	1/4"



Heavy-duty Lever 3/2 Poppet Valve G1/2"

0681	Actuator	Return	Thread BSPP
B203L	Lever	Lever	1/2"

PNEUMATIC VALVES & ACCESSORIES



Mechanical Valves



Viking Xtreme 3/2 & 5/2 Lever Operated G1/8" G1/4" & G1/2"

0681	Type	Actuator	Return	Thread BSPP
P2LAX511VV	5-2	Lever	Lever	1/8"
P2LAX511VS	5-2	Lever	Spring	1/8"
P2LDX514VS	5-2	Lever	Spring	1/2"



Viking Xtreme Valve 5/3 Lever Operated G1/4" & G1/2"

0681	Actuator	Mid Position	Return	Thread BSPP
P2L BX61222	Lever	Closed	Lever	1/4"
P2L BX61211	Lever	Closed	Spring	1/4"
P2L BX81211	Lever	Vented	Spring	1/4"

Pilot & Solenoid Valves



B3 Series 1/8" Valves Pilot & Solenoid

0681	Type	Actuator	Return	Voltage (if applicable)
B345000XXH	5-2	Air	Air	N/A



For **Parker Solenoid Valves**
see pages 1036-1038



3/2 PNEUMATIC VALVES

Series 104 Miniature Manual & Mechanical, 4mm Push-in Connectors



Handle complete with Integrated Valve, Metric 3/2 - 4mm

0110	Function
105.32.6.40C	Normally Closed



Tappet/Spring Return, Metric

0110	Function
104.32.0.1.LC	Normally Closed
104.32.0.1.PA	Normally Open



Lever Plastic Roller/Spring Return, Metric

0110	Function
104.32.2.1.LA	Normally Open
104.32.2.1.LC	Normally Closed
104.32.2.1.PA	Normally Open



Lever Unidirectional - Spring Return, Metric

0110	Function
104.32.3.1.PC	Normally Closed



Lever Metal Roller Bearing - Spring Return, Metric

0110	Function
104.32.2.1/1.LA	Normally Closed



Raised Push Button/Spring Return Side Connection, Metric

0110	Colour	Function
104.32.6.23/1.LC	Red	Normally Closed
104.32.6.23/3.LC	Green	Normally Closed



Raised Push Button/Spring Return Rear Connection, Metric

0110	Colour	Function
104.32.6.23/3.PC	Green	Normally Closed
104.32.6.23/4.PC	Yellow	Normally Closed



Palm Push Button Locking, Metric

0110	Colour	Function
104.32.6.25.PA	Red	Normally Open



Flush Push Button/Spring Return Side Connection, Metric

0110	Colour	Function
104.32.6.22/3.LC	Green	Normally Closed

3/2 PNEUMATIC VALVES



Series 104 Miniature Manual & Mechanical, 4mm Push-in Connectors



Flush Push Button/Spring Return Rear Connection, Metric

0110	Colour	Function
104.32.6.22/2.PC	Black	Normally Open



2/2 Switch Short Lever, Rear Connection

0110	Function
104.22.6.30.PC	Normally Closed



Raised Push Button/Step/Step, Side Connection, Metric

0110	Thread	Colour	Function
104.32.6.31.LA	Clear	Clear	Normally Open



Switch Long Lever, Side Connection

0110	Function
104.32.6.27.LC	Normally Closed



Key Switch, Rear Connection

0110	Function
104.32.6.28.PC	Normally Closed



Switch Short Lever, Side Connection

0110	Function
104.32.6.30.LC	Normally Closed
104.32.6.30.PC	Normally Closed



For Air Preparation
see pages 700-702



3/2 PNEUMATIC VALVES

Series Techno Manual & Mechanical



Tappet/Spring Return, BSPP

0110	Thread	Function
T228.32.0.1	1/8"	Normally Closed



Lever Plastic Roller/Spring Return, BSPP

0110	Thread	Function
T228.32.2.1	1/8"	Normally Closed



Lever Metal Roller/Spring Return, BSPP

0110	Thread	Function
T228.32.2.1/2	1/8"	Normally Closed



Lever Metal Roller Bearing/Spring Return, BSPP

0110	Thread	Function
T228.32.2.1/1	1/8"	Normally Closed



Push Button/Spring Return, BSPP

0110	Thread	Function
T224.32.8.1	1/4"	Normally Closed



Palm Push Button Locking, BSPP

0110	Thread	Function
T228.32.6.25	1/8"	Normally Closed



Flush 30mm Push Button/Spring Return, BSPP

0110	Thread	Colour
T228.32.6.1/2	1/8"	Black
T228.32.6.1/3	1/8"	Green



2 Position Key Switch, BSPP

0110	Thread
T228.32.6.28	1/8"



2 Position Switch Short Lever

0110	Thread	Function
T228.32.6.27	1/8"	Normally Closed



Lateral Lever

0110	Thread	Colour	Actuation
T228.32.9/2	1/8"	Black	Lever/Lever



Lateral Lever

0110	Thread	Colour	Actuation
T224.32.9.1/2	1/4"	Black	Lever/Spring
T224.32.9/2	1/4"	Black	Lever/Lever
T224.32.9/3	1/4"	Green	Lever/Lever

3/2 PNEUMATIC VALVES



Series 200 Manual & Mechanical



Tappet/Spring Return, BSPP

0110	Thread	Description	Function
228.32.0.1	1/8"	-	Normally Closed
228.32.1.1	1/8"	Panel Mount	Normally Closed



Lever Plastic Roller/Spring Return, BSPP

0110	Thread	Function
228.32.2.1	1/8"	Normally Closed



Lever Metal Roller/Spring Return, BSPP

0110	Thread	Function
228.32.2.1/2	1/8"	Normally Closed



Lever Metal Roller Bearing/Spring Return, BSPP

0110	Thread	Function
228.32.2.1/1	1/8"	Normally Closed



Lever Roller Bidirectional/Spring Return, BSPP

0110	Thread	Function
228.32.4.1	1/8"	Normally Closed



Push Button/Spring Return, BSPP

0110	Thread	Function
228.32.8.1	1/8"	Normally Closed



Palm Push Button Locking, BSPP

0110	Thread	Function
228.32.6.25	1/8"	Normally Closed



Flush 30mm Push Button/Spring Return, BSPP

0110	Thread	Function
228.32.6.1/2	1/8"	Normally Closed
228.32.6.1/1	1/8"	Normally Closed
228.32.6.1/3	1/8"	Normally Closed



Sensitive 30mm Push Button/Differential, BSPP

0110	Thread	Colour	Function
228.32.6.13/1	1/8"	Red	Normally Closed
228.32.6.13/3	1/8"	Green	Normally Closed



2 Position Key Switch, BSPP

0110	Thread	Function
228.32.6.28	1/8"	Normally Closed



Switch Short Lever, BSPP

0110	Thread	Function
228.32.6.27	1/8"	Normally Closed



Lever

0110	Thread	Colour	Actuation	Function
228.32.9.1/2	1/8"	Black	Spring Return	Normally Closed
228.32.9/2	1/8"	Black	Stable 2 Position	Normally Closed



Lever, BSPP

0110	Thread	Colour	Actuation	Function
224.32.9.1/2	1/4"	Black	Spring Return	Normally Closed
224.32.9.1/1	1/4"	Red	Spring Return	Normally Closed
224.32.9.2	1/4"	Black	Stable 2 Position	Normally Closed
224.32.9.3	1/4"	Green	Stable 2 Position	Normally Closed



Lever, BSPP

0110	Thread	Actuation
212.32.9.1	1/2"	Spring Return



Guarded Foot Valve

0110	Thread	Actuation	Function
228.32.10.2/1	1/8"	Foot/Spring	Normally Closed
228.32.10/1	1/8"	Foot/Foot	Normally Closed

5/2 PNEUMATIC VALVES



Series 104 Minature Manual & Mechanical, 4mm Push-in Connectors



Raised Push Button Step/Step, Metric

0110	Colour
104.52.6.31.L	Clear



**Flush Push Button/Spring Return/
Rear Connection, Metric**

0110	Colour
104.52.6.22/2.P	Black



**Switch Short Lever/
Side Connection, Metric**

0110
104.52.6.30.L



Palm Push Button Locking, Metric

0110	Colour
104.52.6.25.L	Red



Key Switch/Side Connection, Metric

0110
104.52.6.28.L

**Switch Short Lever/
Rear Connection, Metric**

0110
104.52.6.30.P



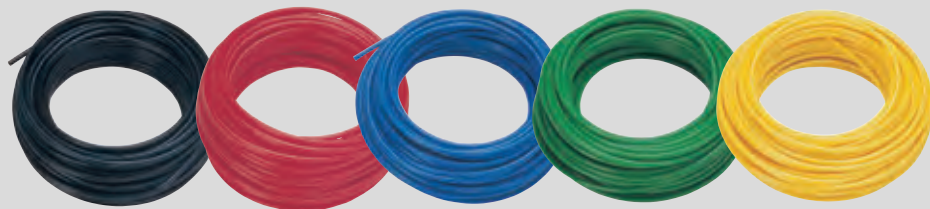
**Flush Push Button/Spring Return/
Side Connection, Metric**

0110	Colour
104.52.6.22/1.L	Red



**Switch Long Lever/Rear
Connection, Metric**

0110
104.52.6.27.P



For **Nylon Tube**
see pages **913-917**

5/2 PNEUMATIC VALVES



Series Techno Manual & Mechanical



Tappet /Spring Return/Panel Mount, BSPP

0110	Thread
T228.52.1.1	1/8"



Key Switch, BSPP

0110	Thread
T228.52.6.28	1/8"



Lateral Lever, BSPP

0110	Thread	Colour	Function
T228.52.9.1/3	1/8"	Green	Lever/Spring
T228.52.9/2	1/8"	Black	Lever/Lever
T228.52.9/1	1/8"	Red	Lever/Lever



Lever Metal Roller/Spring Return, BSPP

0110	Thread
T228.52.2.1/2	1/8"



Switch Short Lever, BSPP

0110	Thread
T228.52.6.27	1/8"



Lateral Lever, BSPP

0110	Thread	Colour	Description
T224.52.9.1/2	1/4"	Black	Lever/Spring
T224.52.9/2	1/4"	Black	Lever/Lever
T224.52.9/1	1/4"	Red	Lever/Lever
T224.52.9/3	1/4"	Green	Lever/Lever



Palm Push Button Locking, BSPP

0110	Thread
T228.52.6.25	1/8"



Front Facing Lever, BSPP

0110	Thread	Colour
T228.52.55/2	1/8"	Black



For Pneumax Compact Cylinders
see page 536

5/2 PNEUMATIC VALVES



Series 200 Manual & Mechanical



Tappet/Spring Return/Panel Mount, BSPP

0110	Thread
228.52.1.1	1/8"



Lever Plastic Roller/Spring Return, BSPP

0110	Thread
228.52.2.1	1/8"



Lever Metal Roller/Spring Return, BSPP

0110	Thread
228.52.2.1/2	1/8"



Lever Metal Roller Bearing/Spring Return, BSPP

0110	Thread
228.52.2.1/1	1/8"



Lever Roller Bidirectional/Spring Return, BSPP

0110	Thread
228.52.4.1	1/8"



Push Button/Spring Return, BSPP

0110	Thread
224.52.8.1	1/4"



Palm Push Button Locking, BSPP

0110	Thread	Colour
228.52.6.25	1/8"	Red



2 Position Switch, Short Lever, BSPP

0110	Thread
228.52.6.27	1/8"



2 Position Key Switch, BSPP

0110	Thread
228.52.6.28	1/8"



2 Position Front Facing Lever, BSPP

0110	Thread	Colour
228.52.55/2	1/8"	Black
228.52.55/1	1/8"	Red
228.52.55/3	1/8"	Green



2 Position Lever, BSPP

0110	Thread	Colour
228.52.9/2	1/8"	Black



Lever/Spring Return, BSPP

0110	Thread	Colour
224.52.9.1/2	1/4"	Black
224.52.9.1/1	1/4"	Red
224.52.9.1/3	1/4"	Green



2 Position Locking Lever, BSPP

0110	Thread
224.52.9.2	1/4"



2 Position Stable Lever, BSPP

0110	Thread
212.52.9	1/2"



Guarded Foot Valve/Spring Return, BSPP

0110	Thread
228.52.10.1/1	1/8"
214.52.10.1/1	1/4"



Miniaturised Foot Valve/Spring, BSPP

0110	Thread
228.52.10.1P	1/8"



Foot Valve/Spring Return, BSPP

0110	Thread
228.52.10.1	1/8"

5/3 PNEUMATIC VALVES

Eco 22 Solenoid Valves



Lever/Stable 3 Position, BSPP

0110	Thread	Colour	Function
T228.53.31.9/2	1/8"	Black	Closed Centre
T228.53.32.9/2	1/8"	Black	Open Centre



Lever/Spring To Centre, BSPP

0110	Thread	Colour	Description
T228.53.32.9.1/2	1/8"	Black	Open Centre
T228.53.32.9.1/1	1/8"	Red	Open Centre



Lever/Spring To Centre, BSPP

0110	Thread	Colour	Function
T224.53.31.9.1/2	1/8"	Black	Closed Centre
T224.53.32.9.1/2	1/8"	Black	Open Centre
T224.53.31.9.1/3	1/8"	Green	Closed Centre



Lever/Stable 3 Position, BSPP

0110	Thread	Colour	Function
T224.53.31.9/2	1/8"	Black	Closed Centre
T224.53.32.9/2	1/8"	Black	Open Centre
T224.53.31.9/3	1/8"	Green	Closed Centre

Series 200 Manual & Mechanical



Lever/Spring To Centre, BSPP

0110	Thread	Colour	Function
228.53.31.9.1/2	1/8"	Black	Closed Centre
228.53.32.9.1/2	1/8"	Black	Open Centre
228.53.31.9.1/1	1/8"	Red	Closed Centre



Lever/Stable 3 Position, BPP

0110	Thread	Colour	Function
228.53.31.9/2	1/8"	Black	Closed Centre
228.53.31.9/1	1/8"	Red	Closed Centre



Lever/Spring To Centre, BSPP

0110	Thread	Colour	Function
224.53.31.9.1/2	1/4"	Black	Closed Centre
224.53.31.9.1/3	1/4"	Green	Closed Centre



Lever/3 Position Locking, BSPP

0110	Thread	Function
224.53.31.9.2	1/4"	Closed Centre



Lever, BSPP

0110	Description	Thread	Function
212.53.31.9.1	Spring/Lever	1/2"	Closed Centre
212.53.31.9	Lever/ Lever	1/2"	Closed Centre



Foot Valve/Spring To Centre, BSPP

0110	Thread	Function
228.53.32.10.1	1/8"	Open Centre

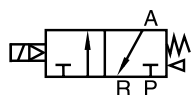
Medium: Clean compressed air. Filtered (40µm) and lubricated
Body Material: Aluminium alloy
Seals: Nitrile

Working Temperature:
 -20°C to +70°C

Working Pressure:
 1.5 to 8 bar

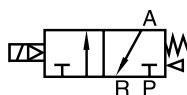


Solenoid 3/2 Way Valves



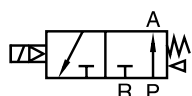
Direct Acting, Normally Closed, M5

0335	Voltage
KCV1-M5-B	24V DC
KCV1-M5-C	110V 50/60Hz
KCV1-M5-A	220V 50/60Hz
Tech Sheet 3107	



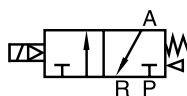
Direct Acting, Normally Closed, 1/8" BSPP

0335	Voltage
KCV1-06-B	24V DC
KCV1-06-C	110V 50/60Hz
KCV1-06-A	220V 50/60Hz
Tech Sheet 3107	



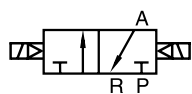
Solenoid/Spring, Normally Open, BSPP

0335	Thread
CKV210-06-NO	1/8"
CKV210-08-NO	1/4"
CKV310-10-NO	3/8"
Tech Sheet 3039	



Solenoid/Spring, Normally Closed, BSPP

0335	Thread
CKV210-06-NC	1/8"
CKV210-08-NC	1/4"
CKV310-10-NC	3/8"
Tech Sheet 3039	



Solenoid/Solenoid, BSPP

0335	Thread
CKV220-06	1/8"
CKV220-08	1/4"
CKV320-10	3/8"
Tech Sheet 3039	



For Pre wired
 moulded DIN Plugs
 see page 1043



Gang Mount Components, to suit KCV Series



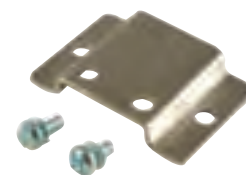
Coupling Screws & O-Ring

0335
KCV1-P31
Tech Sheet 3107



Coupling Screws & End Fixing Nuts

0335
KCV1-P30
Tech Sheet 3107



Base Plate

0335
KCV1-P32
Tech Sheet 3107

SOLENOID VALVES



Medium: Clean compressed air. Filtered (40µm) and lubricated
Body Material: Aluminium alloy
Seals: Nitrile

Working Temperature:
 -20°C to +70°C

Working Pressure:
 1.5 to 8 bar



Solenoid 5/2 Way Valves



Solenoid/Spring, BSPP

0335	Thread
DKV210-06	1/8"
DKV210-08	1/4"
DKV310-10	3/8"
DKV410-15	1/2"

Tech Sheet 3040

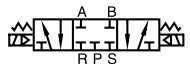


Solenoid/Solenoid, BSPP

0335	Thread
DKV220-06	1/8"
DKV220-08	1/4"
DKV320-10	3/8"
DKV420-15	1/2"

Tech Sheet 3040

Solenoid 5/3 Way Valves



Solenoid/Solenoid, Fully Sealed Mid Position, BSPP

0335	Thread
DKV230C-06	1/8"
DKV230C-08	1/4"
DKV330C-10	3/8"
DKV430C-15	1/2"

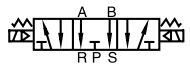
Tech Sheet 3040



Solenoid/Solenoid, Centre Open Pressurised, BSPP

0335	Thread
DKV230P-06	1/8"
DKV230P-08	1/4"
DKV330P-10	3/8"
DKV430P-15	1/2"

Tech Sheet 3040



Solenoid/Solenoid, Supply Sealed Mid Position, BSPP

0335	Thread
DKV230E-06	1/8"
DKV230E-08	1/4"
DKV330E-10	3/8"
DKV430E-15	1/2"

Tech Sheet 3040



For **Silencers**
 see page 631



Valve Manifolds



Suitable for use with 5/2 and 5/3 Valves only

Please contact our Technical Department if larger manifolds are required up to 16 stations.

B Series, to suit 1/8" & 1/4" BSPP Valves, 1/4" BSPP Inlet

0335	No. of Stations
BOOKM-1F	1
BOOKM-2F	2
BOOKM-3F	3
BOOKM-4F	4
BOOKM-5F	5
BOOKM-6F	6
BOOKM-8F	8
BOOKM-10F	10

Tech Sheet 3042

Please contact our Technical Department if larger manifolds are required up to 12 stations.

C Series, to suit 3/8" BSPP Valves, 3/8" BSPP Inlet

0335	No. of Stations
COOKM-1F	1
COOKM-2F	2
COOKM-3F	3
COOKM-4F	4
COOKM-5F	5
COOKM-6F	6
COOKM-8F	8
COOKM-10F	10

Tech Sheet 3042

Maximum number of stations available is 8.

D Series, to suit 1/2" BSPP Valves, 1/2" BSPP Inlet

0335	No. of Stations
DOOKM-1F	1
DOOKM-2F	2
DOOKM-3F	3
DOOKM-4F	4
DOOKM-5F	5
DOOKM-6F	6
DOOKM-8F	8

Tech Sheet 3042

Blanking Plates



Single

0335	To Suit
BOOKM-B	B Series
COOKM-B	C Series
DOOKM-B	D Series

Tech Sheet 3042

5/2 Namur Solenoid Valves



Solenoid/Spring, BSPP

0335	Thread
DKM310-08	1/4"
DKM310-10	3/8"

Tech Sheet 3043



Solenoid/Solenoid, BSPP

0335	Thread
DKM320-08	1/4"
DKM320-10	3/8"

Tech Sheet 3043

Solenoid Coils & Plugs



Coil & LED Connector

0335	Voltage
K-12DC	12V DC
K-24DC	24V DC
K-24AC	24V 50/60Hz
K-110AC	110V 50/60Hz
K-220AC	220V 50/60Hz

Tech Sheet 3044

VALVES

For the full range and more information,
please contact one of our sales team.

VUVS UNIVERSAL DIRECTIONAL CONTROL VALVES



Features

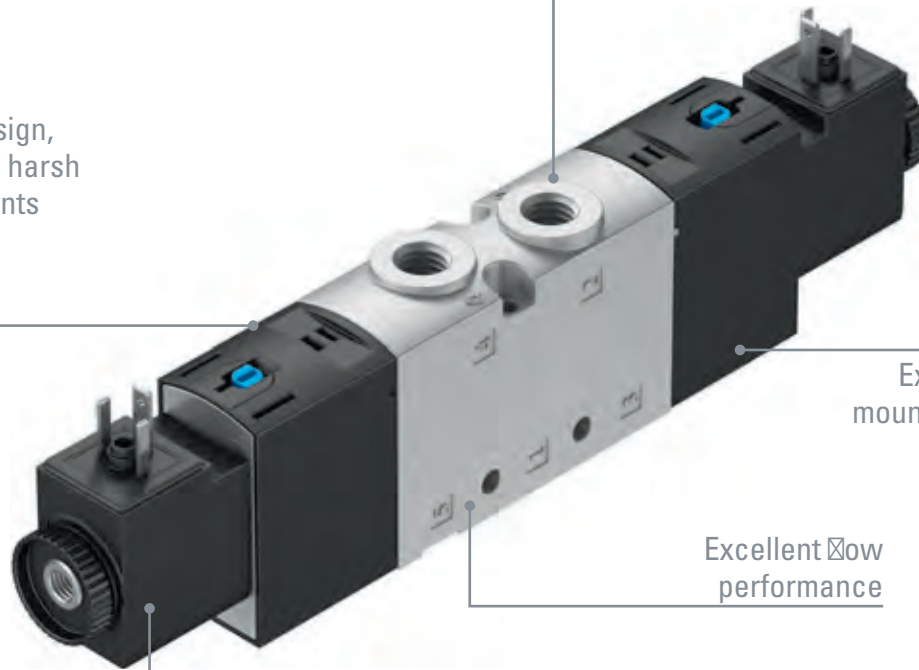
Robust design,
perfect for harsh
environments

Can be manifold mounted to create
variable pressure zones

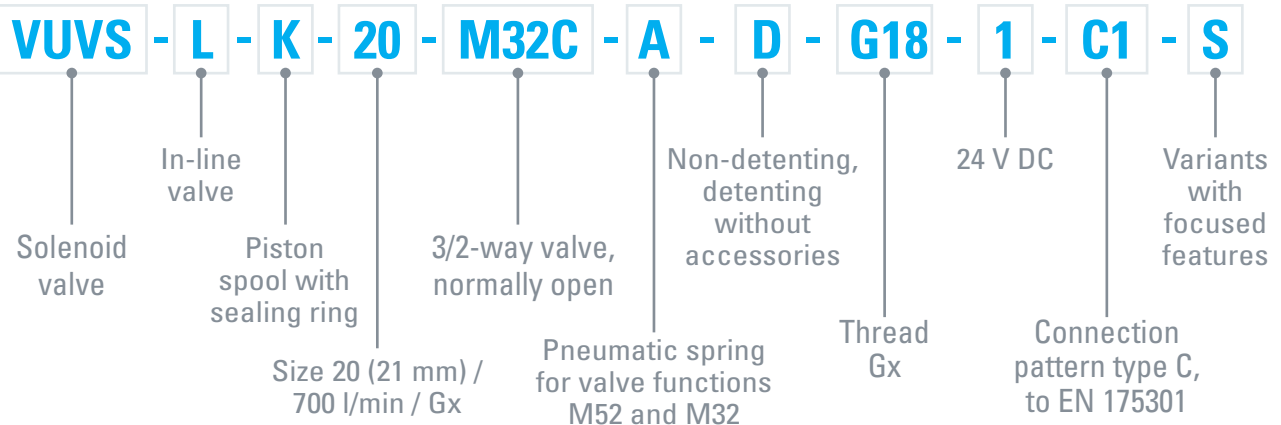
Extensive range of
mounting accessories

Excellent flow
performance

Solenoid or Air pilot options
In-line valves can be used as
individual valves or manifold valves



Product Description



IN-LINE PISTON SPOOL VALVES WITH SEALING RING, VUVS

FESTO



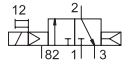
Ambient Temperature:
-5°C to +50°C

- Flow rate up to 2300 l/min
- In-line valves can be used as individual valves or manifold valves
- Variable pressure zones

- Universal valve, sturdy and durable
- Low-cost, no limitations with regard to performance
- Can be used as individual valves or manifold valves VTUS

In-line Electrical Connection Pattern Type B

Working Pressure:
1.5 to 8 bar

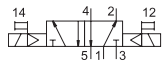


3/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply, Normally Closed

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043217	G1/4"	25	24V DC	VUVS-LK25-M32C-AD-G14-1B2-S
8049880	G3/8"	30	24V DC	VUVS-LK30-M32C-AD-G38-1B2-S

Tech Sheet 70803

Working Pressure:
1.5 to 8 bar

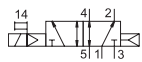


5/2 Way Solenoid/Solenoid with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043219	G1/4"	25	24V DC	VUVS-LK25-B52-D-G14-1B2-S
8049882	G3/8"	30	24V DC	VUVS-LK30-B52-D-G38-1B2-S

Tech Sheet 70804

Working Pressure:
1.5 to 8 bar



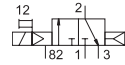
5/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043218	G1/4"	25	24V DC	VUVS-LK25-M52-AD-G14-1B2-S
8049881	G3/8"	30	24V DC	VUVS-LK30-M52-AD-G38-1B2-S

Tech Sheet 70805

In-line Electrical Connection Pattern Type C

Working Pressure:
1.5 to 8 bar

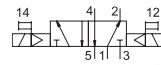


3/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply, Normally Closed

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043213	G1/8"	20	24V DC	VUVS-LK20-M32C-AD-G18-1C1-S

Tech Sheet 70806

Working Pressure:
1.5 to 8 bar

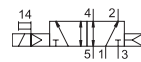


5/2 Way Solenoid/Solenoid with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043215	G1/8"	20	24V DC	VUVS-LK20-B52-D-G18-1C1-S

Tech Sheet 70808

Working Pressure:
1.5 to 8 bar



5/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
8043214	G1/8"	20	24V DC	VUVS-LK20-M52-AD-G18-1C1-S

Tech Sheet 70807

IN-LINE PISTON SPOOL VALVES, VUVS

FESTO



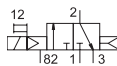
Ambient Temperature:
-5°C to +50°C

- Flow rate up to 2300 l/min
- In-line valves can be used as individual valves or manifold valves
- Variable pressure zones

- Universal valve, sturdy and durable
- Low-cost, no limitations with regard to performance
- Can be used as individual valves or manifold valves VTUS

In-line Electrical Connection Pattern Type C

Working Pressure:
2.5 to 10 bar

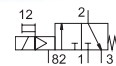


3/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply, Normally Closed

0009	Thread	Size mm	Voltage	Manufacturer's Code
575475	G1/4"	25	24V DC	VUVS-L25-M32C-AD-G14-F8-1C1
575568	G3/8"	30	24V DC	VUVS-L30-M32C-AD-G38-F8-1C1

Tech Sheet 70809

Working Pressure:
2.5 to 10 bar

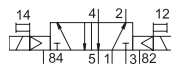


3/2 Way Solenoid/Mechanical Spring with Internal Pilot Supply, Normally Closed

0009	Thread	Size mm	Voltage	Manufacturer's Code
575274	G1/8"	20	24V DC	VUVS-L20-M32C-MD-G18-F7-1C1
575477	G1/4"	25	24V DC	VUVS-L25-M32C-MD-G14-F8-1C1
575570	G3/8"	30	24V DC	VUVS-L30-M32C-MD-G38-F8-1C1

Tech Sheet 70810

Working Pressure:
1.5 to 10 bar

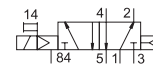


5/2 Way Solenoid/Solenoid with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
575265	G1/8"	20	24V DC	VUVS-L20-B52-D-G18-F7-1C1
575518	G1/4"	25	24V DC	VUVS-L25-B52-D-G14-F8-1C1
575611	G3/8"	30	24V DC	VUVS-L30-B52-D-G38-F8-1C1

Tech Sheet 70813

Working Pressure:
2.5 to 10 bar



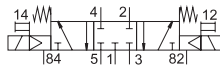
5/2 Solenoid/Mechanical Spring Valves with Internal Pilot Supply

0009	Thread	Size mm	Voltage	Manufacturer's Code
575264	G1/8"	20	24V DC	VUVS-L20-M52-MD-G18-F7-1C1
575511	G1/4"	25	24V DC	VUVS-L25-M52-MD-G14-F8-1C1
575604	G3/8"	30	24V DC	VUVS-L30-M52-MD-G38-F8-1C1

Tech Sheet 70811

Working Pressure:
2.5 to 10 bar

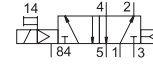
5/3 Way Solenoid/Solenoid, Fully Closed Mid Position with Internal Pilot Supply



0009	Thread	Size mm	Voltage	Manufacturer's Code
575268	G1/8"	20	24V DC	VUVS-L20-P53C-MD-G18-F7-1C1
575525	G1/4"	25	24V DC	VUVS-L25-P53C-MD-G14-F8-1C1
575618	G3/8"	30	24V DC	VUVS-L30-P53C-MD-G38-F8-1C1

Tech Sheet 70814

5/2 Way Solenoid/Pneumatic Spring with Internal Pilot Supply



0009	Thread	Size mm	Voltage	Manufacturer's Code
575263	G1/8"	20	24V DC	VUVS-L20-M52-AD-G18-F7-1C1
575503	G1/4"	25	24V DC	VUVS-L25-M52-AD-G14-F8-1C1
575596	G3/8"	30	24V DC	VUVS-L30-M52-AD-G38-F8-1C1

Tech Sheet 70812

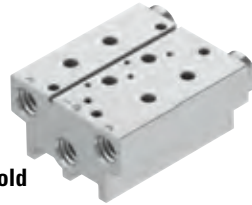
Manifold Blocks includes Seals & Screws for Mounting Valves



Common Supply Manifold for Mounting Both Sides, Size 20

0009	Thread	No. of Stations	Manufacturer's Code
576363	G3/8	2	VABM-B10-20-G38-2-P53
576365	G3/8	4	VABM-B10-20-G38-4-P53
576367	G3/8	6	VABM-B10-20-G38-6-P53
576369	G3/8	8	VABM-B10-20-G38-8-P53
576371	G3/8	10	VABM-B10-20-G38-10-P53

Tech Sheet 70145



Compact Manifold Blocks for 5/2 & 5/3 Valves, Size 20

0009	Thread	No. of Stations	Manufacturer's Code
576417	G1/4	2	VABM-B10-20S-G14-2
576419	G1/4	4	VABM-B10-20S-G14-4
576421	G1/4	6	VABM-B10-20S-G14-6
576423	G1/4	8	VABM-B10-20S-G14-8
576425	G1/4	10	VABM-B10-20S-G14-10

Tech Sheet 70143



Compact Manifold Blocks for 3/2 Valves, Size 20

0009	Thread	No. of Stations	Manufacturer's Code
576465	G1/4	2	VABM-B10-20S-G14-2-P3
576467	G1/4	4	VABM-B10-20S-G14-4-P3
576469	G1/4	6	VABM-B10-20S-G14-6-P3
576471	G1/4	8	VABM-B10-20S-G14-8-P3
576473	G1/4	10	VABM-B10-20S-G14-10-P3

Tech Sheet 70159

Common Supply Manifold for Mounting Both Sides, Size 25

0009	Thread	No. of Stations	Manufacturer's Code
8026219	G1/2	2	VABM-B10-25-G12-2-P53
8026221	G1/2	4	VABM-B10-25-G12-4-P53
8026223	G1/2	6	VABM-B10-25-G12-6-P53
8026225	G1/2	8	VABM-B10-25-G12-8-P53
8026227	G1/2	10	VABM-B10-25-G12-10-P53

Tech Sheet 71601

Compact Manifold Blocks for 5/2 & 5/3 Valves, Size 25

0009	Thread	No. of Stations	Manufacturer's Code
8026261	G3/8	2	VABM-B10-25S-G38-2
8026263	G3/8	4	VABM-B10-25S-G38-4
8026265	G3/8	6	VABM-B10-25S-G38-6
8026267	G3/8	8	VABM-B10-25S-G38-8
8026269	G3/8	10	VABM-B10-25S-G38-10

Tech Sheet 71602

Compact Manifold Blocks for 3/2 Valves, Size 25

0009	Thread	No. of Stations	Manufacturer's Code
8026297	G3/8	2	VABM-B10-25S-G38-2-P3
8026299	G3/8	4	VABM-B10-25S-G38-4-P3
8026301	G3/8	6	VABM-B10-25S-G38-6-P3
8026303	G3/8	8	VABM-B10-25S-G38-8-P3
576473	G1/4	10	VABM-B10-20S-G14-10-P3

Tech Sheet 70144

Solenoid Coils VACS



Solenoid Coil Without Plug Socket, Connection Pattern To EN 175301-803, Type C

0009	Voltage	Manufacturer's Code
8025331	12V DC	VACS-C-C1-5
8025330	24V DC	VACS-C-C1-1
8025336	48V DC	VACS-C-C1-7
8025335	24V AC	VACS-C-C1-1A
8025337	48V AC	VACS-C-C1-7A

Tech Sheet 71578

Plug Sockets MSSD



To suit Type C to EN 175301-803

0009	Manufacturer's Code
151687	MSSD-EB

Tech Sheet 70184

Blanking Plates



Cover Plates for VUVS, Common Supply

0009	To Suit	Manufacturer's Code
576409	G3/8	VABB-B10-20-A
8026208	G1/2	VABB-B10-25-A
8026334	G3/4	VABB-B10-30-A

Tech Sheet 70159



Cover Plates for VUVS, 3/2 Way Valves

0009	To Suit	Manufacturer's Code
576411	G3/8	VABB-B10-20-E-P3
8026210	G1/2	VABB-B10-25-E-P3
8026336	G3/4	VABB-B10-30-E-P3

Tech Sheet 70161



Cover Plates for VUVS, 5/2 & 5/3 Way Valves

0009	To Suit	Manufacturer's Code
576410	G3/8	VABB-B10-20-E
8026209	G1/2	VABB-B10-25-E
8026335	G3/4	VABB-B10-30-E

Tech Sheet 70160

ELECTRICALLY ACTUATED DIRECTIONAL CONTROL VALVES

FESTO



VUVS-L Series, Solenoid Valves, Type B, with 24V DC Solenoid Coil



3/2 Way, Normally Closed, Single Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575481	G1/4	25	Mechanical Spring	1000	VUVS-L25-M32C-MD-G14-F8-1B2
575574	G3/8	30	Mechanical Spring	2300	VUVS-L30-M32C-MD-G38-F8-1B2
Tech Sheet 71579					



5/2 Way, Single Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575513	G1/4	25	Mechanical Spring	1300	VUVS-L25-M52-MD-G14-F8-1B2
575606	G3/8	30	Mechanical Spring	2300	VUVS-L30-M52-MD-G38-F8-1B2
Tech Sheet 71580					



5/2 Way, Double Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575520	G1/4	25	Mechanical Spring	1300	VUVS-L25-B52-D-G14-F8-1B2
575613	G3/8	30	Mechanical Spring	2300	VUVS-L30-B52-D-G38-F8-1B2
Tech Sheet 71581					

5/3 Way, Closed Mid Position, Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575527	G1/4	25	Mechanical Spring	1200	VUVS-L25-P53C-MD-G14-F8-1B2
575620	G3/8	30	Mechanical Spring	2300	VUVS-L30-P53C-MD-G38-F8-1B2
Tech Sheet 71582					

5/3 Way, Exhausted Mid Position, Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575541	G1/4	25	Mechanical Spring	1000	VUVS-L25-P53E-MD-G14-F8-1B2
Tech Sheet 71583					

VUVS-L Series, Solenoid Valves, Type C, with 24V DC Solenoid Coil



5/3 Way, Closed Mid Position, Solenoid Valve with Internal Pilot Supply

0009	Thread	Size mm	Function	LPM	Manufacturer's Code
575266	G1/8	20	Mechanical Spring	600	VUVS-L20-P53E-MD-G18-F7-1C1
Tech Sheet 71584					

SOLENOID CONTROL VALVES



Solenoid Valves

Technical Data	1/8"	1/4"	3/8"	1/2"	Namur
Operating pressure:					
monostable bar			2.5 to 10		
bistable bar			1 to 10		
external pilot assisted bar			Vacuum to 10		
Minimum pilot pressure bar			2.5		
Operating temperature range			-10°C to +60°C		
Nominal diameter mm	5	7.5	13.3	15	7.5
Conductance C NI/min - bar	121.43	264.26	505.52	971.43	264.26
Critical ratio b bar/bar	0.32	0.27	0.32	0.43	0.27
Flow rate at 6 bar ΔP 0.5 bar NI/min	400	750	1560	3200	750
Flow rate at 6 bar ΔP 1 bar NI/min	550	1100	2150	4600	1100
TRA / TRR monostable at 6 bar ms	15/35	19/45	21/72	36/60	7/15
TRA / TRR bistable at 6 bar ms	20/20	21/21	18/18	30/30	7/7
Coil voltage values	12; 24 VDC - 24; 110; 220 V AC 50/60Hz				
Power	2 W (DC) 3.5VA (AC)				
Voltage tolerance %	-10 to +15				
Insulation class	F 155				

Namur Interface Solenoid/Spring Valve



G1/4 Ports

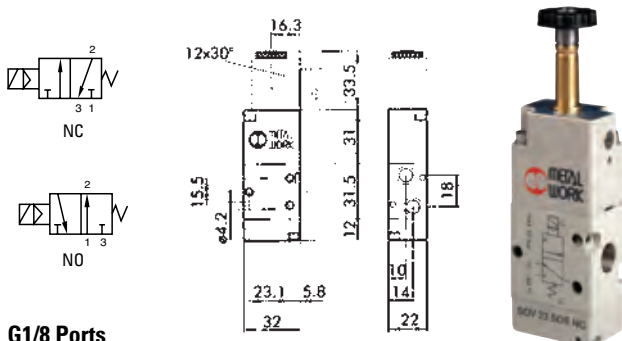
9149	Description
7021020100	Single Solenoid 5/2 G1/4"

Namur Interface Solenoid/Solenoid Valve

G1/4 Ports

9149	Description
7021020200	Double Solenoid 5/2 G1/4"

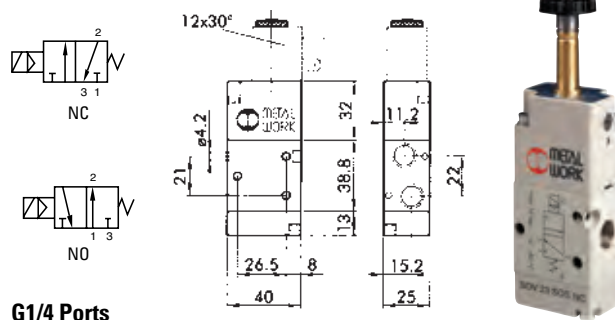
3/2 Solenoid/Spring Valve, Normally Open



G1/8 Ports

9149	Description
7010020400	3/2 G1/8" NO

3/2 Solenoid/Spring Valve, Normally Open



G1/4 Ports

9149	Description
7020020400	3/2 G1/4" NO

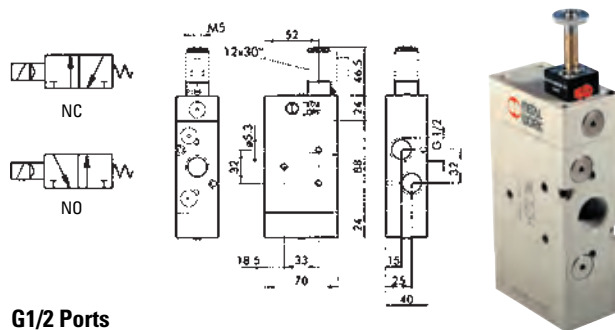
3/2 Solenoid/Spring Valve, Normally Open



G3/8 Ports

9149	Description
7040020400	3/2 G3/8" NO

3/2 Solenoid/Spring Valve, Normally Open



G1/2 Ports

9149	Description
7030020400	3/2 G1/2" NO Spring



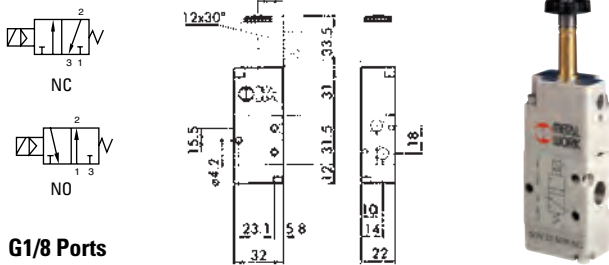
For Pre wired
moulded DIN Plugs
see page 1043



SOLENOID CONTROL VALVES



3/2 Solenoid/Spring Valve, Normally Closed



G1/8 Ports

9149	Description
7010020200	3/2 G1/8" NC

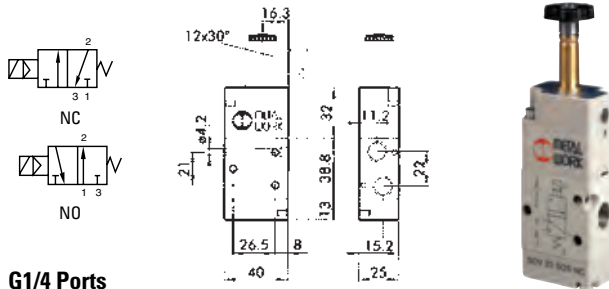
3/2 Solenoid/Spring Valve, Normally Open Assisted



G3/8 Ports

9149	Description
7040020600	3/2 G3/8" NO ASS

3/2 Solenoid/Spring Valve, Normally Closed



G1/4 Ports

9149	Description
7020020200	3/2 G1/4" NC

3/2 Solenoid/Spring Valve, Normally Closed Assisted



G3/8 Ports

9149	Description
7040020500	3/2 G3/8" NC ASS

3/2 Solenoid/Spring Valve, Normally Closed



G3/8 Ports

9149	Description
7040020200	3/2 G3/8" NC

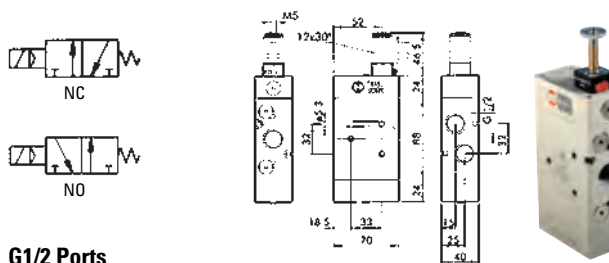
3/2 Solenoid/Solenoid Valve, Normally Closed



G3/8 Ports

9149	Description
7040020100	3/2 G3/8" NC

3/2 Solenoid/Spring Valve, Normally Closed



G1/2 Ports

9149	Description
7030020200	3/2 G1/2 NC Spring

3/2 Solenoid/Solenoid Valve, Normally Closed Assisted



G3/8 Ports

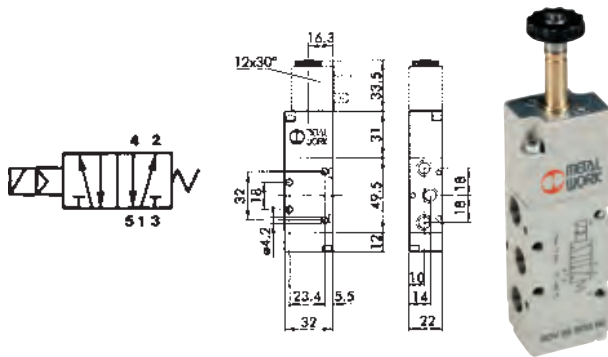
9149	Description
7040020300	3/2 G3/8" ASS

SOLENOID CONTROL VALVES



5/2 Solenoid/Spring Valve

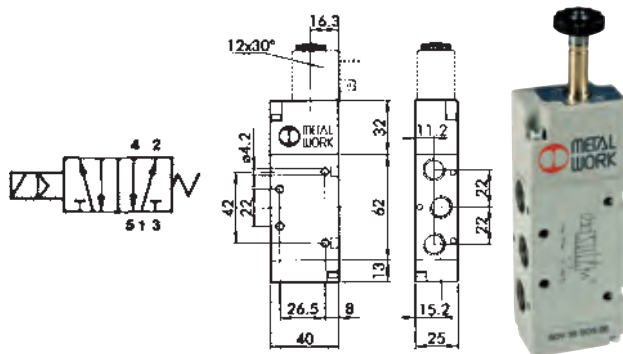
Note: solenoid coils must be ordered separately.



G1/8 Ports

9149	Description
7010021100	5/2 G1/8"

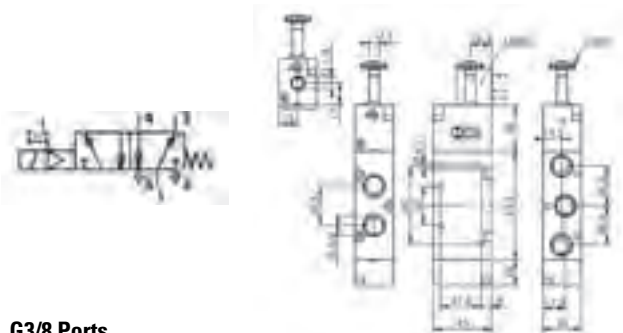
5/2 Solenoid/Spring Valve



G1/4 Ports

9149	Description
7020021100	5/2 G1/4"

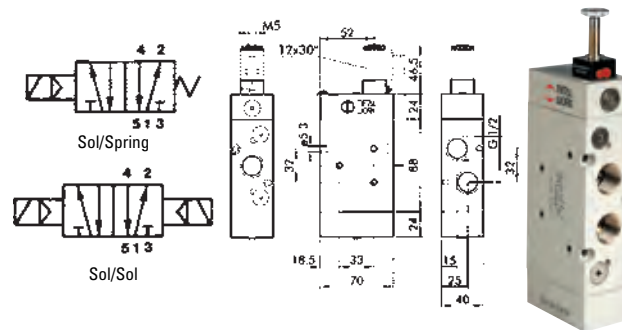
5/2 Solenoid/Spring Valve



G3/8 Ports

9149	Description
7040021100	5/2 G3/8"

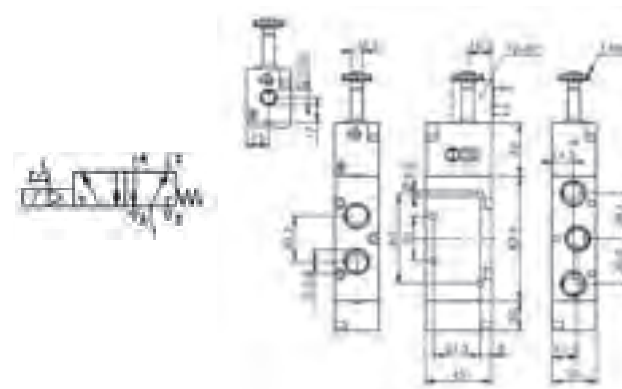
5/2 Solenoid/Spring Valve



G1/2 Ports

9149	Description
7030021100	5/2 G1/2" Sol/Spring

5/2 Solenoid/Spring Valve, Assisted



G3/8 Ports

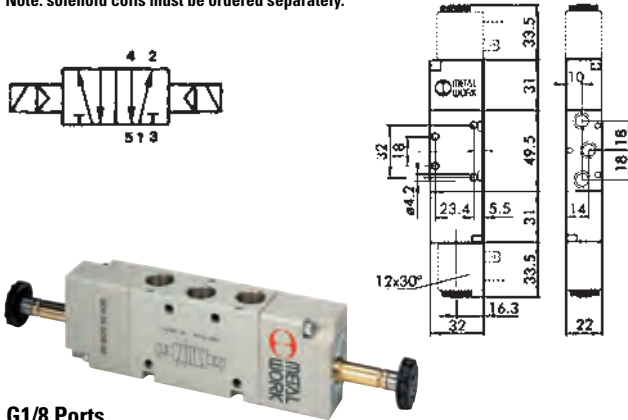
9149	Description
7040021500	5/2 G3/8" ASS

SOLENOID CONTROL VALVES



5/2 Solenoid/Solenoid Valve

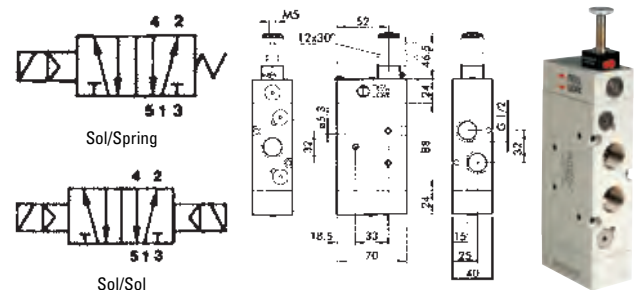
Note: solenoid coils must be ordered separately.



G1/8 Ports

9149	Description
7010021200	5/2 G1/8"

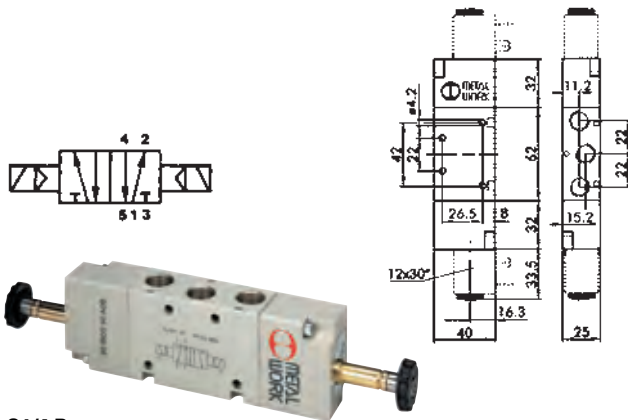
5/2 Solenoid/Solenoid Valve



G1/2 Ports

9149	Description
7030021200	5/2 G1/2" Sol/Sol

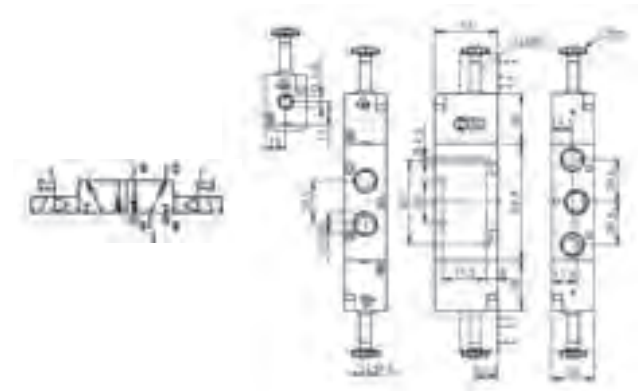
5/2 Solenoid/Solenoid Valve



G1/4 Ports

9149	Description
7020021200	5/2 G1/4"

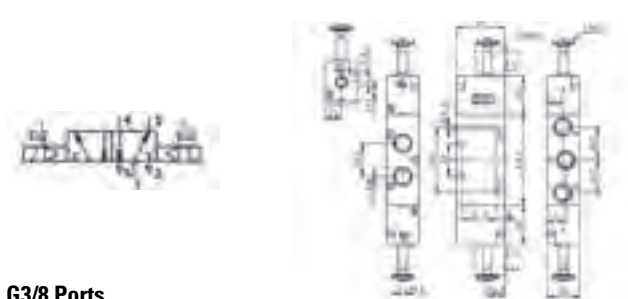
5/2 Solenoid/Solenoid Valve, Differential



G3/8 Ports

9149	Description
7040021300	5/2 G3/8"

5/2 Solenoid/Solenoid Valve



G3/8 Ports

9149	Description
7040021200	5/2 G3/8"

5/2 Solenoid/Solenoid Valve, Assisted



G3/8 Ports

9149	Description
7040021600	5/2 G3/8" ASS

SOLENOID CONTROL VALVES

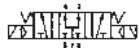


5/3 Solenoid/Spring/Solenoid Valve, Pressure Centres

Technical Data

- Nominal diameter: 7.5mm
- Flow rate at 6 bar ΔP 0.5 bar: 750 NI/min
- Flow rate at 6 bar ΔP 1 bar: 1100 NI/min
- **Note: solenoid coils must be ordered separately.**

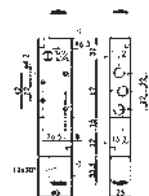
Operating Temperature Range:
10°C to +60°C



G1/8 Ports

9149	Description
7010022300	5/3 G1/8" PC

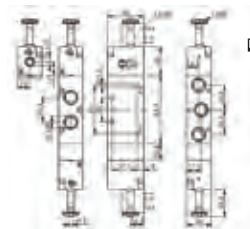
5/3 Solenoid/Spring/Solenoid Valve, Pressure Centres



G1/4 Ports

9149	Description
7020022300	5/3 G1/4" PC

5/3 Solenoid/Spring/Solenoid Valve, Pressure Centres



G3/8 Ports

9149	Description
7040022300	5/3 G3/8" PC

5/3 Solenoid/Spring/Solenoid Valve, Closed Centres

G3/8 Ports

9149	Description
7040022100	5/3 G3/8" CC



5/3 Solenoid/Spring/Solenoid Valve, Pressure Centres

Technical Data

- Monostable solenoid/spring: 2.5 bar to 10 bar
- Bistable solenoid/solenoid: 1 to 10 bar
- Nominal diameter: 15mm
- Flow rate at 6 bar ΔP 1 bar: 4600NI/min
- Absorbed power: 2W (DC) 3VA (AC)
- Voltages tolerances: -10°C to +15°C
- Degree of protection: IP65 - DIN 40050
- Solenoid rating: 100% ED

Operating Temperature Range:
-10°C to +60°C

Maximum Temperature at 100% Solenoid rating:
+70°C at +20°C ambient

Minimum Actuation Pressure:
2.5 bar



G1/2 Ports

9149	Description
7030022300	G1/2" PC Solenoid

5/3 Solenoid/Spring/ Solenoid Valve, Closed Centres

G1/2 Ports

9149	Description
7030022100	G1/2" CC Solenoid



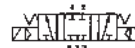
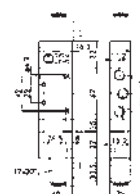
5/3 Solenoid/Spring/Solenoid Valve, Closed Centres



G1/8 Ports

9149	Description
7010022100	5/3 G1/8" CC

5/3 Solenoid/Spring/Solenoid Valve, Closed Centres



G1/4 Ports

9149	Description
7020022100	5/3 G1/4" CC

SOLENOID CONTROL VALVES

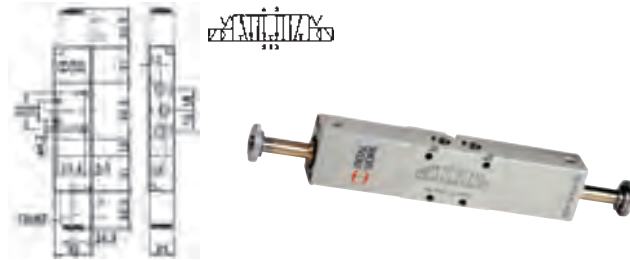


5/3 Solenoid/Spring/Solenoid Valve, Open Centres

Technical Data

- Nominal diameter: 7.5mm
- Flow rate at 6 bar ΔP 0.5 bar: 750 NI/min
- Flow rate at 6 bar ΔP 1 bar: 1100 NI/min
- **Note: solenoid coils must be ordered separately.**

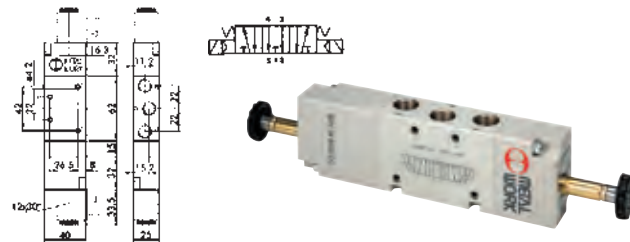
Operating Temperature range:
-10°C to +60°C



G1/8 Ports

9149	Description
7010022200	5/3 G1/8" OC

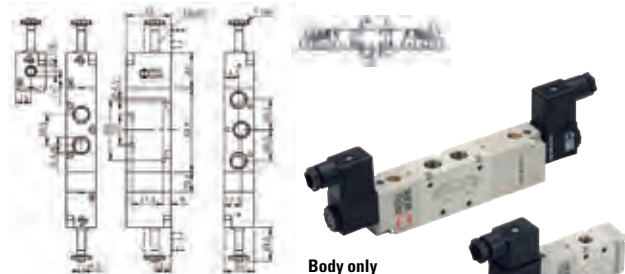
5/3 Solenoid/Spring/Solenoid Valve, Open Centres



G1/4 Ports

9149	Description
7020022200	5/3 G1/4" OC

5/3 Solenoid/Spring/Solenoid Valve, Open Centres



G3/8 Ports

9149	Description
7040022200	5/3 G3/8" OC

5/3 Solenoid/Spring/Solenoid Valve, Open Centres

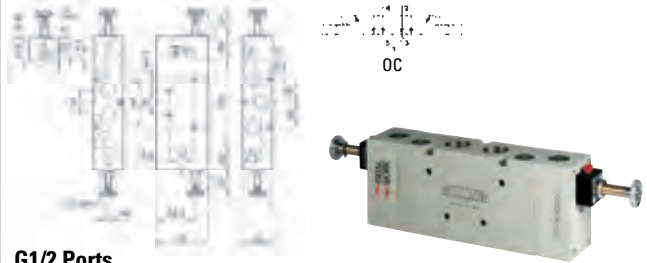
Technical Data

- Monostable solenoid/spring: 2.5 bar to 10 bar
- Bistable solenoid/solenoid: 1 to 10 bar
- Nominal diameter: 15mm
- Flow rate at 6 bar ΔP 1 bar: 4600NI/min
- Absorbed power: 2W (DC) 3VA (AC)
- Voltages tolerances: -10°C to +15°C
- Degree of protection: IP65 - DIN 40050
- Solenoid rating: 100% ED

Operating Temperature Range:
-10°C to +60°C

Maximum Temperature at 100% Solenoid rating:
+70°C at +20°C ambient

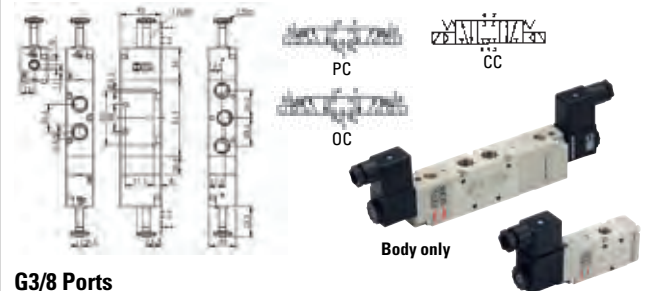
Minimum Actuation Pressure:
2.5 bar



G1/2 Ports

9149	Description
7030022200	G1/2" OC Solenoid

5/3 Solenoid/Spring/Solenoid Valve, Pressure Centres Assisted



G3/8 Ports

9149	Description
7040022600	5/3 G3/8" PC ASS

5/3 Solenoid/Spring/Solenoid Valve, Closed Centres Assisted

G3/8 Ports

9149	Description
7040022400	5/3 G3/8" CC ASS

5/3 Solenoid/Spring/Solenoid Valve, Open Centres Assisted

G3/8 Ports

9149	Description
7040022500	5/3 G3/8" OC ASS

SOLENOID CONTROL VALVES



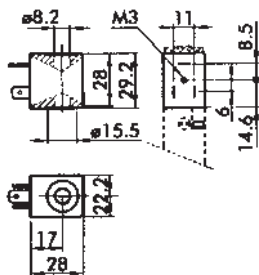
Solenoid Coils for ISO 5599 Valves, Size 1

Technical Data

- Voltage tolerances: -10% to +15%
- Insulation class: F155
- Degree of protection: IP65 - DIN 40050
- Solenoid rating: 100%
- Electric contact: AMP DIN 43650 2 contacts + 1 earth

Operating Temperature Range:
-20°C to +120°C

Maximum Temperature at 100% Solenoid Rating:
+70°C at +20°C ambient temperature



22mm

9149	Nominal Voltage	Power Inrush	Input Holding	Type
W0215000101	24V DC	2W	2W	22 Ø8 BA 2W-24V DC
W0215000111	24V 50/60Hz	4VA	3VA	22 Ø8 BA 3V-24V AC
W0215000121	110V 50/60Hz	4VA	2W	22 Ø8 BA 3VA-110V AC
W0215000131	220V 50/60Hz	4VA	2W	22 Ø8 3VA-220V AC

Solenoid Coils, 5W

Technical Data

- Monostable solenoid/spring: 2.5 bar to 10 bar
- Bistable solenoid/solenoid: 1 to 10 bar
- Nominal diameter: 15mm
- Flow rate at 6 bar ΔP 1 bar: 4600NI/min
- Absorbed power: 2W (DC) 3VA (AC)
- Voltages tolerances: -10°C to +15°C
- Degree of protection: IP65 - DIN 40050
- Solenoid rating: 100% ED
- **Note: solenoid coils must be ordered separately.**

Operating Temperature Range:
-10°C to +60°C

Maximum Temperature at 100% Solenoid Rating:
+70°C at +20°C ambient temperature

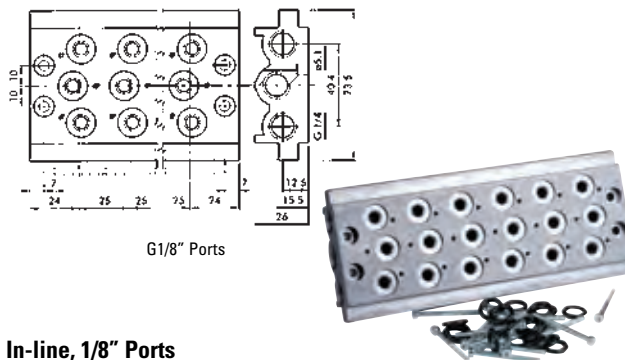
Minimum Actuation Pressure:
2.5 bar



22mm

9182	Nominal Voltage	Power Inrush	Input Holding	Type
W0215000001	24V DC	5W	5W	22 Ø8 5W-24V DC
W0215000011	24V 50/60Hz	8VA	5VA	22 Ø8 5VA-24V AC
W0215000021	110V 50/60Hz	8VA	5VA	22 Ø8 5VA-110V AC
W0215000031	220V 50/60Hz	8VA	5VA	22 Ø8 5W-220V AC

Manifolds

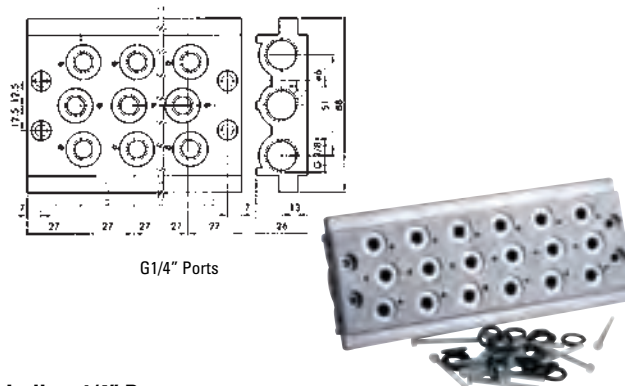


G1/8" Ports

In-line, 1/8" Ports

9149	Description
0223000201	2 Position
0223000301	3 Position
0223000401	4 Position
0223000501	5 Position
0223000601	6 Position
0223000701	7 Position
0226004500	Blanking Plate Size 1/8"

Manifolds



G1/4" Ports

In-line, 1/4" Ports

9149	Description
0224000201	2 Position
0224000401	4 Position
0224000501	5 Position
0224000601	6 Position
0224000701	7 Position
0226004500	Blanking Plate Size 1/8"
0226005500	Blanking Plate Size 1/4"



For Pre wired moulded DIN Plugs
see page 1043



EXCEL 32 V03, V04 & V05 SERIES



- Extensive range of power and orifice size option
- G1/8, G1/4 and 7mm interface
- Compact installation
- Removable coil
- Standard exhaust diffuser
- Choice of manual override

Medium:

Compressed air, filtered, lubricated and non-lubricate

Materials:

Coil: Glass reinforced nylon

Armature: Stainless steel

Base:

Zinc alloy (G1/8), brass (G1/4), polyester (interface)

Seals: Nitrile (viton top seat)

Working Temperature:

-20°C to +50°C

Note: the below valves are only available in 24V DC.

V03 Series

V03 2/2 NC 24V DC 0-10 bar 1mm Orific

0036	Thread
V03A286J-B613A	G1/8
Tech Sheet 10363	

V03 3/2 NC 24V DC 0-10 bar 1mm Orific

0036	Thread
V03X486J-B613A	Interface
V03A486J-B613A	G1/8
Tech Sheet 10363	

V04 Series

V04 2/2 SOL NC 0-10 bar 2.5mm Orific

0036	Thread	Voltage
V04X286M-B623A	Interface	24V DC
V04A286M-B623A	G1/8	24V DC
V04A286M-B628A	G1/8	110/50-60
V04A286M-B629A	G1/8	220/50-60
V04B286M-B423A	G1/4	24V DC
V04B286M-B428A	G1/4	220/50-60
V04B286M-B429A	G1/4	220/50-60
Tech Sheet 10363		

V04 3/2 SOL NC 0-10 bar 2mm Orific

0036	Thread	Voltage
V04X486L-B623A	Interface	24V DC
V04X486L-B628A	Interface	110/50-60
V04X486L-B629A	Interface	220/50-60
V04A486L-B623A	G1/8	24V DC
V04A486L-B628A	G1/8	110/50-60
V04A486L-B629A	G1/8	220/50-60
Tech Sheet 10363		

V04 3/2 SOL NO 0-10 bar 2mm Orific

0036	Thread	Voltage
V04X386L-B623A	Interface	24V DC
V04X386L-B628A	Interface	110/50-60
V04X386L-B629A	Interface	220/50-60
V04A386L-B623A	G1/8	24V DC
V04A386L-B628A	G1/8	110/50-60
V04A386L-B629A	G1/8	220/50-60
Tech Sheet 10363		



V05 Series

V05 2/2 SOL NC 0-16 bar 2.5mm Orific

0036	Thread	Voltage
V05X286M-B633A	Interface	24V DC
V05X286M-B638A	Flange	110/120V
V05B286M-B433A	G1/4	24V DC
Tech Sheet 10363		

V05 3/2 SOL NC 0-10 bar 2.5mm Orific

0036	Thread	Voltage
V05X486M-B633A	Interface	24V DC
V05X486M-B638A	Interface	110/50-60
V05X486M-B639A	Interface	220/50-60
V05A486M-B633A	G1/8	24V DC
V05A486M-B638A	G1/8	110/50-60
V05A486M-B639A	G1/8	220/50-60
Tech Sheet 10363		

Accessories for Excel 32

Manifolds to suit Interface Valves G1/8

0036	No. of Stations
M/P35598/1	1
M/P35598/2	2
M/P35598/3	3
M/P35598/4	4
M/P35598/5	5
M/P35598/6	6
M/P35598/8	8
M/P35598/9	9
M/P35598/10	10
Tech Sheet 10363	

V03, V04 & V05 Spare Solenoid Coils

0036	To Suit	Voltage
V03X286A-Q1213	V03	24V DC
V04X286A-Q1228	V04	110/50-60
V04X286A-Q1229	V04	220/50-60
V05X286A-Q1233	V05	24V DC
V05X286A-Q1238	V05	110/50-60
V05X286A-Q1239	V05	220/50-60
Tech Sheet 10363		

In-line Valves Solenoid/Pilot Operated

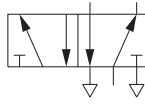
High Flow Rates:

G1/8 - 750 L/min, G1/4 - 1,300 L/min,
G3/8 - 2,600 L/min, G1/2 - 4,200 L/min available

Multifunctional: 3/2, 2x 3/2, 5/2, 5/3

Medium: Compressed air, filtered to 50micron, lubricated or non-lubricated

- Maintenance free
- Proven sealing system
- Small volumetric size
- Multiple solenoid/manual override variations



Solenoid Actuated, BSPP

0036	Thread	Function	Actuation
V60A413A-A2000	1/8"	3/2 NC	Sol/Spring
V60A513A-A2000	1/8"	5/2	Sol/Spring
V60A511A-A3000	1/8"	5/2	Sol/Sol
V61B413A-A2000	1/4"	3/2 NC	Sol/Spring
V61B513A-A2000	1/4"	5/2	Sol/Spring
V61B511A-A3000	1/4"	5/2	Sol/Sol
V62C413A-A2000	3/8"	3/2 NC	Sol/Spring
V62C513A-A2000	3/8"	5/2	Sol/Spring
V62C511A-A3000	3/8"	5/2	Sol/Sol

Tech Sheet 20152



Pilot Actuated, BSPP

0036	Thread	Function	Actuation
V60A4D7A-XA090	1/8"	3/2 NC	Pilot/Spring
V60A5D7A-XA090	1/8"	5/2	Pilot/Spring
V60A5DDA-XA020	1/8"	5/2	Pilot/Pilot
V61B4D7A-XA090	1/4"	3/2 NC	Pilot/Spring
V61B5D7A-XA090	1/4"	5/2	Pilot/Spring
V61B5DDA-XA020	1/4"	5/2	Pilot/Pilot
V62C4D7A-XA090	3/8"	3/2 NC	Pilot/Spring
V62C5D7A-XA090	3/8"	5/2	Pilot/Spring
V62C5DDA-XA020	3/8"	5/2	Pilot/Pilot

Tech Sheet 20152

V60 Accessories



Solenoid Coils 22mm DIN EN 175 301-803 (DIN 43650 B)

0036	Voltage
V10626-A13L	24V DC-2W
V10626-A18L	110V AC-4/2.5W
V10626-A19L	240V AC-6/5VA

Tech Sheet 20152

EXCEL 22 M/48 & M/49 SERIES

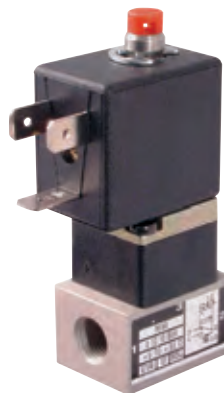
Solenoid Actuated 22mm Poppet Valves



M5 3/2 Sol/Spring Sub-base

0036	Voltage
M/48/MAZ13J	24V DC
M/48/MAZ19J	220V AC

Tech Sheet 20154



G1/8 3/2 Sol/Spring Sub-base

0036	Voltage
M/49/MAZ14J	24V AC
M/49/MAZ13J	24V DC
M/49/MAZ18J	110V AC
M/49/MAZ19J	220V AC

Tech Sheet 20154



Spare Coils

0036	Voltage
QM/48/13J/21	24V DC
QM/48/14J/21	24V AC
QM/48/18J/21	110V AC
QM/48/19J/21	220V AC

Tech Sheet 20154



Spare DIN 22mm Plug

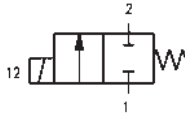
0036	
M/P19063	

Tech Sheet 20154

DIRECTIONAL CONTROL VALVES

Series A, Directly Operated Solenoid Valves

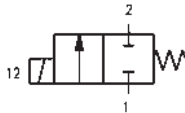
5



M5, 2/2 NC Solenoid Valves (A32)

0158	Orifice mm	Voltage
A321 0C2	1.5	Valve Only
A321 0C2 U72	1.5	12V DC 5W
A321 0C2 U73	1.5	24V DC 5W
A321 0C2 U74	1.5	48V DC 5.3W
A321 0C2 U76	1.5	110V DC 4.2W
A321 0C2 U7H	1.5	24V AC 3.5VA
A321 0C2 U7K	1.5	110V AC 4.3VA
A321 0C2 U7J	1.5	240V AC 4VA

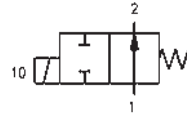
Tech Sheet 1845



G1/8", 2/2 NC Solenoid Valves (A32)

0158	Orifice mm	Voltage
A321 1C2	1.5	Valve Only
A321 1C2 U72	1.5	12V DC 5W
A321 1C2 U73	1.5	24V DC 5W
A321 1C2 U74	1.5	48V DC 5.3W
A321 1C2 U76	1.5	110V DC 4.2W
A321 1C2 U7H	1.5	24V AC 3.5VA
A321 1C2 U7K	1.5	110V AC 4.3VA
A321 1C2 U7J	1.5	240V AC 4VA
A321 1D2	2	Valve Only
A321 1D2 U72	2	12V DC 5W
A321 1D2 U73	2	24V DC 5W
A321 1D2 U74	2	48V DC 5.3W
A321 1D2 U76	2	110V DC 4.2W
A321 1D2 U7H	2	24V AC 3.5VA
A321 1D2 U7K	2	110V AC 4.3VA
A321 1D2 U7J	2	240V AC 4VA
A321 1E2	2.5	Valve Only
A321 1E2 U72	2.5	12V DC 5W
A321 1E2 U73	2.5	24V DC 5W
A321 1E2 U74	2.5	48V DC 5.3W
A321 1E2 U76	2.5	110V DC 4.2W
A321 1E2 U7H	2.5	24V AC 3.5VA
A321 1E2 U7K	2.5	110V AC 4.3VA
A321 1E2 U7J	2.5	240V AC 4VA

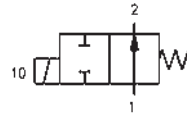
Tech Sheet 1845



M5, 2/2 NO Solenoid Valves (A32)

0158	Orifice mm	Voltage
A322 0C2	1.8	Valve Only
A322 0C2 U72	1.8	12V DC 5W
A322 0C2 U73	1.8	24V DC 5W
A322 0C2 U74	1.8	48V DC 5.3W
A322 0C2 U76	1.8	110V DC 4.2W
A322 0C2 U7H	1.8	24V AC 3.5VA
A322 0C2 U7K	1.8	110V AC 4.3VA
A322 0C2 U7J	1.8	240V AC 4VA

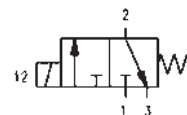
Tech Sheet 1845



G1/8", 2/2 NO Solenoid Valves (A32)

0158	Orifice mm	Voltage
A322 1C2	1.8	Valve Only
A322 1C2 U72	1.8	12V DC 5W
A322 1C2 U73	1.8	24V DC 5W
A322 1C2 U74	1.8	48V DC 5.3W
A322 1C2 U76	1.8	110V DC 4.2W
A322 1C2 U7H	1.8	24V AC 3.5VA
A322 1C2 U7K	1.8	110V AC 4.3VA
A322 1C2 U7J	1.8	240V AC 4VA

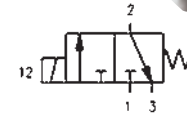
Tech Sheet 1845



M5, 3/2 NC Solenoid Valves (A33)

0158	Orifice mm	Voltage
A331 0C2	1.5	Valve Only
A331 0C2 U72	1.5	12V DC 5W
A331 0C2 U73	1.5	24V DC 5W
A331 0C2 U74	1.5	48V DC 5.3W
A331 0C2 U76	1.5	110V DC 4.2W
A331 0C2 U7H	1.5	24V AC 3.5VA
A331 0C2 U7K	1.5	110V AC 4.3VA
A331 0C2 U7J	1.5	240V AC 4VA

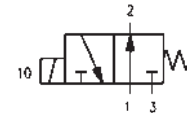
Tech Sheet 1845



G1/8", 3/2 NC Solenoid Valves (A33)

0158	Orifice mm	Voltage
A331 1C2	1.5	Valve Only
A331 1C2 U72	1.5	12V DC 5W
A331 1C2 U73	1.5	24V DC 5W
A331 1C2 U74	1.5	48V DC 5.3W
A331 1C2 U76	1.5	110V DC 4.2W
A331 1C2 U7H	1.5	24V AC 3.5VA
A331 1C2 U7K	1.5	110V AC 4.3VA
A331 1C2 U7J	1.5	240V AC 4VA

Tech Sheet 1845



M5, 3/2 NO Solenoid Valves (A33)

0158	Orifice mm	Voltage
A332 0C2	1.5	Valve Only
A332 0C2 U72	1.5	12V DC 5W
A332 0C2 U73	1.5	24V DC 5W
A332 0C2 U74	1.5	48V DC 5.3W
A332 0C2 U76	1.5	110V DC 4.2W
A332 0C2 U7H	1.5	24V AC 3.5VA
A332 0C2 U7K	1.5	110V AC 4.3VA
A332 0C2 U7J	1.5	240V AC 4VA

Tech Sheet 1845

G1/8", 3/2 NO Solenoid Valves (A33)

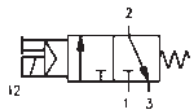
0158	Orifice mm	Voltage
A332 1C2	1.5	Valve Only
A332 1C2 U72	1.5	12V DC 5W
A332 1C2 U73	1.5	24V DC 5W
A332 1C2 U74	1.5	48V DC 5.3W
A332 1C2 U76	1.5	110V DC 4.2W
A332 1C2 U7H	1.5	24V AC 3.5VA
A332 1C2 U7K	1.5	110V AC 4.3VA
A332 1C2 U7J	1.5	240V AC 4VA

Tech Sheet 1845

DIRECTIONAL CONTROL VALVES

Series 3, Electro Pneumatically Operated Solenoid Valves

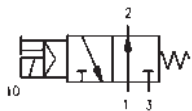
Actuation:
Solenoid/Spring



G1/8", 3/2 NC Single Solenoid Valves (338)

0158	Voltage
338 015 02	Valve Only
338 015 02 U7H	24V 50/60Hz 3.5VA
338 015 02 U7K	110V 50/60Hz 3.5VA
338 015 02 U7J	240V 50/60Hz 4VA
338 015 02 U72	12V DC 5W
338 015 02 U73	24V DC 5W
338 015 02 U74	48V DC 5W
338 015 02 U76	110V DC 5W
338 015 02 U77	24V DC 3W

Tech Sheet 1847

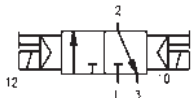


G1/8", 3/2 NO Single Solenoid Valves (348)

0158	Voltage
348 015 02	Valve Only
348 015 02 U7H	24V 50/60Hz 3.5VA
348 015 02 U7K	110V 50/60Hz 3.5VA
348 015 02 U7J	240V 50/60Hz 4VA
348 015 02 U72	12V DC 5W
348 015 02 U73	24V DC 5W
348 015 02 U74	48V DC 5W
348 015 02 U76	110V DC 5W
348 015 02 U77	24V DC 3W

Tech Sheet 1847

Actuation:
Solenoid/Solenoid

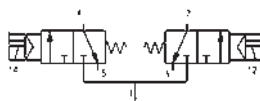


G1/8", 3/2 Manual Override Double Solenoid Valves (338)

0158	Voltage
338 011 02 U7H	24V 50/60Hz 3.5VA
338 011 02 U7K	110V 50/60Hz 3.5VA
338 011 02 U7J	240V 50/60Hz 4VA
338 011 02 U72	12V DC 5W
338 011 02 U73	24V DC 5W
338 011 02 U74	48V DC 5W
338 011 02 U76	110V DC 5W
338 011 02 U77	24V DC 3W

Tech Sheet 1847

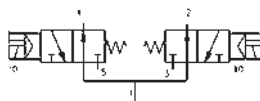
Actuation:
Solenoid/Spring



G1/8", 3/2 x 3/2 NC Double Valves S.R. Solenoid Valves (338)

0158	Voltage
338D 015 02	Valve Only
338D 015 02 U7H	24V 50/60Hz 3.5VA
338D 015 02 U7K	110V 50/60Hz 3.5VA
338D 015 02 U7J	240V 50/60Hz 4VA
338D 015 02 U72	12V DC 5W
338D 015 02 U73	24V DC 5W
338D 015 02 U74	48V DC 5W
338D 015 02 U76	110V DC 5W
338D 015 02 U77	24V DC 3W

Tech Sheet 1847

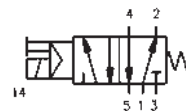


G1/8", 3/2 x 3/2 NO Double Valves S.R. Solenoid Valves (348)

0158	Voltage
348D 015 02	Valve Only
348D 015 02 U7H	24V 50/60Hz 3.5VA
348D 015 02 U7K	110V 50/60Hz 3.5VA
348D 015 02 U7J	240V 50/60Hz 4VA
348D 015 02 U72	12V DC 5W
348D 015 02 U73	24V DC 5W
348D 015 02 U74	48V DC 5W
348D 015 02 U76	110V DC 5W
348D 015 02 U77	24V DC 3W

Tech Sheet 1847

Actuation:
Solenoid/Spring



G1/8", 5/2 Manual Override Single Solenoid Valves (358)

0158	Voltage
358 015 02	Valve Only
358 015 02 U7H	24V 50/60Hz 3.5VA
358 015 02 U7K	110V 50/60Hz 3.5VA
358 015 02 U7J	240V 50/60Hz 4VA
358 015 02 U72	12V DC 5W
358 015 02 U73	24V DC 5W
358 015 02 U74	48V DC 5W
358 015 02 U76	110V DC 5W
358 015 02 U77	24V DC 3W

Tech Sheet 1847

Actuation:
Solenoid/Solenoid



G1/8", 5/2 Manual Override Double Solenoid Valves (358)

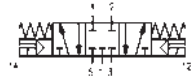
0158	Voltage
358 011 02	Valve Only
358 011 02 U7H	24V 50/60Hz 3.5VA
358 011 02 U7K	110V 50/60Hz 3.5VA
358 011 02 U7J	240V 50/60Hz 4VA
358 011 02 U72	12V DC 5W
358 011 02 U73	24V DC 5W
358 011 02 U74	48V DC 5W
358 011 02 U76	110V DC 5W
358 011 02 U77	24V DC 3W

Tech Sheet 1847

DIRECTIONAL CONTROL VALVES

Series 3, Electro Pneumatically Operated Solenoid Valves

Actuation: Solenoid/Solenoid



G1/8", 5/3 C/C Double Solenoid Valves (368)

0158	Voltage
368 011 02	Valve Only
368 011 02 U7H	24V 50/60Hz 3.5VA
368 011 02 U7K	110V 50/60Hz 3.5VA
368 011 02 U7J	240V 50/60Hz 4VA
368 011 02 U72	12V DC 5W
368 011 02 U73	24V DC 5W
368 011 02 U74	48V DC 5W
368 011 02 U76	110V DC 5W
368 011 02 U77	24V DC 3W

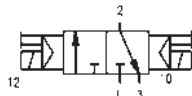
Tech Sheet 1847



G1/8", 5/3 C/O Double Solenoid Valves (378)

0158	Voltage
378 011 02	Valve Only
378 011 02 U7H	24V 50/60Hz 3.5VA
378 011 02 U7K	110V 50/60Hz 3.5VA
378 011 02 U7J	240V 50/60Hz 4VA
378 011 02 U72	12V DC 5W
378 011 02 U73	24V DC 5W
378 011 02 U74	48V DC 5W
378 011 02 U76	110V DC 5W
378 011 02 U77	24V DC 3W

Tech Sheet 1847



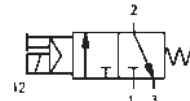
G1/8", 5/3 NC & NO Double Valve P/C Double Solenoid Valves (388)

0158	Voltage
388 011 02	Valve Only
388 011 02 U7H	24V 50/60Hz 3.5VA
388 011 02 U7K	110V 50/60Hz 3.5VA
388 011 02 U7J	240V 50/60Hz 4VA
388 011 02 U72	12V DC 5W
388 011 02 U73	24V DC 5W
388 011 02 U74	48V DC 5W
388 011 02 U76	110V DC 5W
388 011 02 U77	24V DC 3W

Tech Sheet 1847

Series 3, Electro Pneumatically Operated High Flow Solenoid Valves

Actuation: Solenoid/Spring

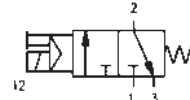


G1/4", 3/2 NC Single Solenoid Valves (334)

0158	Voltage
334 015 02	Valve Only
334 015 02 U7H	24V 50/60Hz 3.5VA
334 015 02 U7K	110V 50/60Hz 3.5VA
334 015 02 U7J	230V 50/60Hz 4VA
334 015 02 U72	12V DC 5W
334 015 02 U73	24V DC 5W
334 015 02 U74	48V DC 5W
334 015 02 U76	110V DC 5W
334 015 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Spring

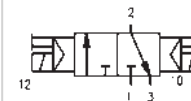


G1/4", 3/2 NC External Servo Single Solenoid Valves (334)

0158	Voltage
334 E15 02	Valve Only
334 E15 02 U7H	24V 50/60Hz 3.5VA
334 E15 02 U7K	110V 50/60Hz 3.5VA
334 E15 02 U7J	230V 50/60Hz 4VA
334 E15 02 U72	12V DC 5W
334 E15 02 U73	24V DC 5W
334 E15 02 U74	48V DC 5W
334 E15 02 U76	110V DC 5W
334 E15 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Solenoid

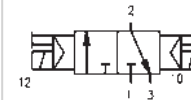


G1/4", 3/2 NC Double Solenoid Valves (334)

0158	Voltage
334 011 02	Valve Only
334 011 02 U7H	24V 50/60Hz 3.5VA
334 011 02 U7K	110V 50/60Hz 3.5VA
334 011 02 U7J	230V 50/60Hz 4VA
334 011 02 U72	12V DC 5W
334 011 02 U73	24V DC 5W
334 011 02 U74	48V DC 5W
334 011 02 U76	110V DC 5W
334 011 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Solenoid



G1/4", 3/2 External Servo Double Solenoid Valves (334)

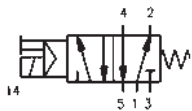
0158	Voltage
334 E11 02	Valve Only
334 E11 02 U7H	24V 50/60Hz 3.5VA
334 E11 02 U7K	110V 50/60Hz 3.5VA
334 E11 02 U7J	230V 50/60Hz 4VA
334 E11 02 U72	12V DC 5W
334 E11 02 U73	24V DC 5W
334 E11 02 U74	48V DC 5W
334 E11 02 U76	110V DC 5W
334 E11 02 U77	24V DC 3W

Tech Sheet 1847

DIRECTIONAL CONTROL VALVES

Series 3, Electro Pneumatically Operated High Flow Solenoid Valves

Actuation: Solenoid/Spring

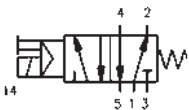


G1/4", 5/2 Single Solenoid Valves (354)

0158	Voltage
354 015 02	Valve Only
354 015 02 U7H	24V 50/60Hz 3.5VA
354 015 02 U7K	110V 50/60Hz 3.5VA
354 015 02 U7J	230V 50/60Hz 4VA
354 015 02 U72	12V DC 5W
354 015 02 U73	24V DC 5W
354 015 02 U74	48V DC 5W
354 015 02 U76	110V DC 5W
354 015 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Spring

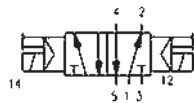


G1/4", 5/2 External Servo Single Solenoid Valves (354)

0158	Voltage
354 E15 02	Valve Only
354 E15 02 U7H	24V 50/60Hz 3.5VA
354 E15 02 U7K	110V 50/60Hz 3.5VA
354 E15 02 U7J	230V 50/60Hz 4VA
354 E15 02 U72	12V DC 5W
354 E15 02 U73	24V DC 5W
354 E15 02 U74	48V DC 5W
354 E15 02 U76	110V DC 5W
354 E15 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Solenoid



G1/4", 5/2 Double Solenoid Valves (354)

0158	Voltage
354 011 02	Valve Only
354 011 02 U7H	24V 50/60Hz 3.5VA
354 011 02 U7K	110V 50/60Hz 3.5VA
354 011 02 U7J	230V 50/60Hz 4VA
354 011 02 U72	12V DC 5W
354 011 02 U73	24V DC 5W
354 011 02 U74	48V DC 5W
354 011 02 U76	110V DC 5W
354 011 02 U77	24V DC 3W

Tech Sheet 1847

Actuation: Solenoid/Solenoid



G1/4", 5/3 C/C Manual Override Double Solenoid Valves (364)

0158	Voltage
364 011 02	Valve Only
364 011 02 U7H	24V 50/60Hz 3.5VA
364 011 02 U7K	110V 50/60Hz 4.3VA
364 011 02 U7J	240V 50/60Hz 4VA
364 011 02 U72	12V DC 5W
364 011 02 U73	24V DC 5W
364 011 02 U74	48V DC 5W
364 011 02 U76	110V DC 4.2W
364 011 02 U77	24V DC 3W

Tech Sheet 1847



G1/4", 5/3 C/C Manual Override Double Solenoid Valves External Pilot (364)

0158	Voltage
364 E11 02	Valve Only
364 E11 02 U7H	24V 50/60Hz 3.5VA
364 E11 02 U7K	110V 50/60Hz 4.3VA
364 E11 02 U7J	240V 50/60Hz 4VA
364 E11 02 U72	12V DC 5W
364 E11 02 U73	24V DC 5W
364 E11 02 U74	48V DC 5W
364 E11 02 U76	110V DC 4.2W
364 E11 02 U77	24V DC 3W

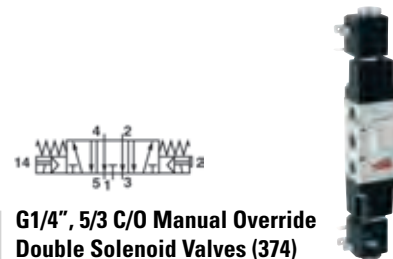
Tech Sheet 1847

G1/4", 5/2 External Servo Double Solenoid Valves (354)



0158	Voltage
354 E11 02	Valve Only
354 E11 02 U7H	24V 50/60Hz 3.5VA
354 E11 02 U7K	110V 50/60Hz 3.5VA
354 E11 02 U7J	230V 50/60Hz 4VA
354 E11 02 U72	12V DC 5W
354 E11 02 U73	24V DC 5W
354 E11 02 U74	48V DC 5W
354 E11 02 U76	110V DC 5W
354 E11 02 U77	24V DC 3W

Tech Sheet 1847



G1/4", 5/3 C/O Manual Override Double Solenoid Valves (374)

0158	Voltage
374 011 02	Valve Only
374 011 02 U7H	24V 50/60Hz 3.5VA
374 011 02 U7K	110V 50/60Hz 4.3VA
374 011 02 U7J	240V 50/60Hz 4VA
374 011 02 U72	12V DC 5W
374 011 02 U73	24V DC 5W
374 011 02 U74	48V DC 5W
374 011 02 U76	110V DC 4.2W
374 011 02 U77	24V DC 3W

Tech Sheet 1847



G1/4", 5/3 C/O Manual Override Double Solenoid Valves External Pilot (374)

0158	Voltage
374 E11 02	Valve Only
374 E11 02 U7H	24V 50/60Hz 3.5VA
374 E11 02 U7K	110V 50/60Hz 4.3VA
374 E11 02 U7J	240V 50/60Hz 4VA
374 E11 02 U72	12V DC 5W
374 E11 02 U73	24V DC 5W
374 E11 02 U74	48V DC 5W
374 E11 02 U76	110V DC 4.2W
374 E11 02 U77	24V DC 3W

Tech Sheet 1847

DIRECTIONAL CONTROL VALVES

Solenoid Coils for Electro Pneumatically Operated Valves

- Solenoid DIN connector use Form B.



U70 Solenoid Coils

0158	Voltage
U7H	24V 50/60Hz 3.5VA
U7K	110V 50/60Hz 3.5VA
U7J	240V 50/60Hz 4VA
U77	24V DC 3W
U71	6V DC 5W
U72	12V DC 5W
U73	24V DC 5W
U74	48V DC 5W
U76	110V DC 5W

Tech Sheet 10313

- Solenoid DIN connector use Form B.



G70 Solenoid Coils

0158	Voltage
G7H	24V 50/60Hz 3.5VA
G7K	110V 50/60Hz 3.5VA
G7J	240V 50/60Hz 4VA
G79	48V DC 3W
G77	24V DC 3W
G72	12V DC 5W
G73	24V DC 5W
G76	110V DC 4W

Tech Sheet 10313

- Solenoid DIN connector use Form A.



A80 Solenoid Coils

0158	Voltage
A8B	24V 50/60Hz 5VA
A8D	110V 50/60Hz 5VA
A8E	220V 50/60Hz 5VA
A83	24V DC 4W
A84	48V DC 4W
A86	110V DC 4W

Tech Sheet 10313

- Solenoid DIN connector use Form B.



G80 Solenoid Coils

0158	Voltage
G93	24V Coil

Tech Sheet 10313

Solenoid DIN Connectors



Black Connectors

0158	Type
KA132000B9	Form A 18mm Pin Spacing
KB132000B9	Form B 11mm Pin Spacing

Tech Sheet 10313



Grey Connectors

0158	Type
KA132000A9	Form A 18mm Pin Spacing

Tech Sheet 10313



Transparent Connectors, with LED

0158	Type
KA132V54T9	Form A 18mm Pin Spacing, 24V
KA132V55T9	Form A 18mm Pin Spacing, 115V
KA132V56T9	Form A 18mm Pin Spacing, 230V
KB132V54T9	Form B 11mm Pin Spacing, 24V
KB132V55T9	Form B 11mm Pin Spacing, 115V
KB132V56T9	Form B 11mm Pin Spacing, 230V

Tech Sheet 10313

For **Banding & Tie Wraps**
see page 1553



Solenoid 5/2 Way Valve

The **Viking Lite** valve range is robust, versatile and combines high performance with compact installation dimensions. The choice of G1/8, G1/4 or G3/8 port sizes provide large flow capacity and short change-over times. Low change-over pressure is also an important characteristic of this valve range.

Under pressure, radial expansion of the seal occurs to maintain sealing contact with the valve bore.

This sealing method reduces friction and gives lower pilot pressures, providing fast response and less wear. Valves do not require lubrication in operation but they can also be installed in systems that are lubricated.

Working Temperature:
-10°C to +50°C

Maximum Working Pressure:
10 bar



Spring Return, Single Solenoid, BSPP

0681	Thread
P2LAZ511ESNDCN	1/8"
P2LBZ512ESNDCN	1/4"

Tech Sheet 68763

Solenoid Coils & Plugs

Solenoid Coils, 22mm

0681	Voltage
P2FCB449	24V DC
P2FCB453	110V AC
P2FCB457	230V AC

Tech Sheet 68763



Connector Plug, IP65

0681
3EV10V10

Tech Sheet 68763



Plug with LED & Protection

0681	To Suit
3EV10V20-110	110V AC

Tech Sheet 68763



Pilot & Solenoid Valves

B3 & B4 Series Coils 15mm

0681	Voltage
P2E-KV32B2	12V DC
P2E-KV32C2	24V DC



B3 & B4 Series Solenoid Connectors / Cable Plugs

0681	Description
P8C-D	Standard IP65 without Flying Lead



Viking Lite Valve 3/2 & 5/2 Solenoid Operated G1/8" - G1/4"

0681	Type	Actuator	Return	Thread BSPP
P2LBZ312ESNDCN	3-2	Electric	Spring	1/4"
P2LBZ512EENDCN	5-2	Electric	Electric	1/4"
P2LAZ511ESNDCN	5-2	Electric	Spring	1/8"

3/2 PNEUMATIC VALVES



ECO 22 Solenoid Valves



Solenoid/Spring, BSPP

0110	Thread	Function
8880.32.C.39.F00	1/8"	Normally Closed

ECO 22 Solenoid Valves - 1/4"



Solenoid/Spring, BSPP

0110	Thread	Function
8884.32.C.39.F00	1/4"	Normally Closed
8884.32.A.39.F00	1/4"	Normally Open

5/2 PNEUMATIC VALVES



Eco 22 Solenoid Valves



Solenoid/Spring Valves, BSPP

0110	Thread
8880520039F00	1/8"
8884520039F00	1/4"



Solenoid/Solenoid, BSPP

0110	Thread
8880520035F00	1/8"
8884520035F00	1/4"

400 Series Valves



Solenoid/Spring, BSPP

0110	Thread
412/2.52.0.1.M2	1/2"



Solenoid/Solenoid, BSPP

0110	Thread
412/2.52.0.0.M2	1/2"

T400 Series Tecno Eco Valves



Solenoid/Spring (Ext Pilot), BSPP

0110	Thread
T424.52.0.1.E.M2	1/4"

T488 Series Tecno Valves



Solenoid/Differential Pilot (Ext Feed), BSPP

0110	Thread
T488.52.0.12E.M2	1/8"



Solenoid/Spring (Int Feed), BSPP

0110	Thread
T488.52.0.1.M2	1/8"

Solenoid/Spring (Ext Feed), BSPP

0110	Thread
T488.52.0.1E.M2	1/8"



Solenoid/Solenoid, BSPP

0110	Thread
T488.52.0.0.M2	1/8"

Eco 22 Series



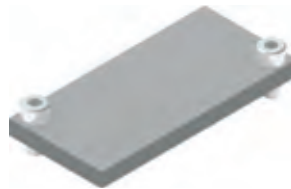
Complete Manifolds 5/2 - 5/3

0110	Stations
888.02	2
888.03	3
888.04	4
888.05	5
888.06	6
888.07	7
888.08	8
888.09	9
888.10	10



Modular 3/2 Solenoid/Spring Valves

0110	Thread	NO/NC
345.M1	4mm	N/C
305.M1	1/8"	N/C
305.M1/1	1/8"	N/O



Manifold Closing Plate

0110	Description
888	Blanking Plate



MF Type Coils

0110	Voltage
MF4	12V DC
MF5	24V DC
MF56	2V AC
MF57	110V AC
MF58	220V AC



888 Type Coil Caps

0110	Voltage
888.11.01	24V DC - 24V AC LED
888.11.02	110V AC LED
888.11.03	220V AC LED

T400 Series



Manifold Bases

0110	Description
T424.01	Single Complete Base



Manifold Closing Plate

0110	Description
T424.00	Blanking Plate



MB Type 22mm Coils

0110	Voltage
MB4	12V DC
MB5	24V DC
MB9	24V DC (2 watt)
MB56	24V AC
MB57	110V AC
MB58	22V DC



305 22mm Coil Caps

0110	Voltage
305.11.00	No LED
305.11.01L	24V DC LED
305.11.02L	110V AC LED
305.11.03L	240V AC LED

T488 Series



Manifold Bases

0110	Description
T488.01	Single Complete Base

PILOT VALVES



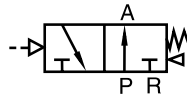
Medium: Clean compressed air. Filtered (40µm) and lubricated
Body Material: Aluminium alloy
Seals: Nitrile

Working Temperature:
 -20°C to +70°C

Working Pressure:
 1.5 to 8 bar



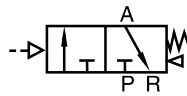
Pilot 3/2 Way Valves



Pilot/Spring, Normally Open, BSPP

0335	Thread
CKA210-06-NO	1/8"
CKA210-08-NO	1/4"
CKA310-10-NO	3/8"

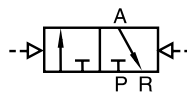
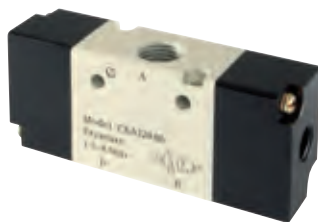
Tech Sheet 3036



Pilot/Spring, Normally Closed, BSPP

0335	Thread
CKA210-06-NC	1/8"
CKA210-08-NC	1/4"
CKA310-10-NC	3/8"

Tech Sheet 3036



Pilot/Pilot, BSPP

0335	Thread
CKA220-06	1/8"
CKA220-08	1/4"
CKA320-10	3/8"

Tech Sheet 3036

Pilot 5/2 Way Valves



Pilot/Spring, BSPP

0335	Thread
DKA210-06	1/8"
DKA210-08	1/4"
DKA310-10	3/8"
DKA410-15	1/2"

Tech Sheet 3037



Pilot/Pilot, BSPP

0335	Thread
DKA220-06	1/8"
DKA220-08	1/4"
DKA320-10	3/8"
DKA420-15	1/2"

Tech Sheet 3037

Medium: Clean compressed air. Filtered (40µm) and lubricated
Body Material: Aluminium alloy
Seals: Nitrile

Working Temperature:
 -20°C to +70°C

Working Pressure:
 1.5 to 8 bar



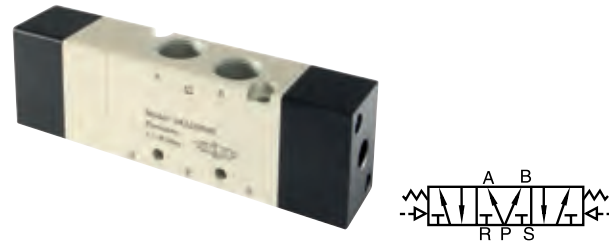
Pilot 5/3 Way Valves



Pilot/Pilot, Fully Sealed Mid Position, BSPP

0335	Thread
DKA230C-06	1/8"
DKA230C-08	1/4"
DKA330C-10	3/8"
DKA430C-15	1/2"

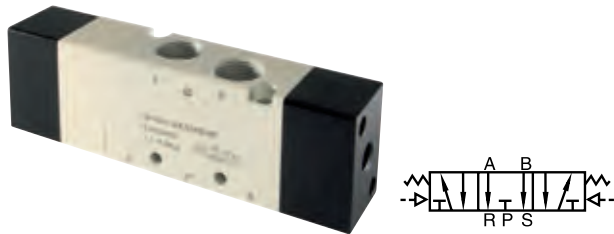
Tech Sheet 3037



Pilot/Pilot, Centre Open Pressurised, BSPP

0335	Thread
DKA230P-06	1/8"
DKA230P-08	1/4"
DKA330P-10	3/8"
DKA430P-15	1/2"

Tech Sheet 3037



Pilot/Pilot, Supply Sealed Mid Position, BSPP

0335	Thread
DKA230E-06	1/8"
DKA230E-08	1/4"
DKA330E-10	3/8"
DKA430E-15	1/2"

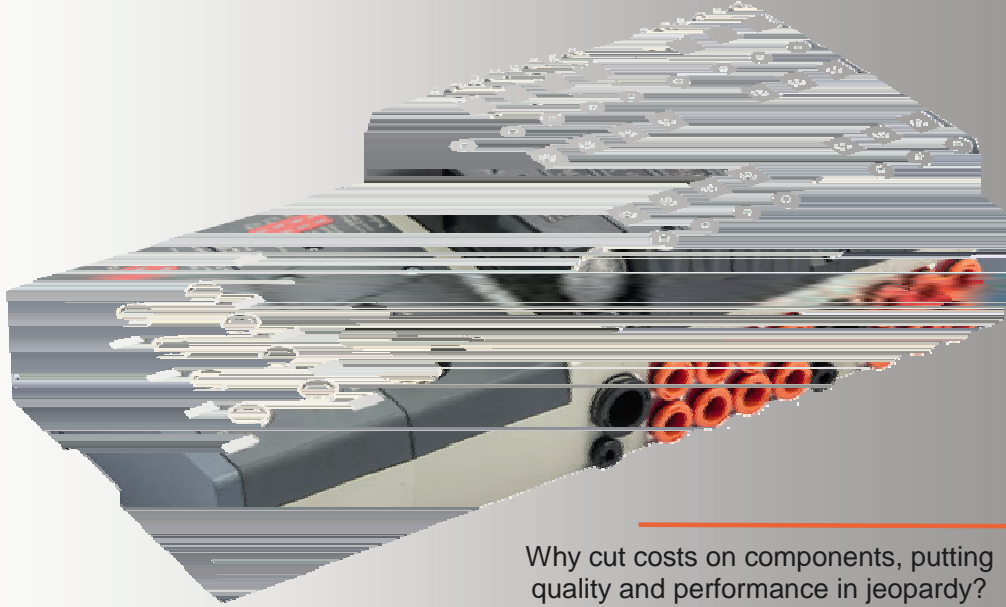
Tech Sheet 3037



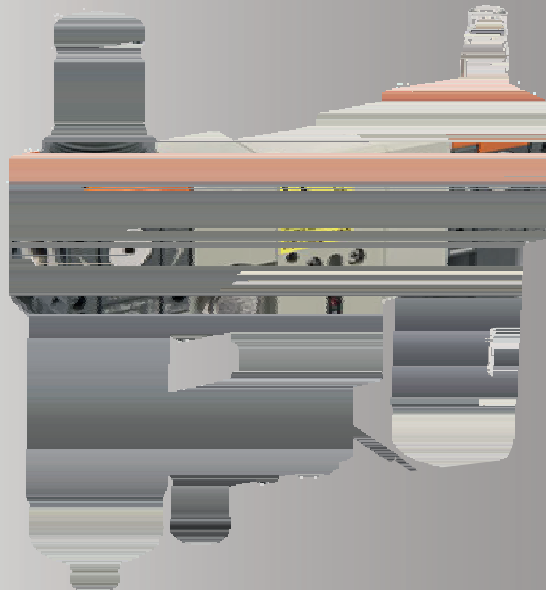
For **Stainless Steel Silencers**
 see page **630**

EB80 VALVES

Driven by Customers Designed by Metal Work



Why cut costs on components, putting quality and performance in jeopardy?
Make your systems ultra efficient with Metal Work Pneumatics.



SYNTESI MONITORED DUMP VALVE

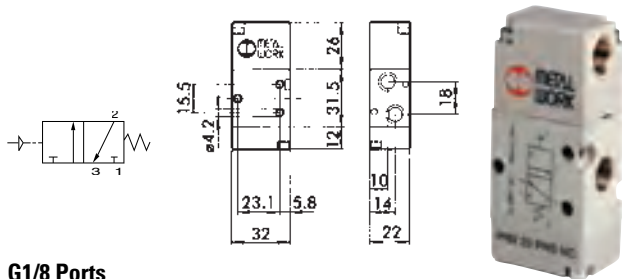
PNEUMATICALLY OPERATED VALVES



Pilot Valves

Technical Data	1/8"	1/4"	3/8"	1/2"
Operating Pressure Bar	Vacuum to 10			
Minimum pilot pressure:				
monostable bar	2.5 to 10			
bistable bar	1 to 10			
Operating temperature range	-10°C to +60°C			
Nominal diameter mm	5	7.5	13.3	15
Conductance C NI/min - bar	121.43	264.26	505.52	971.43
Critical ratio b bar/bar	0.32	0.27	0.32	0.43
Flow rate at 6 bar ΔP 0.5 bar NI/min	400	750	1560	3200
Flow rate at 6 bar ΔP 1 bar NI/min	550	1100	2150	4600
TRA / TRR monostable at 6 bar ms	6/15	7/15	5/28	16/46
TRA / TRR bistable at 6 bar ms	7/7	7/7	13/13	16/16

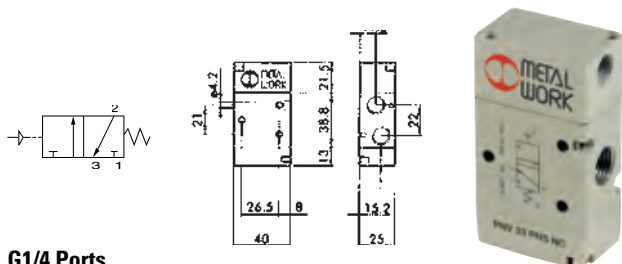
3/2 Pilot/Spring Valve



G1/8 Ports

9149	Description
7010010200	3/2 G1/8"

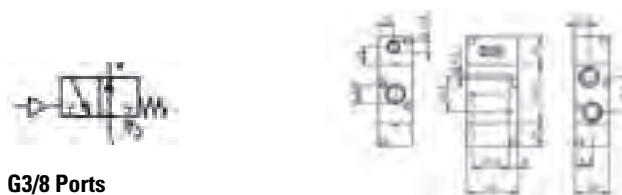
3/2 Pilot/Spring Valve



G1/4 Ports

9149	Description
7020010200	3/2 G1/4"

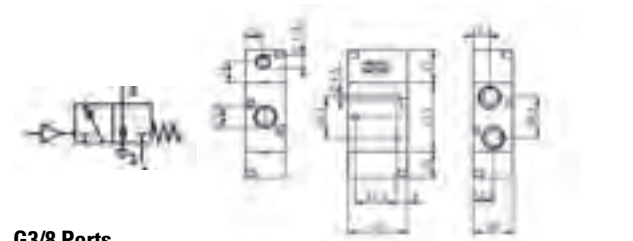
3/2 Pilot/Spring Valve



G3/8 Ports

9149	Description
7040010400	3/2 G3/8" NO

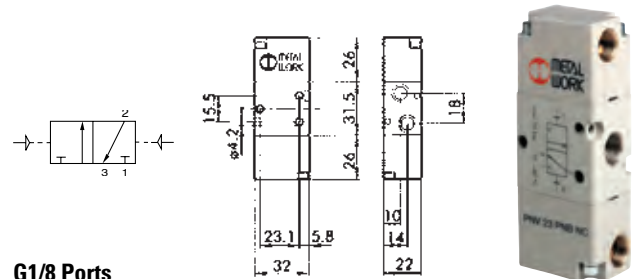
3/2 Pilot/Spring Valve, NC



G3/8 Ports

9149	Description
7040010200	3/2 G3/8"

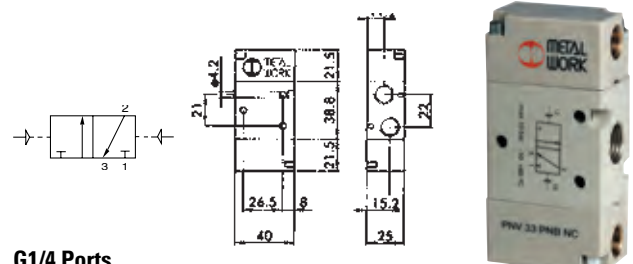
3/2 Pilot/Pilot Valve



G1/8 Ports

9149	Description
7010010100	3/2 G1/8"

3/2 Pilot/Pilot Valve



G1/4 Ports

9149	Description
7020010100	3/2 G1/4"

3/2 Pilot/Pilot Valve, NC

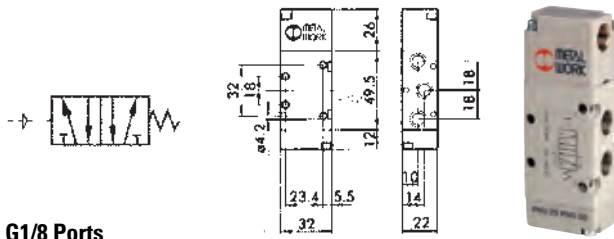


G3/8 Ports

9149	Description
7040010100	3/2 G3/8" NC

PNEUMATICALLY OPERATED VALVES

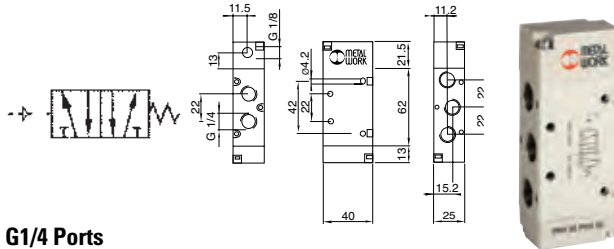
5/2 Pilot/Spring Valve



G1/8 Ports

9149	Description
7010011100	5/2 G1/8"

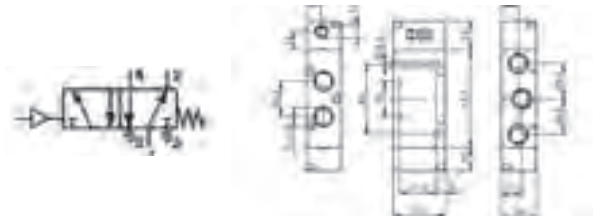
5/2 Pilot/Spring Valve



G1/4 Ports

9149	Description
7020011100	5/2 G1/4"

5/2 Pilot/Spring Valve



G3/8 Ports

9149	Description
7040011100	5/2 G3/8"

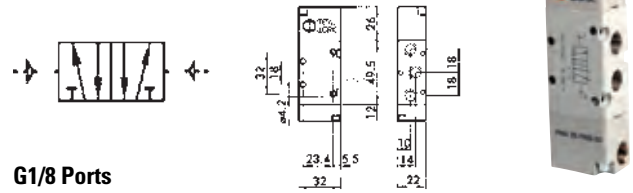
5/2 Pilot/Spring Valve



G1/2 Ports

9149	Description
7030011100	5/2 G1/2"

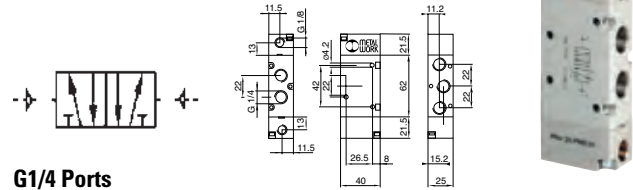
5/2 Pilot/Pilot Valve



G1/8 Ports

9149	Description
7010011200	5/2 G1/8"

5/2 Pilot/Pilot Valve



G1/4 Ports

9149	Description
7020011200	5/2 G1/4"

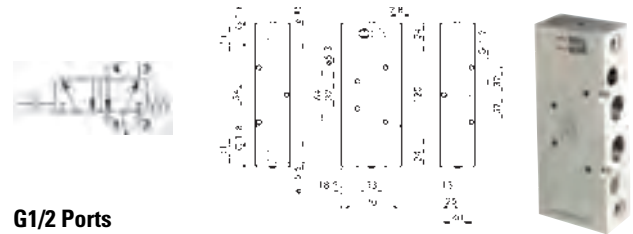
5/2 Pilot/Pilot Valve



G3/8 Ports

9149	Description
7040011200	5/2 G3/8"

5/2 Pilot/Pilot Valve



G1/2 Ports

9149	Description
7030011200	5/2 G1/2"

5/2 Pilot/Pilot Valve (Differential)



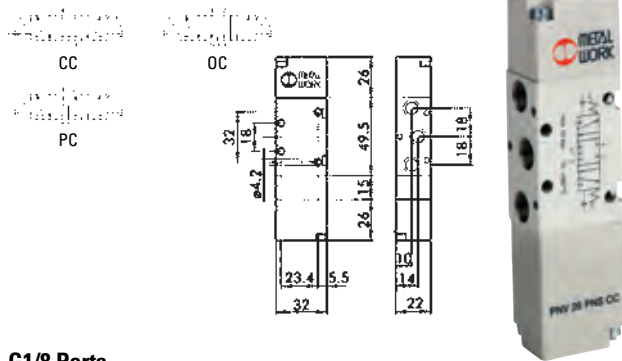
G3/8 Ports

9149	Description
7040011300	5/2 G3/8"

PNEUMATICALLY OPERATED VALVES



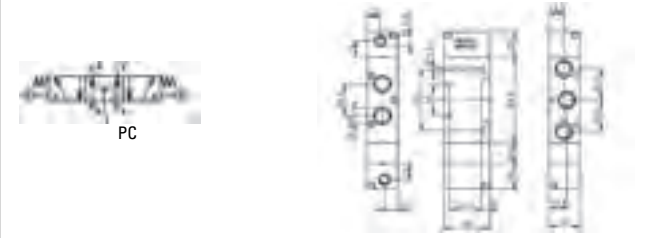
5/3 Pilot/Spring/Pilot Valve, PC



G1/8 Ports

9149	Description
7010012300	5/3 G1/8" PC

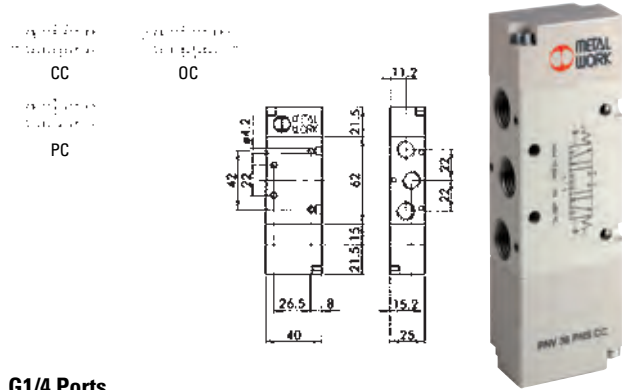
5/3 Pilot/Spring/Pilot Valve, PC



G3/8 Ports

9149	Description
7040012300	5/3 G3/8" PC

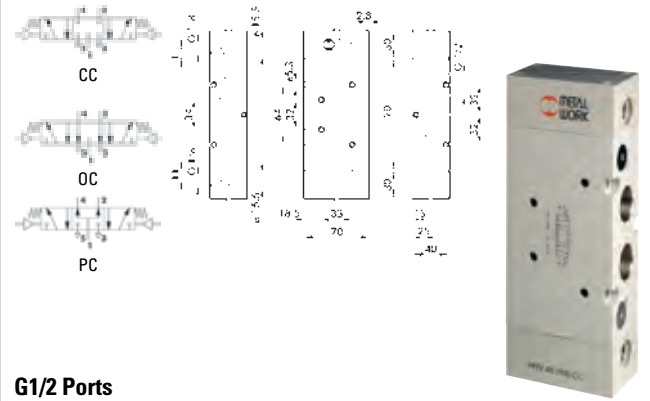
5/3 Pilot Valve, PC



G1/4 Ports

9149	Description
7020012300	5/3 G1/4" PC

5/3 Pilot/Spring/Pilot Valve, PC



G1/2 Ports

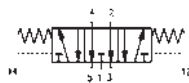
9149	Description
7030012300	5/3 G1/2" PC



For **Silencers**
see page **631**

DIRECTIONAL CONTROL VALVES

Series 3, In-line Pneumatically Operated Valves

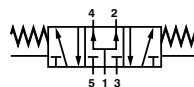
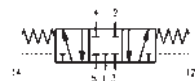


5/2 Pneumatic/Pneumatic Bistable

0158	Thread
358 033	G1/8"
354 033	G1/4"
Tech Sheet 1847	

5/3 Pneumatic Open Centres

0158	Thread
378 033	G1/8"
374 033	G1/4"
Tech Sheet 1847	



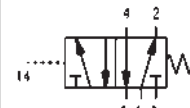
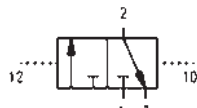
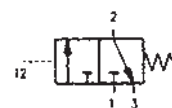
5/3 Pneumatic Closed Centres

0158	Thread
368 033	G1/8"
364 033	G1/4"
Tech Sheet 1847	

5/3 Pneumatic Pressure Centres

0158	Thread
388 033	G1/8"
384 033	G1/4"
Tech Sheet 1847	

Series 3, In-line Pneumatically Operated Valves



3/2 Pneumatic/Spring N/C

0158	Thread
338 035	G1/8"
338L 035	G1/8"
334 035	G1/4"
Tech Sheet 1847	

3/2 Pneumatic/Pneumatic Bistable

0158	Thread
338 033	G1/8"
338L 033	G1/8"
334 033	G1/4"
Tech Sheet 1847	

Series 3, 5/2 Pneumatic/Spring Monostable

0158	Thread
358 035	G1/8"
354 035	G1/4"
Tech Sheet 1847	

PNEUMATIC VALVES & ACCESSORIES



Pilot & Solenoid Valves



Viking Xtreme Valve 3/2 Pilot Operated G1/2"

0681	Actuator	Return	Thread BSPP
P2LDX314PS	Pilot	Spring	1/2"



Viking Xtreme G1/2" Valves Pilot & Solenoid 5/2

0681	Actuator	Return	Voltage (if applicable)
P2LDX514ESNXXX	Electric	Spring Return	Less Solenoid



ISOMAX Solenoid Operated Valves ISO 1 & 2

0681	ISO Size	Actuator	Return	Voltage (if applicable)
DX1-621-BN	1 - 43mm	Electric	Spring Return	Less Solenoid
DX2-621-BN	2 - 56mm	Electric	Spring Return	Less Solenoid
DX1-606-BN	1 - 43mm	Electric	Electric	Less Solenoid
DX2-606-BN	2 - 56mm	Electric	Electric	Less Solenoid



Side Ported Manifold & End Plates ISO 1 & 2

0681	Description	Ported	Port Size	ISO Size
P2N-EM512MD	Manifold	Side	1/4" BSPP	1 - 43mm



Heavy-duty Pilot 3/2 Poppet Valve G1/2"

0681	Actuator	Return
B203P	Pilot	Spring

3/2 PNEUMATIC VALVES

Series 224 Pilot



Pilot/Spring Return, BSPP

0110	Thread	Function
224.32.11.1	1/4"	Normally Closed



Pilot/Pilot, BSPP

0110	Thread	Function
224.32.11.11	1/4"	Normally Closed

Series T24 Tecno Eco



Pilot/Spring Return

0110	Thread	Function
T24.32.11.1	1/4"	Normally Closed



Pilot/Pilot

0110	Thread	Function
T24.32.11.11	1/4"	Normally Closed

Series T200 Pilot



Pilot/Spring Return, BSPP

0110	Thread	Function
T228.32.11.1	1/8"	Normally Closed



Pilot/Pilot, BSPP

0110	Thread	Function
T228.32.11.11	1/8"	Normally Closed

Series T400 Tecno Eco Pilot



Pilot/Spring Return, BSPP

0110	Thread	Function
T488.32.11.1	1/8"	Normally Closed



Pilot/Pilot, BSPP

0110	Thread	Function
T488.32.11.11	G1/8"	Normally Closed

Series 212 Pilot



Pilot/Spring Return, BSPP

0110	Thread	Function
212/2.32.11.1	1/2"	Normally Closed



Pilot/Pilot, BSPP

0110	Thread	Function
212/2.32.11.11	1/2"	Normally Closed

200 Series Pilot Valves - 1/8"



200 Series Pilot/Spring Return 3/2 - G1/8"

0110	Description	Port Size
228.32.11.1	Pilot-Spring	G1/8"



200 Series Amplified Pilot/Spring Return 3/2 - G1/8"

0110	Description	Port Size
228.32.13.1	Amplified Pilot-Spring	G1/8"



200 Series Pilot/Pilot 3/2 - G1/8"

0110	Description	Port Size
228.32.11.11	Pilot-Pilot	G1/8"
228.32.11.12	Pilot-Ext Differential	G1/8"

5/2 PNEUMATIC VALVES



Series 200 Pilot

Pilot/Spring Return, BSPP

0110	Thread
228.52.11.1	1/8"



Amplified Pilot/Spring Return, BSPP

0110	Thread
228.52.13.1	1/8"



Pilot/Pilot

0110	Thread
228.52.11.11	1/8"



Pilot/Pilot Differential External

0110	Thread
228.52.11.12	1/8"



Series 224 Pilot

Pilot/Spring Return, BSPP

0110	Thread
224.52.11.1	1/4"



Pilot/Pilot, BSPP

0110	Thread
224.52.11.11	1/4"



Series 212 Pilot

Pilot/Spring Return, BSPP

0110	Thread
212/2.52.11.1	1/2"



Pilot/Pilot, BSPP

0110	Thread
212/2.52.11.12	1/2"



Series T200 Tecno Pilot

Pilot/Spring Return, BSPP

0110	Thread
T228.52.11.1	1/8"



Pilot/Pilot, BSPP

0110	Thread
T228.52.11.11	1/8"



Series T224 Tecno Eco

Pilot/Spring Return, BSPP

0110	Thread
T224.52.11.1	1/4"



Pilot/Pilot, BSPP

0110	Thread
T224.52.11.11	1/4"



Series T400 Tecno Pilot

Pilot/Spring Return, BSPP

0110	Thread
T488.52.11.1	1/8"



Pilot/Pilot, BSPP

0110	Thread
T488.52.11.11	1/8"



5/3 PNEUMATIC VALVES



Series 224 Pilot

Pilot/Pilot, BSPP

0110	Thread	Function
224.53.31.11.11	1/4"	Closed Centre



Series 224 Tecno Eco

Pilot/Pilot, BSPP

0110	Thread	Function
T224.53.31.11.11	1/4"	Closed Centre
T224.53.32.11.11	1/4"	Open Centre



Series T400 Tecno Eco

Pilot/Pilot, BSPP

0110	Thread	Function
T488.53.31.11.11	1/8"	Closed Centre



Medium: Clean compressed air. Filtered (40µm) and lubricated
Body Material: Aluminium alloy
Seals: Nitrile

Working Temperature:
 0°C to +60°C

Working Pressure:
 2 to 10 bar



NOT Valve



4mm Push-in Connection

9149

KP080394

Tech Sheet 3098

AND Valve



4mm Push-in Connection

9149

KP080254

Tech Sheet 3098

YES Valve



4mm Push-in Connection

9149

KP080494

Tech Sheet 3098

Mono-stable Valve



4mm Push-in Connection

9149

KP040034

Tech Sheet 3098

OR Valve



4mm Push-in Connection

9149

KP080214

Tech Sheet 3098



For Pneumatic Tube
 see pages 895-904

PNEUMATIC LOGIC VALVES

Introduction

Logic elements are available with five different functions:
OR, AND, NOT, YES, MEMORY.


Main features common to all elements:

- Adaptor for DIN rail bar (DIN EN 50022) integral with the body
- Built-in pressure indicator
- Pipe locking system using $\varnothing 4$ built-in fitting

Technical Specification

- Nominal diameter: 2.7mm
- Flow rate at 6 bar P 1 bar: 100 NI/min
- Reset:
 - AND, OR via compressed air
 - YES, NOT via mechanical spring

 **Operating Temperature Range:**
-10°C to 60°C

 **Pressure Range:**
YES, MEMORY, OR, AND from 0 to 8 bar pilot pressure from 1.5 to 8 bar
NOT from 0.4 to 6 bar

Logic Elements



OR

9149	Description
W360400001	Function 4mm Fittings



AND

9149	Description
W360400002	Function 4mm Fittings



NOT

9149	Description
W360400003	Function 4mm Fittings



YES

9149	Description
W360400004	Function 4mm Fittings



MEMORY

9149	Description
W360400005	Function 4mm Fittings

Technical Specification

Delay setting range: from 0 to 30, at 6 bar
Signal shut off time: <0.1s



Timer

9149	Description
W360400006	Timer with 4mm Fittings

PNEUMATIC CONTROL



Pneumatic Visual Indicators

Maximum Working Pressure:
8 bar



22mm Diameter

0113	Colour	To Fit Tube Size mm
CZT-84 150 201	Red	4
CZT-84 150 202	Green	4
CZT-84 150 203	Yellow	4

Tech Sheet 1508

DIN Rail Mountable Pressure & Vacuum Switches



IP20

0113	Function	To Fit Tube Size mm	Manual Override Detail	Switching Adjustment
CZT-81 513 501	Pressure Switch	4	Yes	2 to 8 bar
CZT-81 513 502	Pressure Switch	4	No	2 to 8 bar
CZT-81 513 552	Vacuum Switch	4	No	-0.3 to -0.8 bar

Tech Sheet 1509

Sub-base Mountable Pressure & Vacuum Switches



IP54

0113	Manual Override Detail	Switching Adjustment
CZT-81 513 510	Yes	2 to 8 bar

Tech Sheet 1510

Sub-bases



Push-in

0113	Type	To Fit Tube Size mm
CZT-81 532 001	Single/End Sub-base, DIN Rail Mount	4
CZT-81 532 102	Associable Sub-base, DIN Rail Mount	4
CZT-81 532 104	Single Sub-base, 2 x M4 Screw Mount	4

Tech Sheet 20085

Timers

- 2.7mm Orifice, 170 L/min
- Accuracy +/- 5%.
- Positive output gives a time delay then an output.
- Greater than 107 operations.
- Minimum Reset <0.1 sec.
- Negative output gives an immediate output that switches off after a delay.



Working Temperature:
-5 to +50°C

Sub-base Mounted

0113	Timer Range	Switching Output
CZT-81 503 710	0.1 to 15 Adjustable	Positive
CZT-81 506 710	0.1 to 15 Adjustable	Negative
CZT-81 503 720	0.1 to 30 Adjustable	Positive
CZT-81 506 720	0.1 to 30 Adjustable	Negative
CZT-81 503 725	0.1 to 60 Adjustable	Positive
CZT-81 507 540	0.4 Fixed Single Impulse Gen.	-
CZT-81 507 720	0.02 to 8 Hz Adj. Freq. Gen.	-

Tech Sheet 1513

Logic Elements

Flow rate based on 6 bar pressure rating.

Working Pressure:
2 to 8 bar
Plug-in



0113	Type	To Fit Tube Size mm	Litres per min
CZT-81 540 001	OR Gate	4	170
CZT-81 540 005	OR Gate	6	200
CZT-81 541 001	AND Gate	4	150
CZT-81 541 005	AND Gate	6	200
CZT-81 545 001	Vacuum	4	-

Tech Sheet 1511

2.7mm orifice, 170 L/min. Greater than 107 operations

Function:

OR Element:

The output signal "S" is present when a signal at "a" OR "b" is present. S = a OR b.

AND Element:

The output signal "S" is present only when signals "a" AND "b" are present simultaneously. S = a AND b.

YES Element:

The output signal "S" is only present when the pilot is present. S = a YES b.

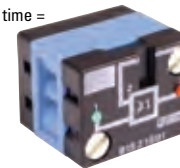
Working Temperature:
-5 to +50°C

Working Pressure:
2 to 8 bar

NOT Element:

The output signal "S" is present only if the input signal "a" is NOT present. The output signal is therefore the inverse of the pilot signal. S = NOT a. If the supply port is connected to a 2nd input "b" the function obtained is called Inhibition. S=NOT a AND b.

Note: Switching time = <4ms exception OR and AND.



Sub-base Mounted

0113	Type	Colour
CZT-81 521 501	OR Gate	Blue
CZT-81 522 501	AND Gate	Green
CZT-81 501 025	YES Gate	Yellow
CZT-81 503 025	Yes Gate (Threshold)	Orange
CZT-81 504 025	NO Gate (Simple & Inhibition)	Light Grey
CZT-81 506 025	NO Gate (Threshold)	Dark Grey

Tech Sheet 1512

Interface Modular Valve Range

Ideal for DIN rail mounting applications.

Mechanical life 5 x 107.

Switching time 5 to 15ms.

IP rating when used with Sub-base IP20.

IP rating when used with DIN connector IP65.

Note: Flow rate based on 6 bar.

Coil Consumption: 1W

Voltage: 24V DC

LPM: 25 L/min

Working Pressure:
1 to 8 bar



Miniature Solenoid Valves & Sub-bases

0113	Function	Coil Consumption	Voltage	LPM
CZT-81 519 032	3/2 NC without Manual Override	1W	24VDC	25
CZT-81 519 632	3/2 NC with Maintained Manual Override	1W	24VDC	25

Tech Sheet 1515

Accessories

LED Indicator

0113	Type	Voltage
CZT-81 513 052	Visual LED Indicator	24V AC/DC 50-60Hz

Tech Sheet 20741



COUNTERS



Ratchet Counters

Rugged 4 and 5 figure hand-operated reset counters with push button actuator for easy operation. It can be used for unlimited counting chores. Traffic analysis, attendance, sporting events, farming and ranching operations, inventory control, surveys, laboratory studies, production counting and a variety of merchandises.



4 Figure Ratchet Tally Counter with Reset

0065
2089-3731

Tech Sheet 20088



5 Figure Ratchet Counter with Reset

0065
2089-3764

Tech Sheet 20088

PNEUMATIC TIMERS & COUNTERS



Timers 5/2

- Working Temperature:**
-10 to +60°C
- Pressure Range:**
1.2 to 10 bar



M5 Thread

0047	Timer Range
KU-54.022	3-100 sec, Normally Open or Normally Closed
KU-54.023	0.3-10 min, Normally Open or Normally Closed
KU-54.024	3-100 min, Normally Open or Normally Closed

Tech Sheet 175

Timers 3/2

- Working Pressure:**
2 to 6 bar



M5 Thread, NC

0047	Timer Range
KU-51.020.03.00	2-30 sec, Normally Closed
KU-51.020.30.00	20-300 sec, Normally Closed

Tech Sheet 176

Pneumatic Preset Counters

- Working Temperature:**
0 to +60°C
- Pressure Range:**
2 to 8 bar



5 Digit

0047	Thread
KU-50.680	M5

Tech Sheet 177



6 Digit

0047	Thread
KU-50.670	M5

Tech Sheet 178

Working Temperature:
0°C to +60°C



Impulse Valves

Working Pressure:
2 to 10 bar



Normally Open, 1/8" BSPP

9149
KP100014

Tech Sheet 3099

Working Pressure:
2 to 10 bar



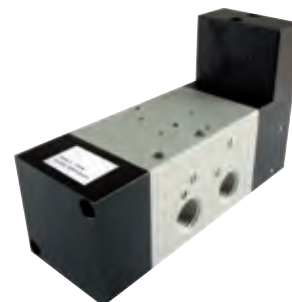
Normally Closed, 1/8" BSPP

9149
KP100094

Tech Sheet 3099

Oscillating Valves

Working Pressure:
2 to 10 bar



Continuous Cycle, 1/4" BSPP

9149
KP010444

Tech Sheet 3100

Working Pressure:
2 to 10 bar



Pneumatically Piloted, 1/4" BSPP

9149
KP010464

Tech Sheet 3100

Flip Flop Valve

Working Pressure:
3 to 10 bar



Pneumatically Piloted, 1/4" BSPP

9149
KP100354

Tech Sheet 3103

SPECIALIST VALVES

🌡️ **Working Temperature:**
0°C to +60°C



High Flow Pneumatic Timer for Automatic Return

🕒 **Working Pressure:**
2 to 10 bar



1/8" BSPP

9149
KP000744

Tech Sheet 3101

Vacuum Driven Liquid Sprayer

🕒 **Working Pressure:**
3 to 8 bar



M5 Thread

9149
KP2005

Tech Sheet 3102

Two Hand Safety Unit

🌡️ **Working Temperature:** 0°C to +60°C

🕒 **Working Pressure:** 3 to 8 bar



4mm Push-in

0341
KP081564

Tech Sheet 3099

The pre-assembled unit is specially designed with the operator's safety in mind. The unit requires both hands of the operator to function; if both 3/2 button valves are not activated within 0.5 seconds of each other the unit will not operate.



Two Hand Safety Base Unit, 1/8" BSPP

9149
KPBU081564

Tech Sheet 3099

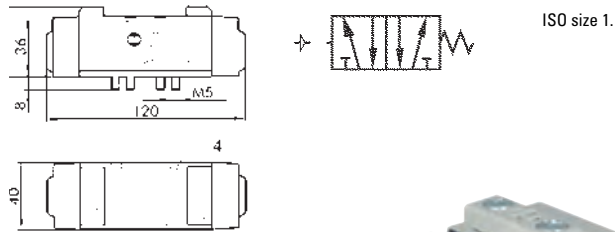
ISO VALVES



Technical Data

ISO Size	Operating Pressure	Operating Temperature Range	Nominal Diameter	Flow Rate at 6 bar ΔP 0.5 bar	Flow Rate at 6 bar ΔP 1 bar
1	Vacuum \leftrightarrow \geq 10 bar	-10°C to 60°C \geq	7.5mm	700 NI/min	1100 NI/min
2			12mm	1800 NI/min	2700 NI/min

Pneumatic ISO 5599 Valves



5/2 Pilot/Spring

9149	ISO Size
7051011100	1
7052011100	2

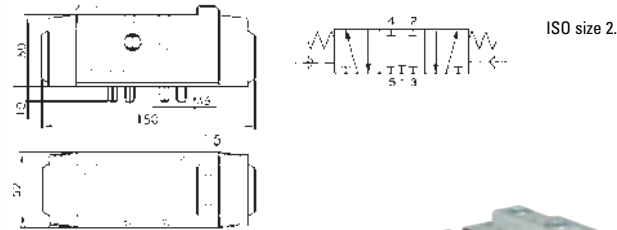
Pneumatic ISO 5599 Valves



5/2 Pilot/Pilot

9149	ISO Size
7051011200	1
7052011200	2

Pneumatic ISO 5599 Valves



5/3 Pilot/Pilot Closed Centres

9149	ISO Size
7051012100	1
7052012100	2

Pneumatic ISO 5599 Valves



5/3 Pilot/Pilot Open Centres

9149	ISO Size
7051012200	1
7052012200	2

Pneumatic ISO 5599 Valves



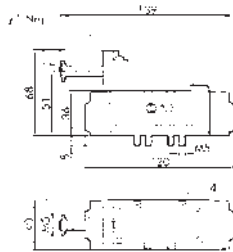
5/3 Pilot/Pilot Pressurised Centres

9149	ISO Size
7051012300	1
7052012300	2

ISO VALVES

Solenoid ISO 5599 Valves

ISO size 1.



5/2 Solenoid/Spring

9149	ISO Size
7051021100	1
7052021100	2

Solenoid ISO 5599 Valves



5/2 Solenoid/Solenoid

9149	ISO Size
7051021200	1
7052021200	2

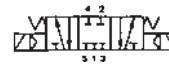
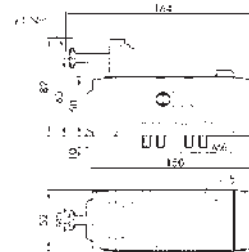


For **Pre wired**
moulded **DIN Plugs**
see page **1043**



Solenoid ISO 5599 Valves

ISO size 2.



5/2 Solenoid/Solenoid Closed Centres

9149	ISO Size
7051022100	1
7052022100	2

Solenoid ISO 5599 Valves



5/2 Solenoid/Solenoid Open Centres

9149	ISO Size
7051022200	1
7052022200	2

Solenoid ISO 5599 Valves



5/3 Solenoid/Solenoid Pressurised Centres

9149	ISO Size
7051022300	1
7052022300	2

ISO VALVES

Safe Air Series Solenoid Spring Valves ISO 5599/1

- Nominal Diameter 7.5
- Flow Rate at 6 bar Δp 0.5 bar 700 NI/min
- Flow rate at 6 bar Δp 1bar 1100 NI/min

Operating Temperature Range:
-10°C to 60°C

Operating Pressure:
2.5 to 10 bar



ISO 1, 2.5 Metre, 3 Wires

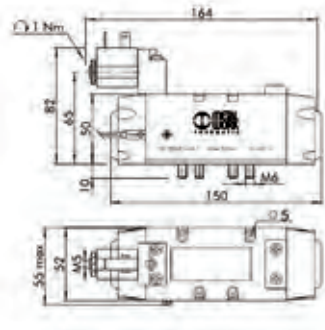
9149	Description
7057021100	Solenoid/Spring
7057021400	Solenoid/Spring Pilot

Safe Air Series Solenoid Spring Valves ISO 5599/1

- Nominal Diameter 12
- Flow Rate at 6 bar Δp 0.5 bar 1800 NI/min
- Flow Rate at 6 bar Δp 1bar 2700 NI/min

Operating Temperature Range:
-10°C to 60°C

Operating Pressure:
2.5 to 10 bar

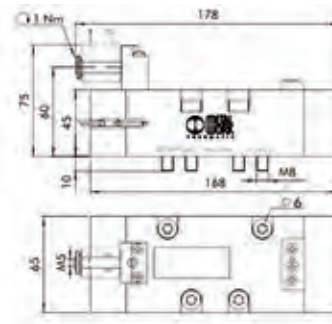


Safe Air Series Solenoid Spring Valves ISO 5599/1

- Nominal Diameter 15
- Flow Rate at 6 bar Δp 0.5 bar 3200 NI/min
- Flow Rate at 6 bar Δp 1bar 4600 NI/min

Operating Temperature Range:
-10°C to 60°C

Operating Pressure:
2.5 to 10 bar



ISO 2, 2.5 ISO 1, 2.5 Metre, 3 Wires

9149	Description
7058021100	Solenoid/Spring
7058021400	Solenoid/Spring Pilot

ISO 3, 2.5 Metre, 3 Wires

9149	Description
7059021100	Solenoid/Spring
7059021400	Solenoid/Spring Pilot

ACCESSORIES FOR ISO VALVES

Solenoid Coils for ISO 5599 Valves, Size 1

Technical Data

- Voltage tolerance: -10% to +15%
- Insulation class: F155
- Degree of protection: IP65 EN60529 with connector
- Avoid prolonged exposure to atmospheric agents
- Coil temperature range, 100% ED:
+20°C to +70°C (ambient temperature)



22mm

9149	Description
W0215000101	24V DC
W0215000111	24V AC
W0215000121	110V AC
W0215000131	220V AC

9072	Description
M1NS2000	Form B Socket Connector

Solenoid Coils for ISO 5599 Valves, Size 2



30mm

9182	Description
W0210010100	24V DC
W0210011100	24V AC
W0210012100	110V AC
W0210013100	220V AC

9072	Description
G1NU2000	Form A Socket Connector



Sub-bases



For ISO 5599 Valves, Size 1

9258	Description
0228000150	1) Manifold Base, Side Ports
0228000155	2) Manifold Base, Bottom Ports
0228000200	3) Input End Plate
0228000210	5) Blind End Plate
0228000300	6) Intermediate Plate, Top Ports
0228000301	7) Intermediate Plate, Back Ports
0228000500	8) Blanking Plate
0228000400	9) Intermediate Diaphragm
0228000100	11) Individual Base, Side Ports
0228000700	13) Assembly Kit

Sub-bases

For ISO 5599 Valves, Size 2

9258	Description
0228001150	1) Manifold Base, Side Ports
0228001155	2) Manifold Base, Bottom Ports
0228001200	3) Input End Plate
0228001210	5) Blind End Plate
0228001300	6) Intermediate Plate, Top Ports
0228001301	7) Intermediate Plate, Back Ports
0228001500	8) Blanking Plate
0228001400	9) Intermediate Diaphragm
0228001100	11) Individual Base, Side Ports
0228001700	13) Assembly Kit

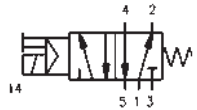
DIRECTIONAL CONTROL VALVES

Series 9, Electro Pneumatically & Pneumatically Operated Valves*

Actuation:

Solenoid/Spring

- Coils also available separately



Size 1, 5/2 Manual Override Spring Return Single Solenoid Valves (951)

0158	Voltage
951 000 P15 23	Valve Body
2085-9179	24V 50/60Hz 3.5VA
2085-9195	110V 50/60Hz 3.5VA
2085-9203	240V 50/60Hz 4VA
2085-9211	48V DC 3W
2085-9229	110V DC 3W
2085-9245	24V DC 3W
2085-9252	6V DC 5W
2085-9260	12V DC 5W
2085-9278	24V DC 5W
2085-9286	48V DC 5W
2085-9294	110V DC 5W

Tech Sheet 1849

Size 2, 5/2 Manual Override Spring Return Single Solenoid Valves (952)

0158	Voltage
952 000 P15 23	Valve Only
2085-9310	24V 50/60Hz 3.5VA
2085-9328	110V 50/60Hz 3.5VA
2085-9336	240V 50/60Hz 4VA
2085-9344	48V DC 3W
2085-9351	110V DC 3W
2085-9369	24V DC 3W
2085-9377	6V DC 5W
2085-9385	12V DC 5W
2085-9393	24V DC 5W
2085-9401	48V DC 5W
2085-9419	110V DC 5W

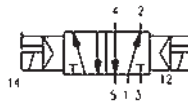
Tech Sheet 1849

Size 3, 5/2 Manual Override Spring Return Single Solenoid Valves (953)

0158	Voltage
953 000 P15 23	Valve Only
2085-9435	24V 50/60Hz 3.5VA
2085-9443	110V 50/60Hz 3.5VA
2085-9450	240V 50/60Hz 4VA
2085-9468	48V DC 3W
2085-9476	110V DC 3W
2085-9484	24V DC 3W
2085-9492	6V DC 5W
2085-9500	12V DC 5W
2085-9518	24V DC 5W
2085-9526	48V DC 5W
2085-9534	110V DC 5W

Tech Sheet 1849

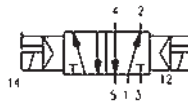
*According to ISO 5599/1



Size 1, 5/2 Manual Override Double Solenoid Valve (951)

0158	Voltage
951 000 P11 23	Valve Only
951 P11 23 U7H	24V 50/60Hz 3.5VA
951 P11 23 U7K	110V 50/60Hz 3.5VA
951 P11 23 U7J	240V 50/60Hz 4VA
951 P11 23 U72	12V DC 5W
951 P11 23 U73	24V DC 5W
951 P11 23 U74	48V DC 5W
951 P11 23 U76	110V DC 5W
951 P11 23 U77	24V DC 3W

Tech Sheet 1849



Size 2, 5/2 Manual Override Double Solenoid Valve (952)

0158	Voltage
952 000 P11 23	Valve Only
952 P11 23 U7H	24V 50/60Hz 3.5VA
952 P11 23 U7K	110V 50/60Hz 3.5VA
952 P11 23 U7J	240V 50/60Hz 4VA
952 P11 23 U72	12V DC 5W
952 P11 23 U73	12V DC 5W
952 P11 23 U74	48V DC 5W
952 P11 23 U76	110V DC 5W
952 P11 23 U77	24V DC 3W

Tech Sheet 1849



Size 3, 5/2 Manual Override Double Solenoid Valve (953)

0158	Voltage
953-000-P11-23	Valve Only
953 P11 23 U7H	24V 50/60Hz 3.5VA
953 P11 23 U7K	110V 50/60Hz 3.5VA
953 P11 23 U7J	240V 50/60Hz 4VA
953 P11 23 U72	12V DC 5W
953 P11 23 U73	12V DC 5W
953 P11 23 U74	48V DC 5W
953 P11 23 U76	110V DC 5W
953 P11 23 U77	24V DC 3W

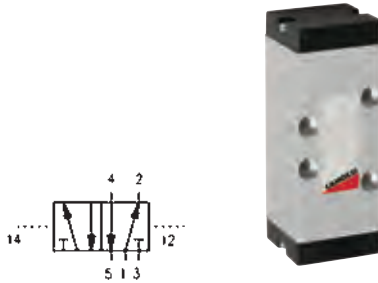
Tech Sheet 1849

Pneumatic spring return and 5/3 CO, CC options also available

DIRECTIONAL CONTROL VALVES

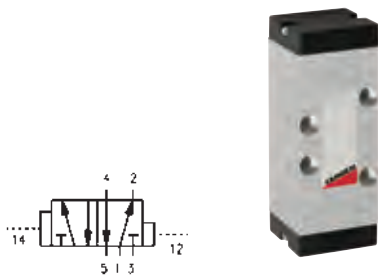


Series 9, Electro Pneumatically & Pneumatically Operated Valves*



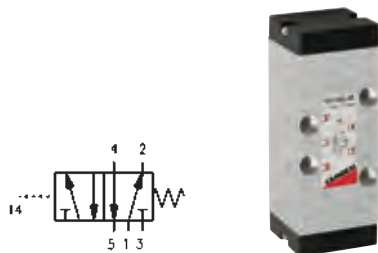
5/2 Pneumatic/Pneumatic Return Valves
(951, 952 & 953)

0158	Port Size
951 000 33	Size 1
952 000 33	Size 2
953 000 33	Size 3
Tech Sheet 1849	



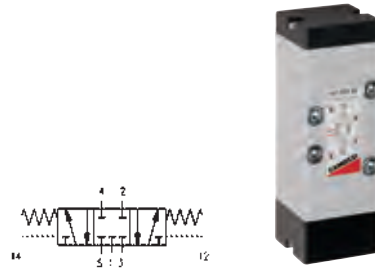
5/2 Pneumatic Differential Return Valves
(951, 952 & 953)

0158	Port Size
951 000 34	Size 1
952 000 34	Size 2
953 000 34	Size 3
Tech Sheet 1849	



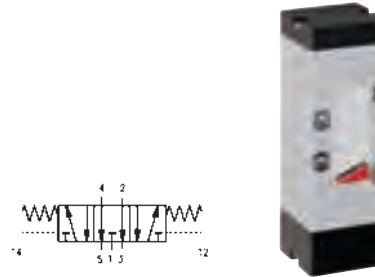
5/2 Pneumatic Mechanical Spring Return Valves (951, 952 & 953)

0158	Port Size
951 000 35	Size 1
952 000 35	Size 2
953 000 35	Size 3
Tech Sheet 1849	



5/3 Pneumatic Closed Centres
(961, 962 & 963)

0158	Port Size
961 000 33	Size 1
962 000 33	Size 2
963 000 33	Size 3
Tech Sheet 1849	



5/3 Pneumatic Open Centres
(971, 972 & 973)

0158	Port Size
971 000 33	Size 1
972 000 33	Size 2
973 000 33	Size 3
Tech Sheet 1849	



Single Sub-base with Side Outlets

0158	To Suit
901 F1A	ISO 1
902 F2A	ISO 2
903 F3A	ISO 3
Tech Sheet 1849	

*According to ISO 5599/1



Single Sub-base with Rear Outlets

0158	To Suit
901 G1A	ISO 1
902 G2A	ISO 2
903 G3A	ISO 3
Tech Sheet 1849	



Manifold Sub-base with Common Exhaust & Inlets

0158	To Suit
901 C1A	ISO 1
902 C2A	ISO 2
903 C3A	ISO 3
Tech Sheet 1849	



End Block for Manifold Sub-base

0158	To Suit
901 H1	ISO 1
902 H2	ISO 2
903 H3	ISO 3
Tech Sheet 1849	

SPECIAL PURPOSE VALVES

In-line Progressive Starter

The in-line progressive starter is a valve that regulates the flow of air until the outlet pressure reaches a certain value, at which the valve opens and allows air to flow at full rate.

This valve can be used to control a group of valves or a single valve, it can also be mounted between another valve and an actuator.

The air that enters inlet 1 passes through a choke that has a knob adjustment to control the flow. The valve opens completely when the outlet pressure reaches about 60% of the inlet pressure. If the air supply is switched off, the valve discharges air from outlet 2 to inlet 1.

Working Temperature:
-10°C to 70°C

Maximum Working Pressure:
10 bar

1/4" & 1/2"

9149	Thread
W3606000002	G1/4"
W3606000004	G1/2"



PRESSURE REGULATOR ASSEMBLY

Line-on Line, RMV

Valves

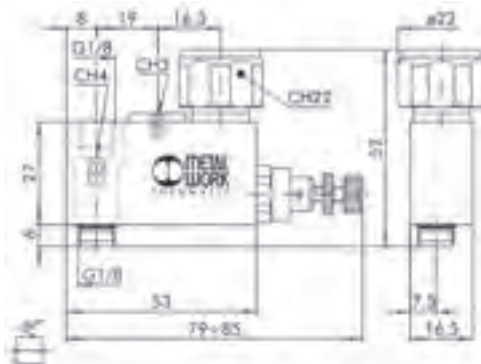
Flow-rate at 6.3 bar DP 1 bar (NI/min): 140

Functional denomination: Regulator

Thread Type: Cylindrical gas

Threaded Port: 1/8"

Temperature:
-10°C to 50°C



RMV, 1/8"

9149	Description
9061601	Line on Line RMV 1/8" Pressure Regulator Assembly



PRESSURE & VACUUM SWITCHES

Adjustable Pressure Switch

This type of pressure switch features a high degree of miniaturisation and a modern attractive design.

It can be installed in any position and also mounted onto a wall by means of two transversal holes.

In order to reduce wiring times, it is supplied ready assembled with a 2-metre electric cable or an M8 connector with a 300-mm cable.

The contact is the switching type, which means it can be normally open or normally closed

A knurled push-lock handle is provided for regulation



Working Temperature:
+50°C

Maximum Working Pressure:
15 bar

With 2 Metre Cable

9149	Thread
9000401	1/8"

Adjustable Pressure Switch

With M8 Connector & 300mm Cable

9149	Thread
9000402	1/8"

Digital Pressure Switch

The digital pressure switch can be used to transmit electric pressure signals and also display the pressure instantly. The signal is transmitted for two settable pressure values and with an analogue voltage signal. The values are clearly displayed on a LED video and different parameters can be entered from the keypad. Hysteresis can be adjusted and the unit's pressure can be modified. Two compressed air ports are provided, one at the back and one on the bottom. The pressure switch comes with a threaded plug in the bottom port. If you wish to connect to this port, merely unscrew the plug and screw it into the back port. Accessories are provided for fixing to the top or wall, or to a panel.



Maximum Working Pressure:
10 bar

With Digital Display Showing Pressure Reading

9149
9000600

Security Knob

NOTE: Pull outwards to remove the knob from the pressure switch on the unit. Insert the security knob and regulate the pressure switch. Then press the handle firmly to lock it in position. If the pressure switch needs to be reset, remove the security knob by forcing it laterally with a screwdriver.



To suit 9000401 & 9000402

9149
9200703

SPECIAL PURPOSE VALVES

Two Hand Safety Valve

Applications

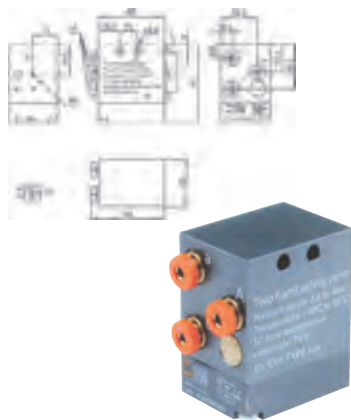
- Compressed air couplings: push-in fittings for Ø4mm pipe
- Unfiltered, non-lubricated compressed air
- Standard: EN574 type IIIA, TÜV approved certified M6020244919001
- Synchronisation, maximum time between two signals: 0.4 sec
- De-activation time, with 1000mm maximum pipe length: <0.05 sec
- Actuation: pneumatic
- Reset: spring operated
- Nominal diameter: 2.7mm
- Mounting position: any direction

Materials

- Body: anodised aluminium
- Internal parts: brass and technopolymer
- Gaskets: NBR
- Spring: alloy steel

Working Temperature:
-10°C to +60°C

Working Pressure:
2.5 to 8 bar



Complete Two Handed Push Button Assembly



4mm Push-in Fittings

9149
W360500001

4mm Push-in Connections

9149	Description
0227700000	4mm OD Push-in Inlets & Outlets

PNEUMATIC VIBRATORS

CORN • CEMENT • CHEMICAL • POWDERS • SAND • GRAVEL



Pneumatic Ball Vibrators

BSPP

0314	Thread	Min Pressure Bar	Max Pressure Bar	Air Consumption in Litres at 6 Bar
JM8	1/4"	2	6	195
JM10	1/4"	2	6	200
JM13	1/4"	2	6	225
JM16	1/4"	2	6	280
JM20	1/4"	2	6	340
JM25	1/4"	2	6	425
JM30	3/8"	2	6	570
JM36	3/8"	2	6	675

Tech Sheet 1012

- The JM range of ball vibrators produces a rotative vibration with infinitely variable amplitude and frequency. The frequency is controlled by air pressure. The vibrator is designed to perform the following activities: moving, feeding, compacting and/or separating of all kinds of materials such as chemical powders, corn, sand, gravel and cement, etc.
- It is designed for indoor and outdoor applications but not to be submerged in any kind of liquid.

° Maximum Working Temperature: +100°C (220°F)

Maximum Working Pressure: 6 bar

Pneumatic Turbine Vibrators

BSPP

0314	Thread	Min Pressure Bar	Max Pressure Bar	Air Consumption in Litres at 6 Bar
JMT8	1/8"	2	6	120
JMT10	1/8"	2	6	120
JMT13	1/4"	2	6	290
JMT16	1/4"	2	6	290
JMT20	1/4"	2	6	455
JMT25	1/4"	2	6	455
JMT30	3/8"	2	6	745
JMT36	3/8"	2	6	745

Tech Sheet 1013

- The JMT range of turbine vibrators produces a rotative vibration with infinitely variable amplitude and frequency. The frequency is controlled by air pressure. The vibrator is designed to perform the following activities: moving, feeding, compacting and/or separating of all kinds of materials such as chemical powders, corn, sand, gravel and cement, etc.

° Maximum Working Temperature: +100°C (220°F)

Maximum Working Pressure: 6 bar

Piston Vibrators

Aluminium, BSPP

0314	Thread	Min Pressure Bar	Min Pressure Bar	Air Consumption in Litres at 6 Bar
KFP-12-M	1/8"	2	6	20
KFP-18-M	1/8"	2	6	55
KFP-25-M	1/4"	2	6	88
KFP-35-M	1/4"	2	6	145

Tech Sheet 10158

INDUSTRIAL VIBRATORS



Model K Pneumatic Ball Vibrators



0024	VPM/N	BSP
K8	35000/360N	1/4"
K10	34000/710N	1/4"
K13	22500/870N	1/4"
K16	19500/1100N	1/4"
K20	16000/1720N	1/4"
K25	14000/2050N	1/4"
K30	12500/3210N	3/8"
K36	10000/4050N	3/8"

Model DAR Pneumatic Roller Vibrators



0024	VPM/N	BSP
DAR4	25000/6690N	1/4"

Model GT Pneumatic Turbine Vibrators



0024	VPM/N	BSP
GT4	15000/200N	1/8"
GT6	12500/210N	1/8"
GT8	46000/2910N	1/8"
GT10	37500/2400N	1/8"
GT13	33000/3730N	1/4"
GT16	24000/3160N	1/4"
GT20	23000/5520N	1/4"
GT25	17000/5070N	1/4"
GT30	16000/7540N	3/8"

Model FP Pneumatic Linear Vibrators



0024	VPM/N	BSP
FP12M	6700/74N	1/8"
FP25M	4200/504N	1/4"
FP35M	4600/1080N	1/4"



For **Suction Cups Range and Magic Grips**
see pages **707-760**

Compact Non-return Valves

° Working Temperature:
-20°C to +150°C

⊗ Maximum Working Pressure: 145 psi
Cracking Pressure: 0.5 psi



Brass, Viton Seals, BSPP

0444	Thread
VFU8.V	1/8"
VFU4.V	1/4"
VFU3.V	3/8"
VFU2.V	1/2"

Tech Sheet 20354

° Working Temperature: -10°C to +85°C
⊗ Maximum Working Pressure: 145 psi
Cracking Pressure: 0.5 psi

Brass, EPDM Seals

0444	Thread
VFU8.E	1/8"
VFU4.E	1/4"
VFU3.E	3/8"
VFU2.E	1/2"

Tech Sheet 20354

Ported Non-return Valves

° Working Temperature:
-10°C to +85°C

⊗ Maximum Working Pressure: 145 psi
Cracking Pressure: 0.5 psi



Brass, Nitrile Seals, BSPP

0444	Thread
VUP8.M	1/8"
VUP4.M	1/4"

Tech Sheet 20355

° Working Temperature: -20°C to +150°C
⊗ Maximum Working Pressure: 145 psi
Cracking Pressure: 0.5 psi

Brass, Viton Seals, BSPP

0444	Thread
VUP8.VM	1/8"
VUP4.VM	1/4"

Tech Sheet 20355

° Working Temperature: -10°C to +85°C
⊗ Maximum Working Pressure: 145 psi
Cracking Pressure: 0.5 psi

Brass, EPDM Seals, BSPP

0444	Thread
VUP8.EM	1/8"
VUP4.EM	1/4"

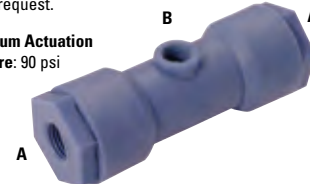
Tech Sheet 20355

Air Pinch Valves

Control Pressure:
20 to 40 psi greater than material pressure

N.B: Air pinch valve sleeves can be easily and economically replaced when they wear out. Other body and sleeve material options are available on request.

⊗ Maximum Actuation Pressure: 90 psi



With Polypropylene Body & Buna Sleeve, BSPP

0253	Thread A	Thread B
PINCH-AP6372	1/4"	1/8"
PINCH-AP6304	3/8"	1/8"
PINCH-AP6252	5/8"	1/4"

Tech Sheet 10324

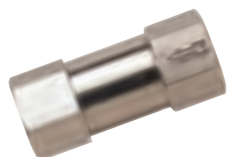
VALVES



Compact Non-return Valves, Brass

° Working Temperature:
-20°C to +80°C

⊗ Maximum Working Pressure: 8 bar (115 psi)
Cracking Pressure: 0.2 bar
Seal: Nitrile



Type 6062, Metric & BSPP

0090	Thread
6062-M5	M5
6062-18	1/8"
6062-14	1/4"
6062-38	3/8"
6062-12	1/2"

Tech Sheet 1607

° Working Temperature:
-20°C to +80°C

⊗ Maximum Working Pressure: 8 bar (115 psi)
Cracking Pressure: 0.2 bar



Type 6063, Male x Female, BSPP

0090	Thread
6063-18	1/8"
6063-14	1/4"
6063-38	3/8"
6063-12	1/2"

Tech Sheet 1607

Quick Exhaust Valves, Brass

° Working Temperature:
-20°C to +80°C

Type 6050, Metric & BSPP

0090	Thread
6050-M5	M5
6050-18	1/8"
6050-14	1/4"
6050-38	3/8"
6050-12	1/2"
6050-34	3/4"
6050-1	1"

Tech Sheet 552



Push-in Non-return Valves

° Working Temperature:
-20°C to +80°C

⊗ Maximum Working Pressure: 8 bar



1020	OD mm
6064-4	4
6064-6	6
6064-8	8

Tech Sheet 1608

BALL & CHECK VALVES

stainless
steel



Flow Control Regulators

Stainless steel flow control regulators control the speed of a pneumatic cylinder (models LE-7820 7822) or the speed of a chemical of food fluid carried (model 7822: for fluids compatible with FKM and PTFE seals) in aggressive environments or submitted to high mechanical or chemical constraints.

Designed without retention zones, these models are perfectly suitable for food applications or requiring frequent washing of installations.

Working Temperature:
-15°C to +120°C

Working Pressure:
1 to 16 bar



In-line, 1 Way Adjustment, BSPP

1012	Thread
LE-7820 00 10	1/8"
LE-7820 00 13	1/4"
LE-7820 00 17	3/8"
LE-7820 00 21	1/2"

Tech Sheet 10320

In-line, Bi-directional, BSPP

1012	Thread
LE-7822 00 10	1/8"
LE-7822 00 13	1/4"
LE-7822 00 17	3/8"
LE-7822 00 21	1/2"

Tech Sheet 10320

Adjustable Check Valves



Brass nickel plated

Female, BSPP

1012	Thread	Cracking Pressure Bar
LE-7930 10 10	1/8"	1 to 0.10
LE-7930 13 13	1/4"	1 to 0.10
LE-7930 17 17	3/8"	1 to 0.15

Tech Sheet 10660

Non-return Valves

Legris stainless steel non-return valves allow fluids to pass in one direction whilst blocking flow in the other direction. Robust and extremely compact, they are suitable for use as a safety item in all fluids circuits.

They are ideal for use in severe conditions and in aggressive environments.

Operation: A stainless steel valve blocks the fluid passage, when the pressure differential is lower than 0.25 bar.

Working Temperature:
-20°C to +180°C

Working Pressure:
0.5 to 40 bar



Uni-directional, Female x Female, BSPP

1012	Thread	OD mm
LE-4890 10 10	1/8"	22
LE-4890 13 13	1/4"	22
LE-4890 17 17	3/8"	30
LE-4890 21 21	1/2"	30
LE-4890 27 27	3/4"	35
LE-4890 34 34	1"	42

Tech Sheet 10320



Uni-directional, Female x Male, BSPP

1012	Thread	OD mm
LE-4892 10 10	1/8"	22
LE-4892 13 13	1/4"	22
LE-4892 17 17	3/8"	30
LE-4892 21 21	1/2"	30
LE-4892 27 27	3/4"	35
LE-4892 34 34	1"	42

Tech Sheet 10320



Uni-directional, Male x Female, BSPP

1012	Thread	OD mm
LE-4891 10 10	1/8"	22
LE-4891 13 13	1/4"	22
LE-4891 17 17	3/8"	30
LE-4891 21 21	1/2"	30
LE-4891 27 27	3/4"	35
LE-4891 34 34	1"	42

Tech Sheet 10320



Uni-directional, Female x Female, NPT

1012	Thread	OD mm
LE-4895 11 11	1/8"	22
LE-4895 14 14	1/4"	22
LE-4895 18 18	3/8"	30
LE-4895 22 22	1/2"	30

Tech Sheet 10320

Adjustable Check Valves, Supply Version



Brass nickel plated

Male x Female, BSPP

1012	Thread	Cracking Pressure Bar
LE-7931 10 10	1/8"	1 to 0.10
LE-7931 13 13	1/4"	1 to 0.10
LE-7931 17 17	3/8"	1 to 0.15

Tech Sheet 10660

VALVES



Auxiliary Valves

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar



Straight Union Check Valve, Tube x Tube

0018	OD mm
331.05.04	4
331.05.06	6
331.05.08	8
331.05.10	10
331.05.12	12

Tech Sheet 10329



Conical Check Out Valve, Tube x BSPT

0018	OD mm	Thread
331.01.04.18	4	1/8"
331.01.06.18	6	1/8"
331.01.06.14	6	1/4"
331.01.08.18	8	1/8"
331.01.08.14	8	1/4"
331.01.10.38	10	3/8"
331.01.12.38	12	3/8"
331.01.12.12	12	1/2"

Tech Sheet 10329



Conical Check In Valve, Tube x BSPT

0018	OD mm	Thread
331.02.04.18	4	1/8"
331.02.06.18	6	1/8"
331.02.06.14	6	1/4"
331.02.08.18	8	1/8"
331.02.08.14	8	1/4"
331.02.10.38	10	3/8"
331.02.12.38	12	3/8"
331.02.12.12	12	1/2"

Tech Sheet 10329

Ball Valves

• Vacuum - 750mm 1.1Hg



Union Ball Valve, Tube x Tube

0018	OD mm
351.01.06.06	6
351.01.08.08	8
351.01.10.10	10
351.01.12.12	12

Tech Sheet 10330



Straight Ball Valves, Tube x BSPP

0018	OD mm	Thread
351.03.06.18	6	1/8"
351.03.06.14	6	1/4"
351.03.08.18	8	1/8"
351.03.08.14	8	1/4"
351.03.08.38	8	3/8"
351.03.10.14	10	1/4"
351.03.10.38	10	3/8"
351.03.10.12	10	1/2"
351.03.12.38	12	3/8"
351.03.12.12	12	1/2"

Tech Sheet 10330



90° Elbow Union Ball Valves, Tube x Tube

0018	OD mm
351.04.06.06	6
351.04.08.08	8
351.04.12.12	12

Tech Sheet 10330



90° Elbow Union Ball Valves, Tube x BSPP

0018	OD mm	Thread
351.06.06.18	6	1/8"
351.06.06.14	6	1/4"
351.06.08.18	8	1/8"
351.06.08.14	8	1/4"
351.06.08.38	8	3/8"
351.06.10.14	10	1/4"
351.06.10.38	10	3/8"
351.06.10.12	10	1/2"
351.06.12.38	12	3/8"
351.06.12.12	12	1/2"

Tech Sheet 10330

SILENCERS



Plastic Silencers

Working Temperature:
0°C to +75°C

Maximum Working
Pressure: 10 bar



Granular Filling (Dynamic), POM Body, Male Thread, BSPP

0423	Thread
YPS-18	1/8"
YPS-14	1/4"
YPS-38	3/8"
YPS-12	1/2"
YPS-34	3/4"
YPS-1	1"

Tech Sheet 823



PE Body, Male Thread, BSPP

0423	Thread
PS-M5	M5
PS-18	1/8"
PS-14	1/4"
PS-38	3/8"
PS-12	1/2"
PS-34	3/4"

Tech Sheet 823



PE Body with Restrictor, Male Thread, BSPP

0423	Thread
RS-18	1/8"
RS-14	1/4"
RS-38	3/8"
RS-12	1/2"

Tech Sheet 823



PE Body, Metric Push-in

0423	Stem OD mm
S03STPI-6	6
S03WBPI-8	8
S04STPI-10	10
S05STPI-12	12

Tech Sheet 823



Granular Filling (Dynamic), Acetal Resin Body, Male Thread, BSPP

0448	Thread
7070-1/8	1/8"
7070-1/4	1/4"
7070-3/8	3/8"
7070-1/2	1/2"
7070-3/4	3/4"
7070-1	1"

Tech Sheet 823



Felt Filling (Static), Nylon Body, Male Thread, BSPPP

0448	Thread
7080-1/8	1/8"
7080-1/4	1/4"
7080-3/8	3/8"
7080-1/2	1/2"
7080-3/4	3/4"
7080-1	1"

Tech Sheet 823

Steel Silencers

Single Ported, Male Thread, BSPP



0449	Thread
SLS050	1/2"
SLS075	3/4"
SLS100	1"
SLS125	1.1/4"
SLS150	1.1/2"
SLS200	2"
SLS250	2.1/2"

Tech Sheet 20351

Double Ported, Male Thread, BSPP



0449	Thread
SLD050	1/2"
SLD075	3/4"
SLD150	1.1/2"
SLD200	2"

Tech Sheet 20351

Stainless Steel Silencers

stainless
steel



BSPP

0423	Thread
S70-18	1/8"
S70-14	1/4"
S70-38	3/8"
S70-12	1/2"
S70-34	3/4"
S70-1	1"

Stainless Steel Pad Silencers

Body: 304 stainless steel

Pad: 316 stainless steel

stainless
steel



Metric & BSPP

0423	Thread
12020507	M5
12021007	1/8"
12021307	1/4"
12021707	3/8"
12022107	1/2"
12022707	3/4"
12023207	1"

Tech Sheet 20455

Coned Brass & Sintered Bronze Silencers

7000, Male Thread, BSPP



0423	Thread
7000-1/8	1/8"
7000-1/4	1/4"
7000-3/8	3/8"
7000-1/2	1/2"
7000-3/4	3/4"
7000-1	1"

Tech Sheet 195

7030, Male Thread, NPT



0423	Thread
7030-1/8NPT	1/8"
7030-1/4NPT	1/4"
7030-3/8NPT	3/8"
7030-1/2NPT	1/2"
7030-3/4NPT	3/4"
7030-1NPT	1"

Tech Sheet 195

7030, Male Thread, Metric & BSPP



0423	Thread
7030-M5	M5
7030-1/8	1/8"
7030-1/4	1/4"
7030-3/8	3/8"
7030-1/2	1/2"
7030-3/4	3/4"
7030-1	1"

Tech Sheet 195

7040, Male Thread, Long, BSPP



0423	Thread
7040-1/8	1/8"
7040-1/4	1/4"
7040-3/8	3/8"
7040-1/2	1/2"
7040-3/4	3/4"

Tech Sheet 195

Square Head Silencer, BSPP



0423	Thread
12041000	1/8"
12041300	1/4"
12041700	3/8"
12042100	1/2"
12042700	3/4"
12043200	1"

Tech Sheet 195

Flat Brass & Sintered Bronze Silencers

7010, Male Thread, BSPP



0423	Thread
7010-M5	M5
7010-1/8	1/8"
7010-1/4	1/4"
7010-3/8	3/8"
7010-1/2	1/2"
7010-3/4	3/4"
7010-1	1"

Tech Sheet 195

7020, Male Thread, Metric & BSPP



0423	Thread
7020-M5	M5
7020-1/8	1/8"
7020-1/4	1/4"
7020-3/8	3/8"
7020-1/2	1/2"
7020-3/4	3/4"

Tech Sheet 195

7050, Male Thread, BSPP



0423	Thread
7050-1/8	1/8"
7050-1/4	1/4"
7050-3/8	3/8"
7050-1/2	1/2"

Tech Sheet 195

Round Brass Silencers

Metric & BSPP



0423	Thread
12100500	M5
12101000	1/8"
12101300	1/4"

Flush Brass Silencers



BSPP

0423	Thread
12001000	1/8"
12001300	1/4"
12001700	3/8"
12002100	1/2"
12002700	3/4"
12003200	1"

Miniature Silencers



Nickel Plated Brass, BSPP

1012	Thread
LE-0677 00 10	1/8"
LE-0677 00 13	1/4"
LE-0677 00 17	3/8"
LE-0677 00 21	1/2"
LE-0677 00 34	1"

Adjustable Brass Restricting Silencers



Metric & BSPP

0423	Thread
12090500	M5
12091000	1/8"
12091300	1/4"
12091700	3/8"
12092100	1/2"
12092700	3/4"
12093200	1"

Exhaust Silencer Restrictor



BSP

0423	Thread BSPP
ESR18	G1/8"
ESR14	G1/4"
ESR38	G3/8"
ESR12	G1/2"

ALWITCO MUFFLERS



Air Exhaust Muffler

- "The Original" ... provides up to 85% noise reduction and 94% flow factor.
- Thoroughly proven on thousands of installations, the world-class Atomuffer® Air Exhaust Muffler expertly reduces Exponentially Perceived Noise (EPNdB) without impeding equipment performance. Its design takes explosive air exhaust noise discharged from valve exhaust ports and muffles it with optimized Constant Velocity (CV) flow factor. Exhaust air flows softly to atmosphere free of noise, oil fog, and contaminants, providing a clean, comfortable and productive work environment.
- The Air Exhaust Muffler features a unique obstruction-free expansion chamber. Standard Air Exhaust Muffler construction includes aluminium end covers, zinc-plated steel components and a cellulose fibre element.
- This design is recommended for general purpose air exhaust application for pressures up to 125 psi.



*Multi-chamber muffler

BSPT

9234	Thread BSPT	Model	Dimensions		Item Weight lbs	Flow SCFM
			Hex	Length		
0121001	R1/8"	B01	1.84"	0.19	44	
0121005	R1/2"	B05	3.15"	0.79	256	
0121007	R3/4"	B07	3.40"	1.04	544	
0121010	R1"	B10	3.90"	1.02	800	
0121015	R1.1/2"	B15	5.25"	3.27	2080	
0121030*	R3"	B30	7.00"	13.43	7200	

Air Ejector Mufflers

- Featuring collimator inserts for concentrated air flow.
- Quickly and easily connected to any compressed air source. Concentrates the air stream in a narrow beam over a longer distance, delivering maximum force at a required point.
- Supplied as a complete unit with a cylindrical housing which can be directly attached to compressed air lines properly positioned for parts ejection or packaging requirements. Can be supplied with a standard plastic collimator insert or a special heat-resistant metal collimator insert (for use in locations with extremely high ambient temperatures).
- Separate collimator inserts also are available as a low-cost solution for applications where it is necessary to bore holes directly into a die and insert the collimator to provide exact air thrust.

Working Temperature:
+10°C to +48°C

Maximum Working Pressure:
8.6 bar



NPT

9234	Thread NPT	Model	Dimensions		Item Weight lbs	Flow SCFM
			Hex	Length		
0152018	1/8"	A18	0.43	1.37	0.02	22
0152038	3/8"	A38	0.69	2.20	0.06	45
0152048	1/2"	A48	0.87	2.75	0.11	68
0152068	3/4"	A68	1.06	3.15	0.21	75

End Flow Mufflers

- Directional flow in a compact design.
- Specifically designed for directing the flow of exhaust air in a single direction.
- Discharges exhaust air axially through a unique honey-combed end cap that disperses the air blast and dampens exhaust noise.
- Lightweight and small, standard model is constructed of zinc-plated steel. All stainless steel construction available for very corrosive or sensitive situations. Ideal for use in most locations facing any direction.

Working Temperature:
+10°C to +48°C

Maximum Working Pressure:
8.6 bar



NPT

9234	Thread NPT	Model	Dimensions		Item Weight lbs	Flow SCFM
			Hex	Length		
0153028	1/4"	D28	0.56	1.75	0.04	72
0153038	3/8"	D38	0.69	2.20	0.07	136
0153068	3/4"	D68	1.06	3.15	0.22	400
0153108	1.1/4"	D108	1.68	4.50	0.62	800
0153128	1.1/2"	D128	2.00	5.00	0.78	880
0153168	2"	D168	2.37	5.50	1.29	1760

Bantam™ Muffler

- Ideal for use where space is limited.
- Tough and compact, the Bantam™ Muffler is durably constructed of corrosion-resistant metals to withstand shock and continuous heavy duty use under all types of conditions.
- The Bantam™ Muffler is designed with a precise distribution of peripheral openings in a zinc-plated steel and brass acoustical element, which softly disperses exhaust air uniformly over a 360° pattern. All stainless steel construction is also available for very corrosive or sensitive situations.
- Supplied with a standard pipe thread fitting, the Bantam™ Muffler can be attached directly to the exhaust ports of air-operated equipment.

Working Temperature:
+10°C to +48°C

Maximum Working Pressure:
12 bar



Steel

9234	Thread BSPT	Model	Dimensions		Item Weight lbs	Flow SCFM
			Hex	Length		
0554018	R1/8"	B18	0.43"	1.37"	0.02	44
0554048	R1/2"	B48	0.87"	2.75"	0.15	304
0554068	R3/4"	B68	1.06"	3.15"	0.27	560

EXHAUST FLOW REGULATOR/ SILENCERS & AIR FUSES

Exhaust Flow Regulator/ Silencers

- Compact, integral flow regulator and silencer units
- Captive regulating needle will not blow out when unscrewed
- Reduced dimensions

Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gases

(T20)

Body and Washer: Nylon

Adjusting Screw:

High tensile zinc electroplated steel

Silencer: Porous polyethylene

Mounting:

Directly in the exhaust port, hexagon key adjustment for flow regulation (T20)

(0405)

Body and Nut: Brass

Needle: Plastic

Silencer: Sintered bronze

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
10 bar



Brass, BSPT

0036	Thread
04057100	1/8"
04057200	1/4"
04057300	3/8"
04057400	1/2"

Tech Sheet 10259

Nylon, BSPT & Metric

0036	Thread
T20M0500	M5
T20C1800	1/8"
T20C2800	1/4"
T20C3800	3/8"
T20C4800	1/2"

Tech Sheet 10259

Air Fuses

- Assists in complying with safety regulations
- Tamper proof
- Compact and safe design
- Low pressure drop
- Automatically resets after failure correction
- High corrosion resistance
- High air pressure rating

Medium:

Compressed air, filtered, lubricated and non-lubricated, inert gases

Mounting:

In-line two way valve. To be inserted between fixed air supply and flexible hose air line. See guidelines for typical installation

Type: Fixed uni-directional excess flow automatic shut off valve

Body: Aluminium

Spring: Stainless steel

Internal Parts: Brass

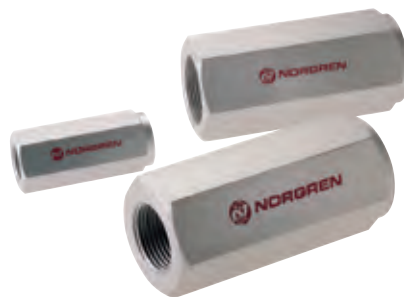
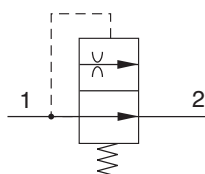
Working Temperature:
-20°C to +80°C

At low temperature ensure fuse is not subjected to icy conditions which may prevent function

Working Pressure:
Maximum 16 bar, minimum according to hose length
Drop pressure at shut-off flow
0,14 or 0,3 bar



PRODUCTS FOR
SAFE SYSTEMS



BSPP

0036	Thread	Shut Off Flow Rate at 7 bar dm ³ /s ±10%
T60C2890	1/4"	8.3
T60C3890	3/8"	19.14
T60C4890	1/2"	32.2
T60C6890	3/4"	48.3
T60C8890	1"	92

Tech Sheet 10510

Shuttle Valves

- Allow two independent signal sources to be connected to a common pilot line
- Can be used to perform an 'OR' logic function
- Can be combined to operate from three or more sources
- Valves can be ganged together



BSPP

0036	Thread
T65C1800	G1/8
T65C2800	G1/4

Tech Sheet 20750

PORTWEST

For Portwest PPE
see page 1752-1760

BLOCK FORM FLOW REGULATORS & QUICK EXHAUST VALVES



Block Form Flow Regulators

- Compact size/low weight/ in-line units
- High flow performance
- Suitable for panel and wall mounting
- Adjustment can be locked
- Captive regulator needle will not blow out when unscrewed
- Adjusting knob position line

Medium: compressed air, filtered, lubricated or non-lubricated, inert gases

(M5) Body: Aluminium

Seals: Nitrile

Needle: Brass

(1/8", 1/4", 3/8", 1/2")

Body: Aluminium alloy

Needle and Internal Parts: Brass

External Parts: Aluminium alloy

Working Temperature:
-20°C to +80°C

Working Pressure:
1 to 10 bar (0.3 to 10 bar for M5)



T1000 Series, BSPP & Metric

0036	Thread	Function
T1000M0500	M5	Uni-directional
T1000C1800	1/8"	Uni-directional
T1000C2800	1/4"	Uni-directional
T1000C3800	3/8"	Uni-directional
T1000C4800	1/2"	Uni-directional

Tech Sheet 10248

T1100 Series, BSPP

0036	Thread	Function
T1100C1800	1/8"	Bi-directional
T1100C2800	1/4"	Bi-directional

Tech Sheet 10249

Quick Exhaust Valves

Medium: Compressed air, filtered, lubricated or non-lubricated

Body and Cover: Zinc (1/8"-1/4") or Aluminium alloy (3/8"-1/2")

Seals: Nitrile

- Allows higher cylinder speeds to be achieved

Working Temperature:
-20°C to +80°C

Working Pressure:
0.5 to 10 bar



T70 Series, BSPP

0036	Thread
T70C1800	1/8"
T70C2800	1/4"
T70C3800	3/8"
T70C4800	1/2"

Tech Sheet 10250



Customers who bought from this page also purchased
Brass & Nickel Plated Brass Hose Tails
see pages 1140-1147



PROPORTIONAL VALVES



Valves

- Closed loop air pilot operated proportional pressure control valve
- Adjustable for a wide range of applications
- Fast response
- Low power consumption

Working Temperature: -20°C to +50°C

Supply Pressure: 14 bar max.

- High flow
- **Medium:** Compressed air filtered to 50µm, non-lubricated
- **Flow:** Up to 1200 L/min at 11 bar supply pressure



VP50 Series Proportional Valves

0036	Control Signal	Output Bar
VP5010BJ111H00	0...10 V	0...10
VP5010BJ411H00	4...20 mA	0...10
VP5008BJ411H00	4...20 mA	0...8
VP5006BJ111H00	0...10 V	0...6
VP5006BJ411H00	4...20 mA	0...6
VP5002BJ111H00	0...10 V	0...2
VP5002BJ411H00	4...20 mA	0...2

Tech Sheet 10357

- Proven low power technology
- Reliable, rugged, open-loop device
- Compact and flexible design

Working Temperature: 0°C to +60°C

Output Pressure:
0 to 1 bar (0 to 15 psi), 0 to 2 bar (0 to 30 psi),
0 to 4 bar (0 to 60 psi), 0 to 6 bar (0 to 90 psi),
0 to 8 bar (0 to 120 psi)

Supply Pressure:
Minimum 1.5 bar (22 psi) above maximum output pressure 10 bar (150 psi) maximum

VP12 Series Miniature Proportional Valves

0036	Control Signal	Output Bar
VP1204BG401Q00	4...20 mA	0...4
VP1204BG101Q00	0...10 V	0...4
VP1208BG401Q00	4...20 mA	0...8
VP1208BG101Q00	0...10 V	0...8

Tech Sheet 10358



ADDITIONAL RANGES



Heavy-duty Flow Regulators Uni-directional

- Heavy-duty general-purpose flow regulator, suitable for in line and wall mount
- Additional port sizes available



BSPP

0036	Thread
M837	1/4"

Tech Sheet 20159

Exhaust Port Filters

- Prevent the ingress of dirt with minimal flow restriction. Robust and compact. Screw directly into the exhaust port



BSPP

0036	Thread
M/1511	1/8"
M/1512	1/4"
M/1514	1/2"
M/1516	3/4"
M/1518	1"

Tech Sheet 20158

Plastic Silencers



BSPP

0036	Thread
M/S1	1/8"
M/S2	1/4"
M/S3	3/8"
M/S4	1/2"
S/S6	3/4"

Tech Sheet 1356

Quietaire Heavy-duty Silencers

- Brass mesh screen and aluminium construction provide improved flow, longer life and cleanable elements



Male Thread, BSPT

0036	Thread
MB001B	1/8"
MB002B	1/4"
MB003B	3/8"
MB004B	1/2"
MB006B	3/4"
MB008B	1"

Tech Sheet 2058

Female Thread, BSPT

0036	Thread
MA001B	1/8"
MA002B	1/4"
MA003B	3/8"
MA004B	1/2"
MA006B	3/4"

Tech Sheet 2058

Female Thread, BSPP

0036	Thread
MA010C	1.1/4"
MA012C	1.1/2"
MA016C	2"

Tech Sheet 2058

AUTOMATIC VALVES



Shuttle Valve



SCS

0158	Thread
SCS 668	G1/8"
Tech Sheet 1854	

Non-return Valves



VNR

0158	Thread
VNR M5	M5
VNR 1/8	G1/8"
VNR 843 07	G1/4"
Tech Sheet 1854	

Quick Exhaust Valves



VSO

0158	OD mm
VSO 426 04	4
Tech Sheet 1854	



VSC, BSPP

0158	Thread
VSC 588	G1/8"
VSC 544	G1/4"
VSC 522	G1/2"
Tech Sheet 1854	



VSO, Standpipe Style

0158	Thread
VSO 425 M5	5
Tech Sheet 1854	

In-line Flow Control Valves



Uni-directional

0158	Thread
RFU 452	M5
RFU 482	G1/8"
RFU 483	G1/8"
RFU 444	G1/4"
RFU 446	G1/4"
RFU 429	G1/2"
Tech Sheet 10307	

Bi-directional

0158	Thread
RFO 352	M5
RFO 382	G1/8"
RFO 383	G1/8"
RFO 344	G1/4"
RFO 346	G1/4"
Tech Sheet 10307	



For Air Brake Accessories C-Truck 9000 Series
see pages 890-894

Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

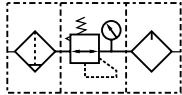
40 Micron fitted as standard
Auto or semi-auto drain fitted as standard
Guarded bowl protection on Series 300, 400 and 600

All FT Pro Regulators can now be adapted to use either a 40mm or 50mm round face gauge with the new FT Pro Gauge Adaptor. See page 646



200 Series Filter + Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar

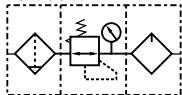


Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KCS200-06-F-3	1/8"	3000
KCS200-08-F-3	1/4"	3000
Tech Sheet 3060		

300 Series Filter + Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

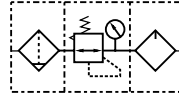
0338	Thread	LPM
KCS300-08-A-F-3	1/4"	4000
KCS300-10-A-F-3	3/8"	4000
KCS300-15-A-F-3	1/2"	4000
Tech Sheet 3060		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KCS300-08-F-3	1/4"	4000
KCS300-10-F-3	3/8"	4000
KCS300-15-F-3	1/2"	4000
Tech Sheet 3060		

400 Series Filter + Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

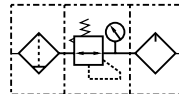
0338	Thread	LPM
KCS400-10-A-F-3	3/8"	6000
KCS400-15-A-F-3	1/2"	6000
Tech Sheet 3060		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KCS400-10-F-3	3/8"	6000
KCS400-15-F-3	1/2"	6000
Tech Sheet 3060		

600 Series Filter + Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KCS600-20-A-F-3	3/4"	9000
KCS600-25-A-F-3	1"	9000
Tech Sheet 3060		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KCS600-20-F-3	3/4"	9000
KCS600-25-F-3	1"	9000
Tech Sheet 3060		

AIR PREPARATION



Working Temperature:
-5°C to +60°C

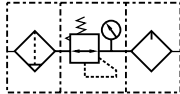
Maximum Working Pressure:
10 bar

40 Micron fitted as standard
Auto or semi-auto drain fitted as standard
Guarded bowl protection on Series 300, 400 and 600



200 Series Filter/Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



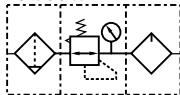
Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS200-06-F-3	1/8"	3000
KFCS200-08-F-3	1/4"	3000

Tech Sheet 3061

300 Series Filter/Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS300-08-A-F-3	1/4"	4000
KFCS300-10-A-F-3	3/8"	4000
KFCS300-15-A-F-3	1/2"	4000

Tech Sheet 3061

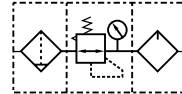
Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS300-08-F-3	1/4"	4000
KFCS300-10-F-3	3/8"	4000
KFCS300-15-F-3	1/2"	4000

Tech Sheet 3061

400 Series Filter/Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS400-10-A-F-3	3/8"	6000
KFCS400-15-A-F-3	1/2"	6000

Tech Sheet 3061

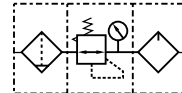
Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS400-10-F-3	3/8"	6000
KFCS400-15-F-3	1/2"	6000

Tech Sheet 3061

600 Series Filter/Regulator + Lubricator Combination Units

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS600-20-A-F-3	3/4"	9000
KFCS600-25-A-F-3	1"	9000

Tech Sheet 3061

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFCS600-20-F-3	3/4"	9000
KFCS600-25-F-3	1"	9000

Tech Sheet 3061

° Working Temperature:
-5°C to +60°C

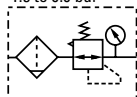
Maximum Working Pressure:
10 bar

40 Micron fitted as standard
Auto or semi-auto drain fitted as standard
Guarded bowl protection on Series 300, 400 and 600



200 Series Filter/Regulators

Operating Pressure
1.5 to 9.0 bar

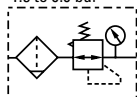


Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFRS200-06-F-3	1/8"	3000
KFRS200-08-F-3	1/4"	3000
Tech Sheet 3062		

300 Series Filter/Regulators

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

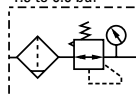
0338	Thread	LPM
KFRS300-08-A-F-3	1/4"	4000
KFRS300-10-A-F-3	3/8"	4000
KFRS300-15-A-F-3	1/2"	4000
Tech Sheet 3062		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFRS300-08-F-3	1/4"	4000
KFRS300-10-F-3	3/8"	4000
KFRS300-15-F-3	1/2"	4000
Tech Sheet 3062		

400 Series Filter/Regulators

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

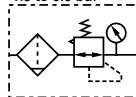
0338	Thread	LPM
KFRS400-10-A-F-3	3/8"	6000
KFRS400-15-A-F-3	1/2"	6000
Tech Sheet 3062		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFRS400-10-F-3	3/8"	6000
KFRS400-15-F-3	1/2"	6000
Tech Sheet 3062		

600 Series Filter/Regulators

Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFRS600-20-A-F-3	3/4"	9000
KFRS600-25-A-F-3	1"	9000
Tech Sheet 3062		

Semi-auto Drain, supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KFRS600-20-F-3	3/4"	9000
KFRS600-25-F-3	1"	9000
Tech Sheet 3062		

AIR PREPARATION



Working Temperature:
-5°C to +60°C



Maximum Working Pressure:
10 bar

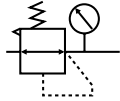
40 Micron fitted as standard
Auto or semi-auto drain fitted as standard
Guarded bowl protection on Series 300, 400 and 600

All FT Pro Regulators can now be adapted to use either a 40mm or 50mm round face gauge with the new FT Pro Gauge Adaptor. See page 646



Mini Regulators

Max inlet pressure 10 bar
Operating pressure 0.5 to 9.0 bar

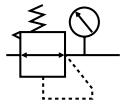


Supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread
KRS200-06	1/8"
KRS200-08	1/4"
Tech Sheet 3066	

200 Series Regulators

Operating pressure 1.5 to 9.0 bar

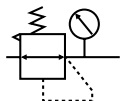


Supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KRS200-06-F-3	1/8"	3000
KRS200-08-F-3	1/4"	3000
Tech Sheet 3064		

300 Series Regulators

Operating pressure 1.5 to 9.0 bar

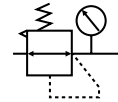


Supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KRS300-08-F-3	1/4"	5000
KRS300-10-F-3	3/8"	5000
KRS300-15-F-3	1/2"	5000
Tech Sheet 3064		

400 Series Regulators

Operating pressure 1.5 to 9.0 bar

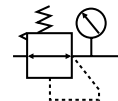


Supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KRS400-10-F-3	3/8"	7500
KRS400-15-F-3	1/2"	7500
Tech Sheet 3064		

600 Series Regulators

Operating pressure 1.5 to 9.0 bar



Supplied with Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread	LPM
KRS600-20-F-3	3/4"	9500
KRS600-25-F-3	1"	9500
Tech Sheet 3064		

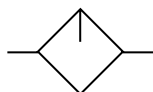
Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

Guarded bowl protection on Series 300, 400 and 600



200 Series Lubricators

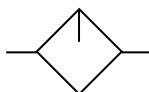


Supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KLS200-06	1/8"	3000
KLS200-08	1/4"	3000

Tech Sheet 3065

400 Series Lubricators

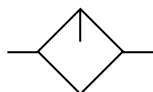


Supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KLS400-10	3/8"	7500
KLS400-15	1/2"	7500

Tech Sheet 3065

300 Series Lubricators

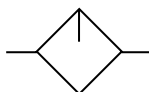


Supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KLS300-08	1/4"	5000
KLS300-10	3/8"	5000
KLS300-15	1/2"	5000

Tech Sheet 3065

600 Series Lubricators



Supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KLS600-20	3/4"	9000
KLS600-25	1"	9000

Tech Sheet 3065

AIR PREPARATION



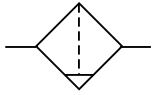
Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

40 Micron fitted as standard
Auto or semi-auto drain fitted as standard
Guarded bowl protection on Series 300, 400 and 600



200 Series Filters

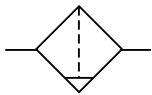


Semi-auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS200-06	1/8"	3000
KFS200-08	1/4"	3000

Tech Sheet 3063

300 Series Filters



Auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS300-08-A	1/4"	5000
KFS300-10-A	3/8"	5000
KFS300-15-A	1/2"	5000

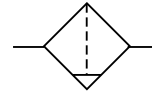
Tech Sheet 3063

Semi-auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS300-08	1/4"	5000
KFS300-10	3/8"	5000
KFS300-15	1/2"	5000

Tech Sheet 3063

400 Series Filters



Auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS400-10-A	3/8"	7500
KFS400-15-A	1/2"	7500

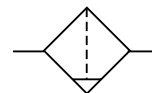
Tech Sheet 3063

Semi-auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS400-10	3/8"	7500
KFS400-15	1/2"	7500

Tech Sheet 3063

600 Series Filters



Auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS600-20-A	3/4"	10000
KFS600-25-A	1"	10000

Tech Sheet 3063

Semi-auto Drain, supplied with Mounting Bracket, BSPP

0338	Thread	LPM
KFS600-20	3/4"	10000
KFS600-25	1"	10000

Tech Sheet 3063

Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

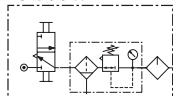
FT Pro Air Service Units come complete with:
Filter/regulator, lubricator, 3/2 shut-off valve, mounting bracket and 10 bar pressure gauge.

Available in both auto drain and semi-auto drain. The units are also available on a floor stand for use with mobile compressors for use on site. All FT Pro Regulators can now be adapted to use either a 40mm or 50mm round face gauge with the new FT Pro Gauge Adaptor. See page 646



300 Series Air Service Unit, Wall Mount

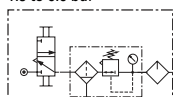
Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Shut Off Valve & 10 bar Gauge, BSPP

0338	Thread	LPM
KCAS300-15-A-F-3	1/2"	4000
Tech Sheet 10286		

Operating Pressure
1.5 to 9.0 bar

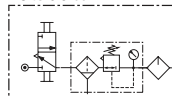


Semi-auto Drain, supplied with Shut Off Valve & 10 bar Gauge, BSPP

0338	Thread	LPM
KCAS300-15-F-3	1/2"	4000
Tech Sheet 10286		

400 Series Air Service Unit, Wall Mount

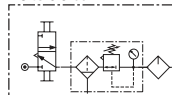
Operating Pressure
1.5 to 9.0 bar



Auto Drain, supplied with Shut Off Valve & 10 bar Gauge, BSPP

0338	Thread	LPM
KCAS400-15-A-F-3	1/2"	6000
Tech Sheet 10286		

Operating Pressure
1.5 to 9.0 bar



Semi-auto Drain, supplied with Shut Off Valve & 10 bar Gauge, BSPP

0338	Thread	LPM
KCAS400-15-F-3	1/2"	6000
Tech Sheet 10286		

AIR PREPARATION



Working Temperature:
-20°C to +70°C



Maximum Working Pressure: 9 bar

Soft Start Valves are increasingly being used where safety is key in the start up of systems and machines in helping protect the operators and the equipment.

The valves allow the pressure to gradually increase to the full flow required on start up of the system.

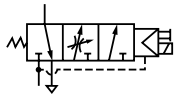
OSHA approved.

These units can be used in conjunction with FT Pro Air Preparation with the addition of brackets style 'U' or 'L', or as a stand alone in-line unit.

All FT Pro Regulators can now be adapted to use either a 40mm or 50mm round face gauge with the new FT Pro Gauge Adaptor. See page 646



200 Series Soft Start Valves, Solenoid

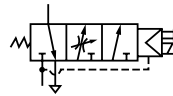


24V DC, supplied with Coil, DIN Plug, Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread
KC200-06	1/8"
KC200-08	1/4"

Tech Sheet 3067

300 Series Soft Start Valves, Solenoid

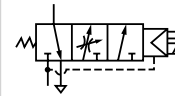


24V DC, supplied with Coil, DIN Plug, Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread
KC300-08	1/4"
KC300-10	3/8"
KC300-15	1/2"

Tech Sheet 3067

400 Series Soft Start Valves, Solenoid



24V DC, supplied with Coil, DIN Plug, Mounting Bracket & 10 bar Gauge, BSPP

0338	Thread
KC400-10	3/8"
KC400-15	1/2"

Tech Sheet 3067

Working Temperature:
-20°C to +70°C



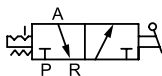
Maximum Working Pressure: 9 bar

Lockable shut off valves prevent accidental start ups when maintenance or service work is being carried out on the machines.
Padlock supplied.

These units can be used in conjunction with FT Pro Air Preparation with the addition of brackets style 'U' or 'L', or as a stand alone 3/2 exhausting ball valve.



200 Series 3/2 Shut Off Valves, Lockable

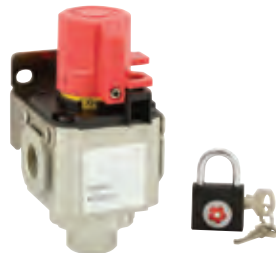
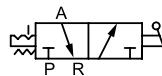


Supplied with Padlock & Mounting Bracket, BSPP

0338	Thread
KZ200-06	1/8"
KZ200-08	1/4"

Tech Sheet 3068

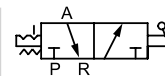
300 Series 3/2 Shut Off Valves, Lockable



Supplied with Padlock & Mounting Bracket, BSPP

0338	Thread
KZ300-08	1/4"
KZ300-10	3/8"
KZ300-15	1/2"

Tech Sheet 3068



Supplied with Padlock & Mounting Bracket, BSPP

0338	Thread
KZ400-10	3/8"
KZ400-15	1/2"

Tech Sheet 3068

° Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

Can be fitted to any combination units, fitted before the lubricator it can be used to port off a non-lubricated air supply that might be required for your system.

These units are to be used in conjunction with FT Pro Air Preparation, or as a stand alone BSPP manifold block. When using with existing FT Pro Air Preparation, you will also require additional fixing brackets.



200 Series Porting Blocks



BSPP

0338	Thread
KA200-06	1/8"
KA200-08	1/4"
Tech Sheet 3069	

400 Series Porting Blocks



BSPP

0338	Thread
KA400-10	3/8"
KA400-15	1/2"
Tech Sheet 3069	

300 Series Porting Blocks



BSPP

0338	Thread
KA300-08	1/4"
KA300-10	3/8"
Tech Sheet 3069	

600 Series Porting Blocks



BSPP

0338	Thread
KA600-20	3/4"
KA600-25	1"
Tech Sheet 3069	

Fixing Brackets



U Style Brackets

0338	To Suit Series
KA200U-P1	200
KA300U-P1	300
KA400U-P1	400
KA600U-P1	600
Tech Sheet 3069	



L Style Brackets

0338	To Suit Series
KA201-P1	200
KA301-P1	300
KA401-P1	400
KA601-P1	600
Tech Sheet 3069	

All FT Pro Regulators can now be adapted to use either a 40mm or 50mm round face gauge with the new FT Pro Gauge Adaptor. See below

Accessories



Drain Bowl & Auto Drain

0338	To Suit Series
KF300-P6	300
KF400-P10	400
KF600-P1	600
Tech Sheet 20382	



Drain Bowl & Semi-auto Drain

0338	To Suit Series
KF200-P3	200
KF300-P5	300
KF400-P9	400
KF600-P2	600
Tech Sheet 20896	



Drain Bowl & Manual Drain

0338	To Suit Series
KF200-P6	200
KF300-P4	300
KF400-P11	400
KF600-P3	600
Tech Sheet 20380	



Filter Elements 40 Micron

0338	To Suit Series
KF200-004-1	200
KF300-004-1	300
KF400-004-1	400
KF600-004-1	600
Tech Sheet 20379	

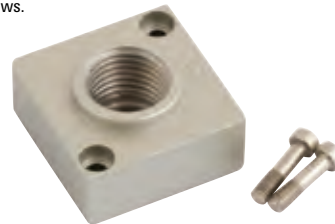


Micro Gauge

0338
K-PR010B-P1
Tech Sheet 20381

All FT Pro regulators can be fitted with a 40mm or 50mm round faced gauge, by using the FT Pro gauge adaptor

Complete with
2 x screws.



Gauge Adaptor

0338	Thread	To Suit Series
KGA-1/8	1/8"	200 & 300
KGA-1/4	1/4"	400 & 600
Tech Sheet 20381		



1/8" BSPT, Steel Case Centre Back Connection

0338	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
KG40-10R	40	0-160	0-10
KG50-10R	50	0-160	0-10



Panel Mount Brackets, to suit Steel Dry Gauges

0338	To Suit mm
KPMB40R	40
KPMB50R	50

The manufacturers strive to maintain quality and are continually improving products to suit the industry.

Due to the success of the Professional FRL's, The Professional Range has been revamped with improved structure and sensitivity. 200 and 300 series now come with larger, stronger drip cups, extending the products in use life cycle.

Advancements to the construction of the regulators mechanism, has given extra sensitivity on the control this helps to ensure the system is working to the optimum pressure.

- Heavy-duty
- 20 micron filtration as standard
- Metal construction
- Modular compact design
- Semi-auto drain as standard
- Guard bowl protection only on FM3000, FM4000 and FM5000 units
- Micro gauge also available

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Filter + Regulator + Lubricator

Operating Pressure:
1.5 bar to 8.5 bar



Supplied with Mounting Bracket & Gauge, BSPP

0132	Thread	LPM
FM2-20-01-C	1/8"	500
FM2-30-02-C	1/4"	2000
FM2-40-03-C	3/8"	4000
FM2-40-04-C	1/2"	4000
FM2-50-06-C	3/4"	5000
FM2-50-10-C	1"	5000

Tech Sheet 60527

Filter Regulator + Lubricator

Operating Pressure:
1.5 bar to 8.5 bar



Supplied with Mounting Bracket & Gauge, BSPP

0132	Thread	LPM
FM2-21-01-C	1/8"	500
FM2-31-02-C	1/4"	2000
FM2-41-03-C	3/8"	4000
FM2-41-04-C	1/2"	4000
FM2-51-06-C	3/4"	5000
FM2-51-10-C	1"	5000

Tech Sheet 60528

Filter Regulator

Operating Pressure:
1.5 bar to 8.5 bar



Supplied with Mounting Bracket & Gauge, BSPP

0132	Thread	LPM
FM2-20-01-W	1/8"	500
FM2-30-02-W	1/4"	1700
FM2-40-03-W	3/8"	3000
FM2-40-04-W	1/2"	3000
FM2-50-06-W	3/4"	5000
FM2-50-10-W	1"	5000

Tech Sheet 60529

Filter



BSPP

0132	Thread	LPM
FM2-20-01-F	1/8"	500
FM2-30-02-F	1/4"	1700
FM2-40-03-F	3/8"	3000
FM2-40-04-F	1/2"	3000
FM2-50-06-F	3/4"	5000
FM2-50-10-F	1"	5000

Tech Sheet 60530

Regulator

Operating Pressure:
1.5 bar to 8.5 bar



Supplied with Mounting Bracket & Gauge, BSPP

0132	Thread	LPM
FM2-20-01-R	1/8"	500
FM2-30-02-R	1/4"	1700
FM2-40-03-R	3/8"	3000
FM2-40-04-R	1/2"	3000
FM2-50-06-R	3/4"	5000
FM2-50-10-R	1"	5000

Tech Sheet 60531

Lubricator



BSPP

0132	Thread	LPM
FM2-20-01-L	1/8"	500
FM2-30-02-L	1/4"	1700
FM2-40-03-L	3/8"	3000
FM2-40-04-L	1/2"	3000
FM2-50-06-L	3/4"	5000
FM2-50-10-L	1"	5000

Tech Sheet 60532

As with the original Professional Range, the MKII air preparation range comes fully assembled.

We offer users the ability to assemble their own bespoke units with the use of connectors and wall mounting kits.

Applications:

- Construction
- Agriculture
- Mining
- OEM machine building
- Automotive
- Rail
- Industrial

Professional Range MKII Accessories



Neck Brackets

0132	To Suit
FM2-20-N	1/8"
FM2-30-N	1/4"
FM2-40-N	3/8"-1"

Tech Sheet 60537



Connector & Wall Brackets

0132	To Suit
FM2-20-MB	1/8"
FM2-30-MB	1/4"
FM2-40-MB	3/8"-1/2"
FM2-50-MB	3/4"-1"

Tech Sheet 60537



Steel Case Centre Back Connection

0132	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
GS-40	1/8"	40	0-145	0-10
GS-50	1/8"	50	0-145	0-10



Filter Elements

0132	To Suit
FM2-20-20UM	200 Filter Series
FM2-30-20UM	300 Filter Series
FM2-40-20UM	400 Filter Series
FM2-50-20UM	500 Filter Series



Micro Gauge

0132	To Suit
GM-27	All Series

Drip Leg Drain



BSPP

0132	To Suit
FM-402-04-S	1/2"

Tech Sheet 1998

A Series Regulators



AR2 Series Regulator 1/8" G - 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
AR2000-01	1/8"	1/8"	550



AR3 Series Regulator 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
AR3000-02	1/4"	1/8"	2500



AR4 Series Regulator 1/2" G - 3/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
AR4000-04	1/2"	1/4"	6000
AR4000-06	3/4"	1/4"	6000



AR5 Series Regulators 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
AR5000-06	3/4"	1/4"	8000
AR5000-10	1"	1/4"	8000

A Series Filter Regulators



AW2 Series Filter Regulator 1/8" G - 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AW2000-01	1/8"	1/8"	550	Manual
AW2000-02	1/4"	1/8"	550	Manual
AW2000-02D	1/4"	1/8"	550	Auto Drain



AW3 Series Filter Regulator 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AW3000-02	1/4"	1/8"	2000	Manual
AW3000-02D	1/4"	1/8"	2000	Auto Drain



AW4 Series Filter Regulator 1/2" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AW4000-04	1/2"	1/4"	4000-4500	Manual
AW4000-04D	1/2"	1/4"	4000-4500	Auto Drain



AW5 Series Filter Regulators 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AW5000-06D	3/4"	1/4"	5500	Auto Drain
AW5000-10D	1"	1/4"	5500	Auto Drain

A SERIES AIR PREPARATION



A Series Combi Sets



AC2 Series Filter Regulator & Lube Combi Sets 1/8" G - 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AC2010-01	1/8"	1/8"	500	Manual
AC2010-02	1/4"	1/8"	500	Manual
AC2010-02D	1/4"	1/8"	500	Auto Drain



AC3 Series Filter Regulator & Lube Combi Sets 1/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AC3010-02	1/4"	1/4"	1700	Manual
AC3010-02D	1/4"	1/4"	1700	Auto Drain



AC4 Series Filter Regulator & Lube Combi Sets 1/2" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AC4010-04	1/2"	1/4"	3000	Manual
AC4010-04D	1/2"	1/4"	3000	Auto Drain



AC5 Series Filter Regulator & Lube Combi Sets 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AC5010-06D	3/4"	1/4"	4000	Auto Drain
AC5010-10D	1"	1/4"	4000	Auto Drain

A Series Filters



AF2 Series Filter 1/8" G - 1/4" G

0600	Port Size G	Max Flow L/min	Drain
AF2000-01	1/8"	750	Manual
AF2000-02	1/4"	750	Manual



AF3 Series Filter 1/4" G

0600	Port Size G	Max Flow L/min	Drain
AF3000-02	1/4"	1500	Manual
AF3000-02D	1/4"	1500	Auto Drain



AF4 Series Filter 1/2" G - 3/4" G

0600	Port Size G	Max Flow L/min	Drain
AF4000-04	1/2"	4000-6000	Manual
AF4000-04D	1/2"	4000-6000	Auto Drain
AF4000-06D	3/4"	4000-6000	Auto Drain



AF5 Series Filter 3/4" G - 1" G

0600	Port Size G	Max Flow L/min	Drain
AF5000-06D	3/4"	7000	Auto Drain
AF5000-10D	1"	7000	Auto Drain

A Series Lubricators



AL2 Series Lubricator 1/8" G - 1/4" G

0600	Port Size G	Max Flow L/min
AL2000-02	1/4"	800



AL3 Series Lubricator 1/4" G

0600	Port Size G	Max Flow L/min
AL3000-02	1/4"	1700



AL4 Series Lubricator 1/2" G

0600	Port Size G	Max Flow L/min
AL4000-04	1/2"	5000-6300

A Series Mounting Brackets



A2 Series Mounting Bracket

0600	Description
A2000-BRKT	Mounting Bracket



A3 Series Mounting Bracket

0600	Description
A3000-BRKT	Mounting Bracket



A4 Series Mounting Bracket

0600	Description
A4000-BRKT	Mounting Bracket



A5 Series Mounting Bracket

0600	Description
A5000-BRKT	Mounting Bracket



A4 Series Mounting Bracket

0600	Description
A400T	Mounting Bracket

D Series Regulators



DR2 Series Regulator 1/8" G - 3/8" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
DR200-01	1/8"	1/8"	1700
DR200-02	1/4"	1/8"	1700
DR200-03	3/8"	1/8"	1700



DR4 Series Regulator 3/8" G - 1/2" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
DR400-03	3/8"	1/4"	3500
DR400-04	1/2"	1/4"	3500



DR6 Series Regulator 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min
DR600-06	3/4"	1/4"	11500
DR600-08	1"	1/4"	11500

D Series Filter Regulators



DC2 Series Filter Regulator 1/8" G - 3/8" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DFR200-01	1/8"	1/8"	1700	Manual
DFR200-02	1/4"	1/8"	1700	Manual
DFR200-02D	1/4"	1/8"	1700	Auto Drain
DFR200-03D	3/8"	1/8"	1700	Auto Drain



DC4 Series Filter Regulator 3/8" G - 3/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DFR400-03D	3/8"	1/4"	3500	Auto Drain
DFR400-04	1/2"	1/4"	3500	Manual
DFR400-04D	1/2"	1/4"	3500	Auto Drain
DFR400-06	3/4"	1/4"	3500	Manual
DFR400-06D	3/4"	1/4"	3500	Auto Drain



DC6 Series Filter Regulator 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DFR600-06	3/4"	1/4"	11500	Manual
DFR600-08D	1"	1/4"	11500	Auto Drain

D Series Combi Sets



DC2 Series Filter Regulator & Lube Combi Sets 1/8" G - 3/8" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DC201-01	1/8"	1/8"	1700	Manual
DC201-02	1/4"	1/8"	1700	Manual
DC201-02D	1/4"	1/8"	1700	Auto Drain
DC201-03D	3/8"	1/8"	1700	Auto Drain



DC4 Series Filter Regulator & Lube Combi Sets 3/8" G - 3/4" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DC401-01	3/8"	1/4"	3500	Manual
DC401-02	1/2"	1/4"	3500	Manual
DC401-02D	1/2"	1/4"	3500	Auto Drain
DC401-03D	3/4"	1/4"	3500	Auto Drain



DC6 Series Filter Regulator & Lube Combi Sets 3/4" G - 1" G

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
DC601-06	3/4"	1/4"	11500	Manual
DC601-08D	1"	1/4"	11500	Auto Drain

D Series Filters



DF2 Series Filter 1/8" G - 3/8" G

0600	Port Size G	Max Flow L/min	Drain
DF200-02	1/4"	2000	Manual
DF200-02D	1/4"	2000	Auto Drain
DF200-03D	1/4"	2000	Auto Drain



DF4 Series Filter 3/8" G - 3/4" G

0600	Port Size G	Max Flow L/min	Drain
DF400-03D	3/8"	4000	Auto Drain
DF400-04	1/2"	4000	Manual
DF400-04D	1/2"	4000	Auto Drain
DF400-06	3/4"	4000	Manual



DF6 Series Filter 3/4" G - 1" G

0600	Port Size G	Max Flow L/min	Drain
DF600-06	3/4"	11500	Manual
DF600-08	1"	11500	Manual
DF600-08D	1"	11500	Auto Drain

D SERIES AIR PREPARATION



D Series Lubricators



DL1 Series Lubricator M5 - 1/8" G

0600	Port Size G	Max Flow L/min
DL100-M5	M5	500



DL2 Series Lubricator 1/8" G - 3/8" G

0600	Port Size G	Max Flow L/min
DL200-01	1/8"	2000
DL200-02	1/4"	2000
DL200-03	3/8"	2000



DL4 Series Lubricator 3/8" G - 1/2" G

0600	Port Size G	Max Flow L/min
DL400-03	3/8"	4000
DL400-04	1/2"	4000

D Series Accessories



Port Block Sets

0600	Series	Size
D400LB-04	400	1/2"



Filter to Regulator to Lube Joiner Kits

0600	Series
DC400JK	400



Wall Mounting Brackets

0600	Series
MB-D200	200
MB-D400	400
MB-D600	600

A9 Series Air Preparation

AC9 Series Filter Regulator & Lube Combi Sets 1.1/2" - 2"

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AC901-15D	1.1/2"	1/4"	17500	Auto Drain
AC901-20D	2"	1/4"	17500	Auto Drain



AFR9 Series Filter Regulators 1.1/2" - 2"

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AFR900-15D	1.1/2"	1/4"	17500	Auto Drain
AFR900-20D	2"	1/4"	17500	Auto Drain



AR9 Series Regulators 1.1/2" - 2"

0600	Port Size G	Gauge Thread G	Max Flow L/min	Drain
AR900-15	1.1/2"	1/4"	17500	Auto Drain
AR900-20	2"	1/4"	17500	Auto Drain



AF9 Series Filters 1.1/2" - 2"

0600	Port Size G	Max Flow L/min	Drain
AF900-15D	1.1/2"	17500	Auto Drain
AF900-20D	2"	17500	Auto Drain



AF9 Series Lubricators 1.1/2" - 2"

0600	Port Size G	Max Flow L/min
AL900-15	1.1/2"	17500
AL900-20	2"	17500



PR Series Air Preparation

PR100 Series 1/8" Precision Regulators

0600	Range MPA	Max Flow L/min
PR101-01	0.01-0.4	4.4 (ANR)
PR102-01	0.01-0.8	4.4 (ANR)



PR200 Series 1/4" Precision Regulators

0600	Range MPA	Max Flow L/min
PR200-02	0.005-0.2	4.4 (ANR)
PR201-02	0.01-0.4	4.4 (ANR)



PR300 Series 1/2" Precision Regulator

0600	Range MPA	Max Flow L/min
PR302-04	0.01-0.8	11.5 (ANR)



In-line Filter Aluminium

Prevents dirt entering the air line

 **Working Temperature:**
0°C to +70°C


 **Maximum Working Pressure:**
10 bar



Male x Female Thread, BSPP

0043	Thread
ILF-14	1/4"
ILF-38	3/8"
Tech Sheet 824	

Flow: 400 L/min

 **Working Temperature:**
0°C to +45°C

 **Maximum Working Pressure:**
9 bar



Male x Female Thread, BSPP

0043	Thread
IF-14	1/4"
Tech Sheet 20383	

In-line Brass Flow Regulator

 **Working Temperature:**
0°C to +70°C

 **Maximum Working Pressure:**
10 bar



Male x Female Thread, BSPP

0043	Thread
ILR-14	1/4"
Tech Sheet 20384	

Mini In-line Oiler

 **Working Temperature:**
0°C to +45°C

 **Maximum Working Pressure:**
9 bar



Male x Female Thread, BSPP

0043	Thread
MO-14	1/4"
Tech Sheet 20385	

FESTO

**new
product**



For **FESTO Flow Regulators**
see pages **814-815**

AIR PREPARATION

For the full range and more information, please contact one of our sales team.

AIR PREPARATION MS SERIES

Features

Robust design, perfect for harsh environments

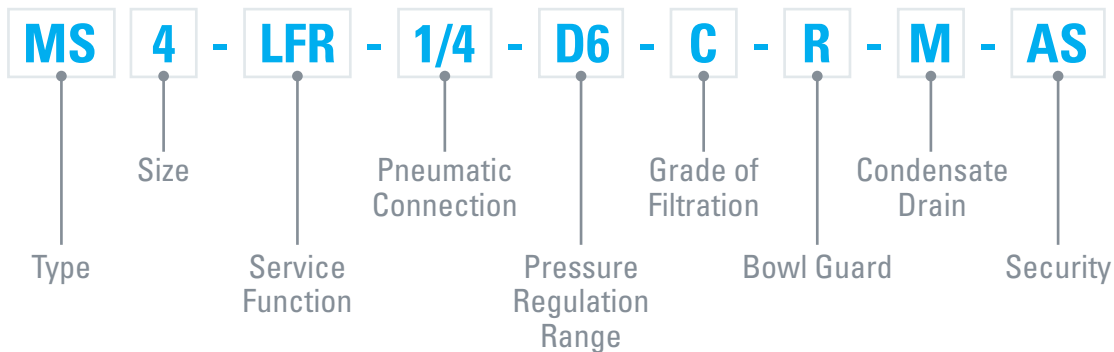


Good regulation characteristics with minimal pressure

High flow rate and highly efficient in removing contaminants

Available in both manual and auto-drain options


Product Description



AIR PREPARATION MS SERIES


FESTO

Filter Regulator, Manual Shut-off Valve & Pressure Gauge

 **Ambient Temperature:**
-10°C to +60°C

- For filtered and unlubricated compressed air
- Supply pressure can be opened and closed

- Output pressure is indefinitely adjustable within the pressure regulation range
- Manual rotary condensate drain


 **Working Pressure:**
0.8 to 14 bar



Manual Drain Filter Regulator with Manual Shut-Off Valve

0009	Thread	LPM	Micron	Pressure Regulation Range Bar	Manufacturer's Code
8025354	1/4"	1700	40	0.5 to 12	MSB4-1/4.C3:J1-WP
8025355	1/2"	5100	40	0.5 to 12	MSB6-1/2.C3:J1-WP

Tech Sheet 71003


 **Working Pressure:**
0.8 to 10 bar



Manual Drain Filter Regulator with Manual Shut-Off Valve, Solenoid Valve & Pressure Sensor

0009	Thread	LPM	Micron	Pressure Regulation Range Bar	Manufacturer's Code
8025358	1/4"	1400	40	0.5 to 10	MSB4-1/4.C3:J1:D14-WP
8025359	1/2"	4000	40	0.5 to 10	MSB6-1/2.C3:J1:D14-WP

Tech Sheet 71011


 **Working Pressure:**
0.8 to 14 bar



Manual Drain Filter Regulator with Manual Shut-Off & Pressure Sensor

0009	Thread	LPM	Micron	Pressure Regulation Range Bar	Manufacturer's Code
8025356	1/4"	1600	40	0.5 to 10	MSB4-1/4.C3:J1:F12-WP
8025357	1/2"	4500	40	0.5 to 10	MSB6-1/2.C3:J1:F12-WP

Tech Sheet 71007

 **Working Pressure:**
1.5 to 20 bar



Manual Rotary Filter Regulator with Pressure Gauge, Rotary Knob with Detent & Lubricator

0009	Thread	LPM	Micron	Bowl Type	Pressure Regulation Range Bar	Manufacturer's Code
530244	1/4"	850	40	Plastic	+0.5 to +12	MSB6-1/2-FRC5:J1M1
531117	1/2"	3700	40	Plastic	+0.5 to +12	MSB4-1/4-FRC5:J1M1

Tech Sheet 71014

AIR PREPARATION MS SERIES

FESTO

Pressure Regulators

- Maintains a constant working pressure independent of pressure fluctuations and air consumption
- High flow rate with minimal pressure drop
- Connection G1/4, G1/2
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- Lockable via accessories

Ambient Temperature:
-10°C to +60°C

Working Pressure:
1/4 BSPP 0.8 to 14 bar
1/2 BSPP 0.8 to 20 bar



Integrated Pressure Gauge, BSPP

0009	Thread	LPM	Pressure Regulation Range Bar	Manufacturer's Code
529415	1/4"	2100	0.3 to 4	MS4-LR-1/4-D5-AS
529417	1/4"	1800	0.3 to 7	MS4-LR-1/4-D6-AS
529419	1/4"	1700	0.5 to 12	MS4-LR-1/4-D7-AS
529989	1/2"	7500	0.3 to 4	MS6-LR-1/2-D5-AS
529991	1/2"	6500	0.3 to 7	MS6-LR-1/2-D6-AS
529993	1/2"	5500	0.5 to 12	MS6-LR-1/2-D7-AS

Tech Sheet 71440

Air Preparation Units MS-LFR-B Series

- Grid dimension 25, 40, 62mm
- Competitively priced basic component focused on the most important technical functions
- Lightweight and sturdy thanks to modern polymer materials
- Compatible with the MS series for the ideal combination of low-cost basic functionality and high-end functional requirements
- Stable control response
- With or without pressure gauge
- Rotary knob with latch
- MS2: Directly operated diaphragm regulator
- MS4, MS6: directly actuated piston regulator
- With integrated secondary exhausting and primary return flow function



Integrated Pressure Gauge, BSPP

0009	Thread	LPM	Micron	Bowl Type	Pressure Regulation Range Bar	Type
8098257	1/4"	1500	5	Polymer	1 bar to 10 bar	MS4-LFR-1/4-D6-C-P-M-AG-BAR-B
8098265	1/4"	1500	5	Polymer	1 bar to 10 bar	MS4-LFR-1/4-D6-C-P-M-AG-MPA-B
8098259	1/4"	1500	5	Polymer	2 bar to 10 bar	MS4-LFR-1/4-D6-C-P-VC-AG-BAR-B
8098266	1/4"	1500	5	Polymer	2 bar to 10 bar	MS4-LFR-1/4-D6-C-P-VC-AG-MPA-B
8098258	1/4"	1700	40	Polymer	1 bar to 10 bar	MS4-LFR-1/4-D6-E-P-M-AG-BAR-B
8098254	1/4"	1700	40	Polymer	1 bar to 10 bar	MS4-LFR-1/4-D6-E-P-M-AG-MPA-B
8098264	1/4"	1700	40	Polymer	2 bar to 10 bar	MS4-LFR-1/4-D6-E-P-VC-AG-BAR-B
8098256	1/4"	1700	40	Polymer	2 bar to 10 bar	MS4-LFR-1/4-D6-E-P-VC-AG-MPA-B
8098300	1/2"	4750	5	Polymer	1 bar to 10 bar	MS6-LFR-1/2-D6-C-P-M-AG-BAR-B
8098310	1/2"	4750	5	Polymer	1 bar to 10 bar	MS6-LFR-1/2-D6-C-P-M-AG-MPA-B
8098309	1/2"	4750	5	Polymer	2 bar to 10 bar	MS6-LFR-1/2-D6-C-P-VC-AG-BAR-B
8098302	1/2"	4750	5	Polymer	2 bar to 10 bar	MS6-LFR-1/2-D6-C-P-VC-AG-MPA-B
8098304	1/2"	5300	40	Polymer	1 bar to 10 bar	MS6-LFR-1/2-D6-E-P-M-AG-BAR-B
8098307	1/2"	5300	40	Polymer	1 bar to 10 bar	MS6-LFR-1/2-D6-E-P-M-AG-MPA-B
8098312	1/2"	5300	40	Polymer	2 bar to 10 bar	MS6-LFR-1/2-D6-E-P-VC-AG-BAR-B
8098305	1/2"	5300	40	Polymer	2 bar to 10 bar	MS6-LFR-1/2-D6-E-P-VC-AG-MPA-B

More variants available online

Filter Regulators

- Filter and pressure regulator in a single unit
- Good regulation characteristics with minimal hysteresis and primary pressure compensation
- Good particle and condensate separation

Ambient Temperature:
-10°C to +60°C

Working Pressure:
1/4 BSPP 0.8 to 14 bar
1/2 BSPP 0.8 to 20 bar



Manual Drain, BSPP

0009	Thread	LPM	Micron	Bowl Type	Pressure Regulation Range Bar	Manufacturer's Code
529144	1/4"	1500	5	Plastic	0.3 to 7	MS4-LFR-1/4-D6-CRM-AS
529148	1/4"	1700	40	Plastic	0.3 to 7	MS4-LFR-1/4-D6-ERM-AS
529152	1/4"	1700	5	Plastic	0.5 to 12	MS4-LFR-1/4-D7-CRM-AS
529156	1/4"	1500	40	Plastic	0.5 to 12	MS4-LFR-1/4-D7-ERM-AS
535724	1/4"	1500	40	Metal	0.5 to 12	MS4-LFR-1/4-D7-EUM-AS
529176	1/2"	5600	5	Plastic	0.3 to 7	MS6-LFR-1/2-D6-CRM-AS
529180	1/2"	5600	40	Plastic	0.3 to 7	MS6-LFR-1/2-D6-ERM-AS
529184	1/2"	4000	5	Plastic	0.5 to 12	MS6-LFR-1/2-D7-CRM-AS
529188	1/2"	4500	40	Plastic	0.5 to 12	MS6-LFR-1/2-D7-ERM-AS
530338	1/2"	4000	5	Metal	0.5 to 12	MS6-LFR-1/2-D7-CUM-AS
529192	1/2"	4500	40	Metal	0.5 to 12	MS6-LFR-1/2-D7-EUM-AS

Tech Sheet 71120

Working Pressure:
2 to 12 bar

Automatic Drain, BSPP

0009	Thread	LPM	Micron	Bowl Type	Pressure Regulation Range Bar	Manufacturer's Code
529146	1/4"	1500	5	Plastic	0.3 to 7	MS4-LFR-1/4-D6-CRV-AS
529150	1/4"	1700	40	Plastic	0.3 to 7	MS4-LFR-1/4-D6-ERV-AS
529158	1/4"	1200	40	Plastic	0.5 to 12	MS4-LFR-1/4-D7-ERV-AS
535720	1/4"	1200	5	Metal	0.5 to 12	MS4-LFR-1/4-D7-CUV-AS
535722	1/4"	1200	40	Metal	0.5 to 12	MS4-LFR-1/4-D7-EUV-AS
529178	1/2"	5600	5	Plastic	0.3 to 7	MS6-LFR-1/2-D6-CRV-AS
529182	1/2"	6200	40	Plastic	0.3 to 7	MS6-LFR-1/2-D6-ERV-AS
529190	1/2"	4500	40	Plastic	0.5 to 12	MS6-LFR-1/2-D7-ERV-AS
530340	1/2"	4000	5	Metal	0.5 to 12	MS6-LFR-1/2-D7-CUV-AS
529194	1/2"	4500	40	Metal	0.5 to 12	MS6-LFR-1/2-D7-EUV-AS

Tech Sheet 71122

FESTO



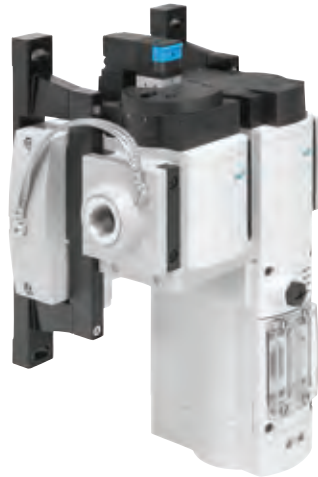
For FESTO Actuation
see page 1020

AIR PREPARATION MS SERIES

FESTO

Energy Efficiency Module MSE6-E2M

- MSE6-E2M constantly monitors the compressed air consumption, blocks the compressed air at a specific period once production has stopped and reduces the system pressure to 0 bar. It can be integrated directly into PROFIBUS, PROFINET, EtherCAT or EtherNet/IP via fieldbus.
- Grid dimension 62mm
- Intelligent service unit component for optimising the use of compressed air as an energy medium in industrial automation technology
- Combination of stop valve, flow sensor, pressure sensor and fieldbus node
- Identification of production downtime and leakages
- User-controlled shut-off and pressurisation
- Equipped with measurement, control and diagnostic functions
- Fieldbus connection (PROFIBUS DP, PROFINET IO, EtherNet/IP or EtherCAT) via integrated fieldbus nodes enables connection to a higher-level controller
- Sustainable operation with active air shut-off and pressure reduction



Service Unit Combination MSE6-E2M

0009	Thread	Electrical Actuation	Type
2465321	1/2"	Fieldbus node for PROFIBUS DP	MSE6-E2M-5000-FB13-AGD
3990296	1/2"	Fieldbus node for Ethernet/IP	MSE6-E2M-5000-FB36-AGD
3992150	1/2"	Fieldbus node for EtherCAT®	MSE6-E2M-5000-FB37-AGD
8157910	1/2"	Bus node for PROFINET IO with M12 connection	MSE6-E2M-5000-FB43-AGD
8157911	1/2"	Bus node for PROFINET IO with RJ45 connection	MSE6-E2M-5000-FB44-AGD
More variants available online			

Air Preparation Units MS-LFR-B Series

Filter MS2-LF-B

- Very compact and extremely lightweight series for use close to the process directly in the machine
- Lightweight and sturdy thanks to modern polymer materials
- Compatible with the MS series for the ideal combination of low-cost basic functionality and high-end functional requirements
- With manual condensate drain, rotating
- Grid dimension 25mm
- Variants recommended for production systems for manufacturing lithium-ion batteries



Filter Regulator MS-LFR-B

0009	Thread	LPM	Micron	Bowl Type	Pressure Regulation Range Bar	Type
8086643	M5	140	5	Polymer	0.5 bar to 7 bar	MS2-LFR-M5-D6-A8-C-M-B
8086641	M5	140	5	Polymer	0.5 bar to 7 bar	MS2-LFR-M5-D6-AR-BAR-C-M-B
8086642	M5	140	5	Polymer	0.5 bar to 7 bar	MS2-LFR-M5-D6-AR-MPA-C-M-B
8086646	QS-6	310	5	Polymer	0.5 bar to 7 bar	MS2-LFR-QS6-D6-A8-C-M-B
8086644	QS-6	310	5	Polymer	0.5 bar to 7 bar	MS2-LFR-QS6-D6-AR-BAR-C-M-B
8086645	QS-6	310	5	Polymer	0.5 bar to 7 bar	MS2-LFR-QS6-D6-AR-MPA-C-M-B
More variants available online						

FESTO



For **FESTO QS Standard Push-in Fittings**
see pages **808-811**

Standard Modular Valves

Ambient Temperature: -10°C to +60°C • For pressurising and exhausting pneumatic systems

Working Pressure: 0 to 14 bar



Manual On/Off Valve, BSPP

0009	Thread	Manufacturer's Code
541258	1/4"	MS4-EM1-1/4
541267	1/2"	MS6-EM1-1/2

Tech Sheet 71132

Working Pressure: 0 to 18 bar



Manual On/Off Valve with Silencer, BSPP

0009	Thread	Manufacturer's Code
541259	1/4"	MS4-EM1-1/4-S
541272	1/4"	MS6-EM1-1/4-S
541268	1/2"	MS6-EM1-1/2-S

Tech Sheet 71133

Working Pressure: 3 to 10 bar



Soft-start & Quick Exhaust Valves

0009	Thread	Manufacturer's Code
8001469	1/2"	MS6-SV-1/2-C-10V24-S

Tech Sheet 71587

Working Pressure: 4 to 18 bar



Solenoid Actuated On/Off Valve with Silencer, BSPP

0009	Thread	Voltage	Manufacturer's Code
542598	1/4"	24V DC	MS4-EE-1/4-10V24-S
542602	1/2"	24V DC	MS6-EE-3/8-10V24-S

Tech Sheet 71137

Working Pressure: 4 to 18 bar



Solenoid Actuated On/Off Valve, BSPP

0009	Thread	Voltage	Manufacturer's Code
542578	1/4"	24V DC	MS4-EE-1/4-10V24
542582	1/2"	24V DC	MS6-EE-1/2-10V24

Tech Sheet 71136

• For slowly pressurising and exhausting pneumatic installations (for use with on/off valves EM1 and EE)

Working Pressure: 4 to 18 bar



Pneumatically Operated Soft-Start Valve, BSPP

0009	Thread	Manufacturer's Code
529531	1/4"	MS4-DL-1/4
529817	1/2"	MS6-DL-1/2

Tech Sheet 71145

AIR PREPARATION MS SERIES

Brackets & Connection Accessories



Connector for MS module

0009	To Suit Series	Manufacturer's Code
8119201	MS4	MS4-MV1
8119204	MS6	MS6-MV1
552950	MS9	MS9-MV

Tech Sheet 71257



Module Connector for Installation of Modules with Regulating Knob Pointing Downwards

0009	To Suit Series	Manufacturer's Code
532800	MS4	MS4-MVM
532801	MS6	MS6-MVM

Tech Sheet 71261



Mounting Bracket with Distancing Piece

0009	To Suit Series	Manufacturer's Code
526073	M6	MS6-WPM-D

Tech Sheet 71268



Wall Mounting Bracket

0009	To Suit Series	Manufacturer's Code
526064	MS4	MS4-WR
526075	MS6	MS6-WR

Tech Sheet 71270

- Can be used as an intermediate distributor for varying air qualities
- Outlet at top and bottom



Branching Module

0009	To Suit Series	Thread	Manufacturer's Code
529853	MS6	G1/2"	MS6-FRM-1/2

Tech Sheet 71267



Wall Bracket

0009	To Suit Series	Manufacturer's Code
526063	MS4	MS4-WPB
526074	MS6	MS6-WPB

Tech Sheet 71266



Wall Bracket, WPM with Distancing Piece

0009	To Suit Series	Manufacturer's Code
526060	MS4	MS4-WPM-D
532186	MS6	MS6-WPM-2D

Tech Sheet 71586



Mounting Bracket

0009	To Suit Series	Manufacturer's Code
532184	MS4	MS4-WP
532195	MS6	MS6-WP

Tech Sheet 71269



Wall Mounting Bracket

0009	To Suit Series	Manufacturer's Code
532185	MS4	MS4-WB
532196	MS6	MS6-WB

Tech Sheet 71585

- Adaptor for pneumatic connection



Connecting Plate Set

0009	To Suit Series	Thread	Manufacturer's Code
526069	MS4	G1/4"	MS4-AGB
526082	MS6	G1/2"	MS6-AGD
526083	MS6	G3/4"	MS6-AGE

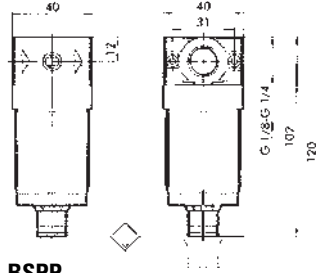
Tech Sheet 71271

MINIATURE FRLS, 'BIT'



Miniature Filter

- Flow rate at 6 bar ΔP 0.5 bar: 860 NI/min
- Fluid: compressed air
- Weight: 40g
- Mounting position: vertical
- Condensate drain: manual/semi-auto
- Bowl capacity: 16cm³



° Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 13 bar

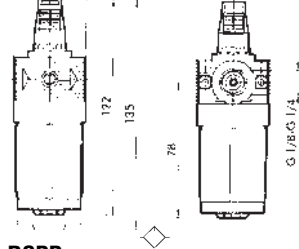


BSPP

9154	Thread BSPP	Micron μm
5101002	1/8"	20
5101001	1/8"	5
5201002	1/4"	20
5201001	1/4"	5

Miniature Lubricator

- Type of lubrication: oil mist
- Bowl capacity: 26.5cm³
- Flow rate at 6 bar ΔP 0.5 bar: 400 NI/min
- Fluid: compressed air
- Weight: 40g



° Maximum Temperature at 1MPa, 10 bar (145 psi): +50°C

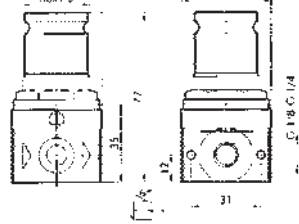


BSPP

9154	Thread BSPP
5103001	1/8"
5203001	1/4"

Miniature Pressure Regulator

- Flow rate at 6 bar ΔP 0.5 bar: 340 NI/min
- Fluid: filtered, lubricated or non-lubricated compressed air
- Weight: 80g
- Mounting position: any
- Gauge port: G1/8"



° Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 13 bar



BSPP

9154	Thread BSPP	Pressure Range bar
5107003	1/8"	0 to 8
5107004	1/8"	0 to 12
5207003	1/4"	0 to 8
5207004	1/4"	0 to 12

Miniature Pressure Regulator, Padlockable

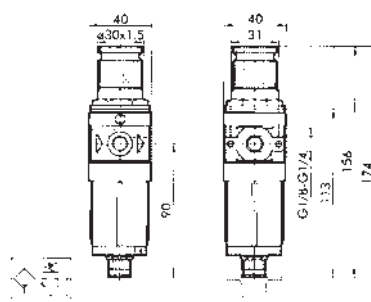
BSPP

9154	Thread BSPP	Pressure Range bar
5110003	1/8"	0 to 8
5110004	1/8"	0 to 12
5210003	1/4"	0 to 8
5210004	1/4"	0 to 12



Miniature Filter Regulator

- Flow rate at 6 bar ΔP 0.5 bar: 290 NI/min
- Fluid: compressed air
- Weight: 110g
- Mounting position: vertical
- Gauge port: G1/8"
- Bowl capacity: 16cm³
- Condensate drain: manual/semi-auto



° Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 13 bar

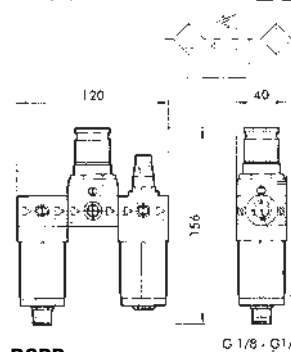


BSPP

9154	Thread BSPP	Micron μm	Pressure Range bar
5105008	1/8"	20	0 to 8
5105011	1/8"	20	0 to 12
5205008	1/4"	20	0 to 8
5205011	1/4"	20	0 to 12

Miniature Filter + Regulator + Lubricator Set

- Flow rate at 6 bar ΔP 0.5 bar: 150 NI/min
- Fluid: compressed air
- Weight: 160g
- Mounting position: any
- Gauge port: G1/8"
- Maximum Temperature at 1MPa, 10 bar (145 psi): +50°C
- Maximum Inlet Pressure: 13 bar



BSPP

9154	Thread BSPP	Micron μm	Pressure Range bar
5104008	1/8"	20	0 to 8
5104011	1/8"	20	0 to 12
5204008	1/4"	20	0 to 8

MINIATURE FRLS, 'BIT'



Miniature Oil Removal Filter

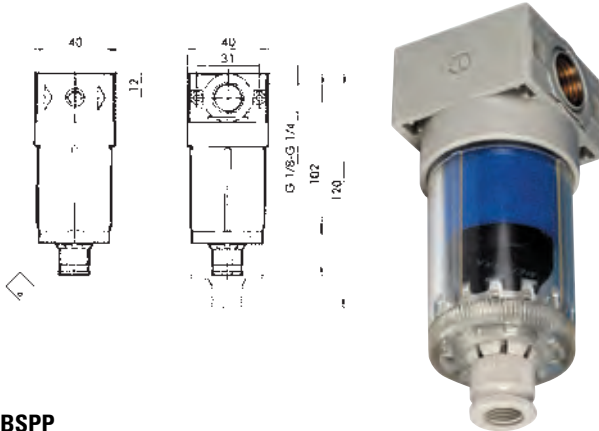
Free filtration: 99.97% 0.01µm

- Flow rate at 6 bar ΔP 0.5 bar: 700 NI/min
- Fluid: compressed air
- Weight: 65g
- Mounting position: vertical
- Condensate drain: manual/semi-auto
- Bowl capacity: 16cm³

Maximum Temperature at 10 bar:
+50°C

Maximum Inlet Pressure:
13 bar

NB: it is advisable to mount a 5µm filter upstream acting as a rough filter.



BSPP

9154	Thread BSPP
5212001	1/4"

Miniature Filter Regulator + Lubricator Set

- Flow rate at 6 bar ΔP 0.5 bar: 140 NI/min
- Flow rate at 6 bar ΔP 1 bar: 260 NI/min
- Fluid: compressed air
- Weight: 170g
- Mounting: vertical
- Gauge port: G1/8"

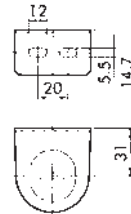
Maximum Inlet Pressure:
13 bar



BSPP

9154	Thread BSPP	Micron µm	Pressure Range bar
5106008	1/8"	20	0 to 8
5106011	1/8"	20	0 to 12
5206008	1/4"	20	0 to 8
5206011	1/4"	20	0 to 12

Mounting Hardware



Bit Regulator Bracket

9154	Description
9200701	Mounting Bracket
9170301	Wall Mounting Kit

Automatic Drain



To suit Miniature Filters

9154	Description
9000803	For Miniature Filters

Filter Elements



Spare

9154	Micron µm
9251708	5
9251709	20
9251712	For Coalescing Filter, 0.001



For Gauges
see page 409

FILTER REGULATOR FOR WATER, 'BIT' SERIES F



- Filtering and/or water pressure regulation units, characterised by the use of materials certified to specific standards on products for use in contact with foodstuff or drinking water.
- Declarations of conformity and release test reports are available on request for those who need them to certify our product incorporated in their own systems.
- The high colour surface finish of the body was chosen to enhance the highly hygienic properties of the product.
- The pressure regulator works on incompressible fluids (water) and there is a valve leak, the downstream pressure could rise up to reach the inlet pressure and then it re-stabilises with water consumption.
- If necessary, consider the possibility of installing a safety valve that relieves any excess pressure.
- Fluid: water/air and fluids compatible with materials used

- Flow rate at 6.3 bar ΔP 1 bar: 6 up to 14.5 l/min dependant on model (refer to sales department)
- Gauge port: regulator/filter regulator, 1/8" BSPP
- Mounting: fixing plates 9170301, regulator bracket 9200701



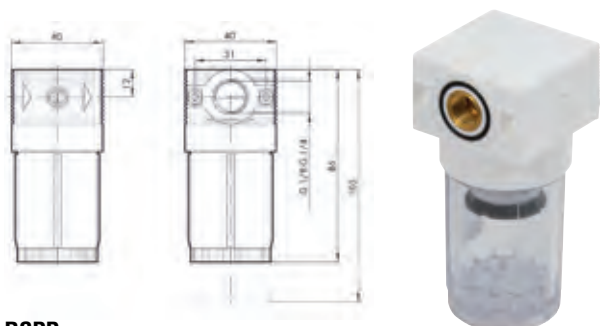
Certifications

- European Regulation (EU) 10/2011, KTW, W270, WRAS, ACS, NSF61
- Approved for compliance with the UBA list, NSF/ANSI 372
- European Regulation (EU) 10/2011, KTW, W270, WRAS, NSF61, DM174/04, KTW, W270, WRAS, ACS, NSF61
- Approved for compliance with the UBA list, DM174/04, KTW, W270, WRAS, ACS, NSF61

° Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 13 bar

Filter for Water



BSPP

9154	Thread BSPP	Micron µm
5101002F	1/8"	20
5201002F	1/4"	20

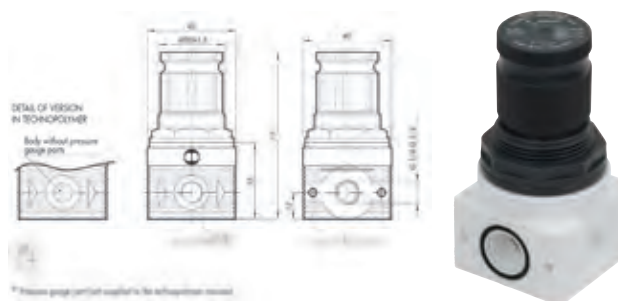
Regulator for Water



Brass Ports, BSPP

9154	Thread BSPP	Pressure Range bar
5108001F	1/8"	0 to 2
5108002F	1/8"	0 to 4
5108003F	1/8"	0 to 8
5108004F	1/8"	0 to 12
5208001F	1/4"	0 to 2
5208002F	1/4"	0 to 4
5208003F	1/4"	0 to 8
5208004F	1/4"	0 to 12

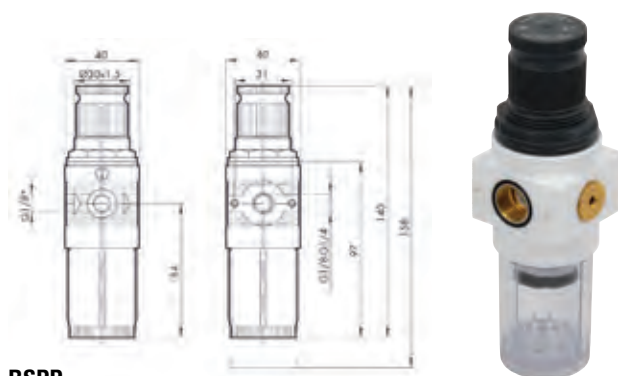
Regulator for Water



Technopolymer Ports (No Gauge Port), BSPP

9154	Thread BSPP	Pressure Range bar
5228001F	1/4"	0 to 2
5228002F	1/4"	0 to 4
5228003F	1/4"	0 to 8
5228004F	1/4"	0 to 12

Filter Regulator for Water



BSPP

9154	Thread BSPP	Micron µm	Pressure Range bar
5105111F	1/8"	20	0 to 12
5205102F	1/4"	20	0 to 2
5205105F	1/4"	20	0 to 4
5205111F	1/4"	20	0 to 12

STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Syntesi® is an important milestone achieved by Metal Work, the result of thirty years' experience producing air treatment units. Syntesi® obtains the best possible performance in a reduced space and with limited weight. The capacity is much higher than that of other units of the same size. These modular units feature a very simple yet effective system that requires no brackets, stay bolts or yoke for assembling the elements.

The basic version of Syntesi® incorporates numerous functions that are not provided or are only optional with traditional units:

- Padlockable knobs
- Additional pneumatic ports on the front and back
- Flow options from left to right or vice versa
- Regulators with compensation system which are accurate even when the upstream pressure changes, with rapid downstream pressure relief
- Full indelible marking
- Automatic condensate drain even in size 1
- 360° visual inspection of oil and condensate levels

The basic materials – technopolymer and nickel-plated brass – have excellent corrosion resistance. An anti-corrosion version is available with stainless steel components (screws and plates) or Geomet® related ones (regulator springs).

Technical Specifications

- Padlockable knob: the knobs of the regulators, filter regulators and standard sectioning valves can all be padlocked
- Fluid: compressed air or other inert gases

Body Size	Threaded Port BSP	Maximum Input Pressure bar	Temperature Range at 1 MPa, 10 bar (145 psi)
1	1/8"	15	-10°C to +50°C
	1/4"		
	3/8"		
2	3/8"	13	-10°C to +50°C
	1/2"		
	3/4"		
	1"		

Technical Data	Body Size 1			Body Size 2			
	Maximum Input Pressure bar	15			13		
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 1 bar (0.1 MPa, 14 psi)	1300	1650	1750	4500	5200	5200	
Weight g	178	173	164	488	461	457	445
Condensate Bowl Capacity cm3	30			70			
Mounting Position	Vertical			Vertical			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			



Standard Filter, Body Size 1

Manual Drain, BSPP

9154	Thread BSPP	Micron µm
5611F201	1/8"	20
5612F202	1/4"	20
5613F203	3/8"	20

Standard Filter, Body Size 2

Manual Drain, BSPP

9154	Thread BSPP	Micron µm
5623F203	3/8"	20
5624F204	1/2"	20
5625F205	3/4"	20
5626F206	1"	20

Standard Filter, Body Size 1

Auto Drain, BSPP

9154	Thread BSPP	Micron µm
5611F501	1/8"	20
5612F502	1/4"	20
5613F503	3/8"	20

Standard Filter, Body Size 2

Auto Drain, BSPP

9154	Thread BSPP	Micron µm
5623F503	3/8"	20
5624F504	1/2"	20
5625F505	3/4"	20
5626F506	1"	20

STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Oil Removal Filter, Body Size 1

Technical Data	Body Size 1			Body Size 2			
	Maximum Input Pressure bar	15			13		
Suggested Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi)	460			620			
Weight g	194	189	180	483	456	452	440
Bowl Capacity cm3	15			40			
Mounting Position	Vertical			Vertical			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			

Oil Removal Filter, Body Size 2



Manual Drain, BSPP

9154	Thread BSPP	Micron μm
5611D101	1/8"	0.01
5612D102	1/4"	0.01
5613D103	3/8"	0.01

Manual Drain, BSPP

9154	Thread BSPP	Micron μm
5623D103	3/8"	0.01
5624D104	1/2"	0.01
5625D105	3/4"	0.01
5626D106	1"	0.01

Active Carbon Filter, Body Size 1

Technical Data	Body Size 1			Body Size 2			
	Maximum Input Pressure bar	15			13		
Suggested Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi)	350			800			
Weight g	195	190	181	483	456	452	440
Inlet Fluid	0.01 mm filtered and deperated air			0.01 mm filtered and deperated air			
Mounting Position	Any			Any			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			

Active Carbon Filter, Body Size 2



Manual Drain, BSPP

9154	Thread BSPP	Micron μm
5611C101	1/8"	0.003
5612C102	1/4"	0.003
5613C103	3/8"	0.003

Manual Drain, BSPP

9154	Thread BSPP	Micron μm
5623C103	3/8"	0.003
5624C104	1/2"	0.003
5625C105	3/4"	0.003

For Piping Systems
see pages 1068-1080

STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Pressure Regulator

Technical Data	Body Size 1			Body Size 2			
Maximum Input Pressure bar	15			13			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 1 bar (0.1 MPa, 14 psi)	570	1650	2900	3000	4300	4700	
Weight g	193	188	179	546	519	515	503
Mounting Position	Any			Any			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			
Gauge Port	1/8" BSP			1/4" BSP			

Body Size 1, Relieving, BSPP

9185	Thread BSPP	Pressure Range bar
5611R141	1/8"	0 to 8
5611R161	1/8"	0 to 12
5612R142	1/4"	0 to 8
5612R162	1/4"	0 to 12
5613R143	3/8"	0 to 8
5613R163	3/8"	0 to 12

Body Size 2, Relieving, BSPP

9185	Thread BSPP	Pressure Range bar
5623R143	3/8"	0 to 8
5623R163	3/8"	0 to 12
5624R144	1/2"	0 to 8
5624R164	1/2"	0 to 12
5625R145	3/4"	0 to 8
5625R165	3/4"	0 to 12
5626R146	1"	0 to 8
5626R166	1"	0 to 12



In-series Regulator

The in-series regulator is used to take air at a set pressure from the ports on the front and back of the body, while the pneumatic inlet and outlet ports are connected directly. It is possible to assemble several regulators side by side, all supplied at the same pressure, and obtain different regulated pressures, regardless of the pressure of the previous module.

The in-series regulator uses the same construction principles as the standard regulator, so the advantages are the same, such as compensation for upstream pressure changes, relief valve, rapid relief of the downstream pressure and a padlockable push-lock knob.



Technical Data	Body Size 1			Body Size 2			
Maximum Input Pressure bar	15			13			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 1 bar (0.1 MPa, 14 psi)	500			1000			
Weight g	193	188	179	546	519	515	503
Mounting Position	Any			Any			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			
Gauge Port	1/8" BSP			1/4" BSP			

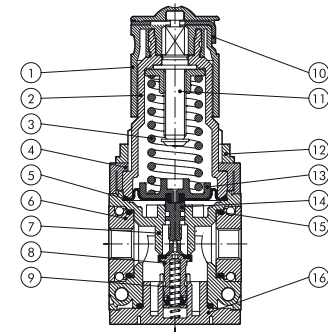
1. Technopolymer adjusting knob
2. Technopolymer bell
3. Steel adjusting spring (with Geomet. treatment for anti-corrosion version)
4. Technopolymer flang
5. Rolling diaphragm
6. IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
7. Technopolymer body
8. OT58 brass valve, with NBR vulcanized gasket
9. Stainless steel valve spring
10. Galvanised steel plate for knob locking (stainless steel for anti-corrosion version)
11. OT58 brass adjusting screw
12. Technopolymer ring nut
13. Technopolymer plate
14. Technopolymer rod
15. NBR o-ring gaskets
16. Technopolymer plug

Body Size 1, Relieving, BSPP

9185	Thread BSPP	Pressure Range bar
5611R241	1/8"	0 to 8
5611R261	1/8"	0 to 12
5612R242	1/4"	0 to 8
5612R262	1/4"	0 to 12
5613R243	3/8"	0 to 8
5613R263	3/8"	0 to 12

Body Size 2, Relieving, BSPP

9185	Thread BSPP	Pressure Range bar
5623R243	3/8"	0 to 8
5623R263	3/8"	0 to 12
5624R244	1/2"	0 to 8
5624R264	1/2"	0 to 12
5625R245	3/4"	0 to 8
5625R265	3/4"	0 to 12
5626R246	1"	0 to 8
5626R266	1"	0 to 12



STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Standard Filter Regulator

Technical Data	Body Size 1			Body Size 2			
Maximum Input Pressure bar	15			13			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 1 bar (0.1 MPa, 14 psi)	500	800	2200	3200	4300	5200	
Weight g	244	239	230	623	596	592	580
Bowl Capacity cm ³	30			70			
Mounting Position	Vertical			Vertical			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			
Gauge Port	1/8" BSP			1/4" BSP			



Standard Filter Regulator, Body Size 1, Relieving Manual Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5611B241	1/8"	20	0 to 8
5611B261	1/8"	20	0 to 12
5612B242	1/4"	20	0 to 8
5612B262	1/4"	20	0 to 12
5613B243	3/8"	20	0 to 8
5613B263	3/8"	20	0 to 12

Standard Filter Regulator, Body Size 1, Relieving Auto Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5611B541	1/8"	20	0 to 8
5611B561	1/8"	20	0 to 12
5612B542	1/4"	20	0 to 8
5612B562	1/4"	20	0 to 12
5613B543	3/8"	20	0 to 8
5613B563	3/8"	20	0 to 12

Standard Filter Regulator, Body Size 2, Relieving Manual Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5623B243	3/8"	20	0 to 8
5623B263	3/8"	20	0 to 12
5624B244	1/2"	20	0 to 8
5624B264	1/2"	20	0 to 12
5625B245	3/4"	20	0 to 8
5625B265	3/4"	20	0 to 12
5626B246	1"	20	0 to 8
5626B266	1"	20	0 to 12

Standard Filter Regulator, Body Size 2, Relieving Auto Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5623B543	3/8"	20	0 to 8
5623B563	3/8"	20	0 to 12
5624B544	1/2"	20	0 to 8
5624B564	1/2"	20	0 to 12
5625B545	3/4"	20	0 to 8
5625B565	3/4"	20	0 to 12
5626B546	1"	20	0 to 8
5626B566	1"	20	0 to 12

Standard Lubricator

Technical Data	Body Size 1			Body Size 2			
Maximum Input Pressure bar	15			13			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 1 bar (0.1 MPa, 14 psi)	1300	1700	2200	2300	3900	3900	
Weight g	185	180	171	480	453	449	437
Quantity of Fitted Oil cm ³	60			130			
Mounting Position	Vertical			Vertical			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			



Body Size 1, BSPP

9154	Thread BSPP
5611L101	1/8"
5612L102	1/4"
5613L103	3/8"

Body Size 2, BSPP

9185	Thread BSPP
5623L103	3/8"
5624L104	1/2"
5625L105	3/4"
5626L106	1"

STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Shut Off Valve

Technical Data	Body Size 1			Body Size 2			
	Maximum Input Pressure bar	15			13		
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 0.5 bar (0.05 MPa, 7 psi)	800	1000	1100	2800	3000	3000	
Weight g	197	192	183	476	449	445	433
Mounting Position	Any			Any			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			



Body Size 1, Manual, BSPP

9185	Thread BSPP
5611V101	1/8"
5612V102	1/4"
5613V103	3/8"

Body Size 1, Pneumatic, BSPP

9185	Thread BSPP
5611V201	1/8"
5612V202	1/4"
5613V203	3/8"

S Body Size 1, Solenoid, BSPP

9185	Thread BSPP
5611V701	1/8"
5612V702	1/4"
5613V703	3/8"

Body Size 2, Manual, BSPP

9185	Thread BSPP
5623V103	3/8"
5624V104	1/2"
5625V105	3/4"
5626V106	1"

Body Size 2, Pneumatic, BSPP

9185	Thread BSPP
5623V203	3/8"
5624V204	1/2"
5625V205	3/4"
5626V206	1"

Body Size 2, Solenoid, BSPP

9185	Thread BSPP
5623V703	3/8"
5624V704	1/2"
5625V705	3/4"
5626V706	1"



For FT Pro One Touch All Metal Push-in Fittings
see pages **843-847**

STANDARD SERIES FRLS, 'SYNTESI'

SYNTESI



Progressive Starter

Technical Data	Body Size 1			Body Size 2			
Input Pressure Range bar	3 to 10			3 to 10			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 0.5 bar (0.05 MPa, 7 psi)	900	1000	1100	2800	3600	3600	
Weight g	203	198	189	503	476	472	460
Mounting Position	Any			Any			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			



Body Size 1, BSPP

9185	Thread BSPP
5611A701	G1/8"
5612A702	G1/4"
5613A703	G3/8"

Body Size 2, BSPP

9185	Thread BSPP
5623A703	G3/8"
5624A704	G1/2"
5625A705	G3/4"
5626A706	G1"

Pressure Switch

Technical Data	Body Size 1	Body Size 2
Maximum Pressure bar	15	13
Maximum Current A	2	2
Maximum Voltage V	250	250
Cable OD mm	4.9	4.9
Fluid	Filtered lubricated or non-lubricated compressed air. Lubrication, if used, must be continuous	
Mounting Position	Any	Any
Wall Fixing Screws	No. 2 M4 Screws	No. 2 M5 Screws



Body Size 1, M8 Connector, BSPP

9185	Thread BSPP
5611S201	G1/8"
5612S202	G1/4"
5613S203	G3/8"

Body Size 2, M8 Connector, BSPP

9185	Thread BSPP
5623S203	G3/8"
5624S204	G1/2"
5625S205	G3/4"
5626S206	G1"

Filter Regulator + Lubricator Set

Technical Data	Body Size 1			Body Size 2			
Input Pressure bar	15			13			
Flow Rate NI/min at 6.3 bar (0.63 MPa, 91 psi) ΔP 0.5 bar (0.05 MPa, 7 psi)	350			1200			
Weight g	414	409	400	1074	1074	1043	1031
Mounting Position	Vertical			Vertical			
Wall Fixing Screws	No. 2 M4 Screws			No. 2 M5 Screws			
Gauge Port	1/8" BSP			1/4" BSP			



Body Size 1, Manual Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5611B24L101	G1/8"	20	0 to 8
5612B24L102	G1/4"	20	0 to 8
5613B24L103	G3/8"	20	0 to 8

Body Size 2, Manual Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5623B24L103	G3/8"	20	0 to 8
5624B24L104	G1/2"	20	0 to 8
5625B24L105	G3/4"	20	0 to 8
5626B24L106	G1"	20	0 to 8

Body Size 1, Auto Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5611B54L101	G1/8"	20	0 to 8
5612B54L102	G1/4"	20	0 to 8
5613B54L103	G3/8"	20	0 to 8

Body Size 2, Auto Drain, BSPP

9185	Thread BSPP	Micron μm	Pressure Range bar
5623B54L103	G3/8"	20	0 to 8
5624B54L104	G1/2"	20	0 to 8
5625B54L105	G3/4"	20	0 to 8
5626B54L106	G1"	20	0 to 8

ACCESSORIES, 'SYNTESI'

SYNTESI



Connecting Nipple Kit



Body Size 1

9185	
9210000	

Connecting Nipple Kit

Body Size 2

9185	
9210010	

Threaded Port Kit



Body Size 1

9185	Thread BSPP
9210001	G1/8"
9210002	G1/4"
9210003	G3/8"

Threaded Port Kit

Body Size 2

9185	Thread BSPP
9210011	G3/8"
9210012	G1/2"
9210013	G3/4"
9210014	G1"

Automatic Drain



Maximum Inlet Pressure: 10 bar



To suit Body Sizes 1 & 2

9185	
9000802	

Replacement Elements



Spare, Body Size 1

9185	Micron µm
9210150	5
9210151	20

Replacement Elements

Spare, Body Size 2

9185	Micron µm
9210155	5
9210156	20

Replacement Elements



Oil Removal, Body Size 1

9185	
9210160	

Replacement Elements

Oil Removal, Body Size 2

9185	
9210165	

Replacement Elements



Active Carbon, Body Size 1

9185	
9210161	

Replacement Elements

Active Carbon, Body Size 2

9185	
9210166	

Mountings

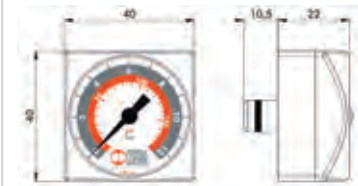


Bracket for Regulators

9154	To	Sizes
9200701		Body size 1
9400701		Body size 2

Square Dial Pressure Gauge

- A compact pressure gauge with a square dial suitable for air treatment units.
- Suitable for use with Metal Work Bit, Syntesi, New Deal and Skillair ranges.
- The Teflon seal on the outer thread of the fitting ensures a perfect pneumatic seal.
- To mount it, screw the gauge in as far as it will go, then loosen enough to align the dial. A sealant is not required.
- The pressure gauge has a neck to dampen pressure vibration and absorb water hammer. This improves overall reliability and guarantees longer life.



G1/8" Thread

9154	Pressure Range (bar)
9700109	0 to 4
9700110	0 to 12

STANDARD SERIES FRLS, 'NEW DEAL'



Standard Filter

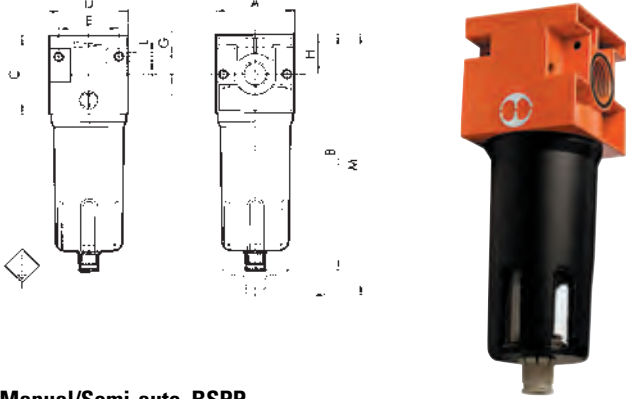
Technical Specification

- Fluid: compressed air
- Mounting position: vertical
- Condensate drain: manual/semi-auto

- Maximum Temperature at 10 bar: +50°C
- Maximum Inlet Pressure: 18 bar

Dimensions

Thread BSP	A	B	C	D	E	G	H	L (Hole)	M	kg
G1/4"	42	142	42	42	32	10	21	M4	185	0.4
G3/8"	60	180	60	60	46	14	30	M4	230	0.9
G1/2"	60	180	60	60	46	14	30	M4	230	0.9
G3/4"	80	235	80	80	66	22	40	M6	325	1.9
G1"	80	235	80	80	66	22	40	M6	325	1.9



Manual/Semi-auto, BSPP

9154	Thread BSPP	Micron µm
1221006	G1/4"	20
1321006	G3/8"	20
1421006	G1/2"	20
1521006	G3/4"	20
1621006	G1"	20

Technical Specification

- Fluid: filtered, lubricated or non-lubricated compressed air
- *Lubrication, if used, must be continuous.

Dimensions

Thread BSP	A	B	C	D	E	F	G	H	I	L (Hole)	M	N	kg
G1/4"	42	142	42	42	32	30 x 1.5	10	21	25	M4	185	G1/8"	0.3
G3/8"	60	180	60	60	46	38 x 2	14	30	35	M4	230	G1/8"	0.8
G1/2"	60	180	60	60	46	38 x 2	14	30	35	M4	230	G1/8"	0.8
G3/4"	80	235	80	80	66	55 x 2	22	40	47	M6	325	G1/4"	2.2
G1"	80	235	80	80	66	55 x 2	22	40	47	M6	325	G1/4"	2.2

Security Knob

NOTE: pull outwards to remove the knob from the pressure switch on the unit. Insert the security knob and regulate the pressure switch. Then press the handle firmly to lock it in position. If the pressure switch needs to be reset, remove the security knob by forcing it laterally with a screwdriver.



To suit 9000401 & 9000402

9149
9200703

Oil Removal Filter

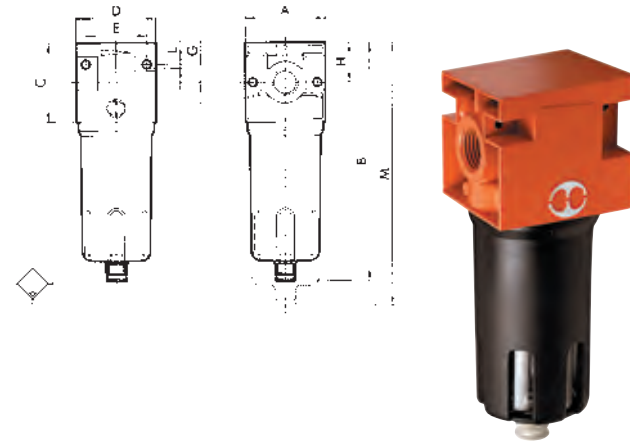
Technical Specification

- Degree of filtration: 99.97% 0.01µ
- Flow rate at 6 bar ΔP 1 bar: 1600 NI/min
- Fluid: filtered 4µm compressed ai
- Weight: 0.9kg
- Mounting position: vertical
- Bowl capacity: 45cm³

- Maximum Temperature at 10 bar: +50°C
- Maximum Inlet Pressure: 18 bar

Dimensions

Thread BSP	A	B	C	D	E	G	H	L (Hole)	M
G1/2"	60	180	60	60	46	14	30	M4	230



BSPP

9154	Thread BSPP
1422002	G1/2"

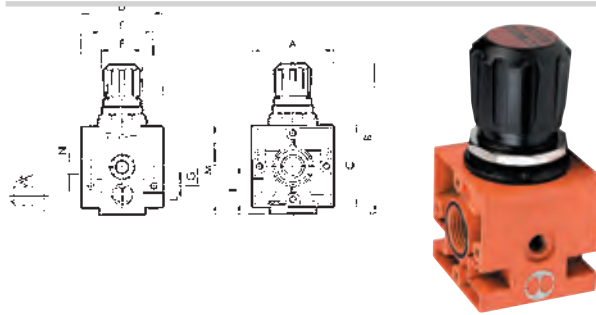
- Maximum Temperature at 10 bar: +50°C

- Maximum Inlet Pressure: 18 bar

STANDARD SERIES FRLS, 'NEW DEAL'



Pressure Regulator



BSPP

9154	Thread BSPP	Pressure Range bar
1202002	G1/4"	0 to 8
1202003	G1/4"	0 to 12
1302002	G3/8"	0 to 8
1302003	G3/8"	0 to 12
1402002	G1/2"	0 to 8
1402003	G1/2"	0 to 12
1502003	G3/4"	0 to 12
1602003	G1"	0 to 12

Filter Regulator

Technical Specification

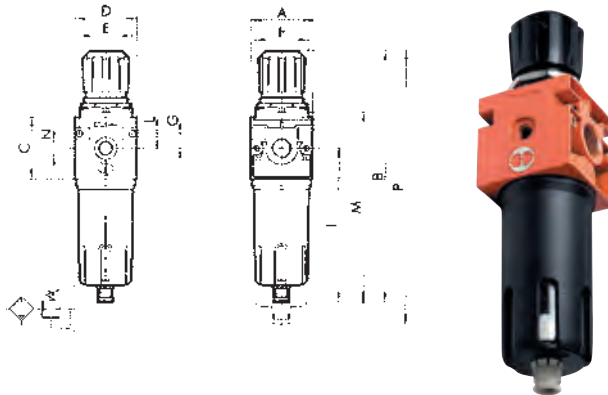
- Mounting position: vertical
- NB:** the regulator pressure must always be set upwards.

Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 18 bar

Dimensions

Thread BSP	A	B	C	D	E	F	G	I	L (Hole)	M	N	P	kg
G1/4"	42	190	42	42	36	30 x 1.5	10	121	M4	145	G1/8"	233	0.5
G3/8"	60	245	60	60	52	30 x 1.5	14	150	M4	185	G1/8"	295	1
G1/2"	60	245	60	60	52	30 x 1.5	14	150	M4	185	G1/8"	295	1



BSPP

9185	Thread BSPP	Micron µm	Pressure Range bar
1225030	G1/4"	20	0 to 8
1225054	G1/4"	20	0 to 12
1325030	G3/8"	20	0 to 8
1325054	G3/8"	20	0 to 12
1425030	G1/2"	20	0 to 8
1425054	G1/2"	20	0 to 12

Pressure Regulator, Padlockable



BSPP

9154	Thread BSPP	Pressure Range bar
1210013	G1/4"	0 to 8
1210014	G1/4"	0 to 12
1310013	G3/8"	0 to 8
1310014	G3/8"	0 to 12
1410013	G1/2"	0 to 8
1410014	G1/2"	0 to 12

Lubricator

Technical Specification

- Fluid: filtered compressed air
- Mounting position: vertical

Maximum Temperature at 10 bar: +50°C

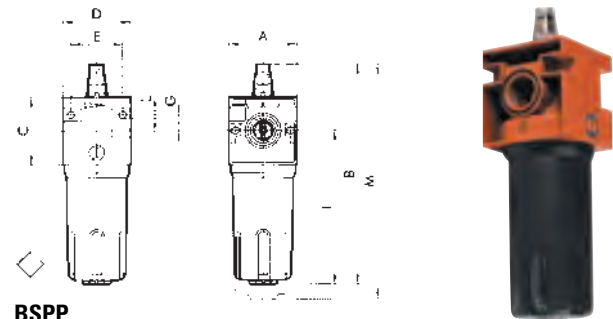
Maximum Inlet Pressure: 18 bar

Notes

- Use the screw provided to set the drip rate to drop every 300-600ml.
- Fit the lubricator as close as possible to the point of use
- Fill the bowl with oil before pressurising the system
- Do not use cleaning oil, brake fluid or solvents in general
- Recommended lubricants: ISO and UNI FD22, e.g. Energol HLP 22(BP), Spinesso 22 (Esso), Mobil, Tellus Oil 22 (Shell)
- Automatic filling lubricator and minimum level lubricator

Dimensions

Thread BSP	A	B	C	D	E	G	I	L (Hole)	M	kg
G1/4"	42	156	42	42	32	10	121	M4	176	0.4
G3/8"	60	195	60	60	46	14	136	M4	220	0.9
G1/2"	80	195	80	80	66	22	182	M4	290	0.9
G3/4"	80	260	80	80	66	22	182	M6	290	1.8
G1"	80	260	80	80	66	22	182	M6	290	1.8



BSPP

9154	Thread BSPP
1223001	G1/4"
1323001	G3/8"
1423001	G1/2"
1523001	G3/4"
1623001	G1"

STANDARD SERIES FRLS, 'NEW DEAL'



Filter + Regulator + Lubricator Set

Technical Specification
 • Fluid: compressed air

Maximum Temperature at 10 bar: +50°C

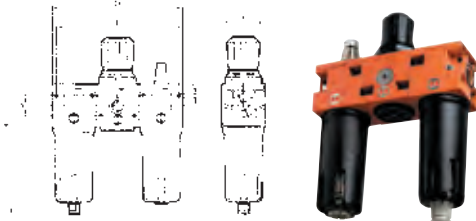
Maximum Inlet Pressure: 18 bar

Notes

- Highly reliable, heavy duty, piston operated
- FRL unit
- Stability of the set pressure as the upstream pressure varies
- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Lubrication proportional to flow rate
- Micrometric lubrication regulation
- Activation guaranteed with low flow rate

Dimensions

Thread BSPP	A	B	D	E	G	L (Hole)	kg
G1/4"	42	190	126	116	20	M4	1
G3/8"	60	245	180	166	28	M4	2.5
G1/2"	60	245	180	166	28	M4	2.5
G3/4"	80	332	240	226	44	M6	5.8
G1"	80	332	240	226	44	M6	5.8



BSPP

9185	Thread BSPP	Micron µm	Pressure Range bar
1224030	G1/4"	20	0 to 8
1224054	G1/4"	20	0 to 12
1324030	G3/8"	20	0 to 8
1324054	G3/8"	20	0 to 12
1424030	G1/2"	20	0 to 8
1424054	G1/2"	20	0 to 12
1524030	G3/4"	20	0 to 12
1624030	G1"	20	0 to 12

Filter Regulator + Lubricator Sets

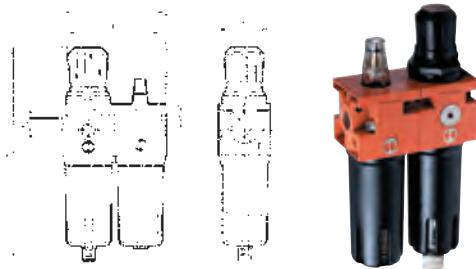
Technical Specification
 • Fluid: compressed air

Maximum Temperature at 10 bar: +50°C

Maximum Inlet Pressure: 18 bar

Dimensions

Thread BSPP	A	B	D	E	G	L (Hole)	kg
G1/4"	42	190	84	76	10	M4	0.9
G3/8"	60	240	120	109	14	M4	2
G1/2"	60	240	120	109	14	M6	2



BSPP

9185	Thread BSPP	Micro µm	Pressure Range bar
1226030	G1/4"	20	0 to 8
1226054	G1/4"	20	0 to 12
1326030	G3/8"	20	0 to 8
1326054	G3/8"	20	0 to 12
1426030	G1/2"	20	0 to 8
1426054	G1/2"	20	0 to 12

Shut Off Valve

Technical Specification
 • Fluid: filtered, lubricated or non lubricated compressed air*

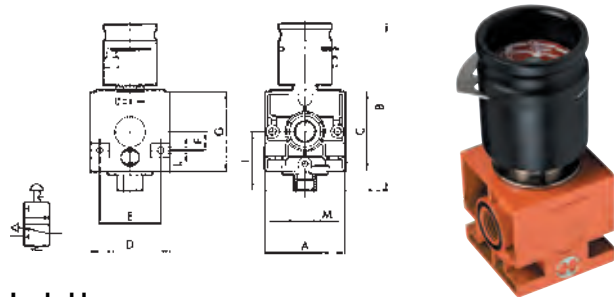
Maximum Temperature at 10 bar: +50°C

Inlet Pressure: 18 bar

* Lubrication, if used, must be continuous.

Dimensions

Thread BSPP	A	B	C	D	E	F	G	I	L (Hole)	kg
G1/4"	42	105	42	42	32	10	42	32	M4	0.35
G3/8"	60	126	60	60	46	14	60	43	M4	0.8
G1/2"	60	126	60	60	46	14	60	43	M4	0.8



Lockable

9154	Thread BSPP
1270001	G1/4"
1370001	G3/8"
1470001	G1/2"

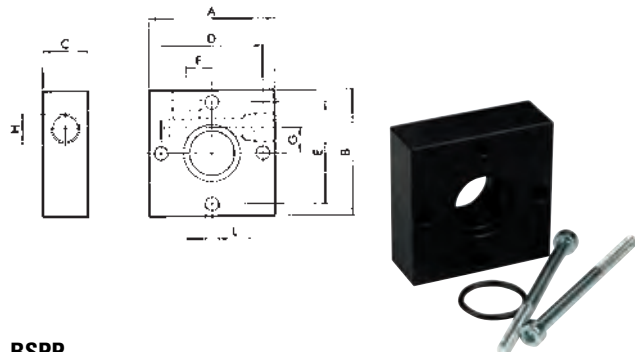
Distribution Block

Maximum Working Temperature at 10 bar: +50°C

Maximum admissible Pressure: 18 bar

Dimensions

Thread BSPP	A	B	C	D	E	F	G	H (No2 pos)	L (Hole)
G1/4"	42	42	15	34	34	8.5	8.5	21	M4
G3/8"	60	60	20	49	49	14	14	30	M4
G1/2"	60	60	20	49	49	14	14	30	M4
G3/4"	80	80	30	64	64	16	16	40	M6
G1"	80	80	30	64	64	16	16	40	M6



BSPP

9154	To Suit
9200401	G1/8" for G1/4
9400401	G1/4" for G3/8 to G1/2
9600401	G1/2" for G3/4 to G1

STANDARD SERIES FRLS, 'NEW DEAL' ACCESSORIES



Drip Leg Drain

Technical Specifications

- Threaded port: G1/2"
- Wall fixing screws: M6 x 75

System supply condensate drain:

- All-round condensate level viewing
- Automatic drain from inside the bowl
- Axial coupling

Maximum Working Temperature at 10 bar:
+50°C

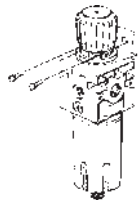
Maximum admissible Pressure:
18 bar



BSPP

9154	Thread BSPP
4589003	G1/2"

Mountings



Bracket for Regulators

9154	To Suit Sizes
9200701	G1/4"
9400701	G3/8" to G1/2"

Mountings



Spacers for Wall Mount FRLs

9154	To Suit Sizes
9200601	G1/4"
9400601	G3/8" to G1/2"
9600601	G3/4"

Filter Element



Spare

9154	To Suit Sizes	Micron µm
9250103	G1/4"	4
9250102	G1/4"	20
9450103	G3/8" to G1/2"	4
9450102	G3/8" to G1/2"	20
9650103	G3/4" to G1"	4
9650102	G3/4" to G1"	20
9450105	G3/8" to G1/2"	0.01

Shut Off Valve Adaptor



Brass

9154	To Suit Sizes
9201001	G1/4"
9401001	G3/8"
9401002	G1/2"

Automatic Drains

Maximum Inlet Pressure: 10 bar



Fully Automatic

9185	To Suit Sizes
9000802	G3/8" to G1"

Automatic Drains



Semi-automatic

9154	To Suit Sizes
9000803	G1/4" to G1/2"

Automatic Drains



Metal Bowl for use with Semi-auto & Auto Drains

9154	To Suit Sizes
9255201	G1/4"
9455201	G3/8" to G1/2"

Square Dial Pressure Gauge

- A compact pressure gauge with a square dial suitable for air treatment units.
- Suitable for use with Metal Work Bit, Syntesi, New Deal and Skillair ranges.
- A PTFE ring seal mounted on the 1/8" thread of the fitting ensures a perfect pneumatic seal.
- To mount it, screw the gauge in as far as it will go, the loosen enough to align the dial. A sealant is not required.
- The pressure gauge has a neck to dampen pressure vibration and absorb water hammer. This improves overall reliability and guarantees longer life.



G1/8" Thread

9154	Pressure Range (bar)
9700109	0 to 4
9700110	0 to 12

STANDARD SERIES FRLS, 'NEW DEAL' BREATHE AIR SET

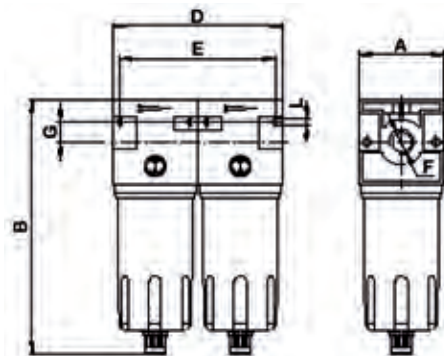
Breathe Air Set

Breathe provides high quality, clean air, essential for paint spraying and breathing air applications. Designed for self-contained operations, it will filter compressed air directly from most types of compressor and ring main systems.

Breathe will supply sufficient breathable air for up to two men on constant demand and will provide breathing quality air to a higher standard than specified in BS4275: 1974

Technical Specification

- Element grade: XA and AC
- Threaded port: 1/2" BSP
- Particle removal: 0.01 microns
- Maximum oil carry over @ +20°C: 0.005 mg/cu m
- Pressure loss, clean and dry: 150 mbar
- Pressure loss, saturated: 350 mbar
- Pressure loss, change element: 400 mbar



Dimensions

A	60mm	E	121mm
B	180mm	G	14mm
D	135mm	L	4mm Hole



Maximum Recommended Temperature:
+25°C

Maximum Working Pressure:
16 bar

BSP

9154	Element Grade	Thread Size BSP	Micron µm	Pressure Range Bar
Z29100BREATHE	XA & SC	1/2"	0.01	0 to 16



For FT Pro Pneumatic Hose
see pages 895-904

FRLS, 'SKILLAIR'



Filter, 200 Series

Technical Specification

- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 2400 NI/min
- Fluid: compressed air
- Weight: 0.7kg

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
3480002	1/4"
3580002	3/8"
3680002	1/2"

Filter, 300 Series

Technical Specification

- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 3800 NI/min
- ΔP 0.5 bar (0.005 MPa, 7 psi): 135 scfm
- Fluid: compressed air
- Weight: 1.4 kg

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
4480002	1/2"
4580002	3/4"
4680002	1"

Filter, 400 Series

Technical Specification

- Degree of filtration: 20µ
- Flow rate at 6.3 bar:
 - 16500 (G1 1/2") NI/min, 20000 (G2") NI/min
- Fluid: compressed air
- Weight: 1.4kg

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
6380002	1.1/2"
6480002	2"

Regulator, 200 Series

Technical Specification

- Setting range: 0 to 8 bar
- Flow rate at 6.3 bar: 25000 NI/min
- Weight: 0.7kg
- Mounting: any position
- Pressure gauge port: G1/8"

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
3402003	1/4"
3502003	3/8"
3602003	1/2"

Regulator, 300 Series

Technical Specification

- Setting range: 0 to 8 bar
- Flow rate at 6.3 bar: 35000 NI/min
- Weight: 1.4kg

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
4402002	1/2"
4502002	3/4"
4602002	1"

Regulator, 400 Series

Technical Specification

- Setting range: dependent on pilot operating regulator
- Flow rate at 6.3 bar:
 - 18000 (G1.1/2") NI/min, 20000 (G2") NI/min
- Weight: 4.8kg (G1.1/2"), 5.6kg (G2")
- Mounting: any position
- Pressure gauge port: G1/4"
- Requires pilot regulator

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
6302001	1.1/2"
6402001	2"

FRLS, 'SKILLAIR'



Pilot Regulator, 400 Series

Technical Specification

- Flow rate at 6.3 bar ΔP 0.5 bar: 120 NI/min
- Weight: 0.6kg
- Pressure gauge port: G1/8"

Maximum Temperature at 10 bar:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP	Pressure Range bar
3206001	1/4"	2
3206002	1/4"	4
3206003	1/4"	8
3206004	1/4"	12

Filter Regulator, 200 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20μ
- Flow rate at 6.3 bar ΔP 0.5 bar: 1600 NI/min
- Weight: 1kg
- Pressure gauge port: G1/8"

Maximum Temperature:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
3483008	1/4"
3583008	3/8"
3683008	1/2"

Filter Regulator, 300 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20μ
- Flow rate at 6.3 bar: 3500 NI/min
- ΔP 0.5 bar: 57 scfm
- Weight: 1.8kg
- Pressure gauge port: G1/8"

Maximum Temperature:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
4483005	1/2"
4583005	3/4"
4683005	1"

Lubricator, 200 Series

Technical Specification

- Bowl capacity: 95
- Flow rate at 6.3 bar: 2200 NI/min
- Weight: 0.7kg

Maximum Temperature:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
3481001	1/4"
3581001	3/8"
3681001	1/2"

Lubricator, 300 Series

Technical Specification

- Bowl capacity: 160
- Flow rate at 6.3 bar: 3500 NI/min
- Weight: 1.4kg

Maximum Temperature:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
4481001	1/2"
4581001	3/4"
4681001	1"

Lubricator, 400 Series

Technical Specification

- Type of lubrication: mist
- Bowl capacity: 800
- Flow rate at 6.3 bar:
18,000 (G1.1/2") NI/min, 21,000 (G2") NI/min
- Weight: 4.9kg (G1.1/2"), 5.7kg (G2")

Maximum Temperature:
+50°C

Maximum Input Pressure:
13 bar



BSPP

9193	Thread BSPP
6381001	1.1/2"
6481001	2"

FRLS, 'SKILLAIR'



Manual Shut Off Valve, 200 Series

Technical Specification

- Flow rate at 6.3 bar: 24000 NI/min
- Weight: 0.8kg

Maximum Temperature at 1 MPa, 10 bar (145 psi):
+50°C

Maximum Inlet Pressure (solenoid version):
3 bar

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
3470001	1/4"
3570001	3/8"
3670001	1/2"

Manual Shut Off Valve, 300 Series

Technical Specification

- Flow rate at 6.3 bar: 32000 NI/min
- Weight: 1.2kg

Maximum Temperature at 1 MPa, 10 bar (145 psi):
+50°C

Maximum Inlet Pressure (solenoid version):
2 bar

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
4470001	1/2"
4570001	3/4"
4670001	1"

Filter + Regulator + Lubricator, 200 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 1300 NI/min
- Weight: 1.5kg

Maximum Temperature:
+50°C

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
3482008	1/4"
3582008	3/8"
3682008	1/2"

Filter + Regulator + Lubricator, 300 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 2500 NI/min
- Weight: 2.9kg

Maximum Temperature:
+50°C

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
4482005	1/2"
4582005	3/4"
4682005	1"

FRLS, 'SKILLAIR'



Filter Regulator + Lubricator, 200 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 1200 NI/min
- Weight: 1.35kg

Maximum Temperature:
+50°C

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
3484008	1/4"
3584008	3/8"
3684008	1/2"

Filter Regulator + Lubricator, 300 Series

Technical Specification

- Setting range: 0 to 8 bar
- Degree of filtration: 20µ
- Flow rate at 6.3 bar: 2300 NI/min
- Weight: 2.7kg

Maximum Temperature:
+50°C

Maximum Inlet Pressure:
13 bar



BSPP

9193	Thread BSPP
4484005	1/2"
4584005	3/4"
4684005	1"

Solenoid Coil, 200 Series

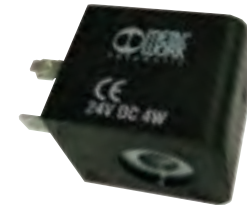


Form B/Industrial, 22mm Coil

9149	Voltage
W0215000101	24V DC 2W
W0215000111	24V AC
W0215000121	110V AC
W0215000131	230V AC

M1NS2000: Socket Connector, Form B.

Solenoid Coil, 300 Series



Form B/Industrial, 30mm Coil

9182	Voltage
W0210010100	24V DC 2W
W0210011100	24V AC
W0210012100	110V AC
W0210013100	230V AC

G1NU2000: Socket Connector, Form A.

Mounting Bracket



To suit 200 & 300 Series

9154	To Suit Series
9400701	200
9400702	300

FRLS, 'ONE' AIR TREATMENT UNIT



'ONE' Integrated Compressed Air Treatment Unit

In the world of pneumatics, which is considered mature, it is rare to encounter completely new and different products.

ONE is a compressed air treatment unit with a high degree of integration, that encompassed numerous pneumatic functions.

In fact, it contains so many innovations that a single patent is not enough to safeguard it against imitation – three separate patent applications have been registered with a total of 39 claims.

This unit is so innovative that it won the international novelty award at Fluidtrons Compomac.

ONE has a single high-performance valve on the main row that handles all the functions from regulation to relief. It is controlled by a high-precision pilot regulator with controlled relief, in series with the manual on-off valve, the electric valve and the progressive actuator.

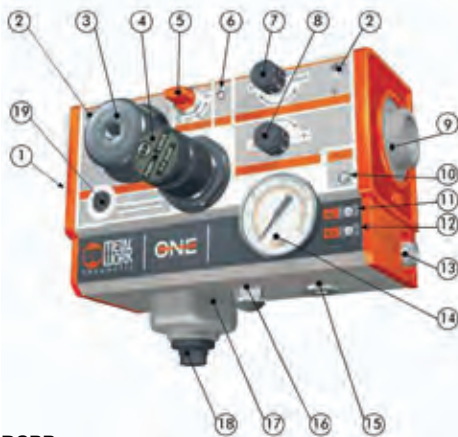
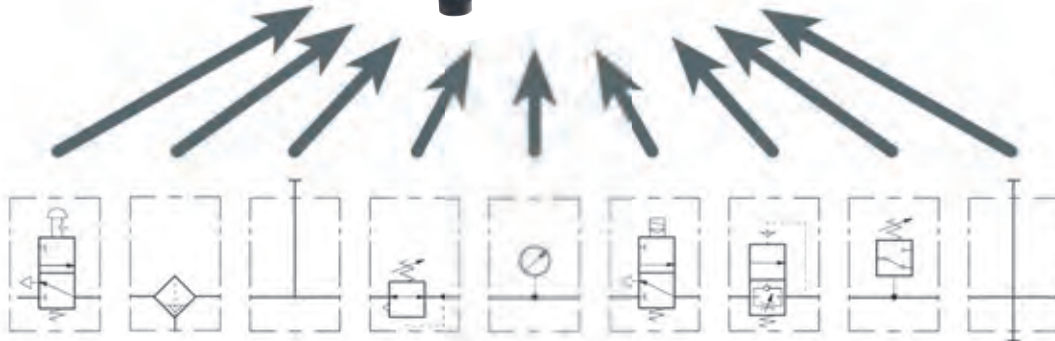
Modification of the valve has led to a significant reduction in overall dimensions, enhanced capacity, precision and response speed.

The **ONE** single unit houses the threaded port filter, condensate drain, pressure regulator, shut-off valve, soft start valve, pressure switch and three supplementary air intakes.

The single unit houses the threaded port filter, condensate drain, pressure regulator, shut-off valve, soft start valve, pressure switch and three supplementary air intakes.



Other versions and further technical information available on request



1. Air intake, with swivel threaded port
2. Fixing hole
3. Access filter cartridge
4. Pressure regulation
5. Shut-off Valve (manual)
6. Manual override (shut-off valve, electrical)
7. Soft start valve regulation
8. Switching pressure regulation
9. Air outlet with swivel threaded port
10. LED signalling unit, ON
11. LED signalling pressure below the value set on pressure switch
12. LED signalling pressure over the value set on pressure switch
13. 5-pin M12x1 electrical connector
14. Pressure gauge
15. 1/4" air intake; another regulated air intake and a filtered non-regulated air intake are situated on the top
16. Air exhaust with a G1/4" silencer
17. Condensate tank
18. Condensate drain
19. Access filter signal

BSPP

9193	Version	Air Inlet/Outlet BSPP	Micron μm	Clogged Filter Signal	Condensate Drain	Pressure Range Bar	Valves	Pressure Switch
543211881300	Electric*	1/2"	20	Yes	Automatic	0.5 to 8	Padlock and APR	Yes

OLYMPIAN PLUS PLUG-IN SYSTEM



Olympian Plus is the new generation FRL system from Norgren, world leaders in air line equipment. The unique Olympian plug-in design has been updated to set new standards for ease of use and system flexibility.

1. QUICK CONNECT YOKE SYSTEM

Simple, speedy assembly of accessories and combination units.

2. PLUG IN UNITS

Rapid installation and maintenance. Quarter turn clamp ring graphite impregnated for easy operation. Detent action prevents removal under pressure.

3. BAYONET BOWLS

Easy removal for routine maintenance. Detent action to prevent removal under pressure.

4. UNIQUE PRISMATIC SIGHT GLASS

High visibility of liquid level. Colour change service indication on filters and filter regulators

- Complete air processing units pre-assembled, ready to install
- Filter-regulator and micro-fog lubricator combinations

5. CAPTIVE O-RINGS

Easy to assemble with no loose parts.

6. TAMPER RESISTANT COVER

Simple accessory to prevent unauthorised adjustment of regulated pressure.

7. PORTING BLOCK MOUNTED PRESSURE SWITCH

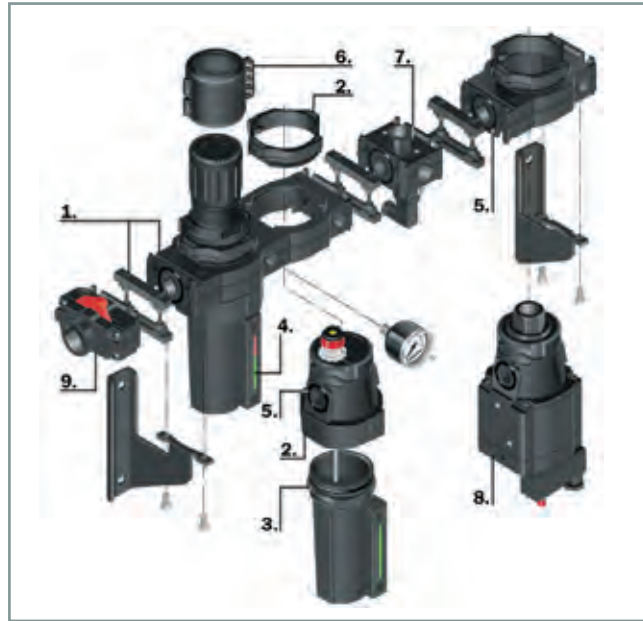
Adjustable pressure switch for feedback to monitoring systems.

8. SOFT START/DUMP VALVE

Provides controlled increase in pressure on system start-up. High exhaust flow capacity.

9. 3/2 SHUT OFF VALVE

- Slide valve with lockable blade. Threaded exhaust port.
- Filter and micro-fog lubricator combinations



° Working Temperature:

Medium: Compressed air only

Element: Sintered plastic

-20°C to +66°C

• Inlet Pressure:

Body and Yoke: Zinc alloy

Elastomers: Synthetic rubber units assembled for left to right flow

0-17 bar

Bowl: Aluminium

Boxed Sets



BSPP

0037	Thread	Micron	Bowl	Pressure Range Bar	Operation	Drain Type
BL64-401	1/2"	40	Metal	0.3-10	Relieving	Auto
BL64-421	1/2"	40	Metal	0.3-10	Relieving	Manual

Tech Sheet 20160

Filter & Lubricator Combinations



BSPP

0037	Thread	Micron	Bowl	Drain Type
FL64-608	3/4"	40	Metal	Auto
FL64-628	3/4"	40	Metal	Manual

Tech Sheet 20160

Filter/Regulator & Lubricator Combinations



BSPP

0037	Thread	Micron	Bowl	Pressure Range Bar	Operation	Drain Type
BL64-408	1/2"	40	Metal	0.3-10	Relieving	Auto
BL64-428	1/2"	40	Metal	0.3-10	Relieving	Manual
BL64-608	3/4"	40	Metal	0.3-10	Relieving	Manual

Tech Sheet 20160

Gauge



50mm, Centre Back Connection

0037	Thread	Pressure Range Bar
18-013-013	1/8"	0-10

Tech Sheet 20160

OLYMPIAN PLUS PLUG-IN SYSTEM



General Purpose Filters

- Effective liquid removal and positive solid filtration
- Large filter element area for minimum pressure drop
- Standard options include element service indicator, manual drain and alternative filter element

F64G Series:

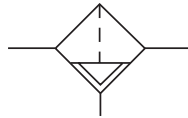
Body: Zinc alloy
Bowl: Aluminium
Yoke: Zinc alloy
Filter Element: Sintered plastic
Elastomers: Synthetic rubber

F15 Series:

Body: Aluminium
Bowl: Aluminium
Yoke: Zinc alloy
Filter Element: Sintered bronze
Elastomers: Synthetic rubber
Medium: Compressed air only

Medium: Compressed air only

Working Pressure:
0-17 bar (Metal Bowl)



F64G & F68G

0037	Flow dm ³ /s	Micron	Bowl	Drain Type
F64G-NNN-AD3	75	40	Metal	Auto
F64G-NNN-MD3	75	40	Metal	Manual
F68G-NNN-AR3	160	40	Metal	Auto
F68G-NNN-MR3	160	40	Metal	Manual

This unit is to be used in conjunction with a Ported Yoke

Pressure Regulators

- Diaphragm and balanced valve design ensure good regulation characteristics
- Non-rising adjusting knob has snap-action lock
- Standard options include non-relieving models and alternative pressure ranges

R64G Series:

Body: Zinc alloy
Bonnet: Aluminium
Yoke: Zinc alloy
Elastomers: Synthetic rubber

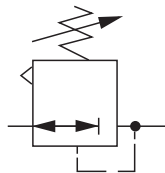
R15 Series:

Body, Bonnet and Yoke: Aluminium
Adjusting Knob: Acetal resin
Optional T-bar Adjusting Screw: Steel
Elastomers: Synthetic rubber

Medium: Compressed air only
Gauge Ports: G1/8

Working Temperature:
-20°C to +80°C

Working Pressure:
0-17 bar (R64G)
0-20 bar (R68G)



R64G & R68G

0037	Thread	Flow dm ³ /s	Pressure Range Bar	Operation
R64G-NNK-RMN	-	120	0.3-10	Relieving
R64G-4GK-RMN	1/2"	120	0.3-10	Relieving
R68G-NNK-RLN	-	150	0.4-8	Relieving

Tech Sheet 20161

This unit is to be used in conjunction with a ported yoke

Filter Regulators

- High efficiency water removal
- Good regulation characteristics
- Non-rising adjusting knob has snap-action lock
- Standard options include non-relieving models, manual drain and alternative pressure ranges

B64G Series:

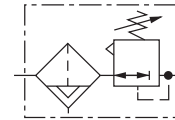
Body: Zinc alloy
Bonnet and Bowl: Aluminium
Yoke: Zinc alloy
Filter Element: Sintered plastic
Elastomers: Synthetic rubber

B15 Series:

Body: Aluminium
Bonnet and Bowl: Aluminium
Yoke: Aluminium
Filter Element: Sintered bronze
Elastomers: Synthetic rubber
Adjusting Knob: Acetal resin

Medium: Compressed air only
Gauge Ports: G1/8
Operation: Relieving

Ambient Temperature:
-20°C to +80°C (Metal bowl)



B64G & B68G

0037	Flow dm ³ /s	Micron	Bowl	Pressure Range Bar	Drain Type
B64G-NNK-AD3-RMN	106	40	Metal	0.3-10	Auto
B64G-NNK-MD3-RMN	106	40	Metal	0.3-10	Manual
B68G-NNK-AR3-RLN	230	40	Metal	0.4-8	Auto

Tech Sheet 20162

This unit is to be used in conjunction with a ported yoke

High Efficiency Oil Removal Filter



F64H & F68H

0037	Thread	Flow dm ³ /s	Bowl	Drain Type
F64H-3GD-MD0	3/8"	28	Metal	Auto
F64H-4GD-MD0	1/2"	28	Metal	Auto
F68H-8GD-MU0	1"	60	Metal	Auto

Tech Sheet 20163

This unit is to be used in conjunction with a ported yoke

Lubricators



L64M & L68M

0037	Thread	Bowl
L64M-2GP-EDN	1/4"	Metal
L64M-3GP-EDN	3/8"	Metal
L64M-4GP-EDN	1/2"	Metal
L64M-6GP-EDN	3/4"	Metal
L68M-NNP-ERN	-	Metal

Tech Sheet 20164

This unit is to be used in conjunction with a ported yoke

OLYMPIAN PLUS PLUG-IN SYSTEM



Relief & Soft Start Valves

Olympian relief valves protect compressed air systems from over-pressurisation. High relief capacity, sensitive and accurate. Yoke must be ordered separately.

Medium: Compressed air only
Gauge port: G1/8

Relief Port:
V64 Series - G1/2
V68 Series - G1

Materials 64 Series:
Body, bonnet: zinc alloy
Bottom Plug: Aluminium
Adjusting Screw: Steel
Elastomers: Synthetic rubber

Materials 68 Series:
Intermediate body, bonnet and bottom plug: aluminium
Adjusting Screw: Steel
Elastomers: Synthetic rubber

Working Temperature:
-20°C to +80°C



V64H, V68H Pressure Relief Valves

0037	Port Size
V64H-NND-RMN	1/4"-3/4"
V68H-NND-RMN	3/4"-1.1/2"
Tech Sheet 20165	

This unit is to be used in conjunction with a ported yoke

Assists machine designers in complying with the European Machinery Directive. Can help existing machinery to comply with PUWER (Provision and Use of Work Equipment Regulations). Controlled increase of downstream pressure on start up. Solenoid, air pilot or manual operator. High forward flow capacity. High flow dump facility.

Medium: Compressed air
Material:
Body and yoke: Zinc alloy (yoke sold separately)
Intermediate Body and Top Plate: Aluminium
Elastomers: Synthetic materials
Filter Discs: Sintered plastic
Internal Components: Brass and steel

Working Temperature:
+5°C to +50°C



P64F Soft Start/Dump Valve

0037	Port Size	Flow dm ³ /s	Pressure Range Bar
P64F-NNC-PZN	1/4"-3/4"	57	3-10
Tech Sheet 20165			

This unit is to be used in conjunction with a ported yoke

Yokes

- When installed, enables Olympian basic units to be 'plugged in' or removed without disturbing connecting pipework



Single Unit

0037	Thread
Y64A-4GA-N1N	1/2"
Y68A-6GN-N1N	3/4"
Y68A-8GN-N1N	1"
Y68A-BGN-N1N	1.1/2"
Tech Sheet 20166	



Double Unit

0037	Thread
Y64A-4GA-N2N	1/2"
Y68A-6GN-N2N	3/4"
Y68A-BGN-N2N	1.1/2"
Tech Sheet 20166	

Shut Off Valves

- 3 port/2 position
- Easy to operate
- Lockable in the 'closed' position



BSPP

0037	Thread
T64T-4GB-P1N	1/2"
T68C-6GB-B2N	3/4"
Tech Sheet 20166	



Coalescing Exhaust Silencers

BSPP

0037	Thread
CS13-364-10GG	1/4"
CS13-664-10GG	1/2"
Tech Sheet 20166	



EXCELON® PLUS MODULAR AIR PREPARATION



Filters/Regulators & Lubricators - Box Sets

- Unique Quikclamp connection system offers full modularity
- 40µm particle and high efficiency water removal
- Double safety lock on bowl
- Integrated gauge
- Shut off valve, regulator and filter regulator with tamper resistance feature
- Light weight polycarbonate bowl
- Easy to read flush mounted integrated pressure gauge as standard
- All round (360°) visibility of sightdome for ease of drip rate setting
- High corrosion resistance: Body and metal bowl with electrophoretic paint finish

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Materials:

Body: Die cast aluminum

Body covers: ABS

Transparent Bowl: Polycarbonate with polypropylene guard

Filter element: Sintered PP

Bowl 'O'-ring: Chloroprene

Elastomers: NBR

Port: BSPP

Element: (µm) 40

Lubricator: Micro-fog®

Bowl: Guarded/Polycarbonate

Medium: Compressed air only
Operation: Relieving



Boxed sets including shut-off valve, gauge and mounting bracket

0037	Thread	Drain Model
BL82-201G	1/4"	Auto
BL82-221G	1/4"	Manual
BL84-301G	3/8"	Auto
BL84-321G	3/8"	Manual
BL84-401G	1/2"	Auto
BL84-421G	1/2"	Manual

Tech Sheet 71736

Filters/Regulators

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- 5 or 40µm particle and high efficiency water removal
- Double safety lock bowl
- Push to lock adjusting knob with built in tamper resistant feature
- Light weight polycarbonate bowl with guard
- Easy to read flush mounted integrated pressure gauge
- Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- High Corrosion resistance: Body and metal bowl with electrophoretic paint finish
- DoC in accordance with 2014/34/EU/ATEX

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Materials:

Body covers: ABS

Transparent Bowl: Polycarbonate with Polypropylene Guard

Filter Element: Synthetic fibre & PE foam

Bowl 'O'-ring: Chloroprene

Elastomers: NBR

Port: BSPP

Element: (µm) 40

Flow: (dm³/s) 100

Medium: Compressed air only
Operation: Relieving



B82G & B84G series

0037	Thread	Bar
B82G-2GK-AP3-RMG	1/4"	03 to 10
B82G-2GK-OP3-RMG	1/4"	03 to 10
B84G-3GK-AP3-RMG	3/8"	03 to 10
B84G-3GK-OP3-RMG	3/8"	03 to 10
B84G-4GK-AP3-RMG	1/2"	03 to 10
B84G-4GK-OP3-RMG	1/2"	03 to 10

Tech Sheet 71734

Micro-Fog Lubricators

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- Flow sensor provides a nearly constant oil/air ratio over a wide range of flow
- Double safety lock bowl
- Light weight polycarbonate bowl
- All round (360°) visibility of sightdome for ease of drip rate setting
- Choice of two oil delivery systems
- High Corrosion resistance: Body and metal bowl with electrophoretic paint finish

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Materials:

Transparent Bowl: Polycarbonate with Polypropylene Guard

Body: Die cast zinc

Body cover: ABS

Sightdome: Transparent PA

Bowl 'O'-ring: Chloroprene

Elastomers: NBR

Medium: Compressed air only

Operation: Relieving



L82C, L82M & L84C, L84M series

0037	Thread	Flow (dm ³ /s)
L82M-2GP-EPN	1/4"	22
L84M-3GP-EPN	3/8"	73
L84M-4GP-EPN	1/2"	73

Tech Sheet 71743



For Norgren Non-return Valves
see page 864

General Purpose Filters

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- 5 or 40µm particle and high efficiency water removal (> 98%)
- Double safety lock bowl
- Light weight polycarbonate bowl

Materials:

Body: Die cast aluminum

Body covers: ABS

Bonnet: Acetal Valve: PP

Transparent Bowl: Polycarbonate with polypropylene guard

Filter element: Sintered PP

Bowl 'O'- ring: Chloroprene

Elastomers: NBR

Port: BSPP

Element: (µm) 40

Bowl: Guarded/Polycarbonate

- Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- High Corrosion resistance: Body and metal bowl with electrophoretic paint finish
- DoC in accordance with 2014/34/EU/ATEX

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Medium: Compressed air only
Operation: Relieving



F82G & F84G series

0037	Thread	Flow (dm³/s)
F82G-2GN-AP3	1/4"	23
F82G-2GN-QP3	1/4"	23
F84G-3GN-AP3	3/8"	78
F84G-3GN-QP3	3/8"	78
F84G-4GN-AP3	1/2"	78
F84G-4GN-QP3	1/2"	78

Tech Sheet 71741

'Puraire'® High Efficiency Oil Removal Filter

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- High efficiency oil and particle removal
- Double safety lock bowl
- Light weight polycarbonate bowl
- Service indicator standard
- Air purity class in accordance with ISO8573-1:2010: 1:7:1* *Tested in

Materials:

Body: Die cast aluminum

Body covers: ABS

Bonnet: Acetal Valve: PP

Transparent Bowl: Polycarbonate with polypropylene guard

Filter element: Synthetic fibre & PE foam

Bowl 'O'- ring: Chloroprene

Elastomers: NBR

Port: BSPP

Element: (µm) 40

Bowl: Guarded/Polycarbonate

- accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³
- High Corrosion resistance: Body and metal bowl with electrophoretic paint finish
- DoC in accordance with 2014/34/EU/ATEX

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar

Medium: Compressed air only
Operation: Relieving



F82C & F84C series

0037	Thread	Flow (dm³/s)
F82C-2GD-AP0	1/4"	5.5
F82C-2GD-QP0	1/4"	5.5
F84C-3GD-AP0	3/8"	25
F84C-3GD-QP0	3/8"	25
F84C-4GD-AP0	1/2"	25
F84C-4GD-QP0	1/2"	25

Tech Sheet 71739

Pressure Regulators

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- Push to lock adjusting knob with built in tamper resistant feature
- Easy to read flush mounted integrated pressure gauge as standard

Materials:

Body: Die cast aluminium

Body covers: ABS

Bonnet: POM/Aluminium

Valve: PP

Elastomers: NBR

Port: BSPP

Bar: 03 - 10

Medium: Compressed air only

Operation: Relieving

- High Corrosion resistance: Body bowl with electrophoretic paint finish
- EX DoC in accordance with 2014/34/EU/ATEX

Working Temperature:
-10°C to +60°C

Maximum Working Pressure:
10 bar



R82G & R84G Series

0037	Thread	Flow (dm³/s)
R82G-2GK-RMG	1/4"	125
R84G-3GK-RMG	3/8"	125
R84G-4GK-RMG	1/2"	125

Tech Sheet 71745

3/2 Shut Off Valves

- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- 3/2 way function
- Threaded exhaust port
- Lockable in closed position with padlock



T82T & T84T Series

0037	Port Size	Exhaust Port
T82T-2GA-B1N	1/4"	1/4"
T84T-3GA-B1N	3/8"	1/4"
T84T-4GA-B1N	1/2"	1/4"

Tech Sheet 71747

EXCELON® PLUS MODULAR AIR PREPARATION



Wall Mounting Bracket

- Provides secure wall mounting for individual Excelon® Plus products



0037	Series
820024-50KIT	82
840024-50KIT	84
Tech Sheet 71736	

Quickclamp

- Allows easy connection of one Excelon® Plus unit to another
- Uniquely, connected products can be rotated in 90° increments



0037	Series
820014-51KIT	82
840014-51KIT	84
Tech Sheet 71736	

Neck Mounting Bracket and Panel Nut

- Provides secure wall mounting for individual pressure regulators, filter-regulators and pressure relief valves
- Includes panel nut



0037	Series
820068-51KIT	82
840068-51KIT	84
Tech Sheet 71736	

Quickclamps and Wall Brackets

- Allows easy connection of one Excelon® Plus unit to another
- Uniquely, connected products can be rotated in 90° increments
- Secure mounting to a wall, panel or machine surface



0037	Series
820014-52KIT	82
840014-52KIT	84
Tech Sheet 71736	

Panel Mounting Ring

- Allows bonnets with panel mounting thread to be directly mounted



0037	Series
820048-89KIT	82
840048-01KIT	84
Tech Sheet 71736	



For **Norgren Pneufi® Push-In Fittings**
see page **862**

PORTED FILTERS & REGULATORS



Filter Regulator & Lubricator Box Set

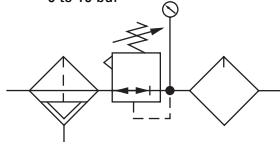
- Miniature boxed sets offer rapid set up and installation.
- Boxed sets are pre-assembled and ready to install.

- Set consists of a filter/regulator, lubricator, shut-off valve, mounting bracket and pressure gauge.

Medium: Compressed air only
Body: Zinc alloy
Bowls: Polycarbonate
Filter Element: Polypropylene
Elastomers: Nitrile

Working Temperature:
 -20°C to +50°C
 Consult our Technical Service for use below +2°C

Inlet Pressure:
 0 to 10 bar



Box Set 07, BSPP

0037	Thread
BL07-201	1/4"

Tech Sheet 20746

Ported Pureair Oil Removal Filters

- High efficiency coalescing oil-removal filter
- Air quality to ISO 8573-1: Class 1.7.2.

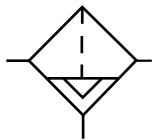
- Maximum remaining oil content 0,01 ppm, particle removal to 0,01 µm
- Automatic drain fitted as standard

Medium: Compressed air only
Remaining Oil content at +21°C:
 0,01 ppm maximum
 0,5 ppm maximum (high flow units)
Particle Removal: 0,01 µm, 1 µm (high flow units)
Bowl: Polycarbonate to BS 6005, Zinc alloy (optional)

Body: Zinc alloy
Filter Element: Synthetic fibre and polypropylene foam
Elastomers: Neoprene and nitrile

Working Temperature:
 -20°C to +50°C
 (Transparent Bowl)

Inlet Pressure:
 0 to 10 bar (Transparent bowl)

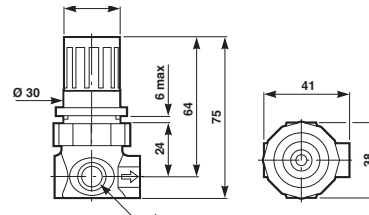


F39, BSPP

0037	Thread	Flow dm³/s	Drain Type	Bowl
F39-100-A0TG	1/8"	2.8	Auto	Transparent
F39-200-M0MG	1/4"	3	Manual	Metal
F39-200-M0TG	1/4"	3	Manual	Transparent

Tech Sheet 20747

Ported Pressure Regulators



R07, BSPP

0037	Thread	Flow dm³/s	Pressure Range Bar	Operation
R07-100-RNKG	1/8"	7.5	0.3-7	Relieving
R07-200-RNKG	1/4"	7	0.3-7	Relieving

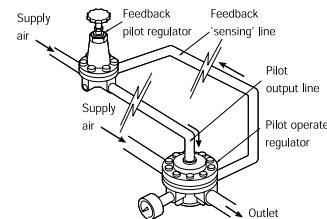
Tech Sheet 10637



R18, Pilot Operated, BSPP

0037	Thread	Flow dm³/s	Pressure Range Bar
R18-B00-RNXD	1.1/2"	1000	0.16-17
R18-C00-RNXD	2"	1000	0.16-17

Tech Sheet 10636



11-808 & 11-204, Pilot Operated, BSPP

0037	Thread	Flow dm³/s	Pressure Range Bar	Operation
11-808-960	3/4"	180	0.16-17	Relieving
11-204-004	1/4"	N/A	0.16-17	Relieving
11-204-006	1/4"	N/A	4-17	Relieving

Tech Sheet 10636



General Use, BSPP

0037	Thread	Flow dm³/s	Pressure Range Bar
20AG-X4G-PH100	1/2"	60	0.2-8
20AG-X4G-PJ100	1/2"	60	7-16

Tech Sheet 10637

PORTED FILTERS & REGULATORS



Drip Leg Drain

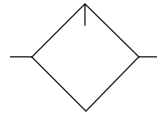


17-816, BSPP

0037	Thread	Bowl
17-816-999	G1/2"	Transparent
17-816-998	G1/2"	Metal
Tech Sheet 10635		

Ported Lubricator

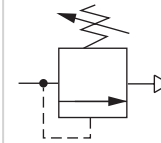
- Transparent bowl
- Bowl capacity 31ml



L07, BSPP

0037	Thread	Flow dm ³ /s	Start Point dm ³ /s
L07-100-MPOG	G1/8"	5	0.24
Tech Sheet 10634			

Ported Pressure Relief Valve



V07, Diaphragm Type, BSPP

0037	Thread	Pressure Range Bar
V07-200-NNLG	G1/4"	0.3-9
Tech Sheet 10633		

Ported Precision Pressure Regulators

- 11-818* compact, high precision regulators for air gauging, laboratory use and precise pilot control.
- † Not recommended for dead end use, consult our technical service for details.



Working Temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C



Inlet Pressure:

0 to 14 bar (11-818-110)

0 to 8 bar (11-818-999)



11-818, BSPP

0037	Thread	Accuracy Bar	Pressure Range Bar	Operation
11-818-999	G1/4"	0.01	0.02-0.5	Relieving
11-818-100	G1/4"	0.03	0.07-4	Relieving
11-818-110	G1/4"	0.05	0.4-10	Relieving
Tech Sheet 1362				

General Purpose Filter

- High flow miniature uni
- Direct ported filters with high water removal efficiency
- Automatic drains supplied as standard

Medium: Compressed air only

Filter element: 40µm

Materials:

Body: Zinc alloy

Bowls: Plastic or zinc alloy

Filter Element: Polypropylene

Elastomers: Nitrile



Working Temperature:

-34°C to +50°C



Inlet Pressure:

0 to 10 bar



F07 Series

0037	Manual Drain	Thread
F07-100-A3TG	F07-100-M3TG	G1/8"
F07-200-A3TG	F07-200-M3TG	G1/4"
Tech Sheet 71738		

Pressure Gauges



18-013, BSPP

0037	Thread	Pressure Range Bar	Gauge Diameter mm	Type
18-013-990	R1/8"	0-4	40	Centre Back
18-013-989	R1/8"	0-10	40	Centre Back

Pre-Set Regulator

- Factory pre-set and sealed to give a regulated pressure of 2 bar
- Tamper resistant
- Compact

Medium: Compressed air only

Filter element: 40µm



Working Temperature:

-20°C to +80°C



Inlet Pressure:

0 to 28 bar

Materials:

Body: Zinc alloy

Bonnet: Aluminium alloy

Valve: Brass

Seals: NBR

R16 Series

0037	Thread
R16-200-R30G	G1/4"
Tech Sheet 71750	





MX is the new series of air treatment components, characterised by a modern, linear and compact design. The perfect integration between metal alloys and technopolymers allows a reliable product that is light and strong at the same time.

Series MX offers a multi-sector solution that guarantees saving in terms of installation time, space and cost.

Other options available, please contact our Business Development Team.



Series MX, Filter Regulator Lubricator Kits

Complete filter regulator set with bracket and integrated gauge.

- Fully modular and compact
- Lightweight
- Durable
- Proven low rate performance
- Locking cap



Filter Regulator Kit MX2, Semi-auto Drain, 25 Micron, 0.5-10 bar

0158	Thread
FR-MX2-3/8-KIT	G3/8"
FR-MX2-1/2-KIT	G1/2"
FR-MX2-3/4-KIT	G3/4"

Tech Sheet 20120

Filter Regulator Kit MX3, Semi-auto Drain, 25 Micron, 0.5-10 bar

0158	Thread
FR-MX3-3/4-KIT	G3/4"
FR-MX3-1-KIT	G1"

Tech Sheet 20120

Filter Regulator Lubricator Kit MX2, Semi-auto Drain, 25 Micron, 0.5-10 bar

0158	Thread
FRL-MX2-3/8-KIT	G3/8"
FRL-MX2-1/2-KIT	G1/2"
FRL-MX2-3/4-KIT	G3/4"

Tech Sheet 20120

Filter Regulator Lubricator Kit MX3, Semi-auto Drain, 25 Micron, 0.5-10 bar

0158	Thread
FRL-MX3-3/4-KIT	G3/4"
FRL-MX3-1-KIT	G1"

Tech Sheet 20120

Series MX, Modular Pressure Regulators

Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar



Series MX2, Pressure Regulators, Self-relieving with Gauge

0158	Thread	Pressure Range Bar
MX2-3/8-R004	G3/8"	0.5-10
MX2-1/2-R004	G1/2"	0.5-10
MX2-3/4-R004	G3/4"	0.5-10

Tech Sheet 68728

Series MX3, Pressure Regulators, Self-relieving with Gauge

0158	Thread	Pressure Range Bar
MX3-3/4-R004	G3/4"	0.5-10
MX3-1-R004	G1"	0.5-10

Tech Sheet 68728

Series MX2, Pressure Regulators, Non-relieving with Gauge

0158	Thread	Pressure Range Bar
MX2-3/8-R014	G3/8"	0.5-10
MX2-1/2-R014	G1/2"	0.5-10
MX2-3/4-R014	G1"	0.5-10

Tech Sheet 68728

Series MX3, Pressure Regulators, Non-relieving with Gauge

0158	Thread	Pressure Range Bar
MX3-3/4-R014	G3/4"	0.5-10
MX3-1-R014	G1"	0.5-10

Tech Sheet 68728

AIR PREPARATION



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Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MX, Modular Filters



Series MX2, Semi-auto Drain Filters, No Indicator

0158	Thread	Micron
MX2-3/8-F00	G3/8"	25
MX2-1/2-F00	G1/2"	25
MX2-3/4-F00	G3/4"	25
Tech Sheet 68728		

Series MX3, Semi-auto Drain Filters, No Indicator

0158	Thread	Micron
MX3-3/4-F00	G3/4"	25
MX3-1-F00	G1"	25
Tech Sheet 68728		

Series MX2, Auto Drain Filters, No Indicator

0158	Thread	Micron
MX2-3/8-F03	G3/8"	25
MX2-1/2-F03	G1/2"	25
MX2-3/4-F03	G3/4"	25
Tech Sheet 68728		

Series MX3, Auto Drain Filters, No Indicator

0158	Thread	Micron
MX3-3/4-F03	G3/4"	25
MX3-1-F03	G1"	25
Tech Sheet 68728		



Series MX2, Semi-auto Drain Coalescing Filters

0158	Thread	Micron
MX2-3/8-FC00	G3/8"	0.01
MX2-1/2-FC00	G1/2"	0.01
MX2-3/4-FC00	G3/4"	0.01
Tech Sheet 68728		

Series MX3, Semi-auto Drain Coalescing Filters

0158	Thread	Micron
MX3-3/4-FC00	G3/4"	0.01
MX3-1-FC00	G1"	0.01
Tech Sheet 68728		

Series MX2, Auto Drain Coalescing Filters

0158	Thread	Micron
MX2-3/8-FC03	G3/8"	0.01
MX2-1/2-FC03	G1/2"	0.01
MX2-3/4-FC03	G3/4"	0.01
Tech Sheet 68728		

Series MX3, Auto Drain Coalescing Filters

0158	Thread	Micron
MX3-3/4-FC03	G3/4"	0.01
MX3-1-FC03	G1"	0.01
Tech Sheet 68728		

AIR PREPARATION



MX is the new series of air treatment components, characterised by a modern, linear and compact design. The perfect integration between metal alloys and technopolymers allows a reliable product that is light and strong at the same time.

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Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MX, Modular Filters

Series MX2, Activated Carbon Filters, No Indicator

0158	Thread
MX2-3/8-FCA	G3/8"
MX2-1/2-FCA	G1/2"
MX2-3/4-FCA	G3/4"

Tech Sheet 68728



Series MX3, Activated Carbon Filters, No Indicator

0158	Thread
MX3-3/4-FCA	G3/4"
MX3-1-FCA	G1"

Tech Sheet 68728

Series MX, Modular Lubricators

Series MX2, Lockable Manual Valves

0158	Thread
MX2-3/8-V01	G3/8"
MX2-1/2-V01	G1/2"
MX2-3/4-V01	G1"

Tech Sheet 68728



Series MX3, Lockable Manual Valves

0158	Thread
MX3-3/4-V01	G3/4"
MX3-1-V01	G1"

Tech Sheet 68728

Series MX, Modular Valves

Series MX2, Lubricators

0158	Thread
MX2-3/8-L00	G3/8"
MX2-1/2-L00	G1/2"
MX2-3/4-L00	G3/4"

Tech Sheet 68728



Series MX2, 3/2 Lockable Electro-pneumatic Isolation Valves

0158	Thread
MX2-3/8-V16	G3/8"
MX2-1/2-V16	G1/2"
MX2-3/4-V16	G3/4"

Tech Sheet 68728



Series MX3, Lubricators

0158	Thread
MX3-3/4-L00	G3/4"
MX3-1-L00	G1"

Tech Sheet 68728

Series MX3, 3/2 Lockable Electro-pneumatic Isolation Valves

0158	Thread
MX3-3/4-V16	G3/4"
MX3-1-V16	G1"

Tech Sheet 68728

AIR PREPARATION



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Other options available, please contact our Business Development Team.



Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MX, Modular Valves

Series MX2, 3/2 Lockable Pneumatic Isolation Valves

0158	Thread
MX2-3/8-V36	G3/8"
MX2-1/2-V36	G1/2"
MX2-3/4-V36	G3/4"
Tech Sheet 68728	

Series MX3, 3/2 Lockable Pneumatic Isolation Valves

0158	Thread
MX3-3/4-V36	G3/4"
MX3-1-V36	G1"
Tech Sheet 68728	



Series MX2, Soft Start Valves

0158	Thread
MX2-3/8-AV	G3/8"
MX2-1/2-AV	G1/2"
MX2-3/4-AV	G3/4"
Tech Sheet 68728	



Series MX3, Soft Start Valves

0158	Thread
MX3-3/4-AV	G3/4"
MX3-1-AV	G1"
Tech Sheet 68728	

Series MX, Modular Take-off Blocks



Series MX2, Block, 4 Outlets, BSPP

0158	Outlet
MX2-1/2-B00	G1/2"
Tech Sheet 68728	

Series MX3, Block, 4 Outlets, BSPP

0158	Outlet
MX3-1-B00	G1"
Tech Sheet 68728	

Series MX, Accessories



Series MX2, Terminal Flanges

0158	Thread
MX2-3/8-FL	G3/8"
MX2-1/2-FL	G1/2"
MX2-3/4-FL	G3/4"
Tech Sheet 68728	

Series MX3, Terminal Flanges

0158	Thread
MX3-3/4-FL	G3/4"
MX3-1-FL	G1"
Tech Sheet 68728	



Series MX2, Fixing Bracket for Regulators

0158	
MX2-S	
Tech Sheet 68728	

Series MX3, Fixing Bracket for Regulators

0158	
MX3-S	
Tech Sheet 68728	

AIR PREPARATION



MX is the new series of air treatment components, characterised by a modern, linear and compact design. The perfect integration between metal alloys and technopolymers allows a reliable product that is light and strong at the same time.

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° Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MX, Accessories

Series MX2, Rapid Clamp

0158
MX2-X
Tech Sheet 68728



Series MX2, Rapid Clamp with Wall Bracket

0158
MX2-Y
Tech Sheet 68728



Series MX3, Rapid Clamp

0158
MX3-X
Tech Sheet 68728

Series MX3, Rapid Clamp with Wall Bracket

0158
MX3-Y
Tech Sheet 68728

Precision Regulators

Series PR precision pressure regulators work on a three diaphragm force-balance principle which allows them to react even to the smallest changes in pressure that can occur during operation.

- High precision
- Triple diaphragm construction
- Compact dimensions
- Adjustable lock
- Removable adjustment knob
- Three ranges of pressure

° Working Temperature:
0°C to +50°C



Series PR, Manual Override

0158	Thread	Pressure Range Bar
PR104-M02	G1/4"	0.05 to 2
PR104-M04	G1/4"	0.05 to 4
PR104-M07	G1/4"	0.05 to 7

Tech Sheet 20464

Digital Gauges

Series PG digital pressure gauges meet the needs of an even more precise pressure adjustment, above all in proportional control.

Thanks to the IP65 protection class these pressure gauges are particularly suitable for applications where the highest environmental protection is required.



Pressure, BSPP

0158	Thread	Pressure Range Bar
PG010-PB-1/8	G1/8"	0 to 10
PG010-PB-1/4	G1/4"	0 to 10

Tech Sheet 20465

Vacuum, BSPP

0158	Thread	Pressure Range Bar
PG001-VB-1/8	G1/8"	0.01 to -1
PG001-VB-1/4	G1/4"	0.01 to -1

Tech Sheet 20465

AIR PREPARATION



Series MD air preparation product line has been designed to meet the numerous demands of a market requiring light and compact modular products which are characterized by high performance, flexible connection and orientation.

The different functions are connected to each other by means of intermediate joining cartridges.

Thanks to the solution adopted for the pneumatic connection, it is possible to equip the same element with interchangeable cartridges that are available in different sizes and can either be threaded or integrated with a super rapid push-in fitting.



Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MD, Modular Filter + Regulator + Lubricator Combination Units



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, BSPP

0158	Thread
MD1-000014-1/8	G1/8"
MD1-000014-1/4	G1/4"
MD1-000014-3/8	G3/8"

Tech Sheet 60158



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, Tube

0158	OD mm
MD1-000014-6	6
MD1-000014-8	8
MD1-000014-10	10

Tech Sheet 60159

Series MD, Modular Filter/Regulator + Lubricator Combination Units



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, BSPP

0158	Thread
MD1-000015-1/8	G1/8"
MD1-000015-1/4	G1/4"
MD1-000015-3/8	G3/8"

Tech Sheet 60160



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, Tube

0158	OD mm
MD1-000015-6	6
MD1-000015-8	8
MD1-000015-10	10

Tech Sheet 60161

Series MD, Modular Lockable Isolation Filter/Regulator + Lubricator Combination Units



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, BSPP

0158	Thread
MD1-000016-1/8	G1/8"
MD1-000016-1/4	G1/4"
MD1-000016-3/8	G3/8"

Tech Sheet 60162



Semi-auto Drain, 25 Micron, supplied with Mounting Bracket & Gauge, Tube

0158	OD mm
MD1-000016-6	6
MD1-000016-8	8
MD1-000016-10	10

Tech Sheet 60163

AIR PREPARATION



Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar

Series MD, Modular Pressure Regulators



Pressure Regulators, Self-relieving

0158	Pressure Range Bar
MD1-R000	0.5-10
MD1-R200	0-2
MD1-R400	0-4
MD1-R700	0.5-7

Tech Sheet 60168



Pressure Regulators, Non-relieving

0158	Pressure Range Bar
MD1-R010	0.5-10
MD1-R210	0-2
MD1-R410	0-4
MD1-R710	0.5-7

Tech Sheet 60168

Series MD, Modular Filter Regulators



0.5-10 bar, 25 Micron

0158	Description
MD1-FR0000	Semi-auto Drain
MD1-FR0500	Auto Drain
MD1-FR0800	Without Drain

Tech Sheet 60170

Series MD modular products are listed with blank ports. This enables versatility with the product can be fitted with either threaded or tube fitting cartridges.



Series MD, Modular Filters



Semi-auto Drain

0158	Description	Micron
MD1-F000	No Indicator	25
MD1-F100	No Indicator	5
MD1-F001	With Indicator	25
MD1-F101	With Indicator	5

Tech Sheet 60164



Semi-auto Drain Coalescing Filters

0158	Description	Micron
MD1-FC000	No Indicator	0.01
MD1-FC100	No Indicator	1
MD1-FC001	With Indicator	0.01
MD1-FC101	With Indicator	1

Tech Sheet 60167



Auto Drain Filters

0158	Description	Micron
MD1-F050	No Indicator	25
MD1-F150	No Indicator	5
MD1-F051	With Indicator	25
MD1-F151	With Indicator	5

Tech Sheet 60165



Auto Drain Coalescing Filters

0158	Description	Micron
MD1-FC050	No Indicator	0.01
MD1-FC150	No Indicator	1
MD1-FC051	With Indicator	0.01
MD1-FC151	With Indicator	1

Tech Sheet 60167



Activated Carbon Filters

0158	Description
MD1-FCA0	No Indicator
MD1-FCA1	With Indicator

Tech Sheet 60166

AIR PREPARATION



Series MD, Modular Lubricator

Working Temperature:
-5°C to +50°C

Maximum Working Pressure:
16 bar



Lubricator

0158
MD1-L00

Tech Sheet 60169

Series MD, Modular Valves



3/2 Lockable Isolation Valves

0158	Description
MD1-V36	Pneumatic Control
MD1-V01	Lockable Manual Control

Tech Sheet 60171



Soft Start Valve

0158
MD1-AV

Tech Sheet 60172

Series MD modular products are listed with blank ports. This enables versatility with the product can be fitted with either threaded or tube fitting cartridges.



Series MD, Modular Take-off Blocks



Block, 4 Outlets, BSPP

0158	Outlet
MD1-B00	1/8"

Tech Sheet 60173



Cartridge, 2 Outlets, BSPP

0158	Outlet
MD1-B	1/8"

Tech Sheet 60174

Series MD, Porting Cartridges

Porting cartridges can be used on all Series MD module equipment, offering versatility.



Joining Cartridge

0158
MD1-C

Tech Sheet 60175



Threaded, BSPP

0158	Thread
MD1-A-1/8	1/8"
MD1-A-1/4	1/4"
MD1-A-3/8	3/8"

Tech Sheet 60175



Push Fit

0158	OD mm
MD1-A-6	6
MD1-A-8	8
MD1-A-10	10

Tech Sheet 60175

Series MD, Mounting Bracket

Other mounting types available.



Rear Mounting Bracket

0158
MD1-ST/1

Tech Sheet 60176

AIR PREPARATION EQUIPMENT



Filter Regulator + Lubricator

Parker's P3L Lite combination kit is a configure two-piece unit consisting of a filter regulator and mist-style lubricator. The P3L combination kit provides accurate pressure regulation, high moisture removal efficiency, and proportional oil delivery over a wide range of air flows.



Working Temperature:
0°C to +50°C

Maximum Working Pressure: 10 bar

P3L Lite FRL Combination Kit

0677	Thread	Drain Type
P3LCA12PESNGLNW	1/4"	Semi-auto
Tech Sheet 68749		

Filter Regulator



P3L Lite Particulate Filter Regulator

0677	Thread	Drain Type
P3LEA12EPSBNNP	1/4"	Semi-auto
Tech Sheet 68749		

Regulator

Parker's P3LR is a lightweight pressure regulator with an unbalanced poppet design, offering good response and accurate pressure regulation. For low flow and space-restricted applications, this product can provide a solution that does not sacrifice performance. The P3LR can also be mounted using a modular connector, limited to two other P3L air preparation product units. The various options available, such as pressure gauge, relieving and non-relieving, pressure range, preset pressures and tamper-proof options, make this series easy to design to your application. Flow rates up to 12.8dm³/s.



P3L Lite Regulator

0677	Thread	Material
P3LRA12BNNP	1/4"	Polymer
P3LRX12BNNP	1/4"	Brass
Tech Sheet 68748		

Filter

Parker's P3LF is a lightweight particulate filter that delivers high moisture removal in a compact package. The P3LF is used for the removal of solid particle contaminants down to 5 micron and the separation of bulk liquids.

This type of filter is generally used in industrial applications where liquid water, oil, and harmful dirt particles must be removed from the compressed air system.

For specific flow and space restricted applications, this product can provide a solution that does not sacrifice performance.

Maximum Working Pressure: 150 bar



P3L Lite Particulate Filter

0677	Thread	Drain Type
P3LFA12EPSN	1/4"	Pulse
Tech Sheet 68750		

Coalescing Filter

Parker's P3LF, a lightweight coalescing filter, is designed to remove liquid aerosols, water, oil and sub-micron particulate matter from your pneumatic system. These filters will provide oil-free air for several demanding applications.

The P3LF is specifically designed for the removal of solid particles, water and oil aerosols down to 0.01 micron.



P3L Lite Coalescing Filter

0677	Thread	Drain Type
P3LFA12CPPN	1/4"	Manual
Tech Sheet 68751		

Adsorber Filter



P3L Lite Adsorber Filter

0677	Thread	Drain Type
P3LFA12APPN	1/4"	Manual
Tech Sheet 68752		

Lubricator

The P3LL is a lightweight lubricator that injects a mist of oil into the flowing air stream to automatically provide the correct amount of internal lubrication for air tools and other pneumatic devices.

This type of lubricator can be precisely adjusted to every low oil flow rate because only a portion of the oil drops seen in the sight dome travels downstream. Proportional oil is delivered over a wide range of air flows and a precision needle valve assures repeatable oil delivery. A slight adjustment can provide a desired mist rate.

This unit is ideal for low and high flow applications that demand uniform lubrication in a robust package. ISO/ASTM VG32 oil is suggested for lubrication and will allow the product to perform at peak performance. Do not use oils with additives, compounded oils containing solvents, graphite, detergents or synthetic oils.



P3L Lite Lubricator

0677	Thread
P3LLA12LPNN	1/4"
Tech Sheet 68753	

Accessories

P3L Lite Accessories

0677	Description
P3LKA00MR	Neck Mounting Bracket
P3LKA00MW	Mounting Bracket for P3LFA or P3LLA
P3LKA00MP	Plastic Panel Mount Nut
P3LKA00MM	Aluminium Panel Mount Nut
P3LMA12020C	Manifold Block
P3LKA00CB1	Connector Kit, FR or R to F or L
P3LKA00CB2	Connector Kit, FR or R to M to F or L
P3LKA00CB3	Connector Kit, FR or R to F to F
P3LKA00CB4	Connector Kit, F to F or L

AIR PREPARATION



Airplus Service Units

Size 1 FRL Air Service Units, BSPP



0110	Thread	Range
GT171BHH	1/4"	0-12

Size 3 FRL Air Service Units, BSPP



0110	Thread	Drain
GT173BHH	1/2"	Semi
GT173BHHS	1/2"	Auto

Size 2 FRL Air Service Units, BSPP



0110	Thread	Drain
GN172AHHS	1/4"	Semi
GT172BHH	3/8"	Semi
GT172BHHS	3/8"	Auto

Size 4 FRL Air Service Units, BSPP



0110	Thread	Drain
GN174BHHS	1"	Auto

Airplus Filter/Regulators

Size 1 Filter/Regulator, BSPP



0110	Thread	Pressure Range Bar
N171AEBD	1/8"	0-12
T171BEBD	1/4"	0-12

Size 2 Filter/Regulator

0110	Thread	Pressure Range Bar
T172BEBD	3/8"	0-12

Size 3 Filter/Regulator

0110	Thread	Pressure Range Bar
T173BEBD	1/2"	0-12

Size 4 Filter/Regulator



0110	Thread	Pressure Range Bar
N174BEBD	1"	0-12

Airplus Filter/Regulators Complete with Pressure Gauge

Size 1 Filter/Regulator



0110	Thread	Pressure Range Bar
N171AEMBD	1/8"	0-12
T171BEMBD	1/4"	0-12

Size 2 Filter/Regulator

0110	Thread	Pressure Range Bar
T172BEMBB	3/8"	0-4
T172BEMBD	3/8"	0-12

Size 3 Filter/Regulator

0110	Thread	Pressure Range Bar
T173BEMBD	1/2"	0-12

Size 4 Filter Regulator



0110	Thread	Pressure Range Bar
N174BEMBD	1"	0-12

AIR PREPARATION

Airplus Filter/Regulators Complete with Pressure Switch



Size 1 Filter/Regulator

0110	Thread	Pressure Range Bar
N171AEPBDA	1/8"	0-12

Size 2 Filter/Regulator

0110	Thread	Pressure Range Bar
T172BEPBDA	3/8"	0-12

Size 3 Filter/Regulator

0110	Thread	Pressure Range Bar
T173BEPBDA	1/2"	0-12



Size 4 Filter/Regulator

0110	Thread	Pressure Range Bar
N174BEPBDA	1"	0-12

Accessories



Pressure Switch Connecting Cables

0110	Description
MCH1	M8 Cable 3 Wires, 2.5 Metres

Airplus Regulators Complete with Pressure Gauge



Size 1 Regulator, BSPP

0110	Thread	Pressure Range Bar
T171BRMA	1/4"	0-2
T171BRMB	1/4"	0-4
T171BRMC	1/4"	0-8
T171BRMD	1/4"	0-12

Size 2 Regulator, BSPP

0110	Thread	Pressure Range Bar
T172BRMA	3/8"	0-2
T172BRMB	3/8"	0-4
T172BRMC	3/8"	0-8
T172BRMD	3/8"	0-12

Size 3 Regulator, BSPP

0110	Thread	Pressure Range Bar
T173BRMA	1/2"	0-2
T173BRMC	1/2"	0-8
T173BRMD	1/2"	0-12



Size 4 Regulator, BSPP

0110	Thread	Pressure Range Bar
N174BRMA	1"	0-2
N174BRMD	1"	0-12

Airplus Lubricators



Size 1 Lubricator, BSPP

0110	Thread
T171BL	1/4"



Size 2 Lubricator, BSPP

0110	Thread
T172BL	3/8"



Size 3 Lubricator, BSPP

0110	Thread
T173BL	1/2"



Size 4 Lubricator, BSPP

0110	Thread
N174BL	1"

AIR PREPARATION



Airplus Filters



Size 1 Filter, BSPP

0110	Thread
T171BFB	1/4"



Size 2 Filter, BSPP

0110	Thread
T172BFB	3/8"

Size 3 Filter, BSPP

0110	Thread
T173BFB	1/2"

Airplus Valves



Manual Shut-off Valves, BSPP

0110	Thread	Size
T171BVL	1/4"	1
T172BVL	3/8"	2
T173BVL	1/2"	3

High/Low Pressure Devices



High/Low Solenoid Pressure Device - 1/8"

0110	Description
900.18.8E	Solenoid Hi-Lo Pressure Device

Airplus Valves



Electric Sol Shut Off Valves, BSPP

0110	Thread	Size
T171BVEB2	1/4"	1
T172BVEB2	3/8"	2
T173BVEB2	1/2"	3



Soft Start Valves, BSPP

0110	Thread	Size
T172BAP	3/8"	2



Manifolds, BSPP

0110	Thread	Size
T171BPA	1/4"	1



Pressure Switches, BSPP

0110	Thread	Size
T171BPP	1/4"	1

Airplus Accessories



Airplus X Coupling Flange Size 1-4

0110	Size
T171X	1
T172X	2



Airplus Y Coupling Flange Range Size 1-4

0110	Size
T171Y	1
T173Y	3



Airplus Fixing Bracket Size 1-3

0110	Size
T17150	1
T17250	2 & 3



MB Type 22mm Coils

0110	Voltage
MB4	12V DC
MB5	24V DC
MB9	24V DC (2 watt)
MB56	24V AC
MB57	110V AC
MB58	220V DC



305 22mm Coil Caps

0110	Voltage
305.11.00	No LED
305.11.01L	24V DC LED
305.11.02L	110V AC LED
305.11.03L	240V AC LED

Filter/Regulator + Lubricator

PCL's FRL range includes combination units with 1/4" and 1/2" inlet ports. Adding a PCL Air Treatment unit into an air line efficiently filters to 10 microns. Products feature polycarbonate bowls, allowing the user to easily monitor the element's condition and the collected liquid's level. The bowl is surrounded with protective metal as a safety measure to protect the user in case of excessive pressures, temperatures, or aggressive chemicals.

Features

- Selectable manual/semi-automatic drain
- Polycarbonate bowl
- Locking device
- 10 micron filter
- Complete with wall bracket and pressure gauge



Regulators

7000	Port Thread (BSPP)	Regulating Pressure	Max Inlet (bar)	Flow @ 6 (bar)
ATR6	1/4"	0-10	12	1,700 l/min
ATR12	1/2"	0-12	16	6,000 l/min



Filters

7000	Drain	Port Thread (BSPP)	Filtration Micron	Max Inlet (bar)	Flow @ 6 (bar)
ATF6	Manual/Semi-automatic	1/4"	10	12	2,100 l/min
ATF12	Manual/Semi-automatic	1/2"	10	16	6,000 l/min



Lubricators

7000	Port Thread (BSPP)	Max Inlet (bar)	Flow @ 6 (bar)
ATL6	1/4"	12	2,200 l/min
ATL12	1/2"	16	6,000 l/min



Filter/Regulator, BSPP

7000	Thread (BSPP)	Max Inlet (bar)	Flow @ 6 (bar)
ATC6	1/4"	12	1,800 l/min
ATC12	1/2"	16	5,000 l/min

Tech Sheet 60545



Filter/Regulator + Lubricator, BSPP

7000	Thread (BSPP)	Max Inlet (bar)	Flow @ 6 (bar)
ATCFRL6	1/4"	12	1,800 l/min
ATCFRL12	1/2"	16	5,000 l/min

Tech Sheet 60545

MINIATURE, HIGH PRECISION REGULATORS



Universal Pressure Control Valves



Relieving, BSPP

0113	Thread	Pressure Range Bar
48.250.00.10.00	1/8"	0-1
48.250.00.50.00	1/8"	0-5
Tech Sheet 172		

Non Relieving, BSPP

0113	Thread	Pressure Range Bar
48.250.00.10.10	1/8"	0-1
48.250.00.50.10	1/8"	0-5
Tech Sheet 172		

Panel Mount Pressure Regulators



Relieving, BSPP

0113	Thread	Pressure Range Bar
50.780.00.10.00	1/8"	0-1
50.780.00.25.00	1/8"	0-2.5
50.780.00.80.00	1/8"	0-8
Tech Sheet 173		

Non Relieving, BSPP

0113	Thread	Pressure Range Bar
50.780.00.10.10	1/8"	0-1
Tech Sheet 173		

Miniature Pressure Regulators

- Panel mountable



Relieving, Metric

0113	Thread	Pressure Range Bar
50.880.00.40.00	M5	0-4
Tech Sheet 174		

REGULATORS

SaveAir Regulator

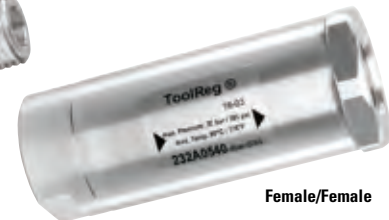


1/4" BSPP

0093	Set Pressure Bar
231A0210	1
231A0220	2
231A0230	3
231A0240	4
231A0250	5
231A0260	6
231A0270	7
231A0280	8
Tech Sheet 1347	

ToolReg

Male/Female



Female/Female

1/4" BSPP

0093	Inlet	Outlet	Set Pressure Bar
232A0220	Female	Female	2
232F0220	Male	Female	2
232A0230	Female	Female	3
232F0230	Male	Female	3
232A0240	Female	Female	4
232F0240	Male	Female	4
232A0260	Female	Female	6
232F0260	Male	Female	6
232A0270	Female	Female	7
232A0280	Female	Female	8
232F0280	Male	Female	8
Tech Sheet 1349			

3/8" BSPP

0093	Inlet	Outlet	Set Pressure Bar
232A0340	Female	Female	4
232A0360	Female	Female	6
232A0380	Female	Female	8
Tech Sheet 1349			



PRESSURE BOOSTERS



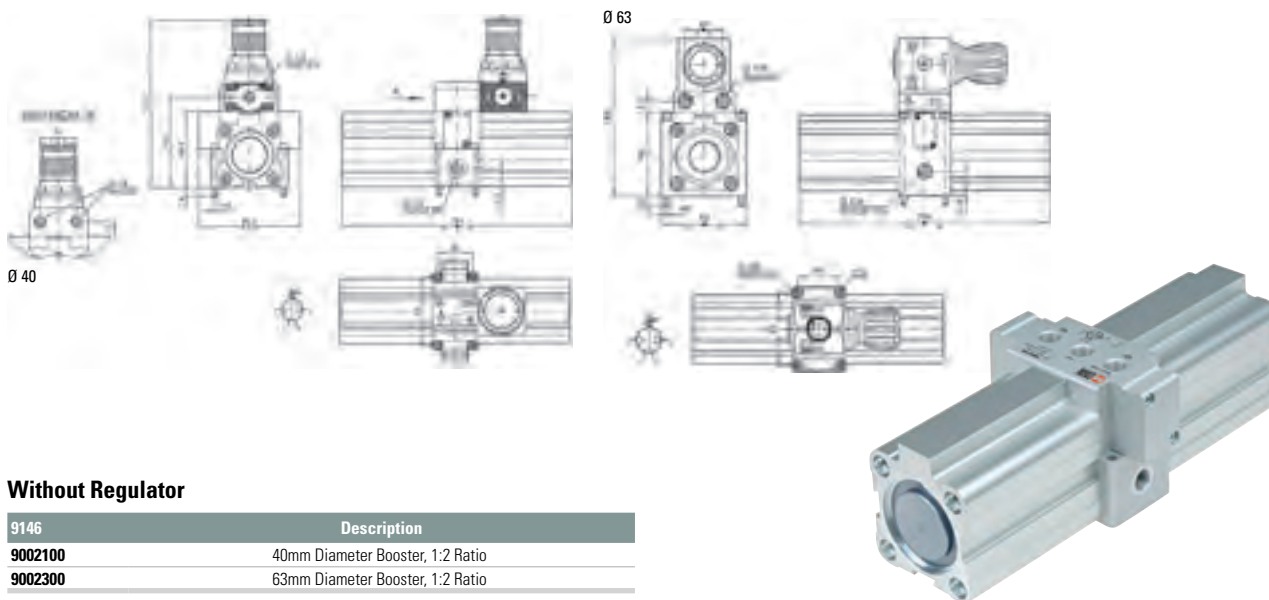
Air Pressure Booster

The air-to-air pressure multiplier, or booster, is an automatic device that compresses air to give an outlet pressure that is double the inlet pressure. It is normally used to locally intensify the input pressure of one or more actuators. As it is entirely pneumatic it can be used when electric devices are not recommended. The booster can be supplied with or without a pressure regulator.

It is fitted with check valves that maintain the outlet pressure even when the supply of compressed air is switched off. This means it is necessary to interrupt the supply and relieve the circuit before intervening on the device in any way. It is advisable to install a tank after the booster to prevent fluctuations in outlet pressure.

Technical Data

		Booster Ø40	Booster Ø40 with regulator	Booster Ø63	Booster Ø63 with regulator
Bore		Ø 40		Ø 63	
Fluid		Filtered unlubricated compressed air. Lubrication, if used, must be continuous.			
Threaded port		G1/8		G3/8	
Inlet pressure	MPa	0.2-1			
	bar	2-10			
	psi	29-145			
Outlet pressure	MPa	Maximum 2	Maximum 1.6 (regulated)	Maximum 2	Maximum 1.6 (regulated)
	bar	Maximum 20	Maximum 16 (regulated)	Maximum 20	Maximum 16 (regulated)
	psi	Maximum 290	Maximum 232 (regulated)	Maximum 290	Maximum 232 (regulated)
Operating temperature	°C	-10° to +60°		-10° to +60°	
	°F	+14° to +140°		+14° to +140°	
Weight	gr	1.380	1.600	4.240	5.350
Mounting		Wall or panel			
Installation		In any position			



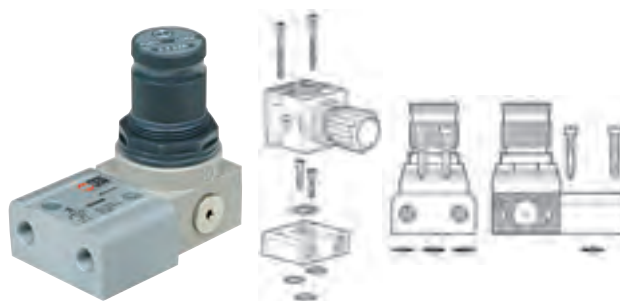
Without Regulator

Code	Description
9146	
9002100	40mm Diameter Booster, 1:2 Ratio
9002300	63mm Diameter Booster, 1:2 Ratio

Air Regulators

To suit Air Pressure Multiplier (Booster)

Code	Description
9193	
9002180	40mm Regulator Unit
9002380	63mm Regulator Unit



PRESSURE BOOSTERS

Pressure Boosters



40mm complete with Regulator, BSPP

0110	Thread
1740.50.NR	1/8"



63mm complete with Regulator, BSPP

0110	Thread
1763.80.NR	3/8"



100mm complete with Regulator, BSPP

0110	Thread
17100.125.NR	1/2"



P+ Pressure Booster 40mm 0-20 bar complete with Gauges

0110	Thread
MDPT40.2R.A	1/4"



P+ Pressure Booster Mounting Bracket















0110	Description
T1740.01	Mounting for P+ 40mm Booster



Mounting Bracket 40/63/100mm

0110	To Suit
1740.02	40mm
1763.03	63mm
17100.04	100mm

Index

VB Series - Single Bellows	<p>Page 708</p>  <ul style="list-style-type: none"> • Single-bellow suction cup • Diameter range: Ø5 to 150 • Material selection: NBR, silicone, conductive silicone, urethane, polyurethane 	VOBL Series - Oval Bellow	<p>Page 728</p>  <ul style="list-style-type: none"> • Long multi bellows and oval suction cup • Diameter range: Ø35 x 90 • Material selection: NBR, silicone, conductive silicone
VB-M Series (Direct Fitting Bellows)	<p>Page 715</p>  <ul style="list-style-type: none"> • Single-bellow suction cup for direct fitting • Diameter range: Ø20 to 50 • Material selection: NBR, silicone, conductive silicone, urethane 	VU Series - Universal	<p>Page 731</p>  <ul style="list-style-type: none"> • Universal suction cup • Diameter range: Ø1.5 to 80 • Material selection: NBR, silicone, conductive silicone, urethane
VBU Series - Double Bellow	<p>Page 718</p>  <ul style="list-style-type: none"> • Bellows and universal suction cup • Diameter range: Ø35 to 55 • Material selection: NBR, silicone, polyurethane 	VF & LF Series - Flat	<p>Page 736</p>  <ul style="list-style-type: none"> • Flat suction cup • Diameter range: Ø15 to 300 • Material selection: NBR, silicone, conductive silicone, urethane, polyurethane
VBX Series - Double Bellow	<p>Page 719</p>  <ul style="list-style-type: none"> • Bellows and cross groove suction cup • Diameter range: Ø35 to 55 • Material selection: polyurethane 	VFC Series - Deep	<p>Page 737</p>  <ul style="list-style-type: none"> • Flat curved suction cup • Diameter range: Ø50 to 100 • Material selection: NBR, silicone, conductive silicone, urethane, polyurethane
VBL Series - Long Multi Bellow	<p>Page 723</p>  <ul style="list-style-type: none"> • Long multi-bellow suction cup • Diameter range: Ø15 to 50 • Material selection: NBR, silicone, conductive silicone, urethane 	FF Series - Flat, Mark Free	<p>Page 740</p>  <ul style="list-style-type: none"> • Mark free and flat suction cup • Diameter range: Ø10 to 30 • Material selection: NBR, silicone, conductive silicone, urethane
BL5040 - Long Multi Bellow	<p>Page 724</p>  <ul style="list-style-type: none"> • Dual lip structure suction cup • Diameter range: Ø50 • Material selection: NBR, silicone 	VD Series - Deep	<p>Page 742w</p>  <ul style="list-style-type: none"> • Deep suction cup • Diameter range: Ø30 to 90 • Material selection: NBR, silicone, conductive silicone, urethane, polyurethane
VOU Series - Oval Universal	<p>Page 727</p>  <ul style="list-style-type: none"> • Oval universal suction cup • Diameter range: Ø4 x 10 to Ø20 x 60 • Material selection: NBR, silicone, conductive silicone, urethane 	Specials	<p>Available on request</p>  <ul style="list-style-type: none"> • Bellows flat suction cup • Diameter range: Ø25 to 100 • Material selection: NBR, silicone, polyurethane • Suction cups, foam rubber • Suction cups, special flat/bellow

SUCTION CUPS – SINGLE BELLOWS

Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Veneer sheets
- Plastic sheets

VB Series

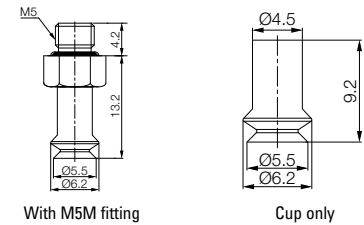
5mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VB5-N	Nitrile	Black	-20°C-110°C	60
VB5-S	Silicone	Red	-70°C-200°C	55
VB5-WS	White Silicone	Translucent White	-70°C-200°C	55
VB5-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB5-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB5-U	Urethane	Dark Green	0°C-100°C	60
VB5-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773



Dimensions



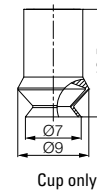
6mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VB6X-N	Nitrile	Black	-20°C-110°C	60
VB6X-S	Silicone	Red	-70°C-200°C	55
VB6X-WS	White Silicone	Translucent White	-70°C-200°C	55
VB6X-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB6X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB6X-U	Urethane	Dark Green	0°C-100°C	60
VB6X-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773



Dimensions



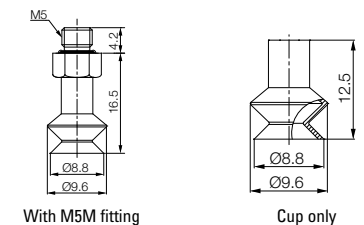
8mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VB8X-N	Nitrile	Black	-20°C-110°C	60
VB8X-S	Silicone	Red	-70°C-200°C	55
VB8X-WS	White Silicone	Translucent White	-70°C-200°C	55
VB8X-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB8X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB8X-U	Urethane	Dark Green	0°C-100°C	60
VB8X-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773



Dimensions



SUCTION CUPS – SINGLE BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

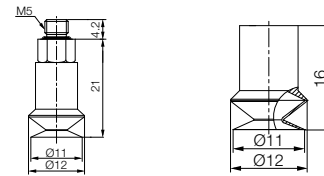
Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Veneer sheets
- Plastic sheets

VB Series



Dimensions



With M5M fitting

Cup only

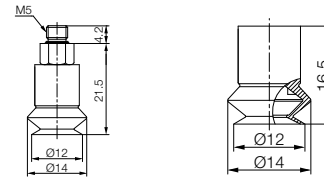
10mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VB10-N	Nitrile	Black	-20°C-110°C	60
VB10-S	Silicone	Red	-70°C-200°C	55
VB10-WS	White Silicone	Translucent White	-70°C-200°C	55
VB10-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB10-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB10-U	Urethane	Dark Green	0°C-100°C	60
VB10-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773



Dimensions



With M5M fitting

Cup only

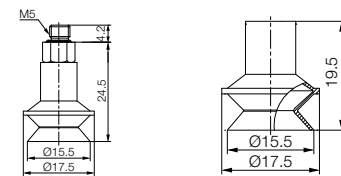
12mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VB12-N	Nitrile	Black	-20°C-110°C	60
VB12-S	Silicone	Red	-70°C-200°C	55
VB12-WS	White Silicone	Translucent White	-70°C-200°C	55
VB12-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB12-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB12-U	Urethane	Dark Green	0°C-100°C	60
VB12-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773



Dimensions



With M5M fitting

Cup only

15mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VB15-N	Nitrile	Black	-20°C-110°C	60
VB15-S	Silicone	Red	-70°C-200°C	55
VB15-WS	White Silicone	Translucent White	-70°C-200°C	55
VB15-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB15-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB15-U	Urethane	Dark Green	0°C-100°C	60
VB15-A	Mark Free	Black	-10°C-100°C	75
VB15-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71773

SUCTION CUPS – SINGLE BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

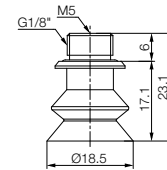
Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Veneer sheets
- Plastic sheets

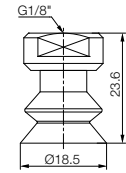
VB Series



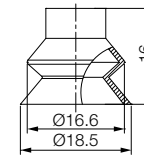
Dimensions



With M518MF fitting



With 18F fitting



Cup only

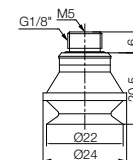
17mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VB17-N	Nitrile	Black	-20°C-110°C	60
VB17-S	Silicone	Red	-70°C-200°C	55
VB17-WS	White Silicone	Translucent White	-70°C-200°C	55
VB17-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB17-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB17-U	Urethane	Dark Green	0°C-100°C	60
VB17-A	Mark Free	Black	-10°C-100°C	75

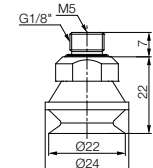
Tech Sheet 71773



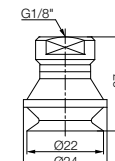
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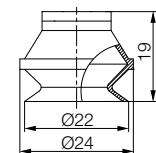
With M518MF fitting



With M518MFB fitting



With 18F fitting



Cup only

20mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VB20-N	Nitrile	Black	-20°C-110°C	60
VB20-S	Silicone	Red	-70°C-200°C	55
VB20-WS	White Silicone	Translucent White	-70°C-200°C	55
VB20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB20-U	Urethane	Dark Green	0°C-100°C	60
VB20-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71773

SUCTION CUPS – SINGLE BELLOWS

Features & Strengths

- Compensating for a difference in level
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Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Vener sheets
- Plastic sheets

VB Series

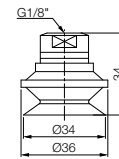


30mm, Cup Only

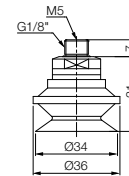
9204	Material	Colour	Temperature	Hardness
VB30-N	Nitrile	Black	-20°C-110°C	60
VB30-S	Silicone	Red	-70°C-200°C	55
VB30-WS	White Silicone	Translucent White	-70°C-200°C	55
VB30-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB30-U	Urethane	Dark Green	0°C-100°C	60
VB30-A	Mark Free	Black	-10°C-100°C	75
VB30-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71773

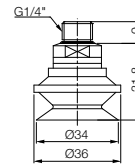
Dimensions



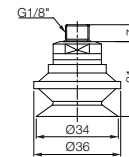
With 18F fitting



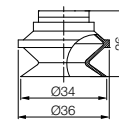
With M518MF fitting



With 14M fitting



With 18M fitting



Cup only

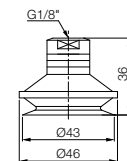


40mm, Cup Only

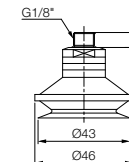
9204	Material	Colour	Temperature	Hardness
VB40-N	Nitrile	Black	-20°C-110°C	60
VB40-S	Silicone	Red	-70°C-200°C	55
VB40-WS	White Silicone	Translucent White	-70°C-200°C	55
VB40-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VB40-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB40-U	Urethane	Dark Green	0°C-100°C	60
VB40-A	Mark Free	Black	-10°C-100°C	75
VB40-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71773

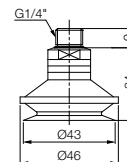
Dimensions



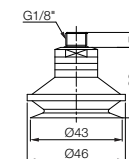
With 18F fitting



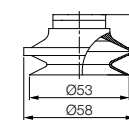
With 18M fitting



With 14M fitting



With 18M fitting



Cup only

SUCTION CUPS – SINGLE BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

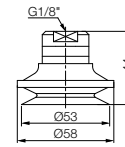
Examples of Use

- Cardboards
- Veneer sheets
- Packaging materials
- Plastic sheets
- Thin film sheets

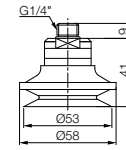
VB Series



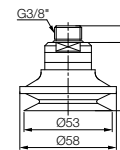
Dimensions



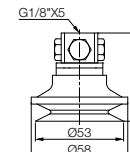
With 18F fitting



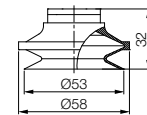
With 14M fitting



With 38M fitting



With 18x5F fitting



Cup only

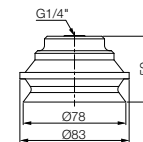
50mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VB50-N	Nitrile	Black	-20°C-110°C	60
VB50-S	Silicone	Red	-70°C-200°C	55
VB50-WS	White Silicone	Translucent White	-70°C-200°C	55
VB50-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB50-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB50-U	Urethane	Dark Green	0°C-100°C	60
VB50-A	Mark Free	Black	-10°C-100°C	75
VB50-PU	Polyurethane	Translucent Orange	0°C-60°C	60

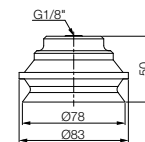
Tech Sheet 71773



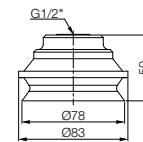
Dimensions



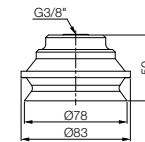
With 14F fitting



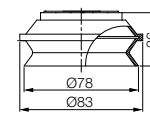
With 18F fitting



With 12F fitting



With 38F fitting



Cup only

75mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VB75-N	Nitrile	Black	-20°C-110°C	60
VB75-S	Silicone	Red	-70°C-200°C	55
VB75-WS	White Silicone	Translucent White	-70°C-200°C	55
VB75-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB75-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB75-U	Urethane	Dark Green	0°C-100°C	60
VB75-A	Mark Free	Black	-10°C-100°C	75
VB75-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71773

SUCTION CUPS – SINGLE BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

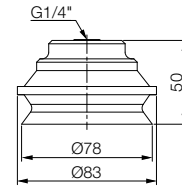
Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Veneer sheets
- Plastic sheets

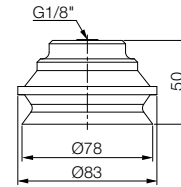
VB Series



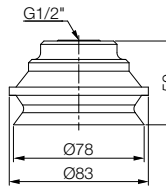
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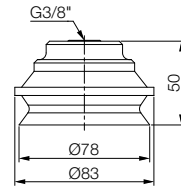
With 14F fitting



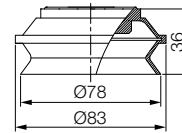
With 18F fitting



With 12F fitting



With 38F fitting



Cup only

75mm with Large Cleats, Cup Only

9204	Material	Colour	Temperature	Hardness
VB75B-N	Nitrile	Black	-20°C-110°C	60
VB75B-S	Silicone	Red	-70°C-200°C	55
VB75B-WS	White Silicone	Translucent White	-70°C-200°C	55
VB75B-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB75B-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB75B-U	Urethane	Dark Green	0°C-100°C	60
VB75B-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773

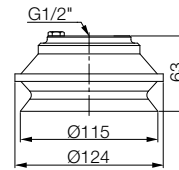


110mm, Cup Only

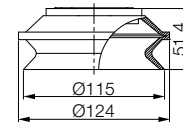
9204	Material	Colour	Temperature	Hardness
VB110-N	Nitrile	Black	-20°C-110°C	60
VB110-S	Silicone	Red	-70°C-200°C	55
VB110-WS	White Silicone	Translucent White	-70°C-200°C	55
VB110-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB110-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB110-U	Urethane	Dark Green	0°C-100°C	60
VB110-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773

Dimensions



With 12F fitting



Cup only

SUCTION CUPS – SINGLE BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.

Examples of Use

- Cardboards
- Packaging materials
- Thin film sheets
- Veneer sheets
- Plastic sheets

VB Series

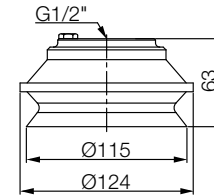


110mm with Large Cleats, Cup Only

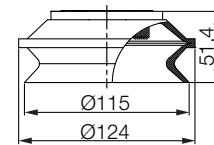
9204	Material	Colour	Temperature	Hardness
VB110B-N	Nitrile	Black	-20°C-110°C	60
VB110B-S	Silicone	Red	-70°C-200°C	55
VB110B-WS	White Silicone	Translucent White	-70°C-200°C	55
VB110B-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB110B-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB110B-U	Urethane	Dark Green	0°C-100°C	60
VB110B-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773

Dimensions



With 12F fitting



Cup only

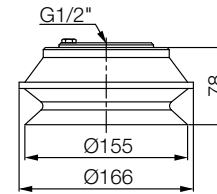


150mm, Cup Only

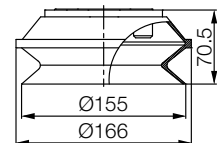
9204	Material	Colour	Temperature	Hardness
VB150-N	Nitrile	Black	-20°C-110°C	60
VB150-S	Silicone	Red	-70°C-200°C	55
VB150-WS	White Silicone	Translucent White	-70°C-200°C	55
VB150-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB150-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB150-U	Urethane	Dark Green	0°C-100°C	60
VB150-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71773

Dimensions



With 12F fitting



Cup only

Disc Filters

To suit VB Series Cups

9204	Material	To Suit
VTFE-B30	Polyethylene	VB30/30M
VTFE-B40	Polyethylene	VB40
VTFE-B50	Polyethylene	VB50/50M
VTFE-B75	Polyethylene	VB75
VTFE-B110	Polyethylene	VB110

Tech Sheet 71773

SUCTION CUPS – DIRECT MOUNT BELLOWS



Features & Strengths

- Compensating for a difference in level
- Various materials for a wide range of applications

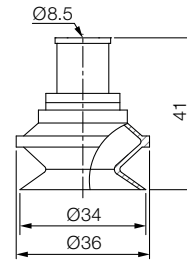
Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks.
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece.
- Fitted directly onto a piece of pipe, making installation very simple and reducing cup cost

Examples of Use

- Cardboards
- Veneer sheets
- Packaging materials
- Plastic sheets
- Thin film sheets

VB-M Series

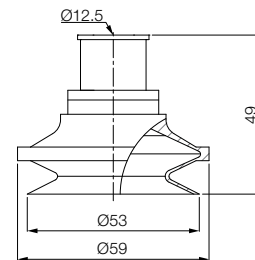


Cup only

30mm with Long Neck, Cup Only

9204	Material	Colour	Temperature	Hardness
VB30M-N	Nitrile	Black	-20°C-110°C	60
VB30M-S	Silicone	Red	-70°C-200°C	55
VB30M-WS	White Silicone	Translucent White	-70°C-200°C	55
VB30M-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB30M-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB30M-U	Urethane	Dark Green	0°C-100°C	60
VB30M-A	Mark Free	Black	-10°C-100°C	75
VB30M-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71774



Cup only

50mm with Long Neck, Cup Only

9204	Material	Colour	Temperature	Hardness
VB50M-N	Nitrile	Black	-20°C-110°C	60
VB50M-S	Silicone	Red	-70°C-200°C	55
VB50M-WS	White Silicone	Translucent White	-70°C-200°C	55
VB50M-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VB50M-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VB50M-U	Urethane	Dark Green	0°C-100°C	60
VB50M-A	Mark Free	Black	-10°C-100°C	75
VB50M-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71774

Disc Filters

To suit VB-M Series Cups

9204	Material	To Suit
VTFE-B30	Polyethylene	VB30/30M
VTFE-B50	Polyethylene	VB50/50M

Tech Sheet 71774

SUCTION CUPS – DOUBLE BELLOWS

Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for curved products and separating thin sheets in stocks

Advantages

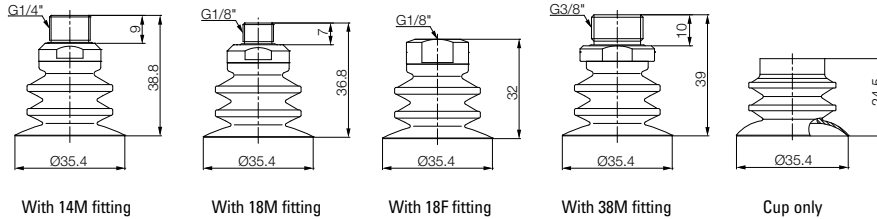
- Particularly good for use on curved surfaces and for separating thin sheets of materials in stacks with long bellows
- Can cope with an increased degree of height compensation and is particularly good for handling fragile objects

Examples of Use

- Convex surface
- Plywood
- Plastic bag
- Carton box
- Metal sheets
- Cement sack

VBU Series

Dimensions



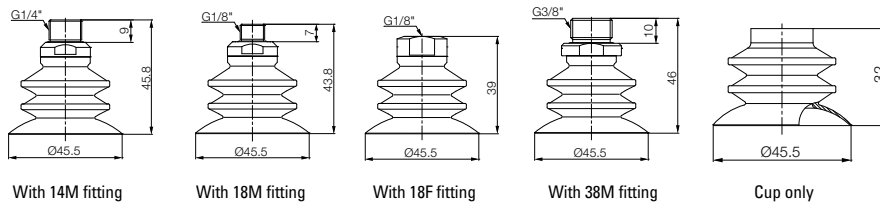
35mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBU35-N	Nitrile	Black	-20°C-110°C	60
VBU35-S	Silicone	Red	-70°C-200°C	55
VBU35-WS	White Silicone	Translucent White	-70°C-200°C	55
VBU35-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VBU35-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71775



Dimensions



45mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBU45-N	Nitrile	Black	-20°C-110°C	60
VBU45-S	Silicone	Red	-70°C-200°C	55
VBU45-WS	White Silicone	Translucent White	-70°C-200°C	55
VBU45-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VBU45-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71775



SUCTION CUPS – DOUBLE BELLOWS



Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for curved products and separating thin sheets in stocks

Advantages

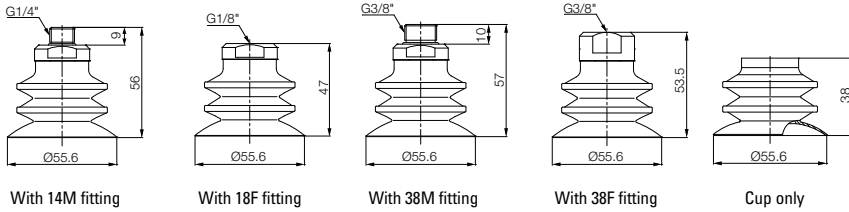
- Particularly good for use on curved surfaces and for separating thin sheets of materials in stacks with long bellows
- Can cope with an increased degree of height compensation and is particularly good for handling fragile objects

Examples of Use

- Convex surface
- Plastic bag
- Metal sheets
- Plywood
- Carton box
- Cement sack

VBU Series

Dimensions



55mm, Cup Only

9205	Material	Colour	Temperature	Hardness
VBU55-N	Nitrile	Black	-20°C-110°C	60
VBU55-S	Silicone	Red	-70°C-200°C	55
VBU55-WS	White Silicone	Translucent White	-70°C-200°C	55
VBU55-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VBU55-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71775

Disc Filters

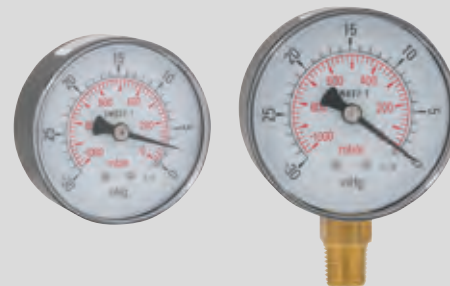
To suit VBU Series Cups

9204	Material	To Suit
VTFE-BU35	Polyethylene	VBU35
VTFE-BU45	Polyethylene	VBU45
VTFE-BU55	Polyethylene	VBU55

Tech Sheet 71775



For FT Pro Vacuum Gauges
see page 412

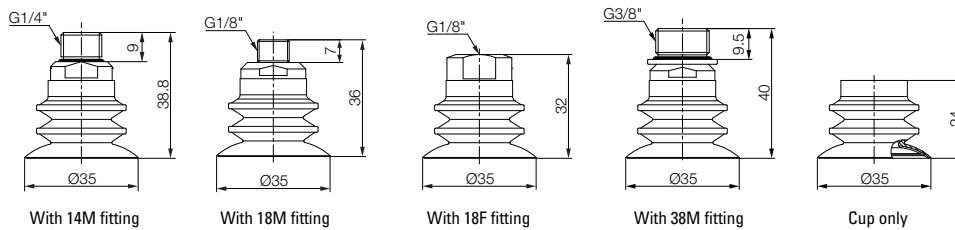


SUCTION CUPS – BELLOWS & CROSS GROOVE



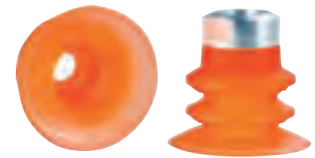
VBX Series

Dimensions

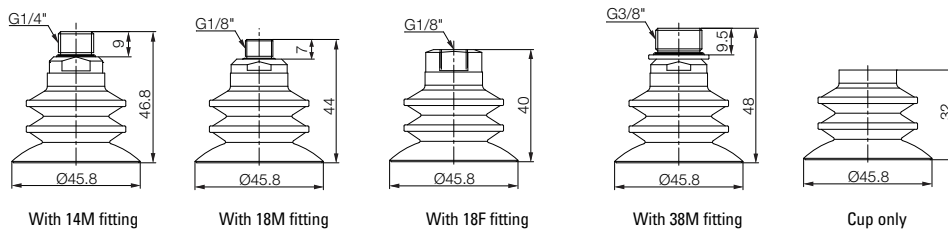


35mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBX35-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71776				



Dimensions

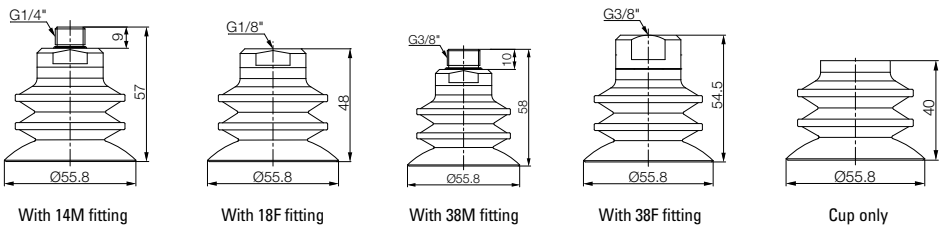


45mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBX45-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71776				



Dimensions



55mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBX55-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71776				



Disc Filters

To suit VBX Series

9204	Material	To Suit
VTFE-BX35	Polyethylene	VBX35-PU
VTFE-BX45	Polyethylene	VBX45-PU
VTFE-BX55	Polyethylene	VBX55-PU
Tech Sheet 71776		

SUCTION CUPS – LONG MULTI BELLOWS



Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for fragile products

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks with long bellows
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece

Examples of Use

- Fragile objects
- Glass
- Bread
- General food products
- Eggs

VBL Series



10mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBL10-N	Nitrile	Black	-20°C-110°C	60
VBL10-S	Silicone	Red	-70°C-200°C	55
VBL10-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL10-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL10-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL10-U	Urethane	Dark Green	0°C-100°C	60
VBL10-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

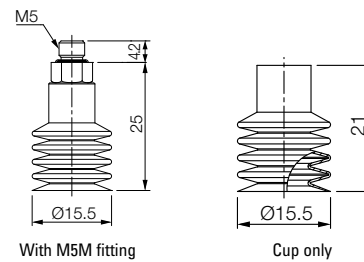


15mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBL15-N	Nitrile	Black	-20°C-110°C	60
VBL15-S	Silicone	Red	-70°C-200°C	55
VBL15-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL15-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL15-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL15-U	Urethane	Dark Green	0°C-100°C	60
VBL15-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

Dimensions



SUCTION CUPS – LONG MULTI BELLOWS



Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for fragile products

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks with long bellows
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece

Examples of Use

- Fragile objects
- Glass
- Bread
- General food products
- Eggs

VBL Series

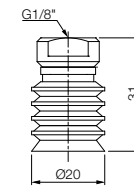


20mm, Cup Only

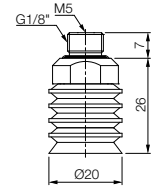
9204	Material	Colour	Temperature	Hardness
VBL20-N	Nitrile	Black	-20°C-110°C	60
VBL20-S	Silicone	Red	-70°C-200°C	55
VBL20-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL20-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL20-U	Urethane	Dark Green	0°C-100°C	60
VBL20-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

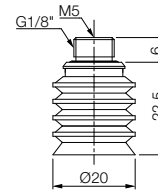
Dimensions



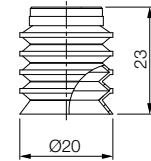
With 18F fitting



With M518MB fitting



With M518MF fitting



Cup only

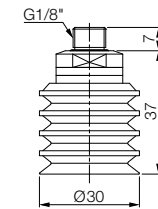


30mm, Cup Only

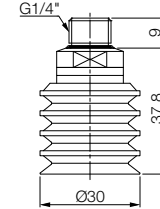
9204	Material	Colour	Temperature	Hardness
VBL30-N	Nitrile	Black	-20°C-110°C	60
VBL30-S	Silicone	Red	-70°C-200°C	55
VBL30-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL30-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL30-U	Urethane	Dark Green	0°C-100°C	60
VBL30-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

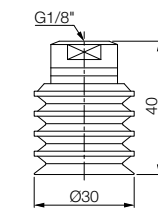
Dimensions



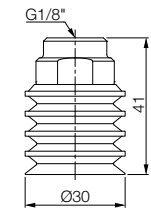
With 18M fitting



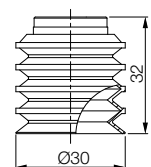
With 14M fitting



With 18F fitting



With 18FB fitting



Cup only

SUCTION CUPS – LONG MULTI BELLOWS



Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for fragile products

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks with long bellows
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece

Examples of Use

- Fragile objects
- Glass
- Bread
- General food products
- Eggs

VBL Series

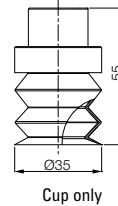


35mm, with Pipe Mount Neck, Cup Only

9204	Material	Colour	Temperature	Hardness
VBL35M-N	Nitrile	Black	-20°C-110°C	60
VBL35M-S	Silicone	Red	-70°C-200°C	55
VBL35M-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL35M-FDA-30	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL35M-FDA-55	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL35M-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL35M-U	Urethane	Dark Green	0°C-100°C	60
VBL35M-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

Dimensions

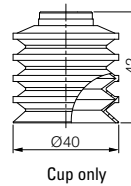
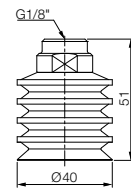
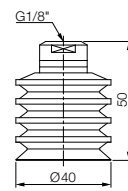
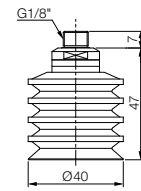
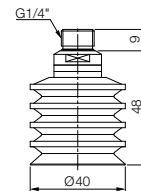


40mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VBL40-N	Nitrile	Black	-20°C-110°C	60
VBL40-S	Silicone	Red	-70°C-200°C	55
VBL40-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL40-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL40-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL40-U	Urethane	Dark Green	0°C-100°C	60
VBL40-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

Dimensions



SUCTION CUPS – LONG MULTI BELLOWS



Features & Strengths

- Wide cover for increased degree of height compensation
- Excellent for fragile products

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of material in stacks with long bellows
- The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece

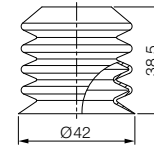
Examples of Use

- Fragile objects
- Glass
- Bread
- General food products
- Eggs

VBL Series



Dimensions



Cup only

40mm, Alternate Design, Cup Only

9204	Material	Colour	Temperature	Hardness
VBL40B-N	Nitrile	Black	-20°C-110°C	60
VBL40B-S	Silicone	Red	-70°C-200°C	55
VBL40B-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL40B-FDA-30	White Silicone FDA	Translucent White	-70°C-200°C	30
VBL40B-FDA-55	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL40B-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL40B-U	Urethane	Dark Green	0°C-100°C	60
VBL40B-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

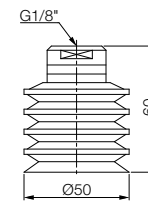


50mm, Cup Only

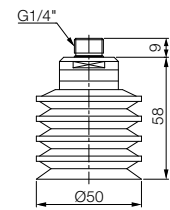
9204	Material	Colour	Temperature	Hardness
VBL50-N	Nitrile	Black	-20°C-110°C	60
VBL50-S	Silicone	Red	-70°C-200°C	55
VBL50-WS	White Silicone	Translucent White	-70°C-200°C	55
VBL50-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VBL50-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VBL50-U	Urethane	Dark Green	0°C-100°C	60
VBL50-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71777

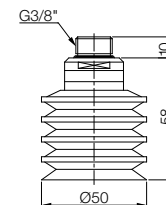
Dimensions



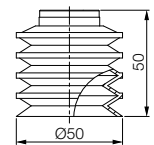
With 18F fitting



With 14M fitting



With 38M fitting



Cup only

Disc Filters

To suit VBL Series

9204	Material	To Suit
VTFE-BL20	Polyethylene	VBL20
VTFE-BL30	Polyethylene	VBL30
VTFE-BL40B	Polyethylene	VBL40B
VTFE-BL40	Polyethylene	VBL40
VTFE-BL50	Polyethylene	VBL50

Tech Sheet 71777

SUCTION CUPS – DUAL LIP STRUCTURE

BL5040 Series

Features & Strengths

- Excellent for irregular curved surfaces and rough surfaces and has a dual lip structure to increase safety

Advantages

- Particularly good for use on curved surfaces and for separating thin sheets of materials in stacks with long bellows
- Can cope with an increased degree of heights compensation and is particularly good for handling fragile objects

Examples of Use

- Round food types (such as apples & oranges)
- Convex surface

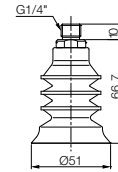


40mm Inner x 50mm Outer, Cup Only

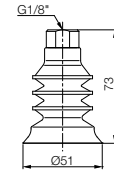
9205	Material	Colour	Temperature	Hardness
BL5040-N	Nitrile	Black	-20°C-110°C	60
BL5040-S3	Silicone - S3	Translucent Blue	-70°C-200°C	30
BL5040-S5	Silicone - S5	Red	-70°C-200°C	55
BL5040-WS3	White Silicone - WS3	Translucent White	-70°C-200°C	30
BL5040-WS5	White Silicone - WS5	Translucent White	-70°C-200°C	55
BL5040-WS3-FDA	White Silicone - WS3 (FDA)	Translucent White	-70°C-200°C	30
BL5040-WS5-FDA	White Silicone - WS5 (FDA)	Translucent White	-70°C-200°C	55

Tech Sheet 71778

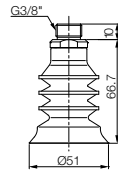
Dimensions



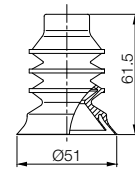
With 14M fitting



With 18F fitting



With 38M fitting



Cup Only



For **All Metal Push-in Fittings Emergency Kit**
see page **844**



SUCTION CUPS - OVAL UNIVERSAL



Features & Strengths

- Great performance for handling long objects with flat and curved surfaces

Advantages

- Good lifting forces can be achieved with even the small sizes
- Conductive silicone material provides excellent handling of PCB boards or electronic components
- Easily mountable without having to detach a fitting from the machine (saving in maintenance time)

Examples of Use

- Semiconductor chips
- PCB boards
- Electronic components
- Solar cells
- Small glass cases

VOU Series

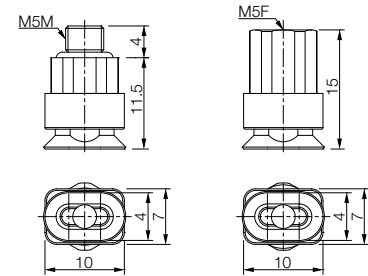


4 x 10mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU4X10-N	Nitrile	Black	-20°C-110°C	60
VOU4X10-S	Silicone	Red	-70°C-200°C	55
VOU4X10-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU4X10-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU4X10-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU4X10-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions



With M5M Fitting

With M5F Fitting

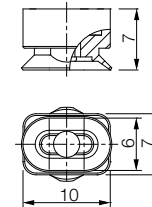


6 x 10mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU6X10-N	Nitrile	Black	-20°C-110°C	60
VOU6X10-S	Silicone	Red	-70°C-200°C	55
VOU6X10-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU6X10-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU6X10-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU6X10-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions



Cup only

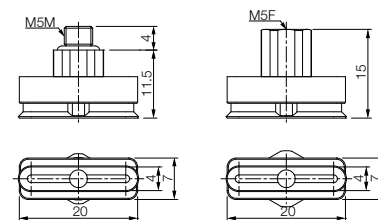


4 x 20mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU4X20-N	Nitrile	Black	-20°C-110°C	60
VOU4X20-S	Silicone	Red	-70°C-200°C	55
VOU4X20-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU4X20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU4X20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU4X20-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions



With M5M Fitting

With M5F Fitting

SUCTION CUPS - OVAL UNIVERSAL



Features & Strengths

- Great performance for handling long objects with flat and curved surfaces

Advantages

- Good lifting forces can be achieved with even the small sizes
- Conductive silicone material provides excellent handling of PCB boards or electronic components
- Easily mountable without having to detach a fitting from the machine (saving in maintenance time)

Examples of Use

- Semiconductor chips
- PCB boards
- Electronic components
- Solar cells
- Small glass cases

VOU Series

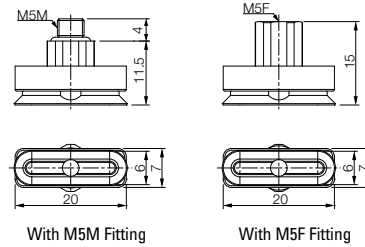


6 x 20mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU6X20-N	Nitrile	Black	-20°C-110°C	60
VOU6X20-S	Silicone	Red	-70°C-200°C	55
VOU6X20-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU6X20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU6X20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU6X20-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions

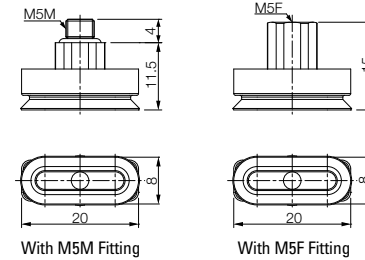


8 x 20mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU8X20-N	Nitrile	Black	-20°C-110°C	60
VOU8X20-S	Silicone	Red	-70°C-200°C	55
VOU8X20-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU8X20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU8X20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU8X20-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions

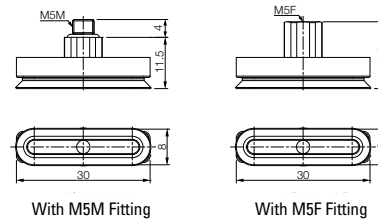


8 x 30mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU8X30-N	Nitrile	Black	-20°C-110°C	60
VOU8X30-S	Silicone	Red	-70°C-200°C	55
VOU8X30-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU8X30-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU8X30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU8X30-U	Urethane	Dark Green	0-100°C	60

Tech Sheet 71779

Dimensions



SUCTION CUPS - OVAL UNIVERSAL



Features & Strengths

- Great performance for handling long objects with flat and curved surfaces

Advantages

- Good lifting forces can be achieved with even the small sizes
- Conductive silicone material provides excellent handling of PCB boards or electronic components
- Easily mountable without having to detach a fitting from the machine (saving in maintenance time)

Examples of Use

- Semiconductor chips
- PCB boards
- Electronic components
- Solar cells
- Small glass cases

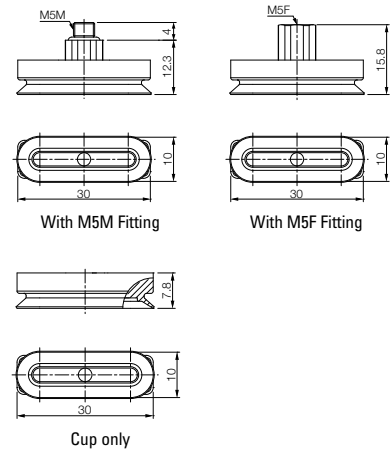
VOU Series



10 x 30mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU10X30-N	Nitrile	Black	-20°C-110°C	60
VOU10X30-S	Silicone	Red	-70°C-200°C	55
VOU10X30-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU10X30-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU10X30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU10X30-U	Urethane	Dark Green	0-100°C	60
Tech Sheet 71779				

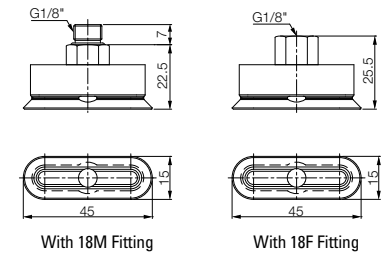
Dimensions



15 x 45mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOU15X45-N	Nitrile	Black	-20°C-110°C	60
VOU15X45-S	Silicone	Red	-70°C-200°C	55
VOU15X45-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU15X45-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU15X45-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU15X45-U	Urethane	Dark Green	0-100°C	60
Tech Sheet 71779				

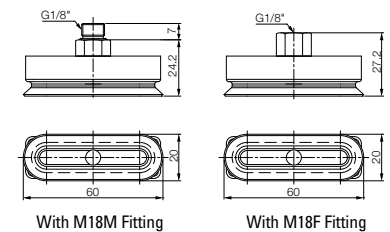
Dimensions



20 x 60mm Cup Only

9204	Material	Colour	Temperature	Hardness
VOU20X60-N	Nitrile	Black	-20°C-110°C	60
VOU20X60-S	Silicone	Red	-70°C-200°C	55
VOU20X60-WS	White Silicone	Translucent White	-70°C-200°C	55
VOU20X60-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOU20X60-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOU20X60-U	Urethane	Dark Green	0-100°C	60
Tech Sheet 71779				

Dimensions

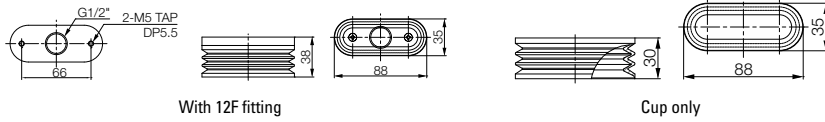


SUCTION CUPS – LONG MULTI BELLOWS & OVAL TYPE



VOBL Series

Dimensions



With 12F fitting

Cup only



35 x 90mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VOBL35X90-N	Nitrile	Black	-20°C-110°C	60
VOBL35X90-S	Silicone	Red	-70°C-200°C	55
VOBL35X90-WS	White Silicone	Translucent White	-70°C-200°C	55
VOBL35X90-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VOBL35X90-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VOBL35X90-U	Urethane	Dark Green	0-100°C	60
VOBL35X90-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71780

Disc Filters

To suit VOBL Series

9204	Material
VTFE-0BL35X90	Polyethylene

Tech Sheet 71780



For **Solenoid Valves**
see pages **1031-1034**



SUCTION CUPS - UNIVERSAL



Features & Strengths

- Excellent performance for flat stable and slightly curved surfaces with direct fitting
- Suitable for concave surface

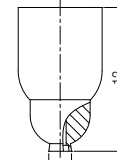
Examples of Use

- Good lifting forces can be achieved with this cup; is best suited to flat stable surfaces, but can cope with a small degree of curvature
- Very small cups are available down to just 1.5mm diameter

VU Series



Dimensions



Cup only

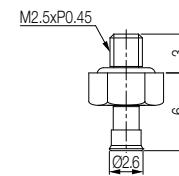
1.5mm to suit Level Compensator, Cup Only

9204	Material	Colour	Temperature	Hardness
VU1.5X-N	Nitrile	Black	-20°C-110°C	60
VU1.5X-S	Silicone	Red	-70°C-200°C	55
VU1.5X-WS	White Silicone	Translucent White	-70°C-200°C	55
VU1.5X-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU1.5X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU1.5X-U	Urethane	Dark Green	0-100°C	60
VU1.5X-A	Mark Free	Black	-10°C-100°C	75

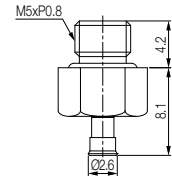
Tech Sheet 71781



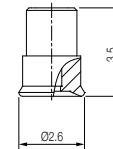
Dimensions



With M2.5M fitting



With M5M fitting



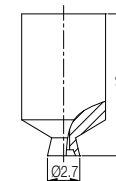
Cup only

2mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VU2-N	Nitrile	Black	-20°C-110°C	60
VU2-S	Silicone	Red	-70°C-200°C	55
VU2-WS	White Silicone	Translucent White	-70°C-200°C	55
VU2-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU2-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU2-U	Urethane	Dark Green	0°C-100°C	60
VU2-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



Cup only

2mm to suit Level Compensator, Cup Only

9204	Material	Colour	Temperature	Hardness
VU2X-N	Nitrile	Black	-20°C-110°C	60
VU2X-S	Silicone	Red	-70°C-200°C	55
VU2X-WS	White Silicone	Translucent White	-70°C-200°C	55
VU2X-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU2X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU2X-U	Urethane	Dark Green	0-100°C	60
VU2X-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

SUCTION CUPS - UNIVERSAL



Features & Strengths

- Excellent performance for flat stable and slightly curved surfaces with direct fitting
- Suitable for concave surface

Examples of Use

- Good lifting forces can be achieved with this cup; is best suited to flat stable surfaces, but can cope with a small degree of curvature
- Very small cups are available down to just 1.5mm diameter

VU Series

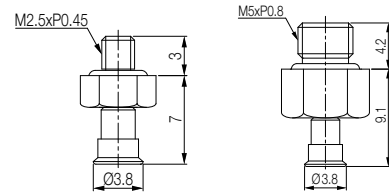


3mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VU3-N	Nitrile	Black	-20°C-110°C	60
VU3-S	Silicone	Red	-70°C-200°C	55
VU3-WS	White Silicone	Translucent White	-70°C-200°C	55
VU3-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU3-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU3-U	Urethane	Dark Green	0-100°C	60
VU3-A	Mark Free	Black	-10°C-100°C	75

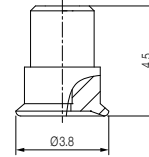
Tech Sheet 71781

Dimensions



With M2.5M fitting

With M5M fitting



Cup only

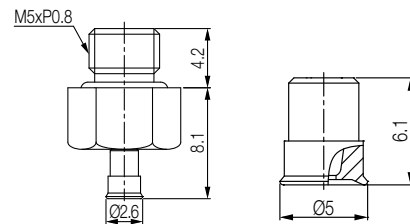


4mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VU4-N	Nitrile	Black	-20°C-110°C	60
VU4-S	Silicone	Red	-70°C-200°C	55
VU4-WS	White Silicone	Translucent White	-70°C-200°C	55
VU4-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU4-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU4-U	Urethane	Dark Green	0-100°C	60
VU4-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



With M5M fitting

Cup only

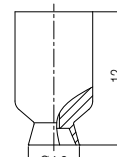


4mm to suit Level Compensators, Cup Only

9204	Material	Colour	Temperature	Hardness
VU4X-N	Nitrile	Black	-20°C-110°C	60
VU4X-S	Silicone	Red	-70°C-200°C	55
VU4X-WS	White Silicone	Translucent White	-70°C-200°C	55
VU4X-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU4X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU4X-U	Urethane	Dark Green	0-100°C	60
VU4X-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



Cup only

Specifications subject to change without notice

SUCTION CUPS - UNIVERSAL



Features & Strengths

- Excellent performance for flat stable and slightly curved surfaces with direct fitting
- Suitable for concave surface

Examples of Use

- Good lifting forces can be achieved with this cup; is best suited to flat stable surfaces, but can cope with a small degree of curvature
- Very small cups are available down to just 1.5mm diameter

VU Series

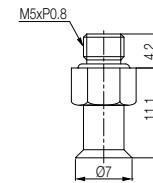


6mm, Cup Only

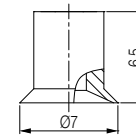
9204	Material	Colour	Temperature	Hardness
VU6-N	Nitrile	Black	-20°C-110°C	60
VU6-S	Silicone	Red	-70°C-200°C	55
VU6-WS	White Silicone	Translucent White	-70°C-200°C	55
VU6-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU6-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU6-U	Urethane	Dark Green	0-100°C	60
VU6-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



With M5M fitting



Cup only

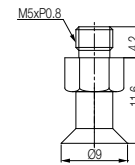


8mm, Cup Only

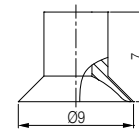
9204	Material	Colour	Temperature	Hardness
VU8-N	Nitrile	Black	-20°C-110°C	60
VU8-S	Silicone	Red	-70°C-200°C	55
VU8-WS	White Silicone	Translucent White	-70°C-200°C	55
VU8-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU8-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU8-U	Urethane	Dark Green	0-100°C	60
VU8-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



With M5M fitting



Cup only

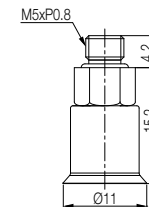


10mm, Cup Only

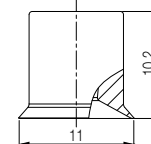
9204	Material	Colour	Temperature	Hardness
VU10-N	Nitrile	Black	-20°C-110°C	60
VU10-S	Silicone	Red	-70°C-200°C	55
VU10-WS	White Silicone	Translucent White	-70°C-200°C	55
VU10-WS(FDA)	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VU10-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VU10-U	Urethane	Dark Green	0-100°C	60
VU10-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71781

Dimensions



With M5M fitting



Cup only

SUCTION CUPS - FLAT

Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Metal sheet, veneer sheets, glass, electronic components

VF Series

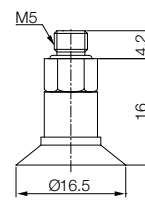


15mm, Cup Only

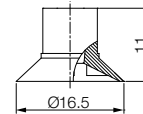
9204	Material	Colour	Temperature	Hardness
VF15-N	Nitrile	Black	-20°C-110°C	60
VF15-S	Silicone	Red	-70°C-200°C	55
VF15-WS	White Silicone	Translucent White	-70°C-200°C	55
VF15-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF15-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF15-U	Urethane	Dark Green	0°C-100°C	60
VF15-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71782

Dimensions



With M5M fitting



Cup only

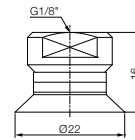


20mm, Cup Only

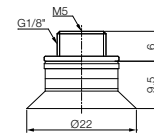
9204	Material	Colour	Temperature	Hardness
VF20-N	Nitrile	Black	-20°C-110°C	60
VF20-S	Silicone	Red	-70°C-200°C	55
VF20-WS	White Silicone	Translucent White	-70°C-200°C	55
VF20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF20-U	Urethane	Dark Green	0°C-100°C	60
VF20-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71782

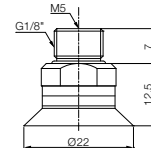
Dimensions



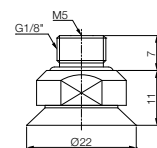
With 18F fitting



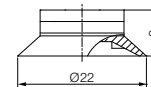
With M518MF fitting



With M518MFO fitting



With M518MFX fitting



Cup only

SUCTION CUPS - FLAT

Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Metal sheet, veneer sheets, glass, electronic components

VF Series

5

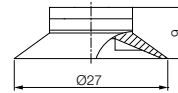
25mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VF25-N	Nitrile	Black	-20°C-110°C	60
VF25-S	Silicone	Red	-70°C-20°C	55
VF25-WS	White Silicone	Translucent White	-70°C-200°C	55
VF25-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF25-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF25-U	Urethane	Dark Green	0°C-100°C	60
VF25-A	Mark Free	Black	-10°C-100°C	75

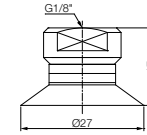
Tech Sheet 71782



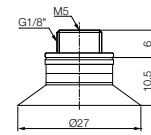
Dimensions



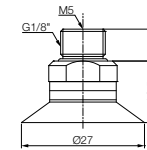
Cup only



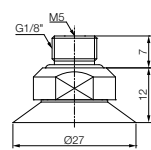
With 18F fitting



With M518MF fitting



With M518MFO fitting



With M518MFX fitting

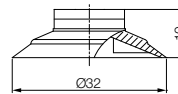
30mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VF30-N	Nitrile	Black	-20°C-110°C	60
VF30-S	Silicone	Red	-70°C-200°C	55
VF30-WS	White Silicone	Translucent White	-70°C-200°C	55
VF30-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF30-U	Urethane	Dark Green	0°C-100°C	60
VF30-A	Mark Free	Black	-10°C-100°C	75

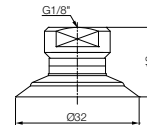
Tech Sheet 71782



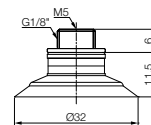
Dimensions



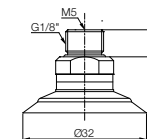
Cup only



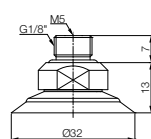
With 18F fitting



With M518MF fitting



With M518MFO fitting



With M518MFX fitting

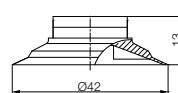
40mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VF40-N	Nitrile	Black	-20°C-110°C	60
VF40-S	Silicone	Red	-70°C-200°C	55
VF40-WS	White Silicone	Translucent White	-70°C-200°C	55
VF40-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF40-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF40-U	Urethane	Dark Green	0°C-100°C	60
VF40-A	Mark Free	Black	-10°C-100°C	75
VF40-PU	Polyurethane	Translucent Orange	0°C-60°C	60

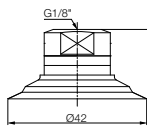
Tech Sheet 71782



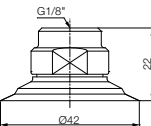
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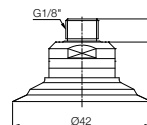
Cup only



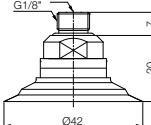
With 18F fitting



With 18FX fitting



With 18M fitting



With M518MFX fitting

SUCTION CUPS - FLAT

Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Metal sheet, veneer sheets, glass, electronic components

VF Series

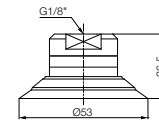


50mm, Cup Only

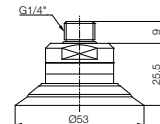
9204	Material	Colour	Temperature	Hardness
VF50-N	Nitrile	Black	-20°C-110°C	60
VF50-S	Silicone	Red	-70°C-200°C	55
VF50-WS	White Silicone	Translucent White	-70°C-200°C	55
VF50-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF50-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF50-U	Urethane	Dark Green	0°C-100°C	60
VF50-A	Mark Free	Black	-10°C-100°C	75
VF50-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71782

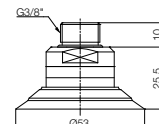
Dimensions



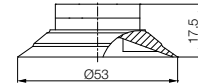
With 18F fitting



With 14M fitting



With 38M fitting



Cup only

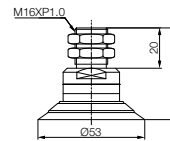


50mm with M16M Fitting

9204	Material	Colour	Temperature	Hardness
VF50X2-N	Nitrile	Black	-20°C-110°C	60
VF50X2-S	Silicone	Red	-70°C-200°C	55
VF50X2-WS	White Silicone	Translucent White	-70°C-200°C	55
VF50X2-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF50X2-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF50X2-U	Urethane	Dark Green	0°C-100°C	60
VF50X2-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71782

Dimensions



With M16M fitting

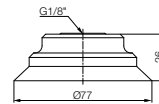


75mm, Cup Only

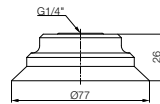
9204	Material	Colour	Temperature	Hardness
VF75-N	Nitrile	Black	-20°C-110°C	60
VF75-S	Silicone	Red	-70°C-200°C	55
VF75-WS	White Silicone	Translucent White	-70°C-200°C	55
VF75-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF75-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF75-U	Urethane	Dark Green	0°C-100°C	60
VF75-A	Mark Free	Black	-10°C-100°C	75
VF75-PU	Polyurethane	Translucent Orange	0°C-60°C	60

Tech Sheet 71782

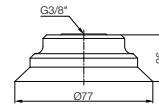
Dimensions



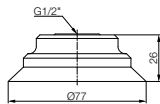
With 18F fitting



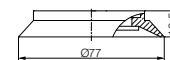
With 14F fitting



With 38F fitting



With 12F fitting



Cup only

SUCTION CUPS - FLAT

Features & Strengths

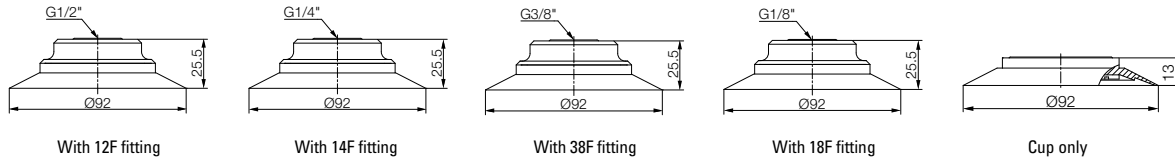
- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Metal sheet, veneer sheets, glass, electronic components

VF Series

Dimensions



With 12F fitting

With 14F fitting

With 38F fitting

With 18F fitting

Cup only



90mm, Cup Only

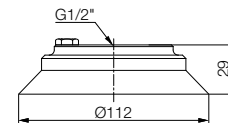
9204	Material	Colour	Temperature	Hardness
VF90-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71782				



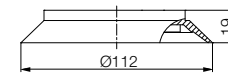
110mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VF110-N	Nitrile	Black	-20°C-110°C	60
VF110-S	Silicone	Red	-70°C-200°C	55
VF110-WS	White Silicone	Translucent White	-70°C-200°C	55
VF110-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF110-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF110-U	Urethane	Dark Green	0°C-100°C	60
VF110-A	Mark Free	Black	-10°C-100°C	75
Tech Sheet 71782				

Dimensions



With 12F fitting



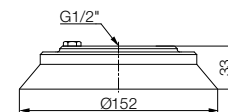
Cup only



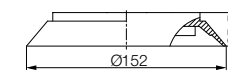
150mm, Cup Only

9204	Material	Colour	Temperature	Hardness
VF150-N	Nitrile	Black	-20°C-110°C	60
VF150-S	Silicone	Red	-70°C-200°C	55
VF150-WS	White Silicone	Translucent White	-70°C-200°C	55
VF150-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF150-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF150-U	Urethane	Dark Green	0°C-100°C	60
VF150-A	Mark Free	Black	-10°C-100°C	75
Tech Sheet 71782				

Dimensions



With 12F fitting



Cup only

SUCTION CUPS - FLAT

Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Metal sheet, veneer sheets, glass, electronic components

VF Series

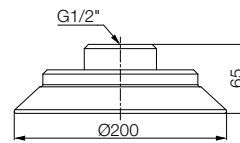


200mm, Cup Only

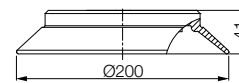
9204	Material	Colour	Temperature	Hardness
VF200-N	Nitrile	Black	-20°C-110°C	60
VF200-S	Silicone	Red	-70°C-200°C	55
VF200-WS	White Silicone	Translucent White	-70°C-200°C	55
VF200-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
VF200-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VF200-U	Urethane	Dark Green	0°C-100°C	60
VF200-A	Mark Free	Black	-10°C-100°C	75

Tech Sheet 71782

Dimensions



With 12F fitting



Cup only

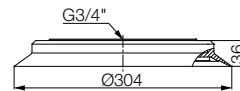


300mm Cups with Female Fitting

9204	Material	Female Thread	Colour	Temperature	Hardness
VF300-N-34F	Nitrile	G3/4"	Black	-20°C-110°C	60
VF300-S-34F	Silicone	G3/4"	Red	-70°C-200°C	55
VF300-WS-34F	White Silicone	G3/4"	Translucent White	-70°C-200°C	55
VF300-WS-FDA-34F	White Silicone (FDA)	G3/4"	Translucent White	-70°C-200°C	55
VF300-CS-34F	Conductive Silicone	G3/4"	Smoky Black	-45°C-90°C	70
VF300-U-34F	Urethane	G3/4"	Dark Green	0°C-100°C	60
VF300-A-34F	Mark Free	G3/4"	Black	-10°C-100°C	75

Tech Sheet 71782

Dimensions



With 34F fitting



For **Portwest PPE & Safeguarding Equipment**
see pages 1750-1760

SUCTION CUPS - FLAT, DUAL LIP STRUCTURE



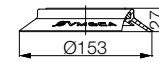
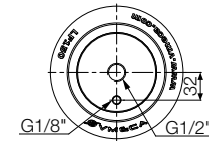
LF Series

150mm, Cup Only



9204	Material	Female Thread	Colour	Temperature	Hardness
LF150-N-12F	Nitrile	G1/2"	Black	-20°C-110°C	60
LF150-S-12F	Silicone	G1/2"	Red	-70°C-200°C	55
LF150-WS-12F	White Silicone	G1/2"	Translucent White	-70°C-200°C	55
LF150-WS-12FDA	White Silicone FDA	G1/2"	Translucent White	-70°C-200°C	55
Tech Sheet 71783					

Dimensions



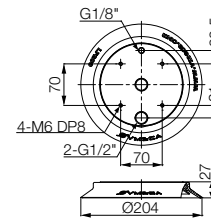
With 12F fitting

200mm, Cup Only



9204	Material	Female Thread	Colour	Temperature	Hardness
LF200-N-12F	Nitrile	G1/2"	Black	-20°C-110°C	60
LF200-S-12F	Silicone	G1/2"	Red	-70°C-200°C	55
LF200-WS-12F	White Silicone	G1/2"	Translucent White	-70°C-200°C	55
LF200-WS-12FDA	White Silicone FDA	G1/2"	Translucent White	-70°C-200°C	55
Tech Sheet 71783					

Dimensions



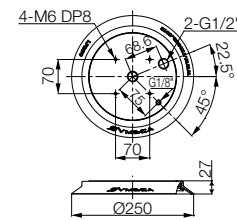
With 12F fitting

250mm, Cup Only



9204	Material	Female Thread	Colour	Temperature	Hardness
LF250-N-12F	Nitrile	G1/2"	Black	-20°C-110°C	60
LF250-S-12F	Silicone	G1/2"	Red	-70°C-200°C	55
LF250-WS-12F	White Silicone	G1/2"	Translucent White	-70°C-200°C	55
LF250-WS-12FDA	White Silicone FDA	G1/2"	Translucent White	-70°C-200°C	55
Tech Sheet 71783					

Dimensions



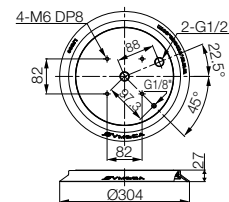
With 12F fitting

300mm, Cup Only



9204	Material	Female Thread	Colour	Temperature	Hardness
LF300-N-12F	Nitrile	G1/2"	Black	-20°C-110°C	60
LF300-S-12F	Silicone	G1/2"	Red	-70°C-200°C	55
LF300-WS-12F	White Silicone	G1/2"	Translucent White	-70°C-200°C	55
LF300-WS-12FDA	White Silicone FDA	G1/2"	Translucent White	-70°C-200°C	55
Tech Sheet 71783					

Dimensions



With 12F fitting

SUCTION CUPS - FLAT & CURVE



Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

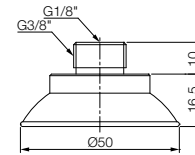
Examples of Use

- Automobile windscreens, roof and door, metal sheet, shaped metal panel, TV cathode ray tube

VFC Series



Dimensions



With 1838MF fitting

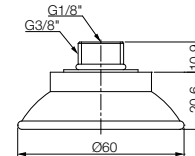
50mm Cup with Fitting

9204	Material	Connection		Colour	Temperature	Hardness
		Male	Female			
VFC50-N-1838MF	Nitrile	3/8"	1/8"	Black	-20°C-110°C	60
VFC50-S-1838MF	Silicone	3/8"	1/8"	Red	-70°C-200°C	55
VFC50-WS-1838MF	White Silicone	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC50-WS-FDA	White Silicone FDA	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC50-CS-1838MF	Conductive Silicone	3/8"	1/8"	Smoky Black	-45°C-90°C	70
VFC50-U-1838MF	Urethane	3/8"	1/8"	Dark Green	0°C-100°C	60
VFC50-A-1838MF	Mark Free	3/8"	1/8"	Black	-10°C-100°C	75
VFC50-PU-1838MF	Polyurethane	3/8"	1/8"	Translucent Orange	0°C-60°C	60

Tech Sheet 71784



Dimensions



With 1838MF fitting

60mm Cup with Fitting

9204	Material	Connection		Colour	Temperature	Hardness
		Male	Female			
VFC60-N-1838MF	Nitrile	3/8"	1/8"	Black	-20°C-110°C	60
VFC60-S-1838MF	Silicone	3/8"	1/8"	Red	-70°C-200°C	55
VFC60-WS-1838MF	White Silicone	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC60-WS-FDA	White Silicone FDA	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC60-CS-1838MF	Conductive Silicone	3/8"	1/8"	Smoky Black	-45°C-90°C	70
VFC60-U-1838MF	Urethane	3/8"	1/8"	Dark Green	0°C-100°C	60
VFC60-A-1838MF	Mark Free	3/8"	1/8"	Black	-10°C-100°C	75
VFC60-PU-1838MF	Polyurethane	3/8"	1/8"	Translucent Orange	0°C-60°C	60
VFC60X1-N-M10M	Nitrile	M10	-	Black	-20°C-110°C	60
VFC60X1-S-M10M	Silicone	M10	-	Red	-70°C-200°C	55
VFC60X1-WS-M10M	White Silicone	M10	-	Translucent White	-70°C-200°C	55
VFC60X1-WSA-FDA	White Silicone FDA	M10	-	Translucent White	-70°C-200°C	55
VFC60X1-CS-M10M	Conductive Silicone	M10	-	Smoky Black	-45°C-90°C	70
VFC60X1-U-M10M	Urethane	M10	-	Dark Green	0°C-100°C	60
VFC60X1-A-M10M	Mark Free	M10	-	Black	-10°C-100°C	75
VFC60X1-PU-M10M	Polyurethane	M10	-	Translucent Orange	0°C-60°C	60

Tech Sheet 71784

SUCTION CUPS - FLAT & CURVE



Features & Strengths

- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

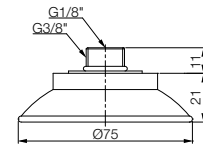
Examples of Use

- Automobile windscreens, roof and door, metal sheet, shaped metal panel, TV cathode ray tube

VFC Series



Dimensions



With 1838MF fitting

75mm Cup with Fitting

9204	Material	Connection		Colour	Temperature	Hardness
		Male	Female			
VFC75-N-1838MF	Nitrile	3/8"	1/8"	Black	-20°C-110°C	60
VFC75-S-1838MF	Silicone	3/8"	1/8"	Red	-70°C-200°C	55
VFC75-WS-1838MF	White Silicone	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC75-WS-FDA	White Silicone FDA	3/8"	1/8"	Translucent White	-70°C-200°C	55
VFC75-CS-1838MF	Conductive Silicone	3/8"	1/8"	Smoky Black	-45°C-90°C	70
VFC75-U-1838MF	Urethane	3/8"	1/8"	Dark Green	0°C-100°C	60
VFC75-A-1838MF	Mark Free	3/8"	1/8"	Black	-10°C-100°C	75
VFC75-PU-1838MF	Polyurethane	3/8"	1/8"	Translucent Orange	0°C-60°C	60
VFC75X1-N-M10M	Nitrile	M10	-	Black	-20°C-110°C	60
VFC75X1-S-M10M	Silicone	M10	-	Red	-70°C-200°C	55
VFC75X1-WS-M10M	White Silicone	M10	-	Translucent White	-70°C-200°C	55
VFC75X1-WS-FDA	White Silicone FDA	M10	-	Translucent White	-70°C-200°C	55
VFC75X1-CS-M10M	Conductive Silicone	M10	-	Smoky Black	-45°C-90°C	70
VFC75X1-U-M10M	Urethane	M10	-	Dark Green	0°C-100°C	60
VFC75X1-A-M10M	Mark Free	M10	-	Black	-10°C-100°C	75
VFC75X2-N-M16M	Nitrile	M16	-	Black	-20°C-110°C	60
VFC75X2-S-M16M	Silicone	M16	-	Red	-70°C-200°C	55
VFC75X2-WS-M16M	White Silicone	M16	-	Translucent White	-70°C-200°C	55
VFC75X2-WS-FDA	White Silicone FDA	M16	-	Translucent White	-70°C-200°C	55
VFC75X2-CS-M16M	Conductive Silicone	M16	-	Smoky Black	-45°C-90°C	70
VFC75X2-U-M16M	Urethane	M16	-	Dark Green	0°C-100°C	60
VFC75X2-A-M16M	Mark Free	M16	-	Black	-10°C-100°C	75

Tech Sheet 71784



For Aircom Ring Main System
see pages 1068-1080

SUCTION CUPS - FLAT & CURVE

Features & Strengths

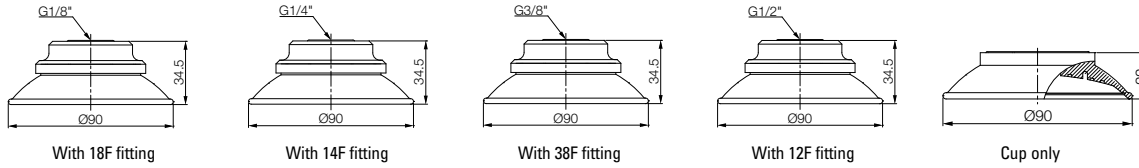
- Specifically designed for flat and curved surface
- Available to handle multiple objects with the same suction cup

Examples of Use

- Automobile windscreens, roof and door, metal sheet, shaped metal panel, TV cathode ray tube

VFC Series

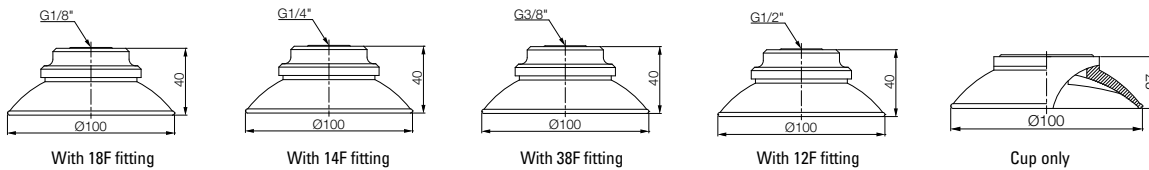
Dimensions



90mm Cups, Cup Only

9204	Material	Colour	Temperature	Hardness
VFC90-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71784				

Dimensions



100mm Cups, Cup Only

9204	Material	Colour	Temperature	Hardness
VFC100-N	Nitrile	Black	-20°C-110°C	60
VFC100-S	Silicone	Red	-70°C-200°C	55
VFC100-WS	White Silicone	Translucent White	-70°C-200°C	55
VFC100-WS-FDA	White Silicone FDA	Translucent White	-70°C-200°C	55
VFC100-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70
VFC100-U	Urethane	Dark Green	0°C-100°C	60
VFC100-A	Mark Free	Black	-10°C-100°C	75
VFC100-PU	Polyurethane	Translucent Orange	0°C-60°C	60
Tech Sheet 71784				

SUCTION CUPS - MARK FREE, FLAT STRUCTURE



Features & Strengths

- Excellent performance for very thin and light weight products
- Mark free

Examples of Use

- Semiconductor, display, thin film

FF Series

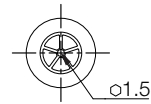
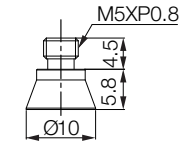


10mm Cups with M5 Male Fitting

9204	Material	Colour	Temperature	Hardness
FF10-N-M5M	Nitrile	Black	-20°C-110°C	60
FF10-S-M5M	Silicone	Red	-70°C-200°C	55
FF10-WS-M5M	White Silicone	Translucent White	-70°C-200°C	55
FF10-WS-M5M-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF10-CS-M5M	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions



With M5M fitting

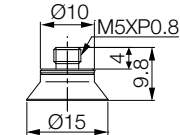


15mm, Cup Only

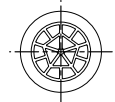
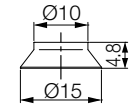
9204	Material	Colour	Temperature	Hardness
FF15-N	Nitrile	Black	-20°C-110°C	60
FF15-S	Silicone	Red	-70°C-200°C	55
FF15-WS	White Silicone	Translucent White	-70°C-200°C	55
FF15-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF15-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions



With M5M fitting



Cup only

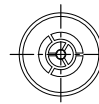
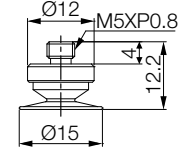


15mm with 7mm Neck, Cup Only

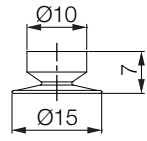
9204	Material	Colour	Temperature	Hardness
FF15X-N	Nitrile	Black	-20°C-110°C	60
FF15X-S	Silicone	Red	-70°C-200°C	55
FF15X-WS	White Silicone	Translucent White	-70°C-200°C	55
FF15X-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF15X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions



With M5M fitting



Cup only

SUCTION CUPS - MARK FREE, FLAT STRUCTURE



Features & Strengths

- Excellent performance for very thin and light weight products
- Mark free

Examples of Use

- Semiconductor, display, thin film

FF Series

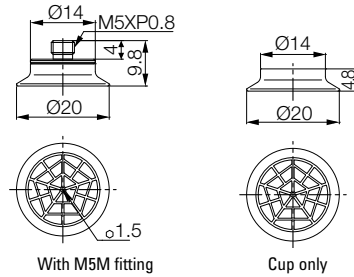


20mm, Cup Only

9204	Material	Colour	Temperature	Hardness
FF20-N	Nitrile	Black	-20°C-110°C	60
FF20-S	Silicone	Red	-70°C-200°C	55
FF20-WS	White Silicone	Translucent White	-70°C-200°C	55
FF20-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF20-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions

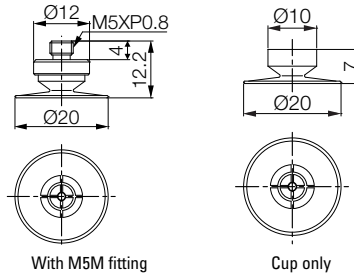


20mm with 7mm Neck, Cup Only

9204	Material	Colour	Temperature	Hardness
FF20X-N	Nitrile	Black	-20°C-110°C	60
FF20X-S	Silicone	Red	-70°C-200°C	55
FF20X-WS	White Silicone	Translucent White	-70°C-200°C	55
FF20X-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF20X-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions

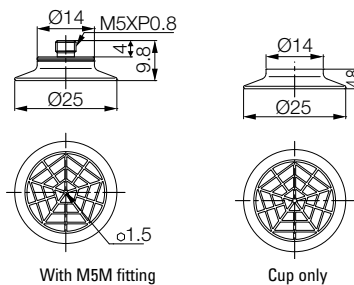


25mm, Cup Only

9204	Material	Colour	Temperature	Hardness
FF25-N	Nitrile	Black	-20°C-110°C	60
FF25-S	Silicone	Red	-70°C-200°C	55
FF25-WS	White Silicone	Translucent White	-70°C-200°C	55
FF25-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF25-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions

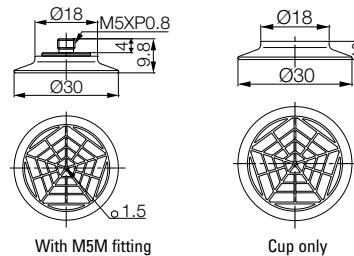


30mm, Cup Only

9204	Material	Colour	Temperature	Hardness
FF30-N	Nitrile	Black	-20°C-110°C	60
FF30-S	Silicone	Red	-70°C-200°C	55
FF30-WS	White Silicone	Translucent White	-70°C-200°C	55
FF30-WS-FDA	White Silicone (FDA)	Translucent White	-70°C-200°C	55
FF30-CS	Conductive Silicone	Smoky Black	-45°C-90°C	70

Tech Sheet 71785

Dimensions



SUCTION CUPS - DEEP



Features & Strengths

- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

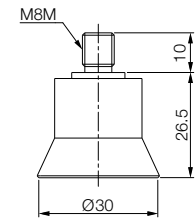
Suitable for Handling

- Automotive roof and doors
- Shaped sheet metal
- Sheet metals, plastics and veneers
- Pre-mounted fitting

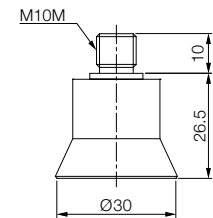
VD Series



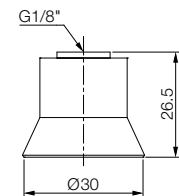
Dimensions



With M8M fitting



With M10M fitting



With 18F fitting

30mm Cups with Fitting

9204	Material	Connection	Colour	Temperature	Hardness	Type
VD30-N-M8M	Nitrile	M8	Black	-20°C-110°C	60	Male
VD30-S-M8M	Silicone	M8	Red	-70°C-200°C	55	Male
VD30-WS-M8M	White Silicone	M8	Translucent White	-70°C-200°C	55	Male
VD30-WS-FDA-M8M	White Silicone (FDA)	M8	Translucent White	-70°C-200°C	55	Male
VD30-CS-M8M	Conductive Silicone	M8	Smoky Black	-45°C-90°C	70	Male
VD30-U-M8M	Urethane	M8	Dark Green	0°C-100°C	60	Male
VD30-A-M8M	Mark Free	M8	Black	-10°C-100°C	75	Male
VD30-PU-M8M	Polyurethane	M8	Translucent Orange	0°C-60°C	60	Male
VD30-N-M10M	Nitrile	M10	Black	-20°C-110°C	60	Male
VD30-S-M10M	Silicone	M10	Red	-70°C-200°C	55	Male
VD30-WS-M10M	White Silicone	M10	Translucent White	-70°C-200°C	55	Male
VD30-WS-FDA-M10M	White Silicone (FDA)	M10	Translucent White	-70°C-200°C	55	Male
VD30-CS-M10M	Conductive Silicone	M10	Smoky Black	-45°C-90°C	70	Male
VD30-U-M10M	Urethane	M10	Dark Green	0°C-100°C	60	Male
VD30-A-M10M	Mark Free	M10	Black	-10°C-100°C	75	Male
VD30-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD30-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD30-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD30-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD30-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD30-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD30-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD30-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female
VD30-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female

Tech Sheet 71786

RIDGID



For Ridgid Tools
see pages 1742-1746

SUCTION CUPS - DEEP

Features & Strengths

- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

Suitable for Handling

- Automotive roof and doors
- Sheet metals, plastics and veneers
- Shaped sheet metal
- Pre-mounted fitting

VD Series

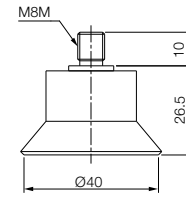


40mm Cups with Fitting

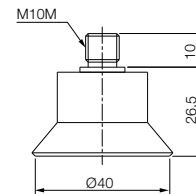
9204	Material	Connection	Colour	Temperature	Hardness	Type
VD40-N-M8M	Nitrile	M8	Black	-20°C-110°C	60	Male
VD40-S-M8M	Silicone	M8	Red	-70°C-200°C	55	Male
VD40-WS-M8M	White Silicone	M8	Translucent White	-70°C-200°C	55	Male
VD40-WS-FDA-M8M	White Silicone (FDA)	M8	Translucent White	-70°C-200°C	55	Male
VD40-CS-M8M	Conductive Silicone	M8	Smoky Black	-45°C-90°C	70	Male
VD40-U-M8M	Urethane	M8	Dark Green	0°C-100°C	60	Male
VD40-A-M8M	Mark Free	M8	Black	-10°C-100°C	75	Male
VD40-PU-M8M	Polyurethane	M8	Translucent Orange	0°C-60°C	60	Male
VD40-N-M10M	Nitrile	M10	Black	-20°C-110°C	60	Male
VD40-S-M10M	Silicone	M10	Red	-70°C-200°C	55	Male
VD40-WS-M10M	White Silicone	M10	Translucent White	-70°C-200°C	55	Male
VD40-WS-FDA-M10M	White Silicone (FDA)	M10	Translucent White	-70°C-200°C	55	Male
VD40-CS-M10M	Conductive Silicone	M10	Smoky Black	-45°C-90°C	70	Male
VD40-U-M10M	Urethane	M10	Dark Green	0°C-100°C	60	Male
VD40-A-M10M	Mark Free	M10	Black	-10°C-100°C	75	Male
VD40-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD40-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD40-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD40-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD40-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD40-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD40-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD40-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female
VD40-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female

Tech Sheet 71786

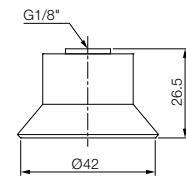
Dimensions



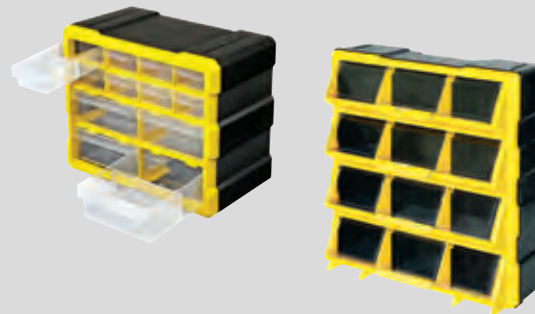
With M8M fitting



With M10M fitting



With 18F fitting



For Storage Range
see page 1747

SUCTION CUPS - DEEP



Features & Strengths

- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

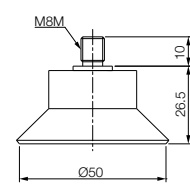
Suitable for Handling

- Automotive roof and doors
- Sheet metals, plastics and veneers
- Shaped sheet metal
- Pre-mounted fitting

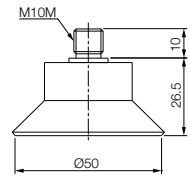
VD Series



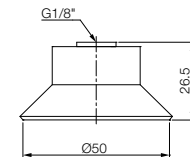
Dimensions



With M8M fitting



With M10M fitting



With 18F fitting

50mm Cups with Fitting

9204	Material	Connection	Colour	Temperature	Hardness	Type
VD50-N-M8M	Nitrile	M8	Black	-20°C-110°C	60	Male
VD50-S-M8M	Silicone	M8	Red	-70°C-200°C	55	Male
VD50-WS-M8M	White Silicone	M8	Translucent White	-70°C-200°C	55	Male
VD50-WS-FDA-M8M	White Silicone (FDA)	M8	Translucent White	-70°C-200°C	55	Male
VD50-CS-M8M	Conductive Silicone	M8	Smoky Black	-45°C-90°C	70	Male
VD50-U-M8M	Urethane	M8	Dark Green	0°C-100°C	60	Male
VD50-A-M8M	Mark Free	M8	Black	-10°C-100°C	75	Male
VD50-PU-M8M	Polyurethane	M8	Translucent Orange	0°C-60°C	60	Male
VD50-N-M10M	Nitrile	M10	Black	-20°C-110°C	60	Male
VD50-S-M10M	Silicone	M10	Red	-70°C-200°C	55	Male
VD50-WS-M10M	White Silicone	M10	Translucent White	-70°C-200°C	55	Male
VD50-WS-FDA-M10M	White Silicone (FDA)	M10	Translucent White	-70°C-200°C	55	Male
VD50-CS-M10M	Conductive Silicone	M10	Smoky Black	-45°C-90°C	70	Male
VD50-U-M10M	Urethane	M10	Dark Green	0°C-100°C	60	Male
VD50-A-M10M	Mark Free	M10	Black	-10°C-100°C	75	Male
VD50-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD50-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD50-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD50-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD50-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD50-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD50-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD50-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female
VD50-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female

Tech Sheet 71786



For Ring Main Parker Transair Tools
see pages 1064-1067

SUCTION CUPS - DEEP

Features & Strengths

- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

Suitable for Handling

- Automotive roof and doors
- Sheet metals, plastics and veneers
- Shaped sheet metal
- Pre-mounted fitting

VD Series

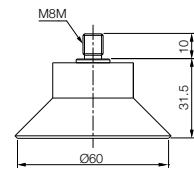


60mm Cups with Fitting

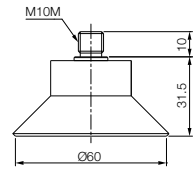
9204	Material	Connection	Colour	Temperature	Hardness	Type
VD60-N-M8M	Nitrile	M8	Black	-20°C-110°C	60	Male
VD60-S-M8M	Silicone	M8	Red	-70°C-200°C	55	Male
VD60-WS-M8M	White Silicone	M8	Translucent White	-70°C-200°C	55	Male
VD60-WS-FDA-M8M	White Silicone (FDA)	M8	Translucent White	-70°C-200°C	55	Male
VD60-CS-M8M	Conductive Silicone	M8	Smoky Black	-45°C-90°C	70	Male
VD60-U-M8M	Urethane	M8	Dark Green	0°C-100°C	60	Male
VD60-A-M8M	Mark Free	M8	Black	-10°C-100°C	75	Male
VD60-PU-M8M	Polyurethane	M8	Translucent Orange	0°C-60°C	60	Male
VD60-N-M10M	Nitrile	M10	Black	-20°C-110°C	60	Male
VD60-S-M10M	Silicone	M10	Red	-70°C-200°C	55	Male
VD60-WS-M10M	White Silicone	M10	Translucent White	-70°C-200°C	55	Male
VD60-WS-FDA-M10M	White Silicone (FDA)	M10	Translucent White	-70°C-200°C	55	Male
VD60-CS-M10M	Conductive Silicone	M10	Smoky Black	-45°C-90°C	70	Male
VD60-U-M10M	Urethane	M10	Dark Green	0°C-100°C	60	Male
VD60-A-M10M	Mark Free	M10	Black	-10°C-100°C	75	Male
VD60-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD60-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD60-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD60-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD60-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD60-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD60-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD60-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female
VD60-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female

Tech Sheet 71786

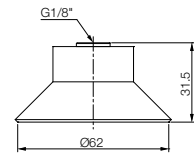
Dimensions



With M8M fitting



With M10M fitting



With 18F fitting

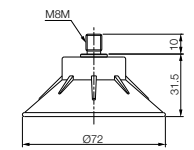
70mm Cups with Fitting

9204	Material	Connection	Colour	Temperature	Hardness	Type
VD70-PU-M8M	Polyurethane	M8	Translucent Orange	0°C-60°C	60	Male
VD70-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD70-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female

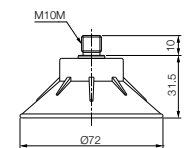
Tech Sheet 71786



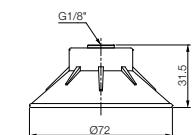
Dimensions



With M8M fitting



With M10M fitting



With 18F fitting

SUCTION CUPS - DEEP

Features & Strengths

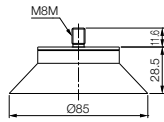
- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

Suitable for Handling

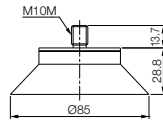
- Automotive roof and doors
- Shaped sheet metal
- Sheet metals, plastics and veneers
- Pre-mounted fitting

VD Series

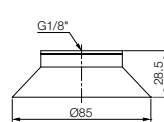
Dimensions



With M8 fitting



With M10M fitting



With 18F fitting



85mm Cups with Fitting

9204	Material	Connection	Colour	Temperature	Hardness	Type
VD85-N-M8M	Nitrile	M8	Black	-20°C-110°C	60	Male
VD85-S-M8M	Silicone	M8	Red	-70°C-200°C	55	Male
VD85-WS-M8M	White Silicone	M8	Translucent White	-70°C-200°C	55	Male
VD85-WS-FDA-M8M	White Silicone (FDA)	M8	Translucent White	-70°C-200°C	55	Male
VD85-CS-M8M	Conductive Silicone	M8	Smoky Black	-45°C-90°C	70	Male
VD85-U-M8M	Urethane	M8	Dark Green	0°C-100°C	60	Male
VD85-A-M8M	Mark Free	M8	Black	-10°C-100°C	75	Male
VD85-N-M10M	Nitrile	M10	Black	-20°C-110°C	60	Male
VD85-S-M10M	Silicone	M10	Red	-70°C-200°C	55	Male
VD85-WS-M10M	White Silicone	M10	Translucent White	-70°C-200°C	55	Male
VD85-WS-FDA-M10M	White Silicone (FDA)	M10	Translucent White	-70°C-200°C	55	Male
VD85-CS-M10M	Conductive Silicone	M10	Smoky Black	-45°C-90°C	70	Male
VD85-U-M10M	Urethane	M10	Dark Green	0°C-100°C	60	Male
VD85-A-M10M	Mark Free	M10	Black	-10°C-100°C	75	Male
VD85-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD85-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD85-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD85-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD85-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD85-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD85-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female
VD85-N-12F	Nitrile	G1/2"	Black	-20°C-110°C	60	Female
VD85-S-12F	Silicone	G1/2"	Red	-70°C-200°C	55	Female
VD85-WS-12F	White Silicone	G1/2"	Translucent White	-70°C-200°C	55	Female
VD85-WS-FDA-12F	White Silicone (FDA)	G1/2"	Translucent White	-70°C-200°C	55	Female
VD85-CS-12F	Conductive Silicone	G1/2"	Smoky Black	-45°C-90°C	70	Female
VD85-U-12F	Urethane	G1/2"	Dark Green	0°C-100°C	60	Female
VD85-A-12F	Mark Free	G1/2"	Black	-10°C-100°C	75	Female

Tech Sheet 71786

SUCTION CUPS - DEEP



Features & Strengths

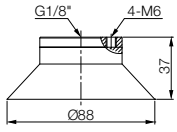
- This cup is best suited to curved or irregular surfaces
- Excellent performance for round corners and edge

Suitable for Handling

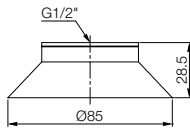
- Automotive roof and doors
- Sheet metals, plastics and veneers
- Shaped sheet metal
- Pre-mounted fitting

VD Series

Dimensions



With 18F fitting



With 12F fitting

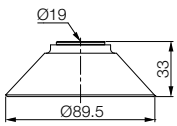


85mm Cups with Fitting (inc. 4 x M6)

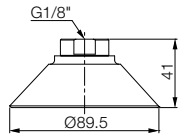
9204	Material	Connection	Colour	Temperature	Hardness	Type
VD85X-N-18F	Nitrile	G1/8"	Black	-20°C-110°C	60	Female
VD85X-S-18F	Silicone	G1/8"	Red	-70°C-200°C	55	Female
VD85X-WS-18F	White Silicone	G1/8"	Translucent White	-70°C-200°C	55	Female
VD85X-WS-FDA-18F	White Silicone (FDA)	G1/8"	Translucent White	-70°C-200°C	55	Female
VD85X-CS-18F	Conductive Silicone	G1/8"	Smoky Black	-45°C-90°C	70	Female
VD85X-U-18F	Urethane	G1/8"	Dark Green	0°C-100°C	60	Female
VD85X-A-18F	Mark Free	G1/8"	Black	-10°C-100°C	75	Female

Tech Sheet 71786

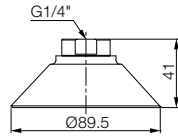
Dimensions



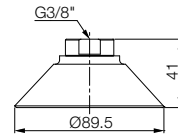
190 Hole



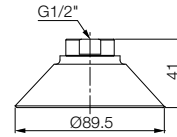
With 18F fitting



With 14F fitting



With 38F fitting



With 12F fitting



90mm Cups with Fitting

9204	Material	Connection	Colour	Temperature	Hardness	Type
VD90F-PU-M10M	Polyurethane	M10	Translucent Orange	0°C-60°C	60	Male
VD90F-PU-18F	Polyurethane	G1/8"	Translucent Orange	0°C-60°C	60	Female
VD90F-PU-14F	Polyurethane	G1/4"	Translucent Orange	0°C-60°C	60	Female
VD90F-PU-38F	Polyurethane	G3/8"	Translucent Orange	0°C-60°C	60	Female
VD90F-PU-12F	Polyurethane	G1/2"	Translucent Orange	0°C-60°C	60	Female
VD90F-PU-H19	Polyurethane	190 Hole	Translucent Orange	0°C-60°C	60	N/A

Tech Sheet 71786

SUCTION CUPS, SPECIAL FLAT/BELLOWS

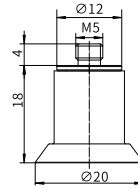


1900 Series

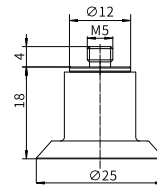
Specially designed for opening plastic bags. Suitable for handling thin and delicate objects, such as plastic films or paper. The thin and adaptable lip together with the internal plugs avoid damages to the film during the suction phase.

Material: Silicone

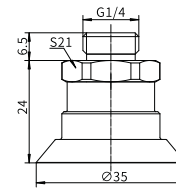
Working Temperature:
-40°C to +200°C



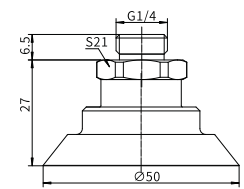
A



B



C



D

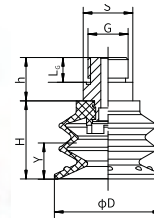
VTF Flat Cups with Fittings

0256	Colour	Drawing	Hardness °Shore A	Lifting Force In Vertical Direction (N) -60kPa	Lifting Force In Parallel Direction (N) -60kPa	Stroke mm	Weight g
19VTF.S.05.02000	Blue	A	40	10	6	1.5	4.6
19VTF.S.05.02500	Blue	B	40	25	21	1.5	5.0
19VTF.S.14.03500	Blue	C	40	38	32.5	1.5	10.0
19VTF.S.14.05000	Blue	D	40	92	76	2	25.0

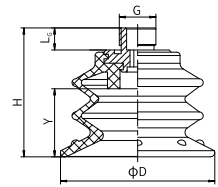
Round bellows suction cup made of polyurethane, suitable for movement of pieces of various size and shape and where level compensation is necessary, such as when withdrawing from loaders. The big advantage of this suction cup, is that the material it's made of, polyurethane, lasts longer than other materials, has optimum wear resistance, good flexibility and optimum tensile strength. Suitable for moving porous objects or ones with an irregular surface, such as cardboard. Polyurethane suction cups are mark resistant.

Material: PU

Working Temperature:
+10°C to +50°C



A



B

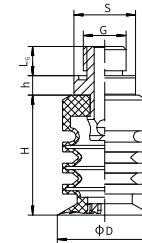
VTS Round Bellows with Fittings

0256	Colour	Drawing	D	H	G	h	L _c	Y	S	Hardness °Shore A	Lifting Force In Vertical Direction (N) -20kPa	-60kPa	-90kPa	Weight g
19VTS.P.18.03025	Green	A	30	21.3	G1/8	7.8	6	8	13	55	10	19	25	6.9
19VTS.P.14.04025	Green	A	40	28.4	G1/4	12	6	10.6	17	55	15	32	50	18.2
19VTS.P.38.05025	Green	A	50	35.5	G3/8	18	10	13.4	24	55	35	58	79	32.6
19VTS.P.38.07025	Green	B	70	58.5	G3/8	*	10	18.6	*	55	72	128	150	60.5

The long bellows suction cup is especially suited for the movement of bags, thanks to its very thin lip and internal notchings, which allow it to ensure secure gripping even with heavy bags that are difficult to lift.

Material: Silicone

Working Temperature:
-40°C to +200°C



A

VTS Extended Round Bellows with Fittings

0256	Colour	Drawing	D	H	h	L _c	G	S	Hardness °Shore A	Lifting Force In Vertical Direction (N) -60kPa	Weight g
19VTS.S.14.03035	Red	A	30	36.5	6	9	G1/4	19	40	9	17.6
19VTS.S.38.04035	Red	A	40	40	6	10	G3/8	22	40	15	23.6
19VTS.S.12.05035	Red	A	50	55	6	10	G1/2	28	40	25	44.2

SUCTION CUPS, FOAM RUBBER

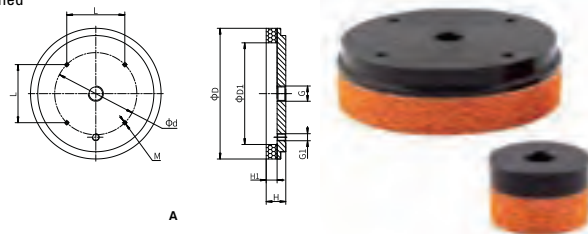


1900 Series

Foam rubber round suction cup is made from a special mixture called "NR", which has a density that allows for gripping even on very rough and irregular surfaces, and allows its elasticity to be maintained even after several working cycles. Especially suited for moving loads with coarse or very rough surfaces such as: sawn, bush-hammered or flamed marble, textured, non-slip or ribbed/corrugated sheets, brick, items made of rough concrete, garden walkway tiles, etc., and in general in all cases where traditional suction cups cannot be used. Recommended for handling loads with lifting force parallel to the surface and for the movement of loads with oiled surfaces.

Material: Foam Rubber (NR)

Working Temperature:
-20°C to +80°C



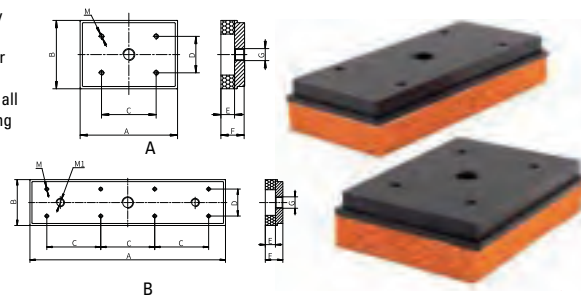
VTN Foam Rubber Round Suction Cup

0256	Colour	Drawing	D	D1	H	H1	G1	L	M	d	G	Hardness °Shore A	Lifting Force In Vertical Direction (N)-60kPa	Weight g
19VTN.G.04000	Orange	A	40	20	25	15	-	-	-	-	G1/4	30	7.8	33.4
19VTN.G.06400	Orange	A	64	40	25	15	-	-	-	40	G1/4	30	35	82.4

Foam rubber rectangular suction cup is made from a special mixture called "NR", which has a density that allows for gripping even on very rough and irregular surfaces, and allows its elasticity to be maintained even after several working cycles. Especially suited for movement of loads with coarse or very rough surfaces such as: sawn, bush-hammered or flamed marble, textured, non-slip or ribbed/corrugated sheets, brick, items made of rough concrete, garden walkway tiles, etc. and in general in all cases where traditional suction cups cannot be used. Not recommended for handling loads with lifting force parallel to the surface or for the movement of loads with oiled surfaces.

Material: Foam Rubber (NR)

Working Temperature:
-20°C to +80°C



VTN Foam Rubber Rectangular Suction Cup

0256	Colour	Drawing	A	B	C	D	E	F	G	M	M1	Hardness °Shore A	Lifting Force In Vertical Direction (N)-60kPa	Weight g
19VRN.G.14.FXR00	Orange	A	135	60	80	40	15	26	G1/4	4-M5	-	30	80	231.7
19VRN.G.14.HXN00	Orange	A	107	75	60	40	15	26	G1/4	4-M5	-	30	90	236.7
19VRN.G.12.RXS00	Orange	B	290	140	80	100	15	26	G1/2	8-M5	2-M12	30	706	1175.1

SUCTION CUPS



Suction Cups

- Choice of cup designs and material type
- Flat cups ideal where minimal movement is required for pliable materials
- Bellows cups ideal where level compensation is required
- Wide variety of cup sizes

Medium: Vacuum

Cups: Nitrile

Connection Fittings:
Aluminium

Working Temperature:
-10°C to +70°C for Aluminium nitrile rubber cups



Flat, M/58000

0036	OD mm	Thread
M/58301/01	6	M5
M/58303/01	10	M5
M/58304/01	15	M5
M/58305/01	20	G1/8
M/58306/01	25	G1/8
M/58307/01	30	G1/8

Tech Sheet 10356







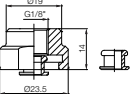
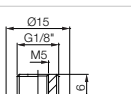
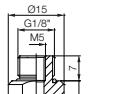
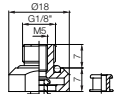
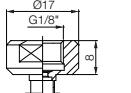
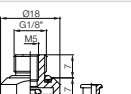
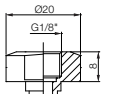
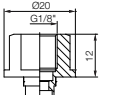
Bellows, M/58000

0036	OD mm	Thread
M/58403/01	10	M5
M/58405/01	20	G1/8
M/58408/01	40	G1/8
M/58410/01	75	G1/8

Tech Sheet 10356

FITTINGS

VU/VB/VF/VBL/VBU/VBX/VFC Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 000 3000	M2.5M	Standard		VU2, VU3	0.47
350 000 3100	M5M	Standard		VU2, VU3	0.54
350 000 3101	M5M	Standard		VU4, VU6, VU8, VB5, VB8	1.84
350 000 3102	M5M	Standard		VU10, VU15, VF15, VB10, VB12, VB15, VBL15	2.52
350 010 3102		Built in efficiency valve			2.63
350 000 3321	18FX (For silicone material)	Standard		VU40, VF40	8.46
350 000 3209	M518MF	Standard		VU20, VU25, VU30, VF20, VF25, VF30, VB17, VB20, VBL20	1.82
350 000 5209		Built in mesh-filter			1.92
350 010 4209		Built in efficiency valve			1.94
350 020 4209		Built in button valve			2.21
350 000 1209	M518MFO	Standard		VU20, VU25, VU30, VF20, VF25, VF30, VB17, VB20, VBL20	2.88
350 000 1109		Built in mesh-filter			2.94
350 010 1209		Built in efficiency valve			2.87
350 000 3239	M518MFB (For silicone material)	Standard		VB17, VB20, VBL20	3.56
350 000 3310	18F	Standard		VU20, VU25, VU30, VF20, VF25, VF30, VB17, VB20, VBL20	3.23
350 000 4310		Built in mesh-filter			3.3
350 010 3310		Built in efficiency valve			3.43
350 020 3310		Built in button valve			
350 000 3229	M518MFX (For silicone material)	Standard		VU20, VU25, VU30, VF20, VF25, VF30	3.71
350 000 3311	18F	Standard		VU40, VF40, VB30, VB40, VBL30, VBL40, VBU35, VBU45, VBX35, VBX45	5.62
350 000 4311		Built in mesh-filter			5.72
350 010 3311		Built in efficiency valve			5.86
350 020 3311		Built in button valve			8.97
350 000 2311	18FO	Standard		VU40, VF40, VB30, VB40, VBL30, VBL40, VBU35, VBU45, VBX35, VBX45	8.24
350 000 4811		Built in mesh-filter			8.41

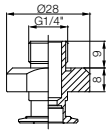
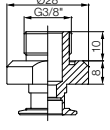
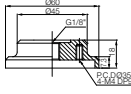
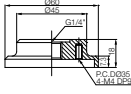
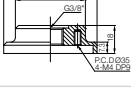
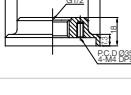
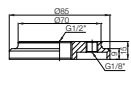
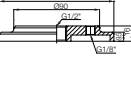
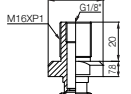
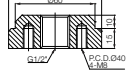
VU/VB/VF/VBL/VBU/VBX/VFC Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 000 3331	18FB (For silicone material)	Standard		VB30, VB40, VBL30, VBL40, VBU35, VBU45	9.78
350 000 2304	18M	Standard		VU40, VF40, VB30, VB40, VBL30, VBL40, VBU35, VBU45, VBX35, VBX45	5.68
350 000 4304		Built in mesh-filter			5.73
350 010 2304		Built in efficiency valve			5.63
350 000 3404	14M	Standard		VU40, VF40, VB30, VB40, VBL30, VBL40, VBU35, VBU45, VBX35, VBX45	5.88
350 000 3804		Built in mesh-filter			5.92
350 010 3404		Built in efficiency valve			6.03
350 000 3504	38M	Standard		VBU35, VBU45, VBX35, VBX45	9.16
350 000 3904		Built in mesh-filter			9.56
350 010 3504		Built in efficiency valve			9.72
350 000 3312	18F	Standard		VU50, VF50 VB50, VBL50 VBU55, VBX55	14.47
350 000 4312		Built in mesh-filter			14.58
350 010 3312		Built in efficiency valve			15.81
350 000 1312	18FO	Standard		VU50, VF50, VB50, VBL50, VBU55, VBX55	10.12
350 000 4912		Built in mesh-filter			10.2
350 010 1312		Built in efficiency valve			10.22
350 000 3405	14M	Standard		VU50, VF50, VB50, VBL50, VBU55, VBX55	14.18
350 000 3805		Built in mesh-filter			14.42
350 010 3405		Built in efficiency valve			14.38
350 000 3505	38M	Standard		VU50, VF50, VB50, VBL50, VBU55, VBX55	18.14
350 000 3905		Built in mesh-filter			17.75
350 010 3505		Built in efficiency valve			17.53
350 000 3342	18FB2 (For silicone material)	Standard		VBU35, VBU45	5.4
350 000 3442		Built in mesh-filter			5.5
350 010 3342		Built in efficiency valve			5.64
350 000 3341	18MB2 (For silicone material)	Standard		VBU35, VBU45	5.44
350 000 4341		Built in mesh-filter			5.33
350 010 3341		Built in efficiency valve			5.47
350 010 3342	18FB2 (For silicone material)	Built in efficiency valve		VBU55, VBX55	15.95
350 000 3441	14MB2 (For silicone material)	Standard		VBU35, VBU45	5.88
350 000 3841		Built in mesh-filter			6
350 010 3441		Built in efficiency valve			6.14







FITTINGS



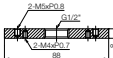
VU/VB/VF/VBL/VBU/VBX/VFC Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 000 3443	14MB2 (For silicone material)	Standard		VBU55	16.69
350 000 3843		Built in mesh-filter			17.22
350 010 3441		Built in efficiency valve			17.26
350 000 3543	38MB2 (For silicone material)	Standard		VBU55	16.69
350 000 3943		Built in mesh-filter			17.05
350 010 3543		Built in efficiency valve			17.11
350 000 3323	18F	Standard		VB75, VB75B, VF75, VF90, VFC90, VFC100	59.36
350 000 4323		Built in mesh-filter		59.76	
350 020 3323		Built in button valve		VF75, VF90	83.56
350 000 3423	14F	Standard		VB75, VB75B, VF75, VF90, VFC90, VFC100	56.92
350 000 3823		Built in mesh-filter			57.32
350 000 3523	38F	Standard		VB75, VB75B, VF75, VF90, VFC90, VFC100	55.08
350 000 3923		Built in mesh-filter			55.48
350 000 3623	12F	Standard		VB75, VB75B, VF75, VF90, VFC90, VFC100	51.50
350 000 4023		Built in mesh-filter			51.90
350 000 3614	12F	Standard		VB110, VB110B, VF110	103.70
350 000 4014		Built in mesh-filter			10.50
350 020 3614		Built in button valve			VF110
350 000 3615	12F	Standard		VB150, VF150	198.93
350 000 4015		Built in mesh-filter			199.73
350 020 3615		Built in button valve			VF150
350 000 1405	M16M	Standard		VF50X2	52.23
350 000 3616	12F	Standard		VF200	555
350 000 4016		Built in mesh-filter			555.3







BL5040 Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 005 0101	18F	Standard		BL5040	11.24
350 005 0103		Built in mesh-filter			11.27
350 005 0202	14M	Standard		BL5040	7.92
350 005 0204		Built in mesh-filter			8.96
350 005 0302	38M	Standard		BL5040	11.47
350 005 0304		Built in mesh-filter			11.51




VOBL35x90 Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 000 3660	12F	Standard		VOBL35x90	18.7

VOU Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 002 1012	M5M	Standard		VOU4x20, VOU6X20, VOU8X20, VOU8X30, VOU10X30	1.78
350 002 1112	M5F	Standard		VOU4x20, VOU6X20, VOU8X20, VOU8X30, VOU10X30	2.82
350 002 3021	18M	Standard		VOU15x45, VOU20X60	13.74
350 002 3022		Built in mesh-filter			13.84
350 002 3121	18F	Standard		VOU15x45, VOU20X60	10.32
350 002 3122		Built in mesh-filter			10.46

FF Series

9205	Type	Description	Dimension	Available suction cups	Weight (g)
350 007 0101	M5M	Standard		FF15	1.41
350 007 0102	M5M	Standard		FF20, FF25, FF30	2.59
350 007 0103	M5M	Standard		FF15X, FF20X	2.41

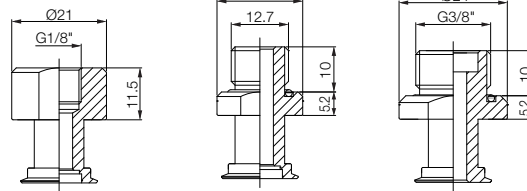
SUCTION CUPS - FITTINGS



BL5040 Series

9205
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350 005 0103
350 005 0202
350 005 0204
350 005 0302
350 005 0304

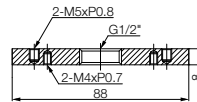
Dimensions



VOBL 35 x 90 Series

9205
350 000 3660

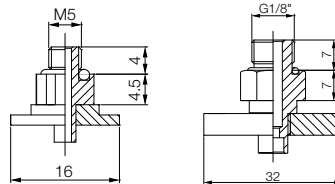
Dimensions



VOU Series

9205
350 002 1012
350 002 1112
350 002 3021
350 002 3022
350 002 3121
350 002 3122

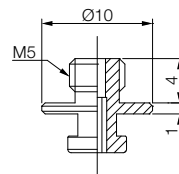
Dimensions



FF Series

9205
350 007 0101
350 007 0102
350 007 0103

Dimensions



Green Pumps

- VMECA vacuum cartridge technology integrated
- High polished clean surface (= for food, pharma industry)
- Vacuum filter self-cleaning system

Features & Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated vacuum filter with high dirt capacity and auto-cleaning system
- High polished clean surface for food, pharma and chemical industry
- Easy to install in limited space due to compact size
- Quick response time



GS Range

9205	Max. Vacuum level (- kPa)	Supply Air Pressure (bar)	Max. Vacuum Flow(Nl/m)	Air Consumption (Nl/m)	Noise level (dBA)	Min. hose inner Ø (within 2m)		
						Air supply	Vacuum	Exhaust
GS203	90	3 - 4	85.8	21 - 32	52 - 58	4 - 6	6	8
GS252	94	5 - 6	113	70.5 - 83.5	60 - 68	6 - 8	6	10
GS253	94	5 - 6	146	70.5 - 83.5		6 - 8	8	10
GS302	93	3 - 4	171	97 - 152		6 - 8	8	10
GSL302	75	4 - 6	200	70 - 104		6 - 8	8	10

- VMECA vacuum cartridge technology integrated
- High polished clean surface (= for food, pharma industry)
- Vacuum filter self-cleaning system

Features & Strengths

- Dual vacuum cartridge structure
- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated vacuum filter with high dirt capacity and auto-cleaning system
- High polished clean surface for food, pharma and chemical industry
- Easy to install in limited space due to compact size
- Quick response time



GH Range

9205	Max. Vacuum level (-kPa)	Supply Air Pressure (bar)	Max. Vacuum Flow(Nl/m)	Air Consumption (Nl/m)	Noise level (dBA)	Min. hose inner Ø (within 2m)		
						Air supply	Vacuum	Exhaust
GH203	90	3 - 4	172	40 - 64	52 - 58	6 - 8	8	10
GH252	94	5 - 6	222	141 - 167	60 - 68	6 - 8	8	10
GH253	94	5 - 6	292	141 - 167		6 - 8	8	10
GH302	93	3 - 4	343	194 - 304		6 - 8	8	10
GHL302	75	4 - 6	400	140 - 208		6 - 8	8	10

VSM Pumps

- VMECA vacuum cartridge technology integrated
- Various mounting options for easy installation
- Extremely low noise level

Features & Strengths

- Efficient individual and independent point-of-use vacuum
- Highly operational reliability despite fluctuating or low compressed-air pressure
- Extremely quick response
- Available for multiple connection ports
- Extremely low noise level with VMECA twofold silencer



VSM Range

9205	Vacuum Connection	Type	Max. Vacuum level (- kPa)	Supply Air Pressure (bar)	Max. Vacuum Flow(Nl/m)	Air Consumption (Nl/m)	Noise level (dBA)	Min. hose inner Ø (within 2m)		
								Air supply	Vacuum	Exhaust
VSM202	3/8" (x1), 1/8" (x3)	Holding Plug	90	3 - 4	44	22 - 40.5		8	8	8
VSM203	3/8" (x1), 1/8" (x3)	Silencer	90	3 - 4	84.5	21 - 40	55 - 65	8	8	10
VSM303	1/2" (x1), 1/4" (x3)	Silencer	92	4	341	82 - 152		8	12	14

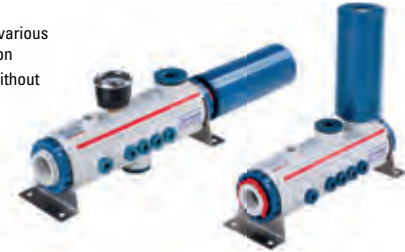
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Magic Pumps

- VMECA vacuum cartridge technology integrated
- Flexibly rotatable vacuum pump
- Easy to distribute vacuum connections with integrated distribution body module

Features & Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity and auto-cleaning system
- Flexible structure available to select various port options and port position/direction
- Easy to assemble and disassemble without any tools
- Quick response time
- Patented design



M3000 Range

9205	No. of Cartridges	Thread	Stage	Max. Vacuum level (- kPa)	Supply Air Pressure (bar)	Max. Vacuum Flow(Nl/m)	Air Consumption (Nl/m)	Noise level (dBA)	Min. hose inner Ø (within 2m)		
									Air supply	Vacuum	Exhaust
M3122	2	G3/4"	2	92	3 - 4	342	194 - 304		8	15	15
M3123	3	G3/4"	2	92	3 - 4	513	291 - 456	50 - 60	10	19	22
M3124	4	G3/4"	2	92	3 - 4	684	388 - 608		10	22	32
M3132	2	G3/4"	3	92	3 - 4	682	194 - 304		8	15	15
M3133	3	G3/4"	3	92	3 - 4	1023	291 - 456	50 - 60	10	19	22
M3134	4	G3/4"	3	92	3 - 4	1364	388 - 608		10	22	32

Turtle Pumps

- VMECA vacuum cartridge technology integrated
- Vacuum filter in one body with auto filter cleaning system

Features & Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Integrated pleated filter with high dirt capacity and auto-cleaning system
- Optional air-saving kit available to minimise energy consumption
- Quick response time
- Patented design



VTC Range

9205	No. of Cartridges	Thread	Silencer	Stage	Max. Vacuum level (- kPa)	Supply Air Pressure (bar)	Max. Vacuum Flow(Nl/m)	Air Consumption (Nl/m)	Noise level (dBA)	Min. hose inner Ø (within 2m)		
										Air supply	Vacuum	Exhaust
VTC3021-2	1	G3/4"	-	2	92	3 - 4	171	97 - 152		6	8	10
VTC3031-2	1	G3/4"	Two Fold	3	92	3 - 4	341	97 - 152	50 - 60	6	8	10
VTC3122-2	2	G3/4"	Standard	2	92	3 - 4	342	194 - 304		8	15	15
VTC3032-2	2	G3/4"	Two Fold	3	92	3 - 4	682	194 - 304		8	12	18
VTC3022-2	2	G3/4"	-	3	92	3 - 4	342	194 - 304		8	12	18
VTC3132-2	2	G3/4"	Standard	3	92	3 - 4	682	194 - 304		8	15	15
VTC3123-2	3	G3/4"	Standard	2	92	3 - 4	513	291 - 456	60 - 65	10	19	22
VTC3133-2	3	G3/4"	Standard	3	92	3 - 4	1023	291 - 456		10	19	22
VTC3124-2	4	G3/4"	Standard	2	92	3 - 4	684	388 - 608		10	22	32
VTC3134-2	4	G3/4"	Standard	3	92	3 - 4	1364	388 - 608		10	22	32

VACUUM GRIPPERS - MAGIC GRIPPERS



Features & Strengths

- Reliable performance despite inconsistent compressed air pressure
- Extremely compact and light weight
- Low air consumption
- Various mounting options
- Excellent gripping power
- Various suction lips for different applications

A-Type - Single Cartridge



Micro Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC10A1-20	20	Nitrile
MC10A2-20	20	Nitrile
MC10A1-40	40	Nitrile
MC10A2-40	40	Nitrile

Mini Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC20A1-40	40	Nitrile
MC20A2-40	40	Nitrile
MC20A1-60	60	Nitrile
MC20A2-60	60	Nitrile

Mini Cartridge, 3-Stage

9205	Bellow Size mm	Material
MC23A1-40	40	Nitrile
MC23A2-40	40	Nitrile
MC23A1-60	60	Nitrile
MC23A2-60	60	Nitrile

Mini Premium Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC25A1-40	40	Nitrile
MC25A2-40	40	Nitrile
MC25A1-60	60	Nitrile
MC25A2-60	60	Nitrile

B Type - Single Cartridge/Auto Vac Release



Micro Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC10B1-20	20	Nitrile
MC10B2-20	20	Nitrile
MC10B1-40	40	Nitrile
MC10B2-40	40	Nitrile

Mini Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC20B1-40	40	Nitrile
MC20B2-40	40	Nitrile
MC20B1-60	60	Nitrile
MC20B2-60	60	Nitrile

Mini Cartridge, 3-Stage

9205	Bellow Size mm	Material
MC23B1-40	40	Nitrile
MC23B2-40	40	Nitrile
MC23B1-60	60	Nitrile
MC23B2-60	60	Nitrile

Mini Premium Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC25B1-40	40	Nitrile
MC25B2-40	40	Nitrile
MC25B1-60	60	Nitrile
MC25B2-60	60	Nitrile

VACUUM GRIPPERS - MAGIC GRIPPERS



Features & Strengths

- Reliable performance despite inconsistent compressed air pressure
- Extremely compact and light weight
- Low air consumption
- Various mounting options
- Excellent gripping power
- Various suction lips for different applications

C Type – Single Cartridge/Check Valve



Micro Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC10C1-20	20	Nitrile
MC10C2-20	20	Nitrile
MC10C1-40	40	Nitrile
MC10C2-40	40	Nitrile

Mini Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC20C1-40	40	Nitrile
MC20C2-40	40	Nitrile
MC20C1-60	60	Nitrile
MC20C2-60	60	Nitrile

Mini Cartridge, 3-Stage

9205	Bellow Size mm	Material
MC23C1-40	40	Nitrile
MC23C2-40	40	Nitrile
MC23C1-60	60	Nitrile
MC23C2-60	60	Nitrile

Mini Premium Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC25C1-40	40	Nitrile
MC25C2-40	40	Nitrile
MC25C1-60	60	Nitrile
MC25C2-60	60	Nitrile

D-Type - Dual Cartridge



Micro Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC10D1-20	20	Nitrile
MC10D2-20	20	Nitrile
MC10D1-40	40	Nitrile
MC10D2-40	40	Nitrile

Mini Cartridge, 2-Stage

9205	Bellow Size mm	Material
MC20D1-40	40	Nitrile
MC20D2-40	40	Nitrile
MC20D1-60	60	Nitrile
MC20D2-60	60	Nitrile

Mini Cartridge, 3-Stage

9205	Bellow Size mm	Material
MC23D1-40	40	Nitrile
MC23D2-40	40	Nitrile
MC23D1-60	60	Nitrile
MC23D2-60	60	Nitrile



For Parker Leak Free Liquifit Push-in Fitting
see pages 800-803

VACUUM GRIPPERS - MAGIC GRIPPERS



Suction Lips

- X type suction lips are excellent in handling thin and light plastic bag applications such as ice cream bags and aluminium foil.



X Type

9205	Ø mm	Material
X25-N6	25	Nitrile
X30-N6	30	Nitrile
X45-N6	45	Nitrile
X55-N6	55	Nitrile
X65-N6	65	Nitrile
X75-N6	75	Nitrile
X25-S3	25	Silicone
X30-S3	30	Silicone
X45-S3	45	Silicone
X55-S3	55	Silicone
X65-S3	65	Silicone
X75-S3	75	Silicone
X25-W3	25	White Silicone
X30-W3	30	White Silicone
X45-W3	45	White Silicone
X55-W3	55	White Silicone
X65-W3	65	White Silicone
X75-W3	75	White Silicone

- P type suction lips are excellent in handling heavy or thick plastic bags containing liquid and powder substances.
- Various stopper and lip material options to cover a wide range of vacuum applications.



P Type

9205	Ø mm	Material
P15-N6	15	Nitrile
P17-N6	17	Nitrile
P20-N6	20	Nitrile
P27-N6	27	Nitrile
P32-N6	32	Nitrile
P48-N6	48	Nitrile
P60-N6	60	Nitrile
P15-S3	15	Silicone
P17-S3	17	Silicone
P20-S3	20	Silicone
P27-S3	27	Silicone
P32-S3	32	Silicone
P48-S3	48	Silicone
P60-S3	60	Silicone
P85-S3	85	Silicone
P15-W3	15	White Silicone
P17-W3	17	White Silicone
P20-W3	20	White Silicone
P27-W3	27	White Silicone
P32-W3	32	White Silicone
P48-W3	48	White Silicone
P60-W3	60	White Silicone

- U type suction lips are excellent in handling flat or slightly curved objects such as carton boxes and tubes.



U Type

9205	Ø mm	Material
U25-N6	25	Nitrile
U30-N6	30	Nitrile
U45-N6	45	Nitrile
U55-N6	55	Nitrile
U65-N6	65	Nitrile
U75-N6	75	Nitrile
U25-S3	25	Silicone
U30-S3	30	Silicone
U45-S3	45	Silicone
U55-S3	55	Silicone
U65-S3	65	Silicone
U75-S3	75	Silicone
U25-W3	25	White Silicone
U30-W3	30	White Silicone
U45-W3	45	White Silicone
U55-W3	55	White Silicone
U65-W3	65	White Silicone
U75-W3	75	White Silicone

Stoppers - A-Type



To Suit X Type Lips

9205	Stopper Size mm
MS20-A	20
MS40-A	40
MS60-A	60

Stoppers - A-Type



To Suit U & X Type Lips

9205	Stopper Size mm
MS20-B	20
MS40-B	40
MS60-B	60

Stoppers - C-Type



To Suit U & X Type Lips

9205	Stopper Size mm
MS20-C	20
MS40-C	40
MS60-C	60

Stoppers - C-Type



To Suit P, U & X Type Lips

9205	Stopper Size mm
MS20-D	20
MS40-D	40
MS60-D	60

NB: Other materials available on request

IN-LINE VACUUM FILTER



These filters provide a cost effective in-line vacuum filtration method. The 6mm push fit version is useful for individual lines particularly with the Oneline pump and multiple stack pumps. The 3/8" version can be screwed directly into the mini type vacuum pump as well as any other port using a 3/8" BSP connection. When used with the mini pumps and midi multiple pumps, it provides a very compact set up.

Features & Strengths

- Simply pushing the tube into the LV-filter
- No other operation is required
- Excellent filtering - minimum particle : 20 micron
- Easy to check and replace filter element

Body Material: Polycarbonate (PC)



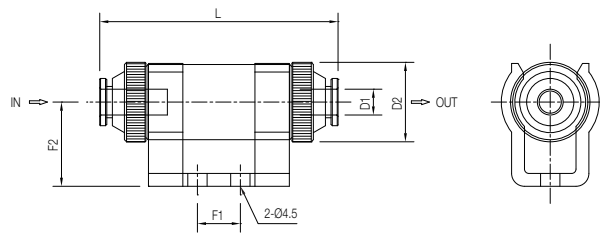
Specification

Model	Tube size (mm) (Outer diameter)	Removal efficiency (µ)	Filter area (mm ²)	Temperature (°C)	Weight (g)
VTF-0706	6	10	7.5	0 to +60	25.0
VTF-1208	8	10	12.5	0 to +60	39.5

Dimensions

Model	L	D1	D2	F1	F2
VTF-0706	55.5	Ø6	Ø18.5	10	Unit: mm 20
VTF-1208	65.2	Ø8	Ø22.5	14	44

Dimensions



Square Parts - Filter Element

Model	Description	Weight (g)
VTFE0706	Filter Element for VTF-0706	0.74
VTFE1208	Filter Element for VTF-1208	1.2

VTF Filters

9205	OD (mm)
VTF-0706	6
VTF-1208	8

VTFB Filters

9205	Flow Rate (l/m)	Vacuum Connection
VTF38-96	660	G3/8"
VTF38-141	780	G3/8"
VTF12-96	900	G1/2"
VTF12-141	1080	G1/2"
VTF34-96	900	G3/4"
VTF34-141	1320	G3/4"
VTF01-118	2520	G1"
VTF01-154	3480	G1"
VTF02-118	2880	G1.1/2"
VTF02-154	5100	G1.1/2"

VTF Replacement Elements - Polyester

9205	To Suit
VTFE27.5-39096	VTF38-96, 12-96, 34-96
VTFE27.5-39141	VTF38-141, 12-141, 34-141
VTFE47.4-62118	VTF01-118, 02-118
VTFE47.4-62154	VTF01-154, 02-154

INTERCHANGE FILTER ELEMENTS



Vacuum Pump Filters

BSP

9156	d1	Male/ Female	d2 mm	h1 mm	h2 mm	Dh3 mm	h4 mm	Flow Rate m³/h	Element ref
SA6654	G3/8"	F	80	66	12	39	45	24	SA6715
SA6058	G3/4"	F	110	76	14	53	54	42	SA6091
SA6647	G1/2"	F	110	76	14	53	54	42	SA6091
SA6952	G1"	F	133	85	17	53	78	85	SA6120
SA6059	G1.1/4"	F	133	85	17	53	78	96	SA6120
SA6061	G1.1/4"	F	170	141	17	93	96	108	SA6122
SA6648	G1.1/2"	F	170	170	18	124	100	192	SA6651
SA6649	G2"	F	200	240	18	124	114	310	SA6096
SA6060	G2.1/2"	F	200	240	18	124	114	360	SA6096
SA6650	G3"	F	270	180	50	145	165	550	SA6095
SA6652	G4"	F	270	180	50	145	165	720	SA6095
SA6749	G3"	F	280	395	50	330	190	1080	SA6005
SA6750	G4"	F	360	590	50	400	230	1260	SA6005



Please request a technical data sheet.

Vacuum Pump Spare Filter Elements

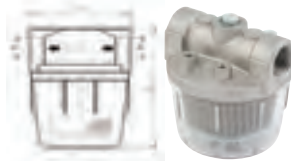
BSP

9156	To Suit
SA6715	Element for SA6654
SA6091	Element for SA6647 & SA6058
SA6120	Element for SA6952 & SA6059
SA6122	Element for SA6061
SA6651	Element for SA6648
SA6096	Element for SA6649 & SA6060
SA6095	Element for SA6650 & SA6652
SA6005	Element for SA6749
SA6025	Element for SA6750



In-line Vacuum Filter

- (1) Flow rates measured with (3) Metallic frame 10 mbar pressure loss
- (2) C = paper
R = stainless steel net



BSP

9032	Flow Rate m³/h	A inches	B mm	C mm	Element (2)	Weight kg
9001003	12	G1/4"	82	62	C	0.16
9001004	12	G1/4"	76	62	R	0.13
9001069	12	G1/4"	74	62	C	0.13
9001004/0	12	G3/8"	76	62	R	0.13
9001009	24	G3/8"	138	85	C	0.37
9001070	24	G3/8"	117	80	C	0.37
9001008	30	G1/2"	88	85	R	0.25
9001010	30	G1/2"	88	80	C	0.25
9001030	90	G1"	240	145	C	1.16
9001016	90	G1"	175	120	R	0.85

In-line Vacuum Spare Filter Elements

- (2) C = paper
R = stainless steel net

Spare Filter Elements

9032	Element to Suit NI/min(1)	µm	Element (2)	Temperature Maximum °C
1801001	9001069, 9001003	30	C	80
1803002	9001004, 9001004/0	100	R	50
1802003	9001008	44	R	50
1801006	9001009, 9001010	30	C	50
1802011	9001016	60	R	50
1801047	9001070	15	C	80
1801021	9001030	25	C	50



Blower Intake Filter

Female

9033	Female Thread	A	D	H	S	L	M	Capacity m³/h
FL1	1/2"	75	21	62	23	100	15	25
FL2	3/4"	150	27	105	23	130	15	85
FL3	1"	150	33	105	23	130	15	85
FL4	1.1/4"	150	42	105	23	200	15	85
FL5	1.1/2"	180	48	155	23	200	15	250
FL6	2"	230	60	155	23	200	15	400
FL8	3"	280	89	180	35	200	15	700
FL9	4"	410	114	330	35	200	15	1400



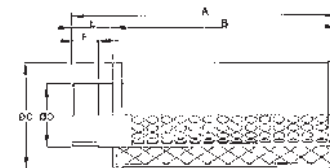
Blower Intake Spare Filter Elements

Spare Filter Elements

9033	Element For	A	D	H
CF1	FL1	55	25	50
CF4	FL2, FL3, FL4	110	55	83
CF5	FL5	150	80	135
CF6	FL6	180	80	135
CF8	FL8	225	100	150
CF9	FL9, FL10	300	215	300



High Volume Muffler

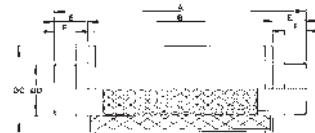


Type SS



Pump Mounted, Male

9033	D	A	B	C	E
SS4	G1.1/4"	190	138	69	52
SS5	G1.1/2"	200	168	80	32
SS6	G2"	230	198	89	32
SS8	G3"	390	350	152	40



Type SI



In-line, Male x Male

9033	D	A	B	C	E
SI4	G1.1/4"	242	138	69	52
SI5	G1.1/2"	232	168	80	32
SI6	G2"	262	198	89	32
SI8	G3"	430	350	152	40

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 6

Push-in Fittings & Tubing

6.01 Plastic Push-in Fittings **763-842**

6.02 Metal Push-in Fittings **843-874**

6.03 Stainless Steel Push-in Fittings **875-879**

6.04 Plumbing Push-in Fittings **880-886**

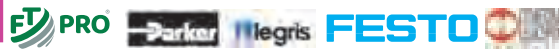
6.05 Air Brake Push-in Fittings **887-894**

6.06 Polyurethane & Nylon Tubing **895-918**

6

SECTION 6

6.01 Plastic Push-in Fittings



763-842

- One Touch Emergency Fittings Kits
- One Touch Plastic (Metric)
- One Touch NPT Plastic (Imperial)
- One Touch+ Emergency Fittings Kits (16 bar rated)
- Micro One Touch (Metric)
- Mirco One Touch (Imperial) NPT & UNI
- Check & Stop Valves
- LF 3000®
- Leak Free
- NPT Threads x Imperial Tube
- BSP Threads x Metric Tube
- Flow Control Regulators Polymer Version
- Flow Control Regulators & Function Fittings
- QS Standard Series
- QS Miniature Series
- Function Fittings
- 55000 Series (20 bar Rated)
- 55000 Series Metal Body
- 55000 Series Miniature
- Metric Push-in Fittings
- Technopolymer
- Push-in Fittings Kits
- Flow Micro Regulators
- Block Fittings
- Flow Control Valves
- Functional Fittings Series 7000 Super Rapid
- Compact Fittings
- Push-in Fittings (Metric)
- Push-in Fittings (Imperial)



new product

6.02 Metal Push-in Fittings



843-874

- One Touch Emergency Fittings Kits
- One Touch All Metal, LF 3600®
- Centralised Lubrication System Fittings
- 50000 Series - Brass
- 89000 Series Imperial Tube Fittings
- 50000 Series Metal Body
- 50000 Series Brass
- 58000 Series High Pressure Lubrication Fittings
- Food Grade
- Pneufi® Push-in Fittings (Metric/Imperial)
- Non Return Valves & Fittings
- Food Grade Fittings
- Nickel Plated Brass & Technopolymer
- Metric Push-in Fittings
- Nickel Plated Brass
- Super-Rapid
- Push-in Fittings
- Series 8000 Super-Rapid Fittings
- Series H8000 Dual Seal Super-Rapid Fittings



6.03 Stainless Steel Push-in Fittings



stainless steel

875-879

- One Touch All Stainless Steel Push-in Fittings
- 316 Stainless Steel Push-in Fittings



Push-in Fittings & Tubing

6.04 Plumbing Push-in Fittings

- Plastic Push-in Fittings
- Plastic Push-in Fittings Pipes & Cutters
- Fitting Valves Piping & Accessories Range
- Brass Push-in Plumbing Tube Fittings



880-886



6.05 Air Brake Push-in Fittings

- Air Brake Fittings
- Air Brake Swivel Fittings
- Air Brake Threaded Fittings C Truck 9000 Series
- Air Brake Accessories C Truck 9000 Series



887-894



6.06 Polyurethane & Nylon Tubing

- Polyurethane Tube
- Polyurethane Recoil Hoses, Polyurethane Tube & Assemblies
- Polyurethane Anti-Spatter Tube & Hose
- Tube & Hose Cutters
- Tubing
- Specialist Tubing
- Automotive Tubing & Hose
- Festo Polyurethane Tubing
- Nylon Tubing & Tube Cutters
- Nylon Tubing
- LLDPE & Synflex ube



895-918





PLASTIC PUSH-IN FITTINGS BSP & Metric Threads x Metric Tube



Features:

- Convenient One Touch fittings provide instant connections
- Elliptical release ring facilitates pneumatic installation in confined spaces
- Light manual pressure on the elliptical release ring is all that is required to instantly disconnect each tube; no special tools required
- Nickel-plated brass threaded body ensures anti-corrosion and anti-contamination
- All taper threaded fittings are pre-coated with PTFE sealant and require no additional sealing



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Construction:

Resin Body:	PBT
Metal Body:	Nickel-plated brass
Packing:	Nitrile
Back Ring:	POM
O-Ring:	Nitrile
Collar:	Nickel-plated zinc
Sleeve:	POM
Locking Claw:	Stainless steel
Media:	Air and vacuum
Threads:	BSPP, BSPT, metric
OD:	Metric


PLASTIC PUSH-IN FITTINGS


One Touch Emergency Fittings Kits



Convenient, compact boxes containing a selection of popular FT Pro One Touch plastic push-in fittings along with handy tube cutter.

Available in three sizes: 6mm, 8mm and 10mm. Can be used with nylon 6, 11, 12, and polyurethane (ester and ether).

 **Working Temperature:**
Brass & Acetal:
0°C to +60°C*

 **Maximum Working Pressure:**
10 bar (150 psi)*

Negative Pressure:
-750mm Hg (10 Torr)*

Media:
Air and vacuum only.

Plastic Push-in

1060	OD mm
FTP-06MMBOX-P	6
FTP-08MMBOX-P	8
FTP-10MMBOX-P	10

Tech Sheet 1964



Contents:

6mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	10 x Equal Tees 2019-8404	10 x Equal Connectors 2019-8305	2 x Equal Bulkheads 2019-8503
8 x Equal Elbows 2019-8354	8 x 1/8" BSPP Male Stud Elbows 2028-8247	5 x 1/4" BSPP Male Stud Elbows 2028-8254	
2 x 1/8" BSPT Flow Controllers 2022-9852	2 x 1/4" BSPT Flow Controllers 2022-9878	2 x Flow Controllers (Unidirectional) 2022-9746	
10 x 1/8" BSPT Male Studs 2019-4965	10 x 1/4" BSPT Male Studs 2019-4973	2 x Shut Off Valves (Tube x Tube) HVFF06-06	
5 x M5 BSPT Male Studs 2019-4957	10 x 1/8" BSPP Male Studs 2028-7819	10 x 1/4" BSPP Male Studs 2028-7843	

8mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	8 x Equal Tees 2019-8412	10 x Equal Connectors 2019-8313	2 x Equal Bulkheads 2019-8511
6 x Equal Elbows 2019-8362	6 x 1/8" BSPP Male Stud Elbows 2028-8270	5 x 1/4" BSPP Male Stud Elbows 2028-8288	
2 x 1/8" BSPT Flow Controllers 2022-9886	2 x 1/4" BSPT Flow Controllers 2022-9894	2 x Flow Controllers (Unidirectional) 2022-9753	
10 x 1/8" BSPT Male Studs 2019-4999	10 x 1/4" BSPT Male Studs 2019-5004	2 x Shut Off Valves (Tube x Tube) HVFF08-08	
5 x 3/8" BSPT Male Studs 2019-5012	10 x 1/8" BSPP Male Studs 2028-7876	10 x 1/4" BSPP Male Studs 2028-7884	

10mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	2 x Flow Controllers (Unidirectional) 2022-9761	8 x Equal Connectors 2019-8321	
3 x Equal Elbows 2019-8370	3 x 1/8" BSPP Male Stud Elbows 2028-8312	3 x 1/4" BSPP Male Stud Elbows 2028-8320	
2 x 1/4" BSPT Flow Controllers 2022-9928	1 x 3/8" BSPT Flow Controller 2022-9936	2 x Equal Tees 2019-8420	
7 x 1/8" BSPT Male Studs 2019-5038	7 x 1/4" BSPT Male Studs 2019-5046	2 x Equal Bulkheads 2019-8529	
5 x 3/8" BSPT Male Studs 2019-5053	8 x 1/8" BSPP Male Studs 2028-7926	6 x 1/4" BSPP Male Studs 2028-7934	

*Dependent upon tubing specification.

ONE TOUCH PLASTIC PUSH-IN FITTINGS, METRIC



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Studs



Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-4890	4	M5
2019-4932	4	1/8"
2046-7163	4	M6
2019-4940	4	1/4"
2046-7164	4	3/8"
2019-4957	6	M5
2019-4965	6	1/8"
2046-7165	6	M6
2019-4973	6	1/4"
2019-4981	6	3/8"
2046-7166	6	1/2"
2019-4999	8	1/8"
2019-5004	8	1/4"
2019-5012	8	3/8"
2019-5020	8	1/2"
2019-5038	10	1/8"
2019-5046	10	1/4"
2019-5053	10	3/8"
2019-5061	10	1/2"
2019-5076	12	1/4"
2019-5087	12	3/8"
2019-5095	12	1/2"
2019-5096	16	3/8"
2019-5097	16	1/2"

Tech Sheet 1964



Male Thread, BSPP

1060	OD mm	Thread
2028-7736	4	1/8"
2028-7793	4	1/4"
2028-7819	6	1/8"
2028-7843	6	1/4"
2028-7868	6	3/8"
2028-7876	8	1/8"
2028-7884	8	1/4"
2028-7900	8	3/8"
2028-7918	8	1/2"
2028-7926	10	1/8"
2028-7934	10	1/4"
2028-7942	10	3/8"
2028-7959	10	1/2"
2028-7967	12	1/4"
2028-7975	12	3/8"
2028-7983	12	1/2"
2028-7986	16	3/8"
2028-7987	16	1/2"

Tech Sheet 1964

Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-0010	4	M5
2019-0011	4	M6
2019-0012	4	1/8"
2019-0013	4	1/4"
2019-0014	6	M5
2019-0015	6	M6
2019-0016	6	1/8"
2019-0017	6	1/4"
2019-0018	6	3/8"
2019-0019	6	1/2"
2019-0020	8	1/8"
2019-0021	8	1/4"
2019-0022	8	3/8"
2019-0023	8	1/2"
2019-0024	10	1/8"
2019-0025	10	1/4"
2019-0026	10	3/8"
2019-0027	10	1/2"
2019-0028	12	1/4"
2019-0029	12	3/8"
2019-0030	12	1/2"
2019-0031	16	3/8"
2019-0032	16	1/2"

Female Studs



Female Thread, BSPP

1060	OD mm	Thread
2019-6325	4	1/8"
2046-7167	4	1/4"
2019-6366	6	1/8"
2019-6416	6	1/4"
2019-6432	6	3/8"
2019-6440	8	1/8"
2019-6465	8	1/4"
2019-6721	8	3/8"
2046-7168	8	1/2"
2019-6739	10	1/8"
2019-6754	10	1/4"
2019-6911	10	3/8"
2046-7169	10	1/2"
2019-6929	12	1/4"
2019-7018	12	3/8"
2019-7059	12	1/2"

Tech Sheet 1964

Female Bulkhead Connectors



Female Thread, Metric & BSPP

1060	OD mm	Thread	Bulkhead
2046-7194	4	M5	M12 x 1
2019-7083	4	1/8"	M12 x 1
2046-7196	4	1/4"	M12 x 1
2046-7197	6	M5	M14 x 1
2019-7125	6	1/8"	M14 x 1
2046-7198	6	M6	M14 x 1
2019-7133	6	1/4"	M14 x 1
2046-7199	6	3/8"	M14 x 1
2046-7200	6	1/2"	M14 x 1
2046-7201	8	1/8"	M16 x 1
2019-7166	8	1/4"	M16 x 1
2019-7182	8	3/8"	M16 x 1
2046-7202	8	1/2"	M16 x 1
2046-7203	10	1/8"	M20 x 1
2019-7299	10	1/4"	M20 x 1
2019-7307	10	3/8"	M20 x 1
2046-7204	10	1/2"	M20 x 1
2019-7315	12	1/4"	M22 x 1
2019-7497	12	3/8"	M22 x 1
2046-7205	12	1/2"	M22 x 1

Tech Sheet 1964



For Brass Nickel
Plated Hose Tails
see pages 1140-1146

Working Temperature:
 Brass: 0°C to +60°C
 Acetal: 0°C to +60°C

Maximum Working Pressure:
 10 bar (150 psi)

Media:
 Air and vacuum only.

Negative Pressure:
 -750mm Hg (10 Torr)

Male Stud Swivel Elbows



Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-5103	4	M5
2019-5111	4	1/8"
2046-7170	4	M6
2019-5129	4	1/4"
2019-5822	6	M5
2019-5145	6	1/8"
2046-7171	6	M6
2019-5152	6	1/4"
2019-5160	6	3/8"
2046-7172	6	1/2"
2019-5178	8	1/8"
2019-5186	8	1/4"
2019-5194	8	3/8"
2019-5202	8	1/2"
2019-5210	10	1/8"
2019-5228	10	1/4"
2019-5236	10	3/8"
2019-5244	10	1/2"
2019-5251	12	1/4"
2019-5269	12	3/8"
2019-5277	12	1/2"
2019-5278	16	3/8"
2019-5279	16	1/2"

Tech Sheet 1964



Male Thread, BSPP

1060	OD mm	Thread
2028-8221	4	1/8"
2028-8239	4	1/4"
2028-8247	6	1/8"
2028-8254	6	1/4"
2028-8262	6	3/8"
2028-8270	8	1/8"
2028-8288	8	1/4"
2028-8296	8	3/8"
2028-8304	8	1/2"
2028-8312	10	1/8"
2028-8320	10	1/4"
2028-8338	10	3/8"
2028-8379	10	1/2"
2028-8403	12	1/4"
2028-8411	12	3/8"
2028-8429	12	1/2"

Tech Sheet 1964

Male Stud Swivel Elbows



Extended Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-5905	4	M5
2019-5913	4	1/8"
2019-5939	6	M5
2019-5947	6	1/8"
2046-7191	6	M6
2019-5954	6	1/4"
2019-5970	8	1/8"
2019-5988	8	1/4"
2019-6135	10	1/8"
2019-6150	10	1/4"
2019-6192	12	1/4"
2019-6200	12	3/8"

Tech Sheet 1964



Extended Male Thread, BSPP

1060	OD mm	Thread
2033-8729	4	1/8"
2033-8737	4	1/4"
2033-8745	6	1/8"
2033-8752	6	1/4"
2033-8778	6	3/8"
2033-8786	8	1/8"
2033-9107	8	1/4"
2033-9115	8	3/8"
2033-9131	10	1/8"
2033-9149	10	1/4"
2033-9156	10	3/8"
2033-9180	12	3/8"

Tech Sheet 1964

45° Male Stud Elbows



Male Thread, BSPT

1060	OD mm	Thread
2019-0210	6	1/8"
2019-0211	6	1/4"



For Silencers
 see page 631

ONE TOUCH PLASTIC PUSH-IN FITTINGS, METRIC



Working Temperature:
Brass: 0°C to +60°C
Acetal: 0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Stud Swivel Tees



Branch Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-5293	4	M5
2019-5301	4	1/8"
2019-5335	4	1/4"
2019-5541	6	M5
2019-5749	6	1/8"
2019-5764	6	1/4"
2019-5772	6	3/8"
2046-7175	6	1/2"
2019-5780	8	1/8"
2019-5798	8	1/4"
2019-5806	8	3/8"
2019-5814	8	1/2"
2019-5830	10	1/8"
2019-5848	10	1/4"
2019-5855	10	3/8"
2019-5863	10	1/2"
2019-5871	12	1/4"
2019-5889	12	3/8"
2019-5897	12	1/2"

Tech Sheet 1964



Branch Male Thread, BSPP

1060	OD mm	Thread
2028-8007	4	1/8"
2028-8023	4	1/4"
2028-8031	6	1/8"
2028-8049	6	1/4"
2028-8056	6	3/8"
2028-8064	8	1/8"
2028-8072	8	1/4"
2028-8122	8	3/8"
2028-8130	8	1/2"
2028-8148	10	1/8"
2028-8155	10	1/4"
2028-8163	10	3/8"
2028-8189	12	1/4"
2028-8205	12	3/8"
2028-8213	12	1/2"

Tech Sheet 1964



Run Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-7992	4	M5
2019-8008	4	1/8"
2019-8010	4	1/4"
2019-8012	6	M5
2019-8032	6	1/8"
2019-8040	6	1/4"
2019-8057	6	3/8"
2019-8065	8	1/8"
2019-8073	8	1/4"
2019-8081	8	3/8"
2019-8089	8	1/2"
2019-8107	10	1/8"
2019-8115	10	1/4"
2019-8123	10	3/8"
2019-8156	12	3/8"
2019-8164	12	1/2"

Tech Sheet 1964



Run Male Thread, BSPP

1060	OD mm	Thread
2033-8570	6	1/8"
2033-8588	6	1/4"
2033-8612	8	1/4"

Tech Sheet 1964

Male Stud Swivel Ys



Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-7513	4	1/8"
2019-7547	6	1/8"
2019-7554	6	1/4"
2019-7570	6	3/8"
2019-7596	8	1/8"
2019-7604	8	1/4"
2019-7612	8	3/8"
2019-7620	8	1/2"
2019-7638	10	1/8"
2019-7646	10	1/4"
2019-7653	10	3/8"
2019-7950	10	1/2"
2019-7968	12	1/4"
2019-7976	12	3/8"
2019-7984	12	1/2"

Tech Sheet 1964



For **Combination Nipples**
see page 1497

Working Temperature:
 Brass: 0°C to +60°C
 Acetal: 0°C to +60°C

Maximum Working Pressure:
 10 bar (150 psi)

Media:
 Air and vacuum only.

Negative Pressure:
 -750mm Hg (10 Torr)

Tube x Tube Connectors



Equal Straights

1060	OD mm
2019-8297	4
2019-8305	6
2019-8313	8
2019-8321	10
2019-8339	12
2019-8340	16

Tech Sheet 1964



Equal Tees

1060	OD mm
2019-8396	4
2019-8404	6
2019-8412	8
2019-8420	10
2019-8438	12
2019-8439	16

Tech Sheet 1964



Equal Crosses

1060	OD mm
2019-8974	4
2019-8982	6
2019-8990	8
2019-9006	10
2019-9014	12

Tech Sheet 1964



Unequal Straights

1060	OD mm	OD mm
2019-8545	4	6
2019-8552	6	8
2019-8560	8	10
2019-8578	10	12
2019-8579	12	16

Tech Sheet 1964



Equal Ys

1060	OD mm
2019-8446	4
2019-8453	6
2019-8461	8
2019-8479	10
2019-8487	12

Tech Sheet 1964



Equal Bulkheads

1060	OD mm	Bulkhead
2019-8495	4	M12 x 1
2019-8503	6	M14 x 1
2019-8511	8	M16 x 1
2019-8529	10	M20 x 1
2019-8537	12	M22 x 1

Tech Sheet 1964



Equal Elbows

1060	OD mm
2019-8347	4
2019-8354	6
2019-8362	8
2019-8370	10
2019-8388	12
2019-8392	16

Tech Sheet 1964



Unequal Ys

1060	OD mm	OD mm
2019-9139	6	4
2019-9162	8	6
2019-9170	10	8
2019-9188	12	10

Tech Sheet 1964



For Manual & Mechanical Valves
 see pages 545-549

Tube x Stem Connectors



Straights, Tube x Stem

1060	OD mm	Stem OD mm
2028-8437	4	6
2028-8445	4	8
2028-8452	6	8
2028-8460	6	10
2028-8478	8	10
2028-8486	8	12
2028-8494	10	12

Tech Sheet 1964



BSPP & Metric

1060	OD mm	Thread
2019-0220	4	M5
2019-0226	8	1/8"



Elbows, Tube x Stem

1060	OD mm	Stem OD mm
2024-2566	4	4
2024-2574	6	6
2024-2582	8	8
2024-2590	10	10
2024-2608	12	12

Tech Sheet 1964

Ys, Tube x Stem

1060	OD mm	Stem OD mm
2024-2616	4	4
2024-2624	6	6
2024-2632	8	8
2024-2640	10	10
2024-2657	12	12

Tech Sheet 1964



Reducing Ys, Tube x Stem

1060	OD mm	Stem OD mm
2024-2673	4	6
2024-2699	6	8
2024-2731	8	10

Tech Sheet 1964

Plugs



Tube

1060	OD mm
2028-8627	4
2028-8635	6
2028-8643	8
2028-8668	10
2028-8684	12

Tech Sheet 1964

Equal Double Joint Adaptors



Tube x Tube

1060	OD mm
2028-8502	4
2028-8510	6
2028-8528	8
2028-8536	10
2028-8544	12

Tech Sheet 1964

Reducers



Tube x Tube

1060	OD mm	Stem OD mm
2028-8551	6	4
2028-8569	8	4
2028-8577	8	6
2028-8585	10	6
2028-8593	10	8
2028-8601	12	8
2028-8619	12	10

Tech Sheet 1964

Tube Plugs



Tube

1060	OD mm
2033-8505	4
2033-8513	6
2033-8521	8
2033-8539	10
2033-8547	12

Tech Sheet 1964

Single Banjos



Male Thread, Metric & BSPT

1060	OD mm	Thread
2019-8172	4	M5
2019-8180	4	1/8"
2046-7183	4	M6
2019-8198	6	M5
2019-8206	6	1/8"
2046-7185	6	M6
2019-8214	6	1/4"
2046-7186	6	3/8"
2019-8222	8	1/8"
2019-8230	8	1/4"
2019-8248	8	3/8"
2046-7188	10	1/4"
2019-8255	10	3/8"
2019-8263	10	1/2"
2046-7189	12	1/4"
2019-8271	12	3/8"
2019-8289	12	1/2"

Tech Sheet 1964

Working Temperature: Brass: 0°C to +60°C
Acetal: 0°C to +60°C
Maximum Working Pressure: 10 bar (150 psi)
Media: Air and vacuum only.
Negative Pressure: -750mm Hg (10 Torr)

Reducing Manifolds



Male Thread, BSPT

1060	Inlet OD mm	Outlet OD mm	Thread
2019-9022	6	4	1/8"
2019-9035	8	4	1/4"
2019-9048	8	6	1/4"
2019-9055	10	8	3/8"

Tech Sheet 1964



Tube x Tube

1060	Inlet OD mm	Outlet OD mm
2019-9063	6	4
2019-9071	8	4
2019-9089	8	6
2019-9097	10	6
2023-0637	10	8

Tech Sheet 1964



For **Metric Polyurethane Tubing** see pages **897-900**

Speed Control Valves



In-line, Tube x Tube

1060	OD mm
2022-9720	4
2022-9746	6
2022-9753	8
2022-9761	10
2022-9779	12

Tech Sheet 1964



Elbow, Male Thread, Metric & BSPT

1060	OD mm	Thread
2022-9829	4	M5
2022-9845	4	1/8"
2022-9860	4	1/4"
2022-9837	6	M5
2022-9852	6	1/8"
2046-7181	6	M6
2022-9878	6	1/4"
2022-9902	6	3/8"
2022-9886	8	1/8"
2022-9894	8	1/4"
2022-9910	8	3/8"
2046-7182	8	1/2"
2022-9928	10	1/4"
2022-9936	10	3/8"
2022-9969	10	1/2"
2022-9944	12	1/4"
2022-9951	12	3/8"
2022-9977	12	1/2"

Tech Sheet 1964

Manual Shut Off Valves

Maximum Working Pressure:
7 bar (100 psi)



BSPT x BSPT

1060	Thread	Thread
HVSS-01-01	1/8"	1/8"
HVSS-02-01	1/4"	1/8"
HVSS-02-02	1/4"	1/4"
HVSS-02-03	1/4"	3/8"
HVSS-03-03	3/8"	3/8"
HVSS-04-03	1/2"	3/8"
HVSS-04-04	1/2"	1/2"

Tech Sheet 1964



Tube x BSPT

1060	OD mm	Thread
HVFS6-01	6	1/8"
HVFS6-02	6	1/4"
HVFS6-03	6	3/8"
HVFS8-01	8	1/8"
HVFS8-02	8	1/4"
HVFS8-03	8	3/8"

Tech Sheet 1964

Maximum Working Pressure:
7 bar (100 psi)



Tube x Tube, Venting

1060	OD mm	OD mm
HVFF06-06	6	6
HVFF08-06	8	6
HVFF08-08	8	8
HVFF10-10	10	10
HVFF12-10	12	10
HVFF12-12	12	12

Tech Sheet 1964




PLASTIC PUSH-IN FITTINGS NPT & UNF Threads x Metric & Imperial Tube



Features:

- Convenient One Touch fittings provide instant connections
- Elliptical release ring facilitates pneumatic installation in confined spaces
- Light manual pressure on the elliptical release ring is all that is required to instantly disconnect each tube; no special tools required
- Nickel-plated brass threaded body ensures anti-corrosion and anti-contamination
- All taper threaded fittings are pre-coated with PTFE sealant and require no additional sealing

 **Working Temperature:**
-10°C to +60°C

 **Maximum Working Pressure**
10 bar (150 psi)

Construction:

Resin Body:	PBT
Metal Body:	Nickel-plated brass
Packing:	Nitrile
Back Ring:	POM
O-Ring:	Nitrile
Collar:	Nickel-plated zinc
Sleeve:	POM
Locking Claw:	Stainless steel
Media:	Air and vacuum
Threads:	NPT, UNF
OD:	Metric and imperial tube sizes

ONE TOUCH NPT PLASTIC PUSH-IN FITTINGS, IMPERIAL



Working Temperature:
0°C to +60°C

Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Studs



Male Thread (Hex Body), NPT

1101	OD	Thread
2110-7800	1/8"	1/8"
2110-7826	1/8"	1/4"
2110-7842	5/32"	1/8"
2110-7859	5/32"	1/4"
2110-7875	3/16"	1/8"
2110-7909	3/16"	1/4"
2110-7925	3/16"	3/8"
2110-7941	1/4"	1/8"
2110-7958	1/4"	1/4"
2110-7966	1/4"	3/8"
2110-7974	5/16"	1/8"
2110-7982	5/16"	1/4"
2110-7990	5/16"	3/8"
2110-8006	3/8"	1/8"
2110-8014	3/8"	1/4"
2110-8022	3/8"	1/2"
2110-8063	1/2"	1/4"
2110-8071	1/2"	3/8"
2110-8089	1/2"	1/2"

Tech Sheet 1964

Male Thread (Hex Body), UNF

1101	OD	Thread
2110-7776	1/8"	10-32
2110-7834	5/32"	10-32
2110-7933	1/4"	10-32

Tech Sheet 1964



Male Thread (Round), NPT

1101	OD	Thread
2110-8105	1/8"	1/8"
2110-8113	1/8"	1/4"
2110-8139	5/32"	1/8"
2110-8147	5/32"	1/4"
2110-8188	3/16"	1/8"
2110-8204	3/16"	1/4"
2110-8220	3/16"	3/8"
2110-8246	1/4"	1/8"
2110-8253	1/4"	1/4"
2110-8279	1/4"	3/8"
2110-8287	1/4"	1/8"
2110-8295	1/4"	1/4"
2110-8303	1/4"	3/8"
2110-8311	3/8"	1/8"
2110-8329	3/8"	1/4"
2110-8337	3/8"	3/8"
2110-8345	3/8"	1/2"
2110-8352	1/2"	1/4"
2110-8360	1/2"	3/8"
2110-8378	1/2"	1/2"

Tech Sheet 1964

Male Thread (Round), UNF

1101	OD	Thread
2110-8097	1/8"	10-32
2110-8121	5/32"	10-32
2110-8154	3/16"	10-32
2110-8238	1/4"	10-32

Tech Sheet 1964

Female Studs



Female Thread, NPT

1101	OD	Thread
2110-8386	1/8"	1/8"
2110-8394	1/8"	1/4"
2110-8402	5/32"	1/8"
2110-8410	5/32"	1/4"
2110-8428	3/16"	1/8"
2110-8436	3/16"	1/4"
2110-8444	1/4"	1/8"
2110-8451	1/4"	1/4"
2110-8469	1/4"	3/8"
2110-8477	5/16"	1/8"
2110-8485	5/16"	1/4"
2110-8493	5/16"	3/8"
2110-8519	3/8"	1/8"
2110-8527	3/8"	1/4"
2110-8535	3/8"	3/8"
2110-8543	3/8"	1/2"
2110-8550	1/2"	1/4"
2110-8568	1/2"	3/8"
2110-8576	1/2"	1/2"

Tech Sheet 1964



You might also need
Nylon Tubing
see page 913



ONE TOUCH NPT PLASTIC PUSH-IN FITTINGS, IMPERIAL



Working Temperature:
Brass: 0°C to +60°C
Acetal: 0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Stud Swivel Elbows



Male Thread, NPT

1101	OD	Thread
2110-8592	1/8"	1/8"
2110-8600	1/8"	1/4"
2110-8626	5/32"	1/8"
2110-8634	5/32"	1/4"
2110-8659	3/16"	1/8"
2110-8667	3/16"	1/4"
2110-8691	3/16"	3/8"
2110-8717	1/4"	1/8"
2110-8725	1/4"	1/4"
2110-8733	1/4"	3/8"
2110-8741	5/16"	1/8"
2110-8758	5/16"	1/4"
2110-8766	5/16"	3/8"
2110-8774	3/8"	1/8"
2110-8782	3/8"	1/4"
2110-8790	3/8"	3/8"
2110-8808	3/8"	1/2"
2110-8816	1/2"	1/4"
2110-8824	1/2"	3/8"
2110-8832	1/2"	1/2"

Tech Sheet 1964

Male Thread, UNF

1101	OD	Thread
2110-8584	1/8"	10-32
2110-8618	5/32"	10-32
2110-8709	1/4"	10-32

Tech Sheet 1964

Extended Male Thread, NPT

1101	OD	Thread
2110-8857	1/8"	1/8"
2110-8865	1/8"	1/4"
2110-8907	5/32"	1/4"
2110-8923	3/16"	1/8"
2110-8931	3/16"	1/4"
2110-8949	3/16"	3/8"
2110-8964	1/4"	1/8"
2110-8972	1/4"	1/4"
2110-8980	1/4"	3/8"
2110-8998	5/16"	1/8"
2110-9004	5/16"	1/4"
2110-9020	3/8"	1/8"
2110-9038	3/8"	1/4"
2110-9046	3/8"	3/8"
2110-9053	3/8"	1/2"
2110-9061	1/2"	1/4"
2110-9087	1/2"	1/2"

Tech Sheet 1964

Extended Male Thread, UNF

1101	OD	Thread
2110-8840	1/8"	10-32
2110-8881	5/32"	10-32
2110-8915	3/16"	10-32
2110-8956	1/4"	10-32

Tech Sheet 1964

Female Swivel Elbows



Female Thread, NPT

1101	OD	Thread
2110-9095	1/8"	1/8"
2110-9111	5/32"	1/8"
2110-9129	5/32"	1/4"
2110-9137	3/16"	1/8"
2110-9145	3/16"	1/4"
2110-9178	1/4"	1/8"
2110-9186	1/4"	1/4"
2110-9194	1/4"	3/8"
2110-9202	5/16"	1/8"
2110-9228	5/16"	1/4"
2110-9236	5/16"	3/8"
2110-9251	5/16"	1/2"
2110-9277	3/8"	1/8"
2110-9269	3/8"	1/4"
2110-9285	3/8"	3/8"
2110-9293	3/8"	1/2"
2111-0093	1/2"	1/4"
2111-0101	1/2"	3/8"
2111-0119	1/2"	1/2"

Tech Sheet 1964



You might also need **Solenoid Valves**
see pages **1031-1034**

ONE TOUCH NPT PLASTIC PUSH-IN FITTINGS, IMPERIAL



Male Stud Elbow



Male Thread, BSPT

1060	OD	Thread
PL1/4-01	1/4"	1/8"
PL1/4-02	1/4"	1/4"
PL3/8-01	3/8"	1/8"
PL3/8-02	3/8"	1/4"
PL1/2-03	1/2"	3/8"
PL1/2-04	1/2"	1/2"

Male Stud Tees



Male Thread, BSPT

1060	OD	Thread
PB1/4-01	1/4"	1/8"
PB1/4-02	1/4"	1/4"
PB3/8-02	3/8"	1/4"
PB1/2-02	1/2"	1/4"



Male Thread, NPT

1060	OD	Thread
PB1/8-N01	1/8"	1/8"
PB1/4-N02	1/4"	1/4"

Male Studs



Male Thread, BSPT

1060	OD	Thread
PC1/4-01	1/4"	1/8"
PC1/4-02	1/4"	1/4"
PC3/8-01	3/8"	1/8"
PC3/8-02	3/8"	1/4"
PC3/8-04	3/8"	1/2"
PC1/2-03	1/2"	3/8"
PC1/2-04	1/2"	1/2"

Plugs



Tube

1060	OD
PP1/8	1/8"
PP1/4	1/4"
PP3/8	3/8"
PP1/2	1/2"

Female Studs



Female Thread, BSPP

1060	OD	Thread
PCF1/4-01	1/4"	1/8"
PCF1/4-02	1/4"	1/4"
PCF3/8-02	3/8"	1/4"
PCF3/8-04	3/8"	1/2"
PCF1/2-03	1/2"	3/8"
PCF1/2-04	1/2"	1/2"

Tube Cap



Tube

1060	OD
PPF1/2	1/2"

Tube x Tube Connectors



Equal Straights

1060	OD
PU1/8	1/8"
PU1/4	1/4"
PU3/8	3/8"
PU1/2	1/2"



Unequal Straights

1060	OD	OD
PG1/2-3/8	1/2"	3/8"



Equal Elbows

1060	OD
PV1/8	1/8"
PV1/4	1/4"
PV3/8	3/8"
PV1/2	1/2"



Equal Tees

1060	OD
PE1/8	1/8"
PE1/4	1/4"
PE3/8	3/8"
PE1/2	1/2"



Equal Bulkheads

1060	OD
PM3/8	3/8"

ONE TOUCH NPT PLASTIC PUSH-IN FITTINGS, IMPERIAL



Working Temperature:
Brass: 0°C to +60°C
Acetal: 0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Studs



Male Thread, NPT

1101	OD mm	Thread
2111-2420	4	1/8"
2111-2446	4	1/4"
2111-2453	4	3/8"
2111-2461	6	1/8"
2111-2479	6	1/4"
2111-2487	6	3/8"
2111-2495	8	1/8"
2111-2503	8	1/4"
2111-2511	8	3/8"
2111-2529	8	1/2"
2111-2537	10	1/8"
2111-2545	10	1/4"
2111-2552	10	3/8"
2111-2560	10	1/2"
2111-2578	12	1/4"
2111-2586	12	3/8"
2111-2594	12	1/2"

Tech Sheet 1964

Male Stud Swivel Elbows



Male Thread, NPT

1101	OD mm	Thread
2111-2768	4	1/8"
2111-2776	4	1/4"
2111-2784	6	1/8"
2111-2792	6	1/4"
2111-2800	6	3/8"
2111-2818	6	1/2"
2111-2826	8	1/8"
2111-2834	8	1/4"
2111-2842	8	3/8"
2111-2859	8	1/2"
2111-2867	10	1/8"
2111-2875	10	1/4"
2111-2883	10	3/8"
2111-2891	10	1/2"
2111-2909	12	1/4"
2111-2917	12	3/8"
2111-2925	12	1/2"

Tech Sheet 1964

Female Swivel Elbows



Female Thread, NPT

1101	OD mm	Thread
2111-3113	4	1/8"
2111-3121	4	1/4"
2111-3139	6	1/8"
2111-3147	6	1/4"
2111-3154	6	3/8"
2111-3162	8	1/8"
2111-3170	8	1/4"
2111-3196	8	3/8"
2111-3204	8	1/2"
2111-3212	10	1/8"
2111-3220	10	1/4"
2111-3238	10	3/8"
2111-3246	10	1/2"
2111-3253	12	1/4"
2111-3261	12	3/8"
2111-3279	12	1/2"

Tech Sheet 1964

Female Studs



Female Thread, NPT

1101	OD mm	Thread
2111-2602	4	1/8"
2111-2610	4	1/4"
2111-2628	6	1/8"
2111-2636	6	1/4"
2111-2644	6	3/8"
2111-2651	8	1/8"
2111-2669	8	1/4"
2111-2677	8	3/8"
2111-2685	8	1/2"
2111-2693	10	1/8"
2111-2701	10	1/4"
2111-2719	10	3/8"
2111-2727	10	1/2"
2111-2735	12	1/4"
2111-2743	12	3/8"
2111-2750	12	1/2"

Tech Sheet 1964



Extended Male Thread, NPT

1101	OD mm	Thread
2111-2933	4	1/8"
2111-2941	4	1/4"
2111-2958	6	1/8"
2111-2966	6	1/4"
2111-2974	6	3/8"
2111-2982	8	1/8"
2111-3006	8	1/4"
2111-3014	8	3/8"
2111-3030	8	1/2"
2111-3048	10	1/8"
2111-3055	10	1/4"
2111-3063	10	3/8"
2111-3071	10	1/2"
2111-3089	12	1/4"
2111-3097	12	3/8"
2111-3105	12	1/2"

Tech Sheet 1964

Male Stud Swivel Tees



Branch Male Thread, NPT

1101	OD mm	Thread
2111-3287	4	1/8"
2111-3295	4	1/4"
2111-3303	6	1/8"
2111-3311	6	1/4"
2111-3329	6	3/8"
2111-3337	8	1/8"
2111-3345	8	1/4"
2111-3352	8	3/8"
2111-3360	8	1/2"
2111-3378	10	1/8"
2111-3386	10	1/4"
2111-3394	10	3/8"
2111-3402	10	1/2"
2111-3410	12	1/4"
2111-3428	12	3/8"
2111-3436	12	1/2"

Tech Sheet 1964

ONE TOUCH NPT PLASTIC PUSH-IN FITTINGS, IMPERIAL



Working Temperature:
Brass: 0°C to +60°C
Acetal: 0°C to +60°C

Maximum Working Pressure:
10 bar (150 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Stud Swivel Tees



Run Male Thread, NPT

1101	OD mm	Thread
2111-3485	4	1/8"
2111-3519	4	1/4"
2111-3527	6	1/8"
2111-3535	6	1/4"
2111-3568	8	1/8"
2111-3576	8	1/4"
2111-3584	8	3/8"
2111-3592	8	1/2"
2111-3600	10	1/4"
2111-3618	10	3/8"
2111-3626	10	1/2"
2111-3634	12	1/4"
2111-3642	12	3/8"
2111-3659	12	1/2"

Tech Sheet 1964

Male Stud Swivel Ys



Male Thread, NPT

1101	OD mm	Thread
2111-3667	4	1/8"
2111-3675	6	1/8"
2111-3683	6	1/4"
2111-3691	6	3/8"
2111-3709	8	1/8"
2111-3717	8	1/4"
2111-3725	8	3/8"
2111-3733	8	1/2"
2111-3758	10	1/4"
2111-3766	10	3/8"
2111-3774	10	1/2"
2111-3782	12	1/4"
2111-3790	12	3/8"
2111-3808	12	1/2"

Tech Sheet 1964

Female Bulkhead Connectors



Female Thread, NPT

1101	OD mm	Thread
2111-3816	4	1/8"
2111-3832	4	1/4"
2111-3840	6	1/8"
2111-3857	6	1/4"
2111-3865	6	3/8"
2111-3873	6	1/2"
2111-3881	8	1/8"
2111-3899	8	1/4"
2111-3907	8	3/8"
2111-3915	8	1/2"
2111-3923	10	1/4"
2111-3931	10	3/8"
2111-3949	10	1/2"
2111-3956	12	1/4"
2111-3964	12	3/8"
2111-3972	12	1/2"

Tech Sheet 1964

Single Banjos



Male Thread, NPT

1101	OD mm	Thread
2111-4020	4	1/8"
2111-4038	6	1/8"
2111-4053	6	1/4"
2111-4061	8	1/8"
2111-4079	8	1/4"
2111-4087	8	3/8"
2111-4095	10	3/8"
2111-4111	12	1/4"
2111-4137	12	1/2"

Tech Sheet 1964

Male x Female Thread (Stacking), NPT



1101	OD mm	Thread
2111-4145	4	1/8"
2111-4152	4	1/4"
2111-4160	6	1/8"
2111-4178	6	1/4"
2111-4186	6	3/8"
2111-4202	8	1/4"
2111-4210	8	3/8"
2111-4228	8	1/2"
2111-4236	10	1/4"
2111-4244	10	3/8"
2111-4251	10	1/2"
2111-4277	12	3/8"
2111-4285	12	1/2"

Tech Sheet 1964

Reducing Manifolds



Male Thread, NPT

1101	Inlet OD mm	Outlet OD mm	Thread
2111-3980	6	4	1/8"
2111-3998	8	4	1/4"
2111-4004	8	6	1/4"
2111-4012	10	8	3/8"

Tech Sheet 1964

Speed Control Valves



Male Thread, NPT

1101	OD mm	Thread
2111-4293	4	1/8"
2111-4301	4	1/4"
2111-4319	6	1/8"
2111-4327	6	1/4"
2111-4335	6	3/8"
2111-4343	8	1/8"
2111-4350	8	1/4"
2111-4368	8	3/8"
2111-4376	8	1/2"
2111-4384	10	1/4"
2111-4392	10	3/8"
2111-4400	10	1/2"
2111-4418	12	1/4"
2111-4426	12	3/8"
2111-4434	12	1/2"

Tech Sheet 1964

Male Thread, NPT x Tube



1101	OD mm	Thread
2111-4442	6	1/8"
2111-4459	6	1/4"
2111-4467	6	3/8"
2111-4475	8	1/8"
2111-4483	8	1/4"
2111-4491	8	3/8"

Tech Sheet 1964



PLASTIC PUSH-IN FITTINGS

One Touch+ 16 Bar Rated



Features:

- One of the highest pressure rated polymer push-in fittings available on the market
- Convenient One Touch+ fittings provide instant connections
- Elliptical release ring facilitates pneumatic installation in confined spaces
- Light manual pressure on the elliptical release ring is all that is required to instantly disconnect each tube; no special tools required
- Nickel-plated brass ensures anti-corrosion and anti-contamination
- All taper threaded fittings are pre-coated with PTFE sealant and require no additional sealing



Working Temperature:
-10°C to +60°C



Working Pressure
-0.8 bar 16 bar

*Dependent upon tubing specification.

Construction:

Resin Body: Technopolymer resin

Metal Body: Nickel-plated brass

Packing: Nitrile

Back O-Ring: POM

O-Ring: Nitrile

Collar: Nickel-plated zinc

Collet: Technopolymer resin

Collet Ring: Nickel-plated brass

Sleeve: POM

PLASTIC PUSH-IN FITTINGS

One Touch+ Emergency Fittings Kits, 16 Bar Rated



Convenient, compact boxes containing a selection of popular FT Pro One Touch+ plastic push-in fittings along with handy tube cutter.

Available in three sizes: 6mm, 8mm and 10mm. Can be used with nylon 6, 11, 12, and polyurethane (ester and ether).

Working Temperature:
0°C to +60°C

Maximum Working Pressure:
16 bar (220 psi)

Negative Pressure:
-750mm Hg (10 Torr)

Media:
Air and vacuum only.

Plastic, 16 bar Rated

1103	OD mm
FTP-06MMBOX-OTP	6
FTP-08MMBOX-OTP	8
FTP-10MMBOX-OTP	10

Tech Sheet 10019



Contents:

6mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	10 x Equal Tees 2175-1038	10 x Equal Connectors 2175-1024	2 x Equal Bulkheads 2175-1057
8 x Equal Elbows 2175-1033	8 x 1/8" BSPT Male Stud Elbows 2175-0909	5 x 1/4" BSPT Male Stud Elbows 2175-0910	
5 x 1/4" BSPP Female Bulkheads 2175-1009	4 x 6mm Equal Ys 2175-1043	2 x Shut Off Valves 2175-1127	
10 x 1/8" BSPP Male Studs 2175-0873	10 x 1/4" BSPP Male Studs 2175-0874	2 x 1/8" BSPT Single Banjos 2175-1085	
5 x M5 Male Studs 2175-0854	10 x 1/8" BSPT Male Studs 2175-0856	10 x 1/4" BSPT Male Studs 2175-0857	

8mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	8 x Equal Tees 2175-1039	10 x Equal Connectors 2175-1025	2 x Equal Bulkheads 2175-1058
5 x Equal Elbows 2175-1034	6 x 1/8" BSPT Male Stud Elbows 2175-0913	5 x 1/4" BSPT Male Stud Elbows 2175-0914	
2 x 1/4" BSPP Female Bulkheads 2175-1013	4 x Equal Ys 2175-1044	2 x Shut Off Valves 2175-1129	
10 x 1/8" BSPT Male Studs 2175-0860	10 x 1/4" BSPT Male Studs 2175-0861	4 x 1/8" BSPT Single Banjos 2175-1088	
10 x 1/8" BSPP Male Studs 2175-0876	10 x 1/4" BSPP Male Studs 2175-0877	6 x 3/8" BSPP Male Studs 2175-0878	

10mm

Plastic Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	5 x Equal Tees 2175-1040	6 x Equal Connectors 2175-1026	2 x Equal Bulkheads 2175-1059
3 x Equal Elbows 2175-1035	2 x 1/8" BSPT Male Stud Elbows 2175-0917	2 x 1/4" BSPT Male Stud Elbows 2175-0918	
3 x 1/4" BSPP Female Bulkheads 2175-1017	2 x Equal Ys 2175-1045	1 x Speed Control Valve 2175-1154	
8 x 1/8" BSPP Male Studs 2175-0880	6 x 1/4" BSPP Male Studs 2175-0881	2 x 3/8" BSPT Single Banjos 2175-1092	
7 x 3/8" BSPT Male Studs 2175-0864	7 x 1/4" BSPT Male Studs 2175-0865	2 x 3/8" BSPT Male Studs 2175-0866	

*Dependent upon tubing specification.

ONE TOUCH+ PLASTIC PUSH-IN FITTINGS (16 BAR RATED)



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
16 bar (220 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Studs



Male Thread, Metric & BSPT

1103	OD mm	Thread
2175-0849	4	M5
2175-0850	4	M6
2175-0851	4	1/8"
2175-0852	4	1/4"
2175-0853	4	3/8"
2175-0854	6	M5
2175-0855	6	M6
2175-0856	6	1/8"
2175-0857	6	1/4"
2175-0858	6	3/8"
2175-0859	6	1/2"
2175-0860	8	1/8"
2175-0861	8	1/4"
2175-0862	8	3/8"
2175-0863	8	1/2"
2175-0864	10	1/8"
2175-0865	10	1/4"
2175-0866	10	3/8"
2175-0867	10	1/2"
2175-0868	12	1/4"
2175-0869	12	3/8"
2175-0870	12	1/2"
2207-0684	14	3/8"
2207-0685	14	1/2"
2207-0686	16	3/8"
2207-0687	16	1/2"

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Male Thread, BSPP

1103	OD mm	Thread
2175-0871	4	1/8"
2175-0872	4	1/4"
2175-0873	6	1/8"
2175-0874	6	1/4"
2175-0875	6	3/8"
2175-0876	8	1/8"
2175-0877	8	1/4"
2175-0878	8	3/8"
2175-0879	8	1/2"
2175-0880	10	1/8"
2175-0881	10	1/4"
2175-0882	10	3/8"
2175-0883	10	1/2"
2175-0884	12	1/4"
2175-0885	12	3/8"
2175-0886	12	1/2"
2207-0688	14	3/8"
2207-0689	14	1/2"
2207-0690	16	3/8"
2207-0691	16	1/2"

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Female Studs



Female Thread, BSPP

1103	OD mm	Thread
2175-0887	4	1/8"
2175-0888	4	1/4"
2175-0889	6	1/8"
2175-0890	6	1/4"
2175-0891	6	3/8"
2175-0892	8	1/8"
2175-0893	8	1/4"
2175-0894	8	3/8"
2175-0895	8	1/2"
2175-0896	10	1/8"
2175-0897	10	1/4"
2175-0898	10	3/8"
2175-0899	10	1/2"
2175-0900	12	1/4"
2175-0901	12	3/8"
2175-0902	12	1/2"
2207-0692	14	3/8"
2207-0693	14	1/2"
2207-0694	16	3/8"
2207-0695	16	1/2"

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Female Elbow



BSPP x Tube

1103	OD mm	Thread
2207-0800	4	1/8"
2207-0801	4	1/4"
2207-0802	6	1/8"
2207-0803	6	1/4"
2207-0804	6	3/8"
2207-0806	8	1/8"
2207-0807	8	1/4"
2207-0808	8	3/8"
2207-0809	8	1/2"
2207-0810	10	1/8"
2207-0811	10	1/4"
2207-0812	10	3/8"
2207-0813	10	1/2"
2207-0814	12	1/4"
2207-0815	12	3/8"
2207-0816	12	1/2"

Male Stud Swivel Elbows



Male Thread, Metric & BSPT

1103	OD mm	Thread
2175-0903	4	M5
2175-0904	4	M6
2175-0905	4	1/8"
2175-0906	4	1/4"
2175-0907	6	M5
2175-0908	6	M6
2175-0909	6	1/8"
2175-0910	6	1/4"
2175-0911	6	3/8"
2175-0912	6	1/2"
2175-0913	8	1/8"
2175-0914	8	1/4"
2175-0915	8	3/8"
2175-0916	8	1/2"
2175-0917	10	1/8"
2175-0918	10	1/4"
2175-0919	10	3/8"
2175-0920	10	1/2"
2175-0921	12	1/4"
2175-0922	12	3/8"
2175-0923	12	1/2"
2207-0696	14	3/8"
2207-0697	14	1/2"
2207-0698	16	3/8"
2207-0699	16	1/2"

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Male Thread, BSPP

1103	OD mm	Thread
2175-0924	4	1/8"
2175-0925	4	1/4"
2175-0926	6	1/8"
2175-0927	6	1/4"
2175-0928	6	3/8"
2207-0714	6	1/2"
2175-0929	8	1/8"
2175-0930	8	1/4"
2175-0931	8	3/8"
2175-0932	8	1/2"
2175-0933	10	1/8"
2175-0934	10	1/4"
2175-0935	10	3/8"
2175-0936	10	1/2"
2175-0937	12	1/4"
2175-0938	12	3/8"
2175-0939	12	1/2"
2207-0700	14	3/8"
2207-0701	14	1/2"
2207-0702	16	3/8"
2207-0703	16	1/2"

Tech Sheet 10019

ONE TOUCH+ PLASTIC PUSH-IN FITTINGS (16 BAR RATED)



Working Temperature:
0°C to +60°C

Maximum Working Pressure:
16 bar (220 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10 Torr)

Male Stud Swivel Elbows



Extended Male Thread, Metric & BSPT

1103	OD mm	Thread
2175-0940	4	M5
2175-0941	4	1/8"
2175-0942	4	1/4"
2175-0943	6	M5
2175-0944	6	1/8"
2175-0945	6	1/4"
2175-0946	6	3/8"
2175-0947	8	1/8"
2175-0948	8	1/4"
2175-0949	8	3/8"
2175-0950	10	1/8"
2175-0951	10	1/4"
2175-0952	10	3/8"
2175-0953	10	1/2"
2175-0954	12	1/4"
2175-0956	12	1/2"

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Extended Male Thread, BSPP

1103	OD mm	Thread
2175-0957	4	1/8"
2175-0958	4	1/4"
2175-0959	6	1/8"
2175-0960	6	1/4"
2175-0961	6	3/8"
2175-0962	8	1/8"
2175-0963	8	1/4"
2175-0964	10	1/8"
2175-0965	10	1/4"
2175-0966	10	3/8"
2175-0967	12	3/8"

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Male Stud Swivel Tees



Run Male Thread, BSPP

1103	OD mm	Thread
2175-0968	4	1/8"
2175-0969	4	1/4"
2175-0970	6	1/8"
2175-0971	6	1/4"
2175-0972	8	1/4"
2175-0973	10	1/4"

Tech Sheet 10019



Branch Male Thread, BSPP

1103	OD mm	Thread
2175-0974	4	1/8"
2175-0975	4	1/4"
2175-0976	6	1/8"
2175-0977	6	1/4"
2175-0978	6	3/8"
2175-0979	8	1/8"
2175-0980	8	1/4"
2175-0981	8	3/8"
2175-0982	8	1/2"
2175-0983	10	1/8"
2175-0984	10	1/4"
2175-0985	10	3/8"
2175-1160	10	1/2"
2175-0986	12	1/4"
2175-0987	12	3/8"
2175-0988	12	1/2"

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BSPT x Tube

1103	OD mm	Thread
2175-1170	4	M5
2175-1171	4	1/8"
2175-1172	4	1/4"
2175-1173	6	M5
2175-1174	6	1/8"
2175-1175	6	1/4"
2175-1176	6	3/8"
2175-1177	6	1/2"
2175-1178	8	1/8"
2175-1179	8	1/4"
2175-1180	8	3/8"
2175-1181	8	1/2"
2175-1182	10	1/8"
2175-1183	10	1/4"
2175-1184	10	3/8"
2175-1185	10	1/2"
2175-1186	12	1/4"

BSPT & Metric

1103	OD mm	Thread
2176-0001	4	M5
2176-0002	4	1/8"
2176-0003	4	1/4"
2176-0004	4	3/8"
2176-0005	6	M5
2176-0006	6	1/8"
2176-0007	6	1/4"
2176-0009	8	1/8"
2176-0011	8	3/8"
2176-0012	8	1/2"
2176-0015	10	3/8"
2176-0016	10	1/2"
2176-0018	12	3/8"
2176-0019	12	1/2"
2176-0020	16	3/8"
2176-0021	16	1/2"



ONE TOUCH+ PLASTIC PUSH-IN FITTINGS (16 BAR RATED)



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
16 bar (220 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10Torr)

Female Bulkhead Connectors



Female Thread, BSPP

1103	OD mm	Thread
2175-1006	4	1/8"
2175-1007	4	1/4"
2175-1008	6	1/8"
2175-1009	6	1/4"
2175-1010	6	3/8"
2175-1011	6	1/2"
2175-1012	8	1/8"
2175-1013	8	1/4"
2175-1014	8	3/8"
2175-1015	8	1/2"
2175-1016	10	1/8"
2175-1017	10	1/4"
2175-1018	10	3/8"
2175-1019	10	1/2"
2175-1020	12	1/4"
2175-1021	12	3/8"
2175-1022	12	1/2"

Tech Sheet 10019

Male Stud Swivel Ys



Male Thread, Metric & BSPP

1103	OD mm	Thread
2175-0989	4	M5
2175-0990	4	1/8"
2174-1001	4	1/4"
2175-0991	6	M5
2175-0992	6	1/8"
2175-0993	6	1/4"
2175-0994	6	3/8"
2174-1002	6	1/2"
2175-0995	8	1/8"
2175-0996	8	1/4"
2175-0997	8	3/8"
2175-0998	8	1/2"
2175-0999	10	1/8"
2175-1000	10	1/4"
2175-1001	10	3/8"
2175-1002	10	1/2"
2175-1003	12	1/4"
2175-1004	12	3/8"
2175-1005	12	1/2"

Tech Sheet 10019

Tube x Tube Connectors



Equal Straights

1103	OD mm
2175-1023	4
2175-1024	6
2175-1025	8
2175-1026	10
2175-1027	12
2207-0704	14
2207-0705	16

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Unequal Straights

1103	OD mm	OD mm
2175-1028	6	4
2174-1005	8	4
2175-1029	8	6
2175-1030	10	8
2174-1010	12	6
2174-1015	12	8
2175-1031	12	10
2174-1020	16	12

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Equal Elbows

1103	OD mm
2175-1032	4
2175-1033	6
2175-1034	8
2175-1035	10
2175-1036	12
2207-0706	14
2207-0707	16

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Equal Tees

1103	OD mm
2175-1037	4
2175-1038	6
2175-1039	8
2175-1040	10
2175-1041	12
2207-0708	14
2207-0709	16

Tech Sheet 10019

Reducing on Branch Tees



Tube x Tube

1103	OD A mm	OD B mm	OD C mm
2174-1030	6	4	6
2174-1031	8	6	8
2174-1032	10	8	10
2174-1033	12	10	12

Tube x Tube Connectors



Equal Ys

1103	OD mm
2175-1042	4
2175-1043	6
2175-1044	8
2175-1045	10
2175-1046	12
2207-0710	14
2207-0711	16

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Unequal Ys

1103	OD mm	OD mm
2175-1047	4	6
2175-1048	6	8
2175-1049	8	10
2175-1050	10	12

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ONE TOUCH+ PLASTIC PUSH-IN FITTINGS (16 BAR RATED)



Working Temperature:
0°C to +60°C

Maximum Working Pressure:
16 bar (220 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10Torr)

Tube x Tube Connectors



Equal Crosses

1103	OD mm
2175-1051	4
2175-1052	6
2175-1053	8
2175-1054	10
2175-1055	12
Tech Sheet 10019	



Equal Bulkheads

1103	OD mm
2175-1056	4
2175-1057	6
2175-1058	8
2175-1059	10
2175-1060	12
2174-1040	16
Tech Sheet 10019	



For **Control Valves**
see page **1056**

Tube x Stem Connectors



Straights, Tube x Stem

1103	OD mm	Stem OD mm
2175-1061	4	6
2175-1062	4	8
2175-1063	6	8
2175-1064	6	10
2175-1065	8	10
2174-1070	8	12
2175-1066	10	12
Tech Sheet 10019		



Elbows, Tube x Stem

1103	OD mm	Stem OD mm
2175-1067	4	4
2175-1068	6	6
2175-1069	8	8
2175-1070	10	10
2175-1071	12	12
Tech Sheet 10019		



Ys, Tube x Stem

1103	OD mm	Stem OD mm
2175-1072	6	6
2175-1073	8	8
2175-1074	10	10
2174-1081	12	12
Tech Sheet 10019		

Plugs



Tube

1103	OD mm
2175-1075	4
2175-1076	6
2175-1077	8
2175-1078	10
2175-1079	12
Tech Sheet 10019	

Blanking Cap



1103	OD mm
2174-2000	4
2174-2001	6
2174-2002	8
2174-2003	10
2174-2004	12

Single Banjos



Male Thread, Metric & BSPT

1103	OD mm	Thread
2175-1080	4	M5
2175-1081	4	M6
2175-1082	4	1/8"
2174-2006	4	1/4"
2175-1083	6	M5
2175-1084	6	M6
2175-1085	6	1/8"
2175-1086	6	1/4"
2175-1087	6	3/8"
2175-1088	8	1/8"
2175-1089	8	1/4"
2175-1090	8	3/8"
2174-2008	10	1/8"
2175-1091	10	1/4"
2175-1092	10	3/8"
2175-1093	10	1/2"
2175-1094	12	1/4"
2175-1095	12	3/8"
2175-1096	12	1/2"
Tech Sheet 10019		

ONE TOUCH+ PLASTIC PUSH-IN FITTINGS (16 BAR RATED)



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
16 bar (220 psi)

Media:
Air and vacuum only.

Negative Pressure:
-750mm Hg (10Torr)

Reducing Manifolds



Tube x Male Thread, BSPP

1103	Inlet OD mm	Outlet OD mm	Thread
2174-3000	4	4	1/8"
2174-3001	4	4	1/4"
2174-3002	6	6	1/8"
2174-3003	6	6	1/4"
2174-3004	6	6	3/8"
2175-1097	6	4	1/8"
2174-3005	8	8	1/8"
2175-1098	8	4	1/4"
2175-1099	8	6	1/4"
2174-3006	8	8	1/4"
2174-3007	8	8	3/8"
2175-1100	10	8	3/8"

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Tube x Tube

1103	Inlet OD mm	Outlet OD mm
2175-1101	6	4
2175-1102	8	4
2175-1103	8	6
2175-1104	10	6
2175-1105	10	8

Tech Sheet 10019

Manual Shut Off Valves



BSPT x BSPT

1103	Thread	Thread
2175-1106	1/8"	1/8"
2175-1107	1/4"	1/8"
2175-1108	1/4"	1/4"
2175-1109	1/4"	3/8"
2175-1110	3/8"	3/8"
2175-1111	1/2"	3/8"
2175-1112	1/2"	1/2"

Tech Sheet 10019



Tube x BSPT

1103	OD mm	Thread
2175-1113	6	1/8"
2175-1114	6	1/4"
2175-1115	6	3/8"
2175-1116	8	1/8"
2175-1117	8	1/4"
2175-1118	8	3/8"
2175-1119	10	1/4"
2175-1120	10	3/8"
2175-1121	10	1/2"
2175-1122	12	1/4"
2175-1123	12	3/8"
2175-1124	12	1/2"

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Tube x Tube

1103	OD mm	OD mm
2175-1125	4	4
2175-1126	6	4
2175-1127	6	6
2175-1128	8	6
2175-1129	8	8
2175-1130	10	10
2175-1131	12	10
2175-1132	12	12

Tech Sheet 10019

Speed Control Valves



Tube x Metric & BSPT

1103	OD mm	Thread
2175-1133	4	M5
2175-1134	4	1/8"
2175-1135	4	1/4"
2175-1136	6	M5
2175-1137	6	M6
2175-1138	6	1/8"
2175-1139	6	1/4"
2175-1140	6	3/8"
2175-1141	8	1/8"
2175-1142	8	1/4"
2175-1143	8	3/8"
2175-1144	8	1/2"
2175-1145	10	1/4"
2175-1146	10	3/8"
2175-1147	10	1/2"
2175-1148	12	1/4"
2175-1149	12	3/8"
2175-1150	12	1/2"

Tech Sheet 10019



Tube x Tube

1103	OD mm
2175-1151	4
2175-1152	6
2175-1153	8
2175-1154	10
2175-1155	12

Tech Sheet 10019



MICRO PUSH-IN FITTINGS

One Touch



Features:

- Convenient One Touch micro fittings provide instant connections
- Elliptical release ring
- 40% less volume and 20% smaller OD compared with standard One Touch fittings, making them ideal for use in confined spaces
- Light manual pressure on the elliptical release ring is all that is required to instantly disconnect each tube; no special tools required
- Nickel plated brass ensures anti-corrosion and anti-contamination
- Available in metric, parallel and taper BSP threads, imperial NPT and UNF threads
- All taper threaded fittings are pre-coated with PTFE sealant and require no additional sealing



Working Temperature:
-10°C to +60°C



Maximum Working Pressure
-0.8 bar to 10 bar

*Dependent upon tubing specification.

Construction:

Resin Body:	PBT
Metal Body:	Nickel-plated brass
Packing:	Nitrile
Back Ring:	POM
O-Ring:	Nitrile
Collar:	Nickel-plated zinc
Collet:	PBT
Collet Ring:	Nickel plated brass
Sleeve:	POM

MICRO ONE TOUCH METRIC PLASTIC PUSH-IN FITTINGS



Working Temperature:
0°C to +60°C

Maximum Working Pressure: 40% less volume and a 20% smaller OD than the standard One Touch design..
10 bar (150 psi)

Micro One Touch fittings are specially designed for pneumatic systems and are used in confined spaces, saving you time and money on installations.

Male Studs

Male Thread (Hex Body), Metric



0315	OD mm	Thread
PC03-M3C	3	M3
PC04-M3C	4	M3
PC03-M5C	3	M5
PC04-M5C	4	M5
PC06-M5C	6	M5
PC03-M6C	3	M6
PC04-M6C	4	M6
PC06-M6C	6	M6

Tech Sheet 10000

Male Thread (Hex Body), BSPT

0315	OD mm	Thread
PC04-01C	4	1/8"
PC06-01C	6	1/8"

Tech Sheet 10000

Male Thread (Hex Body), BSPP

0315	OD mm	Thread
PC04-G01C	4	1/8"
PC06-G01C	6	1/8"

Tech Sheet 10000

Male Stud Elbows

Male Thread, Metric



0315	OD mm	Thread
PL03-M3C	3	M3
PL04-M3C	4	M3
PL03-M5C	3	M5
PL04-M5C	4	M5
PL06-M5C	6	M5
PL03-M6C	3	M6
PL04-M6C	4	M6
PL06-M6C	6	M6

Tech Sheet 10000

Male Thread, BSPT

0315	OD mm	Thread
PL04-01C	4	1/8"
PL06-01C	6	1/8"

Tech Sheet 10000

Male Thread, BSPP

0315	OD mm	Thread
PL04-G01C	4	1/8"
PL06-G01C	6	1/8"

Tech Sheet 10000

Male Thread (Round Body), Metric



0315	OD mm	Thread
POC03-M3C	3	M3
POC04-M3C	4	M3
POC03-M5C	3	M5
POC04-M5C	4	M5
POC06-M5C	6	M5
POC03-M6C	3	M6
POC04-M6C	4	M6
POC06-M6C	6	M6

Tech Sheet 10000

Male Thread (Round Body), BSPT

0315	OD mm	Thread
POC04-01C	4	1/8"
POC06-01C	6	1/8"

Tech Sheet 10000

Male Thread (Round Body), BSPP

0315	OD mm	Thread
POC04-G01C	4	1/8"
POC06-G01C	6	1/8"

Tech Sheet 10000

Female Studs

Female Thread (Hex Body), Metric



0315	OD mm	Thread
PCF03-M3C	3	M3
PCF04-M3C	4	M3
PCF03-M5C	3	M5
PCF04-M5C	4	M5
PCF06-M5C	6	M5
PCF03-M6C	3	M6
PCF04-M6C	4	M6
PCF06-M6C	6	M6

Tech Sheet 10000

Female Thread (Hex Body), BSPT

0315	OD mm	Thread
PCF04-01C	4	1/8"
PCF06-01C	6	1/8"

Tech Sheet 10000

Female Thread (Hex Body), BSPP

0315	OD mm	Thread
PCF04-G01C	4	1/8"
PCF06-G01C	6	1/8"

Tech Sheet 10000

Male Stud Tees

Branch Male Thread, Metric



0315	OD mm	Thread
PT03-M3C	3	M3
PT04-M3C	4	M3
PT03-M5C	3	M5
PT04-M5C	4	M5
PT06-M5C	6	M5
PT03-M6C	3	M6
PT04-M6C	4	M6
PT06-M6C	6	M6

Tech Sheet 10000

Branch Male Thread, BSPT

0315	OD mm	Thread
PT04-01C	4	1/8"
PT06-01C	6	1/8"

Tech Sheet 10000

Branch Male Thread, BSPP

0315	OD mm	Thread
PT04-G01C	4	1/8"
PT06-G01C	6	1/8"

Tech Sheet 10000

MICRO ONE TOUCH METRIC PLASTIC PUSH-IN FITTINGS



Working Temperature:
0°C to +60°C

Maximum Working Pressure:
10 bar (150 psi)

40% less volume and a 20% smaller OD

than the standard One Touch design. Micro One Touch fittings are specially designed for pneumatic systems that are used in confined spaces, saving you time and money on installations.

Male Stud Tees



Run Male Thread, Metric

0315	OD mm	Thread
PST03-M3C	3	M3
PST04-M3C	4	M3
PST03-M5C	3	M5
PST04-M5C	4	M5
PST06-M5C	6	M5
PST03-M6C	3	M6
PST04-M6C	4	M6
PST06-M6C	6	M6

Tech Sheet 10000

Run Male Thread, BSPT

0315	OD mm	Thread
PST04-01C	4	1/8"
PST06-01C	6	1/8"

Tech Sheet 10000

Run Male Thread, BSPP

0315	OD mm	Thread
PST04-G01C	4	1/8"
PST06-G01C	6	1/8"

Tech Sheet 10000



You might also need
Polyurethane Coil Assemblies
see page 900

Equal Connectors



Straights

0315	OD mm
PUC03C	3
PUC04C	4
PUC06C	6

Tech Sheet 10000



Elbows

0315	OD mm
PUL03C	3
PUL04C	4
PUL06C	6

Tech Sheet 10000



Tees

0315	OD mm
PUT03C	3
PUT04C	4
PUT06C	6

Tech Sheet 10000



Ys

0315	OD mm
PY04C	4
PY06C	6

Tech Sheet 10000

Bulkheads



Equal Elbows

0315	OD mm
PLM04C	4
PLM06C	6

Tech Sheet 10000



Customers who bought from this page also purchased **Metric Nylon Tubing** see page 913

MICRO ONE TOUCH IMPERIAL NPT & UNF PLASTIC PUSH-IN FITTINGS



Working Temperature:
0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

40% less volume and a 20% smaller OD than the standard One Touch design.

Micro One Touch fittings are specially designed for pneumatic systems and are used in confined spaces, saving you time and money on installations.

Male Studs



Male Thread (Hex Body), NPT

0315	OD	Thread
PC1/8-N00C	1/8"	1/16"
PC5/32-N00C	5/32"	1/16"
PC1/4-N00C	1/4"	1/16"
PC1/8-N01C	1/8"	1/8"
PC5/32-N01C	5/32"	1/8"
PC1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Male Thread (Hex Body), UNF

0315	OD	Thread mm
PC1/8-U10C	1/8"	10-32
PC5/32-U10C	5/32"	10-32
PC1/4-U10C	1/4"	10-32

Tech Sheet 10001



Male Thread (Round Body), NPT

0315	OD	Thread
POC1/8-N00C	1/8"	1/16"
POC5/32-N00C	5/32"	1/16"
POC1/4-N00C	1/4"	1/16"
POC1/8-N01C	1/8"	1/8"
POC5/32-N01C	5/32"	1/8"
POC1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Male Thread (Round Body), UNF

0315	OD	Thread mm
POC1/8-U10C	1/8"	10-32
POC5/32-U10C	5/32"	10-32
POC1/4-U10C	1/4"	10-32

Tech Sheet 10001

Female Studs



Female Thread, NPT

0315	OD	Thread
PCF5/32-N00C	5/32"	1/16"
PCF1/4-N00C	1/4"	1/16"
PCF1/8-N01C	1/8"	1/8"
PCF5/32-N01C	5/32"	1/8"
PCF1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Female Thread, UNF

0315	OD	Thread mm
PCF1/8-U10C	1/8"	10-32
PCF5/32-U10C	5/32"	10-32
PCF1/4-U10C	1/4"	10-32

Tech Sheet 10001



You might also need
Hose & Tube Cutters
see page 905

Male Stud Elbows



Male Thread, NPT

0315	OD	Thread
PL1/8-N00C	1/8"	1/16"
PL5/32-N00C	5/32"	1/16"
PL1/4-N00C	1/4"	1/16"
PL1/8-N01C	1/8"	1/8"
PL5/32-N01C	5/32"	1/8"
PL1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Male Thread, UNF

0315	OD	Thread mm
PL1/8-U10C	1/8"	10-32
PL5/32-U10C	5/32"	10-32
PL1/4-U10C	1/4"	10-32

Tech Sheet 10001



Extended Male Thread, NPT

0315	OD	Thread
PLL1/8-N00C	1/8"	1/16"
PLL5/32-N00C	5/32"	1/16"
PLL1/4-N00C	1/4"	1/16"
PLL1/8-N01C	1/8"	1/8"
PLL5/32-N01C	5/32"	1/8"
PLL1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Extended Male Thread, UNF

0315	OD	Thread mm
PLL1/8-U10C	1/8"	10-32
PLL5/32-U10C	5/32"	10-32
PLL1/4-U10C	1/4"	10-32

Tech Sheet 10001

MICRO ONE TOUCH IMPERIAL NPT & UNF PLASTIC PUSH-IN FITTINGS



Working Temperature:
0°C to +60°C

Maximum Working Pressure:
10 bar (150 psi)

40% less volume and a 20% smaller OD than the standard One Touch design.

Micro One Touch fittings are specially designed for pneumatic systems and are used in confined spaces, saving you time and money on installations.

Male Stud Tees



Branch Male Thread, NPT

0315	OD	Thread
PT1/8-N00C	1/8"	1/16"
PT5/32-N00C	5/32"	1/16"
PT1/4-N00C	1/4"	1/16"
PT1/8-N01C	1/8"	1/8"
PT5/32-N01C	5/32"	1/8"
PT1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Branch Male Thread, UNF

0315	OD	Thread mm
PT1/8-U10C	1/8"	10-32
PT5/32-U10C	5/32"	10-32
PT1/4-U10C	1/4"	10-32

Tech Sheet 10001



Run Male Thread, NPT

0315	OD	Thread
PST1/8-N00C	1/8"	1/16"
PST5/32-N00C	5/32"	1/16"
PST1/4-N00C	1/4"	1/16"
PST1/8-N01C	1/8"	1/8"
PST1/4-N01C	1/4"	1/8"

Tech Sheet 10001

Run Male Thread, UNF

0315	OD	Thread mm
PST1/8-U10C	1/8"	10-32
PST5/32-U10C	5/32"	10-32
PST1/4-U10C	1/4"	10-32

Tech Sheet 10001

Equal Connectors



Straights

0315	OD
PUC1/8C	1/8"
PUC5/32C	5/32"
PUC1/4C	1/4"

Tech Sheet 10001



Elbows

0315	OD
PUL1/8C	1/8"
PUL5/32C	5/32"
PUL1/4C	1/4"

Tech Sheet 10001



Tees

0315	OD
PUT1/8C	1/8"
PUT5/32C	5/32"
PUT1/4C	1/4"

Tech Sheet 10001



Ys

0315	OD
PY5/32C	5/32"
PY1/4C	1/4"

Tech Sheet 10001

Bulkheads



Equal Straights

0315	OD
PMM1/8C	1/8"
PMM5/32C	5/32"
PMM1/4C	1/4"

Tech Sheet 10001



Equal Elbows

0315	OD
PLM1/8C	1/8"
PLM5/32C	5/32"
PLM1/4C	1/4"

Tech Sheet 10001

Speed Control Valves



Male Thread, UNF

0315	OD	Thread mm
NSE1/8-U10C	1/8"	10-32
NSE5/32-U10C	5/32"	10-32
NSE1/4-U10C	1/4"	10-32

Tech Sheet 10001

CHECK & STOP VALVES



Working Temperature:
Brass: 0°C to +60°C
Acetal: 0°C to +60°C



Maximum Working Pressure:
10 bar (150 psi)

Media:

Air and vacuum only.

Negative Pressure:

-750mm Hg (10Torr)

Cracking Pressure:

0.3 bar to 0.5 bar (5 psi to 7.5 psi)

Check Valves

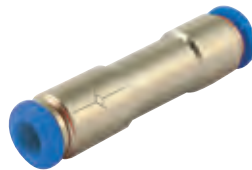
Free flow thread to tube



Tube x BSPT

1060	OD mm	Thread
PCVC04-01	4	1/8"
PCVC04-02	4	1/4"
PCVC06-01	6	1/8"
PCVC06-02	6	1/4"
PCVC08-01	8	1/8"
PCVC08-02	8	1/4"
PCVC10-02	10	1/4"
PCVC10-03	10	3/8"
PCVC12-02	12	1/4"
PCVC12-03	12	3/8"

Tech Sheet 10134



Tube x Tube

1060	OD mm
PCVU04	4
PCVU06	6
PCVU08	8
PCVU10	10

Tech Sheet 10134

Female x Female, BSPT

1060	Thread
PCFF01-01	1/8"
PCFF02-02	1/4"
PCFF03-03	3/8"
PCFF04-04	1/2"

Tech Sheet 10134

Free flow female to male



Male x Female, BSPP

1060	Thread
PCVF01-01	1/8"
PCVF02-02	1/4"
PCVF03-03	3/8"
PCVF04-04	1/2"

Tech Sheet 10134

Stop Valves, Self-sealing



Tube x BSPT

1060	OD mm	Thread
SPC06-02	6	1/4"
SPC08-02	8	1/4"
SPC08-03	8	3/8"
SPC10-02	10	1/4"
SPC10-03	10	3/8"
SPC10-04	10	1/2"
SPC12-03	12	3/8"
SPC12-04	12	1/2"

Tech Sheet 10134



Tube x Tube

1060	OD mm
SPU06	6
SPU08	8
SPU10	10
SPU12	12

Tech Sheet 10134



For Air Receivers & Accessories
see pages 433-434



LF 3000® PUSH-IN FITTINGS



Pre-coated Threads:

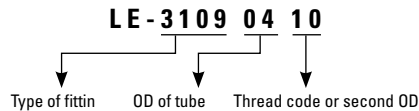
All taper threaded LF 3000 male fittings are supplied with a pre-coated thread for immediate installation.



Identification:

The part numbers have been chosen by a method of mnemonics. Each LF 3000 fitting is identified by

- Its series
- The diameter of passage through the fitting
- The thread code or second tube diameter



Seals:

All LF 3000 fittings with BSPP and M5 threads are supplied complete with an integral O-ring seal or a pre-assembled nylon sealing washer. This permits instant assembly of the fitting without preparation of the thread, and provides a fixed assembled height to the fitting



Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar

Vacuum Capability:

Vacuum of 755mm Hg (99% vacuum).

Suitable Fluids:

Compressed air, LF 3000 can also be used for conveying various types of liquids (water, cutting oil, etc) for industrial applications. The working pressure, from 0.6-10 bar and temperatures from 0-60°C, are dependent upon the fluid conveyed and the type of O-ring used. Silicone free.

Male Stud Fittings, Hexagonal



BSPT

1014	OD mm	Thread
LE-3175 04 10	4	1/8"
LE-3175 04 13	4	1/4"
LE-3175 06 10	6	1/8"
LE-3175 06 13	6	1/4"
LE-3175 06 17	6	3/8"
LE-3175 06 21	6	1/2"
LE-3175 08 10	8	1/8"
LE-3175 08 13	8	1/4"
LE-3175 08 17	8	3/8"
LE-3175 08 21	8	1/2"
LE-3175 10 13	10	1/4"
LE-3175 10 17	10	3/8"
LE-3175 10 21	10	1/2"
LE-3175 12 13	12	1/4"
LE-3175 12 17	12	3/8"
LE-3175 12 21	12	1/2"
LE-3175 14 17	14	3/8"
LE-3175 14 21	14	1/2"
LE-3175 16 17	16	3/8"
LE-3175 16 21	16	1/2"

Tech Sheet 10626

Metric & BSPP

1014	OD mm	Thread
LE-3101 03 09	3	M3 x 0.5
LE-3101 03 19	3	M5 x 0.8
LE-3101 04 09	4	M3 x 0.5
LE-3101 04 19	4	M5 x 0.8
LE-3101 04 55	4	M7 x 1
LE-3101 04 13	4	1/4"
LE-3101 06 19	6	M5 x 0.8
LE-3101 06 55	6	M7 x 1
LE-3101 06 10	6	1/8"
LE-3101 06 13	6	1/4"
LE-3101 06 17	6	3/8"
LE-3101 06 21	6	1/2"
LE-3101 08 10	8	1/8"
LE-3101 08 13	8	1/4"
LE-3101 08 17	8	3/8"
LE-3101 10 13	10	1/4"
LE-3101 10 17	10	3/8"
LE-3101 10 21	10	1/2"
LE-3101 12 13	12	1/4"
LE-3101 12 17	12	3/8"
LE-3101 12 21	12	1/2"
LE-3101 14 21	14	1/2"
LE-3101 16 17	16	3/8"
LE-3101 16 21	16	1/2"

Tech Sheet 10626

Female Stud Fittings



Metric & BSPP

1014	OD mm	Thread
LE-3114 04 19	4	M5 x 0.8
LE-3114 04 10	4	1/8"
LE-3114 04 13	4	1/4"
LE-3114 06 10	6	1/8"
LE-3114 06 13	6	1/4"
LE-3114 08 10	8	1/8"
LE-3114 08 13	8	1/4"
LE-3114 08 17	8	3/8"
LE-3114 10 13	10	1/4"
LE-3114 10 17	10	3/8"
LE-3114 10 21	10	1/2"
LE-3114 12 17	12	3/8"
LE-3114 12 21	12	1/2"

Tech Sheet 10626



Partnership brands available



Hydraulic Accumulators & Accessories

See section 1 pages 227-228



Hydraulic Oil Coolers

See section 1 page 273



Pneumatic Quick Release Couplings

See section 3 pages 330-390



Filters & Drains Air, Water & Vacuum

See section 4 page 430



Plastic Push-in Fittings

See section 6 pages 800-803



Ball & Check Valves

See section 5 pages 628



Plastic Push-in Fittings

See section 6 pages 793-807



Metal Push-in Fittings

See section 6 pages 848-851



Ball Valves

See section 7 pages 933-935



Blow Guns

See section 15 page 1596



Aluminium Ring Main Systems

See section 8 pages 1063-1067



ENGINEERING YOUR SUCCESS.

LF 3000® PUSH-IN FITTINGS



Male Stud Elbows



BSPT

1014	OD mm	Thread
LE-3109 04 10	4	1/8"
LE-3109 04 13	4	1/4"
LE-3109 06 10	6	1/8"
LE-3109 06 13	6	1/4"
LE-3109 06 17	6	3/8"
LE-3109 06 21	6	1/2"
LE-3109 08 10	8	1/8"
LE-3109 08 13	8	1/4"
LE-3109 08 17	8	3/8"
LE-3109 08 21	8	1/2"
LE-3109 10 13	10	1/4"
LE-3109 10 17	10	3/8"
LE-3109 10 21	10	1/2"
LE-3109 12 13	12	1/4"
LE-3109 12 17	12	3/8"
LE-3109 12 21	12	1/2"
LE-3109 14 17	14	3/8"
LE-3109 14 21	14	1/2"
LE-3109 16 17	16	3/8"
LE-3109 16 21	16	1/2"

Tech Sheet 10626



Metric & BSPP

1014	OD mm	Thread
LE-3199 03 19	3	M5 x 0.8
LE-3199 04 09	4	M3 x 0.5
LE-3199 04 19	4	M5 x 0.8
LE-3199 04 55	4	M7 x 1
LE-3199 04 10	4	1/8"
LE-3199 04 13	4	1/4"
LE-3199 06 19	6	M5 x 0.8
LE-3199 06 55	6	M7 x 1
LE-3199 06 10	6	1/8"
LE-3199 06 13	6	1/4"
LE-3199 06 17	6	3/8"
LE-3199 06 21	6	1/2"
LE-3199 08 10	8	1/8"
LE-3199 08 13	8	1/4"
LE-3199 08 17	8	3/8"
LE-3199 08 21	8	1/2"
LE-3199 10 13	10	1/4"
LE-3199 10 17	10	3/8"
LE-3199 10 21	10	1/2"
LE-3199 12 13	12	1/4"
LE-3199 12 21	12	1/2"
LE-3199 14 17	14	3/8"
LE-3199 14 21	14	1/2"
LE-3199 16 17	16	3/8"
LE-3199 16 21	16	1/2"

Tech Sheet 10626

Extended Male Stud Elbows



BSPT

1014	OD mm	Thread
LE-3129 04 13	4	1/4"
LE-3129 06 10	6	1/8"
LE-3129 06 13	6	1/4"
LE-3129 08 10	8	1/8"
LE-3129 08 13	8	1/4"
LE-3129 08 17	8	3/8"
LE-3129 10 17	10	3/8"
LE-3129 12 13	12	1/4"
LE-3129 12 17	12	3/8"
LE-3129 12 21	12	1/2"
LE-3129 14 21	14	1/2"

Tech Sheet 10626



Metric & BSPP

1014	OD mm	Thread
LE-3169 04 19	4	M5 x 0.8
LE-3169 04 13	4	1/4"
LE-3169 06 19	6	M5 x 0.8
LE-3169 06 10	6	1/8"
LE-3169 06 13	6	1/4"

Tech Sheet 10626

45° Male Elbows



BSPT

1014	OD mm	Thread
LE-3113 04 10	4	1/8"
LE-3113 06 10	6	1/8"
LE-3113 06 13	6	1/4"
LE-3113 08 13	8	1/4"
LE-3113 08 17	8	3/8"
LE-3113 10 13	10	1/4"
LE-3113 10 17	10	3/8"
LE-3113 12 17	12	3/8"

Tech Sheet 10626



Metric & BSPP

1014	OD mm	Thread
LE-3133 04 19	4	M5 x 0.8
LE-3133 06 19	6	M5 x 0.8
LE-3133 06 10	6	1/8"

Tech Sheet 10626

Female Stud Elbows



BSPP

1014	OD mm	Thread
LE-3192 04 10	4	1/8"
LE-3192 04 13	4	1/4"
LE-3192 06 10	6	1/8"
LE-3192 06 13	6	1/4"
LE-3192 08 10	8	1/8"
LE-3192 08 13	8	1/4"
LE-3192 08 17	8	3/8"
LE-3192 10 13	10	1/4"
LE-3192 10 17	10	3/8"
LE-3192 12 13	12	1/4"
LE-3192 12 17	12	3/8"
LE-3192 12 21	12	1/2"

Tech Sheet 10626



You might also need
Leak-free LIQUIfit Fittings
see pages 800-803

LF 3000® PUSH-IN FITTINGS

Male Stud Branch Tees



BSPT

1014	OD mm	Thread
LE-3108 04 10	4	1/8"
LE-3108 04 13	4	1/4"
LE-3108 06 10	6	1/8"
LE-3108 06 13	6	1/4"
LE-3108 08 10	8	1/8"
LE-3108 08 13	8	1/4"
LE-3108 10 13	10	1/4"
LE-3108 10 17	10	3/8"
LE-3108 10 21	10	1/2"
LE-3108 12 13	12	1/4"
LE-3108 12 17	12	3/8"
LE-3108 12 21	12	1/2"
LE-3108 14 21	14	1/2"
LE-3108 16 17	16	3/8"
LE-3108 16 21	16	1/2"

Tech Sheet 10626

Male Stud Run Tees



BSPT

1014	OD mm	Thread
LE-3103 04 13	4	1/4"
LE-3103 06 10	6	1/8"
LE-3103 08 10	8	1/8"
LE-3103 08 13	8	1/4"
LE-3103 10 13	10	1/4"
LE-3103 10 21	10	1/2"
LE-3103 12 13	12	1/4"
LE-3103 12 17	12	3/8"

Tech Sheet 10626

Metric & BSPP

1014	OD mm	Thread
LE-3193 04 19	4	M5 x 0.8
LE-3193 04 10	4	1/8"
LE-3193 06 19	6	M5 x 0.8
LE-3193 06 10	6	1/8"
LE-3193 08 10	8	1/8"
LE-3193 08 17	8	3/8"
LE-3193 10 13	10	1/4"
LE-3193 12 17	12	3/8"
LE-3193 14 21	14	1/2"

Tech Sheet 10626

Threaded Standpipes



Stem x BSPT

1014	Stem OD mm	Thread
LE-3121 04 13	4	1/4"
LE-3121 06 13	6	1/4"
LE-3121 10 17	10	3/8"

Tech Sheet 10626



Stem x BSPP

1014	Stem OD mm	Thread
LE-3131 08 13	8	1/4"
LE-3131 12 21	12	1/2"
LE-3131 14 17	14	3/8"

Tech Sheet 10626

Double Y Pieces



BSPT

1014	OD mm	Thread
LE-3112 06 13	6	1/4"

Tech Sheet 10626



BSPP

1014	OD mm	Thread
LE-3132 06 13	6	1/4"

Tech Sheet 10626

Twin Banjos



BSPP

1014	OD mm	Thread
LE-3149 04 10	4	1/8"
LE-3149 06 10	6	1/8"
LE-3149 06 13	6	1/4"
LE-3149 08 13	8	1/4"
LE-3149 08 17	8	3/8"

Tech Sheet 10626



Stacking Banjo Bolts



2 Body High Modules BSPP

1014	Thread
LE-3528 00 13	1/4"

Tech Sheet 10626



3 Body High Modules BSPP

1014	Thread
LE-3529 00 10	1/8"
LE-3529 00 13	1/4"

Tech Sheet 10626

Double Banjos



Metric & BSPP

1014	OD mm	Thread
LE-3119 04 19	4	M5 x 0.8
LE-3119 08 13	8	1/4"

Tech Sheet 10626

Single Banjo Bolts



BSPP

1014	Thread
LE-3527 00 10	1/8"
LE-3527 00 13	1/4"
LE-3527 00 17	3/8"

Tech Sheet 10626

Female Threaded Banjo Bolts



BSPP

1014	Thread	Thread
LE-3524 00 10	1/8"	1/8"
LE-3524 00 13	1/4"	1/4"

Tech Sheet 10626

Single Banjo Bodies



BSPP

1014	OD mm	Thread
LE-3538 06 10	6	1/8"
LE-3538 06 13	6	1/4"
LE-3538 08 13	8	1/4"

Tech Sheet 10626

LF 3000® PUSH-IN FITTINGS



Tube/Tube Connectors - Equal & Unequal



Equal

1014	OD mm
LE-3106 03 00	3
LE-3106 04 00	4
LE-3106 06 00	6
LE-3106 08 00	8
LE-3106 10 00	10
LE-3106 12 00	12
LE-3106 14 00	14
LE-3106 16 00	16

Tech Sheet 10626

Unequal

1014	OD mm	OD mm
LE-3106 03 04	3	4
LE-3106 04 06	4	6
LE-3106 04 08	4	8
LE-3106 06 08	6	8
LE-3106 06 10	6	10
LE-3106 08 10	8	10
LE-3106 10 12	10	12
LE-3106 12 14	12	14
LE-3106 12 16	16	12

Tech Sheet 10626

Bulkhead Connectors

All bulkhead fixing nuts are complete with an integral sealing ring for improved performance.



Equal

1014	OD mm
LE-3116 04 00	4
LE-3116 06 00	6
LE-3116 08 00	8
LE-3116 10 00	10
LE-3116 12 00	12
LE-3116 14 00	14

Tech Sheet 10626

Bulkhead Elbows

All bulkhead fixing nuts are complete with an integral sealing ring for improved performance.



Equal

1014	OD mm
LE-3139 04 00	4
LE-3139 06 00	6
LE-3139 08 00	8
LE-3139 10 00	10
LE-3139 12 00	12

Tech Sheet 10626

Single Y Pieces



Equal

1014	OD mm
LE-3140 04 00	4
LE-3140 06 00	6
LE-3140 08 00	8
LE-3140 10 00	10
LE-3140 12 00	12

Tech Sheet 10626

Unequal

1014	OD mm	OD mm
LE-3140 04 06	4	6
LE-3140 06 08	6	8
LE-3140 08 10	8	10
LE-3140 10 12	10	12

Tech Sheet 10626

Elbows



Equal

1014	OD mm
LE-3102 04 00	4
LE-3102 06 00	6
LE-3102 08 00	8
LE-3102 10 00	10
LE-3102 12 00	12
LE-3102 14 00	14
LE-3102 16 00	16

Tech Sheet 10626

Unequal

1014	OD mm	OD mm
LE-3102 04 06	4	6
LE-3102 06 08	6	8
LE-3102 08 10	8	10
LE-3102 10 12	10	12

Tech Sheet 10626

Female Bulkhead Connectors

All bulkhead fixing nuts are complete with an integral sealing ring for improved performance.



BSPP

1014	OD mm	Thread
LE-3136 04 10	4	1/8"
LE-3136 06 10	6	1/8"
LE-3136 06 13	6	1/4"
LE-3136 08 10	8	1/8"
LE-3136 08 13	8	1/4"
LE-3136 10 17	10	3/8"
LE-3136 12 17	12	3/8"

Tech Sheet 10626

Multiple Y Pieces



Equal

1014	OD mm
LE-3144 04 04	4
LE-3144 06 06	6

Tech Sheet 10626

Unequal

1014	OD mm	OD mm
LE-3144 04 06	4	6
LE-3144 06 08	6	8

Tech Sheet 10626

Tees



Equal

1014	OD mm
LE-3104 03 00	3
LE-3104 04 00	4
LE-3104 06 00	6
LE-3104 08 00	8
LE-3104 10 00	10
LE-3104 12 00	12
LE-3104 14 00	14
LE-3104 16 00	16

Tech Sheet 10626

Unequal, Branch

1014	OD mm	OD mm
LE-3104 04 06	4	6
LE-3104 06 04	6	4
LE-3104 06 08	6	8
LE-3104 08 06	8	6
LE-3104 08 10	8	10
LE-3104 10 08	10	8
LE-3104 10 12	10	12
LE-3104 12 10	12	10
LE-3104 16 12	16	12

Tech Sheet 10626

Mixed Bulkhead Connectors

All bulkhead fixing nuts are complete with an integral sealing ring for improved performance.



Push-in x Compression

1014	OD mm
LE-3146 04 00	4
LE-3146 06 00	6

Tech Sheet 10626

LF 3000® PUSH-IN FITTINGS

Unequal Multiple Elbow with Fixing Holes



Reducing Tube x Tube

1014	OD mm	OD mm
LE-3306 06 04	6	4
LE-3306 08 04	8	4
LE-3306 08 06	8	6
LE-3306 10 06	10	6
LE-3306 10 08	10	8

Tech Sheet 10626

Manifold with LF 3000 Push-in Connection



BSPP x Tube

1014	OD mm	Thread
LE-3310 04 13	4	1/4"
LE-3310 06 13	6	1/4"
LE-3310 08 17	8	3/8"

Tech Sheet 10626

Blanking Plugs



Tube

1014	OD mm
LE-3126 04 00	4
LE-3126 06 00	6
LE-3126 08 00	8
LE-3126 10 00	10
LE-3126 12 00	12
LE-3126 14 00	14
LE-3126 16 00	16

Tech Sheet 10626

Plug-in Equal & Unequal Compact Elbow with Plastic Tailpiece



Equal

1014	OD mm
LE-3182 04 00	4
LE-3182 06 00	6
LE-3182 08 00	8
LE-3182 10 00	10
LE-3182 12 00	12

Tech Sheet 10626

Unequal

1014	OD mm	Stem OD mm
LE-3182 04 06	4	6
LE-3182 06 04	6	4
LE-3182 06 08	6	8
LE-3182 08 10	8	10
LE-3182 10 12	10	12

Tech Sheet 10626

Extended Equal & Unequal Elbow with Plastic Tailpiece



Equal

1014	OD mm
LE-3184 12 00	12

Tech Sheet 10626

Unequal

1014	OD mm	Stem OD mm
LE-3184 08 10	8	10

Tech Sheet 10626

45° Equal Elbow with Plastic Tailpiece



Tube x Stem

1014	OD mm
LE-3180 04 00	4
LE-3180 08 00	8

Tech Sheet 10626

Cross Equal



Tube x Tube

1014	OD mm
LE-3107 06 00	6

Tech Sheet 10626

Plug-in Equal Compact Tee with Plastic Tailpiece



Tube x Stem

1014	OD mm
LE-3188 06 00	6
LE-3188 08 00	8

Tech Sheet 10626

Plug-in Equal & Unequal Single Y Piece



Reducing Tube x Stem

1014	OD mm	Stem OD mm
LE-3142 04 06	4	6
LE-3142 06 08	6	8
LE-3142 08 10	8	10

Tech Sheet 10626

Plug-in Equal Tee with Plastic Tailpiece



Tube x Stem

1014	OD mm	Stem OD mm
LE-3183 06 00	6	6
LE-3183 08 00	8	8

Tech Sheet 10626

Plug-in Multiple Y Piece



Tube x Stem

1014	OD mm	Stem OD mm
LE-3143 04 06	4	6

Tech Sheet 10626

Barbed Connector for Unequal Tube



Stem x Hose Tail

1014	Stem OD mm	To Suit Hose OD mm
LE-3122 04 53	4	5
LE-3122 06 05	6	7
LE-3122 08 56	8	6.3
LE-3122 10 08	10	10
LE-3122 12 10	12	12
LE-3122 12 62	12	14.5

Tech Sheet 10626

Double Male Stem Connector - Plastic



Tube x Tube

1014	OD mm
LE-3120 04 00	4
LE-3120 06 00	6
LE-3120 08 00	8
LE-3120 10 00	10

Tech Sheet 10626

Increaser



Tube x Stem

1014	OD mm	Stem OD mm
LE-3168 06 04	6	4
LE-3168 08 06	8	6
LE-3168 10 08	10	8
LE-3168 12 10	12	10

Tech Sheet 10626

LF 3000® PUSH-IN FITTINGS



Reducer



Tube x Stem

1014	OD mm	Stem OD mm
LE-3166 03 04	3	4
LE-3166 04 06	4	6
LE-3166 04 08	4	8
LE-3166 04 10	4	10
LE-3166 06 08	6	8
LE-3166 06 10	6	10
LE-3166 06 12	6	12
LE-3166 06 14	6	14
LE-3166 08 10	8	10
LE-3166 08 12	8	12
LE-3166 08 14	8	14
LE-3166 10 12	10	12
LE-3166 10 14	10	14
LE-3166 12 14	12	14

Tech Sheet 10626

LF 3000 Multi Connectors

The Legris multi connector is designed for simultaneous connection and disconnection of 2, 4, 7 and 12 tubes. Its LF 3000 technology and performance makes it easy to use:- instant connection and disconnection, without tools, - full flow, without restriction. In order to facilitate the installation, each tube outlet is numbered. A location pin avoids assembly errors and a cap helps to guide the tubes and to protect connections. To cover all users needs, this range can also be used for bulkhead connections.



Male Screw Body

1014	OD mm	No of Tubes
LE-3320 04 00 04	4	4
LE-3320 04 00 07	4	7
LE-3320 04 00 12	4	12
LE-3320 06 00 04	6	4
LE-3320 06 00 07	6	7

Tech Sheet 10626



Female Screw Body

1014	OD mm	No of Tubes
LE-3321 04 00 04	4	4
LE-3321 04 00 07	4	7
LE-3321 04 00 12	4	12
LE-3321 06 00 04	6	4
LE-3321 06 00 07	6	7

Tech Sheet 10626



Screw Cap

1014	No of Tubes
LE-3329 00 02	4 and 7

Tech Sheet 10626

DIN Rail Connections

These components are similar in principle to the electrical connectors found in control panels and are used to rationalise cabling and to assist trouble shooting. Used alongside electrical connectors, Legris DIN rail connectors provide similar facilities for pneumatics circuits, and are mounted on the same rail profile which allows electric and pneumatics to run side by side. All tube connections are Legris push-in fittings for plastic tubing

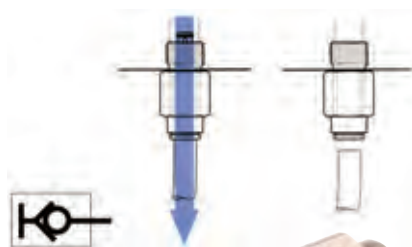


Connector for 2 Tubes In-line

1014	To Suit Hose OD mm
LE-3379 08 00	8

Tech Sheet 10626

Self-Sealing Male Stud Fittings



BSPP

1014	OD mm	Thread
LE-3391 04 10	4	1/8"
LE-3391 06 10	6	1/8"
LE-3391 08 13	8	1/4"
LE-3391 10 17	10	3/8"

Tech Sheet 10626

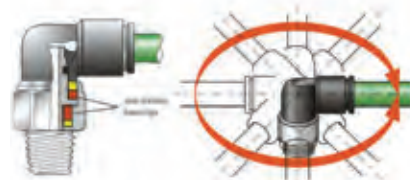
Clip Strips for Tubes



1014	To Suit Hose OD mm
LE-CLIP 04 00	4
LE-CLIP 06 00	6
LE-CLIP 08 00	8
LE-CLIP 10 00	10
LE-CLIP 12 00	12
LE-CLIP 14 00	14

Tech Sheet 10626

Oscillating Compact Elbows



BSPT

1014	OD mm	Thread
LE-3159 04 10	4	1/8"
LE-3159 06 10	6	1/8"
LE-3159 06 13	6	1/4"
LE-3159 08 10	8	1/8"
LE-3159 08 13	8	1/4"

Tech Sheet 10626



Metric & BSPP

1014	OD mm	Thread
LE-3189 04 19	4	M5 x 0.8
LE-3189 06 19	6	M5 x 0.8
LE-3189 06 10	6	1/8"
LE-3189 06 13	6	1/4"
LE-3189 08 10	8	1/8"
LE-3189 08 17	8	3/8"
LE-3189 10 13	10	1/4"
LE-3189 10 17	10	3/8"

Tech Sheet 10626

Coloured Release Button Covers for LF 3000 3rd Generation



1014	OD mm	Colour
LE-3110 14 00	14	White
LE-3110 14 02	14	Green
LE-3110 06 03	6	Red
LE-3110 14 03	14	Red
LE-3110 04 04	4	Blue
LE-3110 06 04	6	Blue
LE-3110 12 04	12	Blue
LE-3110 14 04	14	Blue
LE-3110 14 05	14	Yellow

Tech Sheet 10626

LEAK-FREE, PUSH-IN FITTINGS NPT THREADS X IMPERIAL TUBE

Introducing LIQUIfit™ a range of leak-free, push-in fittings in a bio-based compact body.

LIQUIfit™ offers:

- The most compact profile on the market
- EPDM patented sealing technology
- Full flo
- No pumping effect
- No need for locking clip or tube insert
- Optimum performance suitable for food and water contact
- 100% bio-based body and base



Working Temperature:

1/4"	+2°C to +38°C +65°C +93°C
3/8"	+2°C to +38°C +65°C +93°C
1/2"	+2°C to +38°C +65°C +93°C



Maximum Working Pressure:

16 bar
10 bar
6 bar
13 bar
7 bar
4 bar
11 bar
7 bar
4 bar

Suitable for use with chemicals and other potentially aggressive liquids. Please contact our technical department for full details.



Male Stud Fittings



Hexagonal, NPT

1014	OD	Thread
LE-6305 56 14W	1/4"	1/4"

Tech Sheet 10625

Equal Elbows



Tube x Tube

1014	OD
LE-6302 56 00W	1/4"
LE-6302 60 00W	3/8"
LE-6302 62 00W	1/2"

Tech Sheet 10625

Bulkhead Connectors



Tube x Tube

1014	OD
LE-6316 56 00W	1/4"
LE-6316 60 00W	3/8"
LE-6316 62 00W	1/2"

Tech Sheet 10625

Female Stud Fittings



NPT

1014	OD	Thread
LE-6315 56 14W	1/4"	1/4"
LE-6315 60 18W	3/8"	3/8"

Tech Sheet 10625

Straight Connectors



Equal, Tube x Tube

1014	OD
LE-6306 56 00W	1/4"
LE-6306 60 00W	3/8"
LE-6306 62 00W	3/8"

Tech Sheet 10625

Single Y Pieces



Tube x Tube

1014	OD
LE-6340 56 00W	1/4"
LE-6340 60 00W	3/8"
LE-6340 62 00W	1/2"

Tech Sheet 10625

Tees



Equal

1014	OD
LE-6304 56 00W	1/4"
LE-6304 60 00W	3/8"
LE-6304 62 00W	1/2"

Tech Sheet 10625

Tube/Tube Connectors



Unequal, Tube x Tube

1014	OD	OD
LE-6306 56 60W	1/4"	3/8"
LE-6306 60 62W	3/8"	1/2"

Tech Sheet 10625

Tube Blanking Caps



Tube

1014	OD
LE-6351 56 00W	1/4"
LE-6351 60 00W	3/8"

Tech Sheet 10625

LEAK-FREE, PUSH-IN FITTINGS NPT THREADS X IMPERIAL TUBE



Connectors



Tube x Hose Tail

1014	Stem OD	To Suit Hose ID
LE-6322 56 56W	1/4"	0.28
LE-6322 60 56W	3/8"	0.28
LE-6322 60 08W	3/8"	0.33
LE-6322 60 60W	3/8"	0.4
LE-6322 62 60W	1/2"	0.4

Tech Sheet 10625

Plugs



Tube

1014	OD
LE-6326 56 00W	1/4"

Tech Sheet 10625

Acetal Check Valves



Tube x Tube

1014	OD
LE-7992 56 00W	1/4"
LE-7992 60 00W	3/8"

Tech Sheet 10625

Tank Ball Valves



Tube x Female, NPT

1014	OD	Thread
LE-4022 56 14W	1/4"	1/4"
LE-4022 60 18W	3/8"	3/8"

Tech Sheet 10625

In-line Ball Valves



Tube x Tube

1014	OD
LE-4020 56 00W	1/4"
LE-4020 60 00W	3/8"

Tech Sheet 10625



Tube x Male, NPT

1014	OD	Thread
LE-4021 56 14W	1/4"	1/4"
LE-4021 60 18W	3/8"	3/8"

Tech Sheet 10625

Reducers



Tube x Stem

1014	OD	Stem OD
LE-6366 56 08W	1/4"	5/16"
LE-6366 56 60W	1/4"	3/8"
LE-6366 60 62W	3/8"	1/2"

Tech Sheet 10625

Plug-in Equal Compact Elbows



Tube x Stem

1014	OD
LE-6382 56 00W	1/4"
LE-6382 60 00W	3/8"
LE-6382 62 00W	1/2"

Tech Sheet 10625

Plug-in Equal Branch Tees



Tube x Stem

1014	OD
LE-6388 56 00W	1/4"
LE-6388 60 00W	3/8"

Tech Sheet 10625

LEAK-FREE, PUSH-IN FITTINGS BSP THREADS X METRIC TUBE



Male Stud Fittings



BSPT

1014	OD mm	Thread
LE-6505 04 10W	4	1/8"
LE-6505 04 13W	4	1/4"
LE-6505 06 10W	6	1/8"
LE-6505 06 13W	6	1/4"
LE-6505 08 10W	8	1/8"
LE-6505 08 13W	8	1/4"
LE-6505 08 17W	8	3/8"
LE-6505 10 13W	10	1/4"
LE-6505 10 17W	10	3/8"
LE-6505 10 21W	10	1/2"
LE-6505 12 17W	12	3/8"
LE-6505 12 21W	12	1/2"

Tech Sheet 10625

Female Stud Fittings



BSPT

1014	OD mm	Thread
LE-6315 06 10W	6	1/8"
LE-6315 06 13W	6	1/4"
LE-6315 08 13W	8	1/4"
LE-6315 08 17W	8	3/8"

Tech Sheet 10625

Fixed Male Stud Elbows



BSPT

1014	OD mm	Thread
LE-6579 06 10W	6	1/8"
LE-6579 06 13W	6	1/4"
LE-6579 06 17W	6	3/8"

Tech Sheet 10625

Swivel Male Stud Fittings



BSPT

1014	OD mm	Thread
LE-6509 06 10W	6	1/8"
LE-6509 06 13W	6	1/4"
LE-6509 06 17W	6	3/8"
LE-6509 08 10W	8	1/8"
LE-6509 08 13W	8	1/4"
LE-6509 08 17W	8	3/8"
LE-6509 10 13W	10	1/4"
LE-6509 10 17W	10	3/8"
LE-6509 10 21W	10	1/2"
LE-6509 12 17W	12	3/8"
LE-6509 12 21W	12	1/2"

Tech Sheet 10625

Tees



Equal

1014	OD mm
LE-6304 04 00W	4
LE-6304 06 00W	6
LE-6304 08 00W	8
LE-6304 10 00W	10
LE-6304 12 00W	12

Tech Sheet 10625

Swivel Branch Tees



BSPT

1014	OD mm	Thread
LE-6508 06 10W	6	1/8"
LE-6508 06 13W	6	1/4"
LE-6508 06 17W	6	3/8"
LE-6508 08 13W	8	1/4"
LE-6508 08 17W	8	3/8"
LE-6508 10 13W	10	1/4"
LE-6508 10 17W	10	3/8"
LE-6508 10 21W	10	1/2"
LE-6508 12 17W	12	3/8"
LE-6508 12 21W	12	1/2"

Tech Sheet 10625

Swivel Male Run Tees



BSPT

1014	OD mm	Thread
LE-6503 06 13W	6	1/4"
LE-6503 08 10W	8	1/8"
LE-6503 08 13W	8	1/4"
LE-6503 08 17W	8	3/8"
LE-6503 12 17W	12	3/8"
LE-6503 12 21W	12	1/2"

Tech Sheet 10625

Stem Adaptors



BSPT

1014	OD mm	Thread
LE-6521 06 10W	6	1/8"
LE-6521 06 13W	6	1/4"
LE-6521 06 17W	6	3/8"
LE-6521 08 10W	8	1/8"
LE-6521 08 13W	8	1/4"
LE-6521 08 17W	8	3/8"
LE-6521 10 13W	10	1/4"
LE-6521 10 17W	10	3/8"
LE-6521 10 21W	10	1/2"
LE-6521 12 17W	12	3/8"
LE-6521 12 21W	12	1/2"

Tech Sheet 10625

LEAK-FREE, PUSH-IN FITTINGS



Equal Elbows



Tube x Tube

1014	OD mm
LE-6302 04 00W	4
LE-6302 06 00W	6
LE-6302 08 00W	8
LE-6302 10 00W	10
LE-6302 12 00W	12

Tech Sheet 10625

Single Y Pieces



Tube x Tube

1014	OD mm
LE-6340 04 00W	4
LE-6340 06 00W	6
LE-6340 08 00W	8
LE-6340 10 00W	10
LE-6340 12 00W	12

Tech Sheet 10625

Plug-in Equal Compact Elbows



Tube x Stem

1014	OD mm
LE-6382 04 00W	4
LE-6382 06 00W	6
LE-6382 08 00W	8
LE-6382 10 00W	10
LE-6382 12 00W	12

Tech Sheet 10625

Straight Connectors



Equal, Tube x Tube

1014	OD mm
LE-6306 04 00W	4
LE-6306 06 00W	6
LE-6306 08 00W	8
LE-6306 10 00W	10
LE-6306 12 00W	12

Tech Sheet 10625

Tube Blanking Caps



Tube

1014	OD mm
LE-6351 04 00W	4
LE-6351 06 00W	6
LE-6351 08 00W	8
LE-6351 10 00W	10
LE-6351 12 00W	12

Tech Sheet 10625

Plug-in Equal Branch Tees



Tube x Stem

1014	OD mm
LE-6388 04 00W	4
LE-6388 06 00W	6
LE-6388 08 00W	8
LE-6388 10 00W	10

Tech Sheet 10625

Bulkhead Connectors



Tube x Tube

1014	OD mm
LE-6316 04 00W	4
LE-6316 06 00W	6
LE-6316 08 00W	8
LE-6316 10 00W	10
LE-6316 12 00W	12

Tech Sheet 10625

Reducers



Tube x Stem

1014	OD mm	Stem OD mm
LE-6366 04 06W	4	6
LE-6366 06 08W	6	8
LE-6366 08 10W	8	10

Tech Sheet 10625

Plugs



Tube

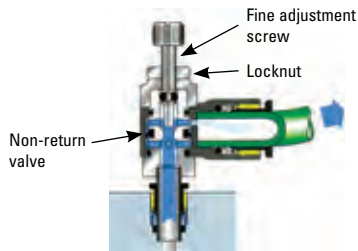
1014	OD mm
LE-6326 04 00W	4
LE-6326 06 00W	6
LE-6326 08 00W	8
LE-6326 10 00W	10
LE-6326 12 00W	12

Tech Sheet 10625

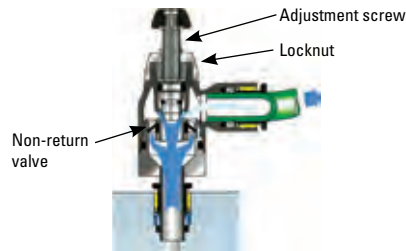
FLOW CONTROL REGULATORS POLYMER VERSION



Miniature



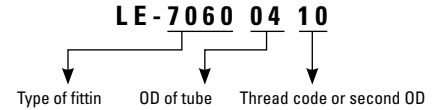
Compact



Identification:

The part numbers have been chosen by a method of mnemonics. Each item is identified by

- Its series
- The diameter of passage through the fitting
- The thread code or second tube diameter



Working Temperature:
0°C to +70°C

Working Pressure:
1 to 10 bar

Working Fluids:
Compressed air

Compact



Exhaust Version (A), BSPP

1012	OD mm	Thread
LE-7060 06 10	6	1/8"
LE-7060 06 13	6	1/4"
LE-7060 08 10	8	1/8"
LE-7060 08 13	8	1/4"
LE-7060 08 17	8	3/8"
LE-7060 10 13	10	1/4"
LE-7060 10 17	10	3/8"
LE-7060 12 17	12	3/8"
LE-7060 12 21	12	1/2"

Tech Sheet 10627



Supply Version (B), BSPP

1012	OD mm	Thread
LE-7061 04 10	4	1/8"
LE-7061 06 10	6	1/8"
LE-7061 06 13	6	1/4"
LE-7061 08 13	8	1/4"
LE-7061 08 17	8	3/8"
LE-7061 10 17	10	3/8"
LE-7061 12 21	12	1/2"

Tech Sheet 10627



Bi-directional Version (C), BSPP

1012	OD mm	Thread
LE-7062 04 10	4	1/8"
LE-7062 06 10	6	1/8"
LE-7062 06 13	6	1/4"
LE-7062 08 10	8	1/8"
LE-7062 08 13	8	1/4"

Tech Sheet 10627

Miniature



Exhaust Version (A), Metric & BSPP

1012	OD mm	Thread
LE-7660 03 19	3	M5 x 0.8
LE-7660 04 19	4	M5 x 0.8
LE-7660 04 10	4	1/8"
LE-7660 06 19	6	M5 x 0.8
LE-7660 06 10	6	1/8"
LE-7660 06 13	6	1/4"
LE-7660 08 10	8	1/8"
LE-7660 08 13	8	1/4"
LE-7660 08 17	8	3/8"

Tech Sheet 10627



Supply Version (B), Metric & BSPP

1012	OD mm	Thread
LE-7669 03 09	3	M3 x 0.5
LE-7669 04 19	4	M5 x 0.8
LE-7669 04 10	4	1/8"
LE-7669 06 19	6	M5 x 0.8
LE-7669 06 10	6	1/8"
LE-7669 08 13	8	1/4"

Tech Sheet 10627

Plug-in Compact



Exhaust Version (A)

1012	OD mm
LE-7030 08 00	8

Tech Sheet 10627

Supply Version (B)

1012	OD mm
LE-7031 06 00	6
LE-7031 08 00	8

Tech Sheet 10627

FLOW CONTROL REGULATORS POLYMER VERSION



In-line Panel Mountable with LF 3000 Push-in Connections



One Way Adjustment (A),
for Nylon PU Tubing

1012	OD mm
LE-7776 04 00	4
LE-7776 06 00	6
LE-7776 08 00	8
LE-7776 10 00	10
LE-7776 12 00	12

In-line with LF 3000 Push-in Connections



One Way Adjustment (A),
for Nylon and PU Tubing

1012	OD mm
LE-7770 04 00	4
LE-7770 06 00	6
LE-7770 08 00	8
LE-7770 10 00	10
LE-7770 12 00	12

Bi-directional (C)

1012	OD mm
LE-7772 04 00	4
LE-7772 06 00	6
LE-7772 08 00	8

Compact Swivel Outlet



Exhaust Version (A), BSPP

1012	OD mm	Thread
LE-7740 06 10	6	1/8"
LE-7040 08 10	8	1/8"

Tech Sheet 10627

Exhaust Version (A), BSPT

1012	OD mm	Thread
LE-7045 08 17	8	3/8"

In-line with Threaded Connections



One Way Adjustment (C), Panel Mountable, BSPP

1012	Thread
LE-7771 10 10	1/8"
LE-7771 13 13	1/4"
LE-7771 17 17	3/8"
LE-7771 21 21	1/2"

Miniature Swivel Outlet



Supply Version (B), Metric & BSPP

1012	OD mm	Thread
LE-7649 04 19	4	M5 x 0.8
LE-7649 06 19	6	M5 x 0.8
LE-7649 06 10	6	1/8"

Compact, with Recessed Adjustment Screw



Exhaust Version (A), Metric & BSPP

1012	OD mm	Thread
LE-7010 04 19	4	M5 x 0.8
LE-7010 04 10	4	1/4"
LE-7010 06 19	6	M5 x 0.8
LE-7010 06 10	6	1/8"
LE-7010 06 13	6	1/4"
LE-7010 08 10	8	1/8"
LE-7010 08 13	8	1/4"
LE-7010 10 13	10	1/4"
LE-7010 10 17	10	3/8"

Supply Version (B), Metric & BSPP

1012	OD mm	Thread
LE-7011 06 19	6	M5 x 0.8
LE-7011 06 10	6	1/8"
LE-7011 06 13	6	1/4"
LE-7011 08 13	8	1/4"
LE-7011 10 13	10	1/4"

Bi-directional (C), Metric



1012	OD mm	Thread
LE-7012 04 19	4	M5 x 0.8

Metal Body with LF 3000 Instant Fittings

Flow Control Regulators Metal Version
Working Temperature:
0°C to +70°C



Exhaust Flow Control, BSPP

1012	OD mm	Thread
LE-7100 06 13	6	1/4"
LE-7100 08 10	8	1/8"
LE-7100 08 13	8	1/4"
LE-7100 12 21	12	1/2"
LE-7100 14 21	14	1/2"

Supply Flow Control, BSPP

1012	OD mm	Thread
LE-7101 06 13	6	1/4"

FLOW CONTROL REGULATORS & FUNCTION FITTINGS



Metal Body with Threaded Fittings

Exhaust Flow Control, BSPP

1012	Thread
LE-7110 13 13	1/4"
LE-7110 17 17	3/8"
LE-7110 21 21	1/2"



Supply Flow Control, BSPP

1012	Thread
LE-7111 13 13	1/4"

Blocking Fittings: Which are mounted in pairs in a cylinder-lock the piston by simultaneously cutting off the supply and exhaust. Functional locks are more precise and rapid when blocking fittings are located on the cylinder: the volume of air in the supply line no longer needs to be taken into consideration.

Male Thread BSPP

Working Temperature:
-20°C to +70°C

No. of Cycles:
10 million at 20°C and 1 Hz
Body: Treated brass

Working Pressure:
1 to 10 bar



With LF 3000 Instant Fittings, BSPP

1012	Thread A mm	Thread B mm	Thread
LE-7880 06 10	6	4	1/8"
LE-7880 06 13	6	4	1/4"
LE-7880 08 13	8	4	1/4"
LE-7880 08 17	8	4	3/8"
LE-7880 10 17	10	4	3/8"
LE-7880 12 21	12	4	1/2"

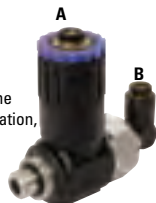
With Threaded Connection

1012	OD A mm	OD B mm	Thread
LE-7881 13 10	1/8"	M5	1/4"
LE-7881 13 13	1/4"	M5	1/4"
LE-7881 17 17	3/8"	M5	3/8"
LE-7881 21 21	1/2"	M5	1/2"

Blocker/Flow Regulator

Working Temperature:
-15°C to +60°C

Body: Polymer HR/brass body with captive seal. This fitting combines the functions of blocking and flow regulation, saving space and installing time



With LF 3000 Instant Fittings, BSPP

1012	OD A mm	OD B mm	Thread
LE-7883 06 10	6	4	1/8"
LE-7883 06 13	6	4	1/4"
LE-7883 08 13	8	4	1/4"

Push-in Connectors

Supply Version, BSPP

1012	OD mm	Thread
LE-7984 06 10	6	1/8"
LE-7984 06 13	6	1/4"
LE-7984 08 10	8	1/8"
LE-7984 08 13	8	1/4"



Supply Version, BSPT

1012	OD mm	Thread
LE-7985 06 13	6	1/4"
LE-7985 08 13	8	1/4"



Miniature with Push-in Connection

Exhaust Version, Metric & BSPP

1012	OD mm	Thread
LE-7180 04 19	4	M5 x 0.8
LE-7180 04 10	4	1/8"
LE-7180 06 10	6	1/8"
LE-7180 08 10	8	1/8"



Miniature with Threaded Fitting

Exhaust Version, Metric & BSPP

1012	Thread
LE-7190 19 19	M5 x 0.8
LE-7190 10 10	1/8"



Recessed Adjustment Screw

Push-in, Exhaust Version, Metric & BSPP

1012	OD mm	Thread
LE-7130 04 19	4	M5 x 0.8
LE-7130 04 10	4	1/8"
LE-7130 06 19	6	M5 x 0.8
LE-7130 06 10	6	1/8"
LE-7130 06 13	6	1/4"
LE-7130 08 10	8	1/8"
LE-7130 08 13	8	1/4"
LE-7130 08 17	8	3/8"
LE-7130 10 13	10	1/4"
LE-7130 10 17	10	3/8"
LE-7130 12 17	12	3/8"
LE-7130 12 21	12	1/2"



Threaded Fitting, Exhaust Version, Metric & BSPP

1012	Thread
LE-7140 19 19	M5 x 0.8
LE-7140 10 10	1/8"
LE-7140 13 13	1/4"
LE-7140 17 17	3/8"
LE-7140 21 21	1/2"



Threaded Fitting, Exhaust Version, BSPP

1012	Thread
LE-7810 13 13	1/4"
LE-7810 17 17	3/8"



Threaded Fitting, Bi-directional, BSPP

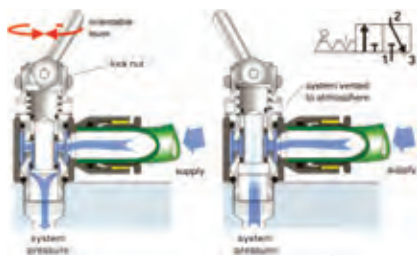
1012	Thread
LE-7812 10 10	1/8"
LE-7812 13 13	1/4"



FLOW CONTROL REGULATORS & FUNCTION FITTINGS



Pilot Operated Vent Fittings



Male Thread, with Push-in Connection, BSPP

1012	OD mm	Thread
LE-7800 04 10	4	1/8"
LE-7800 06 10	6	1/8"
LE-7800 06 13	6	1/4"
LE-7800 08 13	8	1/4"

Tech Sheet 10628



2/2 Manual Switch Operated Valve, BSPP

1012	OD mm	Thread
LE-7802 06 10	6	1/8"
LE-7802 06 13	6	1/4"
LE-7802 08 10	8	1/8"
LE-7802 08 13	8	1/4"

Tech Sheet 10628

Pneumatic Sensor Fittings

Working Temperature: -15°C to +60°C
 Breaking Pressure: 0.6 bar
 Response Time: 3ms

Working Pressure: 3 to 8 bar



With LF 3000 Push-in Fittings for Nylon and PU Tubing, Metric & BSPP

1012	OD mm	Thread
LE-7818 04 19	4	M5 x 0.8
LE-7818 04 10	4	1/8"
LE-7818 04 13	4	1/4"
LE-7818 04 17	4	3/8"
LE-7818 04 21	4	1/2"

Tech Sheet 10632



Threaded Fittings, Metric & BSPP

1012	Thread	Thread
LE-7818 19 10	1/8"	M5
LE-7818 19 13	1/4"	M5

Tech Sheet 10632

In-line Non-return Valve

With LF 3000 Push-in Connector



1012	OD mm
LE-7996 04 00	4
LE-7996 06 00	6
LE-7996 08 00	8
LE-7996 10 00	10
LE-7996 12 00	12

Piloted Non-return Valves



BSPP

1012	OD mm	Thread
LE-7892 06 10	6	1/8"
LE-7892 08 10	8	1/8"
LE-7892 06 13	6	1/4"
LE-7892 08 13	8	1/4"
LE-7892 08 17	8	3/8"

Tech Sheet 10661

Piloted Non-return, Regulator & Exhaust



BSPP

1012	OD mm	Thread
LE-7894 06 10	6	1/8"
LE-7894 08 10	8	1/8"
LE-7894 06 13	6	1/4"
LE-7894 08 13	8	1/4"
LE-7894 08 17	8	3/8"

Tech Sheet 10661

SNAP CONNECTORS



Body with LF 3000 Connection



1012	OD A mm	OD B mm
LE-7926 05 06	6	5
LE-7926 05 08	8	5
LE-7926 07 10	10	7,3

Tech Sheet 10629


Probe with LF 3000 Connection




1012	OD A mm	OD B mm
LE-7960 05 06	6	5
LE-7960 05 08	8	5
LE-7960 07 10	10	7,3

Tech Sheet 10629

QS, STANDARD SERIES PUSH-IN FITTINGS

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependent Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Wide range of variants: large selection for maximum flexibility in standard applications

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum, (water as per manufacturer's declaration)

Male Studs



Male Thread, BSPP

0009	OD mm	Thread	Quantity	Manufacturer's Code
186106	4	G1/8"	10	QS-G1/8-4-I
186107	6	G1/8"	10	QS-G1/8-6-I
186109	8	G1/8"	10	QS-G1/8-10-I
186108	6	G1/4"	10	QS-G1/4-6-I
186110	8	G1/4"	10	QS-G1/4-8-I
186111	8	G3/8"	10	QS-G3/8-8-I
132999	10	G1/8"	10	QS-G3/8-10-I
186112	10	G1/4"	10	QS-G3/8-12-I
186113	10	G3/8"	10	QS-G1/2-12-I
186114	12	G3/8"	10	QS-G1/8-8-I
186115	12	G1/2"	1	QS-G1/4-10-I

Tech Sheet 70377



Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153012	4	R1/8"	10	QS-1/8-4-I
153013	6	R1/8"	10	QS-1/8-6-I
153014	6	R1/4"	10	QS-1/4-6-I
153015	8	R1/8"	10	QS-1/8-8-I
153016	8	R1/4"	10	QS-1/4-8-I
153017	8	R3/8"	10	QS-3/8-8-I
190647	10	R1/8"	10	QS-1/8-10-I
153018	10	R1/4"	10	QS-1/4-10-I
153019	10	R3/8"	10	QS-3/8-10-I
190648	10	R1/2"	1	QS-1/2-10-I
190649	12	R1/4"	10	QS-1/4-12-I
153020	12	R3/8"	10	QS-3/8-12-I
153021	12	R1/2"	1	QS-1/2-12-I

Tech Sheet 70380



Male Thread, BSPP (Hex Body)

0009	OD mm	Thread	Quantity	Manufacturer's Code
186095	4	G1/8"	10	QS-G1/8-4
186096	6	G1/8"	10	QS-G1/8-6
186097	6	G1/4"	10	QS-G1/4-6
186098	8	G1/8"	10	QS-G1/8-8
186099	8	G1/4"	10	QS-G1/4-8
186100	8	G3/8"	10	QS-G3/8-8
186101	10	G1/4"	10	QS-G1/4-10
186102	10	G3/8"	10	QS-G3/8-10
186350	12	G1/4"	10	QS-G1/4-12
186103	12	G3/8"	10	QS-G3/8-12
186104	12	G1/2"	1	QS-G1/2-12

Tech Sheet 70379



Male Thread, BSPT (Hex Body)

0009	OD mm	Thread	Quantity	Manufacturer's Code
153001	4	R1/8"	10	QS-1/8-4
190644	4	R1/4"	10	QS-1/4-4
153002	6	R1/8"	10	QS-1/8-6
153003	6	R1/4"	10	QS-1/4-6
190645	6	R3/8"	10	QS-3/8-6
153004	8	R1/8"	10	QS-1/8-8
153005	8	R1/4"	10	QS-1/4-8
153006	8	R3/8"	10	QS-3/8-8
190643	10	R1/8"	10	QS-1/8-10
153007	10	R1/4"	10	QS-1/4-10
153008	10	R3/8"	10	QS-3/8-10
190646	10	R1/2"	1	QS-1/2-10
164980	12	R1/4"	10	QS-1/4-12
153009	12	R3/8"	10	QS-3/8-12
153010	12	R1/2"	1	QS-1/2-12

Tech Sheet 70378

Female Studs

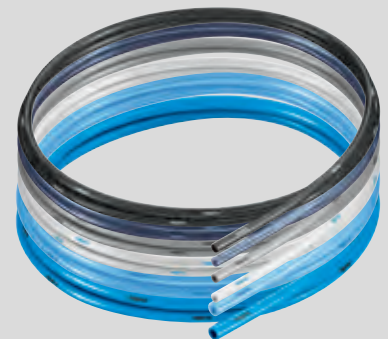


Female Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153022	4	R1/8"	10	QSF-1/8-4-B
130709	4	R1/8"	100	QSF-1/8-4-B-100
190650	4	R1/4"	10	QSF-1/4-4-B
153023	6	R1/8"	10	QSF-1/8-6-B
130712	6	R1/4"	100	QSF-1/4-6-B-100
130710	6	R1/8"	100	QSF-1/8-6-B-100
153024	6	R1/4"	10	QSF-1/4-6-B
190652	6	R3/8"	10	QSF-3/8-6-B
153025	8	R1/8"	10	QSF-1/8-8-B
130711	8	R1/8"	50	QSF-1/8-8-B-50
153026	8	R1/4"	10	QSF-1/4-8-B
130713	8	R1/4"	50	QSF-1/4-8-B-50
153027	8	R3/8"	10	QSF-3/8-8-B
130715	8	R3/8"	50	QSF-3/8-8-B-50
153028	10	R1/4"	10	QSF-1/4-10-B
130714	10	R1/4"	50	QSF-1/4-10-B-50
153029	10	R3/8"	10	QSF-3/8-10-B
130716	10	R3/8"	50	QSF-3/8-10-B-50
190651	12	R1/4"	10	QSF-1/4-12-B
153030	12	R3/8"	10	QSF-3/8-12-B
130717	12	R3/8"	20	QSF-3/8-12-B-20
190653	12	R1/2"	1	QSF-1/2-12-B
190654	16	R1/2"	1	QSF-1/2-16-B

Tech Sheet 70384


FESTO




You might also need
Polyurethane Tubing
see pages **911-912**

QS, STANDARD SERIES PUSH-IN FITTINGS

FESTO

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependant Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Wide range of variants: large selection for maximum flexibility in standard applications

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum, (water as per manufacturer's declaration)

Male Stud 90° Elbows



Male Thread, BSPP

0009	OD mm	Thread	Quantity	Manufacturer's Code
186116	4	G1/8"	10	QSL-G1/8-4
186117	6	G1/8"	10	QSL-G1/8-6
186118	6	G1/4"	10	QSL-G1/4-6
186119	8	G1/8"	10	QSL-G1/8-8
186120	8	G1/4"	10	QSL-G1/4-8
186121	8	G3/8"	10	QSL-G3/8-8
186122	10	G1/4"	10	QSL-G1/4-10
186123	10	G3/8"	10	QSL-G3/8-10
186351	12	G1/4"	10	QSL-G1/4-12
186124	12	G3/8"	10	QSL-G3/8-12
186125	12	G1/2"	1	QSL-G1/2-12

Tech Sheet 70385



Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153045	4	R1/8"	10	QSL-1/8-4
190659	4	R1/4"	10	QSL-1/4-4
153046	6	R1/8"	10	QSL-1/8-6
153047	6	R1/4"	10	QSL-1/4-6
190660	6	R3/8"	10	QSL-3/8-6
153048	8	R1/8"	10	QSL-1/8-8
153049	8	R1/4"	10	QSL-1/4-8
153050	8	R3/8"	10	QSL-3/8-8
190658	10	R1/8"	10	QSL-1/8-10
153051	10	R1/4"	10	QSL-1/4-10
153052	10	R3/8"	10	QSL-3/8-10
190661	10	R1/2"	1	QSL-1/2-10
164981	12	R1/4"	10	QSL-1/4-12
153053	12	R3/8"	10	QSL-3/8-12
153054	12	R1/2"	1	QSL-1/2-12

Tech Sheet 70386

Male Stud 90° Extended Elbows



Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153076	4	R1/8"	10	QSL-1/8-4
190662	4	R1/4"	10	QSL-1/4-4
153077	6	R1/8"	10	QSL-1/8-6
153078	6	R1/4"	10	QSL-1/4-6
190663	6	R3/8"	10	QSL-3/8-6
153079	8	R1/8"	10	QSL-1/8-8
153080	8	R1/4"	10	QSL-1/4-8
153081	8	R3/8"	10	QSL-3/8-8
153082	10	R1/4"	10	QSL-1/4-10
153083	10	R3/8"	10	QSL-3/8-10
190664	10	R1/2"	1	QSL-1/2-10
153084	12	R3/8"	10	QSL-3/8-12
153085	12	R1/2"	1	QSL-1/2-12

Tech Sheet 70393

Female Stud 90° Elbows



Female Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153273	4	R1/8"	10	QSLF-1/8-4-B
153274	6	R1/8"	10	QSLF-1/8-6-B
153275	6	R1/4"	10	QSLF-1/4-6-B
153276	8	R1/8"	10	QSLF-1/8-8-B
153277	8	R1/4"	10	QSLF-1/4-8-B
153278	8	R3/8"	10	QSLF-3/8-8-B
153279	10	R1/4"	10	QSLF-1/4-10-B
153280	10	R3/8"	10	QSLF-3/8-10-B

Tech Sheet 70387

Male Stud Tees



Branch Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153106	4	R1/8"	10	QST-1/8-4
190668	4	R1/4"	10	QST-1/4-4
153107	6	R1/8"	10	QST-1/8-6
153108	6	R1/4"	10	QST-1/4-6
190670	6	R3/8"	10	QST-3/8-6
153109	8	R1/8"	10	QST-1/8-8
153110	8	R1/4"	10	QST-1/4-8
153111	8	R3/8"	10	QST-3/8-8
190667	10	R1/8"	10	QST-1/8-10
153112	10	R1/4"	10	QST-1/4-10
153113	10	R3/8"	10	QST-3/8-10
190672	10	R1/2"	1	QST-1/2-10
190669	12	R1/4"	10	QST-1/4-12
153114	12	R3/8"	10	QST-3/8-12
153115	12	R1/2"	1	QST-1/2-12

Tech Sheet 70395





Run Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153117	4	R1/8"	10	QSTL-1/8-4
153118	6	R1/8"	10	QSTL-1/8-6
153119	6	R1/4"	10	QSTL-1/4-6
153120	8	R1/8"	10	QSTL-1/8-8
153121	8	R1/4"	10	QSTL-1/4-8
153122	8	R3/8"	10	QSTL-3/8-8
153123	10	R1/4"	10	QSTL-1/4-10
153124	10	R3/8"	10	QSTL-3/8-10
153125	12	R3/8"	10	QSTL-3/8-12
153126	12	R1/2"	1	QSTL-1/2-12

Tech Sheet 70399

QS, STANDARD SERIES PUSH-IN FITTINGS

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependent Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Wide range of variants: large selection for maximum flexibility in standard applications

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum, (water as per manufacturer's declaration)

Male Stud Ys



Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153138	4	R1/8"	10	QSY-1/8-4
190675	4	R1/4"	10	QSY-1/4-4
153139	6	R1/8"	10	QSY-1/8-6
153140	6	R1/4"	10	QSY-1/4-6
153141	8	R1/8"	10	QSY-1/8-8
153142	8	R1/4"	10	QSY-1/4-8
153143	8	R3/8"	10	QSY-3/8-8
153145	10	R3/8"	10	QSY-3/8-10
153144	10	R1/4"	10	QSY-1/4-10
153146	12	R3/8"	10	QSY-3/8-12
153147	12	R1/2"	1	QSY-1/2-12

Tech Sheet 70404



Male Thread, Metric

0009	OD mm	Thread	Quantity	Manufacturer's Code
190673	4	M5	10	QSY-M5-4
190674	6	M5	10	QSY-M5-6

Tech Sheet 70405

Male Stud 90° Ys



Male Thread, BSPT

0009	OD mm	Thread	Quantity	Manufacturer's Code
153172	4	R1/8"	1	QSYL-1/8-4
153173	6	R1/8"	1	QSYL-1/8-6
153174	6	R1/4"	1	QSYL-1/4-6
153175	8	R1/8"	1	QSYL-1/8-8
153176	8	R1/4"	1	QSYL-1/4-8
153177	8	R3/8"	1	QSYL-3/8-8
153178	10	R1/4"	1	QSYL-1/4-10
153179	10	R3/8"	1	QSYL-3/8-10
153180	12	R3/8"	1	QSYL-3/8-12
153181	12	R1/2"	1	QSYL-1/2-12

Tech Sheet 70401

Single Banjos



Male Thread, BSPT (Hex Body)

0009	OD mm	Thread	Quantity	Manufacturer's Code
153086	4	R1/8"	10	QSLV-1/8-4
153087	6	R1/8"	10	QSLV-1/8-6
153088	6	R1/4"	10	QSLV-1/4-6
153089	8	R1/8"	10	QSLV-1/8-8
153090	8	R1/4"	10	QSLV-1/4-8
153091	8	R3/8"	10	QSLV-3/8-8
153092	10	R1/4"	10	QSLV-1/4-10
153093	10	R3/8"	10	QSLV-3/8-10
153094	12	R3/8"	10	QSLV-3/8-12
153095	12	R1/2"	1	QSLV-1/2-12

Tech Sheet 70392



Male Thread, BSPP (Hex Body)

0009	OD mm	Thread	Quantity	Manufacturer's Code
186137	4	G1/8"	10	QSLV-G1/8-4
190666	6	M5	10	QSLV-M5-6
186138	6	G1/8"	10	QSLV-G1/8-6
186139	6	G1/4"	10	QSLV-G1/4-6
186140	8	G1/8"	10	QSLV-G1/8-8
186141	8	G1/4"	10	QSLV-G1/4-8
186142	8	G3/8"	10	QSLV-G3/8-8
186143	10	G1/4"	10	QSLV-G1/4-10
186144	10	G3/8"	10	QSLV-G3/8-10
186145	12	G3/8"	10	QSLV-G3/8-12
186146	12	G1/2"	1	QSLV-G1/2-12

Tech Sheet 70390

Tube x Tube Connectors



Equal Straights

0009	OD mm	Quantity	Manufacturers Code
153031	4	10	QS-4
153032	6	10	QS-6
153033	8	10	QS-8
153034	10	10	QS-10
153035	12	10	QS-12

Tech Sheet 70417



Unequal Straights

0009	OD mm	OD mm	Quantity	Manufacturers Code
153037	6	4	10	QS-6-4
130606	8	4	10	QS-8-4
153038	8	6	10	QS-8-6
130607	10	6	10	QS-10-6
153039	10	8	10	QS-10-8
130608	12	8	10	QS-12-8
153040	12	10	10	QS-12-10

Tech Sheet 70418



Equal Bulkheads with Fixed Collar

0009	OD mm	Quantity	Manufacturers Code
130642	8	10	QSS-8-F
130643	10	10	QSS-10-F
130644	12	10	QSS-12-F

Tech Sheet 70421




Equal Bulkheads


0009	OD mm	Quantity	Manufacturers Code
153157	4	10	QSS-4
153158	6	10	QSS-6
153159	8	10	QSS-8
153160	10	10	QSS-10
153161	12	10	QSS-12

Tech Sheet 70422

QS, STANDARD SERIES PUSH-IN FITTINGS

FESTO

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependant Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Wide range of variants: large selection for maximum flexibility in standard applications

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum, (water as per manufacturer's declaration)

Tube x Tube Connectors

Equal Elbows



0009	OD mm	Quantity	Manufacturers Code
153070	4	10	QSL-4
153071	6	10	QSL-6
153072	8	10	QSL-8
153073	10	10	QSL-10
153074	12	10	QSL-12

Tech Sheet 70424

Equal Tees



0009	OD mm	Quantity	Manufacturers Code
153128	4	10	QST-4
153129	6	10	QST-6
153130	8	10	QST-8
153131	10	10	QST-10
153132	12	10	QST-12

Tech Sheet 70426

Unequal Tees



0009	OD mm	OD mm	Quantity	Manufacturers Code
153134	6	4	10	QST-6-4
130613	8	4	10	QST-8-4
153135	8	6	10	QST-8-6
130614	10	6	10	QST-10-6
153136	10	8	10	QST-10-8
130615	12	8	10	QST-12-8
153137	12	10	10	QST-12-10
130616	16	12	1	QST-16-12

Tech Sheet 70427

Equal Ys



0009	OD mm	Quantity	Code
153148	4	10	QSY-4
153149	6	10	QSY-6
153150	8	10	QSY-8
153151	10	10	QSY-10
153152	12	10	QSY-12

Tech Sheet 70429

Unequal Ys



0009	OD mm	OD mm	Quantity	Manufacturer's Code
153153	6	4	10	QSY-6-4
130610	8	4	10	QSY-8-4
153154	8	6	10	QSY-8-6
130611	10	6	10	QSY-10-6
153155	10	8	10	QSY-10-8
130612	12	8	10	QSY-12-8
153156	12	10	10	QSY-12-10
190708	16	12	1	QSY-16-12

Tech Sheet 70430

Tube x Stem Connectors



Straights, Tube x Stem

0009	OD mm	Stem OD mm	Quantity	Code
153041	6	4	10	QS-6H-4
130622	8	4	10	QS-8H-4
153042	8	6	10	QS-8H-6
130623	10	6	10	QS-10H-6
153043	10	8	10	QS-10H-8
132981	12	6	10	QS-12H-6
130624	12	8	10	QS-12H-8
153044	12	10	10	QS-12H-10
130698	12	10	20	QS-12H-10-20

Tech Sheet 70431

Elbows, Tube x Stem



0009	OD mm	Stem OD mm	Quantity	Manufacturers Code
153056	4	4	10	QSL-4H
153057	6	6	10	QSL-6H
153058	8	8	10	QSL-8H
153059	10	10	10	QSL-10H
153060	12	12	10	QSL-12H

Tech Sheet 70432

Reducing Elbows, Tube x Stem



0009	OD mm	Stem OD mm	Quantity	Code
153061	6	4	10	QSL-6H-4
153062	8	6	10	QSL-8H-6
153063	10	8	10	QSL-10H-8

Tech Sheet 70433

Tube x Tube Plugs



Tube

0009	OD mm	Quantity	Code
153262	4	10	QSC-4
153263	6	10	QSC-6
153264	8	10	QSC-8
153265	10	10	QSC-10
153266	12	10	QSC-12

Tech Sheet 70440

Tube x Stem Extended Connectors



Elbows, Tube x Stem

0009	OD mm	Stem OD mm	Quantity	Code
153065	4	4	10	QSL-4HL
153066	6	6	10	QSL-6HL
153067	8	8	10	QSL-8HL
153068	10	10	10	QSL-10HL
153069	12	12	10	QSL-12HL

Tech Sheet 70434

Tube x Stem Plugs




Tube x Stem


0009	OD mm	Stem OD mm	Quantity	Manufacturers Code
153267	4	4	10	QSC-4H
153268	6	6	10	QSC-6H
153269	8	8	10	QSC-8H
153270	10	10	10	QSC-10H
153271	12	12	10	QSC-12H

Tech Sheet 70441

QS, MINIATURE SERIES PUSH-IN FITTINGS

FESTO

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependent Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Compact for maximum component density in confined installation space

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum

Male Studs



Male Thread, BSPP

0009	OD mm	Thread	Quantity	Code
186266	4	G1/8"	10	QSM-G1/8-4-I
186267	6	G1/8"	10	QSM-G1/8-6-I
Tech Sheet 70481				



Male Thread, Metric & BSPT

0009	OD mm	Thread	Quantity	Code
153314	4	M3	10	QSM-M3-4-I
153315	4	M5	10	QSM-M5-4-I
153319	4	M7	10	QSM-M7-4-I
153316	4	R1/8"	10	QSM-1/8-4-I
153321	6	M7	10	QSM-M7-6-I
153317	6	M5	10	QSM-M5-6-I
153318	6	R1/8"	10	QSM-1/8-6-I
Tech Sheet 70479				



Male Thread, BSPP (Hex Body)

0009	OD mm	Thread	Quantity	Code
186264	4	R1/8"	10	QSM-G1/8-4
186265	6	R1/8"	10	QSM-G1/8-6
Tech Sheet 70480				



Male Thread, Metric & BSPT (Hex Body)

0009	OD mm	Thread	Quantity	Code
153303	4	M3	10	QSM-M3-4
153304	4	M5	10	QSM-M5-4
153305	4	R1/8"	10	QSM-1/8-4
153306	6	M5	10	QSM-M5-6
132600	6	M6	10	QSM-M6-6
153307	6	R1/8"	10	QSM-1/8-6
Tech Sheet 70478				

Male Stud 90° Elbows



Male Thread, BSPP

0009	OD mm	Thread	Quantity	Code
186268	4	G1/8"	10	QSML-G1/8-4
186269	6	G1/8"	10	QSML-G1/8-6
Tech Sheet 70484				



Male Thread, Metric & BSPT

0009	OD mm	Thread	Quantity	Code
153332	4	M3	10	QSML-M3-4
153333	4	M5	10	QSML-M5-4
186352	4	M7	10	QSML-M7-4
153334	4	R1/8"	10	QSML-1/8-4
153335	6	M5	10	QSML-M5-6
186353	6	M7	10	QSML-M7-6
153336	6	R1/8"	10	QSML-1/8-6
Tech Sheet 70483				


FESTO


You might also need
SPAN Series Pressure Sensors
see page 428



QS, MINIATURE SERIES PUSH-IN FITTINGS

FESTO

 **Ambient Temperature:**
-10°C to +80°C

 **Temperature Dependant Operating Pressure:**
- 0.95 to 6 bar at 80°C
- 0.95 to 14 bar at 20°C

- Simple and reliable connection and release
- Compact for maximum component density in confined installation space

- PBT housing, POM release ring, NBR tube seal
- Operating media: compressed air, vacuum

Tube x Tube Connectors



Equal Straights

0009	OD mm	Quantity	Code
153324	4	10	QSM-4
153325	6	10	QSM-6

Tech Sheet 70491



Unequal Straights

0009	OD mm	OD mm	Quantity	Code
153326	4	3	10	QSM-4-3
153327	6	4	10	QSM-6-4

Tech Sheet 70492



Equal Bulkheads

0009	OD mm	Quantity	Code
153376	4	10	QSMS-4
153377	6	10	QSMS-6

Tech Sheet 70498



Equal Elbows

0009	OD mm	Quantity	Code
153344	4	10	QSML-4
153345	6	10	QSML-6

Tech Sheet 70493



Equal Tees

0009	OD mm	Quantity	Code
153366	4	10	QSMT-4
153367	6	10	QSMT-6

Tech Sheet 70494



Unequal Tees

0009	OD mm	OD mm	Quantity	Code
153368	4	3	10	QSMT-4-3
153369	6	4	10	QSMT-6-4

Tech Sheet 70495



Equal Ys

0009	OD mm	Quantity	Code
153371	4	10	QSMY-4
153372	6	10	QSMY-6

Tech Sheet 70496



Unequal Ys

0009	OD mm	OD mm	Quantity	Code
153373	4	3	10	QSMY-4-3
153374	6	4	10	QSMY-6-4

Tech Sheet 70497

Tube x Stem Connectors



Unequal Straights, Tube x Stem

0009	ODmm	Stem OD mm	Quantity	Code
153328	4	3	10	QSM-4H-3
153329	6	4	10	QSM-6H-4

Tech Sheet 70499



Equal Elbows, Tube x Stem

0009	OD mm	Stem OD mm	Quantity	Code
153347	4	4	10	QSML-4H
153348	6	6	10	QSML-6H

Tech Sheet 70500



Unequal Elbows, Tube x Stem

0009	OD mm	Stem OD mm	Quantity	Code
153349	4	3	10	QSML-4H-3
153350	6	4	10	QSML-6H-4

Tech Sheet 70501

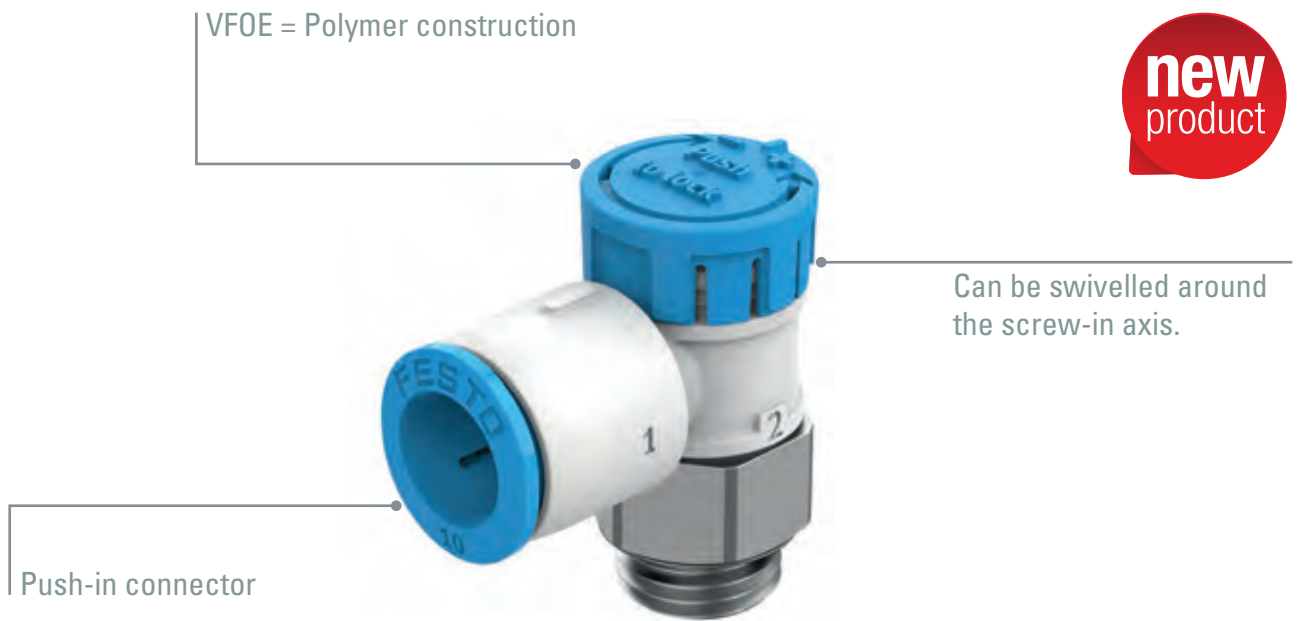
FLOW REGULATORS & FUNCTION FITTINGS

For the full range and more information, please contact one of our sales team.

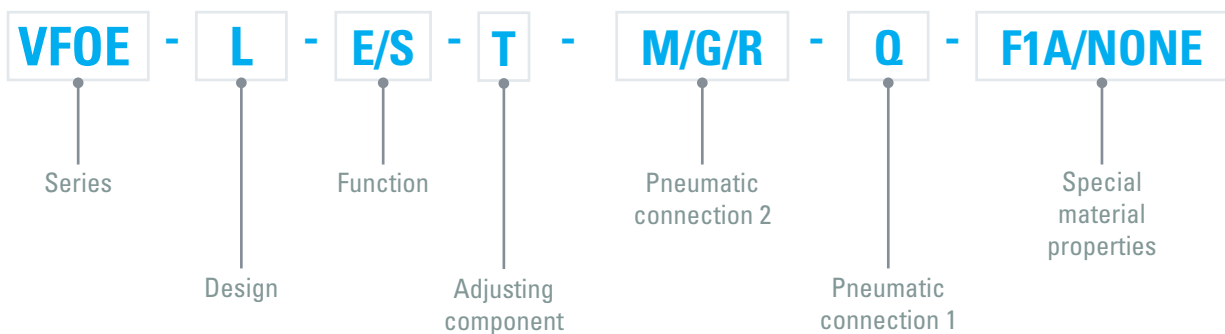
FLOW REGULATORS



Features



Product Description





One-way Flow Control Valves, Elbow Outlet

Ambient Temperature:
-10°C to +60°C

- Sturdy metal design
- Can be swivelled around the screw-in axis after mounting
- Push-in connector

Working Pressure:
0.2 to 10 bar

- Polymer design
- Can be rotated 360° around the screw-in axis after mounting/not permitted for continuous rotation
- Push-in connector

- Polymer design



Exhaust Control, Rotary Knob Detented, Metric & BSPP

0009	OD mm	Thread	Manufacturer's Code
8068723	4	M5	VFOE-LE-T-M5-Q4
8068724	6	M5	VFOE-LE-T-M5-Q6
8068725	4	1/8"	VFOE-LE-T-G18-Q4
8068726	6	1/8"	VFOE-LE-T-G18-Q6
8068727	8	1/8"	VFOE-LE-T-G18-Q8
8068728	6	1/4"	VFOE-LE-T-G14-Q6
8068729	8	1/4"	VFOE-LE-T-G14-Q8
8068732	10	3/8"	VFOE-LE-T-G38-Q10

Tech Sheet 71679

Exhaust Control, Rotary Knob Detented, BSPT

0009	OD mm	Thread	Manufacturer's Code
8068734	4	1/8"	VFOE-LE-T-R18-Q4
8068735	6	1/8"	VFOE-LE-T-R18-Q6
8068736	8	1/8"	VFOE-LE-T-R18-Q8

Tech Sheet 71679

- Polymer design



Supply Air One-way Detented Flow Control Function, BSPP

0009	OD mm	Thread	Manufacturer's Code
8068747	4	1/8"	VFOE-LS-T-G18-Q4
8068748	6	1/8"	VFOE-LS-T-G18-Q6
8068749	8	1/8"	VFOE-LS-T-G18-Q8

Supply Air One-way Detented, Flow Control Function, BSPT

0009	OD mm	Thread	Manufacturer's Code
8068750	4	1/8"	VFOE-LS-T-R18-Q4
8068751	6	1/8"	VFOE-LS-T-R18-Q6
8068752	8	1/8"	VFOE-LS-T-R18-Q8

- Sturdy metal design



Supply Control, Slotted Head Screw, Male Thread, Metric & BSPP x Push-in

0009	OD mm	Thread	Manufacturer's Code
193153	3	M5	GRLZ-M5-QS-3-D
193156	3	G1/8"	GRLZ-1/8-QS-3-D
193154	4	M5	GRLZ-M5-QS-4-D
193157	4	G1/8"	GRLZ-1/8-QS-4-D
193155	6	M5	GRLZ-M5-QS-6-D
193158	6	G1/8"	GRLZ-1/8-QS-6-D
193159	8	G1/8"	GRLZ-1/8-QS-8-D

Tech Sheet 71232

- Sturdy metal design



Exhaust Control, Slotted Head Screw, Male Thread, Metric & BSPP x Push-in

0009	OD mm	Thread	Manufacturer's Code
193137	3	M5	GRLA-M5-QS-3-D
193142	3	G1/8"	GRLA-1/8-QS-3-D
193138	4	M5	GRLA-M5-QS-4-D
193143	4	G1/8"	GRLA-1/8-QS-4-D
193139	6	M5	GRLA-M5-QS-6-D
193144-FESTO	6	G1/8"	GRLA-1/8-QS-6-D
193146	6	G1/4"	GRLA-1/4-QS-6-D
193149	6	G3/8"	GRLA-3/8-QS-6-D
193145	8	G1/8"	GRLA-1/8-QS-8-D
193147	8	G1/4"	GRLA-1/4-QS-8-D
193150	8	G3/8"	GRLA-3/8-QS-8-D
193148	10	G1/4"	GRLA-1/4-QS-10-D
193151	10	G3/8"	GRLA-3/8-QS-10-D
193152	12	G1/2"	GRLA-1/2-QS-12-D

Tech Sheet 71233

- Sturdy metal design



Exhaust Control, Knurled Screw, Male Thread, Metric & BSPP x Push-in

0009	OD mm	Thread	Manufacturer's Code
197576	3	M5	GRLA-M5-QS-3-RS-D
197579	3	G1/8"	GRLA-1/8-QS-3-RS-D
197577	4	M5	GRLA-M5-QS-4-RS-D
197580	4	G1/8"	GRLA-1/8-QS-4-RS-D
197578	6	M5	GRLA-M5-QS-6-RS-D
197581	6	G1/8"	GRLA-1/8-QS-6-RS-D
534338	6	G1/4"	GRLA-1/4-QS-6-RS-D
534341	6	G3/8"	GRLA-3/8-QS-6-RS-D
534337	8	G1/8"	GRLA-1/8-QS-8-RS-D
534339	8	G1/4"	GRLA-1/4-QS-8-RS-D
534342	8	G3/8"	GRLA-3/8-QS-8-RS-D
534340	10	G1/4"	GRLA-1/4-QS-10-RS-D
534343	10	G3/8"	GRLA-3/8-QS-10-RS-D
534344	12	G1/2"	GRLA-1/2-QS-12-RS-D

Tech Sheet 71237

- Sturdy metal design



Medium Flow, Exhaust Control, Slotted Head Screw, Male Thread, Metric & BSPP x Push-in

0009	OD mm	Thread	Manufacturer's Code
537075	6	G1/8"	GRLA-1/8-QS-6-MF-D
537076	8	G1/8"	GRLA-1/8-QS-8-MF-D

Tech Sheet 71236

FUNCTION FITTINGS

Piloted Non-return Valves

- Controlled, piloted non-return function
- Manual exhausting
- Rotatable when installed
- Push-in fitting



Working Pressure:
0.5 to 10 bar



Ambient Temperature:
-10°C to +60°C

Pilot Pressure:
2 to 10 bar (M5, 1/8, 1/4)
1 to 10 bar (3/8, 1/2)



Male Thread, BSPP

0009	Thread	Manufacturer's Code
530029	M5	HGL-M5-B
530030	G1/8"	HGL-1/8-B
530031	G1/4"	HGL-1/4-B
530032	G3/8"	HGL-3/8-B
530033	G1/2"	HGL-1/2-B

Tech Sheet 71243



Male Thread BSPP x Push-in

0009	OD mm	Thread	Manufacturer's Code
530038	4	M5	HGL-M5-QS-4
530039	4	G1/8"	HGL-1/8-QS-4
530040	6	G1/8"	HGL-1/8-QS-6
530041	8	G1/4"	HGL-1/4-QS-8
530043	8	G3/8"	HGL-3/8-QS-8
530042	10	G1/4"	HGL-1/4-QS-10
530044	10	G3/8"	HGL-3/8-QS-10
530045	12	G1/2"	HGL-1/2-QS-12

Tech Sheet 71242

FESTO



Differential Pressure Regulator

- Constant differential pressure between input and output
- Cuts energy usage on cylinder return stroke approx 20%
- Connecting thread M5, R1/8, R1/4, R3/8, R1/2
- Push-in connector for tubing OD 4, 6, 8, 10, 12mm
- Rotatable 360 degrees

new product



Energy Saving Regulator LRL, LLLL

0010	Thread	Outlet Port	Type
153510	M5	Top	LRL-M5-QS-4
153512	M5	Top	LRL-M5-QS-6
153511	1/8"	Top	LRL-1/8-QS-4
153513	1/8"	Top	LRL-1/8-QS-6
153515	1/8"	Top	LRL-1/8-QS-8
153514	1/4"	Top	LRL-1/4-QS-6
153516	1/4"	Top	LRL-1/4-QS-8
153518	1/4"	Top	LRL-1/4-QS-10
153517	3/8"	Top	LRL-3/8-QS-8
153519	3/8"	Top	LRL-3/8-QS-10
153520	3/8"	Top	LRL-3/8-QS-12
153521	1/2"	Top	LRL-1/2-QS-12
153498	M5	Side	LRL-M5-QS-4
153500	M5	Side	LRL-M5-QS-6
153499	1/8"	Side	LRL-1/8-QS-4
153501	1/8"	Side	LRL-1/8-QS-6
153503	1/8"	Side	LRL-1/8-QS-8
153502	1/4"	Side	LRL-1/4-QS-6
153504	1/4"	Side	LRL-1/4-QS-8
153506	1/4"	Side	LRL-1/4-QS-10
153505	3/8"	Side	LRL-3/8-QS-8
153507	3/8"	Side	LRL-3/8-QS-10
153508	3/8"	Side	LRL-3/8-QS-12
153509	1/2"	Side	LRL-1/2-QS-12

More variants available online

FESTO

You might also need
SFAB Series Flow Sensors
see page 427



55000 SERIES, 20 BAR RATED



Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar

BSPT in conformity with ISO 7.1, BS 21, DIN 2999.

BSPP in conformity with ISO 228 Class A.

Metric in conformity with ISO R/262.

Fittings with "Short" tapered thread allow assembly with tapered as well as parallel threads (BSPT, NPT and BSPP) and have reduced overall height.2

Straight Male Adaptors

This is a Taper Thread designed so that it's suitable for BSPT, BSPP, NPTF and Metric.



Universal Short Thread Type

1020	OD mm	Thread
5500000001	4	1/8"
5500000013	4	1/4"
5500000002	5	1/8"
5500000003	5	1/4"
5500000004	6	1/8"
5500000005	6	1/4"
5500000014	6	3/8"
5500000015	6	1/2"
5500000006	8	1/8"
5500000007	8	1/4"
5500000008	8	3/8"
5500000016	8	1/2"
5500000009	10	1/4"
5500000010	10	3/8"
5500000017	10	1/2"
5500000011	12	1/4"
5500000012	12	3/8"
5500000018	12	1/2"
5500000019	14	3/8"
5500000020	14	1/2"

Tech Sheet 10709



(Round Body) BSPT

1020	OD mm	Thread
5501000001	4	1/8"
5501000002	6	1/8"
5501000003	6	1/4"
5501000004	8	1/8"
5501000005	8	1/4"

Tech Sheet 10709

(Hex Body) Metric & BSPP

1020	OD mm	Thread
5002000N01	4	M5
5002000N02	4	1/8"
5002000N22	4	1/4"
5002000N18	5	M5
5002000N19	5	1/8"
5002000N20	6	M5
5002000N12	6	M12 x 1
5002000N13	6	M12 x 1.25
5002000N14	6	M12 x 1.5
5002000N03	6	1/8"
5002000N04	6	1/4"
5002000N27	6	3/8"
5002000N28	6	1/2"
5002000N17	8	M12 x 1.5
5002000N05	8	1/8"
5002000N06	8	1/4"
5002000N07	8	3/8"
5002000N29	8	1/2"
5002000N08	10	1/4"
5002000N09	10	3/8"
5002000N31	10	1/2"
5002000N32	12	1/4"
5002000N11	12	3/8"
5002000N23	12	1/2"
5002000N24	14	3/8"
5002000N25	14	1/2"

Tech Sheet 10709

Straight Female Adaptors



(Hex Body) Metric & BSPT

1020	OD mm	Thread
5003000N08	4	M5
5003000N01	4	1/8"
5003000N09	4	1/4"
5003000N06	5	1/8"
5003000N02	6	1/8"
5003000N03	6	1/4"
5003000N04	8	1/8"
5003000N05	8	1/4"
5003000N10	8	3/8"
5003000N11	10	1/4"
5003000N12	10	3/8"
5003000N13	10	1/2"
5003000N14	12	3/8"
5003000N15	12	1/2"

Tech Sheet 10709

Bulkhead Connectors



Tube x Tube

1020	OD mm
5005000N01	4
5005000N06	5
5005000N02	6
5005000N03	8
5005000N04	10
5005000N05	12

Tech Sheet 10709

55000 SERIES METAL BODY PUSH-IN FITTINGS



Working Temperature:
-20°C to +80°C



Maximum Working Pressure:
20 bar

Parallel gas in conformity with ISO 228 Class A
Metric in conformity with ISO R/262

Straight Connectors



Equal Straight Connectors

1020	OD mm
55040-4	4
55040-5	5
55040-6	6
55040-8	8
55040-10	10
55040-12	12
55040-14	14

Tech Sheet 10709

Unequal Straight Connectors

1020	OD mm	OD mm
55040-6-4	6	4
55040-8-6	8	6
55040-10-8	10	8
55040-12-10	12	10
55040-10-6	10	6

Tech Sheet 10709

Male Swivel Elbows

This is a taper thread designed so that its suitable for BSPT, BSPP, NPTF and metric.



Universal Short Thread Type

1020	OD mm	Thread
55111-4-1/8	4	1/8"
55111-4-1/4	4	1/4"
55111-5-1/8	5	1/8"
55111-6-1/2	6	1/2"
55111-6-1/8	6	1/8"
55111-6-1/4	6	1/4"
55111-6-3/8	6	3/8"
55111-8-1/8	8	1/8"
55111-8-1/4	8	1/4"
55111-8-3/8	8	3/8"
55111-8-1/2	8	1/2"
55111-10-1/4	10	1/4"
55111-10-3/8	10	3/8"
55111-10-1/2	10	1/2"
55111-12-1/4	12	1/4"
55111-12-3/8	12	3/8"
55111-12-1/2	12	1/2"
55111-14-3/8	14	3/8"
55111-14-1/2	14	1/2"

Tech Sheet 10709



Metric & BSPP

1020	OD mm	Thread
55116-4-M3X0.5	4	M3 x 0.5
55116-4-M5	4	M5
55116-4-M7X1	4	M7 x 1
55116-4-1/8	4	1/8"
55116-4-1/4	4	1/4"
55116-5-M5	5	M5
55116-5-1/8	5	1/8"
55116-6-M5	6	M5
55116-6-1/8	6	1/8"
55116-6-1/4	6	1/4"
55116-6-3/8	6	3/8"
55116-6-1/2	6	1/2"
55116-8-1/8	8	1/8"
55116-8-1/4	8	1/4"
55116-8-3/8	8	3/8"
55116-8-1/2	8	1/2"
55116-10-1/4	10	1/4"
55116-10-3/8	10	3/8"
55116-10-1/2	10	1/2"
55116-12-1/4	12	1/4"
55116-12-3/8	12	3/8"
55116-12-1/2	12	1/2"
55116-14-3/8	14	3/8"
55116-14-1/2	14	1/2"

Tech Sheet 10709

Elbow Connectors



Equal Elbow Connectors

1020	OD mm
55130-4	4
55130-5	5
55130-6	6
55130-8	8
55130-10	10
55130-12	12
55130-14	14

Tech Sheet 10709



Equal Stem Elbows

1020	OD mm
55140-4	4
55140-6	6
55140-8	8
55140-10	10
55140-12	12

Tech Sheet 10709

Reducing Stem Elbows

1020	OD mm	Stem OD mm
55140-4-6	4	6
55140-6-4	6	4
55140-8-10	8	10
55140-10-12	10	12

Tech Sheet 10709



For **PRO3**
see page **420**

55000 SERIES, 20 BAR RATED



° Working Temperature:
-20°C to +80°C

Maximum Working Pressure: Vacuum: -0.99 bar
20 bar

Parallel gas in conformity with ISO 228 Class A
Metric in conformity with ISO R/262

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT

Tee Connectors



Equal Tees

1020	OD mm
55230-4	4
55230-5	5
55230-6	6
55230-8	8
55230-10	10
55230-12	12
55230-14	14

Tech Sheet 10709



Equal Stem Tees

1020	OD mm
55240-4	4
55240-6	6
55240-8	8
55240-10	10
55240-12	12

Tech Sheet 10709



Reducing Stem Tees

1020	OD mm	Stem OD mm
55240-4-6	4	6
55240-6-4	6	4
55240-8-10	8	10
55240-10-12	10	12

Tech Sheet 10709

Y Connectors



Equal Y Connectors

1020	OD mm
55310-4	4
55310-6	6
55310-8	8
55310-10	10
55310-12	12

Tech Sheet 10709

In-line Manifolds



Reducing, Tube x Tube

1020	OD mm	OD mm
55350-6-4	6	4
55350-8-4	8	4
55350-8-6	8	6
55350-10-6	10	6
55350-10-8	10	8

Tech Sheet 10709

Double Y Connectors



Tube x Tube, Reducing

1020	OD mm	OD mm
55330-4-4	4	4
55330-4-6	6	4
55330-6-6	6	6
55330-6-8	8	6

Tech Sheet 10709



Tube x Male Thread, Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
55340-4-1/8	4	1/8"
55340-4-1/4	4	1/4"
55340-6-1/8	6	1/8"
55340-6-1/4	6	1/4"

Tech Sheet 10709



Tube x Male Thread, BSPP

1020	OD mm	Thread
55345-4-1/8	4	1/8"
55345-4-1/4	4	1/4"
55345-6-1/8	6	1/8"
55345-6-1/4	6	1/4"

Tech Sheet 10709

Banjos



Single Body, Metric & BSPP

1020	OD mm	Thread
55500-4-M5	4	M5
55500-4-M6	4	M6
55500-4-1/8	4	1/8"
55500-5-M5	5	M5
55500-5-M6	5	M6
55500-5-1/8	5	1/8"
55500-5-1/4	5	1/4"
55500-6-M5	6	M5
55500-6-M6	6	M6
55500-6-1/8	6	1/8"
55500-6-1/4	6	1/4"
55500-8-1/8	8	1/8"
55500-8-1/4	8	1/4"
55500-8-3/8	8	3/8"
55500-10-3/8	10	3/8"
55500-12-3/8	12	3/8"
55500-12-1/2	12	1/2"

Tech Sheet 10709



Double Banjo Body, Metric & BSPP

1020	OD mm	Thread
55510-4-M5	4	M5
55510-5-1/8	5	1/8"
55510-5-1/4	5	1/4"
55510-6-1/8	6	1/8"
55510-6-1/4	6	1/4"
55510-8-1/8	8	1/8"
55510-8-1/4	8	1/4"

Tech Sheet 10709

55000 SERIES, 20 BAR RATED



Banjo Bolts



Single, Metric & BSPP

1020	Thread
55410-M5	M5
55410-M6	M6
55410-1/8	1/8"
55410-1/4	1/4"
55410-3/8	3/8"
55410-1/2	1/2"
55410-M12X1.5	M12 x 1.5

Tech Sheet 10709



Double, BSPP

1020	Thread
55420-1/8	1/8"
55420-1/4	1/4"
55420-3/8	3/8"
55420-1/2	1/2"

Tech Sheet 10709



Triple, BSPP

1020	Thread
55430-1/8	1/8"
55430-1/4	1/4"
55430-3/8	3/8"
55430-1/2	1/2"

Tech Sheet 10709

56000 SERIES - MINIATURE PUSH-IN FITTINGS



Working Temperature:
-20 to 80



Maximum Working Pressure:
20 bar (290 psi)

Vacuum: -0.99 bar

Male Studs



Male Thread, Metric

1020	OD mm	Thread
MP1-2-M3	2	M3
MP1-2-M5	2	M5
MP1-3-M3	3	M3
MP1-3-M5	3	M5

Tech Sheet 984

Swivel Male Stud Elbow



Male Thread, Metric

1020	OD mm	Thread
MP7-2-M3	2	M3
MP7-2-M5	2	M5
MP7-3-M3	3	M3
MP7-3-M5	3	M5

Tech Sheet 984

Swivel Tee Male Centre Leg



Male Thread, Metric

1020	OD mm	Thread
MP12-3-M5	3	M5

Tech Sheet 984



For **Quick Couplings for Plastic Injection Moulding**
see page 391



METRIC PUSH-IN FITTINGS, TECHNOPOLYMER



Straight Connector



Tube x Tube

9151	Tube OD mm
2019001	4
2019002	5
2019003	6
2019004	8
2019005	10
2019006	12

Equal Elbow



Tube x Tube

9151	Tube OD mm
2L21001	4
2021002	5
2L21003	6
2L21004	8
2021005	10
2021006	12

Equal Tee



Tube x Tube

9151	Tube OD mm
2L22001	4
2022002	5
2L22003	6
2L22004	8
2022005	10
2022006	12

Male Stud Swivel Elbow



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L34001	M5	4
2L34002	G1/8"	4
2L34003	G1/4"	4
2L34006	M5	6
2L34007	G1/8"	6
2L34008	G1/4"	6
2L34009	G1/8"	8
2L34010	G1/4"	8
2L34011	G3/8"	8
2L34013	G1/4"	10
2L34014	G3/8"	10
2L34016	G3/8"	12
2L34017	G1/2"	12

Female Stud Swivel Elbow



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L34F01	M5	4
2L34F06	M5	6
2L34F05	G1/8"	4
2L34F07	G1/8"	6
2L34F08	G1/4"	6
2L34F09	G1/8"	8
2L34F10	G1/4"	8

Plug



Stem

9151	Tube OD mm
2L10001	4
2010002	5
2L10003	6
2L10004	8
2L10005	10
2L10006	12
2010007	14

Male Stud Swivel Tee



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L35001	M5	4
2L35002	G1/8"	4
2L35003	G1/4"	4
2L35006	M5	6
2L35007	G1/8"	6
2L35008	G1/4"	6
2L35009	G1/8"	8
2L35010	G1/4"	8
2L35011	G3/8"	8
2L35013	G1/4"	10
2L35014	G3/8"	10
2L35016	G3/8"	12
2L35017	G1/2"	12

Equal Y



Tube x Tube

9151	Tube OD mm
2023001	4
2023002	5
2023003	6
2023004	8
2L23005	10
2L23006	12

Male Stud Y



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L23402	G1/8"	4
2L23403	G1/4"	4
2L23406	G1/8"	6
2L23407	G1/4"	6
2L23409	G1/8"	8
2L23410	G1/4"	8
2L23412	G3/8"	8

METRIC PUSH-IN FITTINGS, TECHNOPOLYMER



Y Stem



Stem x Tube

9151	OD mm Stem	OD mm Tube
2024001	4	4
2024003	6	6
2L24004	8	8
2L24005	10	10
2L24006	12	12

Y Elbow



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L25003	G1/8"	4
2L25004	G1/8"	6
2L25005	G1/4"	6
2L25008	G1/4"	8
2L25009	G3/8"	8

Plug-in Elbow



Stem x Tube

9151	Stem OD mm	Tube OD mm
2L46001	4	4
2L46002	6	6
2L46003	8	8
2L46004	10	10

Distribution Fitting



Tube x Tube

9151	Tube OD mm A	Tube OD mm B
2L42001	4	4
2L42002	6	4
2L42004	6	6
2L42005	8	6

Distribution Fitting



BSP Parallel x Tube

9151	Thread BSPP	Tube OD mm
2L43001	M5	4
2L43002	G1/8"	4
2L43003	G1/4"	4
2L43008	G1/8"	6
2L43009	G1/4"	6

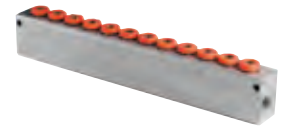
Tube Removal Tool



For use with Push-in Fittings

9150	To Suit Tube mm
2017001	4-14

Aluminium Distribution Manifold

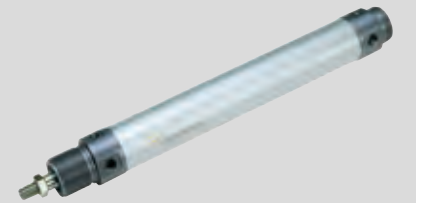


BSP Parallel x Tube Inlet Ports

9185	BSPP Inlet Thread	Tube OD mm	Outlets
7304106	G1/8"	4	6
7304112	G1/8"	4	12
7306206	G1/4"	6	6
7306212	G1/4"	6	12
7308306	G3/8"	8	6
7308312	G3/8"	8	12



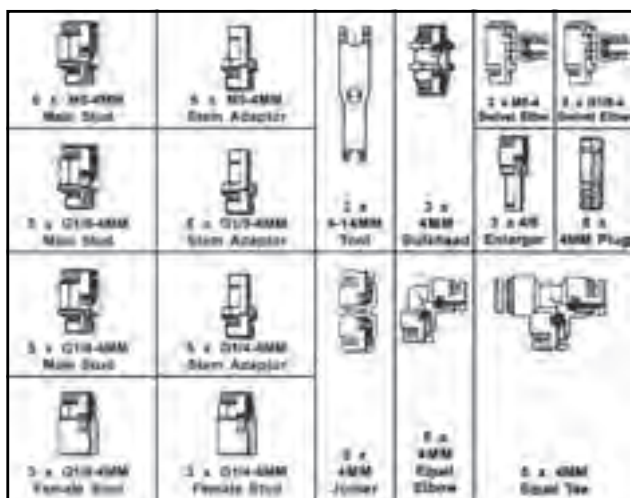
For Round RNDC Cylinders
see page 538



PUSH-IN FITTINGS KITS



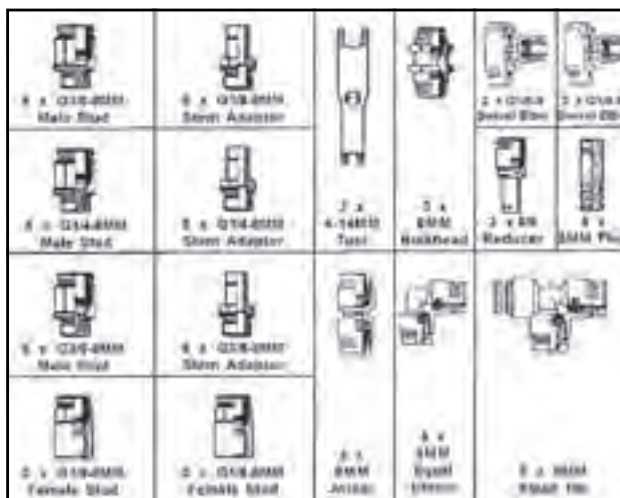
A convenient range of Metal Work push-in fittings in a kit. Comprising of seventeen removable compartments. These are contained in a hand carry case measuring 57mm deep x 340mm long x 265mm wide, made from tough polypropylene, with a clear view plastic hinged lid, sliding locks and carry handle. There are four pneumatic push-in fittings kits available: 4mm, 6mm 8mm and a 6/8mm combination.



Push-in Fittings Kit

4mm Outside Diameter

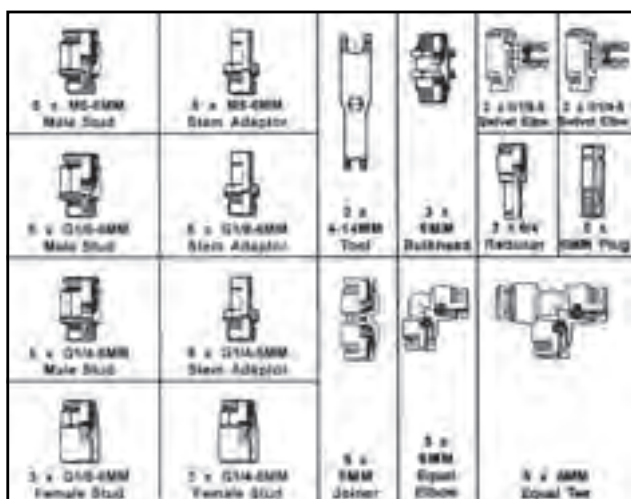
9153	Description
HANDYFIT-4	Assorted



Push-in Fittings Kit

8mm Outside Diameter

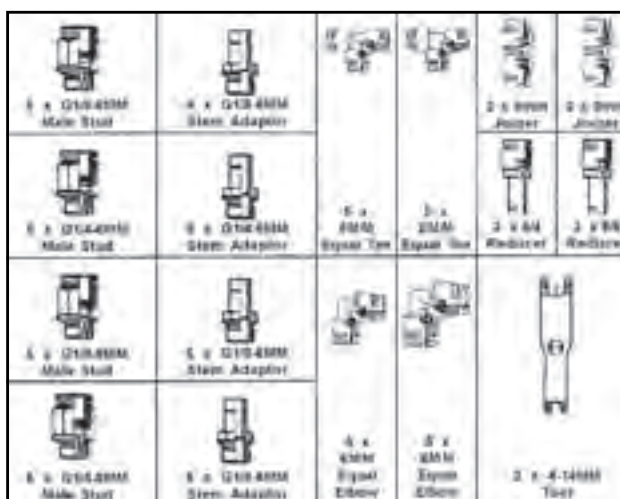
9153	Description
HANDYFIT-8	Assorted



Push-in Fittings Kit

6mm Outside Diameter

9153	Description
HANDYFIT-6	Assorted



Push-in Fittings Kit

6mm & 8mm Outside Diameter

9153	Description
HANDYFIT-6/8	Assorted

FLOW MICRO-REGULATORS


MFR Compact 'O' Threaded Brass Ring

Technical Features

- The job of flow micro-regulators is to regulate speed in the pneumatic cylinders. The configuration of both type C (to be mounted on the cylinder inlet) and type V (to be mounted on the valve port) is such as to ensure full flow on feed and regulated flow on charge. Type B (bidirectional) can be used to regulate the flow both on feed and discharge. Flow micro-regulators are divided into 4 series:
- MRF Compact 'O': Can be adjusted using a screwdriver; the regulation pin is lubricated with a particular anti-vibration grease; it has reduced dimensions and fine adjustment in the first turns; adjustment can be prevented by assembling a disposable cap (supplied separately) that can be removed using a tool.
- MRF Compact 'N': Can be adjusted using the knob and/or screwdriver; adjustment can be prevented by tightening the ring nut; it has the same regulation curve as those in series 'O'.

Main Features

- Reduced dimensions
- Excellent regulation
- Regulation with a screwdriver and disposable anti-tampering cap (Compact 'O')
- Regulation with either a screwdriver and/or a knob, can be fixed with a ring nut (Compact 'N')
- Available in all sizes (from M5 to 1/2") with a brass or a technopolymer ring
- Can be mounted with an automatic screwdriver
- Comes with a ring that can rotate even with the MRF mounted in position

-  **Working Temperature Range:**
 -10°C to +70°C (Brass Ring)
 -10°C to +50°C (Technopolymer Ring)

-  **Maximum Working Pressure:**
 10 bar



Type C to Suit Cylinder

9148	Thread BSPT	Tube OD mm
9001001C	M5	4
9001002C	M5	5
9001007C	M5	6
9001011C	R1/8"	4
9001012C	R1/8"	5

Type V to Suit Valves

9148	Thread BSPT	Tube OD mm
9001101V	R1/8"	6
9001103V	R1/8"	8
9001102V	R1/4"	6
9001104V	R1/4"	8
9001115V	R3/8"	8

Type B Bidirectional to Suit Cylinder & Valves

9148	Thread BSPT	Tube OD mm
9001609B	R1/4"	10
9001623B	R1/4"	12
9001610B	R3/8"	10
9001624B	R3/8"	12
9001625B	R1/2"	12

MRF Compact 'O' Threaded Brass Ring, Imperial



Type C to suit Cylinder

9148	Thread BSPT	Tube OD
9001020C	R1/8"	1/8"
9001021C	R1/4"	1/4"
9001022C	R3/8"	3/8"

Type B Bidirectional to suit Cylinders & Valves

9148	Thread BSPT	Tube OD
9001620B	R1/8"	1/8"
9001621B	R1/4"	1/4"
9001622B	R3/8"	3/8"

Type V to suit Valves

9148	Thread BSPT	Tube OD
9001120V	R1/8"	1/8"
9001121V	R1/4"	1/4"
9001122V	R3/8"	3/8"

Accessories for MRF Compact 'O'



Anti-tampering Cap

9148	To Fit Thread BSPT
9090001	M5
9090002	R1/8" - R1/4"
9090003	R3/8" - R1/2"

MRF Compact 'O' Technopolymer Ring



Type C to suit Cylinder

9148	Thread BSPT	Tube OD mm
9011001C	M5	4
9011007C	M5	6
9011011C	R1/8"	4
9011003C	R1/8"	6
9011005C	R1/8"	8
9011004C	R1/4"	6
9011006C	R1/4"	8
9011008C	R1/4"	10
9011014C	R1/4"	12
9011009C	R3/8"	10
9011015C	R3/8"	12
9011016C	R1/2"	12

Type V to suit Valves

9148	Thread BSPT	Tube OD mm
9011110V	M5	4
9011105V	M5	6
9011111V	R1/8"	4
9011101V	R1/8"	6
9011103V	R1/8"	8
9011102V	R1/4"	6
9011104V	R1/4"	8
9011106V	R1/4"	10
9011123V	R1/4"	12
9011114V	R3/8"	10
9011124V	R3/8"	12
9011125V	R1/2"	12

Type B Bidirectional to suit Cylinders & Valves

9148	Thread BSPT	Tube OD mm
9011601B	M5	4
9011612B	M5	6
9011602B	R1/8"	4
9011605B	R1/8"	6
9011607B	R1/8"	8
9011606B	R1/4"	6
9011608B	R1/4"	8
9011609B	R1/4"	10
9011623B	R1/4"	12
9011610B	R3/8"	10
9011624B	R3/8"	12
9011625B	R1/2"	12

FLOW MICRO-REGULATORS



MRF Compact 'N' Brass Ring



Type C to suit Cylinder

9148	Thread BSPT	Tube OD mm
9031001C	M5	4
9031003C	M5	5
9031005C	M5	6
9031002C	R1/8"	4
9031004C	R1/8"	5
9031006C	R1/8"	6
9031008C	R1/8"	8
9031007C	R1/4"	6
9031009C	R1/4"	8
9031010C	R3/8"	8
9031011C	R1/4"	10
9031014C	R1/4"	12
9031012C	R3/8"	10
9031015C	R3/8"	12
9031016C	1/2"	12

Type V to suit Valves

9148	Thread BSPT	Tube OD mm
9031101V	M5	4
9031103V	M5	5
9031105V	M5	6
9031102V	R1/8"	4
9031104V	R1/8"	5
9031106V	R1/8"	6
9031108V	R1/8"	8
9031107V	R1/4"	6
9031109V	R1/4"	8
9031110V	R3/8"	8
9031111V	R1/4"	10
9031114V	R1/4"	12
9031112V	R3/8"	10
9031115V	R3/8"	12
9031116V	1/2"	12

Type B Bidirectional to suit Cylinders & Valves

9148	Thread BSPT	Tube OD mm
9031201B	M5	4
9031203B	M5	5
9031205B	M5	6
9031202B	R1/8"	4
9031204B	R1/8"	5
9031206B	R1/8"	6
9031208B	R1/8"	8
9031207B	R1/4"	6
9031209B	R1/4"	8
9031210B	R3/8"	8
9031211B	R1/4"	10
9031214B	R1/4"	12
9031212B	R3/8"	10
9031215B	R3/8"	12
9031216B	1/2"	12

MRF Compact 'N' Technopolymer Ring



Type C to suit Cylinder

9148	Thread BSPT	Tube OD mm
9021001C	M5	4
9021005C	M5	6
9021002C	R1/8"	4
9021006C	R1/8"	6
9021008C	R1/8"	8
9021007C	R1/4"	6
9021009C	R1/4"	8
9021011C	R1/4"	10
9021014C	R1/4"	12
9021012C	R3/8"	10
9021212C	R3/8"	10
9021015C	R3/8"	12
9021016C	R1/2"	12

Type V to suit Valves

9148	Thread BSPT	Tube OD mm
9021101V	M5	4
9021105V	M5	6
9021102V	R1/8"	4
9021106V	R1/8"	6
9021108V	R1/8"	8
9011107V	R1/4"	6
9021109V	R1/4"	8
9021111V	R1/4"	10
9021114V	R1/4"	12
9021112V	R3/8"	10
9021115V	R3/8"	12
9021116V	R1/2"	12

Type B Bidirectional to suit Cylinders & Valves

9148	Thread BSPT	Tube OD mm
9021201B	M5	4
9021205B	M5	6
9021202B	R1/8"	4
9021206B	R1/8"	6
9021208B	R1/8"	8
9021207B	R1/4"	6
9021209B	R1/4"	8
9021211B	R1/4"	10
9021214B	R1/4"	12
9021215B	R3/8"	12
9021216B	R1/2"	12

MRF Compact 'N' Threaded Brass Ring



Type C to suit Cylinder

9148	Thread BSPT	Tube OD
9031301C	R1/8"	1/8"
9031302C	R1/4"	1/4"
9031303C	R3/8"	3/8"

Type V to suit Valves

9148	Thread BSPT	Tube OD
9031401V	R1/8"	1/8"
9031402V	R1/4"	1/4"
9031403V	R3/8"	3/8"

Type B Bidirectional to suit Cylinders & Valves

9148	Thread BSPT	Tube OD
9031501B	R1/8"	1/8"
9031502B	R1/4"	1/4"
9031503B	R3/8"	3/8"

BLOCK FITTINGS

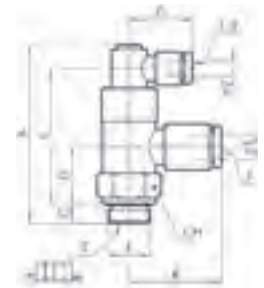


Blocking Fitting

Block valves function on the cylinder inlet to allow a flow of air only in the presence of a pneumatic pilot. This item is mainly used as a safety valve. When pressure drops in the pneumatic pilot, all cylinder movement is halted.

Technical Data

	Bidirectional			
	1/8"	1/4"	3/8"	1/2"
Operating Pressure bar	0.5-10			
Operating temperature °C	-10° to +60°			
Flow rate (6 bar)	320	700	1060	1700



Fully Threaded

9148	F	F1	F2
W6001101001	G1/8"	G1/8"	G1/8"
W6001111011	G1/4"	G1/4"	G1/8"
W6001121021	G3/8"	G3/8"	G1/8"

Tube Fittings

9148	F	Ø1 mm	Ø2 mm
W6001101106	G1/8"	6	4
W6001111106	G1/4"	6	4
W6001111108	G1/4"	8	4
W6001121108	G3/8"	8	4
W6001121110	G3/8"	10	4
W6001131112	G1/2"	12	4



For FRL's, 'SKILLAIR'
see pages 678-681



FLOW CONTROL VALVES



Unidirectional In-line Flow Control



To suit Cylinders

9148	Thread BSP	Mounting Thread
9041001	M5	M10 x 0.75
9041002	G1/8"	M12 x 1
9041003	G1/4"	M12 x 1
9041004	G3/8"	M15 x 1
9041005	G1/2"	M15 x 1

Bidirectional In-line Flow Control



To suit Cylinders

9148	Thread BSP	Mounting Thread
9041201	M5	M10 x 0.75
9041202	G1/8"	M12 x 1
9041203	G1/4"	M12 x 1
9041204	G3/8"	M15 x 1
9041205	G1/2"	M15 x 1

Unidirectional Flow Control



With Push-in Fittings

9148	Tube Ø mm	Mounting Thread
9041301	4	M9 x 0.75
9041316	6	M12 x 0.7
9041324	8	M15 x 1

Unidirectional Flow Control Fittings

► Flow Direction



Flow Direction Thread to Tube

9148	Thread BSP	Tube Ø mm
9041401	M5	4
9041402	G1/8"	4
9041408	G1/8"	6
9041409	G1/4"	6
9041410	G1/8"	8
9041411	G1/4"	8
9041412	G3/8"	8

Unidirectional Flow Control Fittings

► Flow Direction



Flow Direction Tube to Thread

9148	Thread BSP	Tube Ø mm
9041501	M5	4
9041502	G1/8"	4
9041508	G1/8"	6
9041509	G1/4"	6
9041510	G1/8"	8
9041511	G1/4"	8
9041512	G3/8"	8

Quick Exhaust Valves



BSP

9149	Thread BSP
9101201	1/8"
9201201	1/4"
9401201	1/2"



For Standard Series FRL's, 'NEW DEAL'
see page 673



FUNCTIONAL FITTINGS

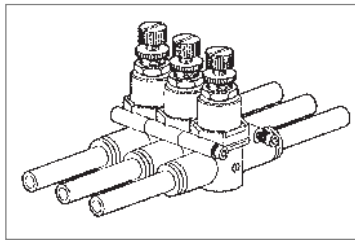


Line on Line is an exclusive range of products for mounting on pneumatic circuits. In these specially designed components it is possible to perform all pneumatic functions at any point of the circuit.

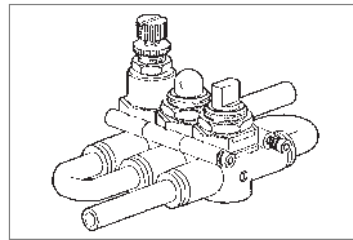
Line on Line is ultra-modular; the components can be connected in parallel, in series or combined parallel/series.

All Line on Line products are available for pipe-pipe connection in internal push-in fittings, or for thread-pipe connection with a brass nickel-plated aluminium internal push-in fitting.

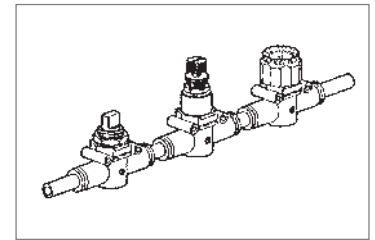
The body is made of technopolymer, giving a product that is extremely lightweight and compact. One side of the body is marked with an indelible pneumatic symbol to facilitate identification and indicate the direction of flow.



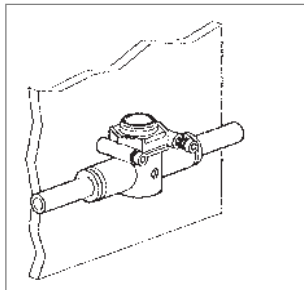
Parallel Lines



Serial Line Parallel Fittings



Serial Line In-line Fittings



Wall Fixing

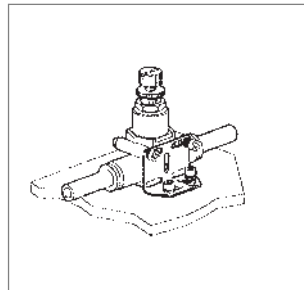
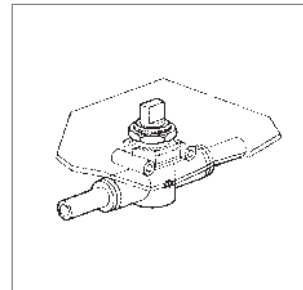
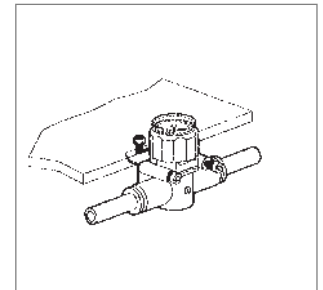


Plate Fixing



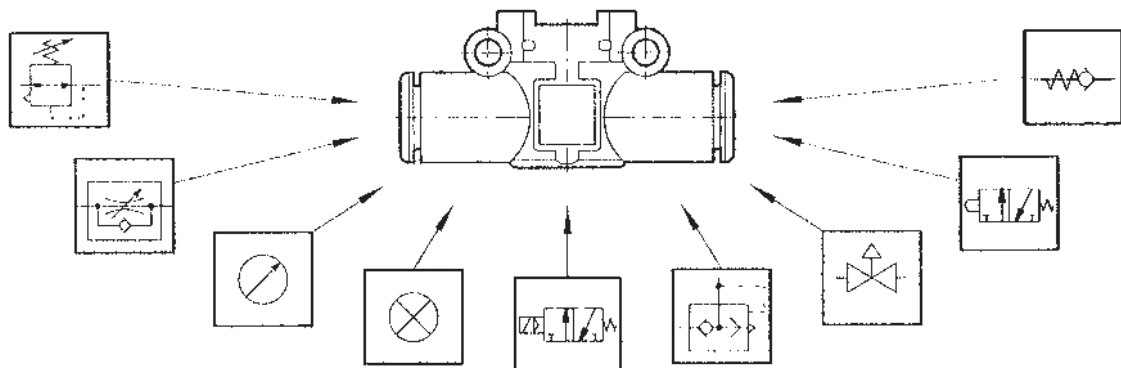
Panel Fixing



Under Wall Fixing

Technical Specifications

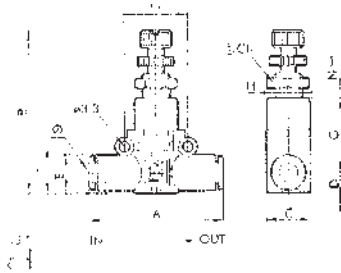
- Maximum operating pressure: 10 bar
- Temperature range: -20°C to +60°C
- Maximum flow rate on regulation at 6.3 bar: 155 NI/min (4mm), 450 NI/min (6mm), 850 NI/min (8mm)
- Adjustment: manual or using a screwdriver
- Internal system: tapered needle
- Recommended pipe: Rilson PA 11, nylon 6, polyamide 12, polypropylene
- Lubricated or non-lubricated filtered air



FUNCTIONAL FITTINGS



Line Mounted Pressure Regulator



lineonline

Tube to Tube

9148	Ø	A	B	C	D	E
9061316	6	47	46-52	14.7	6.4	11.4
9061324	8	55.5	52-58	18.7	9.1	13.8

In-line Quick Exhaust Valve

Fig. A.

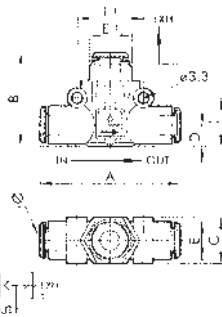
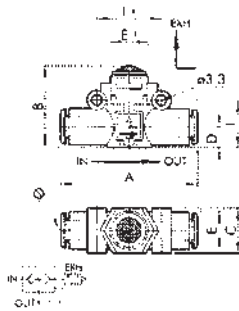


Fig. B.



lineonline

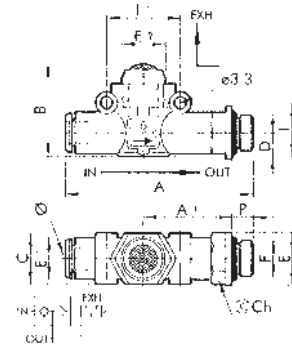
Tube to Tube

9148	Ø	Figure	A	B	C	D	E	E1	I	I1
9063016	6	A	47	29	14.7	6.4	11.4	13	14.6	20
9063024	8	A	55.5	35	18.7	9.1	13.8	15	18.7	24
9063116	6	B	47	25.5	14.7	6.4	11.4	14	14.6	20
9063124	8	B	55.5	31.5	18.7	9.1	13.8	18	18.7	24

In-line Quick Exhaust Valve



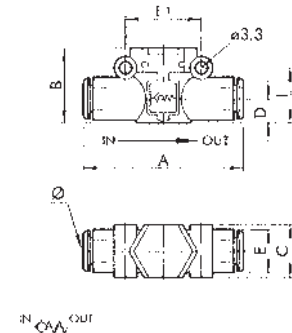
lineonline



Tube to Thread

9148	Ø	Figure	P	A	A1	B	C	D	E	E1	E2	I	I1	I2
9063308	6	1/8	6	57.3	27.8	25.5	14.7	6.4	14	11.4	14	14.6	20	12
9063309	6	1/4	8	60.3	28.8	25.5	14.7	6.4	18	11.4	14	14.6	20	14
9063310	8	1/8	6	65.5	31.8	31.5	18.7	9.1	15	13.8	18	18.7	24	13
9063311	8	1/4	8	69.7	34.2	31.5	18.7	9.1	18	13.8	18	18.7	24	14

In-line Check Valve



Tube to Tube

9148	Ø	A	B	C	D	E	I	I1
9064016	6	47	20	14.7	6.4	11.4	14.6	20
9064024	8	55.5	25.5	18.7	9.1	13.8	18.7	24

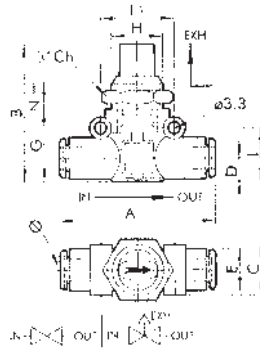
FUNCTIONAL FITTINGS



In-line Shut-off Valve

Technical Data

- Inlet Flow rate at 6.3 bar ΔP 1 bar:
280 NI/min (6mm), 470 NI/min (8mm)
- V2V L: on/off function
- V3V L: on/off function with vent



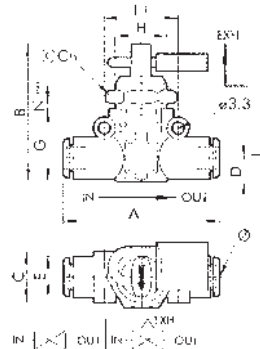
Tube to Tube

9148	Function	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9065016	V2V L	6	47	41	14.7	6.4	11.4	21	M15 x 1	14.6	20	17	5.5
9066016	V3V L	6	47	41	14.7	6.4	11.4	21	M15 x 1	14.6	20	17	5.5
9065024	V2V L	8	55.5	46	18.7	9.1	13.8	26	M15 x 1	18.7	24	17	5.5
9066024	V3V L	8	55.5	46	18.7	9.1	13.8	26	M15 x 1	18.7	24	17	5.5

In-line Shut-off Valve, Lockable

Technical Data

- V2V L: on/off function
- V3V L: on/off function with vent



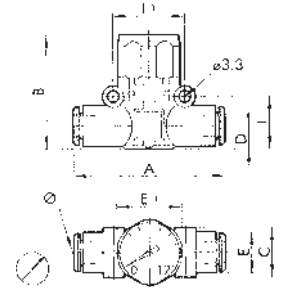
Tube to Tube

9148	Function	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9065116	V2V L	6	47	41	14.7	6.4	11.4	21	M15 x 1	14.6	20	17	5.5
9066116	V3V L	6	47	41	14.7	6.4	11.4	21	M15 x 1	14.6	20	17	5.5
9065124	V2V L	8	55.5	46	18.7	9.1	13.8	26	M15 x 1	18.7	24	17	5.5
9066124	V3V L	8	55.5	46	18.7	9.1	13.8	26	M15 x 1	18.7	24	17	5.5

In-line Pressure Gauge

Technical Data

- Operating pressure: 12 bar
- Precision: +4% full scale

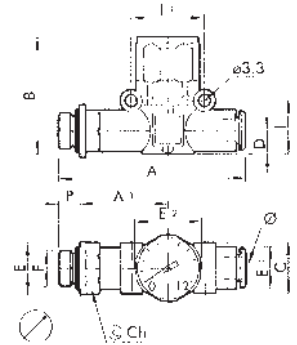


Tube to Tube

9148	Ø	A	B	C	D	E	E1	I	I1
9067016	6	47	35	14.7	6.4	11.4	23	14.6	20
9067024	8	55.5	41	18.7	9.1	13.8	23	18.7	24

Technical Data

- Operating pressure: 12 bar
- Precision: +4% full scale



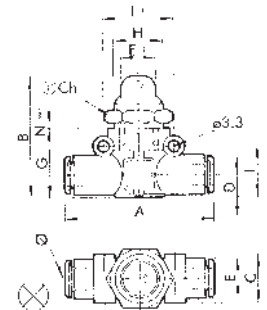
Thread to Tube

9148	Function	Ø	P	A	A1	B	C	D	E	E1	E2	I	I1	Ch
9067108	1/8	6	6	57.3	27.5	35	14.7	6.4	14	11.4	23	14.6	20	12
9067109	1/4	6	8	60.3	28.8	35	14.7	6.4	18	11.4	23	14.6	20	14
9067110	1/8	8	6	65.3	31.8	41	18.7	9.1	15	13.8	23	18.7	24	14
9067111	1/4	8	8	69.7	34.2	41	18.7	9.1	18	13.8	23	18.7	24	14

In-line Pressure Indicator

Technical Data

- Operating pressure: 2-12 bar
- A = Orange, V = Green



Tube to Tube

9148	Type	Ø	A	B	C	D	E	E1	G	H	I	I1	Ch	Nmax
9068016	A	6	47	37	14.7	6.4	11.4	10.6	21	M15 x 1	14.6	20	17	4.5
9068216	V	6	47	37	14.7	6.4	11.4	10.6	21	M15 x 1	14.6	20	17	4.5
9068024	A	8	55.5	41	18.7	9.1	13.8	10.6	26	M15 x 1	18.7	24	17	4.5
9068224	V	8	55.5	41	18.7	9.1	13.8	10.6	26	M15 x 1	18.7	24	17	4.5

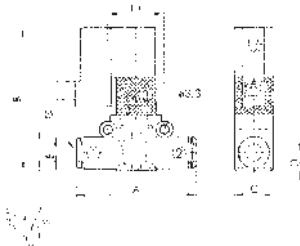
FUNCTIONAL FITTINGS



In-line 3 Port Solenoid Valve, Silenced Exhaust

Technical Data

- Operating pressure: 2.5-7 bar
- Flow rate at 6.3 bar ΔP 0.5 bar: 270 NI/min (6mm), 500 NI/min (8mm)
- Voltage: 24V DC
- Power: 1.2W

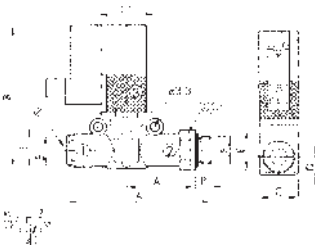


Tube to Tube

9148	\emptyset	A	B	C	D	E	I	I1
9069016	6	47	55.5	14.7	6.4	11.4	14.6	20
9069024	8	55.5	63.5	18.7	9.1	13.8	18.7	24

Technical Data

- Operating pressure: 2.5-7 bar
- Flow rate at 6.3 bar ΔP 0.5 bar: 270 NI/min, 500 NI/min
- Voltage: 24V DC
- Power: 1.2W



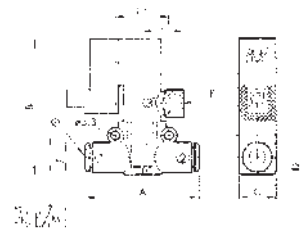
Thread to Tube

9148	\emptyset	F	P	A	A1	B	C	I	I1	Ch1
9069408	6	1/8	6	57.3	27.8	55.5	14.7	14.6	20	12
9069409	6	1/4	8	60.3	28.8	55.5	14.7	14.6	20	14
9069410	8	1/8	6	65.3	31.3	63.5	18.7	18.7	24	14
9069411	8	1/4	8	69.7	34.2	63.5	18.7	18.7	24	14

In-line 3 Port Solenoid Valve, Threaded Exhaust

Technical Data

- Operating pressure: 2.5 to 7 bar
- Flow rate at 6.3 bar ΔP 0.5 bar: 500 NI/min
- Voltage: 24V DC
- Power: 1.2W



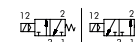
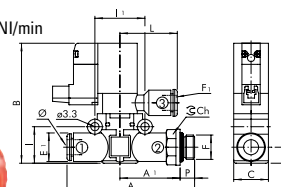
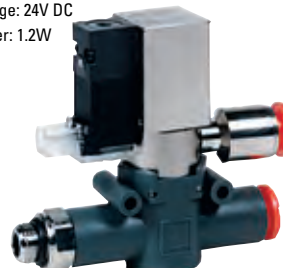
Tube to Tube

9148	\emptyset	A	B	C	D	E	E1	I	I1	L
9069224	8	55.5	63.5	18.7	9.1	13.8	1/8	18.7	24	21.5

In-line 3 Port Solenoid Valve, Silenced Exhaust

Technical Data

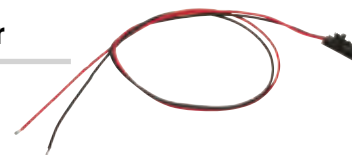
- Operating pressure: 2.5 to 7 bar
- Flow rate at 6.3 bar ΔP 0.5 bar: 270 NI/min, 500 NI/min
- Voltage: 24V DC
- Power: 1.2W



Tube to Thread

9148	\emptyset	F	P	A	A1	B	C	D	E	E1	F1	I	I1	L	Ch1
9069610	8	1/8	6	65.3	31.8	63.5	18.7	9.1	15	13.8	1/8	18.7	24	25.1	1
9069611	8	1/4	8	69.7	34.2	63.5	18.7	9.1	18	13.8	1/8	18.7	24	21.5	1

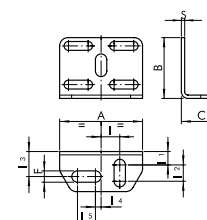
Electrical Connector



Plug-in

9148	Description
W0970512000	Plug-in Connector, 300mm Leads

Fixing Bracket



To suit All Line on Line Products

9148	A	B	C	F	I	I1	I2	13	14	15	S
9062110	30	22	14.5	4.2	6.8	4.8	5.9	9.1	2	6.5	1.2

U Tube



Tube

9148	OD mm
9062216	6
9062224	8

SERIES 7000 SUPER-RAPID COMPACT FITTINGS

Material: Technopolymer

Working Pressure:
-0.9 to 16 bar

Swivel Male Stud Elbows



Metric & BSPP

0158	OD mm	Thread
7522 4-M5	4	M5
7522 4-M7	4	M7
7522 4-1/8	4	1/8"
7522 4-1/4	4	1/4"
7522 6-M5	6	M5
7522 6-M7	6	M7
7522 6-1/8	6	1/8"
7522 6-1/4	6	1/4"
7522 8-1/8	8	1/8"
7522 8-1/4	8	1/4"
7522 8-3/8	8	3/8"
7522 10-1/4	10	1/4"
7522 10-3/8	10	3/8"
7522 10-1/2	10	1/2"
7522 12-1/4	12	1/4"
7522 12-3/8	12	3/8"
7522 12-1/2	12	1/2"
7522 16-1/2	16	1/2"
7522 16-3/4	16	3/4"

Tech Sheet 68274

Swivel Male Stud Extended Elbows



BSPP, Extended

0158	OD mm	Thread
7526 4-1/8	4	1/8"
7526 6-1/8	6	1/8"
7526 6-1/4	6	1/4"
7526 8-1/8	8	1/8"
7526 8-1/4	8	1/4"

Tech Sheet 68274

Swivel Male Stud Branch Tees



Metric & BSPP

0158	OD mm	Thread
7432 4-M5	4	M5
7432 4-1/8	4	1/8"
7432 6-M5	6	M5
7432 6-1/8	6	1/8"
7432 6-1/4	6	1/4"
7432 8-1/8	8	1/8"
7432 8-1/4	8	1/4"
7432 8-3/8	8	3/8"
7432 10-1/4	10	1/4"
7432 10-3/8	10	3/8"
7432 10-1/2	10	1/2"
7432 12-1/4	12	1/4"
7432 12-3/8	12	3/8"
7432 12-1/2	12	1/2"
7432 16-1/2	16	1/2"
7432 16-3/4	16	3/4"

Tech Sheet 68274

Swivel Male Stud Run Tees



BSPP

0158	OD mm	Thread
7442 4-1/8	4	1/8"
7442 6-1/8	6	1/8"
7442 6-1/4	6	1/4"
7442 8-1/8	8	1/8"
7442 8-1/4	8	1/4"
7442 8-3/8	8	3/8"
7442 10-1/4	10	1/4"
7442 10-3/8	10	3/8"
7442 12-3/8	12	3/8"
7442 12-1/2	12	1/2"
7442 16-1/2	16	1/2"
7442 16-3/4	16	3/4"

Tech Sheet 68274

Swivel Male Stud Ys



BSPP

0158	OD mm	Thread
7562 4-1/8	4	1/8"
7562 6-1/8	6	1/8"
7562 6-1/4	6	1/4"
7562 8-1/8	8	1/8"
7562 8-1/4	8	1/4"
7562 10-1/4	10	1/4"
7562 10-3/8	10	3/8"

Tech Sheet 68274

Swivel Male Stud Double Ys



BSPP

0158	OD mm	Thread
7572 4-1/8	4	1/8"
7572 4-1/4	4	1/4"
7572 6-1/8	6	1/8"
7572 6-1/4	6	1/4"

Tech Sheet 68274

SERIES 7000 SUPER-RAPID COMPACT FITTINGS

Material: Technopolymer



Working Pressure:
-0.9 to 16 bar

Tube x Tube Connectors



Equal Straights

0158	OD mm
7580 4	4
7580 6	6
7580 8	8
7580 10	10
7580 12	12

Tech Sheet 68274



Equal Elbows

0158	OD mm
7550 4	4
7550 6	6
7550 8	8
7550 10	10
7550 12	12
7550 16	16

Tech Sheet 68274



Equal Tees

0158	OD mm
7540 4	4
7540 6	6
7540 8	8
7540 10	10
7540 12	12
7540 16	16

Tech Sheet 68274



Equal Ys

0158	OD mm
7560 4	4
7560 6	6
7560 8	8
7560 10	10

Tech Sheet 68274



Unequal Ys

0158	OD mm	OD mm
7560 6-4	6	4
7560 8-6	8	6
7560 10-8	10	8

Tech Sheet 68274



Unequal Double Ys

0158	OD mm	OD mm
7575 6-4	6	4
7575 8-6	8	6

Tech Sheet 68274

Tube x Stem Connectors



Unequal Straights

0158	OD mm	Stem OD mm
7800 4-6	4	6
7800 4-8	4	8
7800 6-8	6	8
7800 6-10	6	10
7800 6-12	6	12
7800 8-10	8	10
7800 8-12	8	12
7800 10-12	10	12

Tech Sheet 68274



Elbows

0158	OD mm	Stem OD mm
7555 4-4	4	4
7555 6-6	6	6
7555 8-8	8	8
7555 10-10	10	10
7555 12-12	12	12

Tech Sheet 68274

Stem Connectors



Stem x Stem

0158	Stem OD mm
7950 4	4
7950 6	6
7950 8	8
7950 10	10
7950 12	12

Tech Sheet 68274

Reducing Manifolds



Tube x Tube

0158	Inlet OD mm	Outlet OD mm
7545 6-4	6	4
7545 8-6	8	6
7545 10-8	10	10

Tech Sheet 68274



Swivel Male, BSPP

0158	Inlet OD mm	Outlet OD mm	Thread
7542 6-4-1/8	6	4	1/8"
7542 6-4-1/4	6	4	1/4"
7542 8-6-1/8	8	6	1/8"
7542 8-6-1/4	8	6	1/4"
7542 10-8-1/4	10	8	1/4"
7542 10-8-3/8	10	8	3/8"

Tech Sheet 68274

SERIES 7000 SUPER-RAPID COMPACT FITTINGS

Material: Technopolymer

Working Pressure:
-0.9 to 16 bar

Single Banjo Bodies



BSPP

0158	OD mm	Thread
7610 4-1/8	4	1/8"
7610 6-1/8	6	1/8"
7610 6-1/4	6	1/4"
7610 8-1/8	8	1/8"
7610 8-1/4	8	1/4"
7610 10-1/4	10	1/4"
7610 10-3/8	10	3/8"
7610 12-3/8	12	3/8"

Tech Sheet 68274

Twin Banjo Bodies



BSPP

0158	OD mm	Thread
7640 4-1/8	4	1/8"
7640 6-1/8	6	1/8"
7640 6-1/4	6	1/4"
7640 8-1/8	8	1/8"
7640 8-1/4	8	1/4"
7640 10-1/4	10	1/4"

Tech Sheet 68274

Swivel Banjos, 1 Outlet



BSPP

0158	OD mm	Thread
7622 4-1/8	4	1/8"
7622 6-1/8	6	1/8"
7622 6-1/4	6	1/4"
7622 8-1/8	8	1/8"
7622 8-1/4	8	1/4"
7622 10-1/4	10	1/4"
7622 10-3/8	10	3/8"
7622 12-3/8	12	3/8"

Tech Sheet 68274

Swivel Twin Banjos, 2 Outlets



BSPP

0158	OD mm	Thread
7652 4-1/8	4	1/8"
7652 6-1/8	6	1/8"
7652 6-1/4	6	1/4"
7652 8-1/8	8	1/8"
7652 8-1/4	8	1/4"
7652 10-1/4	10	1/4"
7652 10-3/8	10	3/8"

Tech Sheet 68274

Double Adjustable Banjos, 2 Outlets



BSPP

0158	OD mm	Thread
7612 02-4-1/8	4	1/8"
7612 02-6-1/8	6	1/8"
7612 02-6-1/4	6	1/4"
7612 02-8-1/8	8	1/8"
7612 02-8-1/4	8	1/4"
7612 02-10-1/4	10	1/4"
7612 02-10-3/8	10	3/8"
7612 02-12-3/8	12	3/8"

Tech Sheet 68274

Double Adjustable Twin Banjos, 4 Outlets



BSPP

0158	OD mm	Thread
7642 02-4-1/8	4	1/8"
7642 02-6-1/8	6	1/8"
7642 02-6-1/4	6	1/4"
7642 02-8-1/8	8	1/8"
7642 02-8-1/4	8	1/4"
7642 02-10-1/4	10	1/4"

Tech Sheet 68274

Triple Adjustable Banjos, 3 Outlets



BSPP

0158	OD mm	Thread
7612 03-4-1/8	4	1/8"
7612 03-6-1/8	6	1/8"
7612 03-6-1/4	6	1/4"
7612 03-8-1/8	8	1/8"
7612 03-8-1/4	8	1/4"
7612 03-10-1/4	10	1/4"

Tech Sheet 68274

Triple Adjustable Twin Banjos, 6 Outlets



BSPP

0158	OD mm	Thread
7642 03-4-1/8	4	1/8"
7642 03-6-1/8	6	1/8"
7642 03-6-1/4	6	1/4"
7642 03-8-1/8	8	1/8"
7642 03-8-1/4	8	1/4"
7642 03-10-1/4	10	1/4"

Tech Sheet 68274

Banjo Bolts



Double Stem, BSPP

0158	Thread
7632 02-1/8	1/8"
7632 02-1/4	1/4"
7632 02-3/8	3/8"

Tech Sheet 68274

Triple Stem, BSPP



0158	Thread
7632 03-1/8	1/8"
7632 03-1/4	1/4"

Tech Sheet 68274



Push-in Fittings & Ring Main Systems

For
Ring Main
Systems
see section 8
page 1061



For Push-in
Fittings
see section 6
page 763

PUSH-IN FITTINGS, METRIC

Media: Compressed air. Suitable for vacuum.

Temperature at:	Pressure 5/32" – 5/16" 4mm – 8mm	Pressure 3/8" - 1/2": 10mm – 22mm
Air		
-20°C	16 bar	10 bar

Potable Liquids and Air		
+1°C	16 bar	10 bar
+20°C	16 bar	10 bar
+65°C	10 bar	7 bar

Straight Adaptors



Male Thread, Super Thread

1400	OD mm	Thread
LM0104M5	4	M5
RM010411	4	1/8"
RM010511	5	1/8"
RM010512	5	1/4"
RM010611	6	1/8"
RM010612	6	1/4"
RM010811	8	1/8"
RM010812	8	1/4"
RM010813	8	3/8"
RM011012	10	1/4"
RM011013	10	3/8"
RM011014	10	1/2"
RM011213	12	3/8"
RM011214	12	1/2"



Male Thread, Metric

1400	OD mm	Thread
RM0104M5	4	M5
RM0106M5	6	M5



Male Thread, BSPP

1400	OD mm	Thread
PM010411E	4	1/8"
PM010412E	4	1/4"
PM010511E	5	1/8"
PM010512E	5	1/4"
PM010611E	6	1/8"
PM010612E	6	1/4"
PM010811E	8	1/8"
PM010812E	8	1/4"
PM010813E	8	3/8"
PM011012E	10	1/4"
PM011013E	10	3/8"
PM011014E	10	1/2"
PM011213E	12	3/8"
PM011514E	15	1/2"



Male Thread, BSPT

1400	OD mm	Thread
PM010401E	4	1/8"
PM010402E	4	1/4"
PM010501E	5	1/8"
PM010502E	5	1/4"
PM010601E	6	1/8"
PM010602E	6	1/4"
PM010801E	8	1/8"
PM010802E	8	1/4"
PM010803E	8	3/8"
PM011002E	10	1/4"
PM011003E	10	3/8"
PM011004E	10	1/2"
PM011203E	12	3/8"
PM011204E	12	1/2"

Brass Straight Adaptors



Male Thread, BSPP

1400	OD mm	Thread
MM010411	4	1/8"
MM010611	6	1/8"



Male Super Thread

1400	OD mm	Thread
LM010411	4	1/8"

Equal Tees



Tube x Tube

1400	OD mm
LM0203E	3
PM0204E	4
PM0205E	5
PM0206E	6
PM0208E	8
PM0210E	10
PM0212E	12
PM0215E	15

Equal Elbows



Tube x Tube

1400	OD mm
LM0303E	3
PM0304E	4
PM0305E	5
PM0306E	6
PM0308E	8
PM0310E	10
PM0312E	12
PM0315E	15

Reducing Elbow Connectors



Tube x Tube

1400	OD mm	OD mm
PM210604E	6	4
PM210804E	8	4
PM210806E	8	6
PM211004E	10	4
PM211006E	10	6
PM211008E	10	8
PM211208E	12	8
PM211210E	12	10

PUSH-IN FITTINGS, METRIC

Female Adaptors



BSPP

1400	OD mm	Thread
PM450411E	4	1/8"
PM450611E	6	1/8"
PM450612E	6	1/4"
PM450812E	8	1/4"
PM451015FE	10	5/8"

Stem Elbows



Tube x Stem

1400	OD mm	Stem OD mm
PM220404E	4	4
PM220505E	5	5
PM220606E	6	6
PM220808E	8	8
PM221010E	10	10
PM221212E	12	12
PM221515E	15	15

Equal Straight Connectors



Tube x Tube

1400	OD mm
PM0404E	4
PM0405E	5
PM0406E	6
PM0408E	8
PM0410E	10

Reducing Straight Connectors



Tube x Tube

1400	OD mm	OD mm
PM200604E	6	4
PM200804E	8	4
PM200806E	8	6
PM201004E	10	4
PM201006E	10	6
PM201008E	10	8
PM201208E	12	8
PM201210E	12	10

Stem Adaptors



Super Thread, BSPP

1400	Stem OD mm	Thread
RM050411	4	1/8"
RM050412	4	1/4"
RM050512	5	1/4"
RM050611	6	1/8"
RM050612	6	1/4"
RM051013	10	3/8"
RM051014	10	1/2"
RM051213	12	3/8"

Metric

1400	Stem OD mm	Thread
RM0504M5	4	M5
RM0506M5	6	M5



BSPT

1400	Stem OD mm	Thread
PM050401E	4	1/8"
PM050402E	4	1/4"
PM050501E	5	1/8"
PM050502E	5	1/4"
PM050601E	6	1/8"
PM050602E	6	1/4"
PM050801E	8	1/8"
PM050802E	8	1/4"
PM050803E	8	3/8"
PM051002E	10	1/4"
PM051003E	10	3/8"
PM051004E	10	1/2"
PM051203E	12	3/8"
PM051204E	12	1/2"



BSPP

1400	Stem OD mm	Thread
PM050411E	4	1/8"
PM050412E	4	1/4"
PM050511E	5	1/8"
PM050512E	5	1/4"
PM050611E	6	1/8"
PM050612E	6	1/4"
PM050811E	8	1/8"
PM050812E	8	1/4"
PM050813E	8	3/8"
PM051012E	10	1/4"
PM051013E	10	3/8"
PM051014E	10	1/2"
PM051213E	12	3/8"
PM051214E	12	1/2"

Dividers



Tube x Tube

1400	OD mm
PM2304E	4
RM2306E	6
RM2308E	8
PM2310E	10

Bulkhead Adaptors

Media:

Compressed air. Suitable for vacuum.

Maximum bulkhead mounting torque 27Nm.



BSPP

1400	OD mm	Thread	Bulkhead
RM070612	6	1/4"	3/8"

Swivel Tees Offset Leg

Media:

Compressed Air. Suitable for vacuum.



BSPT

1400	OD mm	Thread
PM110601E	6	1/8"
PM110802E	8	1/4"
PM111003E	10	3/8"
PM111203E	12	3/8"
PM111204E	12	1/2"



BSPP Thread

1400	OD mm	Thread
PM110411E	4	1/8"
PM110511E	5	1/8"
PM110512E	5	1/4"
PM110611E	6	1/8"
PM110612E	6	1/4"
PM110811E	8	1/8"
PM110812E	8	1/4"
PM110813E	8	3/8"
PM111012E	10	1/4"
PM111013E	10	3/8"
PM111014E	10	1/2"
PM111213E	12	3/8"
PM111214E	12	1/2"

PUSH-IN FITTINGS, METRIC

Bulkhead Connectors



BSPP Thread

1400	OD mm	Thread
PM1204E	4	3/8"
PM1206E	6	3/8"
PM1208E	8	1/2"
PM1210E	10	1/2"
PM1212E	12	3/4"

Reducers



Tube x Stem

1400	Stem OD mm	Thread
PM060504E	5	4
PM060604E	6	4
PM060605E	6	5
PM060804E	8	4
PM060805E	8	5
PM060806E	8	6
PM061006E	10	6
PM061008E	10	8
PM061208E	12	8
PM061210E	12	10
PM061510E	15	10

Single Banjo Body



BSPP Thread

1400	OD mm	Thread
RM150411E	4	1/8"
RM150511E	5	1/8"
RM150811E	8	1/4"
RM151013E	10	3/8"
RM151214E	12	1/2"

Banjo Bolts



Single, BSPP Thread

1400	Thread
RM1611	1/8"
RM1614	1/2"

Media:

Compressed air. Suitable for vacuum.



Double, BSPP Thread

1400	Thread
RM1711	1/8"
RM1712	1/4"
RM1713	3/8"
RM1714	1/2"

Swivel Elbows



Super Thread, BSPP

1400	OD mm	Thread
RM090412	4	1/4"
RM090611	6	1/8"
RM090612	6	1/4"
RM090811	8	1/8"
RM090812	8	1/4"
RM091013	10	3/8"
RM091213	12	3/8"
RM091214	12	1/2"



Metric Thread

1400	OD mm	Thread
LM0904M5	4	M5
RM0904M5	4	M5
RM0905M5	5	M5
RM0906M5	6	M5

Plugs

Media:

Compressed Air. Suitable for vacuum.



Tube

1400	Stem OD mm	Colour
PM0804R	4	Red
PM0805R	5	Red
PM0806R	6	Red
PM0808R	8	Red
PM0810R	10	Red
PM0812R	12	Red
PM0815R	15	Black



BSPP Thread

1400	OD mm	Thread
PM090411E	4	1/8"
PM090412E	4	1/4"
PM090511E	5	1/8"
PM090512E	5	1/4"
PM090611E	6	1/8"
PM090612E	6	1/4"
PM090811E	8	1/8"
PM090812E	8	1/4"
PM090813E	8	3/8"
PM091012E	10	1/4"
PM091013E	10	3/8"
PM091014E	10	1/2"
PM091213E	12	3/8"
PM091214E	12	1/2"



BSPT Thread

1400	OD mm	Thread
PM090401E	4	1/8"
PM090402E	4	1/4"
PM090501E	5	1/8"
PM090502E	5	1/4"
PM090601E	6	1/8"
PM090602E	6	1/4"
PM090801E	8	1/8"
PM090802E	8	1/4"
PM090803E	8	3/8"
PM091002E	10	1/4"
PM091003E	10	3/8"
PM091004E	10	1/2"
PM091203E	12	3/8"
PM091204E	12	1/2"

PUSH-IN FITTINGS, METRIC

Swivel Tees Centre Leg



Super Thread, BSPP

1400	OD mm	Thread
RM100611	6	1/8"
RM100612	6	1/4"



BSPT Thread

1400	OD mm	Thread
PM100401E	4	1/8"
PM100402E	4	1/4"
PM100502E	5	1/4"
PM100601E	6	1/8"
PM100602E	6	1/4"
PM100801E	8	1/8"
PM100802E	8	1/4"
PM100803E	8	3/8"
PM101002E	10	1/4"
PM101003E	10	3/8"
PM101004E	10	1/2"
PM101203E	12	3/8"
PM101204E	12	1/2"



BSPP Thread

1400	OD mm	Thread
PM100411E	4	1/8"
PM100412E	4	1/4"
PM100511E	5	1/8"
PM100512E	5	1/4"
PM100611E	6	1/8"
PM100612E	6	1/4"
PM100811E	8	1/8"
PM100812E	8	1/4"
PM100813E	8	3/8"
PM101012E	10	1/4"
PM101013E	10	3/8"
PM101014E	10	1/2"
PM101213E	12	3/8"
PM101214E	12	1/2"

Tube to Hose Stem



Stem x Hose Tail

1400	Stem OD mm	To Suit Hose ID mm
PM250604E	6	4
PM250806E	8	6
PM251008E	10	8

Collet Covers



Colour Coding and Additional Security

The slip-on collet covers shown in this photograph prevent accidental removal or tampering with tubing. Tubing can be inserted with the collet cover already attached to the fittings or the cover can be slid into position afterwards. The cover is easily removed as and when required and comes in a variety of colours for colour-coding.

Colours available - suffix indicates colour

i.e. E = Black S = Grey
R = Red B = Blue
Y = Yellow G = Green

Please indicate, by suffix the colour required or black will be supplied.

Metric

1400	OD mm
PM1904E	4
PM1905E	5
PM1910E	10
PM1912E	12
PM1915E	15
PM1922E	22

Locking Clip



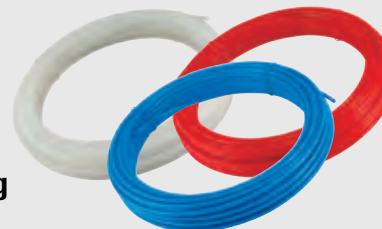
1400	OD mm
PMC1815R	15



For John Guest
Ring Main System
see pages 1088-1092



You might also need Nylon Tubing
see pages 913-917



PUSH-IN FITTINGS, IMPERIAL

Media: Compressed air. Suitable for vacuum.

- Drink dispensers and pure water fittings

Temperature at:	Working Pressure 5/32"-5/16"	Working Pressure 3/8"-1/2"
+20°C	16 bar	10 bar
+23°C	16 bar	10 bar
+70°C	10 bar	7 bar

Straight Adaptors



Male Thread, BSPT

1400	OD	Thread
PM010401S	5/32"	1/8"
PM010402S	5/32"	1/4"
PI010601S	3/16"	1/8"
PI010801S	1/4"	1/8"
PI010802S	1/4"	1/4"
PM010801S	5/16"	1/8"
PM010802S	5/16"	1/4"
PM010803S	5/16"	3/8"
PI011202S	3/8"	1/4"
PI011203S	3/8"	3/8"
PI011603S	1/2"	3/8"
PI011604S	1/2"	1/2"

Male Thread, BSPP

1400	OD	Thread
PI010812S	1/4"	1/4"
PI011212S	3/8"	1/4"

Male Thread, NPT

1400	OD	Thread
PM010421S	5/32"	1/8"
PM010422S	5/32"	1/4"
PI010621S	3/16"	1/8"
PI010821S	1/4"	1/8"
PI010822S	1/4"	1/4"
PI010823S	1/4"	3/8"
PM010821S	5/16"	1/8"
PM010822S	5/16"	1/4"
PM010823S	5/16"	3/8"
PI011221S	3/8"	1/8"
PI011222S	3/8"	1/4"
PI011223S	3/8"	3/8"
PI011224S	3/8"	1/2"
PI011623S	1/2"	3/8"
PI011624S	1/2"	1/2"
PI012026S	5/8"	3/4"

Equal Straight Connectors



Tube x Tube

1400	OD
PM0404S	5/32"
PI0406S	3/16"
PI0408S	1/4"
PM0408S	5/16"
PI0412S	3/8"
PI0416S	1/2"

Equal Tees



Tube x Tube

1400	OD
PM0204S	5/32"
PI0206S	3/16"
PI0208S	1/4"
PM0208S	5/16"
PI0212S	3/8"
PI0216S	1/2"

Branch Reducing Tees



Tube x Tube

1400	OD	OD
PI301208S	3/8"	1/4"
PI301612S	1/2"	3/8"

Bulkhead Connectors



Tube x Tube

1400	OD
PI1206S	3/16"
PI1208S	1/4"
PM1208S	5/16"
PI1212S	3/8"
PI1216S	1/2"

Swivel Branch Tee, Leg



BSPT

1400	OD	Thread
PI100802S	1/4"	1/4"



Swivel Branch Tee, Run



BSPT

1400	OD	Thread
PM110801S	5/16"	1/8"

Reducing Bulkhead Connectors



Tube x Tube

1400	OD	OD
PI121208S	3/8"	1/4"

Stem Adaptors



Male Thread, BSPT

1400	Stem OD	Thread
PI050801S	1/4"	1/8"
PI050802S	1/4"	1/4"
PM050801S	5/16"	1/8"
PM050802S	5/16"	1/4"
PI051202S	3/8"	1/4"
PI051203S	3/8"	3/8"
PI051603S	1/2"	3/8"
PI051604S	1/2"	1/2"

Male Thread, BSPP

1400	Stem OD	Thread
PI051212S	3/8"	1/4"
PI051213S	3/8"	3/8"

Male Thread, NPT

1400	Stem OD	Thread
PM050421S	5/32"	1/8"
PM050422S	5/32"	1/4"
PI050621S	3/16"	1/8"
PI050821S	1/4"	1/8"
PI050822S	1/4"	1/4"
PI050823S	1/4"	3/8"
PM050821S	5/16"	1/8"
PM050822S	5/16"	1/4"
PM050823S	5/16"	3/8"
PI051222S	3/8"	1/4"
PI051223S	3/8"	3/8"
PI051623S	1/2"	3/8"
PI051624S	1/2"	1/2"

PUSH-IN FITTINGS, IMPERIAL



John Guest

Equal Elbows



Tube x Tube

1400	OD
PM0304S	5/32"
PI0306S	3/16"
PI0308S	1/4"
PM0308S	5/16"
PI0312S	3/8"
PI0316S	1/2"

Reducing Elbows



Tube x Tube

1400	OD	OD
PM210804S	5/16"	5/32"
PI211006S	5/16"	3/16"
PI211008S	5/16"	1/4"
PI211206S	3/8"	3/16"
PI211208S	3/8"	1/4"
PI211210S	3/8"	5/16"
PI211610S	1/2"	5/16"
PI211612S	1/2"	3/8"

Stem Elbows



Tube x Stem

1400	Stem OD	Thread
PM220404S	5/32"	5/32"
PI220606S	3/16"	3/16"
PI220808S	1/4"	1/4"
PM220808S	5/16"	5/16"
PI221206S	3/8"	3/16"
PI221208S	3/8"	1/4"
PI221210S	3/8"	5/16"
PI221212S	3/8"	3/8"
PI221616S	1/2"	1/2"

Rigid Elbows



Male Thread, NPT

1400	OD	Thread
PI480821S	1/4"	1/8"
PI480822S	1/4"	1/4"
PI480823S	1/4"	3/8"
PI481022S	5/16"	1/4"
PI481023S	5/16"	3/8"
PI481222S	3/8"	1/4"
PI481223S	3/8"	3/8"
PI482024S	5/8"	1/2"

Swivel Elbows



Male Thread, BSPT

1400	OD	Thread
PI090801S	1/4"	1/8"
PI090802S	1/4"	1/4"
PM090801S	5/16"	1/8"
PM090803S	5/16"	3/8"
PI091202S	3/8"	1/4"
PI091203S	3/8"	3/8"
PI091603S	1/2"	3/8"
PI091604S	1/2"	1/2"

Male Thread, NPT

1400	OD	Thread
PM090421S	5/32"	1/8"
PI090621S	3/16"	1/8"
PI090822S	1/4"	1/4"
PI091623S	1/2"	3/8"
PI091624S	1/2"	1/2"

Plugs



Tube

1400	Stem OD
PM0804S	5/32"
PI0806S	3/16"
PI0808S	1/4"
PM0808S	5/16"
PI0812S	3/8"
PI0816S	1/2"

Female Adaptors



BSPP

1400	OD	Thread
PI451014FS	5/16"	1/2"
PI451213S	3/8"	3/8"
PI451214FS	3/8"	1/2"
PI451613S	1/2"	3/8"



NPT

1400	OD	Thread
PI450822S	1/4"	1/4"
PI451222S	3/8"	1/4"

Reducers



Tube x Stem

1400	Stem OD	OD
PI060605S	3/16"	5/32"
PI061006S	5/16"	3/16"
PI061008S	5/16"	1/4"
PI061206S	3/8"	3/16"
PI061208S	3/8"	1/4"
PI061210S	3/8"	5/16"
PI061610S	1/2"	5/16"
PI061612S	1/2"	3/8"

PUSH-IN FITTINGS, IMPERIAL



Dividers



2 Way, Tube x Tube

1400	OD
PI2308S	1/4"
PI2312S	3/8"
PI2316S	1/2"



Reducing 2 Way, Tube x Tube

1400	OD A	OD B
PI241210S	3/8"	5/16"



Reducing 3 Way, Tube x Tube

1400	OD A	OD B
PI491612S	1/2"	3/8"

Enlargers



Tube x Stem

1400	OD	Stem OD
PI131012S	3/8"	5/16"
PI131216S	1/2"	3/8"

Cross



Tube x Tube

1400	OD
PI4712S	3/8"

U-Bends



Tube x Tube

1400	OD
PIUB16S	1/2"

End Stops



1400	OD
PI4608S	1/4"
PI4612S	3/8"

Tube to Hose Stems



Stem x Hose Tail

1400	Stem OD	To Suit Hose ID
PI250806S	1/4"	3/16"
PI250808S	1/4"	1/4"
PI250810S	1/4"	5/16"
PI251006S	5/16"	3/16"
PI251008S	5/16"	1/4"
PM250808S	5/16"	5/16"
PI251012S	5/16"	3/8"
PI251208S	3/8"	1/4"
PI251210S	3/8"	5/16"
PI251212S	3/8"	3/8"
PI251216S	3/8"	1/2"
PI251612S	1/2"	3/8"
PI251616S	1/2"	1/2"

Tube Hose to Elbows



Stem x Hose Tail

1400	Stem OD	To Suit Hose ID
PI290808S	1/4"	1/4"
PI290810S	1/4"	5/16"
PI291008S	5/16"	1/4"
PM290808S	5/16"	5/16"
PI291208S	3/8"	1/4"
PI291210S	3/8"	5/16"

Reducing Straight Connectors



Tube x Tube

1400	OD A	OD B
PI200806S	1/4"	3/16"
PM200804S	5/16"	5/32"
PI201006S	5/16"	3/16"
PI201008S	5/16"	1/4"
PI201206S	3/8"	3/16"
PI201208S	3/8"	1/4"
PI201210S	3/8"	5/16"
PI201610S	1/2"	5/16"
PI201612S	1/2"	3/8"

Flow Bend Tube Clips



90°

1400	OD mm	OD
PM2608S	8	5/16"
PM2610S	10	3/8"

Tube Supports



Tube

1400	To Suit Hose ID
TSI250S	1/4"
TSI312S	5/16"
TSI375S	3/8"

Locking Clip



1400	OD
PIC1808R	1/4"
PIC1812R	3/8"

Collet Covers



Imperial

1400	OD
PM1904S	5/32"
PI1908S	1/4"
PM1908S	5/16"
PI1916S	1/2"

ALL METAL PUSH-IN FITTINGS


One Touch



Features:

- Convenient One Touch fittings provide instant connections
- Light manual pressure on the collet ring is all that is required to instantly disconnect each tube; no special tool is required
- Nickel-plated brass ensures anti-corrosion and anti-contamination

 **Working Temperature:**
-10°C to +60°C

 **Working Pressure**
-0.8 bar to 8 bar*

*Dependent upon tubing specification.

Construction:

Resin Body: Nickel-plated brass

Packing: Nitrile

Back O-Ring: POM

O-Ring: Nitrile

Collet Ring: Nickel-plated brass

ALL METAL PUSH-IN FITTINGS


One Touch Emergency Fittings Kits



Convenient, compact boxes containing a selection of popular FT Pro One Touch metal push-in fittings along with handy tube cutter.

Available in three sizes: 6mm, 8mm and 10mm. Can be used with nylon 6, 11, 12, and polyurethane (ester and ether).

 **Working Temperature:**
-10°C to +60°C

 **Working Pressure:**
0.8 to 8 bar*



Media:
Air and vacuum only

Metal Push-in

0315	OD mm
FTP-06MMBOX-M	6
FTP-08MMBOX-M	8
FTP-10MMBOX-M	10

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*Dependent upon
DIN specification.

Contents:

6mm

Metal Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	2 x Shut Off Valves MNSF06	10 x Equal Tees MPUT-6	
8 x Equal Elbows MPUL-6	8 x 1/8" BSPP Male Stud Elbows MPL6-G01	5 x 1/4" BSPP Male Stud Elbows MPL6-G02	
2 x 1/8" BSPT Speed Controllers MNSE6-G01	2 x 1/4" BSPT Speed Controllers MNSE6-G02	10 x Equal Connectors MPUC-6	2 x Equal Bulkheads MPM-6
10 x 1/8" BSPT Male Studs MPC6-01	10 x 1/4" BSPT Male Studs MPC6-02	5 x M5 BSPT Male Studs MPC6-M5	
10 x 1/8" BSPP Male Studs MPC6-G01	10 x 1/4" BSPP Male Studs MPC6-G02	4 x 1/8" Manifolds KMDS-1/8	

8mm

Metal Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	2 x Shut Off Valves MNSF08	6 x Equal Tees MPUT-8	2 x Equal Bulkheads MPM-8
6 x Equal Elbows MPUL-8	6 x 1/8" BSPP Male Stud Elbows MPL8-G01	5 x 1/4" BSPP Male Stud Elbows MPL8-G02	
2 x 1/8" BSPT Speed Controllers MNSE8-G01	2 x 1/4" BSPT Speed Controllers MNSE8-G02	10 x Equal Connectors MPUC-8	
10 x 1/8" BSPT Male Studs MPC8-01	10 x 1/4" BSPT Male Studs MPC8-02	8 x 3/8" BSPT Male Studs MPC8-03	
8 x 1/8" BSPP Male Studs MPC8-G01	8 x 1/4" BSPP Male Studs MPC8-G02	4 x 1/8" Manifolds KMDS-1/8	

10mm

Metal Push-in Fittings & Tube Cutter

1 x Tube Cutter KTC-1	1 x Shut Off Valve MNSF10	4 x Equal Tees MPUT-10
2 x Equal Elbows MPUL-10	2 x 1/4" BSPP Male Stud Elbows MPL10-G01	2 x 3/8" BSPP Male Stud Elbows MPL10-G03
2 x 1/4" BSPT Speed Controllers MNSE10-G02	1 x 3/8" BSPT Speed Controller MNSE10-G03	6 x Equal Connectors MPUC-10
8 x 1/4" BSPT Male Studs MPC10-02	10 x 3/8" BSPT Male Studs MPC10-03	2 x Equal Bulkheads MPM-10
8 x 1/4" BSPP Male Studs MPC10-G02	5 x 3/8" BSPP Male Studs MPC10-G03	1 x 1/4" Manifolds KMDS-1/4

ONE TOUCH ALL METAL PUSH-IN FITTINGS



Working Temperature:
-10°C to +60°C
(dependent upon
Nitinol specification)

Working Pressure:
0.8 to 8 bar (dependent
upon Nitrin specification)

Tube connection and disconnection can be repeated several times and is performed with one hand, without the use of tools. Nickel plated brass bodies ensures anti-corrosion and anti-contamination.

Material: Body and Collet: Nickel plated brass
O-Ring: Nitrile
Threads: BSPT, BSPP and metric
Tube to Connect: PU, PE, nylon 6-11-12
Fluid: Compressed air

Male Studs



Male Thread, Metric & BSPT

0315	OD mm	Thread
MPC4-M5	4	M5
MPC4-01	4	1/8"
MPC4-M6	4	M6
MPC4-02	4	1/4"
MPC6-M5	6	M5
MPC6-01	6	1/8"
MPC6-M6	6	M6
MPC6-02	6	1/4"
MPC8-01	8	1/8"
MPC8-02	8	1/4"
MPC8-03	8	3/8"
MPC10-02	10	1/4"
MPC10-03	10	3/8"
MPC10-04	10	1/2"
MPC12-02	12	1/4"
MPC12-03	12	3/8"
MPC12-04	12	1/2"

Tech Sheet 3130



Male Thread, BSPP

0315	OD mm	Thread
MPC4-G01	4	1/8"
MPC4-G02	4	1/4"
MPC6-G01	6	1/8"
MPC6-G02	6	1/4"
MPC6-G03	6	3/8"
MPC6-G04	6	1/2"
MPC8-G01	8	1/8"
MPC8-G02	8	1/4"
MPC8-G03	8	3/8"
MPC8-G04	8	1/2"
MPC10-G02	10	1/4"
MPC10-G03	10	3/8"
MPC10-G04	10	1/2"
MPC12-G02	12	1/4"
MPC12-G03	12	3/8"
MPC12-G04	12	1/2"
MPC14-G03	14	3/8"
MPC14-G04	14	1/2"

Tech Sheet 3130

Male Hex Studs



Male Super Thread

0315	OD mm	Thread
MPCS4-G01	4	1/8"
MPCS4-G02	4	1/4"
MPCS6-G01	6	1/8"
MPCS6-G02	6	1/4"
MPCS6-G03	6	3/8"
MPCS6-G04	6	1/2"
MPCS8-G01	8	1/8"
MPCS8-G02	8	1/4"
MPCS8-G03	8	3/8"
MPCS8-G04	8	1/2"
MPCS10-G02	10	1/4"
MPCS10-G03	10	3/8"
MPCS10-G04	10	1/2"
MPCS12-G02	12	1/4"
MPCS12-G03	12	3/8"
MPCS12-G04	12	1/2"
MPCS14-G03	14	3/8"
MPCS14-G04	14	1/2"

Male Round Studs



Male Super Thread

0315	OD mm	Thread
MPCS4-M5	4	M5
MPCS4-01	4	1/8"
MPCS6-M5	6	M5
MPCS6-01	6	1/8"
MPCS6-02	6	1/4"
MPCS8-01	8	1/8"
MPCS8-02	8	1/4"

Female Studs



Female Thread, BSPP

0315	OD mm	Thread
MPCF4-G01	4	1/8"
MPCF4-G02	4	1/4"
MPCF6-G01	6	1/8"
MPCF6-G02	6	1/4"
MPCF8-G01	8	1/8"
MPCF8-G02	8	1/4"
MPCF8-G03	8	3/8"
MPCF10-G02	10	1/4"
MPCF10-G03	10	3/8"
MPCF10-G04	10	1/2"
MPCF12-G02	12	1/4"
MPCF12-G03	12	3/8"
MPCF12-G04	12	1/2"

Tech Sheet 3130

Female Bulkhead Connectors



Female Thread, BSPP

0315	OD mm	Thread
MPMF6-G01	6	1/8"
MPMF6-G02	6	1/4"

Tech Sheet 3130

Female Swivel Elbows



Female Thread, BSPP

0315	OD mm	Thread
MPLF4-G01	4	1/8"
MPLF6-G01	6	1/8"
MPLF6-G02	6	1/4"
MPLF8-G02	8	1/4"
MPLF8-G04	8	1/2"
MPLF10-G02	10	1/4"

Tech Sheet 3130

ONE TOUCH ALL METAL PUSH-IN FITTINGS



Working Temperature:
-10°C to +60°C
(dependent upon
application specification)



Working Pressure:
0.8 to 8 bar (dependent
upon application specification)

Tube connection and disconnection can be repeated several times and is performed with one hand, without the use of tools. Nickel plated brass bodies ensures anti-corrosion and anti-contamination.

Material: Body and Collet: Nickel plated brass
O-Ring: Nitrile
Threads: BSPT, BSPP and metric
Tube to Connect: PU, PE, nylon 6-11-12
Fluid: Compressed air

Male Stud Swivel Elbows



Male Thread, Metric & BSPT

0315	OD mm	Thread
MPL4-01	4	1/8"
MPL6-01	6	1/8"
MPL6-02	6	1/4"
MPL8-01	8	1/8"
MPL8-02	8	1/4"
MPL8-03	8	3/8"
MPL8-04	8	1/2"
MPL10-02	10	1/4"
MPL10-03	10	3/8"
MPL10-04	10	1/2"
MPL12-02	12	1/4"
MPL12-03	12	3/8"
MPL12-04	12	1/2"
5711114-3/8	14	3/8"
5711114-1/2	14	1/2"

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Male Thread, BSPP

0315	OD mm	Thread
MPL4-M5	4	M5
MPL4-G01	4	1/8"
MPL4-G02	4	1/4"
MPL6-M5	6	M5
MPL6-G01	6	1/8"
MPL6-G02	6	1/4"
MPL8-G01	8	1/8"
MPL8-G02	8	1/4"
MPL8-G03	8	3/8"
MPL8-G04	8	1/2"
MPL10-G02	10	1/4"
MPL10-G03	10	3/8"
MPL10-G04	10	1/2"
MPL12-G02	12	1/4"
MPL12-G03	12	3/8"
MPL12-G04	12	1/2"
MPL14-G03	14	3/8"
MPL14-G04	14	1/2"

Tech Sheet 3130



Extended Male Thread, BSPP

0315	OD mm	Thread
MPLL4-G01	4	1/8"
MPLL6-G01	6	1/8"
MPLL6-G02	6	1/4"
MPLL8-G01	8	1/8"
MPLL8-G02	8	1/4"
MPLL8-G03	8	3/8"
MPLL10-G02	10	1/4"
MPLL10-G03	10	3/8"
MPLL10-G04	10	1/2"
MPLL12-G02	12	1/4"
MPLL12-G03	12	3/8"
MPLL12-G04	12	1/2"

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Male Stud Swivel Tees



Branch Male Thread, BSPP

0315	OD mm	Thread
MPB4-M5	4	M5
MPB4-G01	4	1/8"
MPB4-G02	4	1/4"
MPB6-M5	6	M5
MPB6-G01	6	1/8"
MPB6-G02	6	1/4"
MPB8-G01	8	1/8"
MPB8-G02	8	1/4"
MPB8-G03	8	3/8"
MPB8-G04	8	1/2"
MPB10-G02	10	1/4"
MPB10-G03	10	3/8"
MPB10-G04	10	1/2"
MPB12-G03	12	3/8"
MPB12-G04	12	1/2"
MPB14-G03	14	3/8"
MPB14-G04	14	1/2"

Tech Sheet 3130

Single Banjos



Male Thread, Metric & BSPP

0315	OD mm	Thread
MPH4-M5	4	M5
MPH4-G01	4	1/8"
MPH6-G01	6	1/8"
MPH8-G01	8	1/8"
MPH8-G02	8	1/4"

Tech Sheet 3130

Speed Control Valves



Tube x Metric & BSPP

0315	OD mm	Thread
MNSE4-M5	4	M5
MNSE4-G01	4	1/8"
MNSE4-G02	4	1/4"
MNSE6-G01	6	1/8"
MNSE6-G02	6	1/4"
MNSE8-G01	8	1/8"
MNSE8-G02	8	1/4"
MNSE8-G03	8	3/8"
MNSE10-G02	10	1/4"
MNSE10-G03	10	3/8"
MNSE10-G04	10	1/2"
MNSE12-G02	12	1/4"
MNSE12-G03	12	3/8"
MNSE12-G04	12	1/2"

Tech Sheet 3130

ONE TOUCH ALL METAL PUSH-IN FITTINGS



Working Temperature:
-10°C to +60°C
(dependent upon
specification)

Working Pressure:
0.8 to 8 bar (dependent
upon specification)

Tube connection and disconnection can be repeated several times and is performed with one hand, without the use of tools. Nickel plated brass bodies ensures anti-corrosion and anti-contamination.

Material: Body and Collet: Nickel plated brass
O-Ring: Nitrile
Threads: BSPT, BSPP and metric
Tube to Connect: PU, PE, nylon 6-11-12
Fluid: Compressed air

Tube x Tube Connectors

Equal Straights

0315	OD mm
MPUC-4	4
MPUC-6	6
MPUC-8	8
MPUC-10	10
MPUC-12	12
MPUC-14	14

Tech Sheet 3130

Unequal Straights

0315	OD mm	OD mm
MPG6-4	6	4
MPG8-6	8	6
MPG10-8	10	8
MPG12-10	12	10

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Equal Elbows

0315	OD mm
MPUL-4	4
MPUL-6	6
MPUL-8	8
MPUL-10	10
MPUL-12	12
MPUL-14	14

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Equal Tees

0315	OD mm
MPUT-4	4
MPUT-6	6
MPUT-8	8
MPUT-10	10
MPUT-12	12
MPUT-14	14

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Equal Ys

0315	OD mm
MPY-6	6
MPY-8	8

Tech Sheet 3130

Equal Bulkheads

0315	OD mm
MPM-4	4
MPM-6	6
MPM-8	8
MPM-10	10
MPM-12	12

Tech Sheet 3130

Tube x Stem Connectors

Straight, Tube x Stem

0315	Stem OD mm	OD mm
MPJG6-4	6	4
MPJG8-4	8	4
MPJG8-6	8	6
MPJG10-4	10	4
MPJG10-6	10	6
MPJG10-8	10	8
MPJG12-8	12	8
MPJG12-10	12	10

Tech Sheet 3130

Standpipes

Male Thread, BSPP

0315	Stem OD mm	Thread
MPCJ4-G01	4	1/8"
MPCJ4-G02	4	1/4"
MPCJ6-G01	6	1/8"
MPCJ6-G02	6	1/4"
MPCJ8-G02	8	1/4"
MPCJ8-G03	8	3/8"
MPCJ8-G04	8	1/2"
MPCJ10-G02	10	1/4"
MPCJ10-G03	10	3/8"
MPCJ10-G04	10	1/2"
MPCJ12-G02	12	1/4"
MPCJ12-G03	12	3/8"
MPCJ12-G04	12	1/2"

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Female Thread, BSPP

0315	Stem OD mm	Thread
MPCFJ4-G01	4	1/8"
MPCFJ4-G02	4	1/4"
MPCFJ6-G01	6	1/8"
MPCFJ6-G02	6	1/4"
MPCFJ8-G02	8	1/4"
MPCFJ8-G03	8	3/8"
MPCFJ8-G04	8	1/2"
MPCFJ10-G02	10	1/4"
MPCFJ10-G03	10	3/8"
MPCFJ10-G04	10	1/2"
MPCFJ12-G02	12	1/4"
MPCFJ12-G03	12	3/8"
MPCFJ12-G04	12	1/2"

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Shut Off Valves


Tube x Tube

0315	OD mm
MNSF04	4
MNSF06	6
MNSF08	8
MNSF10	10
MNSF12	12

Tech Sheet 3130

LF 3600® PUSH-IN FITTINGS

All metal new LF 3600 (except sealing components) is compatible with many liquids and gases of average aggressiveness and is ideal for environments that require mechanical strength-incorporating high phosphorus chemical nickel plating that conforms to FDA standard (FOOD AND DRUG ADMINISTRATION).

 **Working Temperature:**
-20°C to +120°C

 **Maximum Working Pressure for Compressed Air:**
20 bar



NOTE: Ideal for food applications.
These fittings represents only part of this new range, for full details please speak to our technical department.



Male Stud Fittings



BSPT

1014	OD mm	Thread
LE-3675 04 10	4	1/8"
LE-3675 04 13	4	1/4"
LE-3675 06 10	6	1/8"
LE-3675 06 13	6	1/4"
LE-3675 08 10	8	1/8"
LE-3675 08 13	8	1/4"
LE-3675 08 17	8	3/8"
LE-3675 10 13	10	1/4"
LE-3675 10 17	10	3/8"
LE-3675 10 21	10	1/2"
LE-3675 12 13	12	1/4"
LE-3675 12 17	12	3/8"
LE-3675 12 21	12	1/2"
LE-3675 14 17	14	3/8"
LE-3675 14 21	14	1/2"

Tech Sheet 1528



Standpipe, BSPT

1014	Stem OD mm	Thread
LE-3621 04 10	4	1/8"
LE-3621 06 10	6	1/8"
LE-3621 06 13	6	1/4"
LE-3621 08 10	8	1/8"
LE-3621 08 13	8	1/4"
LE-3621 10 13	10	1/4"
LE-3621 10 17	10	3/8"
LE-3621 12 17	12	3/8"
LE-3621 12 21	12	1/2"

Tech Sheet 1528



Elbow, BSPT

1014	OD mm	Thread
LE-3609 04 10	4	1/8"
LE-3609 04 13	4	1/4"
LE-3609 06 10	6	1/8"
LE-3609 06 13	6	1/4"
LE-3609 08 10	8	1/8"
LE-3609 08 13	8	1/4"
LE-3609 08 17	8	3/8"
LE-3609 10 13	10	1/4"
LE-3609 10 17	10	3/8"
LE-3609 12 13	12	1/4"
LE-3609 12 17	12	3/8"
LE-3609 12 21	12	1/2"
LE-3609 14 21	14	1/2"

Tech Sheet 1528



Hexagon, Metric & BSPP

1014	OD mm	Thread
LE-3601 04 10	4	1/8"
LE-3601 04 52	4	M6 x 1
LE-3601 04 13	4	1/4"
LE-3601 04 56	4	M8 x 1
LE-3601 06 19	6	M5 x 0.8
LE-3601 06 10	6	1/8"
LE-3601 06 60	6	M10 x 1
LE-3601 06 13	6	1/4"
LE-3601 08 10	8	1/8"
LE-3601 08 13	8	1/4"
LE-3601 08 17	8	3/8"
LE-3601 10 13	10	1/4"
LE-3601 10 17	10	3/8"
LE-3601 10 21	10	1/2"
LE-3601 12 13	12	1/4"
LE-3601 12 17	12	3/8"
LE-3601 12 21	12	1/2"
LE-3601 14 17	14	3/8"
LE-3601 14 21	14	1/2"

Tech Sheet 1528



Metric

1014	OD mm	Thread
LE-3681 04 19	4	M5 x 0.8

Tech Sheet 1528



Extended Male Stud Elbow, Metric & BSPP

1014	OD mm	Thread
LE-3669 04 19	4	M5 x 0.8
LE-3669 04 10	4	1/8"
LE-3669 06 10	6	1/8"
LE-3669 06 13	6	1/4"
LE-3669 08 10	8	1/8"
LE-3669 08 13	8	1/4"
LE-3669 10 13	10	1/4"
LE-3669 10 17	10	3/8"
LE-3669 12 17	12	3/8"
LE-3669 14 21	14	1/2"

Tech Sheet 1528



Standpipe, Metric & BSPP

1014	Stem OD mm	Thread
LE-3631 04 19	4	M5 x 0.8
LE-3631 04 10	4	1/8"
LE-3631 06 10	6	1/8"
LE-3631 06 13	6	1/4"
LE-3631 08 13	8	1/4"
LE-3631 10 13	10	1/4"
LE-3631 10 17	10	3/8"
LE-3631 10 21	10	1/2"
LE-3631 12 17	12	3/8"
LE-3631 12 21	12	1/2"
LE-3631 14 21	14	1/2"

Tech Sheet 1528

LF 3600® PUSH-IN FITTINGS



Male Stud Fittings



Elbow, Metric & BSPP

1014	OD mm	Thread
LE-3699 04 19	4	M5 x 0.8
LE-3699 04 52	4	M6 x 1
LE-3699 04 13	4	1/4"
LE-3699 04 56	4	M8 x 1
LE-3699 06 10	6	1/8"
LE-3699 06 60	6	M10 x 1
LE-3699 06 13	6	1/4"
LE-3699 08 10	8	1/8"
LE-3699 08 13	8	1/4"
LE-3699 08 17	8	3/8"
LE-3699 10 13	10	1/4"
LE-3699 10 17	10	3/8"
LE-3699 12 13	12	1/4"
LE-3699 12 17	12	3/8"
LE-3699 12 21	12	1/2"
LE-3699 14 17	14	3/8"

Tech Sheet 1528



Branch Tee, BSPT

1014	OD mm	Thread
LE-3608 06 10	6	1/8"
LE-3608 06 13	6	1/4"
LE-3608 08 13	8	1/4"
LE-3608 10 13	10	1/4"
LE-3608 12 17	12	3/8"
LE-3608 14 21	14	1/2"

Tech Sheet 1528



Run Tee, BSPT

1014	OD mm	Thread
LE-3603 06 10	6	1/8"
LE-3603 06 13	6	1/4"
LE-3603 08 13	8	1/4"
LE-3603 10 13	10	1/4"

Tech Sheet 1528



Branch Tee, BSPP

1014	OD mm	Thread
LE-3698 04 10	4	1/8"
LE-3698 06 13	6	1/4"
LE-3698 08 13	8	1/4"
LE-3698 14 21	14	1/2"

Tech Sheet 1528



Run Tee, BSPP

1014	OD mm	Thread
LE-3693 06 10	6	1/8"
LE-3693 08 13	8	1/4"

Tech Sheet 1528



Extended Stud Elbow, BSPT

1014	OD mm	Thread
LE-3629 04 10	4	1/8"
LE-3629 06 10	6	1/8"
LE-3629 06 13	6	1/4"
LE-3629 08 10	8	1/8"
LE-3629 08 13	8	1/4"

Tech Sheet 1528

Female Stud Fittings



Female Stud Hexagon, Metric & BSPP

1014	OD mm	Thread
LE-3614 04 10	4	1/8"
LE-3614 04 13	4	1/4"
LE-3614 06 10	6	1/8"
LE-3614 06 13	6	1/4"
LE-3614 08 10	8	1/8"
LE-3614 08 13	8	1/4"
LE-3614 10 17	10	3/8"
LE-3614 12 17	12	3/8"
LE-3614 12 21	12	1/2"

Tech Sheet 1528

Single Banjo c/w Bolt



Metric & BSPP

1014	OD mm	Thread
LE-3618 04 19	4	M5 x 0.8
LE-3618 04 10	4	1/8"
LE-3618 06 19	6	M5 x 0.8
LE-3618 06 10	6	1/8"
LE-3618 06 13	6	1/4"
LE-3618 08 10	8	1/8"
LE-3618 08 13	8	1/4"
LE-3618 10 17	10	3/8"

Tech Sheet 1528

Equal Connectors



Tube x Tube

1014	OD mm
LE-3606 04 00	4
LE-3606 06 00	6
LE-3606 08 00	8
LE-3606 10 00	10
LE-3606 12 00	12
LE-3606 14 00	14

Tech Sheet 1528

LF 3600® PUSH-IN FITTINGS



Equal Elbows



Tube x Tube

1014	OD mm
LE-3602 04 00	4
LE-3602 06 00	6
LE-3602 08 00	8
LE-3602 10 00	10
LE-3602 12 00	12
LE-3602 14 00	14

Tech Sheet 1528

Equal Tees



Tube x Tube

1014	OD mm
LE-3604 04 00	4
LE-3604 06 00	6
LE-3604 08 00	8
LE-3604 10 00	10
LE-3604 12 00	12
LE-3604 14 00	14

Tech Sheet 1528

Double Male Stem Connectors



Stem x Stem

1014	Stem OD mm
LE-3620 04 00	4
LE-3620 06 00	6
LE-3620 08 00	8
LE-3620 10 00	10
LE-3620 12 00	12

Tech Sheet 1528

Equal Bulkhead Elbows



Tube x Tube

1014	OD mm
LE-3639 04 00	4
LE-3639 06 00	6
LE-3639 08 00	8
LE-3639 10 00	10
LE-3639 12 00	12

Tech Sheet 1528

Bulkhead Connectors



Tube x Tube

1014	OD mm
LE-3616 04 00	4
LE-3616 06 00	6
LE-3616 08 00	8
LE-3616 10 00	10
LE-3616 12 00	12
LE-3616 14 00	14

Tech Sheet 1528



Female, BSPP

1014	OD mm	Thread
LE-3636 06 10	6	1/8"
LE-3636 06 13	6	1/4"
LE-3636 08 10	8	1/8"
LE-3636 08 13	8	1/4"
LE-3636 10 17	10	3/8"
LE-3636 12 21	12	1/2"

Tech Sheet 1528

Blanking Plugs



Tube

1014	Stem OD mm
LE-3626 04 00	4
LE-3626 06 00	6
LE-3626 08 00	8
LE-3626 10 00	10
LE-3626 12 00	12

Tech Sheet 1528

Plug-in Fittings



Reducer, Tube x Stem

1014	OD mm	Stem OD mm
LE-3666 04 06	4	6
LE-3666 04 08	4	8
LE-3666 06 08	6	8
LE-3666 06 10	6	10
LE-3666 08 10	8	10
LE-3666 08 12	8	12
LE-3666 10 12	10	12
LE-3666 12 14	12	14

Tech Sheet 1528



Increaser

1014	OD mm	Stem OD mm
LE-3668 06 04	6	4

Tech Sheet 1528



Metric/Imperial Adaptor, Tube x Stem

1014	OD	Stem OD mm
LE-3667 06 56	1/4"	6

Tech Sheet 1528



Stem x Hose Tail

1014	Stem OD	To Suit Hose ID mm
LE-3622 04 53	4	3.2
LE-3622 04 05	4	5
LE-3622 06 05	6	5
LE-3622 08 56	8	6.3
LE-3622 08 08	8	8
LE-3622 10 56	10	6.3
LE-3622 10 08	10	8
LE-3622 12 08	12	8
LE-3622 12 10	12	10
LE-3622 12 62	12	12.5

Tech Sheet 1528

CENTRALISED LUBRICATION SYSTEM FITTINGS



This range of fittings has been designed for uses involving both rotation or linear movements which require lubrication.

Designed using Legris push-in technology, this range is produced with specific applications in mind, hence its:

- Emphasis on safety – the tube cannot be disconnected without using a spanner
- Nitrile seals on nut assemblies
- Sealing of tube by 2 O-rings in addition to the gripping teeth

Working Temperature: -40°C to +120°C
Working Pressure: Up to 60 bar

The characteristics provide a perfect component for such applications as:

- Lubrication circuits on industrial machinery: Wood industry, textile, paper, cement industry
- Lubrication on industrial equipment and vehicles (trucks)
- Lubrication on public works vehicles (mobile cranes) and agricultural equipment

Suitable Fluids: Lubricating oils, liquid or viscous greases, oil sprays

Material:
Body: Brass
Seals: Nitrile rubber

Equal Connectors



Equal Straights

1012	OD mm
LE-6106 04 00	4
LE-6106 06 00	6
LE-6106 08 00	8



Equal Tees

1012	OD mm
LE-6104 04 00	4

Copper Washers



1012	OD mm
LE-0138 08 00	8
LE-0138 10 00	10
LE-0138 12 00	12

Close Tolerance Rigid Nylon



25 Metre Coils, Black

6001	OD mm	ID mm	Bend Radius mm
1025L04 01 25	4	2.5	35
1025L06 01	6	4	45
1025L08 01 05	8	5	70
1025L08 01	8	6	65

Stud Couplings



Male Studs, BSPT

1012	OD mm	Thread
LE-6105 04 10	4	1/8"
LE-6105 06 10	6	1/8"
LE-6105 04 13	4	1/4"
LE-6105 06 13	6	1/4"



Male Studs, Metric Taper

1012	OD mm	Thread
LE-6105 04 52	4	M6 x 1
LE-6105 04 56	4	M8 x 1
LE-6105 04 57	4	M8 x 1.25
LE-6105 04 60	4	M10 x 1
LE-6105 06 60	6	M10 x 1



Male Studs, Metric Parallel

1012	OD mm	Thread
LE-6101 06 60	6	M10 x 1
LE-6101 06 65	6	M12 x 1



Female Studs, Metric Parallel

1012	OD mm	Thread
LE-6114 04 56	4	M8 x 1
LE-6114 06 56	6	M8 x 1



Male Stud Elbows, BSPT

1012	OD mm	Thread
LE-6179 04 10	4	1/8"
LE-6179 06 10	6	1/8"
LE-6179 04 13	4	1/4"
LE-6179 06 13	6	1/4"



Male Stud Elbows, Metric

1012	OD mm	Thread
LE-6179 04 52	4	M6 x 1
LE-6179 04 56	4	M8 x 1
LE-6179 04 57	4	M8 x 1.25
LE-6179 04 60	4	M10 x 1
LE-6179 06 65	6	M12 x 1
LE-6179 08 65	8	M12 x 1

50000 SERIES - BRASS PUSH-IN FITTINGS



Working Temperature:
-20°C to +80°C



Maximum Working Pressure:
-0.99 to 20 bar (290 psi)

Media:

Suitable for compressed air and vacuum

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT

Male Studs



Male Thread, Metric & BSPP

1020	OD mm	Thread
P2-3-M5	3	M5
P2-4-M5	4	M5
P2-4-1/8	4	1/8"
P2-4-1/4	4	1/4"
P2-5-M5	5	M5
P2-5-1/8	5	1/8"
P2-6-M5	6	M5
P2-6-1/8	6	1/8"
P2-6-1/4	6	1/4"
P2-6-3/8	6	3/8"
P2-6-1/2	6	1/2"
P2-8-1/8	8	1/8"
P2-8-1/4	8	1/4"
P2-8-3/8	8	3/8"
P2-8-1/2	8	1/2"
P2-10-1/4	10	1/4"
P2-10-3/8	10	3/8"
P2-10-1/2	10	1/2"
P2-12-1/4	12	1/4"
P2-12-3/8	12	3/8"
P2-12-1/2	12	1/2"
P2-14-3/8	14	3/8"
P2-14-1/2	14	1/2"

Tech Sheet 30106

Male Thread, BSPT (Universal Short)

1020	OD mm	Thread
P1-4-1/8	4	1/8"
P1-4-1/4	4	1/4"
P1-5-1/8	5	1/8"
P1-5-1/4	5	1/4"
P1-6-1/8	6	1/8"
P1-6-1/4	6	1/4"
P1-6-3/8	6	3/8"
P1-6-1/2	6	1/2"
P1-8-1/8	8	1/8"
P1-8-1/4	8	1/4"
P1-8-3/8	8	3/8"
P1-8-1/2	8	1/2"
P1-10-1/4	10	1/4"
P1-10-3/8	10	3/8"
P1-10-1/2	10	1/2"
P1-12-1/4	12	1/4"
P1-12-3/8	12	3/8"
P1-12-1/2	12	1/2"
P1-14-3/8	14	3/8"
P1-14-1/2	14	1/2"

Tech Sheet 30106



Universal, BSPT, BSPP & NPT (Round Body, Internal Hex)

1020	OD mm	Thread
P20-3-M5	3	M5
P20-4-M5	4	M5
P20-4-1/8	4	1/8"
P20-6-M5	6	M5
P20-6-1/8	6	1/8"
P20-6-1/4	6	1/4"
P20-8-1/8	8	1/8"
P20-8-1/4	8	1/4"

Tech Sheet 30106



Female Studs



Female Thread, Metric & BSPP

1020	OD mm	Thread
P3-3-M5	3	M5
P3-4-M5	4	M5
P3-4-1/8	4	1/8"
P3-4-1/4	4	1/4"
P3-5-1/8	5	1/8"
P3-6-1/8	6	1/8"
P3-6-1/4	6	1/4"
P3-8-1/8	8	1/8"
P3-8-1/4	8	1/4"
P3-8-3/8	8	3/8"
P3-10-1/4	10	1/4"
P3-10-3/8	10	3/8"
P3-10-1/2	10	1/2"
P3-12-3/8	12	3/8"
P3-12-1/2	12	1/2"

Tech Sheet 30106

Male Stud Elbows



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
P6-4-M5	4	M5
P6-4-1/8	4	1/8"
P6-5-1/8	5	1/8"
P6-6-1/8	6	1/8"
P6-6-1/4	6	1/4"
P6-8-1/8	8	1/8"
P6-8-1/4	8	1/4"
P6-10-1/4	10	1/4"
P6-10-3/8	10	3/8"
P6-12-1/4	12	1/4"
P6-12-3/8	12	3/8"

Tech Sheet 30106

Male Stud Swivel Elbows



Extended Male Thread, BSPP

1020	OD mm	Thread
P51-6-18	6	1/8"
P51-6-14	6	1/4"
P51-8-14	8	1/4"
P51-8-38	8	3/8"

Tech Sheet 30106

Extended Male, Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
P50-4-18	4	1/8"
P50-6-18	6	1/8"
P50-6-14	6	1/4"
P50-8-18	8	1/8"
P50-8-14	8	1/4"
P50-10-38	10	3/8"

Tech Sheet 30106



50000 SERIES - BRASS PUSH-IN FITTINGS



Working Temperature:
-18°C to +70°C

Maximum Working Pressure:
20 bar (220 psi)

Media:
Suitable for compressed air and vacuum

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT

Male Stud Swivel Elbows



Male Thread, Metric & BSPP

1020	OD	Thread
P8-3-M5	3	M5
P8-4-M5	4	M5
P8-4-1/8	4	1/8"
P8-4-1/4	4	1/4"
P8-5-M5	5	M5
P8-5-1/8	5	1/8"
P8-6-M5	6	M5
P8-6-1/8	6	1/8"
P8-6-1/4	6	1/4"
P8-6-3/8	6	3/8"
P8-8-1/8	8	1/8"
P8-8-1/4	8	1/4"
P8-8-3/8	8	3/8"
P8-8-1/2	8	1/2"
P8-10-1/4	10	1/4"
P8-10-3/8	10	3/8"
P8-10-1/2	10	1/2"
P8-12-1/4	12	1/4"
P8-12-3/8	12	3/8"
P8-12-1/2	12	1/2"
P8-14-3/8	14	3/8"
P8-14-1/2	14	1/2"

Tech Sheet 30106



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
P7-4-1/8	4	1/8"
P7-4-1/4	4	1/4"
P7-5-1/8	5	1/8"
P7-6-1/8	6	1/8"
P7-6-1/4	6	1/4"
P7-8-1/8	8	1/8"
P7-8-1/4	8	1/4"
P7-8-3/8	8	3/8"
P7-8-1/2	8	1/2"
P7-10-1/4	10	1/4"
P7-10-3/8	10	3/8"
P7-10-1/2	10	1/2"
P7-12-3/8	12	3/8"
P7-12-1/2	12	1/2"
P7-14-3/8	14	3/8"
P7-14-1/2	14	1/2"

Tech Sheet 30106

Female Stud Elbows



Female Thread, BSPP

1020	OD mm	Thread
P14-4-18	4	1/8"
P14-4-14	4	1/4"
P14-6-18	6	1/8"
P14-6-14	6	1/4"
P14-8-18	8	1/8"
P14-8-14	8	1/4"
P14-8-38	8	3/8"

Tech Sheet 30106

Male Stud Tees



Branch Male Thread, BSPT

1020	OD mm	Thread
P10-4-1/8	4	1/8"
P10-5-1/8	5	1/8"
P10-6-1/8	6	1/8"
P10-8-1/8	8	1/8"
P10-8-1/4	8	1/4"
P10-10-1/4	10	1/4"
P10-12-1/4	12	1/4"
P10-12-3/8	12	3/8"

Tech Sheet 30106

Male Stud Swivel Tees



Branch Male Thread, Metric & BSPP

1020	OD mm	Thread
P12-4-M5	4	M5
P12-4-1/8	4	1/8"
P12-5-M5	5	M5
P12-5-1/8	5	1/8"
P12-6-M5	6	M5
P12-6-1/8	6	1/8"
P12-6-1/4	6	1/4"
P12-8-1/8	8	1/8"
P12-8-1/4	8	1/4"
P12-8-3/8	8	3/8"
P12-8-1/2	8	1/2"
P12-10-1/4	10	1/4"
P12-10-3/8	10	3/8"
P12-10-1/2	10	1/2"
P12-12-3/8	12	3/8"
P12-12-1/2	12	1/2"
P12-14-3/8	14	3/8"
P12-14-1/2	14	1/2"

Tech Sheet 30106



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
P11-5-1/8	5	1/8"
P11-6-1/8	6	1/8"
P11-6-1/4	6	1/4"
P11-8-1/8	8	1/8"
P11-8-1/4	8	1/4"
P11-8-3/8	8	3/8"
P11-8-1/2	8	1/2"
P11-10-1/4	10	1/4"
P11-10-3/8	10	3/8"
P11-10-1/2	10	1/2"
P11-12-3/8	12	3/8"
P11-12-1/2	12	1/2"
P11-14-3/8	14	3/8"
P11-14-1/2	14	1/2"

Tech Sheet 30106

50000 SERIES - BRASS PUSH-IN FITTINGS



Working Temperature:
-18°C to +70°C



Maximum Working Pressure:
20 bar (220 psi)

Media:

Suitable for compressed air and vacuum

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT

Male Stud Swivel Tees



Run Male Thread, Metric & BSPP

1020	OD mm	Thread
P45-4-M5	4	M5
P45-5-1/8	5	1/8"
P45-6-M5	6	M5
P45-6-1/8	6	1/8"
P45-6-1/4	6	1/4"
P45-8-1/8	8	1/8"
P45-8-1/4	8	1/4"

Tech Sheet 30106



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
P44-4-1/8	4	1/8"
P44-6-1/8	6	1/8"
P44-6-1/4	6	1/4"
P44-8-1/8	8	1/8"
P44-8-1/4	8	1/4"
P44-10-3/8	10	3/8"
P44-12-3/8	12	3/8"

Tech Sheet 30106

Straight Connectors



Equal Tube x Tube

1020	OD mm
P4-3	3
P4-4	4
P4-5	5
P4-6	6
P4-8	8
P4-10	10
P4-12	12
P4-14	14

Tech Sheet 30106

Unequal Tube x Tube

1020	OD mm
P4-6-4	6-4
P4-8-6	8-6

Tech Sheet 30106

Equal Elbows



Tube x Tube

1020	OD mm
P9-3	3
P9-4	4
P9-5	5
P9-6	6
P9-8	8
P9-10	10
P9-12	12
P9-14	14

Tech Sheet 30106

Equal Bulkhead Connectors



Tube x Tube

1020	OD mm	Thread
P5-3	3	M10 x 1
P5-4	4	M12 x 1
P5-5	5	M14 x 1
P5-6	6	M14 x 1
P5-8	8	M16 x 1
P5-10	10	M20 x 1
P5-12	12	M22 x 1

Tech Sheet 30106

Equal Tees



Tube x Tube

1020	OD mm
P16-3	3
P16-4	4
P16-5	5
P16-6	6
P16-8	8
P16-10	10
P16-12	12
P16-14	14

Tech Sheet 30106

Equal Ys



Tube x Tube

1020	OD mm
P21-3	3
P21-4	4
P21-5	5
P21-6	6
P21-8	8
P21-10	10

Tech Sheet 30106

Stem Adaptor



Metric & BSPP

1020	Stem OD mm	Thread
P30-4-M5	4	M5
P30-4-1/8	4	1/8"
P30-5-M5	5	M5
P30-5-1/8	5	1/8"
P30-5-1/4	5	1/4"
P30-6-M5	6	M5
P30-6-1/8	6	1/8"
P30-6-1/4	6	1/4"
P30-8-1/8	8	1/8"
P30-8-1/4	8	1/4"
P30-8-3/8	8	3/8"
P30-10-1/4	10	1/4"
P30-10-3/8	10	3/8"
P30-12-1/4	12	1/4"
P30-12-3/8	12	3/8"

Tech Sheet 30106

Reducers



Tube x Stem

1020	OD mm	Stem OD mm
P32-4-3	3	4
P32-5-4	4	5
P32-6-4	4	6
P32-6-5	5	6
P32-8-6	6	8
P32-10-8	8	10
P32-12-8	8	12
P32-12-10	10	12

Tech Sheet 30106

50000 SERIES, BRASS PUSH-IN FITTINGS



Working Temperature:
-18°C to +70°C

Maximum Working Pressure:
20 bar (220 psi)

Media:
Suitable for compressed air and vacuum

Single Banjo Body, 1 Outlet

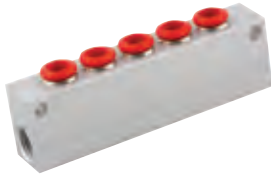


Bolt Thread, Metric & BSPP

1020	OD mm	Thread
P17-4-M5	4	M5
P17-4-1/8	4	1/8"
P17-6-M5	6	M5
P17-6-1/8	6	1/8"
P17-6-1/4	6	1/4"
P17-8-1/8	8	1/8"
P17-8-1/4	8	1/4"
P17-8-3/8	8	3/8"
P17-10-1/4	10	1/4"
P17-12-3/8	12	3/8"

Tech Sheet 30106

5 Way Manifolds



BSPP

1020	OD mm	Thread
P39-4-1/8	4	1/8"
P39-6-1/8	6	1/8"
P39-6-1/4	6	1/4"
P39-8-1/4	8	1/4"

Tech Sheet 30106

Disassembling Tool



1020
P43

Tech Sheet 30106

Single Banjo Assembly, 1 Outlet



Bolt Thread, Metric & BSPP

1020	OD mm	Thread
P22-4-M5	4	M5
P22-4-1/8	4	1/8"
P22-5-M5	5	M5
P22-5-1/8	5	1/8"
P22-6-M5	6	M5
P22-6-1/8	6	1/8"
P22-6-1/4	6	1/4"
P22-8-1/8	8	1/8"
P22-8-1/4	8	1/4"
P22-8-3/8	8	3/8"
P22-10-1/4	10	1/4"
P22-10-3/8	10	3/8"
P22-12-3/8	12	3/8"

Tech Sheet 30106

Double Banjo Assembly, 2 Outlets



Bolt Thread, BSPP

1020	OD mm	Thread
P23-4-1/8	4	1/8"
P23-6-1/8	6	1/8"
P23-6-1/4	6	1/4"
P23-8-1/8	8	1/8"
P23-8-1/4	8	1/4"
P23-8-3/8	8	3/8"
P23-10-1/4	10	1/4"
P23-12-3/8	12	3/8"

Tech Sheet 30106

Triple Banjo Assembly, 3 Outlets



Bolt Thread, BSPP

1020	OD mm	Thread
P24-6-1/8	6	1/8"
P24-6-1/4	6	1/4"
P24-8-1/4	8	1/4"

Tech Sheet 30106

Double Banjo Tee Assembly, 4 Outlets



Bolt Thread, BSPP

1020	OD mm	Thread
P26-6-1/4	6	1/4"
P26-8-1/4	8	1/4"

Tech Sheet 30106

Double Banjo Tee Assembly, 6 Outlets



Bolt Thread, BSPP

1020	OD mm	Thread
P27-8-1/4	8	1/4"

Tech Sheet 30106

Swivel Single Banjo Assembly, 1 Outlet



Bolt Thread, Metric & BSPP

1020	OD mm	Thread
P28-4-M5	4	M5
P28-4-1/8	4	1/8"
P28-5-M5	5	M5
P28-5-1/8	5	1/8"
P28-5-1/4	5	1/4"
P28-6-M5	6	M5
P28-6-1/8	6	1/8"
P28-6-1/4	6	1/4"
P28-8-1/8	8	1/8"
P28-8-1/4	8	1/4"
P28-10-1/4	10	1/4"

Tech Sheet 30106

Swivel Double Banjo Tee Assembly, 2 Outlets



Bolt Thread, BSPP

1020	OD mm	Thread
P29-4-1/8	4	1/8"
P29-6-1/8	6	1/8"

Tech Sheet 30106

50000 SERIES BRASS PUSH-IN FITTINGS



Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar
Vacuum: -0.99 bar

Material:
Body and Collet: Robust nickel plated
brass body and Acetalic resin collet

O-Ring: Nitrile
Media: Compressed air

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT

Elbows



Equal

1025	OD mm
50130N4	4
50130N6	6
50130N8	8
50130N10	10
50130N12	12
50130N14	14

Male Swivel Elbows



Universal, BSPT, BSPP & NPT

1025	OD mm	Thread
50111N4-1/8	4	1/8"
50111N4-1/4	4	1/4"
50111N6-1/8	6	1/8"
50111N6-1/4	6	1/4"
50111N8-1/8	8	1/8"
50111N8-1/4	8	1/4"
50111N8-3/8	8	3/8"
50111N8-1/2	8	1/2"
50111N10-1/4	10	1/4"
50111N10-3/8	10	3/8"
50111N10-1/2	10	1/2"
50111N12-3/8	12	3/8"
50111N12-1/2	12	1/2"
50111N14-3/8	14	3/8"
50111N14-1/2	14	1/2"

Female Swivel Elbows



BSPP

1025	OD mm	Thread
50106N4-1/8	4	1/8"
50106N4-1/4	4	1/4"
50106N6-1/8	6	1/8"
50106N6-1/4	6	1/4"
50106N8-1/8	8	1/8"
50106N8-1/4	8	1/4"
50106N8-3/8	8	3/8"

Tees



Equal

1025	OD mm
50230N4	4
50230N6	6
50230N8	8
50230N10	10
50230N12	12
50230N14	14

Male Swivel Tees



Universal, BSPT, BSPP & NPT

1025	OD mm	Thread
50211N4-1/8	4	1/8"
50211N4-1/4	4	1/4"
50211N6-1/8	6	1/8"
50211N6-1/4	6	1/4"
50211N8-1/8	8	1/8"
50211N8-1/4	8	1/4"
50211N8-3/8	8	3/8"
50211N8-1/2	8	1/2"
50211N10-1/4	10	1/4"
50211N10-3/8	10	3/8"
50211N10-1/2	10	1/2"
50211N12-3/8	12	3/8"
50211N12-1/2	12	1/2"
50211N14-3/8	14	3/8"
50211N14-1/2	14	1/2"

Male Swivel Offset Tees



Universal, BSPT, BSPP & NPT

1025	OD mm	Thread
50223N4-1/8	4	1/8"
50223N4-1/4	4	1/4"
50223N6-1/8	6	1/8"
50223N6-1/4	6	1/4"
50223N8-1/8	8	1/8"
50223N8-1/4	8	1/4"
50223N8-3/8	8	3/8"
50223N8-1/2	8	1/2"
50223N10-1/4	10	1/4"
50223N10-3/8	10	3/8"
50223N10-1/2	10	1/2"
50223N12-3/8	12	3/8"
50223N12-1/2	12	1/2"

Male Swivel Banjo



BSPP & Metric

1025	OD mm	Thread
50550N4-M5	4	M5
50550N4-1/8	4	1/8"
50550N6-M5	6	M5
50550N6-1/8	6	1/8"
50550N6-1/4	6	1/4"
50550N8-1/8	8	1/8"
50550N8-1/4	8	1/4"
50550N8-3/8	8	3/8"
50550N10-1/4	10	1/4"
50550N10-3/8	10	3/8"
50550N12-3/8	12	3/8"

Y Connectors



Equal

1025	OD mm
50310N4	4
50310N6	6
50310N8	8
50310N10	10

Straight Connector



Equal

1025	OD mm
50040N4	4
50040N6	6
50040N8	8
50040N10	10
50040N12	12

Unequal

1025	OD mm	OD mm
50040N6-4	4	6
50040N8-6	6	8
50040N10-8	8	10
50040N12-10	10	12

Reducer



Tube x Stem Reducers

1025	OD mm	OD mm
50700N6-4	6	4
50700N8-4	8	4
50700N8-6	8	6
50700N10-4	10	4
50700N10-6	10	6
50700N10-8	10	8
50700N12-8	12	8
50700N12-10	12	10

55000 SERIES METAL BODY PUSH-IN FITTINGS



Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar

Vacuum: -0.99 bar

BSPT in conformity with ISO 7.1, BS 21, DIN 2999.

BSPB in conformity with ISO 228 Class A.

Metric in conformity with ISO R/262.

Fittings with "Universal Short" thread are suitable for both taper as well as parallel threads like NPT, NPTF, BSPP and BSPT.

Straight Male Adaptors

This is a Taper Thread designed so that its suitable for BSPT, BSPP, NPTF and Metric.



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
5500000001	4	1/8"
5500000013	4	1/4"
5500000002	5	1/8"
5500000003	5	1/4"
5500000004	6	1/8"
5500000005	6	1/4"
5500000014	6	3/8"
5500000015	6	1/2"
5500000006	8	1/8"
5500000007	8	1/4"
5500000008	8	3/8"
5500000016	8	1/2"
5500000009	10	1/4"
5500000010	10	3/8"
5500000017	10	1/2"
5500000011	12	1/4"
5500000012	12	3/8"
5500000018	12	1/2"
5500000019	14	3/8"
5500000020	14	1/2"

Tech Sheet 10709



Universal, BSPT, BSPP & NPT

1020	OD mm	Thread
5501000001	4	1/8"
5501000002	6	1/8"
5501000003	6	1/4"
5501000004	8	1/8"
5501000005	8	1/4"

Tech Sheet 10709

(Hex Body) Metric & BSPP

1020	OD mm	Thread
5002000N01	4	M5
5002000N02	4	1/8"
5002000N22	4	1/4"
5002000N18	5	M5
5002000N19	5	1/8"
5002000N20	6	M5
5002000N12	6	M12 x 1
5002000N13	6	M12 x 1.25
5002000N14	6	M12 x 1.5
5002000N03	6	1/8"
5002000N04	6	1/4"
5002000N27	6	3/8"
5002000N28	6	1/2"
5002000N17	8	M12 x 1.5
5002000N05	8	1/8"
5002000N06	8	1/4"
5002000N07	8	3/8"
5002000N29	8	1/2"
5002000N08	10	1/4"
5002000N09	10	3/8"
5002000N31	10	1/2"
5002000N32	12	1/4"
5002000N11	12	3/8"
5002000N23	12	1/2"
5002000N24	14	3/8"
5002000N25	14	1/2"

Tech Sheet 10709



Straight Female Adaptors



(Hex Body) Metric & BSPT

1020	OD mm	Thread
5003000N08	4	M5
5003000N01	4	1/8"
5003000N09	4	1/4"
5003000N06	5	1/8"
5003000N02	6	1/8"
5003000N03	6	1/4"
5003000N04	8	1/8"
5003000N05	8	1/4"
5003000N10	8	3/8"
5003000N11	10	1/4"
5003000N12	10	3/8"
5003000N13	10	1/2"
5003000N14	12	3/8"
5003000N15	12	1/2"

Tech Sheet 10709

Bulkhead Connectors



Tube x Tube

1020	OD mm	Thread Size:
5005000N01	4	M12X1
5005000N06	5	M14X1
5005000N02	6	M14X1
5005000N03	8	M16X1
5005000N04	10	M20X1
5005000N05	12	M22X1

Tech Sheet 10709

58000 SERIES HIGH PRESSURE LUBRICATION FITTINGS



Working Temperature:
-30°C to +150°C



Maximum Working Pressure:
150 bar



Maximum Working Pressure for compressed air:
30 bar



Maximum Working Pressure for fluids:
150 bar

- Nickel plated brass collet and body
- Compressed air, oil and grease
- PA6, PA11, PA12 polyethylene, polyurethane (polyurethane hoses require a minimum hardness of 98 shore)

Male Adaptors



Metric & BSPT

1020	OD mm	Thread
58000-4-M6	4	M6 x 1
58000-4-M8	4	M8 x 1
58000-4-M10	4	M10 x 1
58000-4-1/8	4	1/8"
58000-6-M6	6	M6 x 1
58000-6-M8	6	M8 x 1
58000-6-M10	6	M10 x 1
58000-6-1/8	6	1/8"

Elbow Adaptors



Metric & BSPP

1020	OD mm	Thread
58100-4-M6	4	M6 x 1
58100-4-M8	4	M8 x 1
58100-4-M10	4	M10 x 1
58100-4-1/8	4	1/8"
58100-6-M6X1	6	M6 x 1
58100-6-M8X1	6	M8 x 1
58100-6-M10X1	6	M10 x 1
58100-6-1/8	6	1/8"

Swivel Elbow Adaptors



Metric & BSPT

1020	OD mm	Thread
58110-4-M6	4	M6 x 1
58110-4-M8	4	M8 x 1
58110-4-M10	4	M10 x 1
58110-4-1/8	4	1/8"
58110-6-M6	6	M6 x 1
58110-6-M8	6	M8 x 1
58110-6-M10	6	M10 x 1
58110-6-1/8	6	1/8"

Straight Connectors



Tube x Tube

1020	OD mm	OD mm
58040-4	4	4
58040-6	6	6

89000 SERIES IMPERIAL TUBE FITTINGS



Working Temperature:
-20°c to +80°C

Working Pressure:
-0.99 bar to 20 bar

Fittings with “Short” tapered thread allow assembly with tapered as well as parallel threads (BSPT, NPT and BSPP) and have a reduced overall height. The clamping washer made in stainless steel ensures the perfect grip on the tube with all kinds of material without damage to the surface.

The connection between the tube and the fitting ensure a tight seal even in severe conditions such as impact and vibration. The design of the geometric seal ensures the perfect fit for vacuum applications Suitable to be used with PA6, PA11, PA12, Polyethylene, Polyurethane (minimum hardness of 98 shore).

Material:
Body: Brass nickel plated
Collet: Brass nickel plated
Capsule: Brass nickel plated
Clamping Washer: Stainless steel 301
Media: Compressed air, vacuum, water

Straight Male Adaptors

This is a taper thread designed so that its suitable for BSPT, BSPP, NPTF and metric.



Universal Short Thread Type

1020	OD	Thread
8900000001	1/8"	1/8"
8900000002	1/8"	1/4"
8900000003	5/32"	1/8"
8900000004	5/32"	1/4"
8900000005	1/4"	1/8"
8900000006	1/4"	1/4"
8900000007	1/4"	3/8"
8900000008	5/16"	1/8"
8900000009	5/16"	1/4"
8900000010	5/16"	3/8"
8900000011	3/8"	1/8"
8900000012	3/8"	1/4"
8900000013	3/8"	3/8"
8900000014	3/8"	1/2"
8900000015	1/2"	1/8"
8900000016	1/2"	1/4"
8900000017	1/2"	3/8"
8900000018	1/2"	1/2"

Tech Sheet 10707

Straight Female Adaptors



NPT

1020	OD	Thread
8903000001	1/8"	1/8"
8903000002	1/8"	1/4"
8903000003	5/32"	1/8"
8903000004	5/32"	1/4"
8903000005	1/4"	1/8"
8903000006	1/4"	1/4"
8903000007	3/8"	1/4"
8903000008	3/8"	3/8"

Tech Sheet 10707

Swivel Male Elbows

This is a taper thread designed so that its suitable for BSPT, BSPP, NPTF and metric.



Universal Short Thread Type

1020	OD	Thread
8911100001	1/8"	1/8"
8911100002	1/8"	1/4"
8911100003	5/32"	1/8"
8911100004	5/32"	1/4"
8911100005	1/4"	1/8"
8911100006	1/4"	1/4"
8911100007	1/4"	3/8"
8911100008	5/16"	1/8"
8911100009	5/16"	1/4"
8911100011	3/8"	1/8"
8911100012	3/8"	1/4"
8911100013	3/8"	3/8"
8911100014	3/8"	1/2"
8911100015	1/2"	1/4"
8911100016	1/2"	3/8"
8911100017	1/2"	1/2"

Tech Sheet 10707

Swivel Female Elbows



NPT

1020	OD	Thread
8910600001	5/32"	1/8"
8910600002	1/4"	1/4"
8910600003	5/32"	1/8"
8910600004	1/4"	1/4"
8910600005	3/8"	1/8"
8910600006	3/8"	1/4"

Tech Sheet 10707

Swivel Tee Male Centre Leg

This is a taper thread designed so that its suitable for BSPT, BSPP, NPTF and metric.



Universal Short Thread Type

1020	OD	Thread
8921100001	1/8"	1/8"
8921100005	1/4"	1/8"
8921100006	1/4"	1/4"
8921100007	1/4"	3/8"
8921100014	3/8"	1/8"
8921100008	3/8"	1/4"
8921100009	3/8"	3/8"
8921100010	3/8"	1/2"
8921100011	1/2"	1/4"
8921100012	1/2"	3/8"
8921100013	1/2"	1/2"


Tech Sheet 10707


AIGNEP

For PRO3
see page 420

89000 SERIES IMPERIAL TUBE FITTINGS



 **Working Temperature:**
-20°C to +80°C

 **Working Pressure:**
-0.99 bar to 20 bar

The clamping washer made in stainless steel ensures the perfect grip on the tube with all kinds of material without damage to the surface.

The connection between the tube and the fitting ensure a tight seal even in severe conditions such as impact and vibration.

The design of the geometric seal ensures the perfect fit for vacuum applications.

Suitable to be used with PA6, PA11, PA12, polyethylene, polyurethane (minimum hardness of 98 shore).

Material:

Body: Brass nickel plated

Collet: Brass nickel plated

Capsule: Brass nickel plated

Clamping Washer: Stainless steel 301

Media: Compressed air, vacuum, water

Straight Male Adaptors



Tube x Tube

1020	OD
8904000001	1/8"
8904000002	5/32"
8904000004	1/4"
8904000005	5/16"
8904000007	3/8"
8904000008	1/2"

Tech Sheet 10707

Equal Elbows



Tube x Tube

1020	OD
8913000001	1/8"
8913000002	5/32"
8913000003	1/4"
8913000004	5/16"
8913000005	3/8"
8913000006	1/2"

Tech Sheet 10707

Equal Bulkheads



Tube x Tube

1020	OD
8905000001	1/8"
8905000003	1/4"
8905000004	5/16"
8905000005	3/8"
8905000006	1/2"

Tech Sheet 10707

Unequal Straight Male Adaptors



Tube x Tube

1020	OD	OD
8904000003	1/4"	5/32"
8904000006	3/8"	1/4"
8904000009	3/8"	1/2"

Tech Sheet 10707

Equal Tees



Tube x Tube

1020	OD
8923000001	1/8"
8923000003	1/4"
8923000004	5/16"
8923000005	3/8"
8923000006	1/2"

Tech Sheet 10707

Stem Reducers



Tube x Tube

1020	Stem OD	OD
8970000001	1/4"	1/8"
8970000002	1/4"	5/32"
8970000003	3/8"	1/4"
8970000004	1/2"	1/4"
8970000005	1/2"	3/8"

Tech Sheet 10707



For **Stainless Steel Mini Cylinders**
see page **457**



FOOD GRADE PUSH-IN FITTINGS



Working Temperature:
-15°C to +190°C

Working Pressure:
-0.99 to 20 bar



Brass nickel plated fittings designed for the food industry.
Suitable for compressed air, vacuum and water.

Straight Adaptors



Male Thread, Metric & BSPP

1020	OD mm	Thread
70020-4-M5	4	M5
70020-4-1/8	4	1/8"
70020-6-1/8	6	1/8"
70020-6-1/4	6	1/4"
70020-8-1/8	8	1/8"
70020-8-1/4	8	1/4"
70020-10-1/4	10	1/4"
70020-10-3/8	10	3/8"
70020-12-3/8	12	3/8"

Tech Sheet 1905

Swivel Elbows



Male Thread, Metric & BSPP

1020	OD mm	Thread
70116-4-M5	4	M5
70116-4-1/8	4	1/8"
70116-6-1/8	6	1/8"
70116-6-1/4	6	1/4"
70116-8-1/8	8	1/8"
70116-8-1/4	8	1/4"
70116-10-1/4	10	1/4"
70116-10-3/8	10	3/8"
70116-12-3/8	12	3/8"

Tech Sheet 1905

Tee Connectors



Tube x Tube

1020	OD mm
70230-4	4
70230-6	6
70230-8	8
70230-10	10
70230-12	12

Tech Sheet 1905

Straight Connectors



Tube x Tube

1020	OD mm
70040-4	4
70040-6	6
70040-8	8
70040-10	10
70040-12	12

Tech Sheet 1905

Swivel Tees



Male Thread, BSPT

1020	OD mm	Thread
70216-4-1/8	4	1/8"
70216-6-1/8	6	1/8"
70216-6-1/4	6	1/4"
70216-8-1/8	8	1/8"
70216-8-1/4	8	1/4"

Tech Sheet 1905



For ISO 15552 Cylinders
see pages 478-486



PNEUFIT® PUSH-IN FITTINGS, METRIC



- Very compact units featuring retained collets and positive tube anchorage
- Silicone free O-ring seals
- Non-PTFE based thread sealant on all BSP taper threads
- Easy tube insertion for rapid assembly
- Positive tube anchorage
- For simple and quick assembly of pneumatic circuits
- Wide range of types available
- Reliable and corrosion resistant

Fluid: Compressed air

Body: Nickel plated brass

Washer (Banjo): PA

Collet: Nickel plated brass

Thread Sealant: Non-PTFE

O-Ring: VMQ free NBR

Tube Sizes:

Warning: The push-in tube fittings in this section must not be used in vehicle air braking and ancillary systems

Tube Types: Positive tube anchorage

Warning: PA 11 or 12, PUR and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal dut , DIN 73378, DIN 74234, NFE 49-100

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
Vacuum – 18 bar unless otherwise stated
(dependant upon tubing specification)

Straight Adaptors



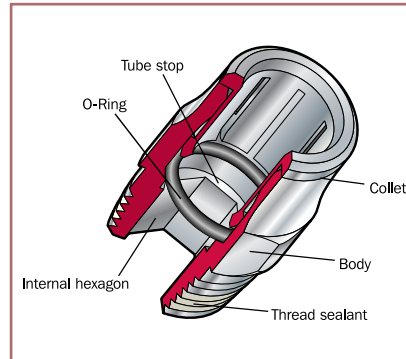
BSP & Metric

0038	OD mm	Thread
102250405	4	M5
102250418	4	1/8"
102250428	4	1/4"
102250605	6	M5
102250618	6	1/8"
102250628	6	1/4"
102250818	8	1/8"
102250828	8	1/4"
102250838	8	3/8"
102251018	10	1/8"
102251028	10	1/4"
102251038	10	3/8"
102251228	12	1/4"
102251238	12	3/8"



BSPT

0038	OD mm	Thread
101250418	4	1/8"
101250428	4	1/4"
101250618	6	1/8"
101250628	6	1/4"
101250818	8	1/8"
101250828	8	1/4"
101250838	8	3/8"
101251018	10	1/8"
101251028	10	1/4"
101251038	10	3/8"
101251228	12	1/4"
101251238	12	3/8"



Straight Stem Adaptors



BSP

0038	OD mm	Thread
102150418	4	1/8"
102150618	6	1/8"
102150838	8	3/8"
102151028	10	1/4"
102151038	10	3/8"
102151248	12	3/8"



BSPT

0038	OD mm	Thread
101150418	4	1/8"
101150618	6	1/8"
101150628	6	1/4"
101150818	8	1/8"
101150828	8	1/4"
101151028	10	1/4"
101151038	10	3/8"
101151238	12	3/8"

Swivel Elbows



BSPT

0038	OD mm	Thread
101470418	4	1/8"
101470428	4	1/4"
101470618	6	1/8"
101470628	6	1/4"
101470638	6	3/8"
101470818	8	1/8"
101470828	8	1/4"
101470838	8	3/8"
101471018	10	1/8"
101471028	10	1/4"
101471038	10	3/8"
101471228	12	1/4"
101471238	12	3/8"

Elbow Connectors



Tube x Tube

0038	OD mm
100400400	4
100400600	6
100400800	8
100401000	10
100401200	12

Straight Connectors



Tube x Tube

0038	OD mm
100200400	4
100200600	6
100200800	8
100201000	10
100201200	12

Bulkhead Connectors



Tube x Tube

0038	OD mm
100290400	4
100290600	6
100290800	8
100291000	10
100291200	12

Tee Connectors



Tube x Tube

0038	OD mm
100600400	4
100600600	6
100600800	8
100601000	10
100601200	12

PNEUFIT® PUSH-IN FITTINGS, IMPERIAL



- For simple and quick assembly of pneumatic circuits
- Positive tube anchorage
- Wide range of types available
- Reliable and corrosion resistant

Medium: Compressed air

Collet and Body Manufactured from Bar:
Nickel plated brass to BS 2874: 1986 (CZ121)

Body Manufactured from Stamping:
Nickel plated brass to BS 2872: 1969 (CZ122)

Seal: Nitrile rubber

Tube Sizes: 1/8", 1/4", 3/8", 1/2" O/D

Warning:
The push-in tube fittings in this section must not be used in vehicle air braking and ancillary systems

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
Vacuum – 18 bar unless otherwise stated
(dependant upon tubing specification)

Straight Adaptors



BSPT

0038	OD	Thread
121250118	1/8"	1/8"
121250418	1/4"	1/8"
121250428	1/4"	1/4"
121250628	3/8"	1/4"
121250638	3/8"	3/8"

Straight Connectors



Tube x Tube

0038	OD
120200400	1/4"
120200600	3/8"

Bulkhead Connectors



Tube x Tube

0038	OD	Thread
120290400	1/4"	M12 x 1.0
120290600	3/8"	M20 x 1.5

Elbow Connectors



Tube x Tube

0038	OD
120400400	1/4"
120400600	3/8"

90° Swivel Elbow Adaptors



BSPT

0038	OD	Thread
121470418	1/4"	1/8"
121470428	1/4"	1/4"
121470628	3/8"	1/4"
121470638	3/8"	3/8"

Swivel Tee Adaptor



BSPT

0038	OD	Thread
121670418	1/4"	1/8"

Tee Connectors



Tube x Tube

0038	OD
120600300	3/16"
120600400	1/4"
120600600	3/8"



For Olympian Plus Boxed Sets
see page 683



NON-RETURN VALVES & FITTINGS



Non-return Valves

- Allow free flow in one direction only
- Simple reliable design
- Low weight
- Low cracking pressure
- High operating pressure

Medium:

Compressed air, filtered, lubricated and non-lubricated, vacuum

Body:

Anodised aluminium

Collet:

Nickel plated brass

Spring:

Stainless steel

Seals:

Nitrile rubber

Valve and Insert:

Aluminium

Mounting:

Line mounted, push-in connection

Tubing Types:

Nylon 11 or 12. Polyurethane, and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49100



Working Pressure:

-0.9 to 16 bar (dependent upon operating specification of tubing)

Working Temperature:
-20°C to +80°C



T50 Series, In-line Push-in

0038	OD mm	Cracking Pressure Bar
T50P0004	4	0.03
T50P0006	6	0.03
T50P0008	8	0.03
T50P0010	10	0.03
T50P0012	12	0.03

Tech Sheet 20749

Blocking, Pressure Reducing & Pneumatic Sensor Fittings

- Very compact units
- Safer pneumatic systems
- Easy tube insertion for rapid assembly of pneumatic circuits
- BSP threads

Working Temperature:
0°C to +70°C



Operating Pressures:

Blocking Fitting:

Supply pressure: 1-10 bar

Pressure Reducing Fitting:

Primary pressure: 1-16 bar max.

Secondary pressure: 1-8 bar max.

Pressure Sensor Fitting:

Cylinder pressure (Pc): 10 bar max.

Sensor supply pressure: 3-10 bar

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

Cover (pilot thread): Brass

Lock rings: SUS

Main body: Brass

Case (female thread): Zinc die-casting

Valve: SUS and NBR

Springs: SUS

Sealing: NBR



Blocking Fitting, BSPP

0038	OD	Thread
102GA1818	1/8"	1/8"
102GA2828	1/4"	1/4"
102GA3838	3/8"	3/8"
102GA4848	1/2"	1/2"

Tech Sheet 71731

Banjo body: Aluminium

Retaining ring: PA

Banjo bolt and valve: Brass - zinc plated

Washer: NBR



Pressure Reducing Fitting, BSPP

0038	OD	Thread
102GB1818	1/8"	1/8"
102GB2828	1/4"	1/4"
102GB3838	3/8"	3/8"
102GB4848	1/2"	1/2"

Tech Sheet 71732

Body: PA

Banjo bolt: nickel plated brass

Washer: NBR and PU



Pneumatic Sensor Fitting, BSPP

0038	OD	Thread
102GD0418	4	1/8"
102GD0428	4	1/4"

Tech Sheet 71733



For Norgren Excelon Plus
see pages 686-688

FOOD GRADE FITTINGS

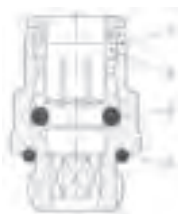


Series F Push-in Fittings, Safe for Use in the Food Industry

Brass parts are chemically treated with phosphorus nickel-plating according to the NSF®/ANSI 51 standard of the food programme. The seals are made of FDA-approved FKM/FPM. Fittings contain no technopolymer, solving the problem of incompatibility with detergents and other chemicals.

The fittings can be used up to +150°C, making them suitable for high temperature applications other industries. The threads are cylindrical and under-head o-rings provide a pneumatic seal. This avoids the need for sealants (e.g. Tezon®) which could release solid fragments during screwing and unscrewing that would contaminate the environment or the fluid. Our fittings can be screwed and unscrewed any number of times and still remain clean and pneumatically sealed.

This choice of materials and design makes these fittings suitable for use in the chemical, pharmaceutical, medical and electronics industry.



1. Body: chemically nickel plated brass to NSF®/ANSI 51 standards
2. Gripper: chemically nickel plated brass to NSF®/ANSI 51 standards
3. Fitting seal: FKM/FPM
4. Port seal: FKM/FPM

Temperature Range:
-20°C to +150°C (-4°F to 302°F)

Pressure:
-0.99 to 16 bar (-0.099 to 1.6 MPa)

Technical Features

- Threaded ports: M5, G1/8", G1/4", G3/8", G1/2"
- Pipe diameter: 4, 6, 8 and 10mm
- Recommended pipe: Rilsan PA 11, nylon 6, polyamide 12, polypropylene
- Under-head O-ring can be screwed and unscrewed any number of times; no fragments of Tezon® or sealant will contaminate the fluid
- Corrosion proof: chemical nickel-plating + FKM/FPM, compatible with numerous substances
- No plastic parts, so no risk of incompatibility

Male Stud



BSP Parallel x Tube

9186	Tube OD mm	Thread BSPP
2F01001	4	M5
2F01002	4	G1/8"
2F01003	4	G1/4"
2F01000	6	M5
2F01007	6	G1/8"
2F01008	6	G1/4"
2F01009	8	G1/8"
2F01010	8	G1/4"
2F01011	8	G3/8"
2F01012	10	G1/4"
2F01013	10	G3/8"
2F01022	10	G1/2"

Male Stud



BSP Tapered x Tube

9186	Tube OD mm	Thread BSPT
2F01C02	4	R1/8"
2F01C07	6	R1/8"
2F01C08	6	R1/4"
2F01C09	8	R1/8"
2F01C10	8	R1/4"
2F01C11	8	R3/8"
2F01C13	10	R1/4"
2F01C14	10	R3/8"

Straight Connector



Tube x Tube

9186	Tube OD mm	Bulkhead Thread
2F03001	4	M13 x 1
2F03003	6	M15 x 1
2F03004	8	M17 x 1
2F03005	10	M20 x 1

Equal Tee



Tube x Tube

9186	Tube OD mm
2F05001	4
2F05003	6
2F05004	8
2F05005	10

FOOD GRADE FITTINGS

Male Stud Swivel Elbow



BSP Parallel x Tube

9186	Thread BSPP	Tube OD mm
2F31001	M5	4
2F31002	G1/8"	4
2F31003	G1/4"	4
2F31007	M5	6
2F31008	G1/8"	6
2F31009	G1/4"	6
2F31010	G1/8"	8
2F31011	G1/4"	8
2F31012	G3/8"	8
2F31013	G1/4"	10
2F31014	G3/8"	10
2F31015	G1/2"	10

Bulkhead Connector



Tube x Tube

9186	Tube OD mm	Bulkhead Thread
2F11001	4	M13 x 1
2F11003	6	M15 x 1
2F11004	8	M17 x 1
2F11005	10	M20 x 1

Equal Elbow



Tube x Tube

9186	Tube OD mm
2F04001	4
2F04003	6
2F04004	8
2F04005	10

Male Stud Swivel Elbow



BSP Parallel x Tube

9186	Thread BSPT	Tube OD mm
2F31C02	R1/8"	4
2F31C03	R1/4"	4
2F31C08	R1/8"	6
2F31C09	R1/4"	6
2F31C10	R1/8"	8
2F31C11	R1/4"	8
2F31C12	R3/8"	8
2F31C13	R1/4"	10
2F31C14	R3/8"	10

Male Stem Adaptor



BSP Parallel x Tube

9186	Thread BSPP	Tube OD mm
2F06001	M5	4
2F06002	G1/8"	4
2F06003	G1/4"	4
2F06000	M5	6
2F06007	G1/8"	6
2F06008	G1/4"	6
2F06009	G1/8"	8
2F06010	G1/4"	8
2F06011	G3/8"	8
2F06012	G1/4"	10
2F06013	G1/4"	10

Male Stud Elbow



BSP Parallel x Tube

9186	Thread BSPT	Tube OD mm
2F39C02	R1/8"	4
2F39C08	R1/8"	6
2F39C09	R1/4"	6
2F39C10	R1/8"	8
2F39C11	R1/4"	8
2F39C12	R3/8"	8
2F39C13	R1/4"	10

Male Swivel Branch Tee



BSP Parallel x Tube

9186	Thread BSPP	Tube OD mm
2F32002	G1/8"	4
2F32008	G1/8"	6
2F32009	G1/4"	6
2F32010	G1/8"	8
2F32011	G1/4"	8
2F32012	G3/8"	8
2F32013	G1/4"	10
2F32014	G3/8"	10

Female Stud



BSP Parallel x Tube

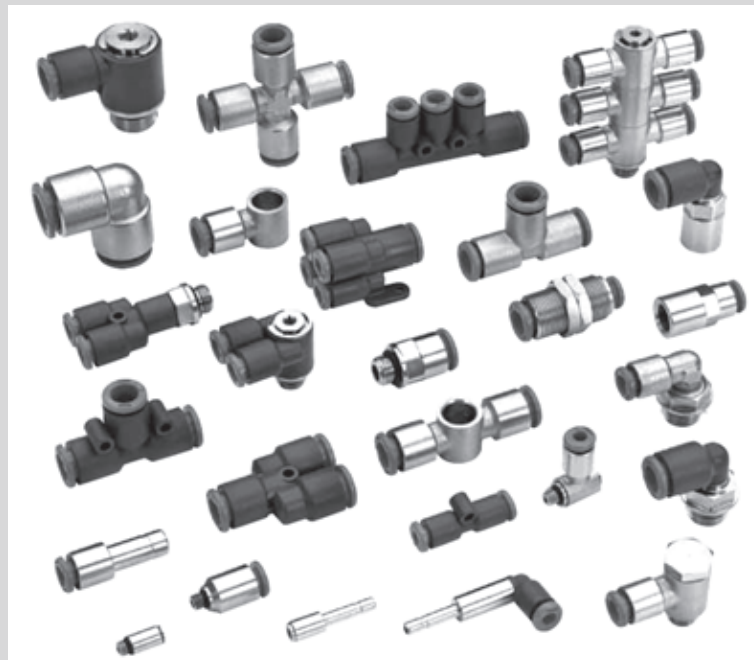
9186	Thread BSPP	Tube OD mm
2F02001	G1/8"	4
2F02005	G1/8"	6
2F02006	G1/4"	6
2F02007	G1/8"	8
2F02008	G1/4"	8
2F02011	G1/4"	10

NICKEL PLATED BRASS & TECHNOPOLYMER

Push-in fittings by Metal Work are the best elements for connecting pipes and actuators.

Quick and easy to use, the Metal Work push-in fitting can be re-used thousands of times without affecting the pneumatic and mechanical seal in any way. It comes in various configurations and guarantees a virtually unlimited, highly flexible use. The clamping spring with its special shape grips the pipe without scratching or deforming it, which facilitates release.

In the fittings, the release bushing has patented screwdriver slots to facilitate release in applications not accessible to the fingers.

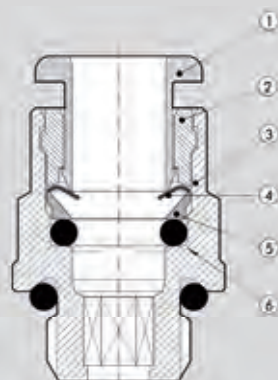


Technical Data

Threaded coupling	M3 - M5 - M7 - 1/8" - 1/4" - 3/8" - 1/2"
Diameter	Ø 3mm - Ø 3.17mm - Ø 4mm - Ø 5mm - Ø 6mm - Ø 8mm - Ø 10mm - Ø 12mm - Ø 14mm
Temperature range for brass fittings	-20 °C to +80 °C -4 °F to 176 °F
Temperature range for technopolymer fittings	-20 °C to +60 °C -4 °F to 140 °F
Pressure range for brass fittings	-0.99 bar ... 16 bar / -0.099 MPa ... 1.6 MPa
Pressure range for technopolymer fittings	-0.99 bar ... 12 bar / -0.099 MPa ... 1.2 MPa
Recommended pipe	Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene
Fluid	Vacuum - Compressed air

Components

1. Ring or release bushing: technopolymer
2. Locking bushing: brass or technopolymer
3. Body: brass or technopolymer
4. Clamping spring: stainless steel
(for pipes Ø 3 and Ø 3.17 and R31 Ø 5 and R32 Ø 5: brass gripper)
5. Spring supporting ring: technopolymer
6. Seal: NBR



METRIC PUSH-IN FITTINGS, NICKEL PLATED BRASS



Male Stud



BSP Parallel x Tube

9150	Thread BSPP	Tube OD mm
2L01001	M5	4
2L01002	G1/8"	4
2L01003	G1/4"	4
2001005	G1/8"	5
2001006	G1/4"	5
2L01000	M5	6
2L01007	G1/8"	6
2L01008	G1/4"	6
2L01009	G1/8"	8
2L01010	G1/4"	8
2L01011	G3/8"	8
2L01012	G1/4"	10
2L01013	G3/8"	10
2001019	G1/4"	12
2001014	G3/8"	12
2001015	G1/2"	12
2001016	G3/8"	14
2001017	G1/2"	14
2L01018	G1/2"	10

Female Stud



BSP Parallel x Tube

9150	Thread BSPP	Tube OD mm
2L02001	G1/8"	4
2L02002	G1/4"	4
2002003	G1/8"	5
2002004	G1/4"	5
2L02005	G1/8"	6
2L02006	G1/4"	6
2L02007	G1/8"	8
2L02008	G1/4"	8
2L02009	G1/4"	10
2L02010	G3/8"	10
2L02011	G3/8"	12
2L02012	G1/2"	12

Male Stud



BSP Tapered x Tube

9150	Thread BSPT	Tube OD mm
2L01C02	R1/8"	4
2L01C07	R1/8"	6
2L01C08	R1/4"	6
2L01C09	R1/8"	8
2L01C10	R1/4"	8
2L01C11	R3/8"	8

Straight Connector



Tube x Tube

9150	Tube OD mm
2L03001	4
2003002	5
2L03003	6
2L03004	8
2L03005	10
2003006	12
2003007	14

Straight Connector, Reducing



Tube x Tube

9150	Tube OD mm
2L03301	4 6
2L03302	4 8
2L03303	6 8
2L03304	6 10
2L03305	8 10
2L03306	6 12
2L03307	8 12
2L03308	10 12

Bulkhead Connector



Tube x Tube

9150	Bulkhead Thread	Tube OD mm
2L11001	M11	4
2011002	M14	5
2L11003	M13	6
2L11004	M15	8
2L11005	M17	10
2011006	M20	12
2011007	M24	14

Unequal Bulkhead Connector



Tube x Tube

9150	Tube OD mm
2L11301	4 6
2L11302	4 8
2L11303	6 8
2L11304	6 10
2L11305	8 10
2L11306	6 12
2L11307	8 12
2L11308	10 12

Equal Elbow



Tube x Tube

9150	Tube OD mm
2L04001	4
2004002	5
2L04003	6
2L04004	8
2L04005	10
2004006	12
2004007	14

Equal Tee



Tube x Tube

9150	Tube OD mm
2L05001	4
2005002	5
2L05003	6
2L05004	8
2L05005	10
2005006	12
2005007	14

Equal Cross



Tube x Tube

9150	Tube OD mm
2L40003	6
2L40004	8

METRIC PUSH-IN FITTINGS, NICKEL PLATED BRASS



Male Stud Swivel Elbow



BSP Parallel x Tube

9150	Thread BSPP	Tube OD mm
2L31001	M5	4
2L31002	G1/8"	4
2L31003	G1/4"	4
2031004	M5	5
2031005	G1/8"	5
2031006	G1/4"	5
2L31007	M5	6
2L31008	G1/8"	6
2L31009	G1/4"	6
2L31010	G1/8"	8
2L31011	G1/4"	8
2L31012	G3/8"	8
2L31013	G1/4"	10
2L31014	G3/8"	10
2031016	G1/4"	12
2031017	G3/8"	12
2031018	G1/2"	12
2031019	G1/2"	14

Male Rotary Elbow



BSP Tapered x Tube

9150	Thread BSPT	Tube OD mm
2L31C02	R1/8"	4
2L31C03	R1/4"	4
2L31C08	R1/8"	6
2L31C09	R1/4"	6
2L31C10	R1/8"	8
2L31C11	R1/4"	8
2L31C12	R3/8"	8
2L31C13	R1/4"	10
2L31C14	R3/8"	10
2031C15	R3/8"	12
2031C16	R1/2"	12

Male Stud Elbow



BSP Tapered x Tube

9150	Thread BSPT	Tube OD mm
2L39C02	R1/8"	4
2L39C08	R1/8"	6
2L39C09	R1/4"	6
2L39C10	R1/8"	8
2L39C11	R1/4"	8
2L39C13	R1/4"	10

Male Stud Swivel Tee



BSP Parallel & Tube

9150	Thread BSPP	Tube OD mm
2L32002	G1/8"	4
2L32003	G1/4"	4
2032005	G1/8"	5
2L32008	G1/8"	6
2L32009	G1/4"	6
2L32010	G1/8"	8
2L32011	G1/4"	8
2L32012	G3/8"	8
2L32013	G1/4"	10
2L32014	G3/8"	10
2032017	G3/8"	12
2032018	G1/2"	12
2032019	G1/2"	14

Extension Stem



Stem x Stem

9150	Stem OD mm
2007001	4
2007002	5
2007003	6
2L07004	8
2007005	10
2007006	12
2007007	14

Stem Reducer



Stem x Tube

9150	Stem OD mm	Tube OD mm
2008001	5	4
2L08002	6	4
2008003	6	5
2L08004	8	4
2008005	8	5
2L08006	8	6
2L08007	10	6
2L08008	10	8
2008009	12	4
2008010	12	6
2008011	12	8
2008015	12	10
2008014	14	8
2008017	14	10
2008018	14	12

Male Stem Adaptor



BSP Parallel x Tube

9150	Thread BSPP	Stem OD mm
2006001	M5	4
2006002	G1/8"	4
2006003	G1/4"	4
2006004	M5	5
2006005	G1/8"	5
2006006	G1/4"	5
2006000	M5	6
2006007	G1/8"	6
2006008	G1/4"	6
2006009	G1/8"	8
2006010	G1/4"	8
2006011	G3/8"	8
2006012	G1/4"	10
2006013	G3/8"	10
2006019	G1/4"	12
2006014	G3/8"	12
2006015	G1/2"	12
2006016	G3/8"	14
2006017	G1/2"	14

SUPER-RAPID PUSH-IN FITTINGS

Material:

Body nickel plated brass. O-ring NBR seals PTFE/NBR/PA


Working Pressure:

0.8 to 16 bar

Male Stud Couplings


Sprint Parallel Male Stud, BSPP

0158	OD mm	Thread
S6510 4 1/8	4	1/8"
S6510 4 1/4	4	1/4"
S6510 5 1/8	5	1/8"
S6510 5 1/4	5	1/4"
S6510 6 1/8	6	1/8"
S6510 6 1/4	6	1/4"
S6510 8 1/8	8	1/8"
S6510 8 1/4	8	1/4"
S6510 8 3/8	8	3/8"
S6510 10 1/4	10	1/4"
S6510 10 3/8	10	3/8"
S6510 10 1/2	10	1/2"
S6510 12 1/4	12	1/4"
S6510 12 3/8	12	3/8"
S6510 12 1/2	12	1/2"
S6510 14 3/8	14	3/8"
S6510 14 1/2	14	1/2"

Tech Sheet 1861


Parallel Male Stud, BSPP & Metric with O-Ring

0158	OD mm	Thread
6512 4 M5	4	M5
6512 4 M6	4	M6
6512 4 1/8	4	1/8"
6512 4 1/4	4	1/4"
6512 5 M5	5	M5
6512 6 M5	6	M5
6512 6 1/8	6	1/8"
6512 6 1/4	6	1/4"
6512 8 1/8	8	1/8"
6512 8 1/4	8	1/4"
6512 8 3/8	8	3/8"
6512 10 1/4	10	1/4"
6512 10 3/8	10	3/8"
6512 12 1/4	12	1/4"
6512 12 3/8	12	3/8"

Tech Sheet 1861

Female Stud Couplings


Female Stud, BSPP & Metric

0158	OD mm	Thread
6463 4 M5	4	M5
6463 4 1/8	4	1/8"
6463 5 1/8	5	1/8"
6463 6 1/8	6	1/8"
6463 6 1/4	6	1/4"
6463 8 1/8	8	1/8"
6463 8 1/4	8	1/4"
6463 10 1/4	10	1/4"

Tech Sheet 1862

Elbows


Sprint Taper Male Elbow, BSPT

0158	OD mm	Thread
S6500 4 1/8	4	1/8"
S6500 4 1/4	4	1/4"
S6500 5 1/8	5	1/8"
S6500 5 1/4	5	1/4"
S6500 6 1/8	6	1/8"
S6500 6 1/4	6	1/4"
S6500 8 1/8	8	1/8"
S6500 8 1/4	8	1/4"
S6500 8 3/8	8	3/8"
S6500 10 1/4	10	1/4"
S6500 10 3/8	10	3/8"
S6500 12 1/4	12	1/4"
S6500 12 3/8	12	3/8"

Tech Sheet 1863


Sprint Swivel Parallel Male Stud, BSPP

0158	OD mm	Thread
S6520 4 1/8	4	1/8"
S6520 4 1/4	4	1/4"
S6520 5 1/8	5	1/8"
S6520 5 1/4	5	1/4"
S6520 6 1/8	6	1/8"
S6520 6 1/4	6	1/4"
S6520 8 1/8	8	1/8"
S6520 8 1/4	8	1/4"
S6520 8 3/8	8	3/8"
S6520 10 1/4	10	1/4"
S6520 10 3/8	10	3/8"
S6520 10 1/2	10	1/2"
S6520 12 1/4	12	1/4"
S6520 12 3/8	12	3/8"
S6520 12 1/2	12	1/2"
S6520 14 3/8	14	3/8"
S6520 14 1/2	14	1/2"

Tech Sheet 1863


Swivel Parallel Male Elbow, BSPP & Metric with O-Ring

0158	OD mm	Thread
6522 4 M5	4	M5
6522 4 1/8	4	1/8"
6522 4 1/4	4	1/4"
6522 5 M5	5	M5
6522 6 M5	6	M5
6522 6 1/8	6	1/8"
6522 6 1/4	6	1/4"
6522 8 1/8	8	1/8"
6522 8 1/4	8	1/4"
6522 8 3/8	8	3/8"
6522 10 1/4	10	1/4"
6522 10 3/8	10	3/8"
6522 12 1/4	12	1/4"
6522 12 3/8	12	3/8"

Tech Sheet 1863

SUPER-RAPID PUSH-IN FITTINGS

Material:

Body nickel plated brass. O-ring NBR seals PTFE/NBR/PA



Working Pressure:

0.8 to 16 bar

Tees



Sprint Swivel Branch Tee Parallel, BSPP

0158	OD mm	Thread
S6430 4 1/8	4	1/8"
S6430 5 1/8	5	1/8"
S6430 5 1/4	5	1/4"
S6430 6 1/8	6	1/8"
S6430 6 1/4	6	1/4"
S6430 8 1/8	8	1/8"
S6430 8 1/4	8	1/4"
S6430 8 3/8	8	3/8"
S6430 10 1/4	10	1/4"
S6430 10 3/8	10	3/8"
S6430 12 1/4	12	1/4"
S6430 12 3/8	12	3/8"
S6430 12 1/2	12	1/2"
S6430 14 1/2	14	1/2"

Tech Sheet 1864



Swivel Branch Tee Parallel, BSPP & Metric with O-Ring

0158	OD mm	Thread
6432 4 M5	4	M5
6432 4 1/8	4	1/8"
6432 5 M5	5	M5
6432 6 1/8	6	1/8"
6432 6 1/4	6	1/4"
6432 8 1/8	8	1/8"
6432 8 1/4	8	1/4"
6432 8 3/8	8	3/8"
6432 10 1/4	10	1/4"
6432 10 3/8	10	3/8"
6432 12 1/4	12	1/4"
6432 12 3/8	12	3/8"

Tech Sheet 1864



Sprint Swivel Run Tee Parallel, BSPP

0158	OD mm	Thread
S6440 4 1/8	4	1/8"
S6440 5 1/8	5	1/8"
S6440 6 1/8	6	1/8"
S6440 6 1/4	6	1/4"
S6440 8 1/8	8	1/8"
S6440 8 1/4	8	1/4"
S6440 8 3/8	8	3/8"
S6440 10 1/4	10	1/4"
S6440 10 3/8	10	3/8"
S6440 12 3/8	12	3/8"
S6440 14 1/2	14	1/2"

Tech Sheet 1864



Swivel Run Tee Parallel, BSPP & Metric with O-Ring

0158	OD mm	Thread
6442 4 M5	4	M5
6442 4 1/8	4	1/8"
6442 5 M5	5	M5
6442 6 1/8	6	1/8"
6442 6 1/4	6	1/4"
6442 8 1/8	8	1/8"
6442 8 1/4	8	1/4"
6442 8 3/8	8	3/8"
6442 10 1/4	10	1/4"
6442 10 3/8	10	3/8"
6442 12 1/4	12	1/4"
6442 12 3/8	12	3/8"

Tech Sheet 1864

Banjo Bolts



Single Banjo, BSPP & Metric with O-Ring

0158	OD mm	Thread
6622 4 M5	4	M5
6622 4 1/8	4	1/8"
6622 6 1/8	6	1/8"
6622 6 1/4	6	1/4"
6622 8 1/8	8	1/8"
6622 8 1/4	8	1/4"
6622 10 1/4	10	1/4"

Tech Sheet 20121



Double Banjo, BSPP with O-Ring

0158	OD mm	Thread
6632 4 1/8	4	1/8"
6632 6 1/8	6	1/8"
6632 8 1/8	8	1/8"
6632 8 1/4	8	1/4"
6632 10 1/4	10	1/4"

Tech Sheet 1866

Stem Adaptors



Parallel Stem Adaptor, BSPP x Metric

0158	Stem OD mm	Thread
6811 4 M5	4	M5
6811 4 1/8	4	1/8"
6811 5 1/8	5	1/8"
6811 5 1/4	5	1/4"
6811 6 1/8	6	1/8"
6811 6 1/4	6	1/4"
6811 8 1/8	8	1/8"
6811 8 1/4	8	1/4"
6811 10 1/4	10	1/4"
6811 10 3/8	10	3/8"
6811 12 3/8	12	3/8"
6811 14 1/2	14	1/2"

Tech Sheet 20122

SUPER-RAPID PUSH-IN FITTINGS

Material:

Body nickel plated brass. O-ring NBR seals PTFE/NBR/PA


Working Pressure:

0.8 to 16 bar

Tube Connectors



Swivel Y Connector, BSPP & Metric

0158	OD mm	Thread
6451 4 M5	4	M5
6450 4 1/8	4	1/8"
6450 6 1/8	6	1/8"
6450 8 1/8	8	1/8"
6450 8 1/4	8	1/4"



Equal Y Tube Connector

0158	OD mm
6560 4	4
6560 6	6
6560 8	8
6560 10	10

Tech Sheet 1869



Straight Tube Connector

0158	OD mm
6580 4	4
6580 5	5
6580 6	6
6580 8	8
6580 10	10
6580 12	12
6580 14	14

Tech Sheet 1867



Equal Bulkhead Tube Connector

0158	OD mm	Thread
6590 4	4	M10 x 1
6590 5	5	M12 x 1
6590 6	6	M14 x 1
6590 8	8	M16 x 1
6590 10	10	M18 x 1
6590 12	12	M20 x 1
6590 14	14	M22 x 1

Tech Sheet 20123



Equal Elbow Tube Connector

0158	OD mm
6550 4	4
6550 5	5
6550 6	6
6550 8	8
6550 10	10
6550 12	12
6550 14	14

Tech Sheet 20124



Equal Tee Tube Connector

0158	OD mm
6540 4	4
6540 5	5
6540 6	6
6540 8	8
6540 10	10
6540 12	12
6540 14	14

Tech Sheet 20125



Equal Cross Tube Connector

0158	OD mm
6600 4	4
6600 5	5
6600 6	6
6600 8	8
6600 10	10
6600 12	12

Tech Sheet 20126



Tube/Stem Reducer

0158	Tube OD mm	Stem OD mm
6800 4 5	4	5
6800 4 6	4	6
6800 4 8	4	8
6800 5 6	5	6
6800 5 8	5	8
6800 6 8	6	8
6800 6 10	6	10
6800 6 12	6	12
6800 8 10	8	10
6800 8 12	8	12
6800 10 12	10	12
6800 10 14	10	14
6800 12 14	12	14

Tech Sheet 1870



Tube to Stem Elbow

0158	OD mm	Stem OD mm
6555 4 4	4	4
6555 6 6	6	6
6555 8 8	8	8
6555 10 10	10	10

Tech Sheet 20127

Press Fit Cartridges



Tube

0158	OD mm
6700 4	4
6700 5	5
6700 6	6

Tech Sheet 20128

Blanking Caps & Plugs



Tube Blanking Cap

0158	OD mm
6750 4	4
6750 6	6
6750 8	8
6750 12	12

Tech Sheet 20129




Plastic Blanking Plug

0158	OD mm
6900 4MM	4
6900 5MM	5
6900 6MM	6
6900 8MM	8
6900 10MM	10
6900 12MM	12
6900 14MM	14

SERIES 8000 SUPER-RAPID PUSH-IN FITTINGS

Series 8000 has a patented additional seal that provides a double tight seal on the tube, ensuring a highly reliable connection and avoiding any possible leakage. Connection and disconnection of the tube can be repeated several times without the use of proper tools and without compromising the performance of the fitting or the sealing on the tube

Material:
Body and Gripper: Nickel plated brass
Seals: Nitrile

 **Working Pressure:**
 -0.9 to 16 bar

Male Studs



BSPP

0158	OD mm	Thread
8512 4-1/8	4	1/8"
8512 6-1/8	6	1/8"
8512 6-1/4	6	1/4"
8512 8-1/8	8	1/8"
8512 8-1/4	8	1/4"
8512 10-1/4	10	1/4"
8512 10-3/8	10	3/8"
8512 12-3/8	12	3/8"
8512 12-1/2	12	1/2"

Tech Sheet 68276

Male Stud Swivel Elbows



BSPP

0158	OD mm	Thread
8522 4-1/8	4	1/8"
8522 6-1/8	6	1/8"
8522 6-1/4	6	1/4"
8522 8-1/8	8	1/8"
8522 8-1/4	8	1/4"
8522 10-1/4	10	1/4"
8522 10-3/8	10	3/8"
8522 12-3/8	12	3/8"
8522 12-1/2	12	1/2"

Tech Sheet 68276

Male Stud Swivel Tees



BSPP

0158	OD mm	Thread
8432 4-1/8	4	1/8"
8432 6-1/8	6	1/8"
8432 8-1/8	8	1/8"
8432 8-1/4	8	1/4"

Tech Sheet 68276

Tube x Tube Connectors



Equal Straights

0158	OD mm
8580 4	4
8580 6	6
8580 8	8

Tech Sheet 68276



Equal Tees

0158	OD mm
8540 4	4
8540 6	6
8540 8	8

Tech Sheet 68276



Equal Elbows

0158	OD mm
8550 4	4
8550 6	6
8550 8	8

Tech Sheet 68276

SERIES H8000 DUAL SEAL SUPER-RAPID FITTINGS

Series H8000 fittings are designed to be used in particularly dirty and dusty environments. The patented system, with double tightening on the tube, guarantees a highly reliable connection and avoids any risk of leakage.

Features:

- Protection against dust and debris
- Silicone free
- Suitable for vacuum and metal tubes

Material:

Body and Gripper: Nickel plated brass
Seals: Viton



Working Pressure:

-0.9 to +60 bar

Male Studs



BSPP

0158	OD mm	Thread
H8512 4-1/8-V	4	1/8"
H8512 6-1/4-V	6	1/4"
H8512 6-1/8-V	6	1/8"
H8512 8-1/4-V	8	1/4"
H8512 8-1/8-V	8	1/8"
H8512 8-3/8-V	8	3/8"
H8512 10-1/2-V	10	1/2"
H8512 10-1/4-V	10	1/4"
H8512 10-1/8-V	10	1/8"
H8512 10-3/8-V	10	3/8"
H8512 12-1/2-V	12	1/2"
H8512 12-1/4-V	12	1/4"
H8512 12-3/8-V	12	3/8"
H8512 14-1/2-V	14	1/2"
H8512 14-3/8-V	14	3/8"
H8512 16-1/2-V	16	1/2"
H8512 16-3/8-V	16	3/8"

Tech Sheet 68275

Male Stud Swivel Elbows



BSPP

0158	OD mm	Thread
H8522 4-1/8-V	4	1/8"
H8522 6-1/4-V	6	1/4"
H8522 6-1/8-V	6	1/8"
H8522 8-1/4-V	8	1/8"
H8522 8-1/4-V	8	1/4"
H8522 8-3/8-V	8	3/8"
H8522 10-1/2-V	10	1/2"
H8522 10-1/4-V	10	1/4"
H8522 10-1/8-V	10	1/8"
H8522 10-3/8-V	10	3/8"
H8522 12-1/2-V	12	1/2"
H8522 12-1/4-V	12	1/4"
H8522 12-3/8-V	12	3/8"
H8522 14-1/2-V	14	1/2"
H8522 14-3/8-V	14	3/8"

Tech Sheet 68275

Tube x Tube Connectors



Equal Tees

0158	OD mm
H8540 4-V	4
H8540 6-V	6
H8540 8-V	8
H8540 10-V	10
H8540 12-V	12
H8540 14-V	14

Tech Sheet 68275



Equal Elbows

0158	OD mm
H8550 4-V	4
H8550 6-V	6
H8550 8-V	8
H8550 10-V	10
H8550 12-V	12
H8550 14-V	14

Tech Sheet 68275



Equal Straights

0158	OD mm
H8580 4-V	10
H8580 6-V	6
H8580 8-V	8
H8580 10-V	10
H8580 12-V	12
H8580 14-V	14

Tech Sheet 68275

APPLICATION FIELDS

- › WELDING
- › CUTTING
- › CEMENT PLANT
- › ROADS AND MOTORWAYS
- › PAINTING





STAINLESS STEEL PUSH-IN FITTINGS One Touch



Features:

- Convenient One Touch fittings provide instant connections
- Light manual pressure on the collet ring is all that is required to instantly disconnect each tube, no special tool is required
- Full stainless steel construction prevents corrosion and increases compatibility with more aggressive medias and environments



Temperature Range:
-20°C to +200°C



Working Pressure
10 bar*


*Dependent upon tubing specification.


Construction:

Body & Collet:	316 stainless steel
O-Ring:	Viton (FDA certified)
Tube to Connect:	PU, nylon, PTFE
Media:	Compressed air, steam, water, other compatible liquids

ONE TOUCH ALL STAINLESS STEEL PUSH-IN FITTINGS

stainless steel **FT PRO**

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
10 bar
Negative Pressure:
750mm Hg (10Torr)

Material:
Body and Collet: 316 stainless steel
O-Ring: Viton

Tube to Connect: PU, Nylon and PTFE
Media: Compressed air, steam water and other compatible liquids

Male Studs



Male Thread, BSPP

0386	OD mm	Thread
SSPC4-01	4	1/8"
SSPC6-01	6	1/8"
SSPC6-02	6	1/4"
SSPC8-01	8	1/8"
SSPC8-02	8	1/4"
SSPC10-02	10	1/4"
SSPC10-03	10	3/8"
SSPC12-04	12	1/2"

Tech Sheet 10257



Male Thread, BSPP

0386	OD mm	Thread
SSPC4-G01	4	1/8"
SSPC6-G01	6	1/8"
SSPC6-G02	6	1/4"
SSPC8-G01	8	1/8"
SSPC8-G02	8	1/4"
SSPC10-G02	10	1/4"
SSPC10-G03	10	3/8"
SSPC12-G04	12	1/2"

Tech Sheet 10257

Female Studs



Female Thread, BSPP

0386	OD mm	Thread
SSPCF4-G01	4	1/8"
SSPCF6-G01	6	1/8"
SSPCF6-G02	6	1/4"
SSPCF8-G01	8	1/8"
SSPCF8-G02	8	1/4"
SSPCF10-G02	10	1/4"
SSPCF10-G03	10	3/8"
SSPCF12-G03	12	3/8"
SSPCF12-G04	12	1/2"

Tech Sheet 10257

Male Stud Swivel Elbows



Male Thread, BSPP

0386	OD mm	Thread
SSPL4-01	4	1/8"
SSPL6-01	6	1/8"
SSPL6-02	6	1/4"
SSPL8-01	8	1/8"
SSPL8-02	8	1/4"
SSPL10-02	10	1/4"
SSPL10-03	10	3/8"
SSPL12-04	12	1/2"

Tech Sheet 10257



Male Thread, BSPP

0386	OD mm	Thread
SSPL4-G01	4	1/8"
SSPL6-G01	6	1/8"
SSPL6-G02	6	1/4"
SSPL8-G01	8	1/8"
SSPL8-G02	8	1/4"
SSPL10-G02	10	1/4"
SSPL10-G03	10	3/8"
SSPL12-G04	12	1/2"

Tech Sheet 10257

Female Stud Elbows



Female Thread, BSPP

0386	OD mm	Thread
SSPLF4-G01	4	1/8"
SSPLF6-G01	6	1/8"
SSPLF6-G02	6	1/4"
SSPLF8-G01	8	1/8"
SSPLF8-G02	8	1/4"
SSPLF10-G02	10	1/4"
SSPLF10-G03	10	3/8"
SSPLF12-G03	12	3/8"
SSPLF12-G04	12	1/2"

Tech Sheet 10257

Male Stud Swivel Tees



Branch Male Thread, BSPP

0386	OD mm	Thread
SSPB4-G01	4	1/8"
SSPB6-G01	6	1/8"
SSPB6-G02	6	1/4"
SSPB8-G01	8	1/8"
SSPB8-G02	8	1/4"
SSPB10-G02	10	1/4"
SSPB10-G03	10	3/8"
SSPB12-G03	12	3/8"
SSPB12-G04	12	1/2"

Tech Sheet 10257

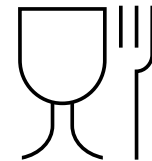
Speed Control Valves



Male Thread, BSPP

0386	OD mm	Thread
SSNSE4-G01	4	1/8"
SSNSE6-G01	6	1/8"
SSNSE6-G02	6	1/4"
SSNSE8-G01	8	1/8"
SSNSE8-G02	8	1/4"
SSNSE8-G03	8	3/8"
SSNSE10-G02	10	1/4"
SSNSE10-G03	10	3/8"
SSNSE10-G04	10	1/2"
SSNSE12-G04	12	1/2"

Tech Sheet 10257



All seals have FDA Certification

ONE TOUCH ALL STAINLESS STEEL PUSH-IN FITTINGS



Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar
Negative Pressure:
750mm Hg (10Torr)

Material:
Body and Collet: 316 stainless steel
O-Ring: Viton

Tube to Connect: PU, Nylon and PTFE
Media: Compressed air, steam water and other compatible liquids

Tube x Tube Connectors



Equal Straights

0386	OD mm
SSPUC-4	4
SSPUC-6	6
SSPUC-8	8
SSPUC-10	10
SSPUC-12	12

Tech Sheet 10257



Unequal Straights

0386	OD mm	OD mm
SSPG6-4	6	4
SSPG8-4	8	4
SSPG8-6	8	6
SSPG10-6	10	6
SSPG10-8	10	8
SSPG12-8	12	8
SSPG12-10	12	10

Tech Sheet 10257



Equal Elbows

0386	OD mm
SSPUL-4	4
SSPUL-6	6
SSPUL-8	8
SSPUL-10	10
SSPUL-12	12

Tech Sheet 10257



Equal Tees

0386	OD mm
SSPUT-4	4
SSPUT-6	6
SSPUT-8	8
SSPUT-10	10
SSPUT-12	12

Tech Sheet 10257



Equal Bulkheads

0386	OD mm
SSPM-4	4
SSPM-6	6
SSPM-8	8
SSPM-10	10
SSPM-12	12

Tech Sheet 10257



Equal Ys

0386	OD mm
SSPY-4	4
SSPY-6	6
SSPY-8	8
SSPY-10	10
SSPY-12	12

Tech Sheet 10257

Stem Connectors



Tube x Stem Reducers

0386	OD mm	OD mm
SSPGJ6-4	6	4
SSPGJ8-4	8	4
SSPGJ8-6	8	6
SSPGJ10-6	10	6
SSPGJ10-8	10	8
SSPGJ12-8	12	8
SSPGJ12-10	12	10

Tech Sheet 10257

Plugs



Tube

0386	OD mm
SSPP-4	4
SSPP-6	6
SSPP-8	8
SSPP-10	10
SSPP-12	12

Tech Sheet 10257



All seals have FDA Certification

316 STAINLESS STEEL PUSH-IN FITTINGS



Working Temperature:
-15°C to +190°C



Maximum Working Pressure:
-0.99 bar to 20 bar



stainless
steel

AIGNEP

This series is fully made of stainless steel AISI 316L and developed to be used with aggressive fluids and food applications. Also ideal for use in salty environments and in machines that need frequent washing with aggressive detergents. Certified NSF 169 and conformed to NSF 61 & NSF 372 standards. All parallel threads have a Food FKM seal as standard.

Male Studs



Male Thread, BSPT

0006	OD mm	Thread
60000-4-1/8	4	1/8"
60000-4-1/4	4	1/4"
60000-6-1/8	6	1/8"
60000-6-1/4	6	1/4"
60000-8-1/8	8	1/8"
60000-8-1/4	8	1/4"
60000-10-1/4	10	1/4"
60000-10-3/8	10	3/8"
60000-12-3/8	12	3/8"
60000-12-1/2	12	1/2"

Tech Sheet 1378



Male Thread, Metric & BSPP

0006	OD mm	Thread
60020-4-M5	4	M5
60020-4-1/8	4	1/8"
60020-4-1/4	4	1/4"
60020-6-M5	6	M5
60020-6-1/8	6	1/8"
60020-6-1/4	6	1/4"
60020-8-1/8	8	1/8"
60020-8-1/4	8	1/4"
60020-10-1/4	10	1/4"
60020-10-3/8	10	3/8"
60020-10-1/2	10	1/2"
60020-12-3/8	12	3/8"
60020-12-1/2	12	1/2"
60020-14-1/2	14	1/2"

Tech Sheet 1378

Male Stud Swivel Elbows



Male Thread, BSPT

0006	OD mm	Thread
60110X-4-18	4	1/8"
60110X-4-14	4	1/4"
60110X-6-18	6	1/8"
60110X-6-14	6	1/4"
60110X-8-18	8	1/8"
60110X-8-14	8	1/4"
60110X-10-14	10	1/4"
60110X-10-38	10	3/8"
60110X-10-12	10	1/2"
60110X-12-38	12	3/8"
60110X-12-12	12	1/2"

Tech Sheet 1378



Male Thread, Metric & BSPP

0006	OD mm	Thread
60115X-4-M5	4	M5
60115X-4-18	4	1/8"
60115X-4-14	4	1/4"
60115X-6-M5	6	M5
60115X-6-18	6	1/8"
60115X-6-14	6	1/4"
60115X-6-38	6	3/8"
60115X-8-18	8	1/8"
60115X-8-14	8	1/4"
60115X-8-38	8	3/8"
60115X-10-14	10	1/4"
60115X-10-38	10	3/8"
60115X-10-12	10	1/2"
60115X-12-38	12	3/8"
60115X-12-12	12	1/2"
60115X-14-12	14	1/2"

Tech Sheet 1378

Male Stud Swivel Tees



Branch Male Thread, BSPT

0006	OD mm	Thread
60210X-4-18	4	1/8"
60210X-4-14	4	1/4"
60210X-6-18	6	1/8"
60210X-6-14	6	1/4"
60210X-8-18	8	1/8"
60210X-8-14	8	1/4"
60210X-10-14	10	1/4"
60210X-10-38	10	3/8"
60210X-10-12	10	1/2"
60210X-12-38	12	3/8"
60210X-12-12	12	1/2"

Tech Sheet 1378



Branch Male Thread, BSPP

0006	OD mm	Thread
60215X-4-M5	4	M5
60215X-4-14	4	1/4"
60215X-6-M5	6	M5
60215X-6-18	6	1/8"
60215X-6-14	6	1/4"
60215X-8-18	8	1/8"
60215X-8-14	8	1/4"
60215X-10-14	10	1/4"
60215X-10-38	10	3/8"
60215X-10-12	10	1/2"
60215X-12-38	12	3/8"
60215X-12-12	12	1/2"
60215X-14-12	14	1/2"

Tech Sheet 1378

316 STAINLESS STEEL PUSH-IN FITTINGS



stainless
steel

AIGNEP

° Working Temperature:
-15°C to +190°C



Maximum Working
Pressure:
-0.99 bar to 20 bar

This series is fully made of stainless steel AISI 316L and developed to be used with aggressive fluids and food applications. Also ideal for use in salty environments and in machines that need frequent washing with aggressive detergents. Certified NSF 169 and conformed to NSF 61 & NSF 372 standards. All parallel threads have a Food FKM seal as standard.

Tube x Tube Connectors



Equal Straights

0006	OD mm
60040-4	4
60040-6	6
60040-8	8
60040-10	10
60040-12	12
60040-14	14
Tech Sheet 1378	



Unequal Straights

0006	OD mm	OD mm
60040-4-6	4	6
60040-6-8	6	8
60040-8-10	8	10
60040-10-12	10	12
Tech Sheet 1378		



Equal Bulkheads

0006	OD mm	Thread
60050-4	4	M12 x 1
60050-6	6	M14 x 1
60050-8	8	M16 x 1
60050-10	10	M20 x 1
60050-12	12	M22 x 1
Tech Sheet 1378		



Equal Ys

0006	OD mm
60310X-4	4
60310X-6	6
60310X-8	8
Tech Sheet 1378	



Equal Elbows

0006	OD mm
60130X-4	4
60130X-6	6
60130X-8	8
60130X-10	10
60130X-12	12
60130X-14	14
Tech Sheet 1378	



Equal Tees

0006	OD mm
60230X-4	4
60230X-6	6
60230X-8	8
60230X-10	10
60230X-12	12
60230X-14	14
Tech Sheet 1378	

Stem Adaptors



Male Thread, BSPP

0006	OD mm	Thread
60600-6-18	6	1/8"
60600-8-14	8	1/4"
60600-10-14	10	1/4"
60600-10-38	10	3/8"
60600-12-38	12	3/8"
60600-12-12	12	1/2"
Tech Sheet 1378		

PLASTIC PLUMBING PUSH-IN FITTINGS



Couplings



Straight

1400	OD mm
PEM0410W	10
PKM0415W	15
PKM0422W	22
PEM0428W	28

Tech Sheet 20630



Reducing

1400	OD mm	OD mm
PKM201510W	15	10
PKM202215W	22	15

Tech Sheet 20630



BSPP Female to Tap Connector

1400	OD mm	Thread
PEM3210W	10	1/2"
PEM3201W	15	1/2"
PEM3203W	15	3/4"
PEM3202W	22	3/4"

Tech Sheet 20630

Pipe Inserts

To be used on installation when using plastic pipe.



1400	To Suit ID mm
TSM10N	10
TSM15N	15
TSM22N	22
TSM28N	28

Tech Sheet 20630

Elbows



Equal

1400	OD mm
PEM0310W	10
PKM0315W	15
PKM0322W	22
PEM03228W	28

Tech Sheet 20630

- Provides a swivel type connection.



Stem

1400	OD mm	Stem OD mm
PEM221010W	10	10
PKM221515W	15	15
PKM222222W	22	22

Tech Sheet 20630



Brass Wing Back, BSPP Female

1400	OD mm	Thread
15WB	15	1/2"
22WB	22	3/4"

Tech Sheet 20630

End Stops



1400	OD mm
PSE4610W	10
PKM4615W	15
PKM4622W	22

Tech Sheet 20630

Tees



Equal

1400	OD mm
PEM0210W	10
PKM0215W	15
PKM0222W	22
PEM0228W	28

Tech Sheet 20630



Increasing on Branch

1400	OD A mm	OD B mm
PKM3022CW	15	22

Tech Sheet 20630



Reducing on Branch

1400	OD A mm	OD B mm
PEM3015BW	15	10
PEM3015AW	15	10
PEM302210AW	22	10
PKM3022AW	22	15
PEM3028AW	28	22



Increasing on Run

1400	OD A mm	OD B mm
PEM3022BW	22	15

Tech Sheet 20630



Reducing on Run

1400	OD A mm	OD B mm
PKM3022DW	22	15
PEM3028DW	28	22

PLASTIC PLUMBING PUSH-IN FITTINGS



Reducers



1400	OD mm	Stem OD mm
PEM061510W	10	15
PEM062215W	15	22
PEM062815W	15	28
PEM062822W	22	28

Tech Sheet 20630

Connectors



Tap, BSPP Female

1400	OD mm	Thread
PKMSTC1514	15	1/2" Straight
PKMSTC1516	15	3/4" Straight
PKMSTC2216	22	3/4" Straight

Tech Sheet 20630

Maximum wall thickness of tank = 4mm.

Note: Requires hand tightening only.



Tank

1400	OD mm
CM0715S	15
CM0722S	22
CM0728S	28

Tech Sheet 20630

Brass Drain Cock

Speedfit Drain Cocks cannot be used where collet covers are fitted. They can be used with a standard fitting fitte with a collet clip.



1400	OD mm
15BDC	15

Tech Sheet 20630

Service Valves

N.B: Hot and cold water only 65°C max.
Not suitable for central heating systems.



Plastic

1400	OD mm
15ISV	15

Tech Sheet 20630



Brass Chrome Plated

1400	OD mm
10HSV	10
15HSV	15
22HSV	22

Tech Sheet 20630



Brass Chrome Plated with Tap Connector BSPP Female

1400	OD mm	Thread
15PTS	15	1/2"

Tech Sheet 20630

Brass Chrome Plated Ball Valves

Suitable for central heating systems, each valve has a red and blue indice.



1400	OD mm
10BV	10
15BV	15
22BV	22

Tech Sheet 20630

Valves

N.B. Hot and cold water only 65°C max.



Stop

1400	OD mm
15STV	15
22STV	22

Tech Sheet 20630



Brass Stop

1400	OD mm
15BSC	15

Tech Sheet 20630

N.B. Hot and cold water only 65°C max.
Not suitable for central heating systems.



Double Check

1400	OD mm
15DCV	15

Tech Sheet 20630

Taps



Emergency Shut Off

1400	OD mm
15ESOT	15

Tech Sheet 20630

N.B. Hot and cold water only 65°C max.



Washing Machine, BSPP

1400	OD mm	Thread
15APT-B	15	3/4"

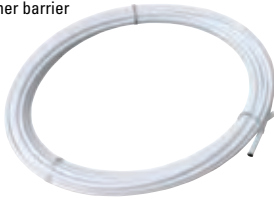
Tech Sheet 20630

PLASTIC PLUMBING PUSH-IN FITTINGS, PIPES & CUTTERS



Barrier Pipes

British Gas accepted for water pipe in vented and sealed central heating systems. The pipe has an inner barrier to stop the ingress of atmosphere.



Pex Coils

1400	OD mm	Length Metres
10BPEX-25C	10	25
10BPEX-50C	10	50
15BPEX-25C	15	25
15BPEX-50C	15	50
15BPEX-100C	15	100
22BPEX-25C	22	25
22BPEX-50C	22	50

Tech Sheet 20363

This pipe is made from a soft material with little memory ensuring a flexible system. It has an inner barrier to stop the ingress of atmosphere. British Gas accepted for water pipe in vented and sealed central heating systems.

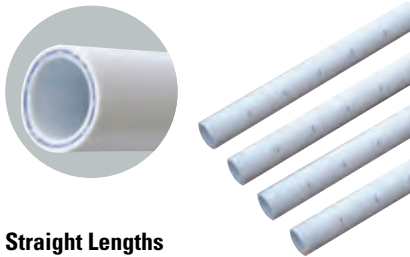
- Easy to handle
- Ultra flexible



Layflat Polybutylen

1400	OD mm	Length Metres
15BPB-25C	15	25
15BPB-50C	15	50
15BPB-100C	15	100
22BPB-25C	22	25
22BPB-50C	22	50

Tech Sheet 20363



Straight Lengths

1400	OD mm	Length Metres	Quantity
15BPEX-20X2L	15	2	20
15BPEX-20X3L	15	3	20
22BPEX-20X2L	22	2	20
22BPEX-20X3L	22	3	20
28BPEX-10X3L	28	3	10

Tech Sheet 20363

Flexi Hoses



Push-in to BSPP Female

1400	OD mm	Thread	Length mm
FLX15	15	1/2"	300
FLX18	15	1/2"	500
FLX16	15	3/4"	300
FLX20	15	3/4"	500
FLX22	22	3/4"	300
FLX19	22	3/4"	500

Tech Sheet 20630



Push-in to Push-in

1400	OD mm	OD mm	Length mm
FLX33	15	10	300
FLX17	15	15	300
FLX21	15	15	500
FLX26	22	22	300
FLX27	22	22	500

Tech Sheet 20630



Push-in to BSPP Female with Service Valve

1400	OD mm	Thread	Length mm
FLX37	15	1/2"	300 Full Bore
FLX24	15	1/2"	300

Tech Sheet 20630

N.B. Hot & cold water only, 65°C maximum



Elbow

1400	OD mm	Thread	Length mm
FLX36	15	1/2"	300

Tech Sheet 20630

Adaptors

Brass Male Cylinder, BSPP

1400	OD mm	Thread
22CMA	22	1"

Tech Sheet 20630



Brass Female Cylinder, BSPP

1400	OD mm	Thread
22CFA	22	1"

Tech Sheet 20630

Cutters



Heavy-duty Pipe Cutter

1400	Pipe Size
JG-HDC	Up to 28 mm



Aluminium Pipe Cutter

1400	OD mm
ALU-CUTTER15	15
ALU-CUTTER22	22
ALU-CUTTER28	28

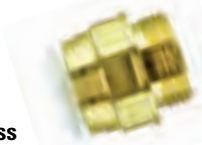
Tech Sheet 20629

John Guest Plumbing Range



Radiator Key

1400	Description
RK1C	Brass Key



Male Coupler - Brass

1400	Size mm	Thread
10MC	10	1/2" BSPP
15MC	15	1/2" BSPP
MW011504N	15	1/2" BSPT
22MC	22	3/4" BSPP
MW012206N	22	3/4" BSPT
MW012818N	28	1" BSPP
MW012808N	28	1" BSPT



Hose Connector

1400	Size mm	Hose ID
NC448	15	1/2"
NC473	22	3/4"



Conversion Connector

1400	Size mm	OD
NC471	15	5/8"



Slip Connector

1400	Size mm
CM-SC-15S	15



PE Copper Coupler

1400	Size mm
JG603B	25 x 15



45° Stem Elbow

1400	Pipe mm	Stem mm
PEM571515W	15	15
PEM572222W	22	22



Bend Tap Connector, Female Thread, BSPP

1400	Size mm	Thread
PEMBTC1514	15	1/2"



Stem Tee

1400	Size mm
PEM532210W	22 x 22 x 10
PEM532215W	22 x 22 x 15



4 Port Rail Manifold

1400	Size mm
SFM522210S	22 x 10
SFM522215S	22 x 15



4 Way Manifold

1400	Size mm
SFM512210S	22 x 10



Male Stem Adaptor, Brass, BSPT

1400	Size mm	Thread
MW052206N	22	3/4"
MW052818N	28	1"



Female Stem Adaptor, Brass, BSPP

1400	Size mm	Thread
MW502216N	22	3/4"



Pipe Adaptor, Brass

1400	Thread	Size mm
NC2239	3/4"	22

John Guest Plumbing Range



Collet Locking Clip

1400	Size mm	Colour
CM1815B	15	Blue
CM1815R	15	Red



Collet Cover

1400	Colour	Size mm
AM1915W	White	15
PM1915B	Blue	15



Collets

1400	Size mm
PXC10	10



EPDM O Ring

1400	Size mm
10EPR	10



Thread Washer

1400	Size
1/2EPW	1/2"



Shut Off Valve, Imperial & Metric

1400	Tube OD 1	Tube OD 2
PPMSV040606W	6mm	6mm
PPMSV041010W	10mm	10mm
PPSV040808W	1/4"	1/4"
PPSV041212W	3/8"	3/8"



Shut Off Valve, Long Handle

1400	Tube OD
PISV0412S	3/8"
PISV0416S	1/2"



Shut Off Valve, Male Thread, NPT

1400	Tube OD	Thread
PPSV010822W	1/4"	1/4"
PPSV011223W	3/8"	3/8"



Shut Off Valve, Female Thread, NPT

1400	Tube OD	Thread
PPSV500822W	1/4"	1/4"



Mounting Clip

1400	Size
SVMC-10	3/8" Shut Off Valve Clip



Single Check Valve

1400	Tube OD mm
6SCV	6
10SCV	10
5/16SCV	5/16"



Conduit Pipe

1400	Size mm	Length Metres
22BLKCON-25C	22	25



Bending Spring

1400	Size mm
JG-BS15	15



Superseal Pipe Insert

1400	Size mm
STS15	15
STS22	22
STS28	28



Pipe Clips & Spacers

1400	Size mm	Colour
PC15W	15	White
PC22W	22	White
PC28W	28	White
PCSW	Spacer	White



Nail Clip

1400	Size mm	Colour
NPC15	15	White

BRASS PUSH-IN PLUMBING TUBE FITTINGS



ITAP-FIT® Fitting

Suitable for:
Copper, PEX and Polybutylene pipe.

Working Temperature:
-20°C to +120°C

Maximum Working Pressure:
Copper Pipe: 20 bar @ 25°C, 10 bar @ 90°C
PEX and Polybutylene Pipe: 12 bar @ 25°C, 5 bar @ 90°C



Female Stud Coupling

0089	OD mm	Thread
610B038012	12	3/8"
610B012012	12	1/2"
610B012014	14	1/2"
610B012015	15	1/2"
610B012016	16	1/2"
610B012018	18	1/2"
610B012020	20	1/2"
610B034018	18	3/4"
610B034022	22	3/4"
610B034025	25	3/4"
610B100028	28	1"

Tech Sheet 10533



Male Stud Coupling

0089	OD mm	Thread
615B038012	12	3/8"
615B038014	14	3/8"
615B012012	12	1/2"
615B012014	14	1/2"
615B012015	15	1/2"
615B012016	16	1/2"
615B012018	18	1/2"
615B012020	20	1/2"
615B034018	18	3/4"
615B034022	22	3/4"
615B034025	25	3/4"
615B100028	28	1"

Tech Sheet 10533



Female Stud 90° Elbow, BSPT

0089	OD mm	Thread
645B038012	12	3/8"
645B012012	12	1/2"
645B012014	14	1/2"
645B012015	15	1/2"
645B012016	16	1/2"
645B012018	18	1/2"
645B012020	20	1/2"
645B034018	18	3/4"
645B034022	22	3/4"
645B034025	25	3/4"
645B100028	28	1"

Tech Sheet 10533



Female Stud 90° Elbow (Wall Mount), BSPT

0089	OD mm	Thread
648B038012	12	3/8"
648B012012	12	1/2"
648B012014	14	1/2"
648B012015	15	1/2"
648B012016	16	1/2"
648B012018	18	1/2"
648B012020	20	1/2"
648B034018	18	3/4"
648B034022	22	3/4"

Tech Sheet 10533



Male Stud 90° Elbow, BSPT

0089	OD mm	Thread
640B038012	12	3/8"
640B012012	12	1/2"
640B012014	14	1/2"
640B012015	15	1/2"
640B012016	16	1/2"
640B012018	18	1/2"
640B012020	20	1/2"
640B034018	18	3/4"
640B034022	22	3/4"
640B034025	25	3/4"
640B100028	28	1"

Tech Sheet 10533



Female Branch Tee, BSPT

0089	OD mm	Thread
635B012014	14	1/2"
635B012015	15	1/2"
635B012016	16	1/2"
635B012018	18	1/2"
635B012020	20	1/2"
635B034018	18	3/4"
635B034022	22	3/4"
635B034025	25	3/4"
635B100028	28	1"

Tech Sheet 10533



Disconnecting Clip

0089	OD mm
671012	12
671014	14
671015	15
671016	16
671018	18
671020	20
671022	22
671025	25
671028	28

Tech Sheet 10533



Depth Gauge

0089
685012028

Tech Sheet 10533

BRASS PUSH-IN PLUMBING TUBE FITTINGS



ITAP-FIT® Fitting

Suitable for:
Copper, PEX and Polybutylene pipe

Working Temperature:
-20°C to +120°C

Maximum Working Pressure:
Copper Pipe: 20 bar @ 25°C, 10 bar @ 90°C
PEX and Polybutylene Pipe: 12 bar @ 25°C, 5 bar @ 90°C



Straight

0089	OD mm
620C000012	12
620C000014	14
620C000015	15
620C000016	16
620C000018	18
620C000020	20
620C000022	22
620C000025	25
620C000028	28

Tech Sheet 10533



End Stop

0089	OD mm
625C000012	12
625C000014	14
625C000015	15
625C000016	16
625C000018	18
625C000020	20
625C000022	22

Tech Sheet 10533



O-Ring

0089	OD mm
656EP012	12
656EP014	14
656EP015	15
656EP016	16
656EP018	18
656EP020	20
656EP022	22
656EP025	25
656EP028	28

Tech Sheet 10533



Equal 90° Elbow

0089	OD mm
650C000012	12
650C000014	14
650C000015	15
650C000016	16
650C000018	18
650C000020	20
650C000022	22
650C000025	25
650C000028	28

Tech Sheet 10533



Tube Liner

0089	To Suit
655BU012110	12 x 1.1
655BU012180	12 x 1.8
655BU012200	12 x 2.0
655BU015180	15 x 1.8
655BU015250	15 x 2.5
655BU016150	16 x 1.5
655BU016180	16 x 1.8
655BU016200	16 x 2.0
655BU018200	18 x 2.0
655BU020190	20 x 1.9
655BU020280	20 x 2.8
655BU022200	22 x 2.0
655BU025230	25 x 2.3
655BU025250	25 x 2.5
655BU028280	28 x 2.8
655BU028300	28 x 3.0

Tech Sheet 10533



Spacer

0089	OD mm
657DI012	12
657DI014	14
657DI015	15
657DI016	16
657DI018	18
657DI020	20
657DI022	22
657DI025	25
657DI028	28

Tech Sheet 10533



Equal Tee

0089	OD mm
630C000012	12
630C000014	14
630C000015	15
630C000016	16
630C000018	18
630C000020	20
630C000022	22
630C000025	25
630C000028	28

Tech Sheet 10533



Ring

0089	OD mm
658AG012	12
658AG014	14
658AG015	15
658AG016	16
658AG018	18
658AG020	20
658AG022	22
658AG025	25
658AG028	28

Tech Sheet 10533

AIR BRAKE FITTINGS

Male Stud Couplings Mix Box

Contains:

2 x M12 x 8, 2 x M16 x 12, 2 x M16 x 8,
2 x M22 x 12, 2 x M16 x 10, 1 x M22 x 15,
2 x M22 x 10, 1 x M22 x 18



14 Piece

1360
008ABK

Male Stud Elbow Mix Box

Contains:

2 x M12 x 8, 1 x M22 x 10, 2 x M16 x 8,
1 x M16 x 12, 2 x M22 x 8, 1 x M22 x 12,
2 x M12 x 10, 1 x M22 x 15, 2 x M16 x 10,
1 x M22 x 18



15 Piece

1360
081ABK

Straight Connectors Mix Box

Contains:

2 x 6 mm, 2 x 12 mm, 2 x 8 mm,
2 x 15 mm, 2 x 10 mm, 2 x 16 mm,
1 x 18 mm



15 Piece

1360
085ABK

Workshop & Mobile Full Repair/Service Kit



120 Piece

1360
086ABK

Male Studs



Metric

1360	OD mm	Thread
800212ABF	6	M12
800216ABF	6	M16
800312ABF	8	M12
800316ABF	8	M16
800322ABF	8	M22
800412ABF	10	M12
800416ABF	10	M16
800422ABF	10	M22
800516ABF	12	M16
800522ABF	12	M22
800622ABF	15	M22
800722ABF	16	M22
800822ABF	18	M22
800826ABF	18	M26

Male Stud Elbows



Metric

1360	OD mm	Thread
810212ABF	6	M12
810216ABF	6	M16
810312ABF	8	M12
810316ABF	8	M16
810322ABF	8	M22
810412ABF	10	M12
810416ABF	10	M16
810422ABF	10	M22
810516ABF	12	M16
810522ABF	12	M22
810622ABF	15	M22
810722ABF	16	M22
810822ABF	18	M22

Bulkheads



Metric

1360	Thread
703222ABF	M22 x M16 x F10 mm
703322ABF	M22 x M18 x F12 mm
703522ABF	M22 x M22 x F16 mm

Hex Straight



Metric

1360	Thread
750300ABF	M12
750500ABF	M16
750700ABF	M22

AIR BRAKE FITTINGS

Straight Joiners



Tube

1360	OD mm
850200ABF	6
850300ABF	8
850400ABF	10
850500ABF	12
850600ABF	15
850700ABF	16
850800ABF	18

Elbow Joiners



Tube

1360	OD mm
860200ABF	6
860300ABF	8
860900ABF	9
860400ABF	10
860110ABF	11
860500ABF	12
860600ABF	15
860700ABF	16
860800ABF	18

Tee Joiners



Tube

1360	OD mm
870200ABF	6
870300ABF	8
870400ABF	10
870500ABF	12
870600ABF	15

Elbows



Female Thread, Metric

1360	Thread
760300ABF	M12
760500ABF	M16
760700ABF	M22



Male Thread x Female Thread, Metric

1360	Male Thread	Female Thread
710312ABF	M12	M12
710316ABF	M16	M12
710322ABF	M22	M12
710516ABF	M16	M16
710522ABF	M22	M16
710722ABF	M22	M22



F Elbow, Male Thread x Female Thread, Metric

1360	Male Thread	Female Thread
743516ABF	M16	M16



45° Elbow, Male Thread x Female Thread, Metric

1360	Male Thread	Female Thread
740516ABF	M16	M16
740722ABF	M22	M22

Tees



Female Thread, Metric

1360	Thread
770300ABF	M12
770500ABF	M16
770700ABF	M22



Male Thread x Female Thread, Metric

1360	Male Thread	Female Thread
730312ABF	M12	M12
730316ABF	M16	M12
730322ABF	M22	M12
730516ABF	M16	M16
730522ABF	M22	M16
730722ABF	M22	M22

Stud Run Tee



Male Thread x Female Thread, Metric

1360	Male Thread	Female Thread
720312ABF	M12	M12
720316ABF	M16	M12
720322ABF	M22	M12
720516ABF	M16	M16
720522ABF	M22	M16
720722ABF	M22	M22

AIR BRAKE FITTINGS



Test Points



Male Thread, Metric

1360	Thread
TPM12T	M12
TPM16T	M16
TPM22T	M22

Drain Taps



Male Thread, Metric

1360	Thread
TT3T	M22

Blanking Plugs



Male Thread, Metric

1360	Thread
BP12B	M12
BP16B	M16
BP22B	M22

AIR BRAKE SWIVEL FITTINGS



Male Studs



Male Thread, Metric

1360	Thread
660502ABF	1/8"
660504ABF	1/4"
660510ABF	M10
660512ABF	M12
660514ABF	M14
660516ABF	M16
660522ABF	M22
660526ABF	M26

Elbow



Female Thread, Metric

1360	Thread
615500ABF	M16

45° Elbow



Female Thread, Metric

1360	Thread
645500ABF	M16

Elbow Joiners



Tube

1360	Tube OD mm
815200ABF	6
815300ABF	8
815400ABF	10
815500ABF	12

Tee



Female Thread, Metric

1360	Thread
635500ABF	2 x M16

Side Tee



Female Thread, Metric

1360	Thread
625500ABF	2 x M16

Cross



Female Thread, Metric

1360	Tube OD mm
646500ABF	3 x M16

Series 9000 C-Truck

Brass fittings



Automation



The safe and practical solution for pneumatic braking systems

Series 9000 C-Truck fittings have been designed to connect tubes in the pneumatic braking systems on industrial and commercial vehicles ensuring reliability and ease of assembling. The use of a proper disconnection tool enables disconnection of the tube without having to remove the fitting. All fittings have a protective cap that keeps humidity and dirt away from the collet. A reinforced insert enables the dimensions of the tube to remain constant, thus ensuring a tight and safe connection even with high changes in temperature. Indeed, Series 9000 C-Truck fittings can be used at extreme temperatures (from -50°C to $+100^{\circ}\text{C}$). They are assembled according to a precise angle and supplied with locking nut and a self sealing O-ring. The O-ring on the thread is set in a special groove of the threaded part, ensuring there is no damage during assembly. The brass body guarantees a high resistance to corrosion, whilst the O-ring and protective cap are made from oil resistant rubber. All fittings are supplied pre-assembled and ready to use.

General Data

Materials: see table of materials

Thread: Metric NPT

Media: Compressed air

Max working pressure: 16 bar

Note: pressure depends on tube characteristics

Temperature: $-50^{\circ}\text{C} \div +100^{\circ}\text{C}$

Tube: Material Polyamide

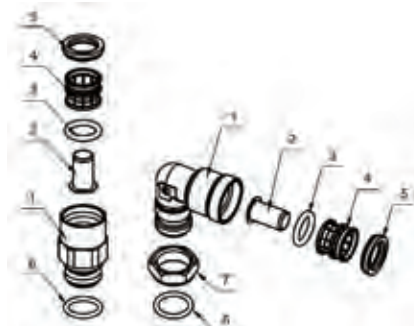
Tube diameters (D/d): 4/2, 6/4, 8/6, 10/7, 10/8, 12/9, 15/11, 15/12, 16/12, 16/13 and 18/14

 Certification

Camozzi
Air that moves the world

AIR BRAKE PUSH-IN FITTINGS C-TRUCK 9000 SERIES

Table of Materials



Parts	Materials
1 = Body	Brass
2 = Insert	Technopolymer (Brass only for Ø10/7, 15/11, 16/12, 16/13 and 18/14)
3 = S-rapid	O-Ring NBR
4 = Collet	Brass
5 = Protective seal	NBR
6 = O-Ring for thread	NBR
7 = Locking ring	Steel

Fittings Assembly in the System

To guarantee the tightening of the fitting in the system, make sure that the thread chamfer conforms to the standard ISO 965 or GOST 10549-80.

The fittings which have an O-Ring seal on the thread, but no locking nut, have to be screwed into the system with the torque forces as shown in the table below.

For the assembly of fittings with locking nut, it is necessary to do the following:

1. Loosen the locking nut
2. Screw the fitting into the system until the O-Ring comes into contact with the system surface
3. Position the fitting according to the suitable angle, moving the body up to 360°
4. Keep the body still
5. Screw the locking nut with torque forces as shown in the table

Thread	Torque force (Nm)
M10 x 1	11 - 15
M12 x 1.5	15 - 19
M14 x 1.5	19 - 23
M16 x 1.5	24 - 30
M18 x 1.5	27 - 33
M22 x 1.5	36 - 44

Straight Adaptors



Male, Metric

0322	Thread	OD mm
9512-6-M10	M10 x 1	6
9512-6-M12	M12 x 1.5	6
9512-6-M14	M14 x 1.5	6
9512-6-M16	M16 x 1.5	6
9512-8-M10	M10 x 1	8
9512-8-M12	M12 x 1.5	8
9512-8-M14	M14 x 1.5	8
9512-8-M16	M16 x 1.5	8
9512-8-M22	M22 x 1.5	8
9512-10-M12	M12 x 1.5	10
9512-10-M16	M16 x 1.5	10
9512-10-M18	M18 x 1.5	10
9512-10-M22	M22 x 1.5	10
9512-10/7-M12	M12 x 1.5	10/7
9512-10/7-M16	M16 x 1.5	10/7
9512-10/7-M22	M22 x 1.5	10/7
9512-12-M12	M12 x 1.5	12
9512-12-M14	M14 x 1.5	12
9512-12-M16	M16 x 1.5	12
9512-12-M22	M22 x 1.5	12
9512-15-M16	M16 x 1.5	15
9512-15-M22	M22 x 1.5	15
9512-15/11-M16	M16 x 1.5	15/11
9512-16-M22	M22 x 1.5	16
9512-16/12-M16	M16 x 1.5	16/12
9512-16/12-M22	M22 x 1.5	16/12
9512-18-M22	M22 x 1.5	18

Tech Sheet 20453



Male, NPT

0322	Thread	OD mm
9510-6-02	1/8"	6
9510-05-02	1/8"	8



Female, Metric

0322	Thread	OD mm
9463-6-M10	M10 x 1	6
9463-6-M16	M16 x 1.5	6
9463-8-M10	M10 x 1	8

Elbow Adaptors



Male, Metric

0322	Thread	OD mm
9502-6-M10	M10 x 1	6
9502-6-M12	M12 x 1.5	6
9502-6-M16	M16 x 1.5	6
9502-6-M22	M22 x 1.5	6
9502-8-M10	M10 x 1	8
9502-8-M12	M12 x 1.5	8
9502-8-M14	M14 x 1.5	8
9502-8-M16	M16 x 1.5	8
9502-8-M22	M22 x 1.5	8
9502-10-M12	M12 x 1.5	10
9502-10-M16	M16 x 1.5	10
9502-10-M22	M22 x 1.5	10
9502-10/7-M12	M12 x 1.5	10/7
9502-10/7-M16	M16 x 1.5	10/7
9502-10/7-M22	M22 x 1.5	10/7
9502-12-M12	M12 x 1.5	12
9502-12-M16	M16 x 1.5	12
9502-12-M22	M22 x 1.5	12
9502-15-M16	M16 x 1.5	15
9502-15-M22	M22 x 1.5	15
9502-16-M22	M22 x 1.5	16
9502-16/12-M16	M16 x 1.5	16/12
9502-16/12-M22	M22 x 1.5	16/12
9502-18-M22	M22 x 1.5	18

Tech Sheet 20453



Double Push-in, Male, Metric

0322	Thread	OD mm
9402-12-M16	M16 x 1.5	12
9402-12-M22	M22 x 1.5	12

Tech Sheet 20453



Male, NPT

0322	Thread	OD mm
9500-6-02	1/8"	6
9500-05-02	1/8"	8

Tech Sheet 20453

AIR BRAKE THREADED FITTINGS C-TRUCK 9000 SERIES

Tee Adaptors



Male Branch, Metric

0322	Thread	OD mm
9412-6-M10	M10 x 1	6
9412-6-M12	M12 x 1.5	6
9412-6-M16	M16 x 1.5	6
9412-8-M12	M12 x 1.5	8
9412-8-M16	M16 x 1.5	8
9412-8-M22	M22 x 1.5	8
9412-10-M12	M12 x 1.5	10
9412-10-M16	M16 x 1.5	10
9412-10-M22	M22 x 1.5	10
9412-10/7-M12	M12 x 1.5	10/7
9412-10/7-M16	M16 x 1.5	10/7
9412-10/7-M22	M22 x 1.5	10/7
9412-12-M12	M12 x 1.5	12
9412-12-M16	M16 x 1.5	12
9412-12-M22	M22 x 1.5	12
9412-15-M16	M16 x 1.5	15
9412-15-M22	M22 x 1.5	15
9412-15/11-M16	M16 x 1.5	15/11
9412-15/11-M22	M22 x 1.5	15/11

Tech Sheet 20453



Male Branch, NPT

0322	Thread	OD mm
9410-6-02	1/8"	6
9410-05-02	1/8"	8

Tech Sheet 20453



Male Run, Metric

0322	Thread	OD mm
9422-6-M10	M10 x 1	6
9422-6-M12	M12 x 1.5	6
9422-6-M16	M16 x 1.5	6
9422-8-M12	M12 x 1.5	8
9422-8-M16	M16 x 1.5	8
9422-8-M22	M22 x 1.5	8
9422-10-M16	M16 x 1.5	10
9422-10-M22	M22 x 1.5	10
9422-12-M12	M12 x 1.5	12
9422-12-M16	M16 x 1.5	12
9422-12-M22	M22 x 1.5	12
9422-15-M16	M16 x 1.5	15
9422-15-M22	M22 x 1.5	15

Tech Sheet 20453

Male Run, NPT

0322	Thread	OD mm
9420-6-02	1/8"	6
9420-05-02	1/8"	8

Tech Sheet 20453



Y Piece Adaptors



Male, Metric

0322	Thread	OD mm
9450-8-M16	M16 x 1.5	8
9450-12-M16	M16 x 1.5	12
9450-12-M22	M22 x 1.5	12

Tech Sheet 20453

Straight Couplings



Tube x Tube

0322	OD mm
9580-6	6
9580-8	8
9580-10	10
9580-12	12
9580-15/11	15/11
9580-16/12	16/12
9580-18/14	18/14

Tech Sheet 20453

Elbows



Tube x Tube

0322	OD mm
9550-6	6
9550-8	8
9550-10	10
9550-12	12

Tech Sheet 20453

Tees



Equal, Tube x Tube

0322	OD mm
9540-6	6
9540-8	8
9540-10	10
9540-12	12
9540-15/11	15/11

Tech Sheet 20453



Branch Unequal, Tube x Tube

0322	OD mm	OD mm
9540-8-8-6	8	6
9540-12-12-8	12	8

Tech Sheet 20453

Bulkhead Couplings



Male, Metric

0322	Thread	OD mm
9590-8-M18	M18 x 1.5	8
9590-8-M18-S01	M18 x 1.5	8
9590-12-M18	M18 x 1.5	12
9590-12-M18-S01	M18 x 1.5	12

Tech Sheet 20453

Bulkhead Couplings



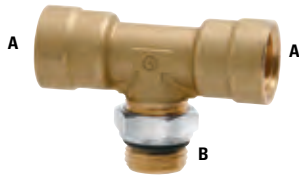
Female, Metric

0322	Thread	OD mm
9592-8-8-M18	M18 x 1.5	8
9592-12-8-M18	M18 x 1.5	12

Tech Sheet 20453

AIR BRAKE THREADED FITTINGS C-TRUCK 9000 SERIES

Tees



Male x Female Branch, Metric

0322	Thread A	Thread B
D2062-M16XM12	M16 x 1.5	M12 x 1.5
D2062-M16XM16	M16 x 1.5	M16 x 1.5
D2062-M16XM22	M22 x 1.5	M16 x 1.5
D2062-M22XM22	M22 x 1.5	M22 x 1.5

Tech Sheet 20453



Male x Female Run, Metric

0322	Thread A	Thread B
D2072-M16XM12	M16 x 1.5	M12 x 1.5
D2072-M16XM16	M16 x 1.5	M16 x 1.5
D2072-M16XM22	M22 x 1.5	M16 x 1.5
D2072-M22XM22	M22 x 1.5	M22 x 1.5

Tech Sheet 20453



Equal Female, Metric

0322	Thread
D2003-M16	M16 x 1.5
D2003-M22	M22 x 1.5

Tech Sheet 20453

Equal Female, Metric (Mountable)

0322	Thread
D2003-M16-S01	M16 x 1.5

Tech Sheet 20453

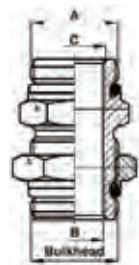


Double Female, Metric

0322	Thread
D3043-M16-2D-S01	M16 x 1.5

Tech Sheet 20453

Bulkheads



Female, Metric

0322	Thread A	Thread B	Thread C	Bulkhead
D2512-M22XM16	M16	M16	M10	M22
D2502-M22XM22	M22	M16	M16	M22

Tech Sheet 20453

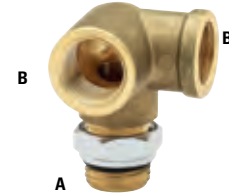
Elbows



Male x Female, Metric

0322	Thread A	Thread B
D2022-M16XM16	M16 x 1.5	M16 x 1.5
D2022-M16XM22	M22 x 1.5	M16 x 1.5
D2022-M22XM22	M22 x 1.5	M22 x 1.5

Tech Sheet 20453



Male x Female, 2 Way Elbow, Metric

0322	Thread A	Thread B
D2077-M16-S01	M16 x 1.5	M16 x 1.5
D2077-M16M22S01	M16 x 1.5	M22 x 1.5

Tech Sheet 20453

Cross



Male x Female, Metric

0322	Thread
D2032-M16	M16 x 1.5

Tech Sheet 20453

For Air Brake Tubing
see page 910



AIR BRAKE ACCESSORIES C-TRUCK 9000 SERIES

Hosetail Adaptors



Male, Metric

0322	Thread	OD mm	Length A mm
D2602-10-M16-L30	M16 x 1.5	11	30
D2602-12-M16X1.5	M16 x 1.5	12.5	20
D2602-11.5M16L35	M16 x 1.5	12.5	35

Tech Sheet 20453

Release Tools



Metric

0322	To Suit mm
DRK 6	6
DRK 8	8
DRK 10	10
DRK 12	12
DRK 15	15
DRK 16	16
DRK 18	18

Tech Sheet 20453

Plugs



Male, Metric

0322	Thread
D2612-M12X1.5	M12 x 1.5
D2612-M16X1.5	M16 x 1.5
D2612-M22X1.5	M22 x 1.5

Tech Sheet 20453

Test Point Valve



Male, Metric

0322	Thread	Thread
VPC-M16-M16	M16 x 1.5	M16 x 1.5
VPC-M22-M16	M22 x 1.5	M16 x 1.5

Tech Sheet 20453

Inflation alve



Male x Female, Metric

0322	Thread
V604-M22-S01	M22 x 1.5

Tech Sheet 20453

Drain Valve



Male, Metric

0322	Thread
VDC-M22-S01	M22 x 1.5

Tech Sheet 20453

Push-in Connector



Male Metric Fittings Mod D6512

0322	Thread	OD mm
D6512-4-M10	M10 x 1	4

Tech Sheet 20453




For PPE
see pages 1750-1760

Hose & Tubing

Thermoplastic tubing, hoses and assemblies for industrial and mobile applications.



- Polyurethane Tube
- Polyurethane Recoil Hoses
- Polyurethane Assemblies
- Nylon Tubing
- Nylon Recoil Hoses
- Tube Cutters





new
product

Crystal Blue

FT Pro tubing is the engineered solution for pneumatic applications requiring excellence as standard.





Metric Polyurethane Ester Tube

Ester-based polyurethane tubing has outstanding characteristics compared with other pneumatic tubing. This tube is extremely flexible and offers excellent bend capabilities, making it ideal for pneumatic control or robotic systems. It is also resistant to many chemicals, gases and oils, as well as having excellent abrasion resistance.

✓ **Ideal for use with push-in fittings, compression fittings, quick-fit fittings and hose tail fittings.**

✗ **Not suitable for use with water or in high humidity environments.**

Specifications

**Medium**

Compressed air and industrial fluids

**Working Pressure**

Vacuum to 12 bar

**Working Temperature**

-20°C to +70°C

**Component Materials**

Polyurethane ester

Regulations

Industrial

DI: 2002/95/EC (RoHS), 2011/65/EC

DI: 97/23/EC (PED)

RG: 1907/2006 (REACH)






Metric Polyurethane Ester Tube



Part Number Colour Codes

N	Black	G	Green
B	Blue		Transparent
R	Red	CB	Crystal Blue
Y	Yellow		



Metric, 25 Metre Coils

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PU03/020B	3	2	■	150	10
PU03/020CB	3	2	■	150	10
PU04/025N	4	2.5	■	190	13
PU04/025B	4	2.5	■	190	13
PU04/025CB	4	2.5	■	190	13
PU04/025R	4	2.5	■	190	13
PU04/025Y	4	2.5	■	190	13
PU04/025G	4	2.5	■	190	13
PU04/025	4	2.5	□	190	13
PU05/030N	5	3	■	160	11
PU05/030B	5	3	■	160	11
PU05/030CB	5	3	■	160	11
PU06/040N	6	4	■	155	11
PU06/040B	6	4	■	155	11
PU06/040CB	6	4	■	155	11
PU06/040R	6	4	■	155	11
PU06/040Y	6	4	■	155	11
PU06/040G	6	4	■	155	11
PU06/040	6	4	□	155	11
PU08/055N	8	5.5	■	150	10
PU08/055B	8	5.5	■	150	10
PU08/055CB	8	5.5	■	150	10
PU08/055R	8	5.5	■	150	10
PU08/055Y	8	5.5	■	150	10
PU08/055G	8	5.5	■	150	10
PU08/055	8	5.5	□	150	10
PU08/060N	8	6	■	120	8

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PU08/060B	8	6	■	120	8
PU08/060CB	8	6	■	120	8
PU08/060R	8	6	■	120	8
PU08/060Y	8	6	■	120	8
PU08/060G	8	6	■	120	8
PU08/060	8	6	□	120	8
PU10/065N	10	6.5	■	125	9
PU10/065B	10	6.5	■	125	9
PU10/065CB	10	6.5	■	125	9
PU10/065R	10	6.5	■	125	9
PU10/065Y	10	6.5	■	125	9
PU10/065G	10	6.5	■	125	9
PU10/065	10	6.5	□	125	9
PU10/080N	10	8	■	120	8
PU10/080B	10	8	■	120	8
PU10/080CB	10	8	■	120	8
PU10/080	10	8	□	120	8
PU12/080N	12	8	■	120	8
PU12/080B	12	8	■	120	8
PU12/080CB	12	8	■	120	8
PU12/080R	12	8	■	120	8
PU12/080Y	12	8	■	120	8
PU12/080G	12	8	■	120	8
PU12/080	12	8	□	120	8
PU16/110B	16	11	■	100	7
PU16/110CB	16	11	■	100	7

Tech Sheet 3131



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Polyurethane Tube **FT PRO**

Metric Polyurethane Ester Tube

Ester based polyurethane tubing has outstanding characteristics compared with other pneumatic tubing.

Part Number Colour Codes

N Black **B** Blue **R** Red **Y** Yellow **G** Green Transparent **CB** Crystal Blue



Metric, 100 Metre Coils

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PU04/025N-100	4	2.5	Black	190	13
PU04/025B-100	4	2.5	Blue	190	13
PU04/025CB-100	4	2.5	Crystal Blue	190	13
PU04/025R-100	4	2.5	Red	190	13
PU04/025Y-100	4	2.5	Yellow	190	13
PU04/025G-100	4	2.5	Green	190	13
PU04/025-100	4	2.5	Transparent	190	13
PU06/040N-100	6	4	Black	155	11
PU06/040B-100	6	4	Blue	155	11
PU06/040CB-100	6	4	Crystal Blue	155	11
PU06/040R-100	6	4	Red	155	11
PU06/040Y-100	6	4	Yellow	155	11
PU06/040G-100	6	4	Green	155	11
PU06/040-100	6	4	Transparent	155	11
PU08/055N-100	8	5.5	Black	150	10
PU08/055B-100	8	5.5	Blue	150	10
PU08/055CB-100	8	5.5	Crystal Blue	150	10
PU08/055R-100	8	5.5	Red	150	10
PU08/055Y-100	8	5.5	Yellow	150	10
PU08/055G-100	8	5.5	Green	150	10
PU08/055-100	8	5.5	Transparent	150	10
PU08/060N-100	8	6	Black	120	8
PU08/060B-100	8	6	Blue	120	8

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PU08/060CB-100	8	6	Crystal Blue	120	8
PU08/060R-100	8	6	Red	120	8
PU08/060Y-100	8	6	Yellow	120	8
PU08/060G-100	8	6	Green	120	8
PU08/060-100	8	6	Transparent	120	8
PU10/065N-100	10	6.5	Black	125	9
PU10/065B-100	10	6.5	Blue	125	9
PU10/065CB-100	10	6.5	Crystal Blue	125	9
PU10/065R-100	10	6.5	Red	125	9
PU10/065Y-100	10	6.5	Yellow	125	9
PU10/065G-100	10	6.5	Green	125	9
PU10/065-100	10	6.5	Transparent	125	9
PU10/080N-100	10	8	Black	120	8
PU10/080B-100	10	8	Blue	120	8
PU10/080CB-100	10	8	Crystal Blue	120	8
PU10/080-100	10	8	Transparent	120	8
PU12/080N-100	12	8	Black	120	8
PU12/080B-100	12	8	Blue	120	8
PU12/080CB-100	12	8	Crystal Blue	120	8
PU12/080R-100	12	8	Red	120	8
PU12/080G-100	12	8	Green	120	8
PU12/080-100	12	8	Transparent	120	8

Tech Sheet 3131

Polyurethane Recoil Twin Hose



Working Temperature

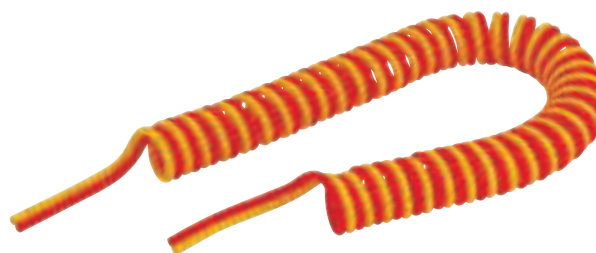
-20°C to +70°C



Red/Yellow

0306	OD mm	ID mm	Working Length Metres
TWIN80505RY	8	5	2.5
TWIN10656RY	10	6.5	3
TWIN12806RY	12	8	3

Tech Sheet 3133





Metric Polyurethane Ether Tube

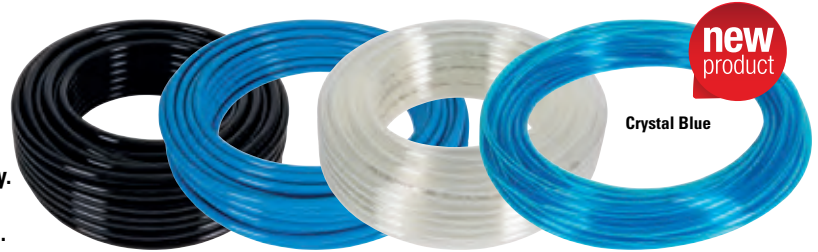


Working Temperature
-40°C to +70°C

Ether based tube has a greater durability to water and high humidity environments.

PUET air line tubing is made from 95A shore durometer, ether-based polyurethane and is an excellent choice for compressed air systems.

- Kink and abrasion resistant.
- Resistant to chemicals, water, fuel and oil.
- Outstanding flexibility and memory.
- Safety factor of 3 to 1
- Vacuum rating 28" Hg.



Metric, 25 Metre Coils

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PUET04/025N-25	4	2.5	■	156	11
PUET04/025B-25	4	2.5	■	156	11
PUET04/025CB-25	4	2.5	■	156	11
PUET04/025-25	4	2.5	□	156	11
PUET05/030N-25	5	3	■	171	12
PUET05/030B-25	5	3	■	171	12
PUET05/030CB-25	5	3	■	171	12
PUET05/030-25	5	3	□	171	12
PUET06/040N-25	6	4	■	142	10
PUET06/040B-25	6	4	■	142	10
PUET06/040CB-25	6	4	■	142	10
PUET06/040-25	6	4	□	142	10
PUET08/055N-25	8	5.5	■	114	8
PUET08/055B-25	8	5.5	■	114	8
PUET08/055CB-25	8	5.5	■	114	8
PUET08/055-25	8	5.5	□	114	8
PUET10/070N-25	10	7	■	114	8
PUET10/070B-25	10	7	■	114	8
PUET10/070CB-25	10	7	■	114	8
PUET10/070-25	10	7	□	114	8
PUET12/080N-25	12	8	■	128	9
PUET12/080B-25	12	8	■	128	9
PUET12/080CB-25	12	8	■	128	9
PUET12/080-25	12	8	□	128	9

Tech Sheet 3132

Metric, 100 Metre Coils

5030	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
PUET04/025N-100	4	2.5	■	156	11
PUET04/025B-100	4	2.5	■	156	11
PUET04/025CB-100	4	2.5	■	156	11
PUET04/025-100	4	2.5	□	156	11
PUET06/040N-100	6	4	■	142	10
PUET06/040B-100	6	4	■	142	10
PUET06/040CB-100	6	4	■	142	10
PUET06/040-100	6	4	□	142	10
PUET08/055N-100	8	5.5	■	114	8
PUET08/055B-100	8	5.5	■	114	8
PUET08/055CB-100	8	5.5	■	114	8
PUET08/055-100	8	5.5	□	114	8
PUET10/070N-100	10	7	■	114	8
PUET10/070B-100	10	7	■	114	8
PUET10/070CB-100	10	7	■	114	8
PUET10/070-100	10	7	□	114	8
PUET12/080N-100	12	8	■	128	9
PUET12/080B-100	12	8	■	128	9
PUET12/080CB-100	12	8	■	128	9
PUET12/080-100	12	8	□	128	9

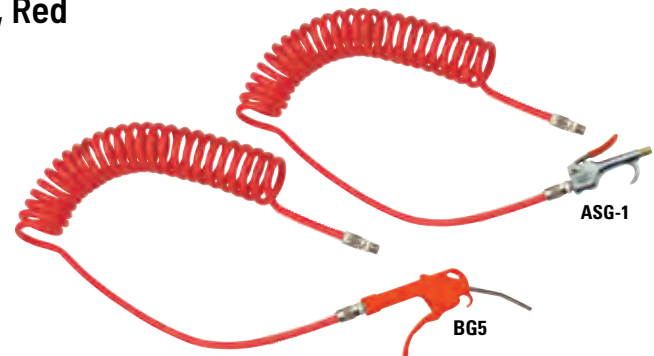
Tech Sheet 3132

Blow Guns & Polyurethane Coil Assemblies, Red

1/4" BSPT

5030	OD mm	ID mm	Working Length Metres	Blow Gun Type
2027-3967	6	4	2	ASG-1
2027-3975	6	4	4	ASG-1
2027-4007	6	4	2	BG5
2027-4015	6	4	4	BG5
2027-4023	10	6.5	2	ASG-1
2025-2763	10	6.5	4	ASG-1
2027-4049	10	6.5	6	ASG-1
2027-4056	10	6.5	2	BG5
2027-4064	10	6.5	4	BG5
2027-4072	10	6.5	6	BG5

Tech Sheet 3133





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Polyurethane Recoil Hoses



Metric Polyurethane Coil Assemblies

Also available in

B Blue **R** Red **Y** Yellow



Brass Nickel Plated Swivel, BSPT with Spring Guards

5030	OD mm	ID mm	Working Length Metres	Thread	Colour
2196-4229	6	4	2	1/4"	■
2196-4230	6	4	4	1/4"	■
2196-4231	6	4	6	1/4"	■
2196-4232	6	4	8	1/4"	■
2196-4233	6	4	10	1/4"	■
2196-4234	8	5	2	1/4"	■
2196-4235	8	5	4	1/4"	■
2196-4236	8	5	6	1/4"	■
2196-4237	8	5	8	1/4"	■
2196-4238	8	5	10	1/4"	■
2196-4239	8	5	12	1/4"	■
2196-4240	10	6.5	2	1/4"	■
2196-4241	10	6.5	4	1/4"	■
2196-4242	10	6.5	6	1/4"	■
2196-4243	10	6.5	8	1/4"	■
2196-4244	10	6.5	10	1/4"	■
2196-4245	10	6.5	12	1/4"	■
2196-4246	12	8	2	3/8"	■
2196-4247	12	8	4	3/8"	■
2196-4248	12	8	6	3/8"	■
2196-4249	12	8	8	3/8"	■
2196-4250	12	8	10	3/8"	■
2196-4251	12	8	12	3/8"	■
2196-4252	6	4	2	1/4"	■
2196-4253	6	4	4	1/4"	■
2196-4254	6	4	6	1/4"	■
2196-4255	6	4	8	1/4"	■
2196-4256	6	4	10	1/4"	■
2196-4257	8	5	2	1/4"	■
2196-4258	8	5	4	1/4"	■
2196-4259	8	5	6	1/4"	■
2196-4260	8	5	8	1/4"	■
2196-4261	8	5	10	1/4"	■
2196-4262	8	5	12	1/4"	■
2196-4263	10	6.5	2	1/4"	■
2196-4264	10	6.5	4	1/4"	■
2196-4265	10	6.5	6	1/4"	■
2196-4266	10	6.5	8	1/4"	■
2196-4267	10	6.5	10	1/4"	■
2196-4268	10	6.5	12	1/4"	■
2196-4269	12	8	2	3/8"	■
2196-4270	12	8	4	3/8"	■
2196-4271	12	8	6	3/8"	■
2196-4272	12	8	8	3/8"	■
2196-4273	12	8	10	3/8"	■

5030	OD mm	ID mm	Working Length Metres	Thread	Colour
2196-4275	6	4	2	1/4"	■
2196-4276	6	4	4	1/4"	■
2196-4277	6	4	6	1/4"	■
2196-4278	6	4	8	1/4"	■
2196-4279	6	4	10	1/4"	■
2196-4280	8	5	2	1/4"	■
2196-4281	8	5	4	1/4"	■
2196-4282	8	5	6	1/4"	■
2196-4283	8	5	8	1/4"	■
2196-4284	8	5	10	1/4"	■
2196-4285	8	5	12	1/4"	■
2196-4286	10	6.5	2	1/4"	■
2196-4287	10	6.5	4	1/4"	■
2196-4288	10	6.5	6	1/4"	■
2196-4289	10	6.5	8	1/4"	■
2196-4290	10	6.5	10	1/4"	■
2196-4291	10	6.5	12	1/4"	■
2196-4292	12	8	2	3/8"	■
2196-4293	12	8	4	3/8"	■
2196-4294	12	8	6	3/8"	■
2196-4295	12	8	8	3/8"	■
2196-4296	12	8	10	3/8"	■
2196-4297	12	8	12	3/8"	■
2196-4298	6	4	2	1/4"	■
2196-4299	6	4	4	1/4"	■
2196-4300	6	4	6	1/4"	■
2196-4301	6	4	8	1/4"	■
2196-4302	6	4	10	1/4"	■
2196-4303	8	5	2	1/4"	■
2196-4304	8	5	4	1/4"	■
2196-4305	8	5	6	1/4"	■
2196-4306	8	5	8	1/4"	■
2196-4307	8	5	10	1/4"	■
2196-4308	8	5	12	1/4"	■
2196-4309	10	6.5	2	1/4"	■
2196-4310	10	6.5	4	1/4"	■
2196-4311	10	6.5	6	1/4"	■
2196-4312	10	6.5	8	1/4"	■
2196-4313	10	6.5	10	1/4"	■
2196-4314	10	6.5	12	1/4"	■
2196-4315	12	8	2	3/8"	■
2196-4316	12	8	4	3/8"	■
2196-4317	12	8	6	3/8"	■
2196-4318	12	8	8	3/8"	■
2196-4319	12	8	10	3/8"	■
2196-4320	12	8	12	3/8"	■



Swivel Fitting for Polyurethane Tube & Flexi-Braid Polyurethane Braided Hose

Other fittings can be used with "Flexi-Braid" Hose, such as brass hose-tails (see page 1141) stainless steel hose tails (see page 1311) or nylon hose tails (see page 1150).



Brass Fitting BSPT

5030	To Suit Tube Size mm	Thread
PF0406-14	4 x 6	1/4"
PF0508-14	5 x 8	1/4"
PF0610-14	6.5 x 10	1/4"
PF0812-14	8 x 12	1/4"
PF0812-38	8 x 12	3/8"

Tech Sheet 20350

Brass Fitting BSPT, Nickel Plated with Spring Guards



5030	To Suit Tube Size mm	Thread
PF0406-14-NG	4 x 6	1/4"
PF0508-14-NG	5 x 8	1/4"
PF0610-14-NG	6.5 x 10	1/4"
PF0812-14-NG	8 x 12	1/4"
PF0812-38-NG	8 x 12	3/8"

Tech Sheet 20350

Metric Poly Coil Assemblies



BSPT

5030	OD mm	Working Length Mtrs	Thread
PUC4/1-18	4	1	1/8"
PUC4/1-14	4	1	1/4"
PUC4/2-18	4	2	1/8"
PUC4/2-14	4	2	1/4"
PUC6/1-18	6	1	1/8"
PUC6/1-14	6	1	1/4"
PUC6/2-18	6	2	1/8"
PUC6/2-14	6	2	1/4"
PUC6/3-18	6	3	1/8"
PUC6/3-14	6	3	1/4"
PUC8/2-14	8	2	1/4"
PUC8/2-38	8	2	3/8"
PUC8/3-14	8	3	1/4"
PUC8/5-14	8	5	1/4"

Tech Sheet 3135

Polyurethane Coil Type PUC

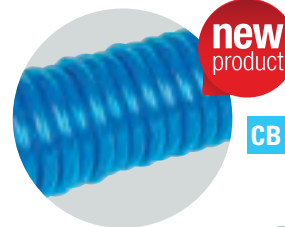
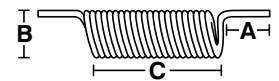
Coil hose polyurethane self-storing hose was developed to eliminate the two most common limitations of nylon self storing hoses; kinking and abrasion resistance. Lightweight yet extremely durable, polyurethane coil hose is ideal for use in tough work areas or highly mobile applications. This extremely flexible material which resists kinking and is

impervious to abrasions and oils, is ideally suited for production line air tools; instrumentation; robotics; and many more industrial applications. The superior elasticity characteristics and very small bend radius make it ideal for use in confined spaces.

Supplied without fittings, but ideal for use with push-in, hose tail or quick-fit fittings.



Working Temperature
-20°C to +60°C



CB Crystal Blue



5030	OD mm	ID mm	Length A mm	Length B mm	Length C mm	Working Length Mtrs	Colour
PUC4/1	4	2.5	80	26	60	1	Black
PUC4/2	4	2.5	80	26	120	2	Black
PUC6/1	6	4	120	37	51	1	Black
PUC6/2	6	4	120	37	120	2	Black
PUC6/3	6	4	120	37	185	3	Black
PUC8/2	8	5	150	47	140	2	Black
PUC8/3	8	5	150	47	210	3	Black
PUC8/5	8	5	150	47	345	5	Black
PUC4/1B	4	2.5	80	26	60	1	Blue
PUC4/2B	4	2.5	80	26	120	2	Blue
PUC6/1B	6	4	120	37	51	1	Blue
PUC6/2B	6	4	120	37	120	2	Blue
PUC6/3B	6	4	120	37	185	3	Blue
PUC8/2B	8	5	150	47	140	2	Blue
PUC8/3B	8	5	150	47	210	3	Blue
PUC8/5B	8	5	150	47	345	5	Blue
PUC4/1CB	4	2.5	80	26	60	1	Light Blue
PUC4/2CB	4	2.5	80	26	120	2	Light Blue
PUC6/1CB	6	4	120	37	51	1	Light Blue
PUC6/2CB	6	4	120	37	120	2	Light Blue
PUC6/3CB	6	4	120	37	186	3	Light Blue
PUC8/2CB	8	5	150	47	140	2	Light Blue
PUC8/3CB	8	5	150	47	210	3	Light Blue
PUC8/5CB	8	5	150	47	345	5	Light Blue

Tech Sheet 3134

Imperial Polyurethane Tube



25 Metre Coils, Black

5030	OD	ID	ID mm
2021-5265	1/8"	1/6"	2
2021-5273	1/4"	1/8"	4
2021-5281	5/16"	3/16"	5
2021-5299	3/8"	1/4"	6.5



100 Metre Coils, Black

5030	OD	ID	ID mm
2021-5224	1/8"	1/6"	2
2021-5232	1/4"	1/8"	4
2021-5240	5/16"	3/16"	5
2021-5257	3/8"	1/4"	6.5

'Flexi-Braid' Tubing

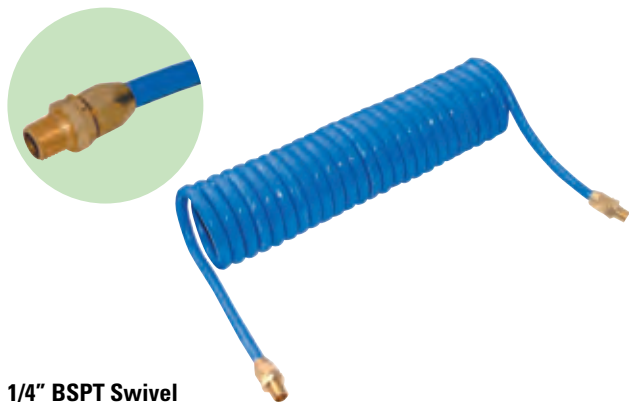
"Flexi-Braid" inner-braided polyurethane hose offers an excellent alternative to much bulkier rubber and plastic hoses. Extremely lightweight and tough, it is ideal for either outdoor contractor use or indoor industrial use. "Flexi-Braid" retains its flexibility even in cold environments. Unlike other hoses that are made up of a separate core, braiding and cover, "Flexi-Braid" is extracted complete as a braided hose.

This integral piece construction eliminates the possibility of having the various layers separate due to constant expansion and contraction during pulsating operations, such as with staple or nail guns.

Flexi-Braid Advantages:

- Extremely flexible with a lively rubber like feel making it easier to rewind and handle.
- Broad temperature range (-20°C to +80°C) and retains its flexibility even in sub-zero temperatures.
- Highly resistant to lubricating oils and greases that can damage PVC.
- UV stabilised for larger out door service.
- Extremely tough, it is the most abrasion resistant tube available.
- High flexural strength, it withstands the rigors of repeated flexing and tight bends..

Flexi-Braid Polyurethane Recoils



1/4" BSPT Swivel

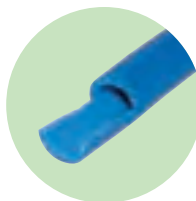
5030	OD mm	ID mm	Working Length Metres
IBR10-50	10	6.5	5
IBR10-75	10	6.5	7.5
IBR12-50	12	8	5
IBR12-75	12	8	7.5

Tech Sheet 20345

Flexi-Braid Polyurethane Braided Hose

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
15 bar (200 psi)



Blue, 25 Metre Coils

5030	OD mm	ID mm
BPU065/100B	10	6.5
BPU080/120B	12	8
BPU100/145B	14.5	10

Tech Sheet 20346

POLYURETHANE ANTI-SPATTER TUBE & HOSE



Polyurethane Anti-spatter Tube

This PVC/Polyurethane, alloy tubing has been developed by taking 98A durometer polyurethane as the inner tube and jacketing it with a specially formulated flame retardant cover.

The jacket protects the tubing from incidental contact with weld spatter.

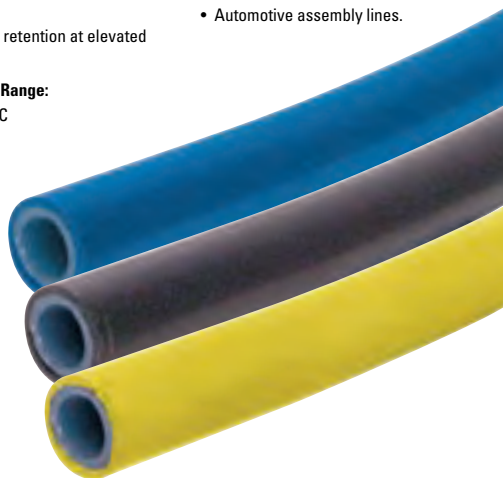
Features:

- UL-94 (V-0) Fire Resistance.
- High abrasion resistance.
- Non-Marking Cover.
- Good flexibility over a wide temperature range.
- Excellent fitting retention at elevated temperatures.

Temperature Range:
-40°C to +70°C

Applications:

- Transfer of Air & Water.
- Induction welding tubing lines.
- Transfer of deionised water.
- Robotic & Pneumatic Air Lines.
- Automotive assembly lines.



Anti-spatter Tube, 50 Metre Coils

0306	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar	Bend Radius mm
S604050MBU	6	4	Blue	159	11	20
S604050MGY	6	4	Grey	159	11	20
S604050MY	6	4	Yellow	159	11	20
S805050MBU	8	5	Blue	188	13	30
S805050MGY	8	5	Grey	188	13	30
S805050MY	8	5	Yellow	188	13	30
S128050MBU	12	8	Blue	145	10	45
S128050MGY	12	8	Grey	145	10	45
S128050MY	12	8	Yellow	145	10	45

Tech Sheet 20343

Polyurethane Anti-spatter Recoil Hose

Temperature Range:
-40°C to +70°C

Safety factor of 3 to 1.



Blue, Anti-spatter Recoil Hose, 4 Metre Coils, 1/4" BSPT

0306	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar	Bend Radius mm
SC60404MBU	6	4	159	11	15
SC80504MBU	8	5	188	13	20
SC10654MBU	10	6.5	159	10	30

Tech Sheet 20344



For **Welding Sprays**
see page 1577

Tube & Hose Cutters



Nylon & Polyurethane Tube Cutter, 3mm-16mm

5101	Colour
KTC-1	Blue

Tech Sheet 3136



LBS-25



LBS-120



LBS-63N

5100	To Suit Tube OD mm
LBS-25	3 - 25
LBS-120	6 - 42
LBS-63N	6 - 63



Metal

5100	To Suit Tube OD mm
27000216	2 - 12
27000825	4 - 28

Spare Blades (Per Piece)

5100	To Suit
27010216	27000216
27010825	27000825



Replacement Blade



Heavy-duty

9057	Description
TCUT0001	Up to 20mm Tube
TCUT0101	Replacement Blade up to 20mm



Heavy-duty

1400	Description
JG-TSP	To Suit up to 22mm Pipe

Copper Tube Cutters



Standard Cutter

5100	To Suit OD mm
CTC1	3-28



Mini Cutter

5100	To Suit OD mm
CTC2	3-16

Automatic Tube Cutters

- Single action automatic tube cutting in tight locations.



5100	To Suit OD mm
88801	15
88802	22

Copper Tube Reamer



Internal/External Reamer for Tube

5070	To Suit OD mm
CTR1	3-36

TUBING

Crystal Clear Colour Tinted Polyether Polyurethane Tubing



25 Metre Rolls, Tinted Close Tolerance Flexible

1014	OD mm	ID mm	Colour
LE-1025U04R12	4	2.5	Green
LE-1025U04R13	4	2.5	Red
LE-1025U04R14	4	2.5	Blue
LE-1025U04R17	4	2.5	Orange
LE-1025U06R12	6	4	Green
LE-1025U06R13	6	4	Red
LE-1025U06R14	6	4	Blue
LE-1025U06R17	6	4	Orange
LE-1025U08R12	8	5.5	Green
LE-1025U08R13	8	5.5	Red
LE-1025U08R14	8	5.5	Blue
LE-1025U08R17	8	5.5	Orange
LE-1025U10R14	10	7	Blue
LE-1025U12R14	12	8	Blue

Tech Sheet 60547

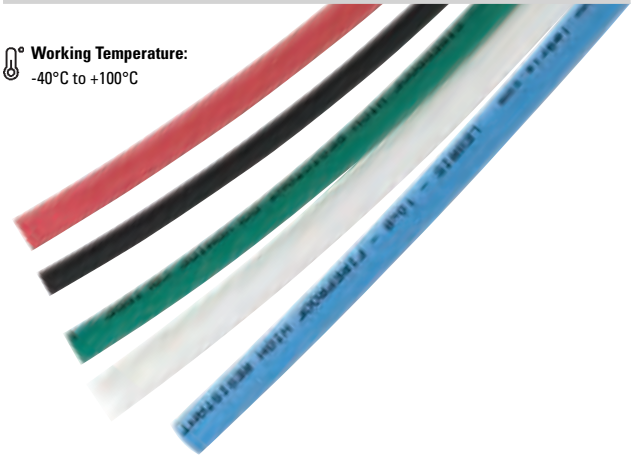
100 Metre Rolls, Tinted Close Tolerance Flexible

1014	OD mm	ID mm	Colour
LE-1100U04R12	4	2.5	Green
LE-1100U04R13	4	2.5	Red
LE-1100U04R14	4	2.5	Blue
LE-1100U04R17	4	2.5	Orange
LE-1100U06R12	6	4	Green
LE-1100U06R13	6	4	Red
LE-1100U06R14	6	4	Blue
LE-1100U06R17	6	4	Orange
LE-1100U08R12	8	5.5	Green
LE-1100U08R13	8	5.5	Red
LE-1100U08R14	8	5.5	Blue
LE-1100U08R17	8	5.5	Orange
LE-1100U10R14	10	7	Blue
LE-1100U12R14	12	8	Blue

Tech Sheet 60547

Polyamide Fireproof High Resistance Tubing

° Working Temperature:
-40°C to +100°C



100 Metre Coils

1014	OD mm	ID mm	Colour
LE-1100P04R00	4	2	Natural
LE-1100P04R01	4	2	Black
LE-1100P04R04	4	2	Blue
LE-1100P06R00	6	4	Natural
LE-1100P06R01	6	4	Black
LE-1100P06R04	6	4	Blue
LE-1100P08R00	8	6	Natural
LE-1100P08R01	8	6	Black
LE-1100P08R04	8	6	Blue
LE-1100P10R00	10	8	Natural
LE-1100P10R01	10	8	Black
LE-1100P10R04	10	8	Blue
LE-1100P12R00	12	9	Natural
LE-1100P12R01	12	9	Black

Tech Sheet 10658



For Tube & Hose Cutters
see page 905

Advanced Polyethylene Tubing

- Suitable for a wide variety of uses in point of use water purification systems, industrial water treatment and drink dispense systems.
- Made from a high grade of polyethylene, the advanced PE tubing ensures the best balance between flexibility and pressure/temperature resistance.
- Resistant to a wide range of aggressive chemical agents.
- Available in nine colours.
- Black tubing is UV stabilized, making it resistant to direct ultraviolet sunlight and ideal for outdoor applications.
- Silicone free.

Working Temperature:
+34°F (1°C) to +203°F (95°C)



150 Metre Coils

1014	OD	ID	Colour
LE-1098Y56F00	1/4"	0.170"	Natural
LE-1098Y56F01	1/4"	0.170"	Black
LE-1098Y56F03	1/4"	0.170"	Red
LE-1098Y56F04	1/4"	0.170"	Blue
LE-1098Y60F00	3/8"	0.250"	Natural
LE-1098Y60F01	3/8"	0.250"	Black
LE-1098Y60F04	3/8"	0.250"	Blue

75 Metre Coils

1014	OD	ID	Colour
LE-1096Y62F00	1/2"	0.375"	Natural
LE-1096Y62F01	1/2"	0.375"	Black
LE-1096Y62F04	1/2"	0.375"	Blue

150 Metre Coils

1014	OD mm	ID mm	Colour
LE-1015Y06F00	6	4	Natural
LE-1015Y06F01	6	4	Black
LE-1015Y06F04	6	4	Blue
LE-1015Y08F00	8	5.75	Natural
LE-1015Y08F01	8	5.75	Black
LE-1015Y08F04	8	5.75	Blue
LE-1015Y10F00	10	7	Natural
LE-1015Y10F01	10	7	Black
LE-1015Y10F04	10	7	Blue

75 Metre Coils

1014	OD mm	ID mm	Colour
LE-1075Y12F00	4	2.5	Natural
LE-1075Y12F01	4	2.5	Black
LE-1075Y12F04	4	2.5	Blue



For **Parker Legris Fittings**
see pages **800-803**

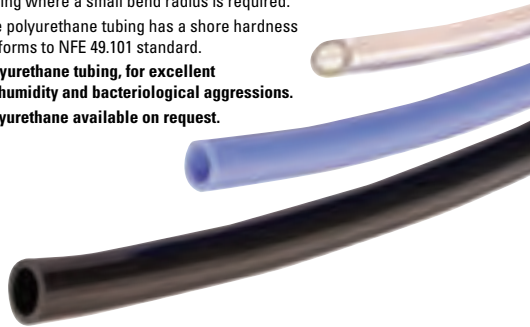
TUBING

Polyether Polyurethane Tubing

The high flexibility of Legris flexible polyurethane tubing allows compact cabling where a small bend radius is required.

Legris flexible polyurethane tubing has a shore hardness 52°C and conforms to NFE 49.101 standard.

Polyether polyurethane tubing, for excellent resistance to humidity and bacteriological aggressions.
Polyester polyurethane available on request.



25 Metre Rolls, Close Tolerance Flexible

1014	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
LE-1025U04R01	4	2.5	Black	145	10
LE-1025U04R04	4	2.5	Blue	145	10
LE-1025U04R08	4	2.5	Clear	145	10
LE-1025U05R08	5	3	Clear	160	11
LE-1025U06R01	6	4	Black	130	9
LE-1025U06R04	6	4	Blue	130	9
LE-1025U06R08	6	4	Clear	130	9
LE-1025U08R01	8	5.5	Black	116	8
LE-1025U08R04	8	5.5	Blue	116	8
LE-1025U08R08	8	5.5	Clear	116	8
LE-1025U10R01	10	7	Black	116	8
LE-1025U10R04	10	7	Blue	116	8
LE-1025U10R08	10	7	Clear	116	8
LE-1025U12R01	12	8	Black	130	9
LE-1025U12R04	12	8	Blue	130	9
LE-1025U12R08	12	8	Clear	130	9
LE-1025U14R0495	14	9.5	Blue	130	9
LE-1025U14R0895	14	9.5	Clear	130	9

Polyurethane Twin Tubing

- Twin tubing maintains the smooth surface of both tubes when separated and keeps the characteristics of their dimensions.
- Swift and easy assembly.
- Compactness of circuitry.
- Differentiation of circuits, via two colours.



25 Metre Coils

1012	OD mm	ID mm	Colour
LE-1420U04 11	4	2.5	Black/Black
LE-1420U04 44	4	2.5	Blue/Blue
LE-1420U04 41	4	2.5	Black/Blue
LE-1420U06 11	6	4	Black/Black
LE-1420U06 44	6	4	Blue/Blue
LE-1420U06 41	6	4	Black/Blue
LE-1420U08 41	8	5.5	Black/Blue

Anti-spark Tubing

- Anti-spark tubing is suitable for installations submitted to aggressive environments and provides resistance to spark projections. It is designed with a PVC sheath and semi-rigid nylon tubing and conforms to UL94V-0 standard.
- A special mark on the tube indicates the length to be stripped back to reach the shoulder of the fitting.



25 Metre Coils

1012	OD mm	ID mm	Bend Radius mm	Colour
LE-1025P06V01	6	4	20	Black
LE-1025P06V04	6	4	20	Blue
LE-1025P08V01	8	6	25	Black
LE-1025P08V04	8	6	25	Blue
LE-1025P10V01	10	8	32	Black
LE-1025P10V04	10	8	32	Blue
LE-1025P12V01	12	10	35	Black

100 Metre Coils

1012	OD mm	ID mm	Bend Radius mm	Colour
LE-1100P06V01	6	4	20	Black
LE-1100P08V01	8	6	25	Black
LE-1100P08V04	8	6	25	Blue

Anti-static Tubing

- Anti-static polyurethane tubing has a low surface resistance (103 ohms) and is designed to prevent accumulation of electrostatic charges.



100 Metre Coils

1012	OD mm	ID mm	Bend Radius mm
LE-1100U03A01	3	1.5	8
LE-1100U06A01	6	4	15
LE-1100U08A01	8	5.5	25
LE-1100U10A01	10	7	35

Stripping Tool

- For use on anti-spark tube.



1012

LE-60007100

Translucent Silicone Tubing

Translucent silicone tube is non-toxic and biologically inert. It is FDA, BGA, WRC and NWC approved for drug and medical use, and meets European Pharmacopoeia class VI. Outstanding temperature resistance from -60°C to +200°C, it can withstand repeated autoclaving. Excellent chemical resistance (contact technical department for advice).

Not suitable for high pressure applications.

Working Temperature:
-60°C to +200°C



10 Metre Coils

5012	OD mm	ID mm	Wall Thickness mm
TST-04/020	2	4	1
TST-06/040	4	6	1
TST-08/050	5	8	1.5
TST-10/080	8	10	1
TST-12/080	8	12	2

FEP Tubing



10 Metre Coils

5012	OD mm
4500400100	6
4500600100	8

Tech Sheet 20216

PFA Tubing



10 Metre Coils

5012	OD mm	OD
4601000100	12	-
4600952159	-	1/2"

Tech Sheet 60553

PTFE Tubing (Polytetrafluoroethylene)

The unique properties of PTFE are excellent. Enjoying a non-stick/low friction release property and a very wide temperature range, it is virtually inert to all known chemicals and solvents. It exhibits extremely good electrical insulation properties and good weatherability. All these characteristics combined make PTFE the ideal material for innumerable applications.

Please note: no recommended burst pressures/working pressures due to hose being unreinforced.



10 Metre Coils

5012	ID mm	OD mm	Wall Thickness mm
TPTFE-04/025-10M	2.5	4	0.75
TPTFE-06/040-10M	4	6	1
TPTFE-08/060-10M	6	8	1
TPTFE-10/080-10M	8	10	1
TPTFE-12/010-10M	10	12	1

Tech Sheet 1379

30 Metre Coils

5012	ID mm	OD mm	Wall Thickness mm
TPTFE-04/025-30M	2.5	4	0.75
TPTFE-06/040-30M	4	6	1
TPTFE-08/060-30M	6	8	1
TPTFE-10/080-30M	8	10	1
TPTFE-12/010-30M	10	12	1

Tech Sheet 1379

LDP Low Density Polyethylene Tube



30 Metre Coils

5040	ID mm	OD mm	Max Pressure PSI	Max Pressure Bar
LDP04/025	4	2.5	200	13.5
LDP05/030	5	3	200	13.5
LDP06/040	6	4	185	12.5
LDP08/060	8	6	165	11
LDP10/080	10	8	150	10
LDP12/100	12	10	90	6

Customers who bought from this page also purchased...



Pneumatic Quick Release Series 21 Worldwide Profile Thermoplastic Couplings



...see pages 347-349

AUTOMOTIVE TUBING & HOSE



Air Brake Tubing DIN 74324

Working Temperature:
-20°C to +70°C



- Manufactured from heat and light stabilised polyamide. This tube has excellent low density, low water absorption, physical properties and dimensions relatively constant even during humidity changes.
- Other colours available on request, minimum order of 20 x 30 metre coils.

30 Metre Coils

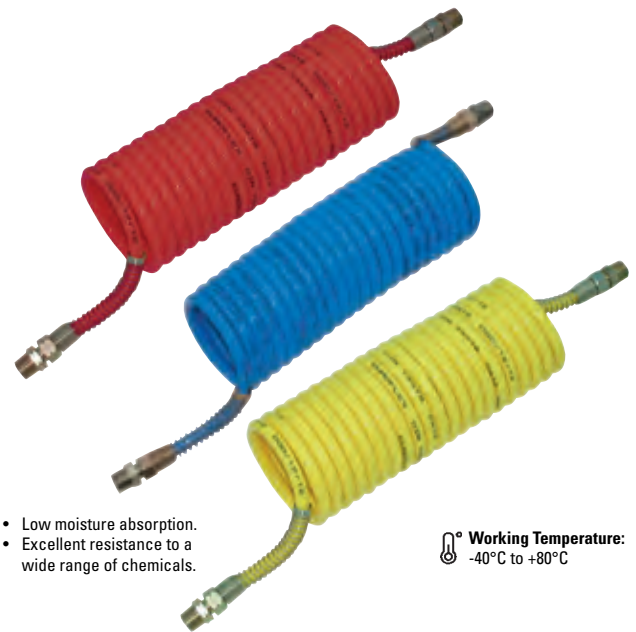
5040	OD mm	ID mm	Colour	Max Pressure Bar
AB4230	4	2	Black	45
AB6430	6	4	Black	27
AB10730	10	7	Black	19
AB12930	12	9	Black	19
AB161230	16	12	Black	19
AB181430	18	14	Black	17

SIRIT
AIR BRAKE FITTINGS



For Air Brake Fittings
see pages **887-889**

Nylon 12 Air Brake Coils, DIN 73378, SAE J 844 Type B



- Low moisture absorption.
- Excellent resistance to a wide range of chemicals.

Working Temperature:
-40°C to +80°C

Red, Emergency Line, 1/2" BSPT

0306	ID mm	OD mm	Working Length Metres	Rotation
AB129035R	12	9	3.5	16
AB129050R	12	9	5	22

Tech Sheet 20391

Blue, Auxiliary Line, 1/2" BSPT

0306	ID mm	OD mm	Working Length Metres	Rotation
AB129035B	12	9	3.5	16
AB129050B	12	9	5	22

Tech Sheet 20391

Yellow, Service Line, 1/2" BSPT

0306	ID mm	OD mm	Working Length Metres	Rotation
AB129035Y	12	9	3.5	16
AB129050Y	12	9	5	22

Tech Sheet 20391

TUBING

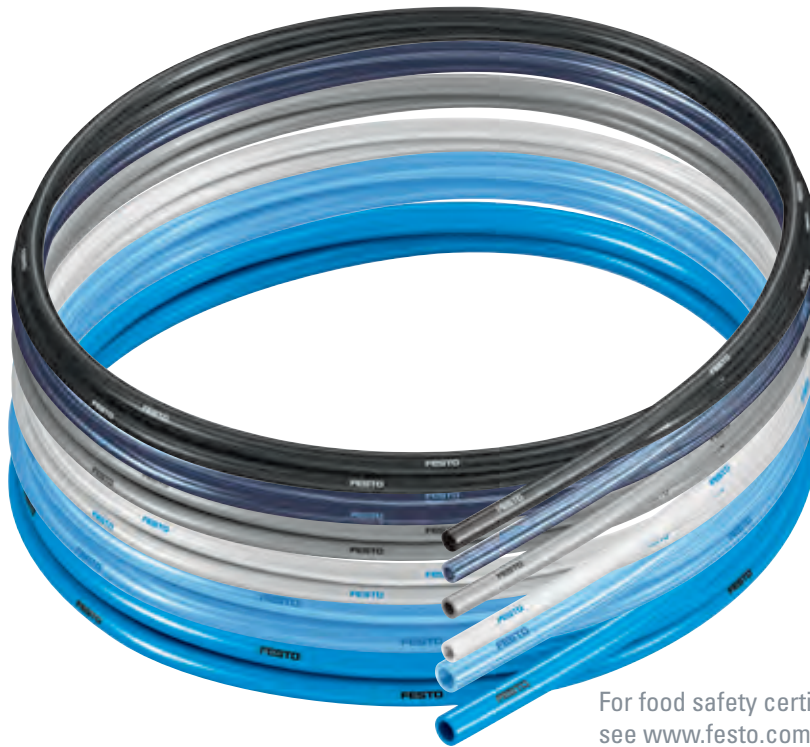
For the full range and more information, please contact one of our sales team.

POLYURETHANE TUBING

FESTO

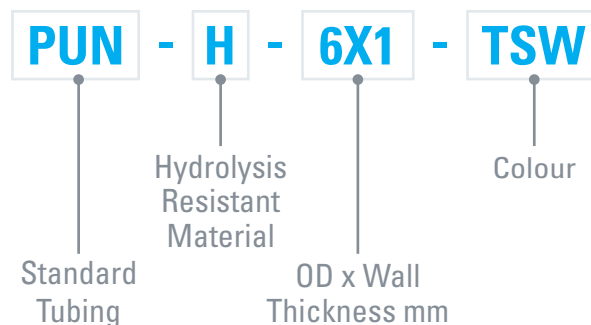
Features

- Extremely flexible polyurethane tubing
- High resistance to stress cracks
- Suitable for use with energy chains
- Food safe - FDA Compliant
- Plastic tubing PUN-H-F
- Polyurethane
- High resistance to microbes and hydrolysis
- Clean room-compatible combination with fitting NPKA
- Operating medium: compressed air, vacuum and water



For food safety certificates, see www.festo.com/certificates/PUN_H_F

Product Description



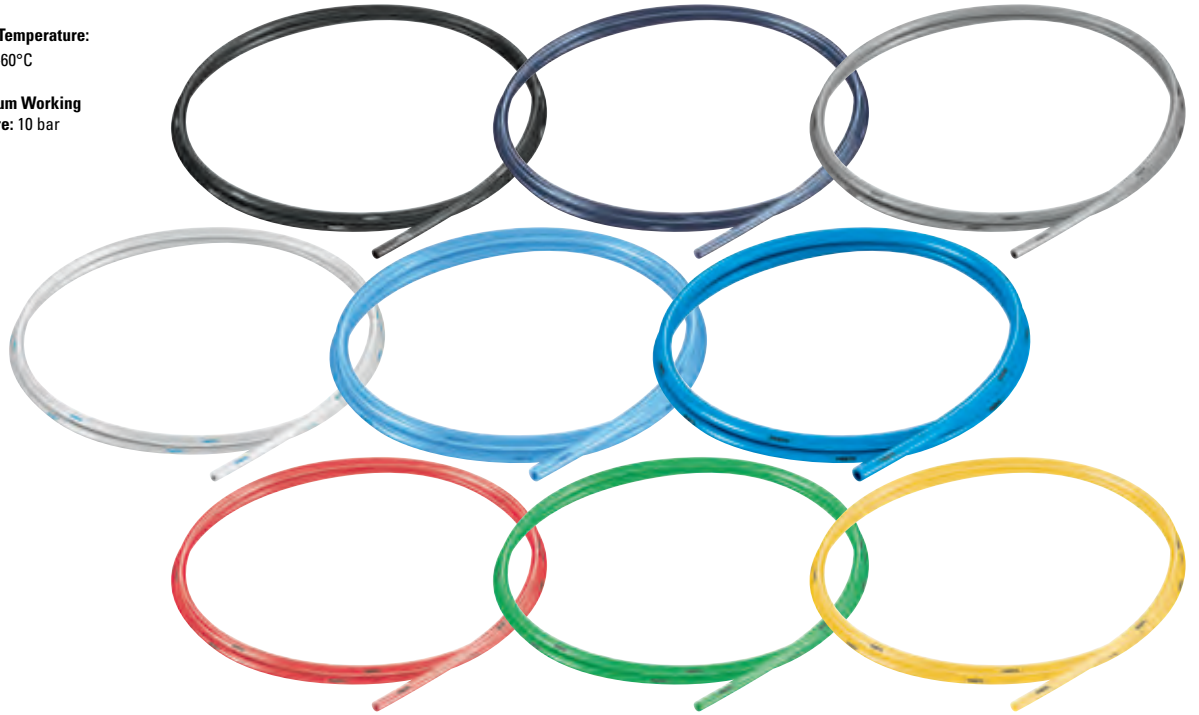
POLYURETHANE TUBING

Hydrolysis-resistant

- Extremely flexible polyurethane tubing
- Suitable for use with energy chains
- Operating media: compressed air, vacuum and water

Working Temperature:
-35°C to +60°C

Maximum Working Pressure: 10 bar



50 Metres

0011	OD mm	ID mm	Colour	Manufacturer's Code
197390	4	2.6	Black	PUN-H-4X0,75-SW
8048673	4	2.6	Translucent Black	PUN-H-4X0,75-TSW
8048675	4	2.6	Translucent Red	PUN-H-4X0,75-TRT
197383	4	2.6	Blue	PUN-H-4X0,75-BL
197376	4	2.6	Natural	PUN-H-4X0,75-NT
558278	4	2.6	Silver	PUN-H-4X0,75-SI
8048677	4	2.6	Translucent Green	PUN-H-4X0,75-TGN
8048679	4	2.6	Translucent Yellow	PUN-H-4X0,75-TGE
8048671	4	2.6	Translucent Blue	PUN-H-4X0,75-TBL
8048683	6	4	Translucent Black	PUN-H-6X1-TSW
197384	6	4	Blue	PUN-H-6X1-BL
8048681	6	4	Translucent Blue	PUN-H-6X1-TBL
197377	6	4	Natural	PUN-H-6X1-NT
558279	6	4	Silver	PUN-H-6X1-SI
197391	6	4	Black	PUN-H-6X1-SW
8048685	6	4	Translucent Red	PUN-H-6X1-TRT
8048687	6	4	Translucent Green	PUN-H-6X1-TGN

0011	OD mm	ID mm	Colour	Manufacturer's Code
8048689	6	4	Translucent Yellow	PUN-H-6X1-TGE
8048693	8	5.7	Translucent Black	PUN-H-8X1,25-TSW
8048691	8	5.7	Translucent Blue	PUN-H-8X1,25-TBL
8048695	8	5.7	Translucent Red	PUN-H-8X1,25-TRT
8048697	8	5.7	Translucent Green	PUN-H-8X1,25-TGN
8048699	8	5.7	Translucent Yellow	PUN-H-8X1,25-TGE
8048705	10	7	Translucent Red	PUN-H-10X1,5-TRT
8048707	10	7	Translucent Green	PUN-H-10X1,5-TGN
8048709	10	7	Translucent Yellow	PUN-H-10X1,5-TGE
8048703	10	7	Translucent Black	PUN-H-10X1,5-TSW
8048701	10	7	Translucent Blue	PUN-H-10X1,5-TBL
8048715	12	8	Translucent Red	PUN-H-12X2-TRT
8048717	12	8	Translucent Green	PUN-H-12X2-TGN
8048719	12	8	Translucent Yellow	PUN-H-12X2-TGE
8048713	12	8	Translucent Black	PUN-H-12X2-TSW
8048711	12	8	Translucent Blue	PUN-H-12X2-TBL

Tech Sheet 70006



REACH ✓



Metric Flexible Nylon Tubing, Type NT (to BS5409)



Working Temperature
-10°C to +80°C

Tube is not suitable for use with water or in high humidity environments.



U.V. stable.



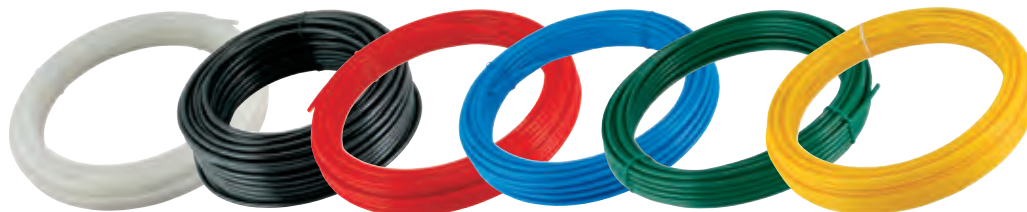
Silicone free.



Abrasion resistant.



Manufactured from quality grade nylon granules.



Other colours and lengths available on request

The properties of this tube make it ideal for use in pneumatic control systems. (Ideally suited for use with push-in fittings).

30 Metre Coils

5010	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
NTM04/030	4	3	□	300	21
NTM04/025	4	2.5	□	400	28
NTM04/025N	4	2.5	■	400	28
NTM04/025B	4	2.5	■	400	28
NTM04/025G	4	2.5	■	400	28
NTM04/025R	4	2.5	■	400	28
NTM04/025Y	4	2.5	■	400	28
NTM05/030	5	3	□	400	28
NTM05/030N	5	3	■	400	28
NTM05/030B	5	3	■	400	28
NTM05/030G	5	3	■	400	28
NTM05/030R	5	3	■	400	28
NTM05/030Y	5	3	■	400	28
NTM06/040	6	4	□	350	24
NTM06/040N	6	4	■	350	24
NTM06/040B	6	4	■	350	24
NTM06/040G	6	4	■	350	24
NTM06/040R	6	4	■	350	24
NTM06/040Y	6	4	■	350	24
NTM08/060	8	6	□	350	24
NTM08/060N	8	6	■	350	24
NTM08/060B	8	6	■	350	24
NTM08/060G	8	6	■	350	24
NTM08/060R	8	6	■	350	24
NTM08/060Y	8	6	■	350	24
NTM08/055	8	5.5	□	350	24

30 Metre Coils

5010	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
NTM08/055N	8	5.5	■	350	24
NTM10/070	10	7	□	300	21
NTM10/070N	10	7	■	300	21
NTM10/070B	10	7	■	300	21
NTM10/070G	10	7	■	300	21
NTM10/070R	10	7	■	300	21
NTM10/070Y	10	7	■	300	21
NTM10/080	10	8	□	220	15
NTM10/080N	10	8	■	220	15
NTM10/080B	10	8	■	220	15
NTM10/080G	10	8	■	220	15
NTM10/080R	10	8	■	220	15
NTM10/080Y	10	8	■	220	15
NTM12/090	12	9	□	250	17
NTM12/090N	12	9	■	250	17
NTM12/090B	12	9	■	250	17
NTM12/090G	12	9	■	250	17
NTM12/090R	12	9	■	250	17
NTM12/090Y	12	9	■	250	17
NTM12/100	12	10	□	200	14
NTM12/100N	12	10	■	200	14
NTM12/100R	12	10	■	200	14
NTM14/110	14	11	□	250	17
NTM14/110N	14	11	■	250	17
NTM15/120	15	12	□	200	14
NTM16/130	16	13	□	200	14
NTM18/140	18	14	□	200	14
NTM22/170	22	17	□	180	17

Tech Sheet 3136

100 Metre Coils

5010	OD mm	ID mm	Colour	PSI	Max Pressure Bar
NTM06/040-100	6	4	□	350	24
NTM06/040N-100	6	4	■	350	24
NTM06/040B-100	6	4	■	350	24
NTM06/040G-100	6	4	■	350	24
NTM06/040R-100	6	4	■	350	24
NTM06/040Y-100	6	4	■	350	24
NTM08/060-100	8	6	□	350	24
NTM08/060N-100	8	6	■	350	24
NTM08/060B-100	8	6	■	350	24
NTM10/080-100	10	8	□	220	15
NTM10/080N-100	10	8	■	220	15
NTM10/080B-100	10	8	■	220	15

Tech Sheet 3136

Nylon & Polyurethane Tube Cutter



3mm-16mm

5010	Colour
KTC-1	■

Tech Sheet 3136



For Push-in Fittings see pages 767-791



Imperial Flexible Nylon Tubing, (to BS5409)



Working Temperature
-10°C to +80°C

Tube is not suitable for use with water or in high humidity environments.

Specifications



Standard Coil Length:
30 Metres

(other colours and lengths available on request).

Manufactured from top quality crystal clear “virgin” nylon compound. This hose is ideal for factory airlines, fluid systems and many industrial applications.

The hose is resistant to a wide range of chemicals (please consult our Business Development Team for further details).



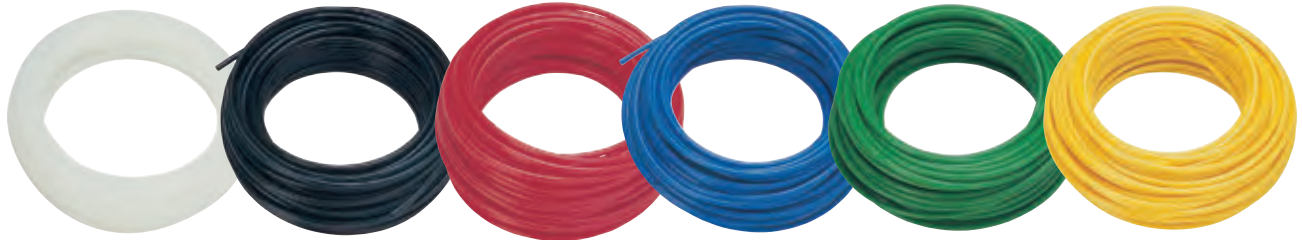
U.V. stable.



Silicone free.



Abrasion resistant.



30 Metre Coils

5010	OD	ID	Colour	Max Pressure PSI	Max Pressure Bar
NTI18/075	1/8"	0.075	□	300	21
NTI532/096	5/32"	0.096	□	250	17
NTI316/117	3/16"	0.117	□	300	21
NTI316/117N	3/16"	0.117	■	300	21
NTI14/170	1/4"	0.17	□	300	21
NTI14/170B	1/4"	0.17	■	300	21
NTI14/170G	1/4"	0.17	■	300	21
NTI14/170R	1/4"	0.17	■	300	21
NTI14/170Y	1/4"	0.17	■	300	21
NTI14/170N	1/4"	0.17	■	300	21
NTI516/212	5/16"	0.212	□	250	17
NTI516/212B	5/16"	0.212	■	250	17
NTI516/212R	5/16"	0.212	■	250	17
NTI516/212N	5/16"	0.212	■	250	17
NTI38/250	3/8"	0.25	□	250	17

5010	OD	ID	Colour	Max Pressure PSI	Max Pressure Bar
NTI38/250B	3/8"	0.25	■	250	17
NTI38/250G	3/8"	0.25	■	250	17
NTI38/250R	3/8"	0.25	■	250	17
NTI38/250Y	3/8"	0.25	■	250	17
NTI38/250N	3/8"	0.25	■	250	17
NTI12/375	1/2"	0.375	□	250	17
NTI12/375B	1/2"	0.375	■	250	17
NTI12/375G	1/2"	0.375	■	250	17
NTI12/375R	1/2"	0.375	■	250	17
NTI12/375Y	1/2"	0.375	■	250	17
NTI12/375N	1/2"	0.375	■	250	17
NTI34/594	3/4"	0.594	□	200	14
NTI58/500	5/8"	0.5	□	200	14
NTI1/813	1"	0.813	□	180	12

Tech Sheet 20895



REACH ✓



Nylon Tubing **FT PRO**

Metric Flexible Nylon Tubing, (to BS5409, DIN 73378 & ISO 7628)



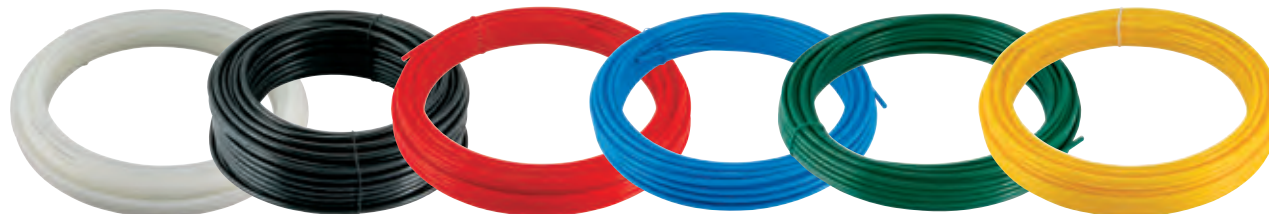
Working Temperature
-40°C to +80°C

Manufactured from extremely high grade nylon granules, this hose gives almost total resistance to abrasion and many more chemicals including dilute acid and alkaline.

The properties of this tube make it ideal for use in pneumatic

control systems, fuel lines, lubrication and also within the food, beverage and brewing industry (ideally suited for use with push-in fittings).

Working pressure will differ at higher temperatures.



30 Metre Coils

0306	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
BNTM03/015	3	1.5	□	200	13
BNTM04/2	4	2	□	350	24
BNTM04/025	4	2.5	□	400	27
BNTM04/025N	4	2.5	■	400	27
BNTM04/025B	4	2.5	■	400	27
BNTM04/025G	4	2.5	■	400	27
BNTM04/025R	4	2.5	■	400	27
BNTM05/030	5	3	□	400	27
BNTM05/030N	5	3	■	400	27
BNTM05/030B	5	3	■	400	27
BNTM060/030	6	3	□	350	24
BNTM06/040	6	4	□	350	24
BNTM06/040N	6	4	■	350	24
BNTM06/040B	6	4	■	350	24
BNTM06/040G	6	4	■	350	24
BNTM06/040R	6	4	■	350	24
BNTM06/040Y	6	4	■	350	24
BNTM06/040Y	6	4	■	350	24
BNTM08/060	8	6	□	350	24
BNTM08/060N	8	6	■	350	24
BNTM08/060B	8	6	■	350	24
BNTM08/060G	8	6	■	350	24
BNTM08/060R	8	6	■	350	24
BNTM08/060Y	8	6	■	350	24
BNTM10/070	10	7	□	300	20
BNTM10/070N	10	7	■	300	20
BNTM10/070B	10	7	■	300	20
BNTM10/070R	10	7	■	300	20
BNTM10/080	10	8	□	220	15
BNTM10/080N	10	8	■	220	15
BNTM10/080B	10	8	■	220	15
BNTM10/080R	10	8	■	220	15
BNTM12/090	12	9	□	250	17
BNTM12/090N	12	9	■	250	17
BNTM12/090B	12	9	■	250	17
BNTM12/090R	12	9	■	250	17
BNTM12/100	12	10	□	200	13
BNTM12/100N	12	10	■	200	13
BNTM14/110	14	11	□	250	17
BNTM14/110N	14	11	■	250	17

Tech Sheet 1386

100 Metre Coils

0306	OD mm	ID mm	Colour	Max Pressure PSI	Max Pressure Bar
BNTM04/025-100	4	2.5	□	400	27
BNTM05/030-100	5	3	□	400	27
BNTM06/040-100	6	4	□	350	24
BNTM06/040N-100	6	4	■	350	24
BNTM06/040B-100	6	4	■	350	24
BNTM06/040G-100	6	4	■	350	24
BNTM06/040R-100	6	4	■	350	24
BNTM06/040Y-100	6	4	■	350	24
BNTM08/060-100	8	6	□	350	24
BNTM08/060N-100	8	6	■	350	24
BNTM08/060B-100	8	6	■	350	24
BNTM08/060G-100	8	6	■	350	24
BNTM08/060R-100	8	6	■	350	24
BNTM08/060Y-100	8	6	■	350	24
BNTM10/080-100	10	8	□	220	15
BNTM10/080N-100	10	8	■	220	15
BNTM10/080B-100	10	8	■	220	15
BNTM10/080R-100	10	8	■	220	15

Tech Sheet 1386

- ✓ High resistance to moisture absorption.
- ✓ Suitable for use in air brake systems.
- ✓ Suitable for fuel and lubrication systems. 4 to 1 safety factor.
- ✓ Very stable in moisture type atmospheres.



Nylon 12 Coil Hose with Tails

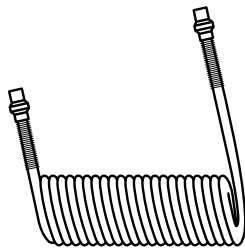

Working Temperature
 -40°C to +80°C

Applications:

- Fuel lines.
- Oil lines.
- Petrol tank breather lines.
- Pneumatic lines.
- Bleed lines.
- Brake controls.


Low moisture absorption.

Excellent resistance to a wide range of chemicals.

Safety factor of 3 to 1.

BSPT

0306	ID mm	OD mm	Working Length Metres	Thread	Colour
N12C60402.5MB	4	6	2.5	1/4"	Blue
N12C60405MB	4	6	5	1/4"	Blue
N12C604010MB	4	6	10	1/4"	Blue
N12C604015MB	4	6	15	1/4"	Blue
N12C60402.5MR	4	6	2.5	1/4"	Red
N12C60405MR	4	6	5	1/4"	Red
N12C604010MR	4	6	10	1/4"	Red
N12C604015MR	4	6	15	1/4"	Red
N12C80602.5MB	6	8	2.5	1/4"	Blue
N12C80605MB	6	8	5	1/4"	Blue
N12C806010MB	6	8	10	1/4"	Blue
N12C806015MB	6	8	15	1/4"	Blue
N12C80602.5MR	6	8	2.5	1/4"	Red
N12C80605MR	6	8	5	1/4"	Red
N12C806010MR	6	8	10	1/4"	Red
N12C806015MR	6	8	15	1/4"	Red
N12C100802.5MB	8	10	2.5	1/4"	Blue
N12C100805MB	8	10	5	1/4"	Blue
N12C1008010MB	8	10	10	1/4"	Blue
N12C1008015MB	8	10	15	1/4"	Blue

0306	ID mm	OD mm	Working Length Metres	Thread	Colour
N12C100802.5MR	8	10	2.5	1/4"	Red
N12C100805MR	8	10	5	1/4"	Red
N12C1008010MR	8	10	10	1/4"	Red
N12C1008015MR	8	10	15	1/4"	Red
N12C120902.5MB	9	12	2.5	3/8"	Blue
N12C120905MB	9	12	5	3/8"	Blue
N12C1209010MB	9	12	10	3/8"	Blue
N12C1209015MB	9	12	15	3/8"	Blue
N12C120902.5MR	9	12	2.5	3/8"	Red
N12C120905MR	9	12	5	3/8"	Red
N12C1209010MR	9	12	10	3/8"	Red
N12C1209015MR	9	12	15	3/8"	Red
N12C120902.5MB12	9	12	2.5	1/2"	Blue
N12C120905MB12	9	12	5	1/2"	Blue
N12C1209010MB12	9	12	10	1/2"	Blue
N12C1209015MB12	9	12	15	1/2"	Blue
N12C120902.5MR12	9	12	2.5	1/2"	Red
N12C120905MR12	9	12	5	1/2"	Red
N12C1209010MR12	9	12	10	1/2"	Red
N12C1209015MR12	9	12	15	1/2"	Red

Tech Sheet 3138



REACH ✓



Nylon Tubing FT PRO®

Food Grade Semi-rigid Nylon Tubing



Working Temperature
-40°C to +110°C continuous
(+140°C intermittent)



30 Metre Coils, Imperial

5015	ID	OD	Max Pressure PSI	Max Pressure Bar
SRN18	0.075"	1/8"	967	67
SRN316	0.117"	3/16"	868	60
SRN14	0.170"	1/4"	683	47
SRN516	0.212"	5/16"	684	47
SRN38	0.250"	3/8"	725	50
SRN12	0.375"	1/2"	483	33
SRN58	0.500"	5/8"	363	25

Tech Sheet 67981

30 Metre Coils, Metric

5015	ID mm	OD mm	Max Pressure PSI	Max Pressure Bar
SRN4	2.5	4	870	60
SRN5	3	5	967	67
SRN6	4	6	725	50
SRN8	6	8	483	34
SRN10	8	10	363	25
SRN1012	10	12	290	20
SRN15	12	15	363	25

Tech Sheet 67981

NYLON TUBING



Semi-rigid Nylon Multitube Close Tolerance

Legris semi-rigid nylon multitube is suited to pneumatic circuits submitted to external aggression.

Its PVC sheath is resistant to abrasion, fire, caustic fluids, oils, alcohol etc.

The special design sheath and spiral assembly ensure a small bend radius for compact and flexible cabling.

For fast identification of circuits, tubes are numbered from 1 to 12 and 6 colours are available.

Note: Also available in 25 metre and 50 metre coils.

10 Metre Coils

1012	Tube Quantity	ID mm	OD mm
LE-1010P04 00M04	4	2.7	4
LE-1010P04 00M07	7	2.7	4
LE-1010P06 00M04	4	4	6
LE-1010P06 00M07	7	4	6
LE-1010P08 00M02	2	6	8



LLDPE & SYNIFLEX TUBE

Tubing LLDPE



Maximum Working Temperature:
180°F / 80°C (temperature and pressure variations apply*)

Strong but flexible, LLDPE tubing is suitable for use with super Speedfit push in fittings and virtually all standard tubing connectors.

The John Guest PE range of plastic tubing is produced in linear low density polyethylene for cold and intermittent hot water applications.

NOTE:

LLDPE IS NOT RECOMMENDED FOR HIGH PRESSURE COMPRESSED AIR SYSTEMS 10 bar+, MINERAL OILS, GASES AND FUELS.

- Other colours available white, green, yellow, orange and violet.
Minimum order 500m. POA.

100 Metre Coils

1400	OD mm	ID mm	Colour
PE-04025-0100M-N	4	2.5	Natural
PE-04025-0100M-B	4	2.5	Blue
PE-04025-0100M-E	4	2.5	Black
PE-0604-0100M-N	6	4	Natural
PE-0604-0100M-B	6	4	Blue
PE-0604-0100M-R	6	4	Red
PE-0604-0100M-E	6	4	Black
PE-0806-100M-N	8	6	Natural
PE-0806-100M-B	8	6	Blue
PE-0806-100M-E	8	6	Black
PE-1007-100M-N	10	7	Natural
PE-1007-100M-B	10	7	Blue
PE-1007-100M-R	10	7	Red
PE-1007-100M-E	10	7	Black
PE-1209-100M-B	12	9	Blue
PE-1209-100M-R	12	9	Red
PE-1209-100M-E	12	9	Black

Tech Sheet 2057

Tubing



Application: Synflex 1300 is a unique composite-wall tubing designed for pneumatic instrument control systems. Its fully bonded polyethylene/aluminium construction combines the advantages of both metal and plastic tubing.

Chemical Resistance: The outer, high density polyethylene layer is impervious to most chemical-containing atmospheres and enables Synflex 1300 to out perform practically all types of unprotected metal tubing.

Metric, 25 Metre Coils

5074	OD mm
MAL6-25	6
MAL8-25	8
MAL10-25	10
MAL12-25	12

Tech Sheet 593

Imperial, 25 Metre Coils

5074	OD
MAL1/4-25-IMP	1/4"

Tech Sheet 593

Imperial, 75 Metre Coils

5074	OD
MAL1/4-75-IMP	1/4"
MAL3/8-75-IMP	3/8"
MAL1/2-75-IMP	1/2"

Tech Sheet 593

Customers who bought from this page also purchased...



**Pneumatic Quick Release
Series 25 Couplings see pages 359-361**



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

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14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

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17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 7

Valves & Actuation

7.01 Industrial Ball Valves **919-937**

7.02 WRAS & Gas Ball Valves **938-945**

7.03 Stainless Steel & Carbon Steel Ball Valves **946-956**

7.04 Gate Valves **957-959**

7.05 Check Valves **960-966**

7.06 Hygienic, Wafer & Lugged Butterfly Valves **967-971**

7.07 Y Strainers **972-974**

7.08 Globe Valves **975-977**

7.09 Balancing Valves, Air Vents & Steam Traps **978-979**

7.10 Pressure Reducing Valves **980**

7.11 Instrumentation Manifolds **981**

7.12 Needle Valves **982-983**

7.13 Pressure Relief Valves **984-992**

7.14 Actuation **993-1014**

7.15 Actuators & Accessories **1015-1023**

7.16 General Purpose Solenoid Valves **1024-1047**

7.17 Angle Seat Valves **1048-1055**

7.18 Valves Accessories **1056-1060**

SECTION 7

7.01 Industrial Ball Valves

- Lever Handle
- Wing Handle
- Full Bore
- Mini
- High Pressure
- Drain
- Bibcock
- Standard In-line
- Direct Mount



922-937

7.02 WRAS & Gas Ball Valves

- Lever Handle
- Wing Handle
- Full Bore
- Mini
- Compression Ended
- Super Filter
- Dual Sealing
- Lockable
- Direct Mount



938-945

7.03 Stainless Steel & Carbon Steel Ball Valves

- Lever Handle
- Wing Handle
- Full Bore
- Mini
- ISO Pad Mount
- Fire Safe
- Hygenic
- Flanged
- Direct Mount



946-956

7.04 Gate Valves

- Heavy-duty
- Flanged
- PN10, PN16, PN20
- ANSI150
- Metal Seat
- Resilient Seat
- EPDM Seat
- Class 800
- Socket Weld



957-959

7.05 Check Valves

- Spring
- Swing
- PN16, PN20
- ANSI150
- Metal Seat
- Rubber Seat
- Flanged
- Double Union
- Strainers



960-966

7.06 Hygienic, Wafer & Lugged Butterfly Valves

- Hygenic
- Wafer Pattern
- Lugged Pattern
- Weld End
- Clamp End
- RJT



967-971

7.07 Y Strainers

- Brass
- Stainless Steel
- Cast Iron
- Flanged PN16
- Flanged ANSI150



972-974

7.08 Globe Valves

- Bronze
- Stainless Steel
- Cast Iron
- Carbon
- Ductile Iron
- Carbon Steel
- Flanged PN16
- Flanged PN40
- Flanged ANSI150



975-977

7.09 Balancing Valves, Air Vents & Steam Traps

- Fixed/Variable Orific
- Flanged PN16
- Test Points
- Auto Air Vent
- Air Eliminators
- 3 Way Boiler Vent Valves



978-979

Valves & Actuation

7.10 Pressure Reducing Valves

- Brass Pressure Reducing Valves
- Type 143
- Type 243

Uttag



980

7.11 Instrumentation Manifolds

- Manifold Valves
- Pipe to Pipe
- 2/3 Valve
- Remote Mount

PANAM



981

7.12 Needle Valves

- Brass
- 3,000/6,000/10,000 psi Rated
- Mini

ET PRO GENE BRE PANAM



982-983

7.13 Pressure Relief Valves

- Series 6000
- Type 1776
- Combined Pressure & Temperature
- Compact Relief Valves
- Safety Relief Valves

ET PRO NABIC SEETRU



984-992

7.14 Actuation

- Ball Valves/Wafer Pattern/Lugged & Tapped Butterfly Valves fitted with a Pneumatic Actuator or a Electric Actuator
- Full Bore
- Flanged
- 3 Way
- Fire Safe
- Hygienic
- Actuated Knife Gate Valves

ET PRO HAITIMA ICP



993-1014

7.15 Actuators & Accessories

- Pneumatic/Electric Actuators
- Position Indicator
- Mounting Brackets
- Electric Actuator Kits
- Pilot Accessories

ET PRO HAITIMA rotork



1015-1023

7.16 General Purpose Solenoid Valves

- Automatic Drain Valves
- Coils
- Plugs
- Timers
- Pre-wired Moulded Solenoid LED DIN Plug Connectors
- ZS Series
- Electrical Socket Connectors

ET PRO FESTO TECHMATIC



1024-1047

7.17 Angle Seat Valves

- Angle Seat Valves
- Pinch Valves
- Piston Valves
- Banjo Solenoid Valves
- Pressure Switches
- V.I.P. Axial Flow Valves

ET PRO FESTO OMQL



1048-1055

7.18 Valves Accessories

- Control Valves
- Filters
- Water Valves
- Drain Cock & Bleeder Valves
- Drain Ball Valves & Pump Connectors
- Float Valves
- Spring Auto
- Self Close Pour Tap Valves

ET PRO GENE BRE Uttag



1056-1060

BALL VALVES



- Full bore
- Long thread
- Flat steel handle
- Seal material PTFE

Working Temperature
-15°C to +120°C

Maximum Working Pressure:
25 bar

Red Steel Long Handle



Female x Female, BSPP

0109	Thread
2023-0439	1/4"
2023-0447	3/8"
2023-0454	1/2"
2023-0462	3/4"
2023-0470	1"
2023-0488	1.1/4"
2023-0496	1.1/2"
2023-0504	2"
2023-0512	2.1/2"
2023-0520	3"
2023-0538	4"

Tech Sheet 837

Blue Steel Long Handle



Female x Female, BSPP

0109	Thread
2042-5336	1/4"
2042-5337	3/8"
2042-5338	1/2"
2042-5339	3/4"
2042-5340	1"
2042-5341	1.1/4"
2042-5342	1.1/2"
2042-5343	2"
2042-5344	2.1/2"
2042-5345	3"
2042-5346	4"

Tech Sheet 837

Green Steel Long Handle



Female x Female, BSPP

0109	Thread
2046-1695	1/4"
2046-1703	3/8"
2046-1711	1/2"
2046-1729	3/4"
2046-1737	1"
2046-1745	1.1/4"
2046-1752	1.1/2"
2046-1760	2"

Tech Sheet 837



Male x Female, BSPP

0109	Thread
2024-1808	1/4"
2024-1816	3/8"
2024-1824	1/2"
2024-1832	3/4"
2024-1840	1"
2024-1857	1.1/4"
2024-1865	1.1/2"
2024-1873	2"

Tech Sheet 790



Male x Female, BSPP

0109	Thread
2064-7889	1/4"
2064-7897	3/8"
2064-7905	1/2"
2064-7913	3/4"
2064-7921	1"
2064-7939	1.1/4"
2064-7947	1.1/2"
2064-7954	2"

Tech Sheet 790



Male x Female, BSPP

0109	Thread
2064-7962	1/4"
2064-7970	3/8"
2064-7988	1/2"
2064-7996	3/4"
2064-8002	1"

Tech Sheet 790

Brass Ball Valves, Full Bore

- Long thread
 - Seal material PTFE
- ° Working Temperature:
-10°C to +60°C
- Maximum Working Pressure: 25 bar



Female x Female, BSPP

0109	Thread
2024-1915	1/4"
2024-1923	3/8"
2024-1949	1/2"
2024-1964	3/4"
2024-1980	1"

Tech Sheet 1763

- ° Working Temperature:
-10°C to +60°C
- Maximum Working Pressure: 25 bar



Male x Female, BSPP

0109	Thread
2024-2079	1/4"
2024-2087	3/8"
2024-2095	1/2"
2024-2103	3/4"
2024-2111	1"

Tech Sheet 1763

- ° Working Temperature:
-15°C to +120°C



Female x Female, BSPP, Lever Handle

0906	Thread	Max Pressure bar
BV90-14	1/4"	40
BV90-38	3/8"	40
BV90-12	1/2"	25
BV90-34	3/4"	25
BV90-1	1"	25
BV90-114	1.1/4"	25
BV90-112	1.1/2"	25
BV90-2	2"	25

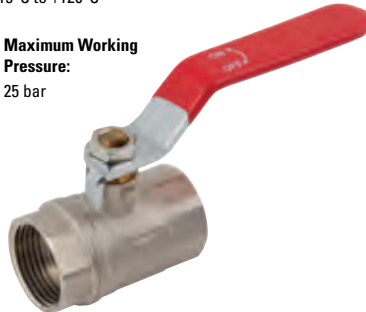
Tech Sheet 10023

Light Model Brass Ball Valves

- Lightweight, low pressure brass ball valve
- Suitable for domestic water services, heating, air conditioning and compressed air systems

° Working Temperature:
-15°C to +120°C

Maximum Working Pressure: 25 bar



Female x Female, BSPP, Lever Handle

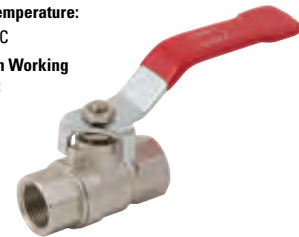
0109	Thread
LMBV-12	1/2"
LMBV-34	3/4"
LMBV-1	1"
LMBV-114	1.1/4"
LMBV-112	1.1/2"
LMBV-2	2"

Tech Sheet 10157

Heavy Model Brass Ball Valves, Full Bore

° Working Temperature:
0°C to +90°C

Maximum Working Pressure: 40 bar



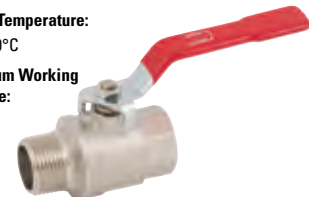
Female x Female, BSPP, Lever Handle

0906	Thread
HMBV-14	1/4"
HMBV-38	3/8"
HMBV-12	1/2"
HMBV-34	3/4"
HMBV-1	1"
HMBV-114	1.1/4"
HMBV-112	1.1/2"
HMBV-2	2"
HMBV-212	2.1/2"
HMBV-3	3"
HMBV-4	4"

Tech Sheet 60402

° Working Temperature:
0°C to +90°C

Maximum Working Pressure: 40 bar



Male x Female, BSPP, Long Female Thread, Lever Handle

0109	Thread
BV13-14	1/4"
BV13-38	3/8"
BV13-12	1/2"
BV13-34	3/4"
BV13-1	1"

Tech Sheet 68239

° Working Temperature:
-10°C to +120°C

Maximum Working Pressure: 40 bar



Male x Male, BSPP, High Pressure PN40, Lever Handle

0109	Thread
BV538-38	3/8"
BV538-12	1/2"
BV538-34	3/4"
BV538-1	1"

Tech Sheet 68240



stainless steel

For Stainless Steel
2 Piece Ball Valves
see page 1289

BALL VALVES



Heavy Model Brass Ball Valves, Full Bore

° Working Temperature:
0°C to +90°C

Maximum Working
Pressure: 40 bar



Female x Female, BSPP, Long Thread, Wing Handle

0109	Thread
BV12-14W	1/4"
BV12-38W	3/8"
BV12-12W	1/2"
BV12-34W	3/4"
BV12-1W	1"

Tech Sheet 68238



Male x Female, BSPP, Long Female Thread, Wing Handle

0109	Thread
BV13-14W	1/4"
BV13-38W	3/8"
BV13-12W	1/2"
BV13-34W	3/4"
BV13-1W	1"

Tech Sheet 68239



Male x Male, BSPP, High Pressure Version, Wing Handle

0109	Thread
BV548-38	3/8"
BV548-12	1/2"
BV548-34	3/4"
BV548-1	1"

Tech Sheet 68240

Right Angled, Brass Ball Valves, Full Bore

° Working Temperature:
-20°C to +150°C



Type BV07, Female x Female, BSPP

0090	Thread	Max Pressure Bar
BV07-12	1/2"	40
BV07-34	3/4"	30
BV07-1	1"	30

Tech Sheet 10035

Ball Valve with Strainer, Full Bore

° Working Temperature:
-20°C to +150°C



Type BV620, Female x Female, BSPP

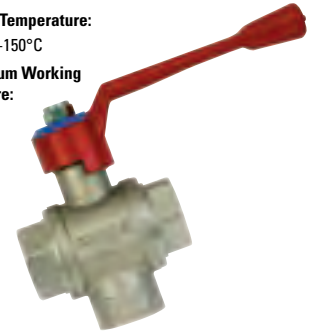
0090	Thread	Max Pressure Bar
BV620-12	1/2"	50
BV620-34	3/4"	40

Tech Sheet 10294

3 Way Diverter, Ball Valves

° Working Temperature:
-20°C to +150°C

Maximum Working
Pressure:
25 bar



3 Way BSPP, Female x Female x Female, T Port

0090	Thread
BV23-12	1/2"
BV23-34	3/4"
BV23-1	1"

Tech Sheet 10293

Brass Ball Valves

° Working Temperature:
-10°C to +100°C

Maximum Working
Pressure:
25 bar



3 Way BSPP, Bottom Entry Ball Valve, L Port

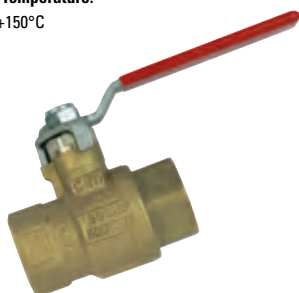
0906	Thread
534-14	1/4"
534-38	3/8"
534-12	1/2"
534-34	3/4"
534-1	1"
534-114	1.1/4"
534-112	1.1/2"
534-2	2"
534-3	3"

Tech Sheet 68242

Looking for bespoke Flow Path Configuration?
Contact our technical team.

Full Bore, Ball Valves, Brass, Unplated

° Working Temperature:
-20°C to +150°C



Type BV50, Female x Female, Lever Handle, NPT

0090	Thread	Max Pressure Bar
BV50-12NPT	1/2"	50
BV50-34NPT	3/4"	40

Tech Sheet 10030

High Pressure 2 Way Valves, Brass

° Working Temperature:
-10°C to +80°C

Maximum Working Pressure:
210 bar



Type BV210, Female x Female, BSPP

0090	Thread
BV210-38	3/8"
BV210-12	1/2"
BV210-34	3/4"
BV210-1	1"

Tech Sheet 10032

Venting, Ball Valves

° Working Temperature:
0°C to +60°C

Maximum Working Pressure:
12 bar



Female x Female, BSPP

0090	Thread
VBV-14	1/4"
VBV-38	3/8"
VBV-12	1/2"
VBV-34	3/4"
VBV-1	1"

Tech Sheet 10319

Full Bore, Ball Valves, Extended Handle

° Working Temperature:
-20°C to +130°C

Maximum Working Pressure:
100 bar



Type BV581, Female x Female, BSPP

0090	Thread
BV581-38	3/8"
BV581-12	1/2"
BV581-34	3/4"
BV581-1	1"

Tech Sheet 10298



For Aluminium Hose Tails
see page 1147



For Brass Compression Fittings
see pages 1197-1202



BALL VALVES



Mini Ball Valves, Brass

- Polished chrome finish
- Seal material PTFE

° Working Temperature:
-10°C to +110°C

Maximum Working Pressure:
8 bar (120 psi)



**Type MBV, Female x Female,
Black Lever Handle, BSPP**

0443	Thread
MBV18S	1/8"
MBV14S	1/4"
MBV38S	3/8"
MBV12S	1/2"
MBV34S	3/4"

Tech Sheet 834



**Type MBVM, Male x Female,
Black Lever Handle, BSPP**

0443	Thread
MBVM18S	1/8"
MBVM14S	1/4"
MBVM38S	3/8"
MBVM12S	1/2"
MBVM34S	3/4"

Tech Sheet 834



**Type MBV, Female x Female,
Red Lever Handle, BSPP**

0443	Thread
MBV18	1/8"
MBV14	1/4"
MBV38	3/8"
MBV12	1/2"
MBV34	3/4"

Tech Sheet 834



**Type MBVM, Male x Female,
Red Lever Handle, BSPP**

0443	Thread
MBVM18	1/8"
MBVM14	1/4"
MBVM38	3/8"
MBVM12	1/2"
MBVM34	3/4"

Tech Sheet 834

Mini Ball Valves, Brass

° Working Temperature:
-20°C to +150°C

Maximum Working Pressure:
15 bar (220 psi)



**Type MVS, Female x Female,
Screwdriver Slot, BSPP**

0090	Thread
MVS-14	1/4"
MVS-38	3/8"
MVS-12	1/2"

Tech Sheet 10033



**Type MVSM, Male x Female,
Screwdriver Slot, BSPP**

0090	Thread
MVSM-18	1/8"
MVSM-14	1/4"
MVSM-38	3/8"
MVSM-12	1/2"

Tech Sheet 10034

BALL VALVES

High Pressure Mini Ball Valves

- Nickel plated brass
- Conforms to EN 12164

° Working Temperature:
-20°C to +90°C

Maximum Working Pressure: 30 bar



Female x Female, BSPP

0358	Thread
BV35-18	1/8"
BV35-14	1/4"
BV35-38	3/8"
BV35-12	1/2"

Tech Sheet 60394



Male x Female, BSPP

0358	Thread
BV35-18M	1/8"
BV35-14M	1/4"
BV35-38M	3/8"
BV35-12M	1/2"

Tech Sheet 60394



BALL VALVES



Mini Ball Valves, Brass Chrome Plated

° Working Temperature:
0°C to +90°C

Maximum Working Pressure: 10 bar

Suitable for domestic water services, heating and air-conditioning plants and compressed air systems.



Type 125, Female x Female, BSPP, Red Nylon Lever Handle

0089	Thread
IT125-14	1/4"
IT125-38	3/8"
IT125-12	1/2"
IT125-34	3/4"

Tech Sheet 1828



Type 126, Male x Female, BSPP, Red Nylon Lever Handle

0089	Thread
IT126-14	1/4"
IT126-38	3/8"
IT126-12	1/2"
IT126-34	3/4"

Tech Sheet 1828



Type 125, Female x Female, BSPP, Black Nylon Lever Handle

0089	Thread
IT125-14N	1/4"
IT125-38N	3/8"
IT125-12N	1/2"
IT125-34N	3/4"

Tech Sheet 1828



Type 126, Male x Female, BSPP, Black Nylon Lever Handle

0089	Thread
IT126-14N	1/4"
IT126-38N	3/8"
IT126-12N	1/2"
IT126-34N	3/4"

Tech Sheet 1828

BALL VALVES



Mini Ball Valves

- Body: Brass
- End Connection: Brass
- Ball: Brass, chrome plated
- Stem: Brass
- Seal: PTFE
- O-Ring: Nitrile
- Handle: Plastic (ABS)

° Working Temperature:
-10°C to +90°C

Maximum Working Pressure:
20 bar



Female x Female, BSPP

0468	Thread
TEMBVFF-1/4	1/4"
TEMBVFF-3/8	3/8"
TEMBVFF-1/2	1/2"

Tech Sheet 67953

- Body: Brass
- Sleeve: Brass
- Ball: Brass, chrome plated
- Stem: Brass
- Seal: PTFE
- O-Ring: Nitrile
- Handle: Plastic (ABS)

° Working Temperature:
-10°C to +90°C

Maximum Working Pressure:
20 bar



Male x Female, BSPP

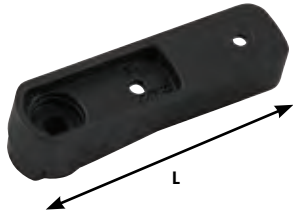
0468	Thread
TEMBVMF-1/4	1/4"
TEMBVMF-3/8	3/8"
TEMBVMF-1/2	1/2"

Tech Sheet 67954

BALL VALVES

Mini Ball Valve Handles

Please Note: Handles do not come with coloured inserts, please order separately



Type 6910, Long Handle

0090	Length mm
6910-A	35
6910-B	50
Tech Sheet 1606	

Colour Coded Handle Inserts - Type 6920



For 1/8", 1/4", 3/8" Valves

0090	Colour
6920-A-B	Blue
6920-A-G	Green
6920-A-R	Red
6920-A-W	White
6920-A-Y	Yellow
Tech Sheet 1605	

For 1/2", 3/4" Valves

0090	Colour
6920-B-B	Blue
6920-B-G	Green
6920-B-R	Red
6920-B-W	White
6920-B-Y	Yellow
Tech Sheet 1605	

Mini Ball Valves, Brass

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar



Type 6560, Push-in x Push-in

0090	OD mm
6560-4	4
6560-6	6
6560-8	8
Tech Sheet 1604	



Type 6570, Push-in x BSPT Male

0090	OD mm	Thread
6570-18-4	4	1/8"
6570-18-6	6	1/8"
6570-18-8	8	1/8"
6570-14-6	6	1/4"
6570-14-8	8	1/4"
Tech Sheet 1605		



Type 6700, L Port, BSPP

0090	Thread
6700-18	1/8"
6700-14	1/4"
6700-38	3/8"
Tech Sheet 1605	



Type 6710, T Port, BSPP

0090	Thread
6710-18	1/8"
6710-14	1/4"
6710-38	3/8"
Tech Sheet 1605	



Type 6720, Angle Port, BSPP

0090	Thread
6720-18	1/8"
6720-14	1/4"
6720-38	3/8"
Tech Sheet 1605	



**For Metric Brass
Compression Fittings**
see pages 1076-1079

BALL VALVES



Full Bore Ball Valves, Brass Nickel Plated

Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.

° Working Temperature:
-20°C to +150°C
in absence of steam

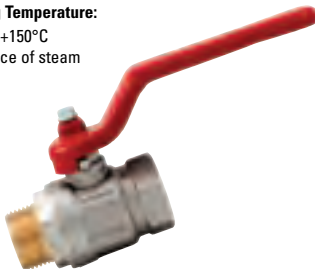


IDEAL 090,
Female x Female, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT090-14	1/4"	50
IT090-38	3/8"	50
IT090-12	1/2"	50
IT090-34	3/4"	40
IT090-1	1"	40
IT090-114	1.1/4"	30
IT090-112	1.1/2"	30
IT090-2	2"	25
IT090-212	2.1/2"	18
IT090-3	3"	16
IT090-4	4"	14

Tech Sheet 1826

° Working Temperature:
-20°C to +150°C
in absence of steam



IDEAL 091,
Male x Female, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT091-14	1/4"	50
IT091-38	3/8"	50
IT091-12	1/2"	50
IT091-34	3/4"	40
IT091-1	1"	40
IT091-114	1.1/4"	30
IT091-112	1.1/2"	30
IT091-2	2"	25

Tech Sheet 6042

° Working Temperature:
-10°C to +95°C
in absence of steam



Type 099,
Male x Male, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT099-12	1/2"	40
IT099-34	3/4"	40
IT099-1	1"	40
IT099-114	1.1/4"	30
IT099-112	1.1/2"	30
IT099-2	2"	30

Tech Sheet 6044

Standard Bore Ball Valves, Brass Nickel Plated

Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.

° Working Temperature:
-20°C to +110°C in
the absence of steam



Type 115 with Drain Valve,
Female x Female, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT115-12	1/2"	25
IT115-34	3/4"	25
IT115-1	1"	25
IT115-114	1.1/4"	20
IT115-112	1.1/2"	20
IT115-2	2"	20

Tech Sheet 6045

° Working Temperature:
-20°C to +150°C in
the absence of steam



VIENNA 216, Female x Female,
BSPP, Flat Lever Handle

0089	Thread	Max Pressure Bar
IT216-14	1/4"	50
IT216-38	3/8"	50
IT216-12	1/2"	30
IT216-34	3/4"	30
IT216-1	1"	30
IT216-114	1.1/4"	25
IT216-112	1.1/2"	25
IT216-2	2"	25

Tech Sheet 1830

° Working Temperature:
-20°C to +150°C in
the absence of steam



VIENNA 217, Male x Female,
BSPP, Flat Lever Handle


0089	Thread	Max Pressure Bar
IT217-14	1/4"	50
IT217-38	3/8"	50
IT217-12	1/2"	30
IT217-34	3/4"	30
IT217-1	1"	30
IT217-114	1.1/4"	25
IT217-112	1.1/2"	25
IT217-2	2"	25

Tech Sheet 1830

BALL VALVES

Full Bore Ball Valves, Brass Nickel Plated

Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.


 **Working Temperature:**
-20°C to +150°C
in absence of steam

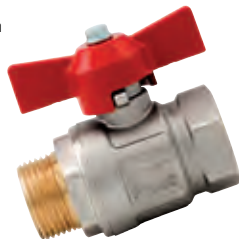


IDEAL 092, Female x Female, BSPP, Wing Handle

0089	Thread	Max Pressure Bar
IT092-14	1/4"	50
IT092-38	3/8"	50
IT092-12	1/2"	50
IT092-34	3/4"	40
IT092-1	1"	40

Tech Sheet 1826


 **Working Temperature:**
-20°C to +150°C
in absence of steam

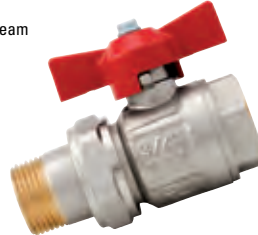


IDEAL 093, Male x Female, BSPP, Wing Handle

0089	Thread	Max Pressure Bar
IT093-14	1/4"	50
IT093-38	3/8"	50
IT093-12	1/2"	50
IT093-34	3/4"	40
IT093-1	1"	40

Tech Sheet 6042


 **Working Temperature:**
-20°C to +150°C
in absence of steam



IDEAL 098, Male Union x Female, BSPP, Wing Handle

0089	Thread	Max Pressure Bar
IT098-12	1/2"	50
IT098-34	3/4"	40
IT098-1	1"	40
IT098-114	1.1/4"	30
IT098-112	1.1/2"	30
IT098-2	2"	25

Tech Sheet 6043

 **Working Temperature:**
-20°C to +150°C
in absence of steam



IDEAL 298, Elbow, Male Union x Female, BSPP, Wing Handle


0089	Thread	Max Pressure Bar
IT298-12	1/2"	50
IT298-34	3/4"	40
IT298-1	1"	40

Tech Sheet 1827



3 Way Ball Valves, Brass Nickel Plated

Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.

 **Working Temperature:**
-10°C to +120°C



Type 128, L Port, Female, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT128-14L	1/4"	55
IT128-38L	3/8"	55
IT128-12L	1/2"	50
IT128-34L	3/4"	50
IT128-1L	1"	45
IT128-114L	1.1/4"	35
IT128-112L	1.1/2"	35
IT128-2L	2"	35

Tech Sheet 1829

Type 128, T Port, Female, BSPP, Lever Handle

0089	Thread	Max Pressure Bar
IT128-14T	1/4"	55
IT128-38T	3/8"	55
IT128-12T	1/2"	50
IT128-34T	3/4"	50
IT128-1T	1"	45
IT128-114T	1.1/4"	35
IT128-112T	1.1/2"	35
IT128-2T	2"	35

Tech Sheet 1829

BALL VALVES



Bibcock Ball Valves, Brass Nickel Plated

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure: 15 bar



Type 174, Plastic Hose Tail x Male, BSPP, Lever Handle

0089	Thread	To Suit Hose ID mm
IT174-12	1/2"	13
IT174-34	3/4"	19
Tech Sheet 68270		

° Working Temperature:
-20°C to +80°C



Type 134 Heavy-duty, Hose Tail x Male, BSPP, Wing Handle

0089	Thread	To Suit Hose ID mm	Max Pressure Bar
IT134-38	3/8"	19	15
IT134-12	1/2"	19	15
IT134-34	3/4"	25	15
IT134-1	1"	32	12
Tech Sheet 68270			

° Working Temperature:
-20°C to +80°C



Type 132 Heavy-duty, Hose Tail x Male, BSPP, Lever Handle

0089	Thread	To Suit Hose ID mm	Max Pressure Bar
IT132-38	3/8"	19	15
IT132-12	1/2"	19	15
IT132-34	3/4"	25	15
IT132-1	1"	32	12
Tech Sheet 68270			

° Working Temperature:
0°C to +80°C

Maximum Working Pressure: 15 bar



Type 144, Hose Tail x Male, BSPP, Handle with Lockpad Eye (7mm ID)

0089	Thread	To Suit Hose ID mm
IT144-12	1/2"	13
IT144-34	3/4"	19
Tech Sheet 1834		



For **Hose Reels**
see pages **1449-1453**



BALL VALVES

Antifrost Bibcocks

- **Body, Sleeve and Hose Connection:** Brass
- **Ball:** Brass, chrome plated
- **Stem and Nut:** Brass
- **Seals:** PTFE
- **O-Ring:** Nitrile
- **Flat Seal:** EPDM
- **Handle:** Aluminium

° Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
Without nipple for hose: 30 bar
With nipple for hose: 3 bar



BSPP

0468	Thread	OD mm
AFBV-12	1/2"	14
AFBV-34	3/4"	20

Tech Sheet 67955

Oxygen Ball Valves

- **Body and Sleeve:** Brass
- **Stem:** Brass
- **Ball:** Brass, chrome plated
- **O-Rings:** Viton
- **Seals/O-Ring:** Pure PTFE
- **Handle:** Zinc-plated steel, plastic cover

° Working Temperature:
-10°C to +120°C



Female x Female, BSPP

0468	Thread	Max Pressure Bar
OXYBV-14	1/4"	63
OXYBV-38	3/8"	63
OXYBV-12	1/2"	50
OXYBV-34	3/4"	50
OXYBV-1	1"	45
OXYBV-114	1.1/4"	30
OXYBV-112	1.1/2"	25
OXYBV-2	2"	20

Tech Sheet 67959

Full Bore Venting Ball Valves, Brass

Conforms to Directive 97/23/EC.

° Working Temperature:
-10°C to +120°C

Maximum Working Pressure @ +20°C
45 bar (1/2" to 3/4")
40 bar (1")
30 bar (1.1/4" to 2")



Female x Female, BSPP

0468	Thread
BV215-12	1/2"
BV215-34	3/4"
BV215-1	1"
BV215-114	1.1/4"
BV215-112	1.1/2"
BV215-2	2"

Tech Sheet 60156

7

BALL VALVES

Vented Lockable Ball Valves

Material: nickel plated brass.

- Full bore
- Locking lever in the closed position only
- Vents downstream pressure when closed
- Suitable for compressed air systems

° Working Temperature:
-10°C to +100°C

Maximum Working Pressure: 14 bar

Female x Female, BSPP

0358	Thread
BV93-14L	1/4"
BV93-38L	3/8"
BV93-12L	1/2"
BV93-34L	3/4"
BV93-1L	1"
BV93-114L	1.1/4"
BV93-112L	1.1/2"
BV93-2L	2"

Tech Sheet 6041



FESTO

For Filter Regulators
see pages 658-661



BALL VALVES



Standard In-line Vented Ball Valves

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
40 bar



Double Female BSPP with Threaded Exhaust

1012	Thread	DN Size
LE-0489 07 13	1/4"	7
LE-0489 10 17	3/8"	10
LE-0489 13 21	1/2"	13
LE-0489 18 27	3/4"	18
LE-0489 23 34	1"	23

Tech Sheet 10455

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar



Double Female Panel Mountable with Threaded Exhaust, BSPP

1012	Thread	DN Size
LE-0449 07 13	1/4"	7
LE-0449 10 17	3/8"	10
LE-0449 13 21	1/2"	13

Tech Sheet 10451

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
40 bar



Double Female Vented, BSPP

1012	Thread	DN Size
LE-0469 04 10	1/8"	4
LE-0469 07 13	1/4"	7
LE-0469 10 17	3/8"	10
LE-0469 13 21	1/2"	13
LE-0469 18 27	3/4"	18
LE-0469 23 34	1"	23

Tech Sheet 10453

Standard In-line Ball Valves

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
20 bar



Double Female Panel Mount, BSPP

1012	Thread	DN Size
LE-0446 04 10	1/8"	4
LE-0446 07 13	1/4"	7
LE-0446 10 17	3/8"	10
LE-0446 13 21	1/2"	13

Tech Sheet 10448

Standard Ball Valves for Screw Fixing

° Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
40 bar



Double Female, BSPP

1012	Thread	DN Size
LE-6402 04 10	1/8"	4
LE-6402 07 13	1/4"	7
LE-6402 10 17	3/8"	10
LE-6402 13 21	1/2"	13
LE-6402 20 27	3/4"	20
LE-6402 23 34	1"	23

Tech Sheet 10449




For **Panel Mountable Flow Control Regulators**
see pages **804-807**



BALL VALVES

Standard 3 Way Ball Valves

 Working Temperature:
-20°C to +80°C

 Maximum Working Pressure:
20 bar


- L Ported closed centre



Female Right Angled Porting, BSPP

1012	Thread	DN Size
LE-0482 06 13	1/4"	6
LE-0482 09 17	3/8"	9
LE-0482 12 21	1/2"	12
LE-0482 23 34	1"	23

Tech Sheet 10461

 Working Temperature:
-20°C to +80°C

 Maximum Working Pressure:
20 bar


- L Ported closed centre




Female Right Angled Porting - Panel Mountable, BSPP

1012	Thread	DN Size
LE-0448 06 13	1/4"	6
LE-0448 09 17	3/8"	9
LE-0448 12 21	1/2"	12

Tech Sheet 10464

 Working Temperature:
-20°C to +80°C

 Maximum Working Pressure:
20 bar


- L Ported




Female Equal Plane Porting - Panel Mountable, BSPP

1012	Thread	DN Size
LE-0452 04 10	1/8"	4
LE-0452 06 13	1/4"	6

Tech Sheet 10459

 Working Temperature:
-20°C to +80°C

 Maximum Working Pressure:
20 bar

- L Ported closed centre



Female Right Angled Porting without Closed Position, BSPP

1012	Thread	DN Size
LE-0483 04 10	1/8"	4
LE-0483 06 13	1/4"	6
LE-0483 09 17	3/8"	9
LE-0483 12 21	1/2"	12

Tech Sheet 10463

Lockable Ball Valves

- Legris lockable ball valves have been developed in order to prevent potentially dangerous consequences by unintended operation. Lockable in different positions, this range meets international safety requirements, such as ISO 4414. Lockable ball valves feature a plate fixed to the valve body and a plate attached to the valve stem. When the plates are pad-locked together, the valve handle cannot be moved.

 Maximum Working Pressure:
40 bar



In-line Double Female, BSPP

1012	Thread	DN Size
LE-0432 10 17	3/8"	10
LE-0432 13 21	1/2"	13
LE-0432 20 27	3/4"	20
LE-0432 23 34	1"	23

Tech Sheet 10457

 Maximum Working Pressure:
40 bar




Double Female with Vent, BSPP

1012	Thread	DN Size
LE-0439 07 13	1/4"	7
LE-0439 10 17	3/8"	10
LE-0439 13 21	1/2"	13
LE-0439 18 27	3/4"	18
LE-0439 23 34	1"	23

Tech Sheet 10462

The valves are lockable:

- In both open and closed position, by one padlock: models 0437 and 0439.
- Only in the closed position by up to three padlocks: models 0437 and 0438.

 Working Temperature:
-20°C to +80°C

 Maximum Working Pressure:
40 bar



In-line Double Female with Vent, BSPP

1012	Thread	DN Size
LE-0437 10 17	3/8"	10
LE-0437 13 21	1/2"	13
LE-0437 18 27	3/4"	18
LE-0437 23 34	1"	23

Tech Sheet 10458

 Maximum Working Pressure:
20 bar



3 Way, BSPP

1012	Thread	DN Size
LE-0438 12 21	1/2"	12

Tech Sheet 10460



For Nickel Plated Brass Adaptors
see page 1171-1176



BALL VALVES



Mini Ball Valves

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
10 bar



3/2 with Vent, Push-in

1012	OD mm
LE-7913 04 00	4
LE-7913 06 00	6
LE-7913 08 00	8
LE-7913 10 00	10
LE-7913 12 00	12

Tech Sheet 10456

2/2, Push-in

1012	OD mm
LE-7910 04 00	4
LE-7910 06 00	6
LE-7910 08 00	8
LE-7910 10 00	10
LE-7910 12 00	12

Tech Sheet 10452



3/2 with Vent, Push-in x Male, BSPP

1012	Thread	OD mm
LE-7914 06 10	1/8"	6
LE-7914 08 13	1/4"	8
LE-7914 12 21	1/2"	12

Tech Sheet 10450

2/2, Push-in x Male, BSPP

1012	Thread	OD mm
LE-7910 06 10	1/8"	6
LE-7911 10 17	3/8"	10
LE-7911 12 21	1/2"	12

Tech Sheet 10454



BALL VALVES



Direct Mount Brass Ball Valves

Suitable for domestic water services, heating and air conditioning plants, and compressed air systems.

- Full bore
- Direct mount ISO 5211

Working Temperature:
-20°C to +130°C

Maximum Working Pressure:
40 bar



Female x Female, BSPP

0986	Thread
BV1021-14	1/4"
BV1021-38	3/8"

Tech Sheet 68247



3 Way T Port, Female, BSPP

0986	Thread	Max Pressure Bar
BV1070-14	1/4"	40
BV1070-38	3/8"	40
BV1070-12	1/2"	40
BV1070-34	3/4"	40
BV1070-1	1"	40
BV1070-114	1.1/4"	40
BV1070-112	1.1/2"	25
BV1070-2	2"	25

Tech Sheet 68248



3 Way L Port, Female, BSPP

0986	Thread	Max Pressure Bar
BV1071-14	1/4"	40
BV1071-38	3/8"	40
BV1071-12	1/2"	40
BV1071-34	3/4"	40
BV1071-1	1"	40
BV1071-114	1.1/4"	40
BV1071-112	1.1/2"	25
BV1071-2	2"	25

Tech Sheet 68248


CAST IRON BALL VALVES




Cast Iron Ball Valves

Features:

- ISO 5211 Mounting Pad
- ATEX approved
- Blowout proof stem
- Locking device available on request

 Working Temperature:
-10°C to +200°C

 Maximum Working Pressure: 16 bar



2 Piece, Flanged PN16, Full Bore

0905	Flange Size
150HIT 04	1/2"
150HIT 05	3/4"
150HIT 06	1"
150HIT 07	1.1/4"
150HIT 08	1.1/2"
150HIT 09	2"
150HIT 10	2.1/2"
150HIT 11	3"
150HIT 12	4"
150HIT 13	5"
150HIT 14	6"
150HIT 16	8"

Tech Sheet 6036

Mounting Kits



Mounting Kit for 150HIT Cast Iron Flanged PN16 Ball Valve

3100	Size
MK150HIT-1	1/2"
MK150HIT-2	3/4" to 1.1/4"
MK150HIT-3	1.1/2" to 2"
MK150HIT-4	2.1/2" to 3"
MK150HIT-5	4" to 5"
MK150HIT-6	6" to 8"

Tech Sheet 71760



For **Haitima Actuated Cast Iron Flanged PN16 Ball Valves**
see page 1000



Plastic Ball Valves

Maximum Working Pressure: 3.5 bar

Body: Polypropylene
Seal: Nitrile



Hose Tail x Hose Tail

0270	To Suit Hose ID mm
18530-1	12
18530-2	16
18530-3	20



Male BSPP x Male BSPP

0270	Thread
18570-1	1/2"
18570-2	1/2" x 3/4"
18570-3	3/4"



Hose Tail x Female BSPP

0270	To Suit Hose ID mm	Thread
18563-1	16	1/2"
18563-2	16	3/4"
18563-3	20	1/2"
18563-4	20	3/4"



Hose Tail x Male BSPP

0270	To Suit Hose ID mm	Thread
18560-1	12	1/2"
18560-2	12	3/4"
18560-3	16	1/2"
18560-4	16	3/4"
18560-5	20	1/2"
18560-6	20	3/4"

Working Temperature:
0°C to +60°C
0°C to +20°C (at 16 bar)

Maximum Working Pressure:
16 bar



UPVC, Double Union Ball Valve, EPDM Seals

0118	Thread
2020-0424	1/2"
2020-0432	3/4"
2020-0440	1"
2020-0457	1.1/4"
2020-0465	1.1/2"
2020-0473	2"

Tech Sheet 10322

BALL VALVES

Plastic Ball Valves

Working Temperature:
0°C to +60°C

Maximum Working Pressure: 15 bar

UPVC, Economy Double Union Ball Valve, EPDM Seals

0118	Nominal Bore ID
BVD13-12-PVC	1/2"
BVD13-34-PVC	3/4"
BVD13-1-PVC	1"
BVD13-114-PVC	1.1/4"
BVD13-112-PVC	1.1/2"
BVD13-2-PVC	2"
BVD13-212-PVC	2.1/2"
BVD13-3-PVC	3"
BVD13-4-PVC	4"

Tech Sheet 10254



Industrial 3 Way Ball Valve, T Port, EPDM Seals

0118	Nominal Bore ID
BVT13-12-PVC	1/2"
BVT13-34-PVC	3/4"
BVT13-1-PVC	1"
BVT13-114-PVC	1.1/4"
BVT13-112-PVC	1.1/2"
BVT13-2-PVC	2"

Tech Sheet 10254



Industrial 3 Way Ball Valve, L Port, EPDM Seals

0118	Nominal Bore ID
BVL13-12-PVC	1/2"
BVL13-34-PVC	3/4"
BVL13-1-PVC	1"
BVL13-114-PVC	1.1/4"
BVL13-112-PVC	1.1/2"
BVL13-2-PVC	2"

Tech Sheet 10254



LEVER HANDLE BALL VALVES

FULL FLOW VALVES

WRAS Brass ball valves fully approved by WRAS for clean water solutions.

The quality of the full flow brass ball valves is approved in the UK under the Water Regulations Advisory Scheme (WRAS) for water fittings. Suitable for domestic water services, heating, air-conditioning plants and compressed air systems for isolation shut-off. Blue wing handle valves are stocked as standard with green, red and black available on request.

WRAS, Lever Handles, Brass Nickel Plated



Working Temperature:
-10°C to +120°C

Maximum Working Pressure: 25 bar

Female x Female, BSPP

Red and green levers are available on request


0682	Thread
1063-14	1/4"
1063-38	3/8"
1063-12	1/2"
1063-34	3/4"
1063-1	1"
1063-114	1.1/4"
1063-112	1.1/2"
1063-2	2"
1063-212	2.1/2"
1063-3	3"
1063-4	4"

Tech Sheet 68778

EN 331 GAS Brass ball valves conforming to EN 331 for gas applications.

Certified by Deutsche Akkreditierungsstelle (Dakks) in Germany to conform to EN 331 and EU 305, the yellow handle full flow brass ball valve has been specifically developed for gas installations including town gas, natural gas and liquid gas isolation shut-off.

EN 331 Gas, Lever Handles, Brass Nickel Plated



Working Temperature:
-10°C to +80°C

Maximum Working Pressure: 5 bar

Female x Female, BSPP

0682	Thread
1071-14	1/4"
1071-38	3/8"
1071-12	1/2"
1071-34	3/4"
1071-1	1"
1071-114	1.1/4"
1071-112	1.1/2"
1071-2	2"
1071-212	2.1/2"
1071-3	3"
1071-4	4"

Tech Sheet 68780



Working Temperature:
-10°C to +80°C

Maximum Working Pressure: 5 bar

Male x Female, BSPP

0682	Thread
1073-14	1/4"
1073-38	3/8"
1073-12	1/2"
1073-34	3/4"
1073-1	1"
1073-114	1.1/4"
1073-112	1.1/2"
1073-2	2"

Tech Sheet 68781

Customised Ball Valve Handles available for this range

EN 331 Gas/WRAS Approved Brass Ball Valve Compression Ended

- Brass Nickel Plated Body
- Full bore
- Compression ends to EN1254-2

Working Temperature:
-5°C to +150°C (oil and water)
-5°C to +60°C (gas)

Maximum Working Pressure:
20 bar (oil and water)
5 bar (gas)



Red Lever Operated



0682	Size mm
EPS-102200	15
EPS-102205	22
EPS-102210	28
EPS-102215	35
EPS-102220	42
EPS-102225	54

Tech Sheet 717



Blue Lever Operated



0682	Size mm
EPS-102150	15
EPS-102155	22
EPS-102160	28
EPS-102165	35
EPS-102170	42
EPS-102175	54

Tech Sheet 717



Yellow Lever Operated



0682	Size mm
EPS-102100	15
EPS-102105	22
EPS-102110	28
EPS-102115	35
EPS-102120	42
EPS-102125	54

Tech Sheet 717

WING HANDLE BALL VALVES

FULL FLOW VALVES

- WRAS approved
- EN 331 and EU 305 conformity
- RoHS 3 compliant
- Blowout proof
- Double seal
- No metal-to-metal moving parts
- Maintenance-free
- 3 year warranty

WRAS, Wing Handles, Brass Nickel Plated

- ° Working Temperature: -10°C to +120°C
- Maximum Working Pressure: 25 bar



Female x Female, BSPP

0682	Thread
1193-14	1/4"
1193-38	3/8"
1193-12	1/2"
1193-34	3/4"
1193-1	1"

Tech Sheet 68779

EN 331 Gas, Wing Handles, Brass Nickel Plated

- ° Working Temperature: -10°C to +80°C
- Maximum Working Pressure: 5 bar



Female x Female, BSPP

0682	Thread
1072-14	1/4"
1072-38	3/8"
1072-12	1/2"
1072-34	3/4"
1072-1	1"

Tech Sheet 68783

- ° Working Temperature: -10°C to +80°C
- Maximum Working Pressure: 5 bar



Male x Female, BSPP

0682	Thread
1074-14	1/4"
1074-38	3/8"
1074-12	1/2"
1074-34	3/4"
1074-1	1"

Tech Sheet 68782

EN 331 Gas/WRAS Approved Brass Ball Valve Compression Ended

- Brass Nickel Plated Body
- Full bore
- Compression ends to EN1254-2
- ° Working Temperature: -5°C to +150°C (oil and water) / -5°C to +60°C (gas)
- Maximum Working Pressure: 20 bar (oil and water) / 5 bar (gas)



Red Wing Handle

0682	Size mm
EPS-102450	15
EPS-102455	22
EPS-102460	28

Tech Sheet 717



Blue Wing Handle

0682	Size mm
EPS-102470	15
EPS-102475	22
EPS-102480	28

Tech Sheet 717



Yellow Wing Handle

0682	Size mm
EPS-102420	15
EPS-102425	22
EPS-102430	28

Tech Sheet 717

BALL VALVES

Full Bore Gas Ball Valves, Brass Nickel Plated

Working Temperature: -20°C to +60°C



Maximum Working Pressure: 5 bar EN 331 approved



LONDON 066 Compact, Female x Female, BSPP, Lever Handle

0089	Thread
IT066-14	1/4"
IT066-38	3/8"
IT066-12	1/2"
IT066-34	3/4"
IT066-1	1"
IT066-114	1.1/4"
IT066-112	1.1/2"
IT066-2	2"

Tech Sheet 68253



LONDON 067 Compact, Male, BSPT x Female, BSPP, Lever Handle

0089	Thread
IT067-14	1/4"
IT067-38	3/8"
IT067-12	1/2"
IT067-34	3/4"
IT067-1	1"
IT067-114	1.1/4"
IT067-112	1.1/2"
IT067-2	2"

Tech Sheet 68254



BERLIN 070, Female x Female, BSPP, Lever Handle

0089	Thread
IT070-12	1/2"
IT070-34	3/4"
IT070-1	1"
IT070-114	1.1/4"
IT070-112	1.1/2"
IT070-2	2"

Tech Sheet 1831



BERLIN 071, Male, BSPT x Female, BSPP, Lever Handle

0089	Thread
IT071-12	1/2"
IT071-34	3/4"
IT071-1	1"
IT071-114	1.1/4"
IT071-112	1.1/2"
IT071-2	2"

Tech Sheet 1831



LONDON 266 Compact, Female x Female, BSPP, Flat Lever Handle

0089	Thread
IT266-14	1/4"
IT266-38	3/8"
IT266-12	1/2"
IT266-34	3/4"
IT266-1	1"
IT266-114	1.1/4"
IT266-112	1.1/2"
IT266-2	2"

Tech Sheet 68257



LONDON 267 Compact, Male, BSPT x Female, BSPP, Flat Lever Handle

0089	Thread
IT267-14	1/4"
IT267-38	3/8"
IT267-12	1/2"
IT267-34	3/4"
IT267-1	1"
IT267-114	1.1/4"
IT267-112	1.1/2"
IT267-2	2"

Tech Sheet 68258



LONDON 068 Compact, Female x Female, BSPP, Wing Handle

0089	Thread
IT068-14	1/4"
IT068-38	3/8"
IT068-12	1/2"
IT068-34	3/4"
IT068-1	1"

Tech Sheet 68255



LONDON 069 Compact, Male, BSPT x Female, BSPP, Wing Handle

0089	Thread
IT069-14	1/4"
IT069-38	3/8"
IT069-12	1/2"
IT069-34	3/4"
IT069-1	1"

Tech Sheet 68256



BERLIN 072, Female x Female, BSPP, Wing Handle

0089	Thread
IT072-12	1/2"
IT072-34	3/4"
IT072-1	1"

Tech Sheet 1831



BERLIN 073, Male, BSPT x Female, BSPP, Wing Handle

0089	Thread
IT073-12	1/2"
IT073-34	3/4"
IT073-1	1"

Tech Sheet 1832



Type 060, Male x Male, BSPT, Wing Handle

0089	Thread
IT060-12	1/2"

Tech Sheet 10340

BALL VALVES



Super Filter Ball Valves, Brass

Advantages:

- Large flo
 - Low head loss
 - Eliminates need for separate in-line filter
 - Reduces installation time
 - Easy access for filter cleanin
 - Can be installed in any position
- 500 micron filter (35 mesh)
Conforms to Directive 97/23/EC.

Working Temperature:
-20°C to +100°C



Built-in Filter, BSPP

0468	Thread	Max Pressure Bar
SFBV-12	1/2"	30
SFBV-34	3/4"	30
SFBV-1	1"	30
SFBV-114	1.1/4"	20
SFBV-112	1.1/2"	20
SFBV-2	2"	20

Tech Sheet 60155

Working Temperature:
-20°C to +100°C

Maximum Working Pressure: 30 bar

- Can be installed in any position



T Handle, Built-in Filter, BSPP

0468	Thread
SFBVT-12	1/2"
SFBVT-34	3/4"
SFBVT-1	1"

Tech Sheet 60155

90° Gas Ball Valves

- **Body:** Brass
- **Ball:** Brass, chrome plated
- **Sleeve, Stem and Nut:** Brass
- **Seal:** PTFE
- **O-Rings:** Nitrile + FKM
- **Handle:** Aluminium
- EN 331 approved

Working Temperature:
-20°C to +60°C

Maximum Working Pressure:
5 bar



Male x Female, BSPP

0468	Thread	Thread
GBVMF-3434	3/4"	3/4"

Tech Sheet 67956

TOTAL




For **Combination Spanner Sets**
see page **1739**

BALL VALVES

Gas Mini Ball Valves, Brass

- Seal: Material PTFE

 Working Temperature:
 -20°C to +80°C

 Maximum Working Pressure:
 20 bar



Type 6300, Female x Female, BSPP

0090	Thread	Thread
6300-18	1/8"	1/8"
6300-14	1/4"	1/4"
6300-38	3/8"	3/8"
6300-12	1/2"	1/2"

Tech Sheet 1602



Type 6330, Male x Male, BSPP

0090	Thread	Thread
6330-18-18	1/8"	1/8"
6330-18-14	1/8"	1/4"
6330-14-14	1/4"	1/4"
6330-12-12	1/2"	1/2"

Tech Sheet 1602



Type 6420, Male x Male, BSPP

0090	Thread	Thread
6420-18-18	1/8"	1/8"
6420-18-14	1/8"	1/4"
6420-14-14	1/4"	1/4"
6420-38-14	3/8"	1/4"
6420-38-38	3/8"	3/8"
6420-12-12	1/2"	1/2"

Tech Sheet 1603



Type 6310, BSPT Male x BSPP Female

0090	Male Thread	Female Thread
6310-18-18	1/8"	1/8"
6310-14-18	1/4"	1/8"
6310-14-14	1/4"	1/4"
6310-38-38	3/8"	3/8"
6310-12-12	1/2"	1/2"
6310-34-34	3/4"	3/4"

Tech Sheet 1602



Type 6340, Tube x Female, BSPP

0090	OD mm	Thread
6340-6-18	6	1/8"
6340-8-18	8	1/8"
6340-8-14	8	1/4"
6340-10-38	10	3/8"
6340-15-12	15	1/2"

Tech Sheet 1603



Type 6440, Male BSPP x Tube

0090	OD mm	Thread
6440-18-6	6	1/8"
6440-18-8	8	1/8"
6440-14-6	6	1/4"
6440-14-8	8	1/4"
6440-14-10	10	1/4"
6440-38-8	8	3/8"
6440-38-10	10	3/8"
6440-38-15	15	3/8"
6440-12-12	12	1/2"
6440-12-15	15	1/2"
6440-34-15	15	3/4"

Tech Sheet 1604



Type 6320, Male x Female, BSPP

0090	Male Thread	Female Thread
6320-18-18	1/8"	1/8"
6320-14-18	1/4"	1/8"
6320-14-14	1/4"	1/4"
6320-38-38	3/8"	3/8"
6320-12-12	1/2"	1/2"

Tech Sheet 1602



Type 6350, Male, BSPT x Tube

0090	OD mm	Thread
6350-18-6	6	1/8"
6350-18-8	8	1/8"
6350-14-6	6	1/4"
6350-14-8	8	1/4"
6350-38-10	10	3/8"
6350-38-12	12	3/8"
6350-12-15	15	1/2"

Tech Sheet 1603



Type 6500, Tube x Tube


0090	OD mm
6500-8	8

Tech Sheet 1604


BALL VALVES

Dual Sealing Gas Approved Ball Valves

- Manufactured in accordance to BSI
- ISO 228 parallel female threads to EN10226-1
- Full port to DIN 3357 for maximum flow
- PED 2014/68/EU
- Spring return handle available on request

 **Working Temperature:**
-40°C to +170°C

AS4617 Limitations for Gas:
0°C to +60°C

 **Maximum Working Pressure:**
Up to 2": 40 bar
Over 2": 30 bar

AS4617 Limitations for Gas:
Up to 2": 21 bar
2.1/2" to 4": 15 bar




Female x Female, BSPP

0358	Thread
BV84-14	1/4"
BV84-38	3/8"
BV84-12	1/2"
BV84-34	3/4"
BV84-1	1"
BV84-114	1.1/4"
BV84-112	1.1/2"
BV84-2	2"
BV84-212	2.1/2"
BV84-3	3"
BV84-4	4"


Tech Sheet 20558

Dual Sealing Gas Lockable Ball Valves

- Manufactured in accordance to BSI
- ISO 228 parallel female threads to EN10226-1
- Full port to DIN 3357 for maximum flow
- PED 2014/68/EU
- Spring return handle available on request

 **Working Temperature:**
-40°C to +170°C

AS4617 Limitations for Gas:
0°C to +60°C

 **Maximum Working Pressure:**
Up to 2": 40 bar
Over 2": 30 bar

AS4617 Limitations for Gas:
Up to 2": 21 bar
2.1/2" to 4": 15 bar



Female x Female, BSPP


0358	Thread
BV84-14L	1/4"
BV84-38L	3/8"
BV84-12L	1/2"
BV84-34L	3/4"
BV84-1L	1"
BV84-114L	1.1/4"
BV84-112L	1.1/2"
BV84-2L	2"
BV84-212L	2.1/2"
BV84-3L	3"
BV84-4L	4"

Tech Sheet 60397

Dual Sealing WRAS Ball Valves

The BV84W potable ball valve range is approved for use with drinking water. The ball design avoids water stagnation and the spread of bacteria in the system.

- PED 2014/68/EU

 **Working Temperature:**
-40°C to +170°C

 **Maximum Working Pressure:**
40 bar



Female x Female, BSPP


0358	Thread
BV84-14W	1/4"
BV84-38W	3/8"
BV84-12W	1/2"
BV84-34W	3/4"
BV84-1W	1"
BV84-114W	1.1/4"
BV84-112W	1.1/2"
BV84-2W	2"

Tech Sheet 20558

Dual Sealing WRAS Lockable Ball Valves

The BV84WL potable ball valve range is approved for use with drinking water. The specific ball design avoids water stagnation and the spread of bacteria in the system.

- PED 2014/68/EU

 **Working Temperature:**
-40°C to +170°C

 **Maximum Working Pressure:**
40 bar



Female x Female, BSPP


0358	Thread
BV84-14WL	1/4"
BV84-38WL	3/8"
BV84-12WL	1/2"
BV84-34WL	3/4"
BV84-1WL	1"
BV84-114WL	1.1/4"
BV84-112WL	1.1/2"
BV84-2WL	2"

Tech Sheet 60397

BALL VALVES

Direct Mount WRAS Approved Brass Ball Valve

- Full bore
- Direct mount ISO 5211

 **Working Temperature:**
-20°C to +170°C

 **Maximum Working Pressure:**
40 bar



Female x Female, BSPP


0358	Thread
BV64-12	1/2"
BV64-34	3/4"
BV64-1	1"
BV64-114	1.1/4"
BV64-112	1.1/2"
BV64-2	2"


Tech Sheet 6040

Compression Ended WRAS Ball Valves

Body material: DZR brass.

- Suitable for domestic water services, heating and air conditioning plants and compressed air systems.

 **Working Temperature:**
-20°C to +120°C

 **Maximum Working Pressure:**
16 bar



Male x Male

0358	OD mm
BV28-15	15
BV28-22	22
BV28-28	28
BV28-35	35
BV28-42	42
BV28-54	54

Tech Sheet 68241



Stem Extension

- Can be used when insulating the pipework.



To suit RuB Ball Valves

0358	To Suit
PPR003	1/4"-1/2"
PPR006	3/4"-1"
PPR009	1.1/4"-2"

Tech Sheet 68243

Ball Valve Lockable Handles



Yellow

0358	To Suit
PBFG13	1/4"-1/2"
PBFG16	3/4"-1"
PBFG19	1.1/4"-2"
PBFG20	2.1/2"-4"

Tech Sheet 68244

Blue

0358	To Suit
PBFA13	1/4"-1/2"
PBFA16	3/4"-1"
PBFA19	1.1/4"-2"
PBFA20	2.1/2"-4"

Tech Sheet 68244

J+J



For J+J Electric Actuators Fitted With RuB Ball Valves
see page 1007



BALL VALVES



Plastic Ball Valves

° Working Temperature:
0°C to +60°C

Maximum Working
Pressure:
15 bar



UPVC, Industrial Double Union Ball Valve, EPDM Seals

0118	Nominal Bore ID
BV113-38-PVC	3/8"
BV113-12-PVC	1/2"
BV113-34-PVC	3/4"
BV113-1-PVC	1"
BV113-114-PVC	1.1/4"
BV113-112-PVC	1.1/2"
BV113-2-PVC	2"
BV113-212-PVC	2.1/2"
BV113-3-PVC	3"
BV113-4-PVC	4"

Tech Sheet 10254



ABS, Industrial Double Union Ball Valve, EPDM Seals

0118	Nominal Bore ID
BV113-12-ABS	1/2"
BV113-34-ABS	3/4"
BV113-1-ABS	1"
BV113-114-ABS	1.1/4"
BV113-112-ABS	1.1/2"
BV113-2-ABS	2"
BV113-212-ABS	2.1/2"
BV113-3-ABS	3"
BV113-4-ABS	4"

Tech Sheet 10255



For **Tubing Accessories**
see page **1097**



STAINLESS STEEL VALVES



316 Stainless Steel Mini Ball Valves

Features:

- Reduced bore
- Suitable for domestic water services, heating and air-conditioning plants and compressed air systems

Working Temperature:
-25°C to +180°C

Maximum Working Pressure: 63 bar



Hexagon Body, Female, BSPP

0902	Thread
HEXSMBV14	1/4"
HEXSMBV38	3/8"
HEXSMBV12	1/2"
HEXSMBV34	3/4"
HEXSMBV1	1"

Tech Sheet 6018



Hexagon Body, Male BSPT x Female BSPP

0902	Thread
HEXSMBV14M	1/4"
HEXSMBV38M	3/8"
HEXSMBV12M	1/2"
HEXSMBV34M	3/4"
HEXSMBV1M	1"

Tech Sheet 6018

Stainless Steel Lockable Ball Valves

Suitable for domestic water services, heating and air-conditioning plants, and compressed air systems.

- Full bore
- PTFE seals
- PTFE O-rings

Working Temperature:
-20°C to +180°C

Maximum Working Pressure:
63 bar: up to 3/4"
50 bar: 1" and 1.1/4"
40 bar: 1.1/2" upwards



2 Piece, Full Bore, Male x Female, BSPP

0901	Thread
789-14	1/4"
789-38	3/8"
789-12	1/2"
789-34	3/4"
789-1	1"
789-114	1.1/4"
789-112	1.1/2"
789-2	2"

Tech Sheet 6019



stainless steel



You might also need...
Stainless Steel 150LB Fittings
...see pages **1181-1273**

316 Stainless Steel Ball Valves

Features:

- ATEX approved
- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 63 bar



2 Piece, Full Bore, BSPP

0099	Thread
2006S-14	1/4"
2006S-38	3/8"
2006S-12	1/2"
2006S-34	3/4"
2006S-1	1"
2006S-114	1.1/4"
2006S-112	1.1/2"
2006S-2	2"

Tech Sheet 1966

2 Piece, Full Bore, NPT

0099	Thread
2006S-14N	1/4"
2006S-38N	3/8"
2006S-12N	1/2"
2006S-34N	3/4"
2006S-1N	1"
2006S-114N	1.1/4"
2006S-112N	1.1/2"
2006S-2N	2"

Tech Sheet 1966

Features:

- ATEX approved
- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 138 bar



2 Piece, Full Bore, BSPP

0099	Thread
2006-14	1/4"
2006-38	3/8"
2006-12	1/2"
2006-34	3/4"
2006-1	1"

Tech Sheet 6003

Features:

- Investment casting
- Blowout proof stem

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
63 bar



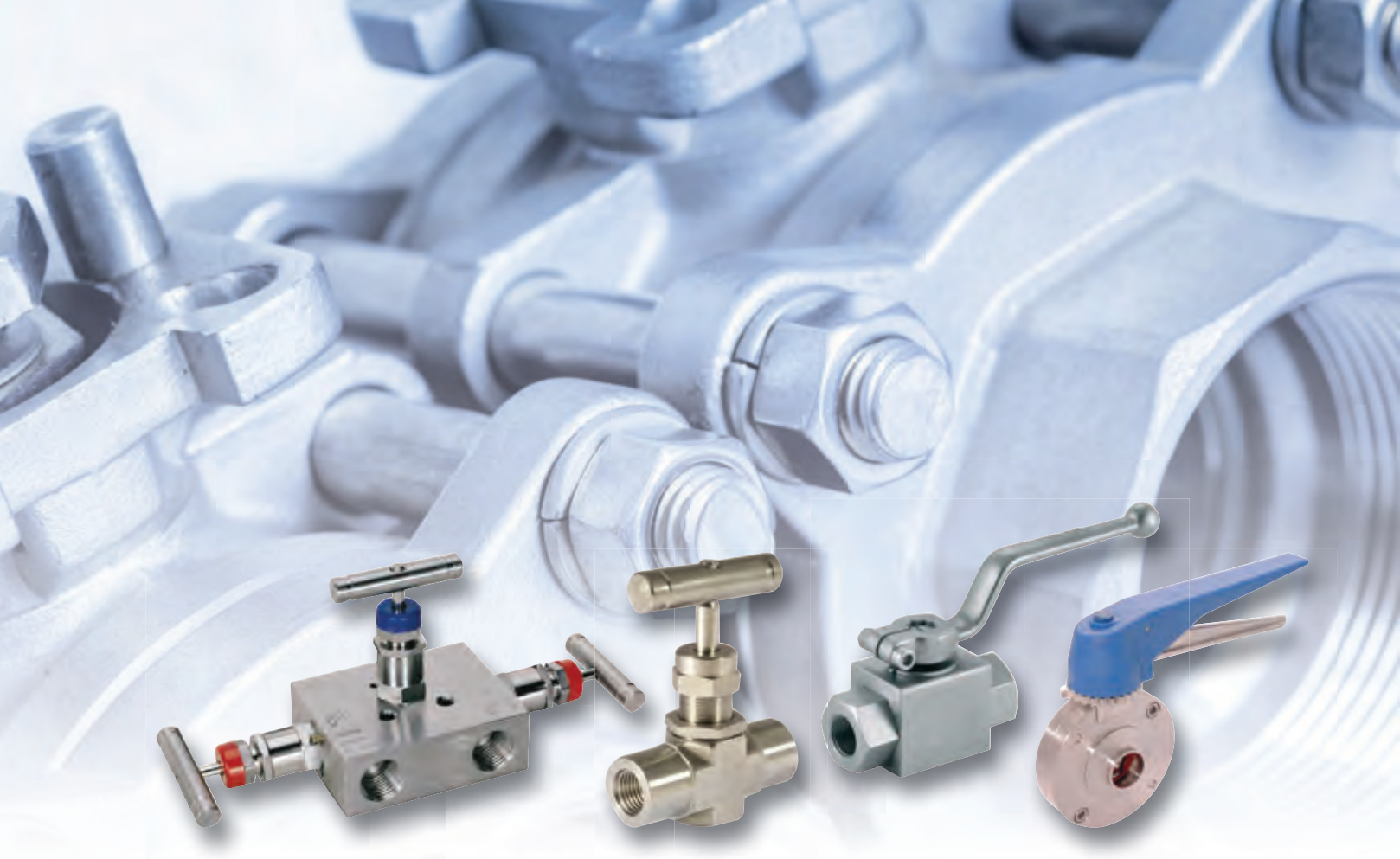
2 Piece, Full Bore, BSPP, Wing Handle

0924	Size
2006FW-14W	1/4"
2006FW-38W	3/8"
2006FW-12W	1/2"

Tech Sheet 6001

You might also need...
Valve Lockouts & Padlocks
...see page 1763





Stainless Steel Valves

A quality range of stainless steel ball valves with a reliable reputation across the manufacturing industry. The selection of valves are available from the manufacturer including fire safe and specialised material options of Titanium, Monel, Hastelloy, Inconel 625, SMO 254 and Duplex.

Approvals:

- ISO 9001 approved manufacturer
- 3A approved
- Pressure equipment directive module 2 certification
- TÜV certification
- ASME material certification
- CE certification

Applications:

- Hydraulic
- Pneumatic
- Steam
- Oxygen (if degreased)
- Vacuum
- Thermal fluids
- Chemical
- Oil/gas
- Food processing
- Dry/liquid chlorine
- Testing

For full compatibility for your application, please contact our Technical department.

316 Stainless Steel Ball Valves

° Working Temperature:
-20°C to +200°C

Maximum Working
Pressure:
63 bar

Features:

- Investment casting
- Blowout proof stem
- Locking lever



1 Piece, Reduced Bore, BSPP

0924	Thread
2017FW-14	1/4"
2017FW-38	3/8"
2017FW-12	1/2"
2017FW-34	3/4"
2017FW-1	1"
2017FW-114	1.1/4"
2017FW-112	1.1/2"
2017FW-2	2"

Tech Sheet 6000



2 Piece, Full Bore, BSPP

0924	Thread
2006FW-14	1/4"
2006FW-38	3/8"
2006FW-12	1/2"
2006FW-34	3/4"
2006FW-1	1"
2006FW-114	1.1/4"
2006FW-112	1.1/2"
2006FW-2	2"
2006FW-212	2.1/2"
2006FW-3	3"

Tech Sheet 6001



3 Piece, Full Bore, BSPP

0924	Thread
2013FW-14	1/4"
2013FW-38	3/8"
2013FW-12	1/2"
2013FW-34	3/4"
2013FW-1	1"
2013FW-114	1.1/4"
2013FW-112	1.1/2"
2013FW-2	2"
2013FW-212	2.1/2"
2013FW-3	3"
2013FW-4	4"

Tech Sheet 6005



3 Piece, Full Bore, NPT

0924	Thread
2013FW-14N	1/4"
2013FW-38N	3/8"
2013FW-12N	1/2"
2013FW-34N	3/4"
2013FW-1N	1"
2013FW-114N	1.1/4"
2013FW-112N	1.1/2"
2013FW-2N	2"
2013FW-212N	2.1/2"
2013FW-3N	3"
2013FW-4N	4"

Tech Sheet 6005



3 Piece, Full Bore, Butt Weld

0924	Size
2012FW-14	1/4"
2012FW-38	3/8"
2012FW-12	1/2"
2012FW-34	3/4"
2012FW-1	1"
2012FW-114	1.1/4"
2012FW-112	1.1/2"
2012FW-2	2"
2012FW-212	2.1/2"
2012FW-3	3"
2012FW-4	4"

Tech Sheet 6005



3 Piece, Full Bore, Socket Weld

0924	Thread
2011FW-14	1/4"
2011FW-38	3/8"
2011FW-12	1/2"
2011FW-34	3/4"
2011FW-1	1"
2011FW-114	1.1/4"
2011FW-112	1.1/2"
2011FW-2	2"
2011FW-212	2.1/2"
2011FW-3	3"
2011FW-4	4"

Tech Sheet 6005

STAINLESS STEEL VALVES

stainless
steel



316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Direct mount ISO 5211
- ATEX approved
- TA Luft
- ISO 15848-1:2006 fugitive emissions
- Anti-static device
- Investment casting
- Blowout proof stem

Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 63 bar



2 Piece, Full Bore, BSPP

0924	Thread
2006SD-14	1/4"
2006SD-38	3/8"
2006SD-12	1/2"
2006SD-34	3/4"
2006SD-1	1"
2006SD-114	1.1/4"
2006SD-112	1.1/2"
2006SD-2	2"

Tech Sheet 6004

Features:

- Direct mount ISO 5211
- ATEX approved
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 6 bar

Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 63 bar



3 Piece, Full Bore, BSPP

0924	Thread
2013ND-14	1/4"
2013ND-38	3/8"
2013ND-12	1/2"
2013ND-34	3/4"
2013ND-1	1"
2013ND-114	1.1/4"
2013ND-112	1.1/2"
2013ND-2	2"
2013ND-212	2.1/2"
2013ND-3	3"
2013ND-4	4"

Tech Sheet 6006

3 Piece, Full Bore, NPT

0924	Thread
2013ND-12N	1/2"
2013ND-34N	3/4"
2013ND-1N	1"
2013ND-114N	1.1/4"
2013ND-112N	1.1/2"
2013ND-2N	2"

Tech Sheet 6006

3 Piece, Full Bore, Butt Weld

0924	Thread
2012ND-12	1/2"
2012ND-34	3/4"
2012ND-1	1"
2012ND-114	1.1/4"
2012ND-112	1.1/2"
2012ND-2	2"
2012ND-212	2.1/2"
2012ND-3	3"
2012ND-4	4"

Tech Sheet 6006

3 Piece, Full Bore, Socket Weld

0924	Thread
2011ND-12	1/2"
2011ND-34	3/4"
2011ND-1	1"
2011ND-114	1.1/4"
2011ND-112	1.1/2"
2011ND-2	2"
2011ND-212	2.1/2"
2011ND-3	3"
2011ND-4	4"

Tech Sheet 6006



You might also need a...


Haitima Pneumatic Actuator


...see page 1015

316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Reduced bore
- Direct mount ISO 5211
- Anti-static device
- Blowout proof stem
- Locking lever

 Working Temperature:
-25°C to +180°C

 Maximum Working Pressure: 63 bar



3 Way, L Port, BSPP

0902	Thread
2040-14	1/4"
2040-38	3/8"
2040-12	1/2"
2040-34	3/4"
2040-1	1"
2040-114	1.1/4"
2040-112	1.1/2"
2040-2	2"
2040-212	2.1/2"

Tech Sheet 6025



3 Way, T Port, BSPP

0902	Thread
2041-14	1/4"
2041-38	3/8"
2041-12	1/2"
2041-34	3/4"
2041-1	1"
2041-114	1.1/4"
2041-112	1.1/2"
2041-2	2"
2041-212	2.1/2"

Tech Sheet 6025

Looking for bespoke Flow Path Configuration?
Contact our technical team.

LOCTITE



You might also need...
577 Thread Sealant
...see page **1584**

STAINLESS STEEL VALVES

stainless
steel



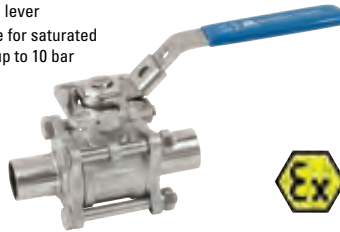
Hygienic 316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Cavity filled seat
- Direct mount ISO 5211
- ATEX approved
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 10 bar

° Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Piece, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2012CD-12	1/2"	15	12.70	90.70	F03/F04
2012CD-34	3/4"	20	19.10	103	F03/F04
2012CD-1	1"	25	25.40	115	F04/F05
2012CD-112	1.1/2"	40	38.10	139	F05/F07
2012CD-2	2"	50	50.80	158	F05/F07
2012CD-212	2.1/2"	65	63.50	197	F07/F10
2012CD-3	3"	80	76.20	228	F07/F10
2012CD-4	4"	100	101.60	241.80	F10/F12

Tech Sheet 6009

° Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Piece, Clamp End

0924	Size	DN	Length	ISO 5211
2013CD-12	1/2"	15	90.70	F03/F04
2013CD-34	3/4"	20	103	F03/F04
2013CD-1	1"	25	115	F04/F05
2013CD-112	1.1/2"	40	139	F05/F07
2013CD-2	2"	50	158	F05/F07
2013CD-212	2.1/2"	65	197	F07/F10
2013CD-3	3"	80	228	F07/F10
2013CD-4	4"	100	241.80	F10/F12

Tech Sheet 6009

Features:

- Direct mount ISO 5211
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 10 bar

° Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Way, L Port, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2057CBL-12	1/2"	15	12.70	118	F03/F04
2057CBL-1	1"	25	25.40	152.40	F04/F05
2057CBL-112	1.1/2"	40	38.10	175	F05/F07
2057CBL-2	2"	50	50.80	190	F05/F07
2057CBL-212	2.1/2"	65	63.50	228	F07/F10
2057CBL-3	3"	80	76.20	260	F07/F10
2057CBL-4	4"	100	102	289	F10/F12

Tech Sheet 6009

3 Way, T Port, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2057CBT-12	1/2"	15	12.70	118	F03/F04
2057CBT-1	1"	25	25.40	152.40	F04/F05
2057CBT-112	1.1/2"	40	38.10	175	F05/F07
2057CBT-2	2"	50	50.80	190	F05/F07
2057CBT-212	2.1/2"	65	63.50	228	F07/F10
2057CBT-3	3"	80	76.20	260	F07/F10
2057CBT-4	4"	100	102	289	F10/F12

Tech Sheet 6009

Hygienic 316 Stainless Steel Ball Valves



° Working Temperature:
-20°C to +160°C

Maximum Working Pressure:
8 bar

Features:

- Cavity filled seat
- Locking lever



3 Piece, Weld End

0708	OD	OD mm	Length mm
HSBVWE-12	1/2"	12.7	89
HSBVWE-112	1.1/2"	38.1	140
HSBVWE-2	2"	50.8	156

Tech Sheet 68171

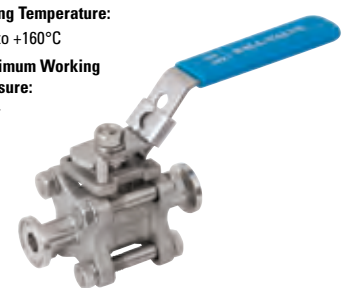


° Working Temperature:
-20°C to +160°C

Maximum Working Pressure:
8 bar

Features:

- Cavity filled seat
- Locking lever



3 Piece, Clamp End

0708	Clamp Size	Length mm
HSBVCE-1	1"	114
HSBVCE-2	2"	156

Tech Sheet 68171

Fire Safe Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th Edition
- NACE MR0175
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever

° Working Temperature:
-20°C to +220°C



3 Piece, BSPP, Full Bore

0924	Thread	Max Pressure bar
2013KMD-12	1/2"	138
2013KMD-34	3/4"	138
2013KMD-1	1"	138
2013KMD-114	1.1/4"	103
2013KMD-112	1.1/2"	103
2013KMD-2	2"	103
2013KMD-212	2.1/2"	63
2013KMD-3	3"	63

Tech Sheet 6007

3 Piece, NPT, Full Bore

0924	Thread	Max Pressure bar
2013KMD-12N	1/2"	138
2013KMD-34N	3/4"	138
2013KMD-1N	1"	138
2013KMD-114N	1.1/4"	103
2013KMD-112N	1.1/2"	103
2013KMD-2N	2"	103
2013KMD-3N	3"	63

Tech Sheet 6007

3 Piece, Butt Weld, Full Bore

0924	Size	Max Pressure bar
2012KMD-12	1/2"	138
2012KMD-34	3/4"	138
2012KMD-1	1"	138
2012KMD-112	1.1/2"	103
2012KMD-2	2"	103

Tech Sheet 6007

3 Piece, Socket Weld, Full Bore

0924	Size	Max Pressure bar
2011KMD-12	1/2"	138
2011KMD-34	3/4"	138
2011KMD-1	1"	138
2011KMD-114	1.1/4"	103
2011KMD-112	1.1/2"	103
2011KMD-2	2"	103

Tech Sheet 6007

316 Stainless Steel Ball Valves

Features:

- Investment casting
- Blowout proof stem
- Locking lever

° Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 16 bar



2 Piece, Flanged PN16, Full Bore

0924	Flange Size	Bore mm
2019S 04	1/2"	15
2019S 05	3/4"	20
2019S 06	1"	25
2019S 07	1.1/4"	32
2019S 08	1.1/2"	40
2019S 09	2"	50
2019S 10	2.1/2"	65
2019S 11	3"	80
2019S 12	4"	100
2019S 14	6"	150

Tech Sheet 6011

Features:

- Investment casting
- Blowout proof stem
- Locking lever

° Working Temperature:
-20°C to +200°C

Maximum Working
Pressure: 19.6 bar



2 Piece, Flanged ANSI150, Full Bore

0924	Flange Size	Bore mm
2020S 04	1/2"	15
2020S 05	3/4"	20
2020S 06	1"	25
2020S 08	1.1/2"	40
2020S 09	2"	50
2020S 10	2.1/2"	65
2020S 11	3"	80
2020S 12	4"	100
2020S 14	6"	150

Tech Sheet 6013



You might also need a...
Air Torque Pneumatic Actuator
...see page 1015

STAINLESS STEEL VALVES

stainless
steel

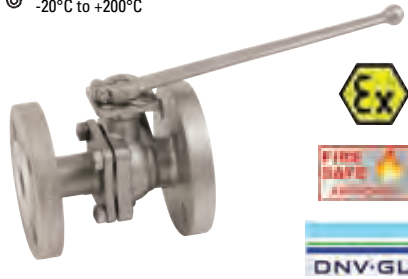


Fire Safe Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- DNV certifie
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

° Working Temperature:
-20°C to +200°C



2 Piece, Flanged PN16, Full Bore

0924	Flange Size	Flange	Max Pressure bar
2019D 04	1/2"	PN16/40	40
2019D 05	3/4"	PN16/40	40
2019D 06	1"	PN16/40	40
2019D 07	1.1/4"	PN16/40	40
2019D 08	1.1/2"	PN16/40	40
2019D 09	2"	PN16/40	40
2019D 10	2.1/2"	PN16	16
2019D4 10	2.1/2"	PN40	40
2019D 11	3"	PN16	16
2019D4 11	3"	PN40	40
2019D 12	4"	PN16	16
2019D4 12	4"	PN40	40
2019D 13	5"	PN16	16
2019D 14	6"	PN16	16
2019D 16	8"	PN16	16

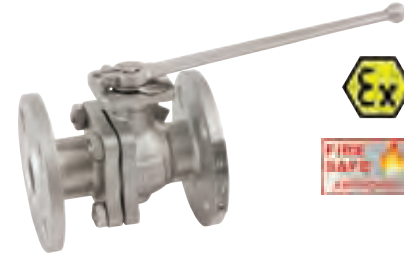
Tech Sheet 10336

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

° Working Temperature:
-20°C to +230°C

Maximum Working Pressure:
19.6 bar



2 Piece, Flanged ANSI150, Full Bore

0924	Flange Size
2020D 04	1/2"
2020D 05	3/4"
2020D 06	1"
2020D 07	1.1/4"
2020D 08	1.1/2"
2020D 09	2"
2020D 10	2.1/2"
2020D 11	3"
2020D 12	4"
2020D 14	6"

Tech Sheet 10331

Other Flanged End connections are available on request

316 Stainless Steel Ball Valve Accessories

Features:

- ISO mounting pad to ISO 5211

° Working Temperature:
-20°C to +200°C



Stem Extension

0924	Valve ISO	Stem Size
TSM 1	F04	9
TSM 2	F05	11
TSM 3	F07	14
TSM 4	F10	17
TSM 5	F12	22

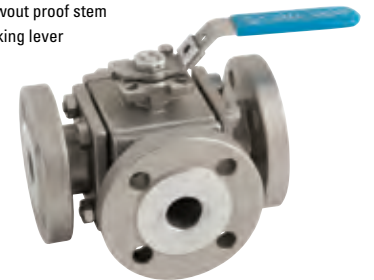
Tech Sheet 6016

316 Stainless Steel Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- Investment casting
- Blowout proof stem
- Locking lever

° Working Temperature:
-20°C to +200°C



3 Way, L Port, Flanged PN16, Full Bore

0924	Flange Size	Max Pressure bar
2059DL16 04	1/2"	16
2059DL16 06	1"	16
2059DL16 08	1.1/2"	16
2059DL16 09	2"	16
2059DL16 10	2.1/2"	16
2059DL16 11	3"	16
2059DL16 12	4"	16
2059DL16 14	6"	16

Tech Sheet 6015

3 Way, L Port, Flanged ANSI150, Full Bore

0924	Flange Size	Max Pressure bar
2059DL150 04	1/2"	19.6
2059DL150 06	1"	19.6
2059DL150 08	1.1/2"	19.6
2059DL150 09	2"	19.6
2059DL150 11	3"	19.6
2059DL150 12	4"	19.6
2059DL150 14	6"	19.6

Tech Sheet 6015

3 Way, T Port, Flanged PN16, Full Bore

0924	Flange Size	Max Pressure bar
2059DT16 04	1/2"	16
2059DT16 06	1"	16
2059DT16 08	1.1/2"	16
2059DT16 09	2"	16
2059DT16 10	2.1/2"	16
2059DT16 11	3"	16
2059DT16 12	4"	16
2059DT16 14	6"	16

Tech Sheet 6015

3 Way, T Port, Flanged ANSI150, Full Bore

0924	Flange Size	Max Pressure bar
2059DT150 04	1/2"	19.6
2059DT150 06	1"	19.6
2059DT150 08	1.1/2"	19.6
2059DT150 09	2"	19.6
2059DT150 11	3"	19.6
2059DT150 12	4"	19.6
2059DT150 14	6"	19.6

Tech Sheet 6015

Fire Safe Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- NACE MR0175
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +220°C



3 Piece, BSPP, Full Bore

0924	Thread	Max Pressure bar
2013KMD-12C	1/2"	138
2013KMD-34C	3/4"	138
2013KMD-1C	1"	138
2013KMD-114C	1.1/4"	103
2013KMD-112C	1.1/2"	103
2013KMD-2C	2"	103
2013KMD-212C	2.1/2"	63
2013KMD-3C	3"	63

Tech Sheet 6007

3 Piece, NPT, Full Bore

0924	Thread	Max Pressure bar
2013KMD-12CN	1/2"	138
2013KMD-34CN	3/4"	138
2013KMD-1CN	1"	138
2013KMD-114CN	1.1/4"	103
2013KMD-112CN	1.1/2"	103
2013KMD-2CN	2"	103
2013KMD-3CN	3"	63

Tech Sheet 6007

3 Piece, Butt Weld, Full Bore

0924	Size	Max Pressure bar
2012KMD-12C	1/2"	138
2012KMD-34C	3/4"	138
2012KMD-1C	1"	138
2012KMD-112C	1.1/2"	103
2012KMD-2C	2"	103

Tech Sheet 6007

3 Piece, Socket Weld, Full Bore

0924	Size	Max Pressure bar
2011KMD-12C	1/2"	138
2011KMD-34C	3/4"	138
2011KMD-1C	1"	138
2011KMD-114C	1.1/4"	103
2011KMD-112C	1.1/2"	103
2011KMD-2C	2"	103

Tech Sheet 6007

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- CE certified
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

Working Temperature:
-20°C to +200°C



2 Piece, Flanged PN16, Full Bore

0924	Flange Size	Flange	Max Pressure bar
2019D 04C	1/2"	PN16/40	40
2019D 05C	3/4"	PN16/40	40
2019D 06C	1"	PN16/40	40
2019D 08C	1.1/2"	PN16/40	40
2019D 09C	2"	PN16/40	40
2019D 10C	2.1/2"	PN16	16
2019D 11C	3"	PN16	16
2019D 12C	4"	PN16	16
2019D 14C	6"	PN16	16

Tech Sheet 10336

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

Working Temperature:
-20°C to +230°C

Maximum Working Pressure:
19.6 bar



2 Piece, Flanged ANSI150, Full Bore

0924	Flange Size
2020D 04C	1/2"
2020D 05C	3/4"
2020D 06C	1"
2020D 08C	1.1/2"
2020D 09C	2"
2020D 10C	2.1/2"
2020D 11C	3"
2020D 12C	4"
2020D 14C	6"

Tech Sheet 10331

Other Flanged End connections are available on request

FESTO



You might also need a...
Festo Pneumatic Actuator
...see page 1017

STAINLESS STEEL VALVES


stainless
steel

FT PRO®

316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Direct mount ISO 5211
- Blowout proof stem
- Locking lever for 1" to 4"
- Suitable for applications such as chemical, petrochemical, hydraulic and compressed air

 Working Temperature:
-20°C to +180°C

 Maximum Working Pressure:
16 bar

Wafer Pattern, Flanged PN16, Full Bore

0901	Flange Size
771 04	1/2"
771 05	3/4"
771 06	1"
771 07	1.1/4"
771 08	1.1/2"
771 09	2"
771 10	2.1/2"
771 11	3"
771 12	4"
771 13	5"
771 14	6"

Tech Sheet 6030




STAINLESS STEEL VALVES

stainless
steel

PANAM

6,000 psi Rated Ball Valves

 Working Temperature:
-18°C to +93°C


 Maximum Working Pressure:
413 bar


Female, NPT

0292	Thread
PBV-2-S-02-FF	1/8"
PBV-2-S-04-FF	1/4"
PBV-2-S-06-FF	3/8"
PBV-2-S-08-FF	1/2"
PBV-2-S-12-FF	3/4"
PBV-2-S-16-FF	1"

Tech Sheet 10508

Ball Valves

 Working Temperature:
-18°C to +93°C

 Maximum Working Pressure:
413 bar


Compression, 2 Way

0292	OD
BV6000-18	1/8"
BV6000-12	1/2"

Tech Sheet 20847

PANAM

stainless
steel

For **Panam Fittings**
see pages **1256-1273**

Brass Gate Valves, Heavy-duty

Features:

- BSPT threads. BSPP for 2.1/2" upwards
- Suitable for isolation of fluids and general purpose applications such as domestic water services and heating plants

Working Temperature:
-10°C to +80°C

Maximum Working Pressure:
20 bar
16 bar (2.1/2" upwards)



Type GV12

0910	Size
GV12-38	3/8"
GV12-12	1/2"
GV12-34	3/4"
GV12-1	1"
GV12-114	1.1/4"
GV12-112	1.1/2"
GV12-2	2"
GV12-212	2.1/2"
GV12-3	3"
GV12-4	4"

Tech Sheet 6081



Bronze Square Plugs

1094	Size	DN
BSP-34-BR	3/4"	20
BSP-1-BR	1"	25
BSP-114-BR	1.1/4"	32
BSP-112-BR	1.1/2"	40
BSP-2-BR	2"	50

Working Temperature:
-20°C to +100°C

Maximum Working Pressure:
16 bar



Type GV157, BSPP

0442	Thread
GV157-38	3/8"
GV157-12	1/2"
GV157-34	3/4"
GV157-1	1"
GV157-114	1.1/4"
GV157-112	1.1/2"
GV157-2	2"
GV157-212	2.1/2"
GV157-3	3"

Tech Sheet 10143

Stainless Steel Gate Valves

Features:

- Investment casting
- Non-rising stem

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
200 psi (13.8 bar)

BSPP

0900	Size
2029-14	1/4"
2029-38	3/8"
2029-12	1/2"
2029-34	3/4"
2029-1	1"
2029-114	1.1/4"
2029-112	1.1/2"
2029-2	2"

Tech Sheet 6074



Cast Iron & Ductile Iron Gate Valves

Features:

- Cast Iron Body
- Face to face DIN 3202-F4
- Non-rising stem

Working Temperature:
-10°C to +120°C at 16 bar
-10°C to +200°C at 12.8 bar

Maximum Working Pressure: 16 bar



Features:

- Ductile Iron Body
- WRAS approved
- UL listed
- Non-rising stem
- Conforms to BS 5163 Pt. 1 & 2:2004
- Position indicator for open/close

Working Temperature:
0°C to +80°C

Maximum Working Pressure: 16 bar



Flanged PN16, Metal Seat

0927	Flange Size
D02 09	2"
D02 10	2.1/2"
D02 11	3"
D02 12	4"
D02 13	5"
D02 14	6"
D02 16	8"

Tech Sheet 6079

Features:

- Cast Iron Body
- Face to face BS 5150
- Non-rising stem

Working Temperature:
-10°C to +120°C at 16 bar
-10°C to +200°C at 12.8 bar

Maximum Working Pressure: 16 bar



Flanged PN16, Resilient Seat

0909	Flange Size
HUK5163 09	2"
HUK5163 10	2.1/2"
HUK5163 11	3"
HUK5163 12	4"
HUK5163 14	6"
HUK5163 16	8"
HUK5163 18	10"
HUK5163 20	12"

Tech Sheet 6078

Features:

- Used to allow key operation



Cap Top to suit HUK5163 Valves

0909	Size
HUK5163CT 12	2"-4"
HUK5163CT 14	5"-8"

Flanged PN16, Metal Seat


0927	Flange Size
E02 09	2"
E02 10	2.1/2"
E02 11	3"
E02 12	4"
E02 13	5"
E02 14	6"
E02 16	8"


Tech Sheet 6080

GATE VALVES

Brass Gate Valves

Suitable for domestic water services, heating, air-conditioning plants

 **Working Temperature:**
0°C to +150°C
in absence of steam

 **Maximum Working Pressure:** 16 bar





Type 156, PN16, BSPP

0089	Thread
IT156-12	1/2"
IT156-34	3/4"
IT156-1	1"
IT156-114	1.1/4"
IT156-112	1.1/2"
IT156-2	2"
IT156-212	2.1/2"
IT156-3	3"
IT156-4	4"

Tech Sheet 20009

Bronze Gate Valves

 **Working Temperature:**
-10°C to +232°C

 **Maximum Working Pressure:** 20 bar



PN20, Lockshield, BSPT

0205	Thread
GVBZ375LS-12	1/2"
GVBZ375LS-34	3/4"
GVBZ375LS-1	1"
GVBZ375LS-114	1.1/4"
GVBZ375LS-112	1.1/2"
GVBZ375LS-2	2"

Tech Sheet 1820

GATE VALVES

stainless steel




HAITIMA

Stainless Steel Gate Valves

Features:

- Investment casting
- Rising stem

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
16 bar




Flanged PN16

0982	Size	DN
2054SL16 04	1/2"	15
2054SL16 05	3/4"	20
2054SL16 06	1"	25
2054SL16 07	1.1/4"	32
2054SL16 08	1.1/2"	40
2054SL16 09	2"	50
2054SL16 11	3"	80
2054SL16 12	4"	100
2054SL16 14	6"	150

Tech Sheet 1876

Features:

- Investment casting
- Rising stem

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
19.6 bar



Flanged ANSI150

0982	Size	DN
2054SL150 04	1/2"	15
2054SL150 05	3/4"	20
2054SL150 06	1"	25
2054SL150 08	1.1/2"	40
2054SL150 09	2"	50
2054SL150 10	2.1/2"	65
2054SL150 11	3"	80
2054SL150 12	4"	100
2054SL150 14	6"	150

Tech Sheet 1873

GATE VALVES



Stainless Steel Gate Valves

Features:

- ATEX approved
- NACE MR0175
- Conforms to API 602



° Working Temperature:

-50°C to +450°C

Maximum Working Pressure:

110 bar

Class 800, NPT

0905	Thread
GA800S-12	1/2"
GA800S-34	3/4"
GA800S-1	1"
GA800S-114	1.1/4"
GA800S-112	1.1/2"
GA800S-2	2"

Tech Sheet 6075

Class 800, Socket Weld

0905	Thread
GA800S-12S	1/2"
GA800S-34S	3/4"
GA800S-1S	1"
GA800S-114S	1.1/4"
GA800S-112S	1.1/2"
GA800S-2S	2"

Tech Sheet 6075

Carbon Steel Gate Valves

Features:

- ATEX approved
- NACE MR0175
- Conforms to API 602



° Working Temperature:

-29°C to +425°C

Maximum Working Pressure:

138 bar

Class 800, NPT

0905	Thread
GA800C-12	1/2"
GA800C-34	3/4"
GA800C-1	1"
GA800C-114	1.1/4"
GA800C-112	1.1/2"
GA800C-2	2"

Tech Sheet 6075

Class 800, Socket Weld

0905	Thread
GA800C-12S	1/2"
GA800C-34S	3/4"
GA800C-1S	1"
GA800C-114S	1.1/4"
GA800C-112S	1.1/2"
GA800C-2S	2"

Tech Sheet 6075

KNIFE GATE VALVES



Unidirectional Knife Gate Valves

Features:

- Wafer design knife gate valve
- 304 stainless steel blade
- Handwheel operated with a rising stem.
A non-rising stem option is also available on request
- One-piece cast body
- Provides high flow rates with low pressure drop



° Working Temperature:

0°C to +90°C

Cast Iron Body, EPDM Seat, PN10

0944	Flange Size	Max Pressure bar
A1V2H2 09	2"	10
A1V2H2 10	2.1/2"	10
A1V2H2 11	3"	10
A1V2H2 12	4"	10
A1V2H2 13	5"	10
A1V2H2 14	6"	10
A1V2H2 16	8"	10
A1V2H2 18	10"	10
A1V2H2 20	12"	6

Tech Sheet 10246

Bidirectional Knife Gate Valves

Features:

- Wafer design knife gate valve
- 304 stainless steel blade
- Handwheel operated with a rising stem.
A non-rising stem option is also available on request
- One-piece cast body
- Provides high flow rates with low pressure drop



° Working Temperature:

0°C to +90°C

Cast Iron Body, EPDM Seat, PN10

0944	Flange Size	Max Pressure bar
AB1V2H2 09	2"	10
AB1V2H2 10	2.1/2"	10
AB1V2H2 11	3"	10
AB1V2H2 12	4"	10
AB1V2H2 13	5"	10
AB1V2H2 14	6"	10
AB1V2H2 16	8"	8
AB1V2H2 18	10"	6
AB1V2H2 20	12"	6

Tech Sheet 6085

CHECK VALVES



Brass Spring Check Valves

- Can be installed in any position
- Minimum opening pressure 0.5 psi

Working Temperature:
-20°C to +100°C

Maximum Working Pressure: 16 bar



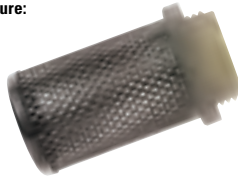
Type CV100, BSPP

0442	Thread
CV100-38	3/8"
CV100-12	1/2"
CV100-34	3/4"
CV100-1	1"
CV100-114	1.1/4"
CV100-112	1.1/2"
CV100-2	2"

Tech Sheet 10025

Strainer Basket for Check Valves

Working Temperature:
-20°C to +100°C

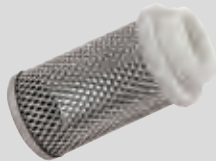


Type CV105, Stainless Steel Filters, BSPP

0445	Thread	Length mm	Height mm	Max Pressure Bar
CV105-38	3/8"	44	22	25
CV105-12	1/2"	47	28	25
CV105-34	3/4"	57	33	25
CV105-1	1"	69	42	25
CV105-114	1.1/4"	75	50	18
CV105-112	1.1/2"	84	55	18

Tech Sheet 10039

For more sizes
Strainer Basket for Check Valves
see page 962



Brass Swing Check Valves

Features:

- Installation in a horizontal position only
- Suitable for domestic water services, heating and air-conditioning plants and compressed air systems

Working Temperature:
-20°C to +90°C

Maximum Working Pressure: 20 bar



Rubber Seat, BSPP

0910	Thread
CV12R-12	1/2"
CV12R-34	3/4"
CV12R-1	1"
CV12R-114	1.1/4"
CV12R-112	1.1/2"
CV12R-2	2"

Tech Sheet 6126

Metal Seat, BSPP

0910	Thread
CV12M-12	1/2"
CV12M-34	3/4"
CV12M-1	1"
CV12M-114	1.1/4"
CV12M-112	1.1/2"
CV12M-2	2"

Tech Sheet 6126

Bronze Swing Check Valves

Working Temperature:
-10°C to +232°C

Maximum Working Pressure: 20 bar



PN20 Swing Check Valve, BSPT

0205	Thread
CVBZ384-12	1/2"
CVBZ384-34	3/4"
CVBZ384-1	1"
CVBZ384-114	1.1/4"
CVBZ384-112	1.1/2"
CVBZ384-2	2"

Tech Sheet 1822

Brass Double Check Valves

Features:

- Conforms to BS EN 13959:2004
- Can be installed in any position
- Suitable for potable water applications, heating and air-conditioning plants

Working Temperature:
0°C to +85°C

Maximum Working Pressure: 16 bar



Metal Seat, BSPP

0913	Thread
HUKDCV-12	1/2"
HUKDCV-34	3/4"
HUKDCV-1	1"
HUKDCV-114	1.1/4"
HUKDCV-112	1.1/2"
HUKDCV-2	2"

Tech Sheet 6127

PVC Check Valves

Working Temperature:
0°C to +60°C
0°C to +20°C (at 16 bar)

Maximum Working Pressure:
16 bar



Double Union, Spring Assisted, BSPP

0118	Thread
2020-0481	1/2"
2020-0499	3/4"
2020-0507	1"
2020-0515	1.1/4"
2020-0523	1.1/2"
2020-0531	2"


Tech Sheet 10323

Stainless Steel Spring Check Valves

Features:

- Installation in a horizontal position only

 **Working Temperature:**
-25°C to +180°C

 **Maximum Working Pressure:**
200 psi (13.8 bar)




Swing, BSPP

0900	Thread
2030-12	1/2"
2030-34	3/4"
2030-1	1"
2030-114	1.1/4"
2030-112	1.1/2"
2030-2	2"
2030-212	2.1/2"
2030-3	3"

Tech Sheet 6098

Features:

- Can be installed in any position

 **Working Temperature:**
-25°C to +180°C





Spring Assisted, BSPP


0900	Thread	Max Pressure bar
2413-14	1/4"	83
2413-38	3/8"	83
2413-12	1/2"	83
2413-34	3/4"	83
2413-1	1"	83
2413-114	1.1/4"	69
2413-112	1.1/2"	69
2413-2	2"	63

Tech Sheet 6093

Features:

- Can be mounted between PN16/25/40 and  flanges
- Can be installed in any position
- Suitable for saturated steam up to 10 bar

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
40 bar




Spring Assisted Wafer Pattern


0933	Flange Size
2026 04	1/2"
2026 05	3/4"
2026 06	1"
2026 07	1.1/4"
2026 08	1.1/2"
2026 09	2"
2026 10	2.1/2"
2026 11	3"
2026 12	4"

Tech Sheet 6095

Features:

- Can be installed in any position
- Suitable for saturated steam up to 10 bar

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
40 bar



3 Piece, Spring Assisted, BSPP

0933	Thread
2026C-12	1/2"
2026C-34	3/4"
2026C-1	1"
2026C-114	1.1/4"
2026C-112	1.1/2"
2026C-2	2"
2026C-212	2.1/2"
2026C-3	3"
2026C-4	4"

Tech Sheet 6097



stainless steel



You might also need...
Stainless Steel 150LB Fittings
...see pages 1181-1273

CHECK VALVES



Brass Check Valves

- Suitable for domestic water services, heating and air-conditioning plants, compressed air systems. Suited for installation in any position: vertical, horizontal or diagonal.

° Working Temperature:
-20°C to +100°C



Type 100 EUROPA, Female, BSPP

0089	Thread	Max Pressure bar
IT100-38	3/8"	25
IT100-12	1/2"	25
IT100-34	3/4"	25
IT100-1	1"	25
IT100-114	1.1/4"	18
IT100-112	1.1/2"	18
IT100-2	2"	18
IT100-212	2.1/2"	12
IT100-3	3"	12
IT100-4	4"	12

Tech Sheet 6124

° Working Temperature:
-20°C to +100°C



Type 103 YORK, Female, BSPP

0089	Thread	Max Pressure Bar
IT103-38	3/8"	12
IT103-12	1/2"	12
IT103-34	3/4"	12
IT103-1	1"	12
IT103-114	1.1/4"	10
IT103-112	1.1/2"	10
IT103-2	2"	10
IT103-212	2.1/2"	8
IT103-3	3"	8
IT103-4	4"	8

Tech Sheet 1837

° Working Temperature:
-20°C to +100°C



Type 101 BLOCK, Female, BSPP

0089	Thread	Max Pressure Bar
IT101-12	1/2"	12
IT101-34	3/4"	12
IT101-1	1"	12
IT101-114	1.1/4"	10
IT101-112	1.1/2"	10
IT101-2	2"	10

Tech Sheet 1982

° Working Temperature:
-20°C to +150°C (air & fluid hydrocarbons);
-20°C to +100°C (water)

- Also suitable for use with gasoline and fuels in general.



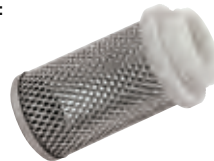
Type 104 ROMA, Female, BSPP

0089	Thread	Max Pressure bar
IT104-38	3/8"	25
IT104-12	1/2"	25
IT104-34	3/4"	25
IT104-1	1"	25
IT104-114	1.1/4"	18
IT104-112	1.1/2"	18
IT104-2	2"	18

Tech Sheet 1840

° Working Temperature:
-20°C to +100°C

- To suit Type 100, 101, 103 and 104



Strainer, Stainless Steel with Polymer Thread, BSPP

0089	Thread
IT102-38	3/8"
IT102-12	1/2"
IT102-34	3/4"
IT102-1	1"
IT102-114	1.1/4"
IT102-112	1.1/2"
IT102-2	2"
IT102-212	2.1/2"
IT102-3	3"
IT102-4	4"

Tech Sheet 6125

° Working Temperature:
-20°C to +100°C

- To suit Type 100, 101, 103 and 104



Strainer, Polymer, BSPP

0089	Thread
IT107-12	1/2"
IT107-34	3/4"
IT107-1	1"
IT107-2	2"

Tech Sheet 1983

° Working Temperature:
0°C to +90°C

- Installation in a horizontal position only



Type 130, Swing Check, Soft Seat, BSPP

0089	Thread	Max. Pressure bar
CV130-38	3/8"	16
CV130-12	1/2"	16
CV130-34	3/4"	16
CV130-1	1"	12
CV130-114	1.1/4"	10
CV130-112	1.1/2"	10
CV130-2	2"	10

Tech Sheet 10026

Type 130, Swing Check, Metal Seat, BSPP

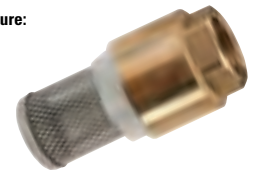
0089	Thread	Max. Pressure bar
IT1300-12M	1/2"	16
IT1300-34M	3/4"	16
IT1300-1M	1"	12
IT1300-114M	1.1/4"	10
IT1300-112M	1.1/2"	10
IT1300-2M	2"	10
CV130-212	2.1/2"	8
CV130-3	3"	8
CV130-4	4"	8

Tech Sheet 10026

Foot Valves, Brass

- Suitable for domestic water services, heating and air-conditioning plants, compressed air systems. Suited for installation in any position: vertical, horizontal or diagonal. Stainless steel strainer with polymer thread. Filtration up to 2": 1200µm, 2.1/2" onwards: 1700µm

° Working Temperature:
-20°C to +100°C



Type 108 YORK, Female, BSPP

0089	Thread	Max Pressure Bar
IT108-38	3/8"	12
IT108-12	1/2"	12
IT108-34	3/4"	12
IT108-1	1"	12
IT108-114	1.1/4"	10
IT108-112	1.1/2"	10
IT108-2	2"	10
IT108-212	2.1/2"	6
IT108-3	3"	6
IT108-4	4"	6

Tech Sheet 10197

CHECK VALVES

stainless
steel



Stainless Steel Check Valves

Working Temperature:
-26°C to +190°C

Cracking Pressure:
0.35 psi

Maximum Working Pressure:
414 bar

Seal: Viton



6,000 psi, Female, NPT

0292	Thread
PCV-02-SS-FF	1/8"
PCV-04-SS-FF	1/4"
PCV-06-SS-FF	3/8"
PCV-08-SS-FF	1/2"
PCV-12-SS-FF	3/4"
PCV-16-SS-FF	1"

Tech Sheet 10507

CHECK VALVES

stainless
steel



Stainless Steel Check Valves

Features:

- Installation in a horizontal position only
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +200°C

Flanged PN16

0982	Flange Size	Max Pressure bar
2024SL16 06	1"	16
2024SL16 08	1.1/2"	16
2024SL16 09	2"	16
2024SL16 10	2.1/2"	16
2024SL16 11	3"	16
2024SL16 12	4"	16
2024SL16 14	6"	16

Tech Sheet 1875

Flanged ANSI150

0982	Flange Size	Max Pressure bar
2024SL150 06	1"	19.6
2024SL150 08	1.1/2"	19.6
2024SL150 09	2"	19.6
2024SL150 11	3"	19.6
2024SL150 12	4"	19.6
2024SL150 14	6"	19.6

Tech Sheet 1875

Other sizes on request.



Cannot see the product you're looking for? Contact us. More often than not, we can acquire that product.

CHECK VALVES

stainless
steel


GENEBRE


Cromax Spring Check Valves

Body: 304SS or 316SS

Seal: Viton

Other sizes on request.

 **Working Temperature:**
-20°C to +150°C

 **Maximum Working Pressure:**
16 bar



304 Stainless Steel, BSPP

0902	Thread
2440-14	1/4"
2440-38	3/8"
2440-12	1/2"
2440-34	3/4"
2440-1	1"
2440-114	1.1/4"
2440-112	1.1/2"
2440-2	2"

Tech Sheet 1871

316 Stainless Steel, BSPP


0902	Thread
2445-14	1/4"
2445-38	3/8"
2445-12	1/2"
2445-34	3/4"
2445-1	1"
2445-114	1.1/4"
2445-112	1.1/2"
2445-2	2"

Tech Sheet 1871

Basket for Check Valves

Features:

- BSPP threads
- Mesh size 1mm up to 2". 1.9mm for 2.1/2" upwards

 **Working Temperature:**
-20°C to +150°C

 **Maximum Working Pressure:**
16 bar



Strainer Basket for Cromax Spring Check Valve


0902	Thread	DN
2447-12	1/2"	15
2447-34	3/4"	20
2447-1	1"	25
2447-114	1.1/4"	32
2447-112	1.1/2"	40
2447-2	2"	50
2447-212	2.1/2"	65
2447-3	3"	80
2447-4	4"	100

Tech Sheet 6094

Wafer Check Valves

Seal: Viton

- Can be mounted between PN10/16 and ANSI150 flange

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
16 bar




Swing Check

0902	Flange Size
2406 08	1.1/2"
2406 09	2"
2406 10	2.1/2"
2406 11	3"
2406 12	4"
2406 13	5"
2406 14	6"
2406 16	8"
2406 18	10"
2406 20	12"

Tech Sheet 1878

Features:

- Can be mounted between PN25 and ANSI150 flange
- Can be installed in any position

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
25 bar



Dual Plate, Spring Assisted, Swing Check

0902	Flange Size
2402 09	2"
2402 10	2.1/2"
2402 11	3"
2402 12	4"
2402 13	5"
2402 14	6"
2402 16	8"

Tech Sheet 6096

CHECK VALVES



Stainless Steel Check Valves

Features:

- Reduced bore
- ATEX approved
- NACE MR0175
- Conforms to BS 5352

Working Temperature:
-50°C to +450°C

Maximum Working Pressure: 110 bar



Class 800, NPT

0905	Thread
C800S-12	1/2"
C800S-34	3/4"
C800S-1	1"
C800S-114	1.1/4"
C800S-112	1.1/2"
C800S-2	2"

Tech Sheet 6099

Class 800, Socket Weld

0905	Thread
C800S-12S	1/2"
C800S-34S	3/4"
C800S-1S	1"
C800S-114S	1.1/4"
C800S-112S	1.1/2"
C800S-2S	2"

Tech Sheet 6099

Carbon Steel Check Valves

Features:

- Reduced bore
- ATEX approved
- NACE MR0175
- Conforms to BS 5352

Working Temperature:
-29°C to +425°C

Maximum Working Pressure: 138 bar



Class 800, NPT

0905	Thread
C800C-12	1/2"
C800C-34	3/4"
C800C-1	1"
C800C-114	1.1/4"
C800C-112	1.1/2"
C800C-2	2"

Tech Sheet 6099

Class 800, Socket Weld

0905	Thread
C800C-12S	1/2"
C800C-34S	3/4"
C800C-1S	1"
C800C-114S	1.1/4"
C800C-112S	1.1/2"
C800C-2S	2"

Tech Sheet 6099

CHECK VALVES



Cast Iron Check Valves

Features:

- Can be mounted between and flanges
- WRAS approved
- Can be installed in any position

Working Temperature:
0°C to +85°C

Maximum Working Pressure: 16 bar



Dual Plate

0909	Flange Size
HUKDPC 09W	2"
HUKDPC 10W	2.1/2"
HUKDPC 11W	3"
HUKDPC 12W	4"
HUKDPC 13W	5"
HUKDPC 14W	6"
HUKDPC 16W	8"
HUKDPC 18W	10"
HUKDPC 20W	12"

Tech Sheet 6116

Features:

- Face to face BS 5153, EN 558-1
- Conforms to BS EN 12334
- Can be installed with vertical upwards or horizontal flow

Working Temperature:
-10°C to +120°C at 16 bar
-10°C to +230°C at 11.8 bar

Maximum Working Pressure: 16 bar



Flanged PN16, Metal Seat, Swing Check

0927	Flange Size	DN
E03 09	2"	50
E03 10	2.1/2"	65
E03 11	3"	80
E03 12	4"	100
E03 14	6"	150
E03 16	8"	200

Tech Sheet 6123

Ductile Iron Check Valves

Features:

- Face to face conforms to BS EN 558-1 (series 10)
- Manufactured to the BS EN 16767:2016 standard for industrial check valves, previously BS 5153
- Can be installed with vertical upwards or horizontal flow

Working Temperature:
0°C to +80°C

Maximum Working Pressure: 16 bar



Flanged PN16, Soft Seat, Swing Check

0909	Flange Size	DN
HUK5153W 09	2"	50
HUK5153W 10	2.1/2"	65
HUK5153W 11	3"	80
HUK5153W 12	4"	100
HUK5153W 14	6"	150
HUK5153W 16	8"	200
HUK5153W 18	10"	250
HUK5153W 20	12"	300

Tech Sheet 6122

CHECK VALVES

Cast Iron Check Valves

Features:

- Can be installed in any position

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
16 bar



Flanged PN16, Spring Disc

0918	Flange Size	DN
2450 09	2"	50
2450 10	2.1/2"	65
2450 11	3"	80
2450 12	4"	100
2450 13	5"	125
2450 14	6"	150
2450 16	8"	200

Tech Sheet 6119

Features:

- Can be mounted between PN10/16 and ANSI150 flange
- Can be installed in any position

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
16 bar



Dual Plate

0918	Flange Size	DN
2401 09	2"	50
2401 10	2.1/2"	65
2401 11	3"	80
2401 12	4"	100
2401 13	5"	125
2401 14	6"	150
2401 16	8"	200
2401 18	10"	250
2401 20	12"	300

Tech Sheet 6117

Features:

- Can be installed with vertical upwards flow or horizontal fl

Working Temperature:
-10°C to +80°C

Maximum Working Pressure:
16 bar



Flanged PN16, Ball Check

0918	Flange Size	DN
2453 09	2"	50
2453 10	2.1/2"	65
2453 11	3"	80
2453 12	4"	100
2453 13	5"	125
2453 14	6"	150
2453 16	8"	200
2453 18	10"	250

Tech Sheet 6121

Basket for Check Valves

Features:

- To suit PN16 flanged end
- Zinc-Plated Steel

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
16 bar



Basket for 2450 Check Valve

0918	Size	DN
2451 09	2"	50
2451 10	2.1/2"	65
2451 11	3"	80
2451 12	4"	100
2451 13	5"	125
2451 14	6"	150
2451 16	8"	200

Tech Sheet 6120

Butterfly Valves



Weld End

0708	OD	OD mm	Length mm
BUTVWE-1	1"	25.4	68
BUTVWE-112	1.1/2"	38.1	76
BUTVWE-2	2"	50.8	80
BUTVWE-212	2.1/2"	63.5	80
BUTVWE-3	3"	76.2	82
BUTVWE-4	4"	101.6	88

Tech Sheet 68172



Clamp End

0708	Size	Length mm
BUTVCE-1	1"	66
BUTVCE-112	1.1/2"	70
BUTVCE-2	2"	70

Tech Sheet 68172



RJT Male x Male

0708	Size	Thread	Length mm
BUTVRJT-1	1"	45.72 x 8T WHIT	68
BUTVRJT-112	1.1/2"	58.42 x 8T WHIT	76
BUTVRJT-2	2"	72.72 x 6T WHIT	80
BUTVRJT-212	2.5"	85.42 x 6T WHIT	80
BUTVRJT-3	3"	98.12 x 6T WHIT	82
BUTVRJT-4	4"	123.52 x 6T WHIT	100

Tech Sheet 68172

Stainless Steel Lever Type and Pull Type Handles are available on request

stainless steel

You might also need...

Hygienic Stainless Steel Tube & Pipe Fittings

...see pages 1320-1321



BUTTERFLY VALVES



Water Wafer Butterfly Valves

Features:

- To suit BS 10 Table D/E, PN6/10/16 and ANSI Flanges



Working Temperature:

- 20°C to +120°C (WC, WS and WW)
- 0°C to +80°C (WB, WD and WT)
- 30°C to +180°C (WG, WH and WU)
- 20°C to +200°C (WI)



Maximum Working Pressure: 16 bar



Ductile Iron Body, Stainless Steel Disc

EPDM Liner, Lever Operated, (WRAS Approved Valve)	
0999	Flange Size
2014WW 08	1.1/2"
2014WW 09	2"
2014WW 10	2.1/2"
2014WW 11	3"
2014WW 12	4"
2014WW 13	5"
2014WW 14	6"
2014WW 16	8"
2014WW 18	10"

Tech Sheet 6060

EPDM Liner, Gearbox Operated, (WRAS Approved Valve)	
0999	Flange Size
2014WW 18G	10"
2014WW 20G	12"
2014WW 22G	14"
2014WW 24G	16"
2014WW 26G	18"
2014WW 28G	20"
2014WW 30G	24"

Tech Sheet 6060

Cast Iron Body, Stainless Steel Disc

NBR Liner, Lever Operated	
0999	Flange Size
2014WB 08	1.1/2"
2014WB 09	2"
2014WB 10	2.1/2"
2014WB 11	3"
2014WB 12	4"
2014WB 13	5"
2014WB 14	6"
2014WB 16	8"
2014WB 18	10"

Tech Sheet 14

NBR Liner, Gearbox Operated	
0999	Flange Size
2014WB 20G	12"
2014WB 22G	14"
2014WB 24G	16"
2014WB 26G	18"
2014WB 28G	20"
2014WB 30G	24"

Tech Sheet 14

Silicone Liner, Lever Operated	
0999	Flange Size
2014WG 09	2"
2014WG 10	2.1/2"
2014WG 11	3"
2014WG 12	4"
2014WG 13	5"
2014WG 14	6"
2014WG 16	8"
2014WG 18	10"

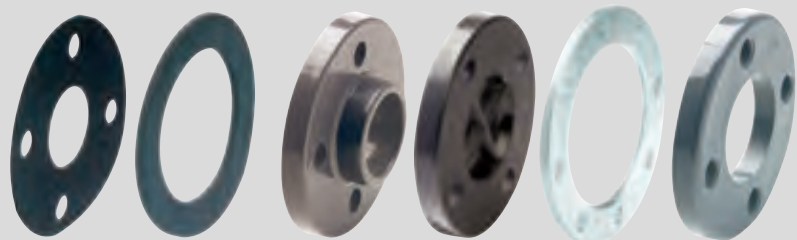
Tech Sheet 14

PTFE on Silicone, Lever Operated	
0999	Flange Size
2014WH 08	1.1/2"
2014WH 09	2"
2014WH 10	2.1/2"
2014WH 11	3"
2014WH 12	4"
2014WH 13	5"

Tech Sheet 14

PTFE on Silicone, Gearbox Operated	
0999	Flange Size
2014WH 14G	6"
2014WH 16G	8"
2014WH 18G	10"
2014WH 20G	12"

Tech Sheet 14



You may also need
PN16 Flanges & Flange Gaskets
see page 1099

Wafer Butterfly Valves

Cast Iron Body, Ductile Iron ENP Disc

EPDM Liner, Lever Operated	
0999	Flange Size
2014WC 09	2"
2014WC 10	2.1/2"
2014WC 11	3"
2014WC 12	4"
2014WC 13	5"
2014WC 14	6"
2014WC 16	8"
2014WC 18	10"
Tech Sheet 14	

NBR Liner, Lever Operated	
0999	Flange Size
2014WD 09	2"
2014WD 10	2.1/2"
2014WD 11	3"
2014WD 12	4"
2014WD 13	5"
2014WD 14	6"
2014WD 16	8"
2014WD 18	10"
Tech Sheet 14	

Carbon Steel Body, Stainless Steel Disc

FPM Liner, Lever Operated	
0999	Flange Size
2014WI 08	1.1/2"
2014WI 09	2"
2014WI 10	2.1/2"
2014WI 11	3"
2014WI 12	4"
2014WI 13	5"
2014WI 14	6"
2014WI 16	8"
Tech Sheet 14	

FPM Liner, Gearbox Operated	
0999	Flange Size
2014WI 18G	10"
2014WI 20G	12"
Tech Sheet 14	

Stainless Steel Body, Stainless Steel Disc

EPDM Liner, Lever Operated	
0999	Flange Size
2014WS 08	1.1/2"
2014WS 09	2"
2014WS 10	2.1/2"
2014WS 11	3"
2014WS 12	4"
2014WS 13	5"
2014WS 14	6"
2014WS 16	8"
2014WS 18	10"
Tech Sheet 14	

NBR Liner, Lever Operated	
0999	Flange Size
2014WT 08	1.1/2"
2014WT 09	2"
2014WT 10	2.1/2"
2014WT 11	3"
2014WT 12	4"
2014WT 13	5"
2014WT 14	6"
2014WT 16	8"
2014WT 18	10"
Tech Sheet 14	

Stainless Steel Body, Stainless Steel Disc

PTFE on Silicone Liner, Lever Operated	
0999	Flange Size
2014WU 09	2"
2014WU 10	2.1/2"
2014WU 11	3"
2014WU 12	4"
2014WU 13	5"
Tech Sheet 14	

PTFE on Silicone Liner, Gearbox Operated*	
0999	Flange Size
2014WU 14G	6"
2014WU 16G	8"
2014WU 18G	10"
2014WU 20G	12"
Tech Sheet 14	

EPDM Liner, Gearbox Operated*	
0999	Flange Size
2014WS 20G	12"
Tech Sheet 14	

*Gearbox is in cast iron material. Stainless steel options are available on request

Wafer Butterfly Valves

Features:

- To suit BS 10 Table 1 and 2 ranges
- 316 stainless steel coated with PTFE disc
- Suitable for highly corrosive applications

° Working Temperature:
-40°C to +200°C



2014WP



2014WP-G

Ductile Iron Body, Fully Lined PTFE

0999	Flange Size	Max Pressure bar
2014WP 09	2"	16
2014WP 10	2.1/2"	16
2014WP 11	3"	16
2014WP 12	4"	16
2014WP 13	5"	16
Tech Sheet 6061		

0999	Flange Size	Max Pressure bar
2014WP 14G	6"	16
2014WP 16G	8"	16
2014WP 18G	10"	16
2014WP 20G	12"	10
Tech Sheet 6061		

BUTTERFLY VALVES



Water & Sewer Butterfly Valves

Features:

- To suit various flange sizes
- Lugged and tapped pattern valve design



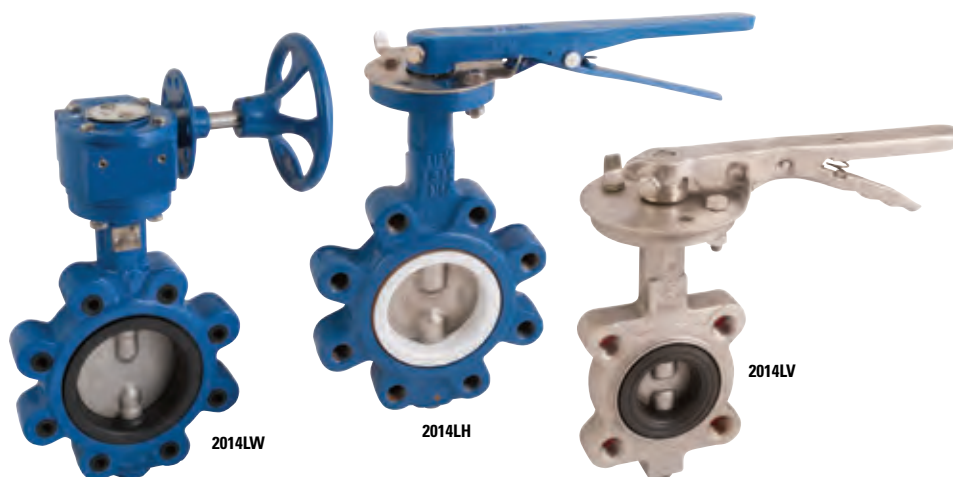
Working Temperature:

- 20°C to +120°C (2014LW)
- 0°C to +80°C (2014LB and 2014LD)
- 30°C to +180°C (2014LH)
- 20°C to +200°C (2014LI and 2014LV)



Maximum Working Pressure:

16 bar



7

Ductile Iron Body, Stainless Steel Disc

PN16, EPDM Liner, Lever Operated, (WRAS Approved Valve)	
0999	Flange Size
2014LW 08	1.1/2"
2014LW 09	2"
2014LW 10	2.1/2"
2014LW 11	3"
2014LW 12	4"
2014LW 13	5"
2014LW 14	6"
2014LW 16	8"
2014LW 18	10"

Tech Sheet 6063

PN16, EPDM Liner, Gearbox Operated, (WRAS Approved Valve)	
0999	Flange Size
2014LW 16G	8"
2014LW 18G	10"
2014LW 20G	12"
2014LW 22G	14"
2014LW 24G	16"
2014LW 26G	18"
2014LW 28G	20"
2014LW 30G	24"

Tech Sheet 6063

Ductile Iron Body,
Ductile Iron ENP Disc

PN16, NBR Liner, Lever Operated	
0999	Flange Size
2014LD 09	2"
2014LD 10	2.1/2"
2014LD 11	3"
2014LD 12	4"
2014LD 13	5"
2014LD 14	6"
2014LD 16	8"
2014LD 18	10"

Tech Sheet 6064

PN16, NBR Liner, Lever Operated	
0999	Flange Size
2014LB 08Y	1.1/2"
2014LB 09Y	2"
2014LB 10Y	2.1/2"
2014LB 11Y	3"
2014LB 12Y	4"
2014LB 13Y	5"
2014LB 14Y	6"
2014LB 16Y	8"
2014LB 18Y	10"

Tech Sheet 6064

PN16, NBR Liner, Gearbox Operated	
0999	Flange Size
2014LB 20G	12"
2014LB 22G	14"
2014LB 24G	16"
2014LB 26G	18"
2014LB 28G	20"
2014LB 30G	24"

Tech Sheet 6064

All 2014LB lever operated valves will come with a yellow coloured lever

PN16, PTFE on Silicone Liner, Lever Operated	
0999	Flange Size
2014LH 08	1.1/2"
2014LH 09	2"
2014LH 10	2.1/2"
2014LH 11	3"
2014LH 12	4"
2014LH 13	5"

Tech Sheet 6064

Carbon Steel Body,
Stainless Steel Disc

PN16, FPM Liner, Lever Operated	
0999	Flange Size
2014LI 08	1.1/2"
2014LI 09	2"
2014LI 10	2.1/2"
2014LI 11	3"
2014LI 12	4"
2014LI 13	5"
2014LI 14	6"
2014LI 16	8"

Tech Sheet 6064

Stainless Steel Body,
Stainless Steel Disc

PN16, FPM Liner, Lever Operated	
0999	Flange Size
2014LV 08	1.1/2"
2014LV 09	2"
2014LV 10	2.1/2"
2014LV 11	3"
2014LV 12	4"
2014LV 13	5"
2014LV 14	6"
2014LV 16	8"

Tech Sheet 6064



You might also need...
Maintenance Paint
...see pages 1561-1567



Butterfly Valve Accessories

Features:

- Cast iron housing
- Stainless steel spindle
- Lockable
- To suit FT Pro 2014W and butterfly valves



Cast Iron Butterfly Valves

0999	Size	DN
2014GB 09	2"	50
2014GB 10	2.1/2"	65
2014GB 11	3"	80
2014GB 12	4"	100
2014GB 13	5"	125
2014GB 14	6"	150
2014GB 16	8"	200
2014GB 18	10"	250
2014GB 20	12"	300
2014GB 22	14"	350

Tech Sheet 6067

Features:

- Add-on price for kit and switch box
- Aluminium IP67 enclosure
- Beacon indicator
- 2 x SPDT 250V DC/AC V3 micro switches
- 2 x M20 cable entries
- Stainless steel bracket

Can be used with any ISO top valve. The valve stem will require some machining at an additional cost. Contact sales for more information.



Aluminium Butterfly Valve Actuator Kit

0921	Size	DN
2014LSB 08	1.1/2"	40
2014LSB 09	2"	50
2014LSB 10	2.1/2"	65
2014LSB 11	3"	80
2014LSB 12	4"	100
2014LSB 13	5"	125
2014LSB 14	6"	150
2014LSB 16	8"	200
2014LSB 18	10"	250

Tech Sheet 6068

Chain Wheel option available on request. Contact Sales for more information



You might also need...
Flange Bolt Kits
 ...see page 1384



Y STRAINERS

Brass Y Strainers

- Mesh Size = 1.5mm up to 2" valve

Working Temperature:
 -20°C to +110°C

Maximum Working Pressure:
 20 bar

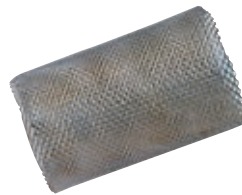


BSPP

0442	Thread
YS-12	1/2"
YS-34	3/4"
YS-1	1"
YS-114	1.1/4"
YS-112	1.1/2"
YS-2	2"
YS-212	2.1/2"
YS-3	3"
YS-4	4"

Tech Sheet 10302

Strainers for YS Series



Stainless Steel AISI 304

0446	To Suit
192-12-STRAINER	YS-12
192-34-STRAINER	YS-34
192-1-STRAINER	YS-1
192-114-STRAINER	YS-114
192-112-STRAINER	YS-112
192-2-STRAINER	YS-2
192-212-STRAINER	YS-212
192-3-STRAINER	YS-3
192-4-STRAINER	YS-4

Tech Sheet 2032

Stainless Steel Y Strainers

- 0.4mm perforations
- Suitable for saturated steam up to 10 bar

Working Temperature:
 -25°C to +180°C

Maximum Working Pressure:
 800 psi (55.16 bar)



stainless steel

BSPP

0900	Thread
2049-38	3/8"
2049-12	1/2"
2049-34	3/4"
2049-1	1"
2049-114	1.1/4"
2049-112	1.1/2"
2049-2	2"

Tech Sheet 2049

NPT

0900	Thread
2049-12N	1/2"
2049-34N	3/4"
2049-1N	1"
2049-114N	1.1/4"
2049-112N	1.1/2"
2049-2N	2"

Tech Sheet 2049

Bespoke Strainer Baskets are also available on request. Contact Sales for more information

Y STRAINERS



Brass Y Strainers

Features:

- 0.5mm perforations for 1/4" to 2" and 0.8mm perforations for 2.1/2" upwards

Working Temperature:
-20°C to +110°C



Features:

- Nickel plated body
- 0.5mm perforations

Working Temperature:
-20°C to +110°C

Maximum Working Pressure:
20 bar



BSPP

0089	Thread	Max Pressure bar
IT192-14	1/4"	20
IT192-38	3/8"	20
IT192-12	1/2"	20
IT192-34	3/4"	20
IT192-1	1"	20
IT192-114	1.1/4"	20
IT192-112	1.1/2"	20
IT192-2	2"	20
IT192-212	2.1/2"	16
IT192-3	3"	16
IT192-4	4"	16

Tech Sheet 6134

BSPP

0089	Thread
IT193-14	1/4"
IT193-38	3/8"
IT193-12	1/2"
IT193-34	3/4"
IT193-1	1"
IT193-114	1.1/4"
IT193-112	1.1/2"
IT193-2	2"

Tech Sheet 6499

Y STRAINERS

stainless steel



HAITIMA

Stainless Steel Y Strainers

Features:

- 0.4mm perforations

Working Temperature:
-20°C to +200°C



Flanged PN16

0982	Flange Size	Max Pressure bar
2049SL16 04	1/2"	16
2049SL16 05	3/4"	16
2049SL16 06	1"	16
2049SL16 07	1.1/4"	16
2049SL16 08	1.1/2"	16
2049SL16 09	2"	16
2049SL16 10	2.1/2"	16
2049SL16 11	3"	16
2049SL16 12	4"	16
2049SL16 13	5"	16
2049SL16 14	6"	16

Tech Sheet 1877

Flanged ANSI150

0982	Flange Size	Max Pressure bar
2049SL150 04	1/2"	19.6
2049SL150 05	3/4"	19.6
2049SL150 06	1"	19.6
2049SL150 08	1.1/2"	19.6
2049SL150 09	2"	19.6
2049SL150 10	2.1/2"	19.6
2049SL150 11	3"	19.6
2049SL150 12	4"	19.6
2049SL150 13	5"	19.6
2049SL150 14	6"	19.6

Tech Sheet 1874

Y STRAINERS



Cast Iron Y Strainers

Features:

- 1.5mm perforations
- Suitable for saturated steam up to 10 bar

Working Temperature:
-10°C to +120°C at 16 bar
-10°C to +230°C at 12.8 bar

Maximum Working Pressure:
16 bar



Flanged PN16

0927	Flange Size
E21 09	2"
E21 10	2.1/2"
E21 11	3"
E21 12	4"
E21 13	5"
E21 14	6"
E21 16	8"

Tech Sheet 6138

Ductile Iron Y Strainers

Features:

- 1.5mm perforations for 2" to 6". 2mm perforations for 8" upwards

Working Temperature:
0°C to +80°C

Maximum Working Pressure:
16 bar



Flanged PN16

0909	Flange Size
HUKYS 09W	2"
HUKYS 10W	2.1/2"
HUKYS 11W	3"
HUKYS 12W	4"
HUKYS 13W	5"
HUKYS 14W	6"
HUKYS 16W	8"
HUKYS 18W	10"
HUKYS 20W	12"

Tech Sheet 6137



You might also need a...

Lugged & Tapped Butterfly Valve

...see page 970



Bronze Globe Valves

- BS 5154 Series B

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
20 bar



Type 6062, BSPP

0090	Thread
GBV-12	1/2"
GBV-34	3/4"
GBV-1	1"
GBV-114	1.1/4"
GBV-112	1.1/2"
GBV-2	2"

Tech Sheet 2031

Bronze Self-Closing Lever Globe Valve

- PTFE Disk
- Stainless steel spring

Working Temperature:
-10°C to +180°C

Maximum Working Pressure:
16 bar



BSPP

0238	Thread
SC/LV/G1003-12	1/2"
SC/LV/G1003-34	3/4"
SC/LV/G1003-1	1"

Tech Sheet 10325

Stainless Steel Globe Valves

Features:

- Investment casting
- Non-rising stem

Working Temperature:
-25°C to +180°C

Maximum Working Pressure:
200 psi (13.8 bar)



BSPP

0900	Thread
2028-12	1/2"
2028-34	3/4"
2028-1	1"
2028-114	1.1/4"
2028-112	1.1/2"
2028-2	2"

Tech Sheet 6002

Cast Iron Globe Valves

Features:

- Rising stem
- RAL 7011
- Suitable for saturated steam up to 10 bar

Working Temperature:
-10°C to +300°C

Maximum Working Pressure:
16 bar



Flanged PN16 RF

0912	Flange Size
479 04	1/2"
479 05	3/4"
479 06	1"
479 07	1.1/4"
479 08	1.1/2"
479 09	2"
479 10	2.1/2"
479 11	3"
479 12	4"
479 13	5"
479 14	6"
479 16	8"

Tech Sheet 6090

brownall®

You might also need...
Boiler Vent Valves
...see page 979



GLOBE VALVES



Stainless Steel Globe Valves

Features:

- Reduced bore
- ATEX approved
- NACE MR0175
- Conforms to BS 5352

Working Temperature:
-50°C to +450°C

Maximum Working Pressure:
110 bar



Class 800, NPT

0905	Thread
GL800S-12	1/2"
GL800S-34	3/4"
GL800S-1	1"
GL800S-114	1.1/4"
GL800S-112	1.1/2"
GL800S-2	2"

Tech Sheet 6014

Class 800, Socket Weld

0905	Thread
GL800S-12S	1/2"
GL800S-34S	3/4"
GL800S-1S	1"
GL800S-114S	1.1/4"
GL800S-112S	1.1/2"
GL800S-2S	2"

Tech Sheet 6014

Carbon Steel Globe Valves

Features:

- Reduced bore
- ATEX approved
- NACE MR0175
- Conforms to BS 5352

Working Temperature:
-29°C to +425°C

Maximum Working Pressure:
138 bar



Class 800, NPT

0905	Thread
GL800C-12	1/2"
GL800C-34	3/4"
GL800C-1	1"
GL800C-114	1.1/4"
GL800C-112	1.1/2"
GL800C-2	2"

Tech Sheet 6014

Class 800, Socket Weld

0905	Thread
GL800C-12S	1/2"
GL800C-34S	3/4"
GL800C-1S	1"
GL800C-114S	1.1/4"
GL800C-112S	1.1/2"
GL800C-2S	2"

Tech Sheet 6014



You might also need...
Class 800 Check Valves
...see page 965

GLOBE VALVES



Ductile Iron Globe Valves

Features:

- PN16/25 RF flanged ends up to 2
- ATEX approved
- Non-rising stem
- Bolted bonnet
- RAL 9006
- Suitable for saturated steam up to 10 bar

Working Temperature:
-10°C to +350°C



Flanged PN16 RF, Bellows Sealed

0905	Flange Size	Max Pressure bar
476 04	1/2"	25
476 05	3/4"	25
476 06	1"	25
476 07	1.1/4"	25
476 08	1.1/2"	25
476 09	2"	25
476 10	2.1/2"	16
476 11	3"	16
476 12	4"	16
476 13	5"	16
476 14	6"	16
476 16	8"	16

Tech Sheet 6091

Carbon Steel Globe Valves

Features:

- ATEX approved
- Non-rising stem
- Bolted bonnet
- RAL 5002
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +400°C

Maximum Working Pressure:
40 bar



Flanged PN40 RF, Bellows Sealed

0905	Flange Size
475 04	1/2"
475 05	3/4"
475 06	1"
475 07	1.1/4"
475 08	1.1/2"
475 09	2"
475 10	2.1/2"
475 11	3"
475 12	4"
475 13	5"
475 14	6"
475 16	8"

Tech Sheet 6092

GLOBE VALVES

stainless
steel



Stainless Steel Globe Valves

Features:

- Investment casting
- Non-rising stem

Working Temperature:
-20°C to +200°C



Flanged PN16

0982	Flange Size	Max Pressure bar
2053SL16 06	1"	16
2053SL16 08	1.1/2"	16
2053SL16 09	2"	16
2053SL16 10	2.1/2"	16
2053SL16 11	3"	16
2053SL16 12	4"	16
2053SL16 14	6"	16

Tech Sheet 6086

Flanged ANSI150

0982	Flange Size	Max Pressure bar
2053SL150 06	1"	19.6
2053SL150 08	1.1/2"	19.6
2053SL150 09	2"	19.6
2053SL150 10	2.1/2"	19.6
2053SL150 11	3"	19.6
2053SL150 12	4"	19.6

Tech Sheet 6087

BALANCING VALVES



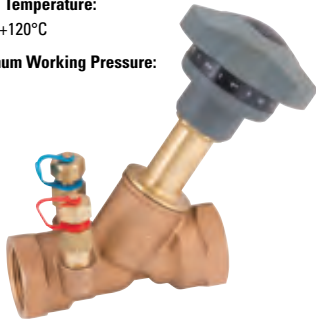
Screwed Balancing Valves

Features:

- BSPP threads up to 3/4" and BSPT threads for 1" upwards
- Comes complete with test points
- For use in heating and cooling systems and other water systems

Working Temperature:
-10°C to +120°C

Maximum Working Pressure:
25 bar



Bronze, BSPP

0974	Thread
T3010-12	1/2"
T3010-34	3/4"
T3010-1	1"
T3010-114	1.1/4"
T3010-112	1.1/2"
T3010-2	2"

Tech Sheet 6153

Features:

- Design in accordance to BS 7350:1990
- Comes complete with test points
- For use in heating and cooling systems and other water systems

Working Temperature:
-10°C to +110°C

Maximum Working Pressure:
25 bar



Bronze, BSPP

0915	Thread
9505-12	1/2"
9505-34	3/4"
9505-1	1"
9505-114	1.1/4"
9505-112	1.1/2"
9505-2	2"

Tech Sheet 6156

Features:

- Design in accordance to BS 7350:1990
- Comes complete with test points
- For use in heating and cooling systems and other water systems

Working Temperature:
-10°C to +110°C

Maximum Working Pressure:
25 bar



Bronze, BSPP

0915	Thread
9515-12	1/2"
9515-34	3/4"
9515-1	1"
9515-114	1.1/4"
9515-112	1.1/2"
9515-2	2"

Tech Sheet 6154

Flanged Balancing Valves

Features:

- To suit flanged ends
- The accuracy of flow measurement at normal velocities is ±3%
- Can be used as a single unit or close-coupled to other regulating or isolating valves

Working Temperature:
-10°C to +120°C

Maximum Working Pressure:
16 bar



Bronze Plate

0974	Flange Size
9200 10	2.1/2"
9200 11	3"
9200 12	4"
9200 13	5"
9200 14	6"
9200 16	8"

Tech Sheet 6160

Features:

- Design in accordance to BS 7350:1990
- Comes complete with test points
- For use in heating and cooling systems and other water systems

Working Temperature:
-10°C to +120°C

Maximum Working Pressure:
16 bar



*Will be painted black and is from a different manufacturer

Bronze Plate

0909	Flange Size
T3020 09	2**
9201 10	2.1/2"
9201 11	3"
9201 12	4"
9201 13	5"
9201 14	6"
9201 16	8"
9201 18	10"

Tech Sheet 6157

Test Points

Features:

- EPDM seal

Working Temperature:
-10°C to +120°C

Maximum Working Pressure:
25 bar



DZR Brass, Test Points, BSPT

0915	Thread
HUKTP-14R	1/4" Red
HUKTP-14B	1/4" Blue
HUKTP-12	1/2"

Air Vents

Features:

- Must be installed in the vertical position only

Working Temperature:
0°C to +110°C

Maximum Working Pressure:
10 bar



Brass, Auto Air Vent, BSPP Male

0928	Size
AAV-38	3/8"
AAV-12	1/2"

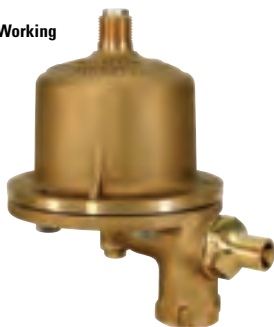
Tech Sheet 6164

AUTOMATIC AIR ELIMINATION

Air Eliminators

Maximum Working Temperature:
+93°C

Maximum Working Pressure:
10 bar



BSPP

0115	Description	Inlet	Outlet
AE-A	Type A Vertical	1/2"	3/8"
AE-B	Type B Vertical Lockshield Isolator	1/2"	3/8"
AE-C	Type C Vertical Lockshield & Check Valve	1/2"	3/8"

Tech Sheet 547

Service Kits

0115	Description
AE-SP-ABD	Float Assembly for Type A, B and D Valve
AE-SP-C	Float Assembly for Type C Valve

Tech Sheet 547

Boiler Vent Valves

Maximum Working Temperature:
+93°C

Maximum Working Pressure:
7 bar



Univent Boiler Vent Valves, Fig 1688, BSPP

0115	Thread
UV-1688-025D	1"
UV-1688-032D	1.1/4"
UV-1688-050D	2"

Tech Sheet 546

Maximum Working Temperature:
+93°C

Maximum Working Pressure:
7 bar



3 Way Boiler Vent Valves, Fig 1988, BSPP

0115	Thread
VCN-1988-025	1"
VCN-1988-040	1.1/2"
VCN-1988-050	2"

Tech Sheet 548

Cannot see the product you're looking for? Contact us. More often than not, we can acquire that product.

PRESSURE REDUCING VALVES



Brass Pressure Reducing Valves

Body in nickel plated brass. Adjustable outlet pressure: between 1 to 5,5 bar (up to 1") or 1 to 6 bar (1.1/4" onwards). Factory setting 3 bar.

Working Temperature:
-0°C to +80°C

Maximum Inlet Pressure: 25 bar



Type 143, Female, BSPP, 1/4" Gauge Ports

0089	Thread
143-12	1/2"
143-34	3/4"
143-1	1"
143-114	1.1/4"
143-112	1.1/2"
143-2	2"
143-212	2.1/2"
143-3	3"
143-4	4"

Tech Sheet 10522

Body in zinc-nickel resistant brass. Adjustable outlet pressure: between 1 to 5.5 bar (up to 1") or 1 to 6 bar (1.1/4" onwards). Factory setting 4 bar.

Working Temperature:
0°C to +80°C

Maximum Inlet Pressure: 25 bar

WRAS approval for 1/2", 3/4" and 1" models only.



Type 243, Female, BSPP, 1/4" Gauge Ports

0089	Thread
IT243-12	1/2"
IT243-34	3/4"
IT243-1	1"
IT243-114	1.1/4"
IT243-112	1.1/2"
IT243-2	2"

Tech Sheet 60357



You might also need...
Gauges
...see page 410



Manifold Valves

Working Temperature:
-29°C to +121°C

Maximum Working Pressure:
414 bar

2 Valve manifold pipe to pipe design for separate mounting, connection system impulse lines and transmitters, having a simple valve configuration, which allows for easy block, bleed and calibration of static pressure transmitter of gauge.

Other mounting options are available on request.

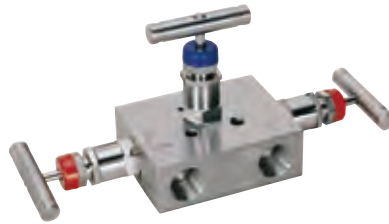


2 Valve Manifold, Pipe to Pipe, NPT

0380	Thread
P2VM-SS-8-R	1/2"
Tech Sheet 10216	

3 Valve manifold pipe to pipe design for connecting system impulse lines and transmitters. This valve consists of 1/2" NPT female connectors on 54mm centres and 1 equalizer valve and 2 block valves.

Other mounting options are available on request.

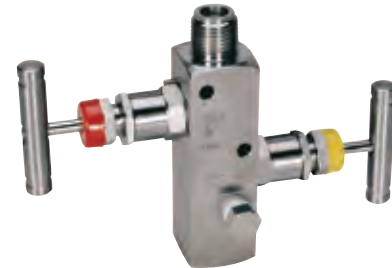


3 Valve Manifold, Pipe to Pipe, NPT

0380	Thread
P3VM-SS-8-R	1/2"
Tech Sheet 10216	

2 Valve manifold remote mount design for separate mounting, connecting system impulse lines and transmitters having a simple valve configuration, which allows for easy block, bleed and calibration of static pressure transmitter of gauge.

Other mounting options are available on request.



2 Valve Manifold, Remote Mount, NPT

0380	Thread
P2VM-SS-8-RM	1/2"
Tech Sheet 10216	



You might also need...
Stainless Steel Tube Fittings
...see pages **166-178**



NEEDLE VALVES



Brass Needle Valves

Working Temperature:
0°C to +100°C

Maximum Working Pressure:
100 bar



Female x Female, BSPP

0441	Thread
EV-18	1/8"
EV-14	1/4"
EV-38	3/8"
EV-12	1/2"

Tech Sheet 10028



Male x Male, BSPT

0441	Thread
EVMM-18	1/8"
EVMM-14	1/4"
EVMM-38	3/8"
EVMM-12	1/2"

Tech Sheet 10029

NEEDLE VALVES

stainless
steel

GENEBRE

Stainless Steel Needle Valves

Features:

- Safety bonnet lock prevents accidental loosening
- Flow can be controlled in both directions

Working Temperature:
-54°C to +232°C

Maximum Working Pressure:
413 bar at +38°C



Female x Female, BSPP

0902	Thread
2225-14	1/4"
2225-38	3/8"
2225-12	1/2"
2225-34	3/4"
2225-1	1"

Tech Sheet 6161

NEEDLE VALVES

stainless steel



3,000 psi Rated Mini Needle Valve

Working Temperature:
-50°C to +121°C

Maximum Working Pressure:
205 bar

Seal: Viton



NPT

0292	Thread	Description
PMV-H-S-4-FF-V	1/4"	Female x Female
PMV-H-S-4-MF-V	1/4"	Male x Female

Tech Sheet 10506

6,000 psi Rated Imperial Needle Valves

The 'IB' series of needle valves are specially designed and manufactured for use in corrosive and hazardous environments. These valves are for use in process control, instrumentation and flow control applications.

Feature Benefits

One piece body construction for strength and safety.

Non rotating Vee tip design, which forms a bearing joint with the stem eliminating

any rotation between the plug and seat on closure ensuring long life.

Testing: All valves are 100% factory tested and complete traceability is available upon request.

Material: Body, panel nut, washer and gland nut A479-316

Stem: A479-316 / 17-4PH

Packing: PTFE

Grub Screw: Steel plated

Handle: Stainless steel

Vee Tip: A 564-630

Working Temperature:
-29°C to +121°C

Maximum Working Pressure:
413 bar (6,000 psi)

Female x Female, NPTF

0292	Thread
PNV-IB-S-2-FF	1/8"
PNV-IB-S-4-FF	1/4"
PNV-IB-S-6-FF	3/8"
PNV-IB-S-8-FF	1/2"
PNV-IB-S-12-FF	3/4"
PNV-IB-S-16-FF	1"

Tech Sheet 2156



Female x Female, BSPP

0292	Thread
2018-6938	1/4"
2018-6946	3/8"
2018-6953	1/2"

Tech Sheet 10036

Male x Female, NPTF

0292	Thread
PNV-IB-S-2-MF	1/8"
PNV-IB-S-4-MF	1/4"
PNV-IB-S-6-MF	3/8"
PNV-IB-S-8-MF	1/2"
PNV-IB-S-12-MF	3/4"
PNV-IB-S-16-MF	1"

Tech Sheet 2156



OD Compression

0292	OD
NV6000-18	1/8"
NV6000-14	1/4"
NV6000-38	3/8"
NV6000-12	1/2"
NV6000-34	3/4"
NV6000-1	1"

Tech Sheet 2156



10,000 psi Rated Imperial Needle Valves

The 'HP' series of needle valves are specially designed and manufactured for use in corrosive and hazardous environments. These valves are for use in process control, instrumentation and flow control applications.

Feature Benefits

One piece body construction for strength and safety.

Non rotating Vee tip design, which forms a bearing joint with the stem eliminating any rotation between the plug and seat on closure ensuring long life.

Testing: Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. A Hydrostatic test is

performed with pure water or other liquids of similar or lower viscosity at 1.5 times and seat leakage test at 1.1 times of the maximum working pressure.

Each valve is also tested with nitrogen gas at 1000psi for seat, seal and shell leakage. Other tests like vibration, temperature and helium are available upon request.

Material: Body, stem, packing washer, lock nut and gland retainer A479-316/A-105

Gland Packing:
Glass Filled PTFE

Packing: PTFE

Handle: Stainless steel

Dust Cap: Plastic

Vee Tip: A 564-630

Working Temperature:
-50°C to +93°C

Maximum Working Pressure:
700 bar (10,000 psi)

Female x Female, NPTF

0292	Thread
PNV-HP-S-2-FF	1/8"
PNV-HP-S-4-FF	1/4"
PNV-HP-S-6-FF	3/8"
PNV-HP-S-8-FF	1/2"
PNV-HP-S-16-FF	1"

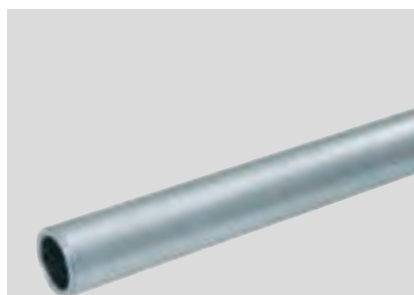
Tech Sheet 2157



Male x Female, NPTF

0292	Thread
PNV-HP-S-2-MF	1/8"
PNV-HP-S-4-MF	1/4"
PNV-HP-S-6-MF	3/8"
PNV-HP-S-8-MF	1/2"
PNV-HP-S-12-MF	3/4"
PNV-HP-S-16-MF	1"

Tech Sheet 2157



You might also need...
Hydraulic Tubing
...see page 181



The Engineers Choice

FT Pro products have been meticulously selected based on their superior quality, dependability, and durability. Our products are engineered by engineers for engineers and produced by leading fluid power manufacturers, ensuring they meet even the most rigorous application demands.

We understand that all application requirements are unique, and that's why we only offer products that we know will provide the most effective solution.

At FT Pro, we work closely with our customers to ensure that we provide tailored solutions that meet their exact requirements. Whether you need products for hydraulic systems, pneumatic systems, or any other fluid power application, FT Pro has the product to support you and help you find the right outcome.

Pressure Relief Valves

With the introduction of the European Pressure Equipment Directive, which recommends relevant design and quality assurance in appropriate certification.

This range of pressure relief valves are manufactured and tested in accordance with the regulations which meet applicable specifications both nationally and internationally. Compliance with the component test report, by the identification the manufacturer provides a guarantee for the specified setting values. Test certificates come as standard.

Note: This product is CE marked, to comply with legislation.

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
15 bar



Nominal Diameter 8mm, 1/4" BSPP

0093	Set Pressure Bar
2035-0773	1
2042-2887	1.5
2042-2895	2
2020-8860	2.5
2042-2903	3
2042-2911	3.5
2020-8864	4
2042-2929	4.5
2020-8872	5
2042-2937	5.5
2042-2945	6
2042-2952	6.5
2042-2960	7
2020-8880	7.5
2020-8898	8
2042-2978	8.5
2031-7020	9
2020-8906	10
2042-2986	10.5
2020-8914	11
2020-8922	11.5
2020-8930	12
2020-8948	15

Tech Sheet 1762

Nominal Diameter 10mm, 1/2" BSPP

0093	Set Pressure Bar
2042-2994	0.5
2042-3000	1.5
2042-3018	2.5
2042-3026	3.5
2020-9052	4
2020-9060	5
2042-3034	5.5
2020-9086	6
2042-3042	6.5
2020-9094	7
2020-9102	7.5
2020-9110	8
2042-3059	8.5
2042-3067	9
2020-9128	10
2042-3075	10.5
2020-9136	11
2020-9144	11.5
2020-9151	12
2042-3083	12.5
2020-9169	15
2042-3091	16
2042-3109	30

Tech Sheet 1762

Nominal Diameter 10mm, 3/8" BSPP

0093	Set Pressure Bar
2020-8955	5
2020-8971	6
2020-8989	7
2020-8997	8
2020-9003	10
2020-9011	11
2020-9029	12
2020-9045	15

Tech Sheet 1762

Nominal Diameter 10mm, 3/4" BSPP

0093	Set Pressure Bar
2020-9177	6
2020-9193	8
2020-9201	10
2020-9219	11

Tech Sheet 1762

Test certificates come as standard

Other relief settings available on special request

Pressure Relief Valves - Series 6000

Working Temperature:
-15°C to +180°C

Maximum Set Pressure:
20.1 bar

High Lift Pressure Relief Valve, Male BSPT

0095	Thread	Set Pressure Bar
6000/06/G/5.5	1/4"	5.5
6000/06/H/9.0	1/4"	9
6000/06/J/11.0	1/4"	11

Tech Sheet 10341



Test certificates to be requested at the time of order

PRESSURE RELIEF VALVES



Compact Relief Valve DN6

Relief valves discharge non-toxic and non-flammable gases into the atmosphere in order to protect pressure tanks against overpressure.

Please note: Only relief valves that have been set and sealed with lead (plumbed) by us can be delivered with the component symbols, it is thus absolutely necessary to indicate the setting pressure in bar. As functional test, relief valves may be aerated by the way of pulling the haul-off bolt. Repairs may only be carried out by the manufacturer.

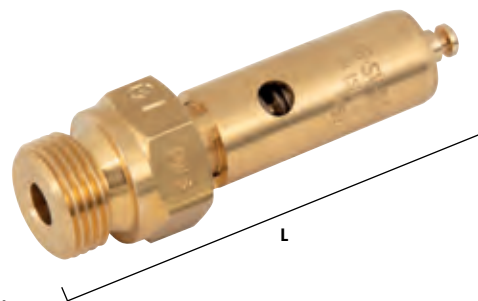
Technical Data

- Connection thread: G1/4, G3/8
- Setting range: 4,5 to 24 bar (5 steps)
- Opening pressure difference: <10%
- Closing pressure difference: <10%
- Material: Brass
- Seal: Viton

Important: The supply connection to the relief valve should not be <DN6, the pressure drop in the supply connection not >3%.

Working Temperature:
-10°C to +150°C

Maximum Working Pressure:
24 bar (PN24)



Male, Thread, BSPP

9168	Thread	Set At Bar	Dimensions mm	
			L	Hex
469.23-5.0BAR	1/4"	5.0	65	17
469.24-7.0BAR	1/4"	7.0	65	17
469.24-9.0BAR	1/4"	9.0	65	17
469.25-11.0BAR	1/4"	11.0	65	17
469.26-16.0BAR	1/4"	16.0	65	17
469.27-20.0BAR	1/4"	20.0	65	17
469.33-5.0BAR	3/8"	5.0	65	19
469.34-7.0BAR	3/8"	7.0	65	19
469.34-9.0BAR	3/8"	9.0	65	19
469.35-11.0BAR	3/8"	11.0	65	19
469.36-16.0BAR	3/8"	16.0	65	19
469.37-20.0BAR	3/8"	20.0	65	19

Exhaust Capacity Air

The exhaust capacities indicated in the table are the minimum values reached when air pressure is raised by 10% above the set pressure.

Set Pressure Bar	Exhaust Flow Capacity (normal condition)	
	m³/h	l/m
6	60	1000
10	110	1833
11	125	2083
14	155	2583

Intermediate values can be interpolated.

More variations available. Special set pressures, body materials & large threads.

Type 1776

All type 1776 valves are pre-set and sealed to prevent tampering.

Pre-set pressure relief valves are precision manufactured to open at the pre-set pressure and discharge fluid until pressure drops to acceptable levels to protect against equipment damage or personal injury.

- Equal certification* of ASME BPVC Section XIII and UKCA/CE for PE(S)R 2016 and PED 2014/68/EU
- Automatically vents at selected pressure
- Automatically resets when pressure returns to 'normal'
- Brass body with stainless steel internal components

Please note:

Equal certification applies from 30 PSI upwards. Pressure ranges from 5 to 20 PSI will offer no accreditations that meet UK/European standards



Male, 1/4" NPT

0090	Set Pressure PSI	SCFM
1776K-0-05	5	9
1776K-0-10	10	11
1776K-0-15	15	13
1776K-0-20	20	15
1776K-0-30	30	19
1776K-0-40	40	24
1776K-0-50	50	28
1776K-0-60	60	33
1776K-0-75	75	39

Tech Sheet 835

Working Temperature:
-18°C to +200°C



More variations available. Special set pressures, Body materials, valve serialisation & larger threads. Technical specifications are available on request at an additional cost.

PRESSURE RELIEF VALVES



Atmospheric Pressure Relief Valves, 6mm-15mm

Seetru Atmospheric Discharge Pressure Relief valves are compact, highly efficient and incorporate the exclusive 'Tutchtite' seal technology to give repeatable bubble tight sealing performance.

Suitable for air and gases including refrigerant.

Type approved and/or manufactured in conformance with national and international standards which include BS6759 Part 2 and 3, ISO 4126 and TUV (Germany) in accordance with AD Merkblatt A2. Compliant with the requirements of the European Equipment Directive 97/23/EC and CE marked flow rates calculated

Std Ltrs/Sec of Air @ 15°C

Seals: Viton

Sealing: Elastomer

Working Temperature:
-15°C to +200°C



Nominal Bore 6mm, 1/4" BSPT Male

0171	Flow	Set Pressure Bar
SEE010EA1B	25	5.5
SEE0107A1B	38	9
SEE0106A1B	46	11

Tech Sheet 10342

Nominal Bore 8mm, 1/4" BSPP Male

0171	Flow	Set Pressure Bar
SEE9111A1B	12	1
SEE9112A1B	16	1.5
SEE9113A1B	19	2
SEE9114A1B	22	2.5
SEE9115A1B	26	3
SEE911AA1B	30	3.5
SEE911BA1B	34	4
SEE911CA1B	37	4.5
SEE911EA1B	44	5.5
SEE911FA1m	47	6
SEE911GA1B	51	6.5
SEE911HA1B	54	7
SEE9119A1B	57	7.5
SEE9118A1B	61	8
SEE911JA1B	64	8.5
SEE9117A1B	68	9
SEE911LA1B	74	10
SEE911MA1B	78	10.5
SEE9116A1B	81	11
SEE911NA1B	85	11.5
SEE911PA1B	88	12
SEE911XA1B	109	15

Tech Sheet 10345

Nominal Bore 8mm, 1/4" BSPT Male

0171	Flow	Set Pressure Bar
SEE011EA1B	44	5.5
SEE0117A1B	68	9
SEE0116A1B	81	11

Tech Sheet 10345

Nominal Bore 8mm, 3/8" BSPT Male

0171	Flow	Set Pressure Bar
SEE021DA1B	40	5
SEE0216A1B	81	11
SEE021PA1B	88	12

Tech Sheet 10345

Nominal Bore 8mm, 3/8" BSPP Male

0171	Flow	Set Pressure Bar
SEE921FA1B	47	6
SEE921HA1B	54	7
SEE9218A1B	61	8
SEE921LA1B	74	10
SEE9216A1B	81	11
SEE921PA1B	88	12
SEE921XA1B	109	15

Tech Sheet 10345

Nominal Bore 10mm, 1/2" BSPT Male

0171	Flow	Set Pressure Bar
SEE032EA1B	170	5.5
SEE0327A1B	106	9
SEE0326A1B	127	11

Tech Sheet 10343

Nominal Bore 10mm, 1/2" BSPP Male

0171	Flow	Set Pressure Bar
SEE9320A1B	12	0.5
SEE9322A1B	24	1.5
SEE9324A1B	36	2.5
SEE932AA1B	47	3.5
SEE932BA1B	52	4
SEE932DA1B	63	5
SEE932EA1B	68	5.5
SEE932FA1B	74	6
SEE932GA1B	79	6.5
SEE932HA1B	84	7
SEE9329A1B	90	7.5
SEE9328A1B	95	8
SEE932JA1B	100	8.5
SEE9327A1B	106	9
SEE932LA1B	116	10
SEE932MA1B	122	10.5
SEE9326A1B	127	11
SEE932NA1B	132	11.5
SEE932PA1B	138	12
SEE932RA1B	143	12.5
SEE932XA1B	170	15
SEE932YA1B	180	16

Tech Sheet 10343

Nominal Bore 10mm, 3/4" BSPP Male

0171	Flow	Set Pressure Bar
SEE942FA1B	74	6
SEE942HA1B	84	7
SEE9428A1B	95	8
SEE9427A1B	106	9
SEE9426A1B	127	11

Tech Sheet 10343

Nominal Bore 15mm, 3/4" BSPT Male

0171	Flow	Set Pressure Bar
SEE0447A1B	263	9
SEE0436A1B	315	11

Tech Sheet 10344

Nominal Bore 15mm, 1" BSPT Male

0171	Flow	Set Pressure Bar
SEE0546A1B	315	11

Tech Sheet 10344

Individual test certificates come as standard with above

SAFETY VALVES

NABIC®

High Lift Safety Valves (Fig 500)

Applications: the Fig 500 high lift safety valve has been designed primarily for use on unvented hot water heating systems, where a high capacity, emergency steam relief capability is required. High capacity and resilient PTFE seating also make the Fig 500 ideal for steam, air and inert gas applications. A PTFE to Viton seating design is also available where greater seal tightness is required.

Construction: the Fig 500 is constructed in gunmetal with diaphragm protected working parts and PTFE to metal seating. All wetted parts are manufactured from dezincification resistant materials, approved by the Water Research Centre for use on potable water. Standard inlet and outlet connections have female threads to BS 21, with the outlet connection one size larger than the inlet. Sizes from DN20 upwards are available with flanged inlet connections; other thread forms are also available.

Please Note: due to pressure setting and certification of this product, normal delivery will be up to 3 working days (manufacturers stock permitting), although a quicker service may be available if required. **Please contact our sales team.**

Features:

- Resilient PTFE seating designs
- High degree of seating tightness
- Suitable for hot water, steam and air
- High discharge capacity
- Diaphragm protected working parts
- Safe manual testing
- Easy inspection and cleaning
- Pressure setting locked and sealed
- Designed and tested to BS 6759
- Capacities certified by TOC

 **Working Temperature:**
-20°C to +195°C

 **Maximum Working Pressure:**
12.5 bar



BSPP Inlet x BSPP Outlet

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500-15-1	1/2"	3/4"	1
500-15-3	1/2"	3/4"	3
500-15-4	1/2"	3/4"	4
500-15-5	1/2"	3/4"	5
500-15-5.5	1/2"	3/4"	5.5
500-15-6	1/2"	3/4"	6
500-15-6.5	1/2"	3/4"	6.5
500-15-7	1/2"	3/4"	7
500-15-7.5	1/2"	3/4"	7.5
500-15-8.5	1/2"	3/4"	8.5
500-15-10	1/2"	3/4"	10
500-15-10.5	1/2"	3/4"	10.5
500-15-11	1/2"	3/4"	11
500-15-11.5	1/2"	3/4"	11.5
500-20-1.5	3/4"	1"	1.5
500-20-2.5	3/4"	1"	2.5
500-20-3	3/4"	1"	3
500-20-3.5	3/4"	1"	3.5
500-20-4	3/4"	1"	4
500-20-5	3/4"	1"	5
500-20-5.5	3/4"	1"	5.5

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500-20-6	3/4"	1"	6
500-20-6.5	3/4"	1"	6.5
500-20-7	3/4"	1"	7
500-20-7.5	3/4"	1"	7.5
500-20-8	3/4"	1"	8
500-20-8.5	3/4"	1"	8.5
500-20-9	3/4"	1"	9
500-20-10	3/4"	1"	10
500-20-11	3/4"	1"	11
500-20-11.5	3/4"	1"	11.5
500-20-12	3/4"	1"	12
500-20-12.5	3/4"	1"	12.5
500-25-1.5	1"	1.1/4"	1.5
500-25-2	1"	1.1/4"	2
500-25-2.5	1"	1.1/4"	2.5
500-25-3	1"	1.1/4"	3
500-25-3.5	1"	1.1/4"	3.5
500-25-4	1"	1.1/4"	4
500-25-5.5	1"	1.1/4"	5.5
500-25-7	1"	1.1/4"	7
500-25-7.5	1"	1.1/4"	7.5

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500-25-8	1"	1.1/4"	8
500-25-8.5	1"	1.1/4"	8.5
500-25-11	1"	1.1/4"	11
500-25-12.5	1"	1.1/4"	12.5
500-32-3	1.1/4"	1.1/2"	3
500-32-3.5	1.1/4"	1.1/2"	3.5
500-32-5	1.1/4"	1.1/2"	5
500-32-7.5	1.1/4"	1.1/2"	7.5
500-32-8.5	1.1/4"	1.1/2"	8.5
500-32-10	1.1/4"	1.1/2"	10
500-32-11	1.1/4"	1.1/2"	11
500-40-1.5	1.1/2"	2"	1.5
500-40-3	1.1/2"	2"	3
500-40-3.5	1.1/2"	2"	3.5
500-40-4	1.1/2"	2"	4
500-40-7	1.1/2"	2"	7
500-40-7.5	1.1/2"	2"	7.5
500-40-12	1.1/2"	2"	12
500-50-3.5	2"	2.1/2"	3.5
500-50-7	2"	2.1/2"	7
500-50-12.5	2"	2.1/2"	12.5

Tech Sheet 1398

We have listed all the popular sizes and pressure ratings, however other variations are available.

Individual test certificates to be requested at the time of order

Safety Relief Valves (Fig 542)

Applications: the Fig 542 safety valve is an extremely versatile valve, suitable for use on hot water, steam or air. Although designed primarily for the protection of hot water boilers, its wide range of applications make it ideal as a general purpose safety valve.

Construction: the Fig 542 is of gunmetal construction with diaphragm protected working parts and PTFE to metal seating. All wetted parts manufactured from dezincification resistant materials, approved by the Water Research Centre for use on potable water. Inlet and outlet connections are of equal size, with female threads to BS 21. Sizes from DN32 upwards are also available with flanged inlet connections.

Please Note: due to pressure setting and certification of this product, normal delivery will be up to 3 working days (manufacturers stock permitting), although a quicker service may be available if required. **Please contact our sales team.**

Features:

- Resilient PTFE seating designs
- High degree of seat tightness
- Suitable for hot water, steam or air
- Diaphragm protected working parts
- Safe manual testing
- Easy inspection and cleaning
- Pressure setting locked and sealed
- Designed and tested to BS 6759
- Capacities certified by TOC

Working Temperature:
-20°C to +195°C

Maximum Working Pressure:
10.5 bar



BSPP Inlet x BSPP Outlet

0115	Thread	Set Pressure Bar
542-15-1	1/2"	1
542-15-1.5	1/2"	1.5
542-15-2	1/2"	2
542-15-2.5	1/2"	2.5
542-15-3	1/2"	3
542-15-3.5	1/2"	3.5
542-15-4	1/2"	4
542-15-4.5	1/2"	4.5
542-15-5	1/2"	5
542-15-5.5	1/2"	5.5
542-15-6	1/2"	6
542-15-7	1/2"	7
542-15-7.5	1/2"	7.5
542-15-8	1/2"	8
542-15-8.5	1/2"	8.5
542-15-9	1/2"	9
542-15-9.5	1/2"	9.5
542-15-10	1/2"	10
542-15-10.5	1/2"	10.5
542-20-1	3/4"	1
542-20-1.5	3/4"	1.5
542-20-2	3/4"	2
542-20-2.5	3/4"	2.5
542-20-3	3/4"	3
542-20-3.5	3/4"	3.5
542-20-4	3/4"	4
542-20-4.5	3/4"	4.5
542-20-5	3/4"	5
542-20-5.5	3/4"	5.5
542-20-6	3/4"	6
542-20-7	3/4"	7

0115	Thread	Set Pressure Bar
542-20-7.5	3/4"	7.5
542-20-8	3/4"	8
542-20-8.5	3/4"	8.5
542-20-9	3/4"	9
542-20-10	3/4"	10
542-20-10.5	3/4"	10.5
542-25-1	1"	1
542-25-1.5	1"	1.5
542-25-2	1"	2
542-25-2.5	1"	2.5
542-25-3	1"	3
542-25-3.5	1"	3.5
542-25-4	1"	4
542-25-4.5	1"	4.5
542-25-5	1"	5
542-25-6	1"	6
542-25-7	1"	7
542-25-7.5	1"	7.5
542-25-8	1"	8
542-25-8.5	1"	8.5
542-25-9	1"	9
542-25-9.5	1"	9.5
542-25-10	1"	10
542-25-10.5	1"	10.5
542-32-1	1.1/4"	1
542-32-2.5	1.1/4"	2.5
542-32-3	1.1/4"	3
542-32-3.5	1.1/4"	3.5
542-32-4	1.1/4"	4
542-32-4.5	1.1/4"	4.5
542-32-5	1.1/4"	5

0115	Thread	Set Pressure Bar
542-32-6.5	1.1/4"	6.5
542-32-7	1.1/4"	7
542-32-8	1.1/4"	8
542-32-8.5	1.1/4"	8.5
542-32-9	1.1/4"	9
542-32-9.5	1.1/4"	9.5
542-32-10	1.1/4"	10
542-40-1	1.1/2"	1
542-40-1.5	1.1/2"	1.5
542-40-2	1.1/2"	2
542-40-3.5	1.1/2"	3.5
542-40-4	1.1/2"	4
542-40-5	1.1/2"	5
542-40-6	1.1/2"	6
542-40-7	1.1/2"	7
542-40-7.5	1.1/2"	7.5
542-40-8	1.1/2"	8
542-40-10	1.1/2"	10
542-40-10.5	1.1/2"	10.5
542-50-2	2"	2
542-50-3.5	2"	3.5
542-50-6	2"	6
542-50-7	2"	7
542-50-7.5	2"	7.5
542-50-8	2"	8
542-50-10	2"	10
542-50-10.5	2"	10.5
542-65-3	2.1/2"	3
542-65-4	2.1/2"	4
542-65-7.5	2.1/2"	7.5

Tech Sheet 1399

We have listed all the popular sizes and pressure ratings, however other variations are available.

Individual test certificates to be requested at the time of order

PRESSURE RELIEF VALVES

NABIC®

Pressure Relief Valves (Fig 500L)

Applications: Nabic pressure relief valves are intended for use where pressure tightness is required on the discharge side of the valve. They are ideal for pump relief, bypass relief, outside installations, and inflammable fluid

Construction: the valves are of gunmetal construction with top-guided copper alloy parts, chrome vanadium spring and PTFE to metal seating. O-Ring seals ensure pressure tightness at cover and cap joints. Available options are stainless steel springs, high pressure versions and Viton seat design.

Please Note: due to pressure setting and certification of this product, normal delivery will be up to 3 working days (manufacturers stock permitting), although a quicker service may be available if required. **Please contact our sales team.**

Features:

- Resilient PTFE seating design
- High degree of seating tightness
- Suitable for liquids and gases
- Top-guided working parts
- Pressure tight on discharge side
- Designed and tested to BS 6759
- Flange inlets available

Working Temperature:
-20°C to +195°C

Maximum Working Pressure:
12.5 bar



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BSPP Inlet x BSPP Outlet

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500L-10-1	3/8"	1/2"	1
500L-10-1.5	3/8"	1/2"	1.5
500L-10-2	3/8"	1/2"	2
500L-10-2.5	3/8"	1/2"	2.5
500L-10-3	3/8"	1/2"	3
500L-10-3.5	3/8"	1/2"	3.5
500L-10-4	3/8"	1/2"	4
500L-10-5	3/8"	1/2"	5
500L-10-5.5	3/8"	1/2"	5.5
500L-10-6	3/8"	1/2"	6
500L-10-6.5	3/8"	1/2"	6.5
500L-10-8	3/8"	1/2"	8
500L-10-9.5	3/8"	1/2"	9.5
500L-10-10	3/8"	1/2"	10
500L-10-11	3/8"	1/2"	11
500L-10-12	3/8"	1/2"	12
500L-10-12.5	3/8"	1/2"	12.5
500L-15-1	1/2"	3/4"	1
500L-15-3	1/2"	3/4"	3
500L-15-4	1/2"	3/4"	4
500L-15-5	1/2"	3/4"	5
500L-15-5.5	1/2"	3/4"	5.5
500L-15-6	1/2"	3/4"	6
500L-15-6.5	1/2"	3/4"	6.5
500L-15-7	1/2"	3/4"	7
500L-15-7.5	1/2"	3/4"	7.5
500L-15-8.5	1/2"	3/4"	8.5

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500L-15-10	1/2"	3/4"	10
500L-15-10.5	1/2"	3/4"	10.5
500L-15-11	1/2"	3/4"	11
500L-15-11.5	1/2"	3/4"	11.5
500L-20-1.5	3/4"	1"	1.5
500L-20-2.5	3/4"	1"	2.5
500L-20-3	3/4"	1"	3
500L-20-3.5	3/4"	1"	3.5
500L-20-4	3/4"	1"	4
500L-20-5	3/4"	1"	5
500L-20-5.5	3/4"	1"	5.5
500L-20-6	3/4"	1"	6
500L-20-6.5	3/4"	1"	6.5
500L-20-7	3/4"	1"	7
500L-20-7.5	3/4"	1"	7.5
500L-20-8	3/4"	1"	8
500L-20-8.5	3/4"	1"	8.5
500L-20-9	3/4"	1"	9
500L-20-10	3/4"	1"	10
500L-20-11	3/4"	1"	11
500L-20-11.5	3/4"	1"	11.5
500L-20-12	3/4"	1"	12
500L-20-12.5	3/4"	1"	12.5
500L-25-1.5	1"	1.1/4"	1.5
500L-25-2	1"	1.1/4"	2
500L-25-2.5	1"	1.1/4"	2.5
500L-25-3	1"	1.1/4"	3

0115	Inlet Thread	Outlet Thread	Set Pressure Bar
500L-25-3.5	1"	1.1/4"	3.5
500L-25-4	1"	1.1/4"	4
500L-25-5.5	1"	1.1/4"	5.5
500L-25-7	1"	1.1/4"	7
500L-25-7.5	1"	1.1/4"	7.5
500L-25-8	1"	1.1/4"	8
500L-25-8.5	1"	1.1/4"	8.5
500L-25-11	1"	1.1/4"	11
500L-25-12.5	1"	1.1/4"	12.5
500L-32-3	1.1/4"	1.1/2"	3
500L-32-3.5	1.1/4"	1.1/2"	3.5
500L-32-5	1.1/4"	1.1/2"	5
500L-32-7.5	1.1/4"	1.1/2"	7.5
500L-32-8.5	1.1/4"	1.1/2"	8.5
500L-32-10	1.1/4"	1.1/2"	10
500L-32-11	1.1/4"	1.1/2"	11
500L-40-1.5	1.1/2"	2"	1.5
500L-40-3	1.1/2"	2"	3
500L-40-3.5	1.1/2"	2"	3.5
500L-40-4	1.1/2"	2"	4
500L-40-7	1.1/2"	2"	7
500L-40-7.5	1.1/2"	2"	7.5
500L-40-12	1.1/2"	2"	12
500L-50-3.5	2"	2.1/2"	3.5
500L-50-7	2"	2.1/2"	7
500L-50-12.5	2"	2.1/2"	12.5

Tech Sheet 20438

We have listed all the popular sizes and pressure ratings, however other variations are available.

Individual test certificates to be requested at the time of order

PRESSURE RELIEF VALVES

NABIC®

Pressure Relief Valves (Fig 542L)

Applications: NABIC liquid relief valves are intended for use where pressure tightness is required on the discharge side of the valve. They are ideal for use on pump relief and bypass relief applications, also on outside installations and where tamper-proof units are required.


Available options: stainless steel springs, high pressure versions and Viton seat design.


Construction: the valves are of gunmetal construction with top-guided copper alloy parts. Fitted with chrome vanadium spring as standard, they also incorporate the proven NABIC PTFE to metal seating design. O-Ring seals ensure pressure tightness at cover and cap joints.

Please Note: due to pressure setting and certification of this product, normal delivery will be up to 3 working days (manufacturers stock permitting), although a quicker service may be available if required. **Please contact our sales team.**

Features:

- High degree of seat tightness
- Certified discharge table
- Designed and tested to BS 6759

 **Working Temperature:**
-20°C to +195°C

 **Maximum Working Pressure:**
12.5 bar



BSPP Inlet x BSPP Outlet

0115	Thread	Set Pressure Bar
542L-15-1	1/2"	1
542L-15-1.5	1/2"	1.5
542L-15-2	1/2"	2
542L-15-2.5	1/2"	2.5
542L-15-3	1/2"	3
542L-15-3.5	1/2"	3.5
542L-15-4	1/2"	4
542L-15-4.5	1/2"	4.5
542L-15-5	1/2"	5
542L-15-6	1/2"	6
542L-15-7	1/2"	7
542L-15-8.5	1/2"	8.5
542L-15-10	1/2"	10
542L-15-10.5	1/2"	10.5
542L-20-1	3/4"	1
542L-20-1.5	3/4"	1.5
542L-20-2	3/4"	2
542L-20-2.5	3/4"	2.5
542L-20-3	3/4"	3
542L-20-3.5	3/4"	3.5
542L-20-5	3/4"	5
542L-20-6	3/4"	6

0115	Thread	Set Pressure Bar
542L-20-6.5	3/4"	6.5
542L-20-7	3/4"	7
542L-20-8	3/4"	8
542L-20-9	3/4"	9
542L-20-10	3/4"	10
542L-25-1	1"	1
542L-25-1.5	1"	1.5
542L-25-2	1"	2
542L-25-2.5	1"	2.5
542L-25-3	1"	3
542L-25-3.5	1"	3.5
542L-25-4	1"	4
542L-25-5	1"	5
542L-25-6	1"	6
542L-25-7	1"	7
542L-25-8	1"	8
542L-25-10	1"	10
542L-25-10.5	1"	10.5
542L-32-3	1.1/4"	3
542L-32-4	1.1/4"	4
542L-32-8	1.1/4"	8
542L-32-10	1.1/4"	10

0115	Thread	Set Pressure Bar
542L-32-10.5	1.1/4"	10.5
542L-40-1.5	1.1/2"	1.5
542L-40-2.5	1.1/2"	2.5
542L-40-5	1.1/2"	5
542L-40-6	1.1/2"	6
542L-40-7	1.1/2"	7
542L-40-10	1.1/2"	10
542L-50-1.5	2"	1.5
542L-50-2	2"	2
542L-50-4	2"	4
542L-50-7.5	2"	7.5
542L-50-8.5	2"	8.5
542L-50-9.5	2"	9.5
542L-50-10	2"	10
542L-50-10.5	2"	10.5
542L-65-2	2.1/2"	2
542L-65-3	2.1/2"	3
542L-65-3.5	2.1/2"	3.5
542L-65-5	2.1/2"	5
542L-80-4.5	3"	4.5
542L-80-7	3"	7

Tech Sheet 1400

We have listed all the popular sizes and pressure ratings, however other variations are available.


Individual test certificates to be requested at the time of order

PRESSURE RELIEF VALVES

Combined Pressure & Temperature Relief Valves (Fig 500T)

Features:

- Dome top
- Relief pressure can be set between 1 and 12.5 bar for 3/4" to 1" and between 0.4 and 12.5 bar for 1.1/4" upwards
- Suitable for hot water and potable water
- A viton seat option is also available on request

 **Working Temperature:**
-20°C to +95°C

 **Maximum Working Pressure:**
12.5 bar



BSPT Male Inlet x BSPP Female Outlet

0115	Thread	DN	Set Pressure Bar
500T-15-1	3/4"	15	1
500T-15-2	3/4"	15	2
500T-15-3	3/4"	15	3
500T-15-4	3/4"	15	4
500T-15-5	3/4"	15	5
500T-15-6	3/4"	15	6
500T-20-1	1"	20	1
500T-20-2	1"	20	2
500T-20-3	1"	20	3
500T-20-4	1"	20	4
500T-20-5	1"	20	5
500T-20-6	1"	20	6
500T-25-1	1.1/4"	25	1
500T-25-2	1.1/4"	25	2
500T-25-3	1.1/4"	25	3
500T-25-4	1.1/4"	25	4
500T-25-5	1.1/4"	25	5
500T-25-6	1.1/4"	25	6
500T-32-1	1.1/2"	32	1
500T-32-2	1.1/2"	32	2
500T-32-3	1.1/2"	32	3
500T-32-4	1.1/2"	32	4
500T-32-5	1.1/2"	32	5
500T-32-6	1.1/2"	32	6
400T-40-1	2"	40	1
400T-40-2	2"	40	2
400T-40-3	2"	40	3
400T-40-4	2"	40	4
400T-40-5	2"	40	5
400T-40-6	2"	40	6
500T-50-1	2.1/2"	50	1
500T-50-2	2.1/2"	50	2
500T-50-3	2.1/2"	50	3
500T-50-4	2.1/2"	50	4
500T-50-5	2.1/2"	50	5
500T-50-6	2.1/2"	50	6


Tech Sheet 20441

NABIC®

Safety Relief Valves (Fig 542F)

Features:

- Easing lever
- Relief pressure can be set between 0.3 and 10.5 bar
- Suitable for hot water, saturated steam, compressed air and inert gasses, CO2 (to +20°C), ethylene glycol and potable water
- A viton seat option is also available on request

 **Working Temperature:**
-20°C to +195°C

 **Maximum Working Pressure:**
10.5 bar



Flanged PN16 Inlet x BSPP Female Outlet

0115	Flange Size	Thread	Set Pressure Bar
542F-32-1	1.1/4"	1.1/4"	1
542F-32-2	1.1/4"	1.1/4"	2
542F-32-3	1.1/4"	1.1/4"	3
542F-32-4	1.1/4"	1.1/4"	4
542F-32-6	1.1/4"	1.1/4"	6
542F-40-1	1.1/2"	1.1/2"	1
542F-40-2	1.1/2"	1.1/2"	2
542F-40-3	1.1/2"	1.1/2"	3
542F-40-4	1.1/2"	1.1/2"	4
542F-40-6	1.1/2"	1.1/2"	6
542F-50-1	2"	2"	1
542F-50-2	2"	2"	2
542F-50-3	2"	2"	3
542F-50-4	2"	2"	4
542F-50-6	2"	2"	6
542F-63-1	2.1/2"	2.1/2"	1
542F-63-2	2.1/2"	2.1/2"	2
542F-63-3	2.1/2"	2.1/2"	3
542F-63-4	2.1/2"	2.1/2"	4
542F-63-6	2.1/2"	2.1/2"	6
542F-80-1	3"	3"	1
542F-80-2	3"	3"	2
542F-80-3	3"	3"	3
542F-80-4	3"	3"	4
542F-80-6	3"	3"	6

Tech Sheet 20442

Please Note: due to pressure setting and certification of this product, normal delivery will be up to 3 working days (manufacturers stock permitting), although a quicker service may be available if required.

Please contact our sales team.


We have listed all the popular sizes and pressure ratings, however other variations are available.

Individual test certificates to be requested at the time of order

Brass Nickel Plated Ball Valves Fitted with a Pneumatic Actuator

Features:

- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +170°C (valve)
 -20°C to +90°C (actuator)

 **Maximum Working Pressure:**
 40 bar


Single Acting, BSPP

0929	Thread
HSA 6400-12	1/2"
HSA 6400-34	3/4"
HSA 6400-1	1"
HSA 6400-114	1.1/4"
HSA 6400-112	1.1/2"
HSA 6400-2	2"

Tech Sheet 6184

Double Acting, BSPP


0929	Thread
HDA 6400-12	1/2"
HDA 6400-34	3/4"
HDA 6400-1	1"
HDA 6400-114	1.1/4"
HDA 6400-112	1.1/2"
HDA 6400-2	2"

Tech Sheet 6184

Brass Nickel Plated Ball Valves Fitted with a Pneumatic Actuator

Features:

- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +130°C (valve)
 -20°C to +90°C (actuator)

 **Maximum Working Pressure:**
 40 bar


Single Acting, BSPP

0929	Thread
HSA 1021-14	1/4"
HSA 1021-38	3/8"

Tech Sheet 6185

Double Acting, BSPP

0929	Thread
HDA 1021-14	1/4"
HDA 1021-38	3/8"

Tech Sheet 6185

You might also need...

NAMUR Solenoid Valves and Mechanical Switch Boxes

...see pages 1020-1022



Brass Nickel Plated 3 Way Ball Valves Fitted with a Pneumatic Actuator

Features:

- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

° Working Temperature:

- 20°C to +130°C (valve)
- 20°C to +90°C (actuator)

Single Acting, L Port, BSPP

0929	Thread	Max Pressure bar
HSA 1071-14	1/4"	40
HSA 1071-38	3/8"	40
HSA 1071-12	1/2"	40
HSA 1071-34	3/4"	40
HSA 1071-1	1"	40
HSA 1071-114	1.1/4"	40
HSA 1071-112	1.1/2"	25
HSA 1071-2	2"	25
Tech Sheet 6186		

Double Acting, L Port, BSPP

0929	Thread	Max Pressure bar
HDA 1071-14	1/4"	40
HDA 1071-38	3/8"	40
HDA 1071-12	1/2"	40
HDA 1071-34	3/4"	40
HDA 1071-1	1"	40
HDA 1071-114	1.1/4"	40
HDA 1071-112	1.1/2"	25
HDA 1071-2	2"	25
Tech Sheet 6186		



Single Acting, T Port, BSPP

0929	Thread	Max Pressure bar
HSA 1070-14	1/4"	40
HSA 1070-38	3/8"	40
HSA 1070-12	1/2"	40
HSA 1070-34	3/4"	40
HSA 1070-1	1"	40
HSA 1070-114	1.1/4"	40
HSA 1070-112	1.1/2"	25
HSA 1070-2	2"	25
Tech Sheet 6186		

Double Acting, T Port, BSPP

0929	Thread	Max Pressure bar
HDA 1070-14	1/4"	40
HDA 1070-38	3/8"	40
HDA 1070-12	1/2"	40
HDA 1070-34	3/4"	40
HDA 1070-1	1"	40
HDA 1070-114	1.1/4"	40
HDA 1070-112	1.1/2"	25
HDA 1070-2	2"	25
Tech Sheet 6186		

Stainless Steel Full Bore Ball Valves Fitted with a Pneumatic Actuator

Features:

- ATEX II 2GD c T5 certification
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

° Working Temperature:

- 20°C to +200°C (valve)
- 20°C to +90°C (actuator)



Maximum Working Pressure:

63 bar

Single Acting

0929	Thread
HSA 2006SD-14	1/4"
HSA 2006SD-38	3/8"
HSA 2006SD-12	1/2"
HSA 2006SD-34	3/4"
HSA 2006SD-1	1"
HSA 2006SD-114	1.1/4"
HSA 2006SD-112	1.1/2"
HSA 2006SD-2	2"
Tech Sheet 6187	

Double Acting


0929	Thread
HDA 2006SD-14	1/4"
HDA 2006SD-38	3/8"
HDA 2006SD-12	1/2"
HDA 2006SD-34	3/4"
HDA 2006SD-1	1"
HDA 2006SD-114	1.1/4"
HDA 2006SD-112	1.1/2"
HDA 2006SD-2	2"
Tech Sheet 6187	



Stainless Steel Full Bore Ball Valves Fitted with a Pneumatic Actuator

Features:

- ATEX II 2GD c T5 certificatio
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +200°C (valve)
 -20°C to +90°C (actuator)



 **Maximum Working Pressure:**
 63 bar

Single Acting, BSPP

0929	Thread
HSA 2013ND-14	1/4"
HSA 2013ND-38	3/8"
HSA 2013ND-12	1/2"
HSA 2013ND-34	3/4"
HSA 2013ND-1	1"
HSA 2013ND-114	1.1/4"
HSA 2013ND-112	1.1/2"
HSA 2013ND-2	2"
HSA 2013ND-212	2.1/2"
HSA 2013ND-3	3"
HSA 2013ND-4	4"

Tech Sheet 6188

Single Acting, Butt Weld

0929	Size
HSA 2012ND-12	1/2"
HSA 2012ND-34	3/4"
HSA 2012ND-1	1"
HSA 2012ND-114	1.1/4"
HSA 2012ND-112	1.1/2"
HSA 2012ND-2	2"
HSA 2012ND-212	2.1/2"
HSA 2012ND-3	3"
HSA 2012ND-4	4"

Tech Sheet 6188

Single Acting, Socket Weld

0929	Size
HSA 2011ND-38	3/8"
HSA 2011ND-12	1/2"
HSA 2011ND-34	3/4"
HSA 2011ND-1	1"
HSA 2011ND-114	1.1/4"
HSA 2011ND-112	1.1/2"
HSA 2011ND-2	2"
HSA 2011ND-212	2.1/2"
HSA 2011ND-3	3"
HSA 2011ND-4	4"

Tech Sheet 6188

Double Acting, BSPP

0929	Thread
HDA 2013ND-14	1/4"
HDA 2013ND-38	3/8"
HDA 2013ND-12	1/2"
HDA 2013ND-34	3/4"
HDA 2013ND-1	1"
HDA 2013ND-114	1.1/4"
HDA 2013ND-112	1.1/2"
HDA 2013ND-2	2"
HDA 2013ND-212	2.1/2"
HDA 2013ND-3	3"
HDA 2013ND-4	4"

Tech Sheet 6188

Double Acting, Butt Weld

0929	Size
HDA 2012ND-12	1/2"
HDA 2012ND-34	3/4"
HDA 2012ND-1	1"
HDA 2012ND-114	1.1/4"
HDA 2012ND-112	1.1/2"
HDA 2012ND-2	2"
HDA 2012ND-212	2.1/2"
HDA 2012ND-3	3"
HDA 2012ND-4	4"

Tech Sheet 6188

Double Acting, Socket Weld

0929	Size
HDA 2011ND-12	1/2"
HDA 2011ND-34	3/4"
HDA 2011ND-1	1"
HDA 2011ND-114	1.1/4"
HDA 2011ND-112	1.1/2"
HDA 2011ND-2	2"
HDA 2011ND-212	2.1/2"
HDA 2011ND-3	3"
HDA 2011ND-4	4"


Tech Sheet 6188



HAITIMA ACTUATION

Features:

- Fire Safe approved and anti-static device (valve only)
- ATEX II 2GD c T5 certification
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +220°C (valve)
 -20°C to +90°C (actuator)



For saturated steam up to 12 bar - use an actuated valve with a TSM

Fire Safe Stainless Steel Ball Valves Fitted with a Pneumatic Actuator

Single Acting, BSPP

0929	Thread	Max Pressure bar
HSA 2013KMD-12	1/2"	138
HSA 2013KMD-34	3/4"	138
HSA 2013KMD-1	1"	138
HSA 2013KMD-114	1.1/4"	103
HSA 2013KMD-112	1.1/2"	103
HSA 2013KMD-2	2"	103
HSA 2013KMD-212	2.1/2"	63
HSA 2013KMD-3	3"	63

Tech Sheet 6189

Double Acting, BSPP

0929	Thread	Max Pressure bar
HDA 2013KMD-12	1/2"	138
HDA 2013KMD-34	3/4"	138
HDA 2013KMD-1	1"	138
HDA 2013KMD-114	1.1/4"	103
HDA 2013KMD-112	1.1/2"	103
HDA 2013KMD-2	2"	103
HDA 2013KMD-212	2.1/2"	63
HDA 2013KMD-3	3"	63

Tech Sheet 6189

Single Acting, Butt Weld

0929	Size	Max Pressure bar
HSA 2012KMD-12	1/2"	138
HSA 2012KMD-34	3/4"	138
HSA 2012KMD-1	1"	138
HSA 2012KMD-112	1.1/2"	103
HSA 2012KMD-2	2"	103

Tech Sheet 6189

Double Acting, Butt Weld

0929	Size	Max Pressure bar
HDA 2012KMD-12	1/2"	138
HDA 2012KMD-34	3/4"	138
HDA 2012KMD-1	1"	138
HDA 2012KMD-112	1.1/2"	103
HDA 2012KMD-2	2"	103

Tech Sheet 6189

Single Acting, Socket Weld

0929	Thread	Max Pressure bar
HSA 2011KMD-12	1/2"	138
HSA 2011KMD-34	3/4"	138
HSA 2011KMD-1	1"	138
HSA 2011KMD-114	1.1/4"	103
HSA 2011KMD-112	1.1/2"	103
HSA 2011KMD-2	2"	103

Tech Sheet 6189

Double Acting, Socket Weld

0929	Thread	Max Pressure bar
HDA 2011KMD-12	1/2"	138
HDA 2011KMD-34	3/4"	138
HDA 2011KMD-1	1"	138
HDA 2011KMD-114	1.1/4"	103
HDA 2011KMD-112	1.1/2"	103
HDA 2011KMD-2	2"	103

Tech Sheet 6189



Fire Safe Carbon Steel Ball Valves Fitted with a Pneumatic Actuator

Single Acting, BSPP

0929	Thread	Max Pressure bar
HSA 2013KMD-12C	1/2"	138
HSA 2013KMD-34C	3/4"	138
HSA 2013KMD-1C	1"	138
HSA 2013KMD-114C	1.1/4"	103
HSA 2013KMD-112C	1.1/2"	103
HSA 2013KMD-2C	2"	103
HSA 2013KMD-212C	2.1/2"	63
HSA 2013KMD-3C	3"	63

Tech Sheet 6189

Double Acting, BSPP

0929	Thread	Max Pressure bar
HDA 2013KMD-12C	1/2"	138
HDA 2013KMD-34C	3/4"	138
HDA 2013KMD-1C	1"	138
HDA 2013KMD-114C	1.1/4"	103
HDA 2013KMD-112C	1.1/2"	103
HDA 2013KMD-2C	2"	103
HDA 2013KMD-212C	2.1/2"	63
HDA 2013KMD-3C	3"	63

Tech Sheet 6189



Stainless Steel 3 Way Ball Valves Fitted with a Pneumatic Actuator

Features:

- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

Working Temperature:
 -25°C to +180°C (valve)
 -20°C to +90°C (actuator)

Maximum Working Pressure:
 63 bar



Single Acting, L Port, BSPP

0929	Thread
HSA 2040-14	1/4"
HSA 2040-38	3/8"
HSA 2040-12	1/2"
HSA 2040-34	3/4"
HSA 2040-1	1"
HSA 2040-114	1.1/4"
HSA 2040-112	1.1/2"
HSA 2040-2	2"
HSA 2040-212	2.1/2"

Tech Sheet 6190

Double Acting, L Port, BSPP

0929	Thread
HDA 2040-14	1/4"
HDA 2040-38	3/8"
HDA 2040-12	1/2"
HDA 2040-34	3/4"
HDA 2040-1	1"
HDA 2040-114	1.1/4"
HDA 2040-112	1.1/2"
HDA 2040-2	2"
HDA 2040-212	2.1/2"

Tech Sheet 6190

Single Acting, T Port, BSPP

0929	Thread
HSA 2041-14	1/4"
HSA 2041-38	3/8"
HSA 2041-12	1/2"
HSA 2041-34	3/4"
HSA 2041-1	1"
HSA 2041-114	1.1/4"
HSA 2041-112	1.1/2"
HSA 2041-2	2"
HSA 2041-212	2.1/2"

Tech Sheet 6190

Double Acting, T Port, BSPP

0929	Thread
HDA 2041-14	1/4"
HDA 2041-38	3/8"
HDA 2041-12	1/2"
HDA 2041-34	3/4"
HDA 2041-1	1"
HDA 2041-114	1.1/4"
HDA 2041-112	1.1/2"
HDA 2041-2	2"
HDA 2041-212	2.1/2"

Tech Sheet 6190

Looking for bespoke Flow Path Configuration?
Contact our technical team.



Customers who bought from this page also purchased
Flat Brass & Sintered Bronze Silencers
 see page 631




HAITIMA ACTUATION


Stainless Steel Hygienic Ball Valves Fitted with a Pneumatic Actuator

Features:

- Cavity filled seat
- ATEX II 2GD c T5 certification
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +90°C (actuator)



 **Maximum Working Pressure:**
10 bar
Suitable for up to 10 bar saturated steam with a TSM

Single Acting, Butt Weld

0929	Size
HSA 2012CD-12	1/2"
HSA 2012CD-34	3/4"
HSA 2012CD-1	1"
HSA 2012CD-112	1.1/2"
HSA 2012CD-2	2"
HSA 2012CD-212	2.1/2"
HSA 2012CD-3	3"
HSA 2012CD-4	4"
Tech Sheet 6191	

Double Acting, Butt Weld

0929	Size
HDA 2012CD-12	1/2"
HDA 2012CD-34	3/4"
HDA 2012CD-1	1"
HDA 2012CD-112	1.1/2"
HDA 2012CD-2	2"
HDA 2012CD-212	2.1/2"
HDA 2012CD-3	3"
HDA 2012CD-4	4"
Tech Sheet 6191	



Single Acting, Clamp

0929	Size
HSA 2013CD-12	1/2"
HSA 2013CD-34	3/4"
HSA 2013CD-1	1"
HSA 2013CD-112	1.1/2"
HSA 2013CD-2	2"
HSA 2013CD-212	2.1/2"
HSA 2013CD-3	3"
HSA 2013CD-4	4"
Tech Sheet 6191	


Double Acting, Clamp


0929	Size
HDA 2013CD-12	1/2"
HDA 2013CD-34	3/4"
HDA 2013CD-1	1"
HDA 2013CD-112	1.1/2"
HDA 2013CD-2	2"
HDA 2013CD-212	2.1/2"
HDA 2013CD-3	3"
HDA 2013CD-4	4"
Tech Sheet 6191	

Stainless Steel Hygienic 3 Way Ball Valves Fitted with a Pneumatic Actuator

Features:

- Cavity filled seat
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +90°C (actuator)

 **Maximum Working Pressure:**
10 bar
Suitable for up to 10 bar saturated steam with a TSM

Single Acting, L Port, Butt Weld

0929	Size
HSA 2057CBL-12	1/2"
HSA 2057CBL-1	1"
HSA 2057CBL-112	1.1/2"
HSA 2057CBL-2	2"
HSA 2057CBL-212	2.1/2"
HSA 2057CBL-3	3"
HSA 2057CBL-4	4"
Tech Sheet 6192	

Double Acting, L Port, Butt Weld

0929	Size
HDA 2057CBL-12	1/2"
HDA 2057CBL-1	1"
HDA 2057CBL-112	1.1/2"
HDA 2057CBL-2	2"
HDA 2057CBL-212	2.1/2"
HDA 2057CBL-3	3"
HDA 2057CBL-4	4"
Tech Sheet 6192	



Single Acting, T Port, Butt Weld

0929	Size
HSA 2057CBT-12	1/2"
HSA 2057CBT-1	1"
HSA 2057CBT-112	1.1/2"
HSA 2057CBT-2	2"
HSA 2057CBT-212	2.1/2"
HSA 2057CBT-3	3"
HSA 2057CBT-4	4"
Tech Sheet 6192	


Double Acting, T Port, Butt Weld

0929	Size
HDA 2057CBT-12	1/2"
HDA 2057CBT-1	1"
HDA 2057CBT-112	1.1/2"
HDA 2057CBT-2	2"
HDA 2057CBT-212	2.1/2"
HDA 2057CBT-3	3"
HDA 2057CBT-4	4"
Tech Sheet 6192	

Fire Safe Stainless Steel Ball Valves Fitted with a Pneumatic Actuator

Features:

- Fire Safe approved and anti-static device (valve only)
- ATEX II 2GD c T5 certificatio
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +200°C (valve)
 -20°C to +90°C (actuator)



Suitable for up to 12 bar saturated steam with a TSM



Single Acting, Flanged PN16

0929	Size	Max Pressure bar
HSA 2019D 04	1/2"	40
HSA 2019D 05	3/4"	40
HSA 2019D 06	1"	40
HSA 2019D 07	1.1/4"	40
HSA 2019D 08	1.1/2"	40
HSA 2019D 09	2"	40
HSA 2019D 10	2.1/2"	16
HSA 2019D 11	3"	16
HSA 2019D 12	4"	16
HSA 2019D 13	5"	16
HSA 2019D 14	6"	16
HSA 2019D 16	8"	16

Tech Sheet 6193

Double Acting, Flanged PN16

0929	Size	Max Pressure bar
HDA 2019D 04	1/2"	40
HDA 2019D 05	3/4"	40
HDA 2019D 06	1"	40
HDA 2019D 07	1.1/4"	40
HDA 2019D 08	1.1/2"	40
HDA 2019D 09	2"	40
HDA 2019D 10	2.1/2"	16
HDA 2019D 11	3"	16
HDA 2019D 12	4"	16
HDA 2019D 13	5"	16
HDA 2019D 14	6"	16
HDA 2019D 16	8"	16

Tech Sheet 6193

Single Acting, Flanged PN40

0929	Size	Max Pressure bar
HSA 2019D4 10	2.1/2"	40
HSA 2019D4 11	3"	40
HSA 2019D4 12	4"	40

Tech Sheet 6193

Double Acting, Flanged PN40

0929	Size	Max Pressure bar
HDA 2019D4 10	2.1/2"	40
HDA 2019D4 11	3"	40
HDA 2019D4 12	4"	40

Tech Sheet 6193



You might also need...
Stainless Steel Flanges
 ...see page 1195




HAITIMA ACTUATION


Stainless Steel Flanged Ball Valves Fitted with a Pneumatic Actuator

Features:

- Fire Safe approved and anti-static device (valve only)
- ATEX II 2GD c T5 certificatio
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
-20°C to +230°C (valve)
-20°C to +90°C (actuator)



 **Maximum Working Pressure:**
19.6 bar
Suitable for up to 12 bar saturated steam with a TSM



Single Acting, ANSI150

0929	Size
HSA 2020D 04	1/2"
HSA 2020D 05	3/4"
HSA 2020D 06	1"
HSA 2020D 07	1.1/4"
HSA 2020D 08	1.1/2"
HSA 2020D 09	2"
HSA 2020D 10	2.1/2"
HSA 2020D 11	3"
HSA 2020D 12	4"
HSA 2020D 14	6"

Tech Sheet 6194

Double Acting, ANSI150

0929	Size
HDA 2020D 04	1/2"
HDA 2020D 05	3/4"
HDA 2020D 06	1"
HDA 2020D 07	1.1/4"
HDA 2020D 08	1.1/2"
HDA 2020D 09	2"
HDA 2020D 10	2.1/2"
HDA 2020D 11	3"
HDA 2020D 12	4"
HDA 2020D 14	6"


Tech Sheet 6194

HAITIMA ACTUATION

Cast Iron Flanged Ball Valves Fitted with a Pneumatic Actuator

Features:

- 304 stainless steel ball and stem
- ATEX II 2GD c T5 certificatio
- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
-10°C to +200°C (valve)
-20°C to +90°C (actuator)



 **Maximum Working Pressure:**
16 bar



Single Acting, PN16

0929	Size
HSA 150HIT 04	1/2"
HSA 150HIT 05	3/4"
HSA 150HIT 06	1"
HSA 150HIT 07	1.1/4"
HSA 150HIT 08	1.1/2"
HSA 150HIT 09	2"
HSA 150HIT 10	2.1/2"
HSA 150HIT 11	3"
HSA 150HIT 12	4"
HSA 150HIT 13	5"
HSA 150HIT 14	6"
HSA 150HIT 16	8"

Tech Sheet 6200

Double Acting, PN16


0929	Size
HDA 150HIT 04	1/2"
HDA 150HIT 05	3/4"
HDA 150HIT 06	1"
HDA 150HIT 07	1.1/4"
HDA 150HIT 08	1.1/2"
HDA 150HIT 09	2"
HDA 150HIT 10	2.1/2"
HDA 150HIT 11	3"
HDA 150HIT 12	4"
HDA 150HIT 13	5"
HDA 150HIT 14	6"
HDA 150HIT 16	8"


Tech Sheet 6200

Stainless Steel Flanged 3 Way Ball Valves Fitted with a Pneumatic Actuator

Features:

- Sized based on 10 bar pilot air and wet non-abrasive duty at +90°C

 **Working Temperature:**
 -20°C to +200°C (valve)
 -20°C to +90°C (actuator)

 **Maximum Working Pressure:**
 16 bar: PN16
 19.6 bar: ANSI150



Single Acting, L Port, PN16

0929	Size
HSA 2059DL16 04	1/2"
HSA 2059DL16 06	1"
HSA 2059DL16 08	1.1/2"
HSA 2059DL16 09	2"
HSA 2059DL16 10	2.1/2"
HSA 2059DL16 11	3"
HSA 2059DL16 12	4"
HSA 2059DL16 14	6"

Tech Sheet 6195

Double Acting, L Port PN16

0929	Size
HDA 2059DL16 04	1/2"
HDA 2059DL16 06	1"
HDA 2059DL16 08	1.1/2"
HDA 2059DL16 09	2"
HDA 2059DL16 10	2.1/2"
HDA 2059DL16 11	3"
HDA 2059DL16 12	4"
HDA 2059DL16 14	6"

Tech Sheet 6195

Single Acting, L Port, ANSI150

0929	Size
HSA 2059DL150 04	1/2"
HSA 2059DL150 06	1"
HSA 2059DL150 08	1.1/2"
HSA 2059DL150 09	2"
HSA 2059DL150 11	3"
HSA 2059DL150 12	4"
HSA 2059DL150 14	6"

Tech Sheet 6195

Double Acting, L Port ANSI150

0929	Size
HDA 2059DL150 04	1/2"
HDA 2059DL150 06	1"
HDA 2059DL150 08	1.1/2"
HDA 2059DL150 09	2"
HDA 2059DL150 11	3"
HDA 2059DL150 12	4"
HDA 2059DL150 14	6"

Tech Sheet 6195

Single Acting, T Port, PN16

0929	Size
HSA 2059DT16 04	1/2"
HSA 2059DT16 06	1"
HSA 2059DT16 08	1.1/2"
HSA 2059DT16 09	2"
HSA 2059DT16 10	2.1/2"
HSA 2059DT16 11	3"
HSA 2059DT16 12	4"
HSA 2059DT16 14	6"

Tech Sheet 6195

Double Acting, T Port PN16

0929	Size
HDA 2059DT16 04	1/2"
HDA 2059DT16 06	1"
HDA 2059DT16 08	1.1/2"
HDA 2059DT16 09	2"
HDA 2059DT16 10	2.1/2"
HDA 2059DT16 11	3"
HDA 2059DT16 12	4"
HDA 2059DT16 14	6"

Tech Sheet 6195

Single Acting, T Port, ANSI150

0929	Size
HSA 2059DT150 04	1/2"
HSA 2059DT150 06	1"
HSA 2059DT150 08	1.1/2"
HSA 2059DT150 09	2"
HSA 2059DT150 11	3"
HSA 2059DT150 12	4"
HSA 2059DT150 14	6"

Tech Sheet 6195

Double Acting, T Port ANSI150

0929	Size
HDA 2059DT150 04	1/2"
HDA 2059DT150 06	1"
HDA 2059DT150 08	1.1/2"
HDA 2059DT150 09	2"
HDA 2059DT150 11	3"
HDA 2059DT150 12	4"
HDA 2059DT150 14	6"

Tech Sheet 6195

HAITIMA ACTUATION



Wafer Pattern Butterfly Valves Fitted with a Pneumatic Actuator

Features:

- To suit flanges PN6/10/16, ANSI150 and BS 10able D/E
- Sized based on 10 bar pilot air and wet non-abrasive duty at +80°C



- ° Working Temperature:
 - 20°C to +120°C (WA and WC)
 - 0°C to +80°C (WB and WD)
 - 20°C to 90°C (actuator)
 - Excluding ice and steam

- Maximum Working Pressure: 16 bar



Single Acting, Ductile Iron Body, EPDM Liner, Stainless Steel Disc (WRAS Approved Valve)

0929	Size
HSA 2014WA 08	1.1/2"
HSA 2014WA 09	2"
HSA 2014WA 10	2.1/2"
HSA 2014WA 11	3"
HSA 2014WA 12	4"
HSA 2014WA 13	5"
HSA 2014WA 14	6"
HSA 2014WA 16	8"
HSA 2014WA 18	10"
HSA 2014WA 20	12"

Tech Sheet 6204

Double Acting, Ductile Iron Body, EPDM Liner, Stainless Steel Disc (WRAS Approved Valve)

0929	Size
HDA 2014WA 08	1.1/2"
HDA 2014WA 09	2"
HDA 2014WA 10	2.1/2"
HDA 2014WA 11	3"
HDA 2014WA 12	4"
HDA 2014WA 13	5"
HDA 2014WA 14	6"
HDA 2014WA 16	8"
HDA 2014WA 18	10"
HDA 2014WA 20	12"

Tech Sheet 6204

Single Acting, Cast Iron Body, NBR Liner, Stainless Steel Disc

0929	Size
HSA 2014WB 08	1.1/2"
HSA 2014WB 09	2"
HSA 2014WB 10	2.1/2"
HSA 2014WB 11	3"
HSA 2014WB 12	4"
HSA 2014WB 13	5"
HSA 2014WB 14	6"
HSA 2014WB 16	8"
HSA 2014WB 18	10"
HSA 2014WB 20	12"

Tech Sheet 6204

Double Acting, Cast Iron Body, NBR Liner, Stainless Steel Disc

0929	Size
HDA 2014WB 08	1.1/2"
HDA 2014WB 09	2"
HDA 2014WB 10	2.1/2"
HDA 2014WB 11	3"
HDA 2014WB 12	4"
HDA 2014WB 13	5"
HDA 2014WB 14	6"
HDA 2014WB 16	8"
HDA 2014WB 18	10"
HDA 2014WB 20	12"

Tech Sheet 6204

Single Acting, Cast Iron Body, EPDM Liner, Ductile Iron Nickel Plated Disc

0929	Size
HSA 2014WC 09	2"
HSA 2014WC 10	2.1/2"
HSA 2014WC 11	3"
HSA 2014WC 12	4"
HSA 2014WC 13	5"
HSA 2014WC 14	6"
HSA 2014WC 16	8"
HSA 2014WC 18	10"
HSA 2014WC 20	12"

Tech Sheet 6204

Double Acting, Cast Iron Body, EPDM Liner, Ductile Iron Nickel Plated Disc

0929	Size
HDA 2014WC 09	2"
HDA 2014WC 10	2.1/2"
HDA 2014WC 11	3"
HDA 2014WC 12	4"
HDA 2014WC 13	5"
HDA 2014WC 14	6"
HDA 2014WC 16	8"
HDA 2014WC 18	10"
HDA 2014WC 20	12"

Tech Sheet 6204

Single Acting, Cast Iron Body, NBR Liner, Ductile Iron Nickel Plated Disc

0929	Size
HSA 2014WD 09	2"
HSA 2014WD 10	2.1/2"
HSA 2014WD 11	3"
HSA 2014WD 12	4"
HSA 2014WD 13	5"
HSA 2014WD 14	6"
HSA 2014WD 16	8"
HSA 2014WD 18	10"
HSA 2014WD 20	12"

Tech Sheet 6204

Double Acting, Cast Iron Body, NBR Liner, Ductile Iron Nickel Plated Disc

0929	Size
HDA 2014WD 09	2"
HDA 2014WD 10	2.1/2"
HDA 2014WD 11	3"
HDA 2014WD 12	4"
HDA 2014WD 13	5"
HDA 2014WD 14	6"
HDA 2014WD 16	8"
HDA 2014WD 18	10"
HDA 2014WD 20	12"

Tech Sheet 6204



You might also need...
NAMUR 5/2 Solenoid Valve
...see page 1020



Wafer Pattern Butterfly Valves Fitted with a Pneumatic Actuator

Features:

- To suit flanges PN6/10/16, ANSI150 and BS 10able D/E
- Sized based on 10 bar pilot air and wet non-abrasive duty at +80°C

- Working Temperature:**
 -40°C to +200°C (valve)
 -20°C to +90°C (actuator)



Single Acting, Ductile Iron Body, Fully Lined PTFE

0929	Size	Max Pressure bar
HSA 2014WP 09	2"	16
HSA 2014WP 10	2.1/2"	16
HSA 2014WP 11	3"	16
HSA 2014WP 12	4"	16
HSA 2014WP 13	5"	16
HSA 2014WP 14	6"	16
HSA 2014WP 16	8"	16
HSA 2014WP 18	10"	16
HSA 2014WP 20	12"	10

Tech Sheet 6205

Double Acting, Ductile Iron Body, Fully Lined PTFE

0929	Size	Max Pressure bar
HDA 2014WP 09	2"	16
HDA 2014WP 10	2.1/2"	16
HDA 2014WP 11	3"	16
HDA 2014WP 12	4"	16
HDA 2014WP 13	5"	16
HDA 2014WP 14	6"	16
HDA 2014WP 16	8"	16
HDA 2014WP 18	10"	16
HDA 2014WP 20	12"	10

Tech Sheet 6205

Lugged & Tapped Butterfly Valves Fitted with a Pneumatic Actuator

Features:

- To suit PN16 flanges
- Sized based on 10 bar pilot air and wet non-abrasive duty at +80°C



- Working Temperature:**
 -20°C to +120°C (2014LA)
 0°C to +80°C (2014LB)
 -20°C to +90°C (actuator)
 Excluding ice and steam

- Maximum Working Pressure:**
 16 bar



Single Acting, Ductile Iron Body, EPDM Liner, Stainless Steel Disc (WRAS Approved Valve)

0929	Size
HSA 2014LA 08	1.1/2"
HSA 2014LA 09	2"
HSA 2014LA 10	2.1/2"
HSA 2014LA 11	3"
HSA 2014LA 12	4"
HSA 2014LA 13	5"
HSA 2014LA 14	6"
HSA 2014LA 16	8"
HSA 2014LA 18	10"
HSA 2014LA 20	12"

Tech Sheet 6206

Double Acting, Ductile Iron Body, EPDM Liner, Stainless Steel Disc (WRAS Approved Valve)

0929	Size
HDA 2014LA 08	1.1/2"
HDA 2014LA 09	2"
HDA 2014LA 10	2.1/2"
HDA 2014LA 11	3"
HDA 2014LA 12	4"
HDA 2014LA 13	5"
HDA 2014LA 14	6"
HDA 2014LA 16	8"
HDA 2014LA 18	10"
HDA 2014LA 20	12"

Tech Sheet 6206

Single Acting, Ductile Iron Body, NBR Liner, Stainless Steel Disc

0929	Size
HDA 2014LB 08	1.1/2"
HDA 2014LB 09	2"
HDA 2014LB 10	2.1/2"
HDA 2014LB 11	3"
HDA 2014LB 12	4"
HDA 2014LB 13	5"
HDA 2014LB 14	6"
HDA 2014LB 16	8"
HDA 2014LB 18	10"
HDA 2014LB 20	12"

Tech Sheet 6206

Double Acting, Ductile Iron Body, NBR Liner, Stainless Steel Disc

0929	Size
HSA 2014LB 08	1.1/2"
HSA 2014LB 09	2"
HSA 2014LB 10	2.1/2"
HSA 2014LB 11	3"
HSA 2014LB 12	4"
HSA 2014LB 13	5"
HSA 2014LB 14	6"
HSA 2014LB 16	8"
HSA 2014LB 18	10"
HSA 2014LB 20	12"

Tech Sheet 6206

ACTUATED KNIFE GATE VALVES


Features:

- ATEX II 3GD T3 certification
- Provides high flow rates with low pressure drop
- Other sizes or flange dimensions are available on request

Type A Unidirectional Knife Gate Valves Fitted with a Pneumatic Cylinder

- Suitable for liquids that contain a maximum of 5% suspended solids

Pressure Equipment Directive:
DIR 97/23/EC (PED) Art. 4.3, Cat. 1

Working Temperature:
0°C to +90°C



Type AB Bidirectional Knife Gate Valves Fitted with a Pneumatic Cylinder

- Suitable for liquids that contain a maximum of 4% suspended solids

Pressure Equipment Directive:
DIR 97/23/EC (PED) Art. 4.3, Cat. 1

Working Temperature:
0°C to +90°C



Double Acting, Cast Iron Body, 304SS Blade, EPDM Seat

0944	Size	DN	Flange	Max Pressure bar
A1N2H2 09	2"	50	PN10/16	10
A1N2H2 10	2.1/2"	65	PN10/16	10
A1N2H2 11	3"	80	PN10/16	10
A1N2H2 12	4"	100	PN10/16	10
A1N2H2 13	5"	125	PN10/16	10
A1N2H2 14	6"	150	PN10/16	10
A1N2H2 16	8"	200	PN10	10
A1N2H2 18	10"	250	PN10	10
A1N2H2 20	12"	300	PN10	6
A3N2H2 16	8"	200	PN16	10
A3N2H2 18	10"	250	PN16	10
A3N2H2 20	12"	300	PN16	6

Tech Sheet 10246

Double Acting, Cast Iron Body, 304SS Blade, EPDM Seat

0944	Size	DN	Flange	Max Pressure bar
AB1N2H2 09	2"	50	PN10/16	10
AB1N2H2 10	2.1/2"	65	PN10/16	10
AB1N2H2 11	3"	80	PN10/16	10
AB1N2H2 12	4"	100	PN10/16	10
AB1N2H2 13	5"	125	PN10/16	10
AB1N2H2 14	6"	150	PN10/16	10
AB1N2H2 16	8"	200	PN10	8
AB1N2H2 18	10"	250	PN10	6
AB1N2H2 20	12"	300	PN10	6

Tech Sheet 6242

Limit Switches are also available on request
Please contact our sales team.

Brass Nickel Plated Ball Valves Fitted with a J2-10 Electric Actuator

Features:

- L10: 24V DC/V AC 50/60Hz
H10: 110-240V DC/V AC 50/60Hz
- Failsafe and/or modulating configurations cannot be used with the J2-10 electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

° Working Temperature:

- 20°C to +170°C (valve)
- 20°C to +70°C (actuator)

Maximum Working Pressure:

40 bar



BSPP, Low Voltage

0956	Thread
L10 6400-12	1/2"
L10 6400-34	3/4"
L10 6400-1	1"
L10 6400-114	1.1/4"

Tech Sheet 6259

BSPP, High Voltage

0956	Thread
H10 6400-12	1/2"
H10 6400-34	3/4"
H10 6400-1	1"
H10 6400-114	1.1/4"

Tech Sheet 6259

Brass Nickel Plated Ball Valves Fitted with a J2-10 Electric Actuator

Features:

- L10: 24V DC/V AC 50/60Hz
H10: 110-240V DC/V AC 50/60Hz
- Failsafe and/or modulating configurations cannot be used with the J2-10 electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

° Working Temperature:

- 20°C to +130°C (valve)
- 20°C to +70°C (actuator)

Maximum Working Pressure:

40 bar



BSPP, Low Voltage

0956	Thread
L10 1021-14	1/4"
L10 1021-38	3/8"

Tech Sheet 6260

BSPP, High Voltage

0956	Thread
H10 1021-14	1/4"
H10 1021-38	3/8"

Tech Sheet 6260

Do you require the WRAS certificate?

Contact our sales team and they will send this to you by email.

J+J ACTUATION



Brass Nickel Plated 3 Way Ball Valves Fitted with a J2-10 Electric Actuator

Features:

- L10: 24V DC/V AC 50/60Hz
H10: 110-240V DC/V AC 50/60Hz
- Failsafe and/or modulating configurations cannot be used with the J2-10 electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C



Working Temperature:

- 20°C to +130°C (valve)
- 20°C to +70°C (actuator)



Maximum Working Pressure:

40 bar



BSPP, Low Voltage, L Port

0956	Thread
L10 1071-14	1/4"
L10 1071-38	3/8"
L10 1071-12	1/2"
L10 1071-34	3/4"

Tech Sheet 6261

BSPP, Low Voltage, T Port

0956	Thread
L10 1070-14	1/2"
L10 1070-38	3/4"
L10 1070-12	1"
L10 1070-34	1.1/4"

Tech Sheet 6259

BSPP, High Voltage, L Port

0956	Thread
H10 1071-14	1/4"
H10 1071-38	3/8"
H10 1071-12	1/2"
H10 1071-34	3/4"

Tech Sheet 6261

BSPP, High Voltage, T Port

0956	Thread
H10 1070-14	1/2"
H10 1070-38	3/4"
H10 1070-12	1"
H10 1070-34	1.1/4"

Tech Sheet 6259

Brass Nickel Plated Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C



Working Temperature:

- 20°C to +130°C (valve)
- 20°C to +70°C (actuator)



Maximum Working Pressure:

40 bar

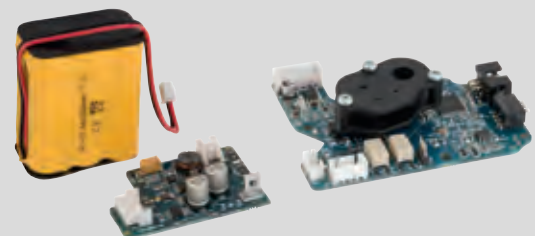
BSPP, Multi Voltage

0956	Thread
S20 1021-14	1/4"
S20 1021-38	3/8"

Tech Sheet 6491



Do you require...
failsafe and/or modulating configurations?
 ...see page 1019



Brass Nickel Plated Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -20°C to +170°C (valve)
 -20°C to +70°C (actuator)

Maximum Working Pressure:
 40 bar



BSPP, Multi Voltage

0956	Thread
S20 6400-12	1/2"
S20 6400-34	3/4"
S20 6400-1	1"
S20 6400-114	1.1/4"
S20 6400-112	1.1/2"
S20 6400-2	2"

Tech Sheet 6497

Features:

- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -20°C to +130°C (valve)
 -20°C to +70°C (actuator)



BSPP, L Port, Multi Voltage

0956	Thread	Max Pressure bar
S20 1071-14	1/4"	40
S20 1071-38	3/8"	40
S20 1071-12	1/2"	40
S20 1071-34	3/4"	40
S20 1071-1	1"	40
S20 1071-114	1.1/4"	40
S35 1071-112	1.1/2"	25
S55 1071-2	2"	25

Tech Sheet 6495

BSPP, T Port, Multi Voltage

0956	Thread	Max Pressure bar
S20 1070-14	1/4"	40
S20 1070-38	3/8"	40
S20 1070-12	1/2"	40
S20 1070-34	3/4"	40
S20 1070-1	1"	40
S20 1070-114	1.1/4"	40
S35 1070-112	1.1/2"	25
S55 1070-2	2"	25


Tech Sheet 6495

Do you require the WRAS certificate?
Contact our sales team and they will send this to you by email.

Stainless Steel Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
63 bar



BSPP, Multi Voltage

0956	Thread
S20 2006SD-14	1/4"
S20 2006SD-38	3/8"
S20 2006SD-12	1/2"
S20 2006SD-34	3/4"
S20 2006SD-1	1"
S20 2006SD-114	1.1/4"
S20 2006SD-112	1.1/2"
S55 2006SD-2	2"


Tech Sheet 6496

7

Stainless Steel Full Bore Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
63 bar



BSPP, Multi Voltage

0956	Thread
S20 2013ND-14	1/4"
S20 2013ND-38	3/8"
S20 2013ND-12	1/2"
S20 2013ND-34	3/4"
S20 2013ND-1	1"
S20 2013ND-114	1.1/4"
S35 2013ND-112	1.1/2"
S55 2013ND-2	2"
S55 2013ND-212	2.1/2"
S85 2013ND-3	3"
S140 2013ND-4	4"

Tech Sheet 6262

Butt Weld, Multi Voltage

0956	Size
S20 2012ND-12	1/2"
S20 2012ND-34	3/4"
S20 2012ND-1	1"
S20 2012ND-114	1.1/4"
S35 2012ND-112	1.1/2"
S55 2012ND-2	2"
S55 2012ND-212	2.1/2"
S85 2012ND-3	3"
S140 2012ND-4	4"

Tech Sheet 6262

Socket Weld, Multi Voltage

0956	Thread
S20 2011ND-12	1/2"
S20 2011ND-34	3/4"
S20 2011ND-1	1"
S20 2011ND-114	1.1/4"
S35 2011ND-112	1.1/2"
S55 2011ND-2	2"
S55 2011ND-212	2.1/2"
S85 2011ND-3	3"
S140 2011ND-4	4"

Tech Sheet 6262

Fire Safe Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Fire Safe approved and anti-static device (valve only)
- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -20°C to +220°C (valve)
 -20°C to +70°C (actuator)

Suitable for up to 12 bar saturated steam with a TSM



Stainless Steel, BSPP, Multi Voltage

0956	Thread	Max Pressure bar
S20 2013KMD-12	1/2"	138
S20 2013KMD-34	3/4"	138
S20 2013KMD-1	1"	138
S20 2013KMD-114	1.1/4"	103
S35 2013KMD-112	1.1/2"	103
S55 2013KMD-2	2"	103
S85 2013KMD-212	2.1/2"	63
S140 2013KMD-3	3"	63
Tech Sheet 6490		

Stainless Steel, Socket Weld, Multi Voltage

0956	Thread	Max Pressure bar
S20 2011KMD-12	1/2"	138
S20 2011KMD-34	3/4"	138
S20 2011KMD-1	1"	138
S20 2011KMD-114	1.1/4"	103
S35 2011KMD-112	1.1/2"	103
S55 2011KMD-2	2"	103
Tech Sheet 6490		

Stainless Steel, Butt Weld, Multi Voltage

0956	Thread	Max Pressure bar
S20 2012KMD-12	1/2"	138
S20 2012KMD-34	3/4"	138
S20 2012KMD-1	1"	138
S35 2012KMD-112	1.1/2"	103
S55 2012KMD-2	2"	103
Tech Sheet 6490		

Carbon Steel, BSPP, Multi Voltage

0956	Thread	Max Pressure bar
S20 2013KMD-12C	1/2"	138
S20 2013KMD-34C	3/4"	138
S20 2013KMD-1C	1"	138
S20 2013KMD-114C	1.1/4"	103
S35 2013KMD-112C	1.1/2"	103
S55 2013KMD-2C	2"	103
S85 2013KMD-212C	2.1/2"	63
S140 2013KMD-3C	3"	63
Tech Sheet 6490		

Stainless Steel 3 Way Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -25°C to +180°C (valve)
 -20°C to +70°C (actuator)

Maximum Working Pressure:
 63 bar



BSPP, L Port, Multi Voltage

0956	Thread
S20 2040-14	1/4"
S20 2040-38	3/8"
S20 2040-12	1/2"
S20 2040-34	3/4"
S20 2040-1	1"
S35 2040-114	1.1/4"
S55 2040-112	1.1/2"
S85 2040-2	2"
S85 2040-212	2.1/2"
Tech Sheet 6489	


BSPP, T Port, Multi Voltage


0956	Thread
S20 2041-14	1/4"
S20 2041-38	3/8"
S20 2041-12	1/2"
S20 2041-34	3/4"
S20 2041-1	1"
S35 2041-114	1.1/4"
S55 2041-112	1.1/2"
S85 2041-2	2"
S85 2041-212	2.1/2"
Tech Sheet 6489	

Stainless Steel Hygienic Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Cavity filled seats
- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
10 bar
(Suitable for up to 10 bar saturated steam with a TSM)



Butt Weld, Multi Voltage

0956	Size
S20 2012CD-12	1/2"
S20 2012CD-34	3/4"
S20 2012CD-1	1"
S20 2012CD-112	1.1/2"
S35 2012CD-2	2"
S55 2012CD-212	2.1/2"
S55 2012CD-3	3"
S85 2012CD-4	4"

Tech Sheet 6488

Clamp, Multi Voltage


0956	Size
S20 2013CD-12	1/2"
S20 2013CD-34	3/4"
S20 2013CD-1	1"
S20 2013CD-112	1.1/2"
S35 2013CD-2	2"
S55 2013CD-212	2.1/2"
S55 2013CD-3	3"
S85 2013CD-4	4"


Tech Sheet 6488

Stainless Steel Hygienic 3 Way Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Cavity filled seats
- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
10 bar
(Suitable for up to 10 bar saturated steam with a TSM)



Butt Weld, L Port, Multi Voltage

0956	Size
S20 2057CBL-12	1/2"
S20 2057CBL-1	1"
S20 2057CBL-112	1.1/2"
S35 2057CBL-2	2"
S85 2057CBL-212	2.1/2"
S140 2057CBL-3	3"
S140 2057CBL-4	4"

Tech Sheet 6487

Butt Weld, T Port, Multi Voltage

0956	Size
S20 2057CBT-12	1/2"
S20 2057CBT-1	1"
S20 2057CBT-112	1.1/2"
S35 2057CBT-2	2"
S85 2057CBT-212	2.1/2"
S140 2057CBT-3	3"
S140 2057CBT-4	4"

Tech Sheet 6487

Fire Safe Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Fire Safe approved and anti-static device (valve only)
- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C



Working Temperature: Suitable for up to 12 bar saturated steam with a TSM
 -20°C to +200°C (valve)
 -20°C to +70°C (actuator)



Stainless Steel, Flanged PN16, Multi Voltage

0956	Flange Size	Max Pressure bar
S20 2019D 04	1/2"	40
S20 2019D 05	3/4"	40
S20 2019D 06	1"	40
S20 2019D 07	1.1/4"	40
S35 2019D 08	1.1/2"	40
S35 2019D 09	2"	40
S55 2019D 10	2.1/2"	16
S55 2019D 11	3"	16
S85 2019D 12	4"	16
S300 2019D 13	5"	16

Tech Sheet 6492

Stainless Steel, Flanged PN40, Multi Voltage

0956	Flange Size	Max Pressure bar
S55 2019D4 10	2.1/2"	40
S55 2019D4 11	3"	40
S140 2019D4 12	4"	40

Tech Sheet 6492

Carbon Steel, Flanged PN16, Multi Voltage

0956	Flange Size	Max Pressure bar
S20 2019D 04C	1/2"	40
S20 2019D 05C	3/4"	40
S20 2019D 06C	1"	40
S20 2019D 07C	1.1/4"	40
S35 2019D 08C	1.1/2"	40
S35 2019D 09C	2"	40
S55 2019D 10C	2.1/2"	16
S55 2019D 11C	3"	16
S85 2019D 12C	4"	16

Tech Sheet 6492

Fire Safe Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Fire Safe approved and anti-static device (valve only)
- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C



Working Temperature: Suitable for up to 12 bar saturated steam with a TSM
 -20°C to +230°C (valve)
 -20°C to +70°C (actuator)

Maximum Working Pressure:
 19.6 bar



Flanged ANSI150, Stainless Steel, Multi Voltage

0956	Flange Size
S20 2020D 04	1/2"
S20 2020D 05	3/4"
S20 2020D 06	1"
S20 2020D 07	1.1/4"
S35 2020D 08	1.1/2"
S35 2020D 09	2"
S55 2020D 10	2.1/2"
S55 2020D 11	3"
S85 2020D 12	4"

Tech Sheet 6498

Flanged ANSI150, Carbon Steel, Multi Voltage


0956	Flange Size
S20 2020D 04C	1/2"
S20 2020D 05C	3/4"
S20 2020D 06C	1"
S20 2020D 07C	1.1/4"
S35 2020D 08C	1.1/2"
S35 2020D 09C	2"
S55 2020D 10C	2.1/2"
S55 2020D 11C	3"
S85 2020D 12C	4"


Tech Sheet 6498

Stainless Steel Flanged 3 Way Ball Valve Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-20°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
16 bar: PN16
19.6 bar: ANSI150

Flanged PN16, L Port, Multi Voltage

0956	Flange Size
S20 2059DL16 04	1/2"
S35 2059DL16 06	1"
S55 2059DL16 08	1.1/2"
S85 2059DL16 09	2"
S140 2059DL16 10	2.1/2"
S300 2059DL16 11	3"
S300 2059DL16 12	4"

Tech Sheet 6486

Flanged PN16, T Port, Multi Voltage

0956	Flange Size
S20 2059DT16 04	1/2"
S35 2059DT16 06	1"
S55 2059DT16 08	1.1/2"
S85 2059DT16 09	2"
S140 2059DT16 10	2.1/2"
S300 2059DT16 11	3"
S300 2059DT16 12	4"

Tech Sheet 6486



Flanged ANSI150, L Port, Multi Voltage

0956	Flange Size
S20 2059DL150 04	1/2"
S35 2059DL150 06	1"
S55 2059DL150 08	1.1/2"
S85 2059DL150 09	2"

Tech Sheet 6486

Flanged ANSI150, T Port, Multi Voltage


0956	Flange Size
S20 2059DT150 04	1/2"
S35 2059DT150 06	1"
S55 2059DT150 08	1.1/2"
S85 2059DT150 09	2"

Tech Sheet 6486

Cast Iron Flanged PN16 Ball Valves Fitted with a J4CS Electric Actuator

Features:

- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

 **Working Temperature:**
-10°C to +200°C (valve)
-20°C to +70°C (actuator)

 **Maximum Working Pressure:**
16 bar

Flanged PN16, Multi Voltage

0956	Flange Size
S20 150HIT 04	1/2"
S20 150HIT 05	3/4"
S20 150HIT 06	1"
S20 150HIT 07	1.1/4"
S35 150HIT 08	1.1/2"
S55 150HIT 09	2"
S55 150HIT 10	2.1/2"
S85 150HIT 11	3"
S140 150HIT 12	4"
S300 150HIT 13	5"
S300 150HIT 14	6"

Tech Sheet 6483



Wafer Pattern Butterfly Valves Fitted with a J4CS Electric Actuator

Features:

- To suit flanges PN6/10/16, ANSI150 and BS 10" D/E
- Multi voltage 24-240 VDC/VAC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -20°C to +120°C (WA and WC)
 0°C to +80°C (WB)
 -20°C to +70°C (actuator)
 Excluding ice and steam

Maximum Working Pressure:
 16 bar



Ductile Iron Body, EPDM Liner, Stainless Steel Disc, (WRAS Approved Valve), Multi Voltage

0956	Size
S20 2014WA 08	1.1/2"
S20 2014WA 09	2"
S20 2014WA 10	2.1/2"
S35 2014WA 11	3"
S55 2014WA 12	4"
S85 2014WA 13	5"
S140 2014WA 14	6"
S300 2014WA 16	8"

Tech Sheet 6494

Cast Iron Body, NBR Liner, Stainless Steel Disc, Multi Voltage

0956	Size
S20 2014WB 08	1.1/2"
S20 2014WB 09	2"
S20 2014WB 10	2.1/2"
S35 2014WB 11	3"
S55 2014WB 12	4"
S85 2014WB 13	5"
S140 2014WB 14	6"
S300 2014WB 16	8"

Tech Sheet 6494

Cast Iron Body, EPDM Liner, Ductile Iron Nickel Plated Disc, Multi Voltage

0956	Size
S20 2014WC 09	2"
S20 2014WC 10	2.1/2"
S35 2014WC 11	3"
S55 2014WC 12	4"
S85 2014WC 13	5"
S140 2014WC 14	6"
S300 2014WC 16	8"

Tech Sheet 6494

Wafer Pattern Butterfly Valves Fitted with a J4CS Electric Actuator

Features:

- To suit flanges PN6/10/16, ANSI150 and BS 10" D/E
- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
 -40°C to +200°C (valve)
 -20°C to +70°C (actuator)

Maximum Working Pressure:
 16 bar



Ductile Iron Body, Fully Lined PTFE, Multi Voltage

0956	Size
S20 2014WP 09	2"
S35 2014WP 10	2.1/2"
S55 2014WP 11	3"
S85 2014WP 12	4"
S140 2014WP 13	5"
S140 2014WP 14	6"

Tech Sheet 6479

J+J ACTUATION



Lugged and Tapped Butterfly Valves Fitted with a J4CS Electric Actuator

Features:

- To suit PN16 flange
- Multi voltage 24-240V DC/V AC 50/60Hz
- Multicoloured LED light for continuous status feedback for the user
- Electronic torque limiter with auto gearbox relaxing
- Failsafe and/or modulating configurations can be used with the J4CS electric actuator
- Sized based on 10 bar wet non-abrasive duty at +70°C

Working Temperature:
-20°C to +120°C (2014LA)
0°C to +80°C (2014LB)

-20°C to +70°C (actuator)
Excluding ice and steam

Maximum Working Pressure:
16 bar



Ductile Iron Body, EPDM Liner, Stainless Steel Disc, (WRAS Approved Valve), Multi Voltage

0956	Size
S20 2014LA 08	1.1/2"
S20 2014LA 09	2"
S20 2014LA 10	2.1/2"
S35 2014LA 11	3"
S55 2014LA 12	4"
S85 2014LA 13	5"
S140 2014LA 14	6"
S300 2014LA 16	8"

Tech Sheet 6493

Ductile Iron Body, NBR Liner, Stainless Steel Disc, Multi Voltage

0956	Size
S20 2014LB 08	1.1/2"
S20 2014LB 09	2"
S20 2014LB 10	2.1/2"
S35 2014LB 11	3"
S55 2014LB 12	4"
S85 2014LB 13	5"
S140 2014LB 14	6"
S300 2014LB 16	8"

Tech Sheet 6493

Do you require...
failsafe and/or modulating configurations?
...see page 1019



Pneumatic Actuators

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Hard anodized aluminium body
- ATEX II 2GD c T5 certificatio
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- Epoxy coated end caps
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-20°C to +90°C

Maximum Working Pressure:
8 bar



Single Acting

0929	Torque (Nm) - Single Acting - 12 Springs	
	Initial Air at 6 bar	End of Spring
HTS-040-2	9.93	4.13
HTS-052-12	15.46	9.50
HTS-063-12	27	16.90
HTS-075-12	42.10	28.40
HTS-083-12	56.20	34.78
HTS-092-12	82.40	54
HTS-105-12	123.90	79.70
HTS-125-12	207.30	142.50
HTS-140-12	314	212.40
HTS-160-12	474.60	327.60
HTS-190-12	771.10	521.80
HTS-210-12	1059.60	717
HTS-240-12	1660.70	1124.30

Tech Sheet 6183

Double Acting

0929	Torque (Nm) - Double Acting at 6 bar	
	HTD-032	9
HTD-052	24.96	
HTD-063	43.92	
HTD-075	70.50	
HTD-083	89.10	
HTD-092	136.40	
HTD-105	203.64	
HTD-125	349.80	
HTD-140	526.44	
HTD-160	802.20	
HTD-190	1292.90	
HTD-210	1776.70	
HTD-240	2444.60	

Tech Sheet 6183

AIR TORQUE ACTUATION



Pneumatic Actuators

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Alodur hard anodized aluminium body
- ATEX 2014/34/EU certificatio
- SIL3 rated
- DNV certificatio
- IP67 rating with IP68 at manufacturers request
- Universal and anti-blowout patented drive shaft
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-40°C to +80°C

Maximum Working Pressure:
8 bar



Single Acting

0957	Torque (Nm) - End of Spring
AT051S10	6.70
AT101S12	13.30
AT201S10	22.10
AT251S09	33
AT301S10	50.70
AT351S09	73.80
AT401S12	126
AT451S11	181
AT501S09	202

Tech Sheet 6293

Double Acting

0957	Torque (Nm) - Double Acting at 5.5 bar
AT051	18.30
AT101	32.20
AT201	64
AT251	101
AT301	146
AT351	236
AT401	305

Tech Sheet 6293

Larger sizes available on request

PRISMA ACTUATION



Pneumatic Actuators

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Rilsan and epoxy coated aluminium body
- ATEX II 2G Ex h IIB T6 Gb / II 2D Ex h IIIC T80°C Db certificatio
- Suitable for use in a SIL safety loop
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-32°C to +90°C

Maximum Working Pressure:
8 bar



Single Acting

0946	Torque (Nm) - Single Acting - 6+6 Spring	
	Initial Air at 6 bar	End of Spring
PAWS-F04	10.30	6.70
PA00S	15.80	12.70
PA05S	28.80	20.90
PA10S	40.20	30.80
PA15S	67.50	49
PA20S	99.70	65.80
PA25S	170.60	119.40
PA30S	273.50	195.70
P40S	688.30	491.60
PA50S	1248	819.50
PA60S	2074	1383
PA70S	3273	1769
Tech Sheet 6209		

Double Acting

0946	Torque (Nm) - Double Acting
	at 6 bar
PAW	17
PA00	28.50
PA05	49.70
PA10	71
PA15	116.50
PA20	165.50
PA25	290
PA30	269.20
P40	1180
PA50	2067
PA60	3458
PA70	5043
Tech Sheet 6209	

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Polyamide body
- ATEX II 2G Ex h IIC T6 Gb / II 2D Ex h IIIC T80°C Db certificatio
- SIL3 rated
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-32°C to +80°C

Maximum Working Pressure:
8 bar



Single Acting

0946	Torque (Nm) - Single Acting - 6+6 Spring	
	Initial Air at 6 bar	End of Spring
PPWS	10.30	6.70
PP00S	15.80	12.70
PP10S	40.20	30.80
PP20S	99.70	65.80
Tech Sheet 6210		

Double Acting

0946	Torque (Nm) - Double Acting
	at 6 bar
PPW	17
PP00	28.50
PP10	71
PP20	165.50
Tech Sheet 6210	

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Stainless steel body
- ATEX II 2G Ex h IIC T6 Gb / II 2D Ex h IIIC T80°C Db certificatio
- Suitable for use in a SIL safety loop
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-32°C to +90°C

Maximum Working Pressure:
8 bar



Single Acting

0946	Torque (Nm) - Single Acting		
	Initial Air at 6 bar	End of Spring	Spring
PI00S	13.70	11.30	4+4
PI10S	38.70	32.30	4+4
PI20S	99.70	65.80	3+3
PI30S	289.30	179.90	4+4
PI40S	688.30	491.60	4+4
Tech Sheet 6211			

Double Acting

0946	Torque (Nm) - Double Acting
	at 6 bar
PI00	25
PI10	71
PI20	165.50
PI30	469.20
PI40	1180
Tech Sheet 6211	

Pneumatic Actuators

Features:

- 0-90° rotation angle to pilot ball, butterfly and plug valve
- Aluminium body or epoxy coated aluminium body options available
- ATEX II 2G Ex h IIC T4 Gb / II 2D Ex h IIIC T105°C Db certification
- DNV certifie
- SIL2 rated
- Conforms to ISO 5211, DIN 3337 and VDI/VDE 3845
- NAMUR pneumatic connection for solenoid valve installation

Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
8 bar



DFPD Single Acting Pneumatic Actuator - Aluminium Body

0990	Size	Manufacturer's Code
8047622	20	DFPD-20-RP-90-RS60-F04
8047624	40	DFPD-40-RP-90-RS60-F0507
8047626	80	DFPD-80-RP-90-RS60-F0507
8048134	120	DFPD-120-RP-90-RS60-F0507
8048136	160	DFPD-160-RP-90-RS60-F0710
8048138	240	DFPD-240-RP-90-RS60-F0710
8048140	300	DFPD-300-RP-90-RS60-F0710
8048142	480	DFPD-480-RP-90-RS60-F1012
8065262	700	DFPD-700-RP-90-RS60-F1012
8065266	900	DFPD-900-RP-90-RS60-F14
8065270	1200	DFPD-1200-RP-90-RS60-F14
8065274	2300	DFPD-2300-RP-90-RS60-F1216

Tech Sheet 6270

DFPD Single Acting Pneumatic Actuator - Epoxy Coated Aluminium Body

0990	Size	Manufacturer's Code
8047646	20	DFPD-20-RP-90-RS30-F03-R3-EP
8047642	40	DFPD-40-RP-90-RS30-F04-R3-EP
8047631	80	DFPD-80-RP-90-RS30-F0507-R3-EP
8048143	120	DFPD-120-RP-90-RS30-F0507-R3-EP
8048145	160	DFPD-160-RP-90-RS30-F0710-R3-EP
8048147	240	DFPD-240-RP-90-RS30-F0710-R3-EP
8048149	300	DFPD-300-RP-90-RS30-F0710-R3-EP
8048151	480	DFPD-480-RP-90-RS30-F1012-R3-EP
8065264	700	DFPD-700-RP-90-RS60-F1012-R3-EP
8065268	900	DFPD-900-RP-90-RS60-F14-R3-EP
8065272	1200	DFPD-1200-RP-90-RS60-F14-R3-EP
8065276	2300	DFPD-2300-RP-90-RS60-F1216-R3-EP

Tech Sheet 6270

DFPD Double Acting Pneumatic Actuator - Aluminium Body

0990	Size	Manufacturer's Code
8047613	10	DFPD-10-RP-90-RD-F03
8047614	20	DFPD-20-RP-90-RD-F04
8047615	40	DFPD-40-RP-90-RD-F0507
8047616	80	DFPD-80-RP-90-RD-F0507
8048123	120	DFPD-120-RP-90-RD-F0507
8048124	160	DFPD-160-RP-90-RD-F0710
8048125	240	DFPD-240-RP-90-RD-F0710
8048126	300	DFPD-300-RP-90-RD-F0710
8048127	480	DFPD-480-RP-90-RD-F1012
8065261	700	DFPD-700-RP-90-RD-F1012
8065265	900	DFPD-900-RP-90-RD-F14
8065269	1200	DFPD-1200-RP-90-RD-F14
8065273	2300	DFPD-2300-RP-90-RD-F1216

Tech Sheet 6270

DFPD Double Acting Pneumatic Actuator - Epoxy Coated Aluminium Body

0990	Size	Manufacturer's Code
8047617	10	DFPD-10-RP-90-RD-F03-R3-EP
8047618	20	DFPD-20-RP-90-RD-F04-R3-EP
8047619	40	DFPD-40-RP-90-RD-F0507-R3-EP
8047620	80	DFPD-80-RP-90-RD-F0507-R3-EP
8048128	120	DFPD-120-RP-90-RD-F0507-R3-EP
8048129	160	DFPD-160-RP-90-RD-F0710-R3-EP
8048130	240	DFPD-240-RP-90-RD-F0710-R3-EP
8048131	300	DFPD-300-RP-90-RD-F0710-R3-EP
8048132	480	DFPD-480-RP-90-RD-F1012-R3-EP
8065263	700	DFPD-700-RP-90-RD-F1012-R3-EP
8065267	900	DFPD-900-RP-90-RD-F14-R3-EP
8065271	1200	DFPD-1200-RP-90-RD-F14-R3-EP
8065275	2300	DFPD-2300-RP-90-RD-F1216-R3-EP

Tech Sheet 6270

Position Indicator

Features:

- PA plastic material
- 2 position indicators suitable for all quarter turn actuator sizes
- Suitable for use in ATEX zones



SASF Position Indicator

0990	Manufacturer's Code
4046082	SASF-S2-B-F-A34

Tech Sheet 6271

J+J ACTUATION



Electric Actuators

Features:

- IP67 fully weatherproof polyamide PA6 housing
- Multicoloured LED light for continuous status feedback for the user
- Auto voltage sensing 24-240 VDC/VAC 50/60Hz. A 12 VDC/VAC 50/60Hz option is also available on request (J4CB)
- The J4CS series has brushless motor technology with each unit now having a 3 year warranty from shipment date or up to 60,000 working cycles, whichever comes first
- Electronic torque limiter with auto gearbox relaxing
- Thermostatic 3.5W anti-condensation heater
- Local dome style visual position indicator
- Handwheel operated selectable manual override
- Two volt free end of travel position confirmation switch
- All external electrical connections via DIN plugs. Large Plug EN175301-803 Form A, small plug DIN 43650/C
- External wiring diagram showing 2 and 3 wire
- Multi-flange mounting to ISO 5211 and DIN 333
- Duty rating 75%

Options:

- Failsafe battery 'spring' return backup kit
- DPS modulating digital positioner system kit
- Interface system kit allowing communication with the actuator, read parameters and change the actuator configuration
- Bluetooth technology
- Modbus technology

Working Temperature:
-20°C to +70°C



J4CS Smart True Multi Voltage Electric Actuator

0956	Maximum Run Torque Nm	Maximum Break Torque Nm	Operating Speed	ISO Plate 5211	DIN 3337 Female Output Drive
J4CS20	20	25	9 sec	F03/F04/F05	14mm
J4CS35	35	38	9 sec	F03/F04/F05	14mm
J4CS55	55	60	13 sec	F05/F07	17mm
J4CS85	85	90	29 sec	F05/F07	17mm
J4CS140	140	170	34 sec	F07/F10	22mm
J4CS300	300	350	58 sec	F07/F10	22mm

Tech Sheet 6255

Option of a F07 x 17mm with a kit for the J4CS20 and J4CS35

Electric Actuators

Features:

- IP65 polyamide PA6 housing
- Main shaft made from stainless steel
- Polyamide gears
- Available in high voltage 110-240V DC/V AC 50/60Hz or low voltage 24V DC/V AC 50/60Hz
- Thermostatic 3.5W anti-condensation heater
- Local visual position indicator
- Selectable manual override
- Two volt free end of travel position confirmation switch
- All external electrical connections via DIN plugs large plug EN175301-803 form A, small plug DIN 43650/C
- External wiring diagram showing 2 and 3 wire
- Mounting to ISO 5211 and DIN 3337 female star drive
- Duty rating 75%

Working Temperature:
-20°C to +70°C



J2 10Nm Electric Actuator

0956	Maximum Run Torque Nm	Maximum Break Torque Nm	Operating Speed	ISO Plate 5211	Consumption	DIN 3337 Female Output Drive
J2H10	10	12	16 sec	F03/F05	110V 0.272A 30W 220V 0.272A 60W	14mm
J2L10	10	12	19 sec	F03/F05	24V 0.39A 9.36W	14mm

Tech Sheet 6256

Please note: **Failsafe and/or modulating configurations cannot be used with the J2-10 electric actuator.**

Electric Actuator Kits

Features:

- Battery 'spring' return kit for the J4CS electric actuators
- Can be set to fail open or closed (please specify)
- Can be retro-fitted to existing J4CS actuators. Also comes complete with installation instructions
- Rechargeable NiCd battery
- Both the BSR and DPS kit can be installed together to provide failsafe and modulating functionality



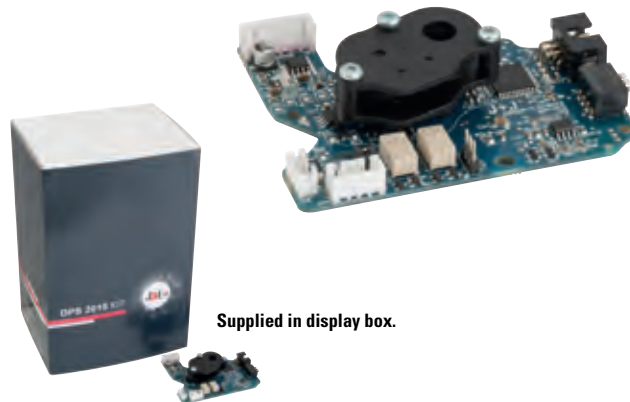
Supplied in display box.

BSR Battery Backup Plug-in

0956	To Suit Models
J4CSBSR1	20 to 85
J4CSBSR2	140 to 300
Tech Sheet 6257	

Features:

- Digital positioning system for the J4CS electric actuators
- 0-20mA, 4-20mA, 0-10V or 1-10V input/output options available
- Can be retro-fitted to existing J4CS actuators. Also comes complete with installation instructions
- Can be set to fail open or fail close on loss of control signal. A fail freeze option is also available but it requires the interface system kit fitted to the J4CS electric actuator
- Both the DPS and BSR kit can be installed together to provide failsafe and modulating functionality



Supplied in display box.

DPS Digital Positioning System

0956	To Suit Models
J4CSDPS1	20 to 85
J4CSDPS2	140 to 300
Tech Sheet 6258	

Mounting Brackets

- Designed for use with the FIP TKD and VKD ball valve series
- Standard holes drilled according to ISO 5211 specification
- Drive adapter to suit DIN 3337



FIP EasyFit Kit

0956	Size	ISO Plate 5211	Square Size mm
ACTMKEASYFIP-12	D20/DN15/1/2"	F03/F04/F05	9
ACTMKEASYFIP-34	D25/DN20/3/4"	F03/F04/F05	9
ACTMKEASYFIP-1	D32/DN25/1"	F03/F04/F05	9
ACTMKEASYFIP-114	D40/DN32/1.1/4"	F05/F07	11
ACTMKEASYFIP-112	D50/DN40/1.1/2"	F05/F07	11
ACTMKEASYFIP-2	D65/DN50/2"	F05/F07	11

- Designed for use with the Georg Fischer 546 ball valve series
- Standard holes drilled according to ISO 5211 specification
- Drive adapter to suit DIN 3337



GF 546 Kit

0956	Size	ISO Plate 5211	Square Size mm
ACTMKEASYGF-12	D20/DN15/1/2"	F03/F05	11
ACTMKEASYGF-1	D32-D25/DN25-DN20/3/4"-1"	F03/F05	11
ACTMKEASYGF-112	D50-D40/DN40-DN32/1.1/4"-1.1/2"	F03/F05	11
ACTMKEASYGF-2	D63/DN50/2"	F03/F05	11

Pilot Accessories

Features:

- For use with compressed air
- Internally piloted
- Anodised aluminium alloy body
- Suitable for single and double acting pneumatic actuators
- 5 port 2 position
- Manual override
- NAMUR and VDI/VDE 3845 standard interface for direct mounting to pneumatic actuators
- 1/4" BSPP inlet and exhaust ports
- Insulation class F
- LED DIN plug
- For safe area use only
- Flow rate 30kg/mm² (Cv=1.68)
- Voltage tolerance ± 10%
- Response time 0.05 seconds
- Terminal DIN 43650B
- IP65 rated
- Maximum frequency is 5 cycles per second

Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
8 bar



NAMUR 5/2 Solenoid Valve Single Coil

0929	Voltage
HUKNAM24VDC	24V DC
HUKNAM24VAC	24V AC
HUKNAM110VAC	110V AC
HUKNAM230VAC	230V AC

Tech Sheet 6244

FESTO ACTUATION

Pilot Accessories

Features:

- 5 port 2 position
- Can be changed between 3/2 and 5/2 by exchanging the sealing plate
- NAMUR and VDI/VDE 3845 standard interface for direct mounting to pneumatic actuators
- Non-detenting/detenting manual override
- IP65 rating with a DIN connector fitted
- Solenoid coil and DIN plug to be ordered separately
- For the flameproof option the interface and flameproof solenoid coil need to be ordered

VSNC NAMUR 5/2 Solenoid Valve Single Coil

0990	Manufacturer's Code	Size
577257	VSNC-FC-M52-MD-G14-F8	1/4"

Tech Sheet 6271

Features:

- Electrical connection according to DIN EN 175301-803 Form A
- Any mounting position
- IP65 rating
- 100% duty rating



Solenoid Coil

0990	Manufacturer's Code	Voltage
8029144	VACN-N-A1-1	24V DC
8029134	VACN-N-A1-16B	110V AC
8029135	VACN-N-A1-3A	230V AC

Tech Sheet 6272

Features:

- ATEX II 3G Ex nA IIC T4 Gc / II 3D Ex tc IIC T105°C Dc certification

ATEX Solenoid Coil with DIN Plug

0990	Manufacturer's Code	Voltage
8029136	VACN-N-A1-1-EX2-N	24V DC
8029137	VACN-N-A1-16B-EX2-N	110V AC
8029138	VACN-N-A1-3A-EX2-N	230V AC

Tech Sheet 6273

Features:

- Electrical connection according to DIN EN 175301-803 Form A
- Reinforced PA housing
- IP65 rating



DIN Plug

0990	Manufacturer's Code
34583	MSSD-C

Tech Sheet 6275

Features:

- ATEX II 2G Ex ia IIC T4 Ga / II 2D Ex tb IIC T130°C Db certification

ATEX Solenoid Coil with DIN Plug

0990	Manufacturer's Code	Voltage
8029139	VACN-N-A1-1-EX4-A	24V DC

Tech Sheet 6274

Working Temperature:
-20°C to +60°C

Maximum Working Pressure:
10 bar



Solenoid Interface for Flameproof Coil Option

0990	Manufacturer's Code	Voltage
571061	VSCS-B-M32-MD-WA-1C1	24V DC

Tech Sheet 71760

Features:

- ATEX II 2G Ex db IIC T5 Gb / II 2D Ex tb IIC T100°C Db certification

Flameproof Solenoid Coil

0990	Manufacturer's Code	Voltage
535615	MGXDH-3/2-1.2-24DC-EX	24V DC

Tech Sheet 6277



PNEUMATIC ACTUATOR ACCESSORIES



Pilot Accessories

The interface design is conform to the NAMUR standard and to the VDI/VDE 3845 recommendations of the actuator industry. It allows a compact design of the actuator/valve unit. In case of a 3/2 function, the air of the actuator spring chamber also flows through the pilot valve (re-breather function). This prevents corrosion of the actuator springs.

Working Temperature:
-10°C to +50°C

Maximum Working Pressure:
10 bar

Normally Closed, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
341N35-4818653D	1/4"	230V AC	341N35-2995-4818653D
341N35-481865C2	1/4"	24V DC	341N35-2995-481865C2

Tech Sheet 60419

Normally Closed, suitable for Atex Zone 1/22, Nitrile Seal, BSPP

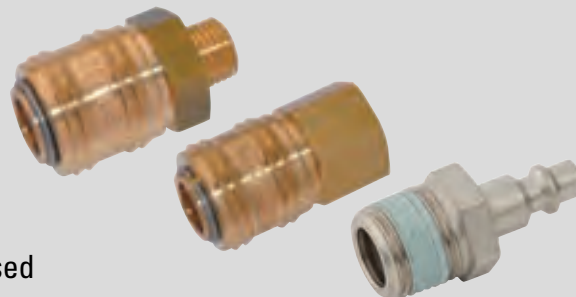
0484	Thread	Voltage	Manufacturer's Code
341N35-4958703D	1/4"	230V AC	341N35-2995-4958703D
341N35-495870C2	1/4"	24V DC	341N35-2995-495870C2

Tech Sheet 60419

Normally Closed, suitable for Atex Zone 1/21, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
341N35-495905C2	1/4"	230V AC	341N35-495905C2

Tech Sheet 60419



Customers who bought from this page also purchased
Pneumatic Quick Release Couplings
 see page 631

PNEUMATIC ACTUATOR ACCESSORIES



Pilot Accessories

Features:

- Aluminium IP67 enclosure
- Beacon indicator
- Stainless steel shaft
- Universal NAMUR and VDI/VDE 3845 mounting bracket
- 2 x SPDT 250V DC/AC V3 micro switches
- 2 x M20 cable entries
- Terminal strip connection
- For safe area use only

° Working Temperature:
-20°C to +80°C



Safe Area Mechanical Switch Box

0364

KLS-820M

Tech Sheet 10142

PNEUMATIC ACTUATOR ACCESSORIES



Pilot Accessories

Features:

- Aluminium IP67 enclosure
- Beacon indicator
- Stainless steel shaft
- Universal NAMUR and VDI/VDE 3845 mounting bracket
- 2 x SPDT 250V DC/AC V3 micro switches
- 2 x M20 cable entries
- Terminal strip connection
- For safe area use only

° Working Temperature:
-20°C to +80°C



Safe Area Mechanical Switch Box

0929

HUKSBOX

Tech Sheet 6246

PNEUMATIC ACTUATOR ACCESSORIES



Pilot Accessories

Features:

- Aluminium IP67 enclosure
- Beacon indicator
- Stainless steel shaft
- Stainless steel NAMUR mounting bracket
- Stainless steel bolting
- Polycarbonate indicator cover
- For safe area use only
- 2 x SPDT 250V DC/AC V3 micro switches
- 2 x M20 cable entries

° Working Temperature:
-20°C to +80°C



Safe Area Mechanical Switch Box

0946

NAMUR Size

EFC5601W 80 x 30 x 20 or 80 x 30 x 30

EFC56014 130 x 30 x 50

Tech Sheet 6247

Pilot Accessories

Features:

- Aluminium IP67 enclosure
- Beacon indicator
- NAMUR and VDI/VDE 3845 mounting bracket
- SIL2 rated
- Stainless steel shaft
- 2 x SPDT 30V DC 250V AC micro switches
- 2 x M20 cable entries

° Working Temperature:
-20°C to +80°C



SRBC Mechanical Switch Box

0990	Manufacturer's Code
3482805	SRBC-CA3-YR90-MW-22A-1W-C2P20
Tech Sheet 6263	

Features:

- ATEX II 1G Ex ia IIC T5 Ga / II 1D Ex ia IIIC Txx°C Da certification

SRBC Hazardous Area Mechanical Switch Box

0990	Manufacturer's Code
3482807	SRBC-CA3-YR90-N-20N-ZC-C2P20-EX6
Tech Sheet 6263	

Pilot Accessories

Features:

- Aluminium IP67 enclosure
- ATEX II 2G Ex db IIC T6 Gb / II 2D Ex tb IIIC Txx°C Db certification
- Beacon indicator
- NAMUR and VDI/VDE 3845 mounting bracket
- SIL2 rated
- Stainless steel shaft
- 2 x SPDT 30V DC 250V AC micro switches
- Changeover switch, floating contac
- 2 x M20 cable entries

° Working Temperature:
-20°C to +60°C



new product



SRBC Flameproof Enclosure Mechanical Switch Box

0990	Manufacturer's Code
3471009	SRBE-CA3-YR90-MW-22A-1W-C2M20-EX
Tech Sheet 6290	

PNEUMATIC ACTUATOR ACCESSORIES



Pilot Accessories

- Aluminum housing
- NAMUR and VDI/VDE 3845 standard interface for direct mounting to pneumatic actuators

° Working Temperature:
-20°C to +60°C

Features:

- ATEX II 2G Ex dmb IIB T5 certification
- 1/2" BSP air connection and 1/4" NPT air connection



Features:

- Non-explosive
- 4-20mA internal feedback
- M20 conduit and 1/4" NPT air connection

YT-1000 Rotary Electro-Pneumatic Single Acting Positioner

0920
YT-1000RDM534S00
Tech Sheet 6248

YT-1000 Rotary Electro-Pneumatic Double Acting Positioner with 4-20mA Feedback

0920
YT-1000RDN534S01
Tech Sheet 6248



Automatic Drain Valves



RoHS 3
COMPLIANT ✓



Easy Timer

Valve Body: Brass
Orifice Size: 4.5 mm
IP65 Protection

Easy Timer
Timer On 0.5 to 10s
Timer Off 0.5 to 45 min
Test switch



Brass Valve

0016	Thread	Voltage
720-01AC220	1/8"	220V AC
720-02AC220	1/4"	220V AC
720-03AC220	3/8"	220V AC
720-04AC220	1/2"	220V AC
720-01AC110	1/8"	110V AC
720-02AC110	1/4"	110V AC
720-03AC110	3/8"	110V AC
720-04AC110	1/2"	110V AC
720-02DC24	1/4"	24V DC
720-03DC24	3/8"	24V DC
720-04DC24	1/2"	24V DC
720-02AC24	1/4"	24V AC
720-03AC24	3/8"	24V AC
720-04AC24	1/2"	24V AC

Tech Sheet 70001

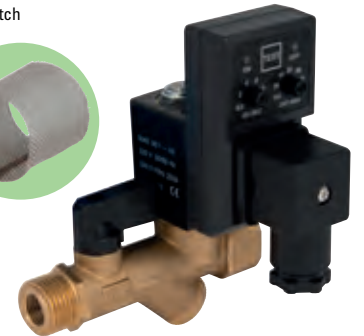
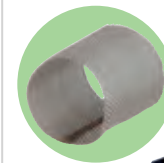
Brass Valve with Vertical Strainer

0016	Thread	Voltage
720-01AC220-VIS	1/8"	220V AC
720-02AC220-VIS	1/4"	220V AC
720-03AC220-VIS	3/8"	220V AC
720-04AC220-VIS	1/2"	220V AC
720-01AC110-VIS	1/8"	110V AC
720-02AC110-VIS	1/4"	110V AC
720-03AC110-VIS	3/8"	110V AC
720-04AC110-VIS	1/2"	110V AC
720-02DC24-VIS	1/4"	24V DC
720-03DC24-VIS	3/8"	24V DC
720-04DC24-VIS	1/2"	24V DC
720-02AC24-VIS	1/4"	24V AC
720-03AC24-VIS	3/8"	24V AC
720-04AC24-VIS	1/2"	24V AC

Tech Sheet 71676

Valve Body: Brass
Orifice Size: 3.5 mm
Mesh Size: 29 micron
Manual isolation shut-off
IP65 Protection

Easy Timer
Timer On 0.5 to 10s
Timer Off 0.5 to 45 min
Test switch



Brass Valve with Strainer

0016	Thread	Voltage
728A-04AC220	1/2"	220V AC
728A-04AC110	1/2"	110V AC
728A-04AC24	1/2"	24V AC

Tech Sheet 70002

Digital Timer

Valve Body: Brass
Orifice Size: 4.5 mm
IP65 Protection
Digital Timer
Timer On 0.1 to 99s
Timer Off 0.5 to 99 min
Test switch



Brass Valve

0016	Thread	Voltage
790-01AC220	1/8"	220V AC
790-02AC220	1/4"	220V AC
790-03AC220	3/8"	220V AC
790-04AC220	1/2"	220V AC
790-01AC110	1/8"	110V AC
790-02AC110	1/4"	110V AC
790-03AC110	3/8"	110V AC
790-04AC110	1/2"	110V AC
790-01DC24	1/8"	24V DC
790-02DC24	1/4"	24V DC
790-03DC24	3/8"	24V DC
790-04DC24	1/2"	24V DC
790-02AC24	1/4"	24V AC
790-03AC24	3/8"	24V AC
790-04AC24	1/2"	24V AC

Tech Sheet 70003

Brass Valve with Vertical Strainer

0016	Thread	Voltage
790-01AC220-VIS	1/8"	220V AC
790-02AC220-VIS	1/4"	220V AC
790-03AC220-VIS	3/8"	220V AC
790-04AC220-VIS	1/2"	220V AC
790-01AC110-VIS	1/8"	110V AC
790-02AC110-VIS	1/4"	110V AC
790-03AC110-VIS	3/8"	110V AC
790-04AC110-VIS	1/2"	110V AC
790-01DC24-VIS	1/8"	24V DC
790-02DC24-VIS	1/4"	24V DC
790-03DC24-VIS	3/8"	24V DC
790-04DC24-VIS	1/2"	24V DC
790-02AC24-VIS	1/4"	24V AC
790-03AC24-VIS	3/8"	24V AC
790-04AC24-VIS	1/2"	24V AC

Tech Sheet 71677

Valve Body: Brass
Orifice Size: 3.5 mm
Mesh Size: 29 micron
Manual isolation shut-off
IP65 Protection

Digital Timer
Timer On 0.1 to 99s
Timer Off 0.5 to 99 min
Test switch



Brass Valve with Strainer

0016	Thread	Voltage
728A790-04AC220	1/2"	220V AC
728A790-04DC24	1/2"	24V DC

Tech Sheet 70004

Spare Parts

Valve Body: Brass
Orifice Size: 4.5 mm
° Working Temperature:
-10°C to +70°C
Maximum Working
Pressure: 16 bar



Brass Valve

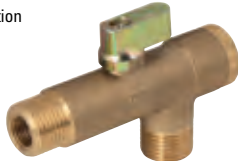
0016	Thread
CS-720W-01	1/8"
CS-720W-02	1/4"
CS-720W-03	3/8"
CS-720W-04	1/2"

Valve Body: Brass
Orifice Size: 3.5 mm

° Working Temperature:
-10°C to +70°C

High pressure 80 bar option
available on request.

Mesh Size: 29 micron
Manual isolation shut-off
° Maximum Working
Pressure: 16 bar



Brass Strainer

0016	Thread
CS-S95-01	1/8"
CS-S95-03	3/8"
CS-S95-04	1/2"
CS-S95-02	1/4"

Easy Timer
Timer On 0.5 to 10s
Timer Off 0.5 to 45 min
Test switch



Easy

Digital Timer
Timer On 0.1 to 99s
Timer Off 0.5 to 99 min
Test switch



Digital

Timer

0016	Voltage	Operation
XY-720	24-220V AC/DC	Easy
XY-790H	110-220V AC/DC	Digital
XY-790L	24V AC/DC	Digital

Speak to Technical for most
recent certification guidance
for high voltage applications
(110V and 220V AC).



Coil

0016	Voltage
SB256-0543AC110	110V AC
SB256-0543AC220	220V AC
SB256-0543AC24	24V AC
SB257-0545DC24	24V DC



Connector

0016
SB201-1

Solenoid Valves

The general purpose brass 2/2 solenoid valves again shows FT Pro's commitment to providing innovative and added value solutions to their customers.



Valve Timer



Pilot Operated 2/2
Solenoid Valve

Pilot Operated 2/2:

- Normally open
- Normally closed
- DIN connectors
- Valve timers
- DC and AC coils
- Available in sizes 3/8" to 2" BSPP
- Media: oil, air and water



Direct Acting 2/2
Solenoid Valve

Direct Acting 2/2:

- Normally closed
- DIN connectors
- DC and AC coils
- Available in sizes 1/8" to 3/8" BSPP
- Available in 0-10 bar and 0 to 35 bar
- High pressure option
- Media: oil, air and water

General Purpose 2/2 N/C, Pilot Operated

Working Pressure:
0.5 to 10 bar



Flow Rate 55 L/min
Orifice 13mm
3/8" BSPP

0366	Voltage
K225-03-230AC-NC	230/50V AC
K225-03-110AC-NC	110/50V AC
K225-03-24AC-NC	24/50V AC
K225-03-24DC-NC	24V DC
K225-03-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 63 L/min
Orifice 13mm
1/2" BSPP

0366	Voltage
K225-04-230AC-NC	230/50V AC
K225-04-110AC-NC	110/50V AC
K225-04-24AC-NC	24/50V AC
K225-04-24DC-NC	24V DC
K225-04-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 100 L/min
Orifice 25mm
3/4" BSPP

0366	Voltage
K225-06-230AC-NC	230/50V AC
K225-06-110AC-NC	110/50V AC
K225-06-24AC-NC	24/50V AC
K225-06-24DC-NC	24V DC
K225-06-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 160 L/min
Orifice 25mm
1" BSPP

0366	Voltage
K225-08-230AC-NC	230/50V AC
K225-08-110AC-NC	110/50V AC
K225-08-24AC-NC	24/50V AC
K225-08-24DC-NC	24V DC
K225-08-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 370 L/min
Orifice 38mm
1.1/4" BSPP

0366	Voltage
K225-12-230AC-NC	230/50V AC
K225-12-110AC-NC	110/50V AC
K225-12-24AC-NC	24/50V AC
K225-12-24DC-NC	24V DC
K225-12-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 400 L/min
Orifice 38mm
1.1/2" BSPP

0366	Voltage
K225-14-230AC-NC	230/50V AC
K225-14-110AC-NC	110/50V AC
K225-14-24AC-NC	24/50V AC
K225-14-24DC-NC	24V DC
K225-14-12DC-NC	12V DC

Tech Sheet 10162

Flow Rate 540 L/min
Orifice 50mm
2" BSPP

0366	Voltage
K225-20-230AC-NC	230/50V AC
K225-20-110AC-NC	110/50V AC
K225-20-24AC-NC	24/50V AC
K225-20-24DC-NC	24V DC
K225-20-12DC-NC	12V DC

Tech Sheet 10162

Coils to suit K225, Normally Closed Valves



Coil & Plug

0366	Voltage
K225-230/50AC-NC	230/50V AC
K225-110/50AC-NC	110/50V AC
K225-24/50AC-NC	24/50V AC
K225-24DC-NC	24V DC
K225-12DC-NC	12V DC

Tech Sheet 10162



**For Pre wired
moulded DIN Plugs
see page 1042**

SOLENOID VALVES



General Purpose 2/2 N/O, Pilot Operated

Working Pressure:
0.5 to 10 bar



Flow Rate 55 L/min
Orifice 13mm
3/8" BSPP

0366	Voltage
K225-03-230AC-NO	230/50V AC
K225-03-110AC-NO	110/50V AC
K225-03-24AC-NO	24/50V AC
K225-03-24DC-NO	24V DC
K225-03-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 63 L/min
Orifice 13mm
1/2" BSPP

0366	Voltage
K225-04-230AC-NO	230/50V AC
K225-04-110AC-NO	110/50V AC
K225-04-24AC-NO	24/50V AC
K225-04-24DC-NO	24V DC
K225-04-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 100 L/min
Orifice 25mm
3/4" BSPP

0366	Voltage
K225-06-230AC-NO	230/50V AC
K225-06-110AC-NO	110/50V AC
K225-06-24AC-NO	24/50V AC
K225-06-24DC-NO	24V DC
K225-06-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 160 L/min
Orifice 25mm
1" BSPP

0366	Voltage
K225-08-230AC-NO	230/50V AC
K225-08-110AC-NO	110/50V AC
K225-08-24AC-NO	24/50V AC
K225-08-24DC-NO	24V DC
K225-08-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 370 L/min
Orifice 38mm
1.1/4" BSPP

0366	Voltage
K225-12-230AC-NO	230/50V AC
K225-12-110AC-NO	110/50V AC
K225-12-24AC-NO	24/50V AC
K225-12-24DC-NO	24V DC
K225-12-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 400 L/min
Orifice 38mm
1.1/2" BSPP

0366	Voltage
K225-14-230AC-NO	230/50V AC
K225-14-110AC-NO	110/50V AC
K225-14-24AC-NO	24/50V AC
K225-14-24DC-NO	24V DC
K225-14-12DC-NO	12V DC

Tech Sheet 10162

Flow Rate 540 L/min
Orifice 50mm
2" BSPP

0366	Voltage
K225-20-230AC-NO	230/50V AC
K225-20-110AC-NO	110/50V AC
K225-20-24AC-NO	24/50V AC
K225-20-24DC-NO	24V DC
K225-20-12DC-NO	12V DC

Tech Sheet 10162

Coils to suit K225, Normally Open Valves



Coil & Plug

0366	Voltage
K225-230/50AC-NO	230/50V AC
K225-110/50AC-NO	110/50V AC
K225-24/50AC-NO	24/50V AC
K225-24DC-NO	24V DC
K225-12DC-NO	12V DC

Tech Sheet 10162

Valve Timer



0366
KVT

Tech Sheet 10162

General Purpose 2/2 N/C, Direct Acting

Working Pressure:
7 bar
Maximum Working Pressure:
10 bar



Flow Rate 3.4 L/min
Orifice 2.5mm
1/8" BSPP

0366	Voltage
K2W025-06-230AC	230/50V AC
K2W025-06-110AC	110/50V AC
K2W025-06-24AC	24/50V AC
K2W025-06-24DC	24V DC
K2W025-06-12DC	12V DC

Tech Sheet 10163

Flow Rate 3.4 L/min
Orifice 2.5mm
1/4" BSPP

0366	Voltage
K2W025-08-230AC	230/50V AC
K2W025-08-110AC	110/50V AC
K2W025-08-24AC	24/50V AC
K2W025-08-24DC	24V DC
K2W025-08-12DC	12V DC

Tech Sheet 10163

Flow Rate 6 L/min
Orifice 4mm
3/8" BSPP

0366	Voltage
K2W040-10-230AC	230/50V AC
K2W040-10-110AC	110/50V AC
K2W040-10-24AC	24/50V AC
K2W040-10-24DC	24V DC
K2W040-10-12DC	12V DC

Tech Sheet 10163

High Pressure 2/2 N/C, Direct Acting

Working Pressure:
20 bar
Maximum Working Pressure:
35 bar



Flow Rate 0.7 L/min
Orifice 1.2mm
1/8" BSPP

0366	Voltage
K2WH012-06-230AC	230/50V AC
K2WH012-06-110AC	110/50V AC
K2WH012-06-24AC	24/50V AC
K2WH012-06-24DC	24V DC
K2WH012-06-12DC	12V DC

Tech Sheet 10163

Flow Rate 0.7 L/min
Orifice 1.2mm
1/4" BSPP

0366	Voltage
K2WH012-08-230AC	230/50V AC
K2WH012-08-110AC	110/50V AC
K2WH012-08-24AC	24/50V AC
K2WH012-08-24DC	24V DC
K2WH012-08-12DC	12V DC

Tech Sheet 10163

Flow Rate 1.7 L/min
Orifice 2mm
3/8" BSPP

0366	Voltage
K2WH020-10-230AC	230/50V AC
K2WH020-10-110AC	110/50V AC
K2WH020-10-24AC	24/50V AC
K2WH020-10-24DC	24V DC
K2WH020-10-12DC	12V DC

Tech Sheet 10163

Coils to suit K2W Direct Acting Valves



Coil & Plug, Normally Closed
to suit 1/8", 1/4" BSPP

0366	Voltage
K2W-08-230/50AC	230/50V AC
K2W-08-110/50AC	110/50V AC
K2W-08-24/50AC	24/50V AC
K2W-08-24DC	24V DC
K2W-08-12DC	12V DC

Tech Sheet 10163

Coil & Plug, Normally Closed
to suit 3/8" BSPP

0366	Voltage
K2W-040-230/50AC	230/50V AC
K2W-040-110/50AC	110/50V AC
K2W-040-24/50AC	24/50V AC
K2W-040-24DC	24V DC
K2W-040-12DC	12V DC

Tech Sheet 10163

SOLENOID VALVES, 25 SERIES



ZS Series 2/2 Solenoid Valve

- Suitable for use on air, gas, hot water and oil applications
- Normally closed
- Comes complete with solenoid coil and plug
- Direct acting - no minimum pressure
- Rated IP 65



Brass Body NBR Seals, BSPP

0366	Thread	Orifice mm	CV Value	Min pressure	Air, AC	Gas DC	Max Working Pressure				Max Temp C	Power		Voltage
							Water, AC	Hot Water, DC	Liquid, DC	Light Oil, AC		Light Oil, DC	VA AC 220	
ZS15E2-10L	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	220V AC
ZS15E1-10L	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	110V AC
ZS15E4-10L	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	24V DC
ZS15E7-10L	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	24V AC
ZS20E2	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	220V AC
ZS20E1	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	110V AC
ZS20E4	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	24V DC
ZS20E7	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	24V AC
ZS25E2	G1"	25	12	0	10	6	10	6	7	4	80	33	20	220V AC
ZS25E1-25L	G1"	25	12	0	10	6	10	6	7	4	80	33	20	110V AC
ZS25E4	G1"	25	12	0	10	6	10	6	7	4	80	33	20	24V DC
ZS25E7	G1"	25	12	0	10	6	10	6	7	4	80	33	20	24V AC

ZS Series 2/2 Solenoid Valve

- Suitable for use on air, gas, hot water and oil applications
- Normally closed
- Comes complete with solenoid coil and plug
- Direct acting - no minimum pressure
- Rated IP 65



Stainless Steel Body Viton Seals, BSPP

0366	Thread	Orifice mm	CV Value	Min pressure	Air, AC	Gas DC	Max Working Pressure				Max Temp C	Power		Voltage
							Water, AC	Hot Water, DC	Liquid, DC	Light Oil, AC		Light Oil, DC	VA AC 220	
ZS15VE2-10LS2	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	220V AC
ZS15VE1-10LS2	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	110V AC
ZS15VE4-10LS2	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	24V DC
ZS15VE7-10LS2	G1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	24V AC
ZS20VE2S2	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	220V AC
ZS20VE1S2	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	110V AC
ZS20VE4S2	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	24V DC
ZS20VE7S2	G3/4"	20	7.6	0	10	6	10	6	7	4	80	33	20	24V AC
ZS25VE2S2	G1"	25	12	0	10	6	10	6	7	4	80	33	20	220V AC
ZS25VE1S2	G1"	25	12	0	10	6	10	6	7	4	80	33	20	110V AC
ZS25VE4S2	G1"	25	12	0	10	6	10	6	7	4	80	33	20	24V DC
ZS25VE7S2	G1"	25	12	0	10	6	10	6	7	4	80	33	20	24V AC

SOLENOID VALVES

stainless steel



Stainless Steel 2/2 N/C, Direct Operated/ Pilot Operated Solenoid Valves

Materials in contact with fluids

Body: Stainless steel AISI 316

Sealing: FPM

Internal Components: Stainless steel

Seat: Stainless steel AISI 316

Core Tube: Stainless steel

Shading Coil: Copper

Supplied with DIN plugs



1/8"-1/4"

3/8"-1"

BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M3/HR	Max Pressure Bar	Replacement Coil
G256C145S-23050	1/8"	230/50	4.5 VA	1.6	0.08	0-30	533534-003
G256C145S-11050	1/8"	110/50	4.5 VA	1.6	0.08	0-30	533534-024
G256C145S-2450	1/8"	24/50	4.5 VA	1.6	0.08	0-30	533534-011
G256C145S-24VDC	1/8"	24V DC	3.5 W	1.6	0.08	0-12	533534-001
G256C129S-23050	1/4"	230/50	14 VA	2.4	0.18	0-20	533593-003
G256C129S-11050	1/4"	110/50	14 VA	2.4	0.18	0-20	533593-020
G256C129S-2450	1/4"	24/50	14 VA	2.4	0.18	0-20	533593-011
G256C113S-24VDC	1/4"	24V DC	9 W	2.4	0.18	0-20	533593-002
L182V09-38-23050	3/8"	230/50	12VA	13.5	2.5	0.35 - 16	B12AA
L182V09-38-11050	3/8"	110/50	12VA	13.5	2.5	0.35 - 16	B12AC
L182V09-38-2450	3/8"	24/50	12VA	13.5	2.5	0.35 - 16	B12AE
L182V09-38-24	3/8"	24V DC	5.5W	13.5	2.5	0.35 - 16	B12AL
L182V09-12-23050	1/2"	230/50	12VA	13.5	3.8	0.35 - 16	B12AA
L182V09-12-11050	1/2"	110/50	12VA	13.5	3.8	0.35 - 16	B12AC
L182V09-12-2450	1/2"	24/50	12VA	13.5	3.8	0.35 - 16	B12AE
L182V09-12-24	1/2"	24V DC	5.5W	13.5	3.8	0.35 - 16	B12AL
L182V09-34-23050	3/4"	230/50	12VA	18	5	0.3 - 12	B12AA
L182V09-34-11050	3/4"	110/50	12VA	18	5	0.3 - 12	B12AC
L182V09-34-2450	3/4"	24/50	12VA	18	5	0.3 - 12	B12AE
L182V09-34-24	3/4"	24V DC	5.5W	18	5	0.3 - 12	B12AL
L182V09-1-23050	1"	230/50	12VA	24	12	0.3 - 12	B12AA
L182V09-1-11050	1"	110/50	12VA	24	12	0.3 - 12	B12AC
L182V09-1-2450	1"	24/50	12VA	24	12	0.3 - 12	B12AE
L182V09-1-24	1"	24V DC	5.5W	24	12	0.3 - 12	B12AL

Tech Sheets 2121, 2122 & 2123

Stainless Steel 2/2 N/O, Pilot Operated Solenoid Valves

Materials in contact with fluids

Body: Stainless steel AISI 316

Sealing: FPM

Internal Components: Stainless steel

Seat: Stainless steel AISI 316

Core Tube: Stainless steel

Shading Coil: Copper

Supplied with DIN plugs



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M3/HR	Max Pressure Bar	Replacement Coil
L282V09-38-23050	3/8"	230/50	12VA	13.5	2.5	0.3 - 12	B12AA
L282V09-38-11050	3/8"	110/50	12VA	13.5	2.5	0.3 - 12	B12AC
L282V09-38-2450	3/8"	24/50	12VA	13.5	2.5	0.3 - 12	B12AE
L282V09-38-24	3/8"	24V DC	5.5W	13.5	2.5	0.3 - 12	B12AL
L282V09-12-23050	1/2"	230/50	12VA	13.5	3.8	0.3 - 12	B12AA
L282V09-12-11050	1/2"	110/50	12VA	13.5	3.8	0.3 - 12	B12AC
L282V09-12-2450	1/2"	24/50	12VA	13.5	3.8	0.3 - 12	B12AE
L282V09-12-24	1/2"	24V DC	5.5W	13.5	3.8	0.3 - 12	B12AL
L282V09-34-23050	3/4"	230/50	12VA	18	5	0.3 - 10	B12AA
L282V09-34-11050	3/4"	110/50	12VA	18	5	0.3 - 10	B12AC
L282V09-34-2450	3/4"	24/50	12VA	18	5	0.3 - 10	B12AE
L282V09-34-24	3/4"	24V DC	5.5W	18	5	0.3 - 10	B12AL
L282V09-1-23050	1"	230/50	12VA	24	12	0.3 - 10	B12AA
L282V09-1-11050	1"	110/50	12VA	24	12	0.3 - 10	B12AC
L282V09-1-2450	1"	24/50	12VA	24	12	0.3 - 10	B12AE
L282V09-1-24	1"	24V DC	5.5W	24	12	0.3 - 10	B12AL

Tech Sheet 2154

Coil reference for G256 series



BSPP

0030	Voltage
533534-003	230/50
533534-024	110/50
533534-011	24/50
533534-001	24V DC
533593-003	230/50
533593-020	110/50
533593-011	24/50
533534-002	24V DC

Tech Sheet 2154

SOLENOID VALVES



General Purpose 2/2 N/C, Pilot Operated Solenoid Valves



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ³ /HR	Max Pressure Bar	Replacement Coil
L182D01-38-230	3/8"	230/50	6 VA	13.5	2.5	0.35 - 16	B10AA
L182D01-38-110	3/8"	110/50	6 VA	13.5	2.5	0.35 - 16	B10AC
L182D01-38-2450	3/8"	24/50	6 VA	13.5	2.5	0.35 - 16	B10AE
L182D01-38-24	3/8"	24V DC	5.5 W	13.5	2.5	0.35 - 16	B10AL
L182D01-12-230	1/2"	230/50	6 VA	13.5	3.8	0.35 - 16	B10AA
L182D01-12-110	1/2"	110/50	6 VA	13.5	3.8	0.35 - 16	B10AC
L182D01-12-2450	1/2"	24/50	6 VA	13.5	3.8	0.35 - 16	B10AE
L182D01-12-24	1/2"	24V DC	5.5 W	13.5	3.8	0.35 - 16	B10AL
L182D01-34-230	3/4"	230/50	6 VA	18	5	0.35 - 12	B10AA
L182D01-34-110	3/4"	110/50	6 VA	18	5	0.35 - 12	B10AC
L182D01-34-2450	3/4"	24/50	6 VA	18	5	0.35 - 12	B10AE
L182D01-34-24	3/4"	24V DC	5.5 W	18	5	0.35 - 12	B10AL
L182D01-1-230	1"	230/50	6 VA	24	12	0.35 - 12	B10AA
L182D01-1-110	1"	110/50	6 VA	24	12	0.35 - 12	B10AC
L182D01-1-2450	1"	24/50	6 VA	24	12	0.35 - 12	B10AE
L182D01-1-24	1"	24V DC	5.5 W	24	12	0.35 - 12	B10AL
L182D48-114-230	1.1/4"	230/50	14 VA	30	15	0.5-10	A10AA
L182D48-114-110	1.1/4"	110/50	14 VA	30	15	0.5-10	A10AC
L182D48-114-2450	1.1/4"	24/50	14 VA	30	15	0.5-10	A10AE
L182D48-114-24	1.1/4"	24V DC	9 W	30	15	0.5-10	A10AL
L182D48-112-230	1.1/2"	230/50	14 VA	45	27	0.5-10	A10AA
L182D48-112-110	1.1/2"	110/50	14 VA	45	27	0.5-10	A10AC
L182D48-112-2450	1.1/2"	24/50	14 VA	45	27	0.5-10	A10AE
L182D48-112-24	1.1/2"	24V DC	9 W	45	27	0.5-10	A10AL
L182D48-2-230	2"	230/50	14 VA	45	34	0.5-10	A10AA
L182D48-2-110	2"	110/50	15 VA	45	34	0.5-10	A10AC
L182D48-2-2450	2"	24/50	16 VA	45	34	0.5-10	A10AE
L182D48-2-24	2"	24V DC	9 W	45	34	0.5-10	A10AL

Tech Sheet 1977

General Purpose 2/2 N/O, Pilot Operated Solenoid Valves



3/8"-2" WRAS Approved. EPDM Seal

BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ³ /HR	Max Pressure Bar	Replacement Coil
L282D01-38-230	3/8"	230/50	6 VA	13.5	2.5	0.35-12	B10AA
L282D01-38-110	3/8"	110/50	6 VA	13.5	2.5	0.35-12	B10AC
L282D01-38-2450	3/8"	24/50	6 VA	13.5	2.5	0.35-12	B10AE
L282D01-38-24	3/8"	24V DC	5.5 W	13.5	2.5	0.35-12	C10AL
L282D01-12-230	1/2"	230/50	6 VA	13.5	3.8	0.35-12	B10AA
L282D01-12-110	1/2"	110/50	6 VA	13.5	3.8	0.35-12	B10AC
L282D01-12-2450	1/2"	24/50	6 VA	13.5	3.8	0.35-12	B10AE
L282D01-12-24	1/2"	24V DC	5.5 W	13.5	3.8	0.35-12	C10AL
L282D01-34-230	3/4"	230/50	6 VA	18	5	0.35-10	B10AA
L282D01-34-110	3/4"	110/50	6 VA	18	5	0.35-10	B10AC
L282D01-34-2450	3/4"	24/50	6 VA	18	5	0.35-10	B10AE
L282D01-34-24	3/4"	24V DC	5.5 W	18	5	0.35-10	C10AL
L282D01-1-230	1"	230/50	6 VA	24	12	0.35-10	B10AA
L282D01-1-110	1"	110/50	6 VA	24	12	0.35-10	B10AC
L282D01-1-2450	1"	24/50	6 VA	24	12	0.35-10	B10AE
L282D01-1-24	1"	24V DC	5.5 W	24	12	0.35-10	C10AL
L282D48-114-230	1.1/4"	230/50	14 VA	30	15	0.5-10	A10AA
L282D48-114-110	1.1/4"	110/50	14 VA	30	15	0.5-10	A10AC
L282D48-114-2450	1.1/4"	24/50	14 VA	30	15	0.5-10	A10AE
L282D48-114-24	1.1/4"	24V DC	9 W	30	15	0.5-10	A10AL
L282D01-112-230	1.1/2"	230/50	14 VA	45	27	0.5-10	A10AA
L282D01-112-110	1.1/2"	110/50	14 VA	45	27	0.5-10	A10AC
L282D01-112-2450	1.1/2"	24/50	14 VA	45	27	0.5-10	A10AE
L282D01-112-24	1.1/2"	24V DC	9 W	45	27	0.5-10	A10AL
L282D01-2-230	2"	230/50	14 VA	45	34	0.5-10	A10AA
L282D01-2-110	2"	110/50	14 VA	45	34	0.5-10	A10AC
L282D01-2-2450	2"	24/50	14 VA	45	34	0.5-10	A10AE
L282D01-2-24	2"	24V DC	9 W	45	34	0.5-10	A10AL

Tech Sheet 1978



For Reinforced PVC Braided Hose
Type RPVC (to BS6066)
see pages 1402-1406



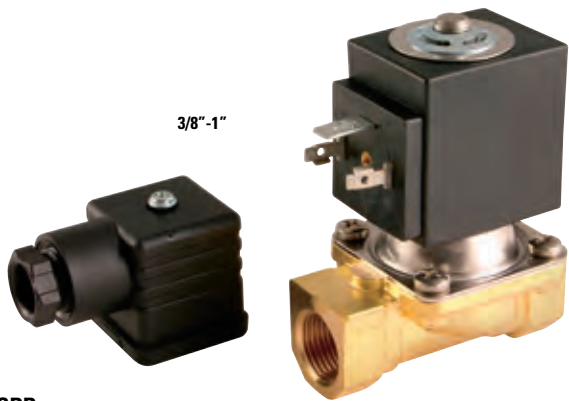
SOLENOID VALVES



Direct Operated & Pilot Operated (zero rated) Solenoid Valves



1/8"-1/4"



3/8"-1"

BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ² /HR	Max Pressure Bar	Replacement Coil
G256C136S-23050	1/8"	230/50	4.5 VA	2	0.12	0-15	533534-003
G256C136S-11050	1/8"	110/50	4.5 VA	2	0.12	0-15	533534-024
G256C136S-2450	1/8"	24/50	4.5 VA	2	0.12	0-15	533534-011
G256C136S-24	1/8"	24V DC	3.5 W	2	0.12	0-6	533534-001
G256I21S-23050	1/4"	230/50	14 VA	2.4	0.18	0-20	533593-003
G256C121S-11050	1/4"	110/50	14 VA	2.4	0.18	0-20	533593-020
G256C121S-2450	1/4"	24/50	14 VA	2.4	0.18	0-20	533593-011
G256C121S-24	1/4"	24V DC	9W	2.4	0.18	0-20	533593-002
L133B16-38-230	3/8"	230/50	14 VA	12.5	2	0-10	530AA
L133B16-38-110	3/8"	110/50	14 VA	12.5	2	0-10	530AC
L133B16-38-2450	3/8"	24/50	14 VA	12.5	2	0-10	530AE
L133B16-38-24	3/8"	24V DC	9W	12.5	2	0-3	530AL
L133B16-12-230	1/2"	230/50	24 VA	12.5	2.2	0-10	130AA
L133B16-12-110	1/2"	110/50	24 VA	12.5	2.2	0-10	130AC
L133B16-12-2450	1/2"	24/50	24 VA	12.5	2.2	0-10	130AE
L133B16-12-24	1/2"	24V DC	13W	12.5	2.2	0-3	130AL
L133B07-34-230	3/4"	230/50	24VA	17	4.5	0-10	130AA
L133B07-34-110	3/4"	110/50	24VA	17	4.5	0-10	130AC
L133B07-34-2450	3/4"	24/50	24VA	17	4.5	0-10	130AE
L133B07-34-24	3/4"	24V DC	13W	17	4.5	0-3	130AL
L133B06-1-230	1"	230/50	33VA	24	9	0-10	923EA
L133B06-1-110	1"	110/50	33VA	24	9	0-10	923EC
L133B06-1-2450	1"	24/50	33VA	24	9	0-10	923EE
L133B06-1-24	1"	24V DC	17W	24	9	0-3	923AL

Tech Sheets 870, 871 & 863

Steam & Hot Water 2/2 N/C, Pilot Operated Solenoid Valves



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ² /HR	Max Pressure Bar	Replacement Coil
L145R2-12-230	1/2"	230/50	10VA	10	2.5	0.4-8	614AA
L145R2-12-110	1/2"	110/50	10VA	10	2.5	0.4-8	614AC
L145R2-12-24	1/2"	24V AC	10VA	10	2.5	0.4-8	614AE
L145R4-34-230	3/4"	230/50	14VA	16	4.5	0.4-6	534AA
L145R4-34-110	3/4"	110/50	14VA	16	4.5	0.4-6	534AC
L145R2-1-230	1"	230/50	14VA	18.5	18.5	0.4-6	534AA
L145R2-1-110	1"	110/50	14VA	18.5	18.5	0.4-6	534AC

Tech Sheet 864

General Purpose 3/2 N/C, Direct Acting Solenoid Valves



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ² /HR	Max Pressure Bar	Replacement Coil
G356C136S-23050	1/8"	230/50	4.5 VA	1.6	0.08	0-10	533534-003
G356C136S-11050	1/8"	110/50	4.5 VA	1.6	0.08	0-10	533534-024
G356C136S-2450	1/8"	24/50	4.5 VA	1.6	0.08	0-10	533534-011
G356C136S-24	1/8"	24V DC	5W	1.6	0.08	0-10	533534-002
L321B02C-14-230	1/4"	230/50	14VA	2.3	0.14	0-8	230
L321B02C-14-110	1/4"	110/50	14VA	2.3	0.14	0-8	110
L321B02C-14-2450	1/4"	24/50	14VA	2.3	0.14	0-8	2450
L321B02C-14-24	1/4"	24V DC	9W	2.3	0.14	0-8	24DC

Tech Sheets 868 & 869

SOLENOID VALVES



Pilot Operated (zero rated) Solenoid Valves



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M ³ /HR	Max Pressure Bar	Replacement Coil
L153D07-12-230*	1/2"	230/50	12VA	11.5	2.1	0-8	134AA
L153D07-12-110*	1/2"	110/50	12VA	11.5	2.1	0-8	134AC
L153D07-12-24*	1/2"	24V AC	12VA	11.5	2.1	0-8	134AE
L153D07-34-230	3/4"	230/50	12VA	17	5	0-8	134AA
L153D07-34-110	3/4"	110/50	12VA	17	5	0-8	134AC
L153D07-34-24	3/4"	24V AC	12VA	17	5	0-8	134AE
L153D5-1-230	1"	230/50	27VA	22	8.5	0-8	923EA
L153D5-1-110	1"	110/50	27VA	22	8.5	0-8	923EC
L153D5-1-24	1"	24V AC	27VA	22	8.5	0-8	923AL

Tech Sheet 865

* Please Note 0-6 Bar Hot Water.

DIN Plug



To suit Sirai Valves

0030	To Suit
122	122 Coil
182	182 Coil

Replacement Coils



To suit Sirai Valves

0030	Voltage	Plug
823AA	230/50	122
823AC	110/50	122
823AL	24V DC	122
830AE	24/50	122
A10AA	230/50	182
A10AC	110/50	182
A10AE	24/50	182
A10AL	24V DC	182
B10AA	230/50	122
B10AC	110/50	122
B10AE	24/50	122
B10AL	24V DC	122
530AA	230/50	182
530AC	110/50	182
530AL	24V DC	182
130AA	230/50	182
130AC	110/50	182
130AE	24/50	182
130AL	24V DC	182
923EA	230/50	182
923EC	110/50	182
923EE	24/50	182
923AL	24V DC	182
614AA	230/50	122
614AC	110/50	122
614AE	24V AC	122
534AA	230/50	182
534AC	110/50	182
534AE	24V AC	182
134AA	230/50	182
134AC	110/50	182
134AE	24V AC	182
934AA	230/50	182
934AC	110/50	182
934AE	24V AC	182
610AA	230/50	122
610AC	110/50	122
610AE	24/50	122
610AL	24V DC	122

SOLENOID VALVES

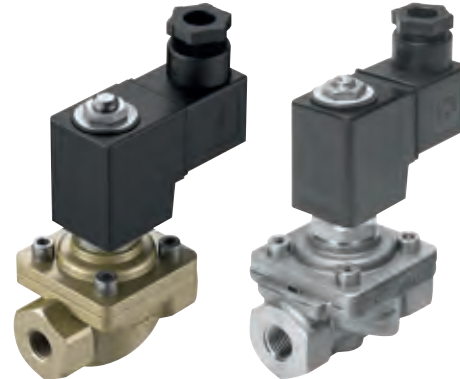


VZWF 2/2 Way Normally Closed Solenoid Valves

Features:

- Available in brass or stainless steel body
- BSPP threads
- NBR seals
- Stainless steel tube and internals
- Suitable for applications such as water, inert gases, compressed air systems and neutral liquids.
Also suitable for vacuum with Pabs > 100 mbar
- 22 centistokes maximum viscosity
- IP65 rating

- ° Working Temperature:
-10°C to +80°C
- ° Ambient Temperature:
-10°C to +35°C
- Maximum Working Pressure:
10 bar: 1/4" to 1/2"
6 bar: 3/4" upwards



Brass

0990	Size	Festo Type Code	Voltage
1492110	1/4"	VZWF-B-L-M22C-G14-135-1P4-10	24V DC
1492206	1/4"	VZWF-B-L-M22C-G14-135-2AP4-10	110V AC
1492302	1/4"	VZWF-B-L-M22C-G14-135-3AP4-10	230V AC
1492111	3/8"	VZWF-B-L-M22C-G38-135-1P4-10	24V DC
1492207	3/8"	VZWF-B-L-M22C-G38-135-2AP4-10	110V AC
1492303	3/8"	VZWF-B-L-M22C-G38-135-3AP4-10	230V AC
1492112	1/2"	VZWF-B-L-M22C-G12-135-1P4-10	24V DC
1492208	1/2"	VZWF-B-L-M22C-G12-135-2AP4-10	110V AC
1492304	1/2"	VZWF-B-L-M22C-G12-135-3AP4-10	230V AC
1492113	3/4"	VZWF-B-L-M22C-G34-275-1P4-6	24V DC
1492209	3/4"	VZWF-B-L-M22C-G34-275-2AP4-6	110V AC
1492305	3/4"	VZWF-B-L-M22C-G34-275-3AP4-6	230V AC
1492114	1"	VZWF-B-L-M22C-G1-275-1P4-6	24V DC
1492210	1"	VZWF-B-L-M22C-G1-275-2AP4-6	110V AC
1492306	1"	VZWF-B-L-M22C-G1-275-3AP4-6	230V AC

Tech Sheet 6264

Stainless Steel

0990	Size	Festo Type Code	Voltage
1492118	1/4"	VZWF-B-L-M22C-G14-135-1P4-10-R1	24V DC
1492214	1/4"	VZWF-B-L-M22C-G14-135-2AP4-10-R1	110V AC
1492310	1/4"	VZWF-B-L-M22C-G14-135-3AP4-10-R1	230V AC
1492119	3/8"	VZWF-B-L-M22C-G38-135-1P4-10-R1	24V DC
1492215	3/8"	VZWF-B-L-M22C-G38-135-2AP4-10-R1	110V AC
1492311	3/8"	VZWF-B-L-M22C-G38-135-3AP4-10-R1	230V AC
1492120	1/2"	VZWF-B-L-M22C-G12-135-1P4-10-R1	24V DC
1492216	1/2"	VZWF-B-L-M22C-G12-135-2AP4-10-R1	110V AC
1492312	1/2"	VZWF-B-L-M22C-G12-135-3AP4-10-R1	230V AC
1492121	3/4"	VZWF-B-L-M22C-G34-275-1P4-6-R1	24V DC
1492217	3/4"	VZWF-B-L-M22C-G34-275-2AP4-6-R1	110V AC
1492313	3/4"	VZWF-B-L-M22C-G34-275-3AP4-6-R1	230V AC
1492122	1"	VZWF-B-L-M22C-G1-275-1P4-6-R1	24V DC
1492218	1"	VZWF-B-L-M22C-G1-275-2AP4-6-R1	110V AC
1492314	1"	VZWF-B-L-M22C-G1-275-3AP4-6-R1	230V AC

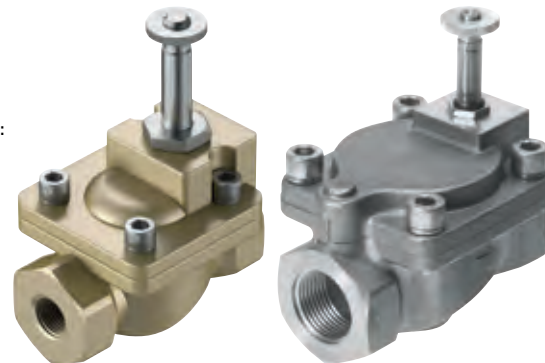
Tech Sheet 6264

VZWM 2/2 Way Normally Closed Solenoid Valves

Features:

- Available in brass or stainless steel body
- BSPP threads
- NBR seals
- Steel tube and internals
- Suitable for applications such as water, inert gases, compressed air systems and neutral liquids
- 22 centistokes maximum viscosity
- IP65 rating with a DIN connector fitte
- For a complete diaphragm opening, a minimum pressure of 0.5 bar is required for sizes 1/4" to 1" and 0.7 bar for sizes 1.1/4" upwards

- ° Working Temperature:
-10°C to +60°C
- ° Ambient Temperature:
-10°C to +60°C
- Maximum Working Pressure:
10 bar (gases)
6 bar (liquids)



Brass

0990	Size	Festo Type Code	Solenoid Coil Size
546146	1/4"	VZWM-L-M22C-G14-F4	F4
546147	3/8"	VZWM-L-M22C-G38-F4	F4
546148	1/2"	VZWM-L-M22C-G12-F4	F4
546149	3/4"	VZWM-L-M22C-G34-F4	F4
546150	1"	VZWM-L-M22C-G1-F4	F4
546151	1.1/4"	VZWM-L-M22C-G114-F5	F5
546152	1.1/2"	VZWM-L-M22C-G112-F5	F5
546153	2"	VZWM-L-M22C-G2-F5	F5

Tech Sheet 6265

Stainless Steel

0990	Size	Festo Type Code	Solenoid Coil Size
546162	1/4"	VZWM-L-M22C-G14-F5-R1	F5
546163	3/8"	VZWM-L-M22C-G38-F5-R1	F5
546164	1/2"	VZWM-L-M22C-G12-F5-R1	F5
546165	3/4"	VZWM-L-M22C-G34-F5-R1	F5
546166	1"	VZWM-L-M22C-G1-F5-R1	F5
546167	1.1/4"	VZWM-L-M22C-G114-F5-R1	F5
546168	1.1/2"	VZWM-L-M22C-G112-F5-R1	F5
546169	2"	VZWM-L-M22C-G2-F5-R1	F5

Tech Sheet 6265

SOLENOID VALVES

Solenoid Valves

Features:

- Electrical connection according to DIN EN 175301-803 Form A
- Any mounting position
- IP65 rating
- 100% duty rating



Features:

- Electrical connection according to DIN EN 175301-803 Form A
- Reinforced PA housing
- IP65 rating



Solenoid Coil

0990	Size	Festo Type Code	Voltage
549903	F4	MD-2-24VDC-PA	24V DC
549904	F4	MD-2-110VAC-PA	110V AC
549905	F4	MD-2-230VAC-PA	230V AC
549906	F5	MH-2-24VDC-PA	24V DC
549907	F5	MH-2-110VAC-PA	110V AC
549908	F5	MH-2-230VAC-PA	230V AC

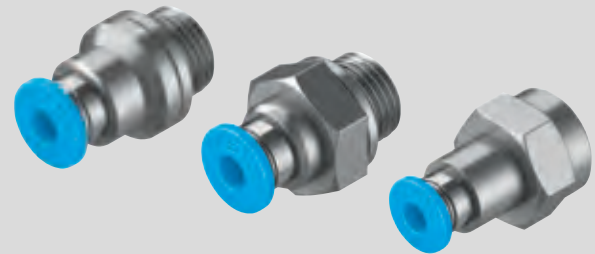
Tech Sheet 6266

DIN Plug

0990	Size	Festo Type Code
550067	1/4" to 2"	MSSD-N

Tech Sheet 6267

7



You might also need...
Festo Male Studs
 ...see page **808**

Require technical support with Festo products?...

Contact our technical sales team and they will be happy to assist you.

SOLENOID VALVES

stainless
steel



Parker's 2 way and 3 way, normally closed and normally open, solenoid valves are used in a wide variety of applications, with or without pressure differential. Ideal for air, liquids and gases, these valves are available with a brass or stainless steel body with a range of sealing materials offering vast chemical compatibilities.

Applications:

- Compressors
- Water dispensing and purification
- Cooling systems
- Sterilisers
- Analysers and diagnostic equipment
- Medical and dental devices
- Welding equipment
- Lubrication equipment
- Beverage dispensing and vending machines
- Oil burners
- Humidification and misting equipment
- Mobile equipment
- Textile and dry cleaning machines
- Irrigation

Solenoid Valves, Stainless Steel 316L

° Working Temperature:
-10°C to +140°C

Please see technical data sheet for working pressures



2/2 Way, Normally Closed, Viton Seal, BSPP

0484	Thread	Orifice mm	Voltage	Manufacturer's Code
550000DIS	1/8"	1.5	24V DC	550000DIS
550001DIS	1/8"	1.5	230V AC	550001DIS
550002DIS	1/4"	1.5	24V DC	550002DIS
550003DIS	1/4"	1.5	230V AC	550003DIS
550004DIS	1/4"	2.5	24V DC	550004DIS
550005DIS	1/4"	2.5	230V AC	550005DIS
550009DIS	3/8"	5	230V AC	550009DIS
550010DIS	1/2"	5	24V DC	550010DIS
550011DIS	1/2"	5	230V AC	550011DIS

Tech Sheet 60420

Maximum Working Pressure
6 bar

2/2 Way, Normally Open, Viton Seal, BSPP

0484	Thread	Orifice mm	Voltage	Manufacturer's Code
550013DIS	1/4"	3	230V AC	550013DIS

Tech Sheet 60421

Maximum Working Pressure
8 bar

3/2 Way, Normally Closed, Viton Seal, BSPP

0484	Thread	Orifice mm	Voltage	Manufacturer's Code
550014DIS	1/8"	1.5	24V DC	550014DIS
550015DIS	1/8"	1.5	230V AC	550015DIS
550016DIS	1/4"	1.5	24V DC	550016DIS
550017DIS	1/4"	1.5	230V AC	550017DIS

Tech Sheet 60421

2/2 Way Solenoid Valves, Direct Lift, Stainless Steel

° Maximum Working Temperature:
+100°C

Maximum Working Pressure
16 bar = AC
6 bar = DC



Normally Closed, Viton Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
221G6306-230AC	3/8"	230V AC	221G6306-2995-4818653D
221G6506-230AC	1/2"	230V AC	221G6506-2995-4818653D
221G6536-24DC	1/2"	24V DC	221G6536-2995-492425C2
221G6606-230AC	3/4"	230V AC	221G6606-2995-4818653D
221G6106-230AC	1"	230V AC	221G6106-2995-4818653D
221G6136-24DC	1"	24V DC	221G6136-2995-492425C2

Tech Sheet 60440

SOLENOID VALVES



Parker's 2 way and 3 way, normally closed and normally open, solenoid valves are used in a wide variety of applications, with or without pressure differential. Ideal for air, liquids and gases, these valves are available with a brass or stainless steel body with a range of sealing materials offering vast chemical compatibilities.

Applications:

- Compressors
- Water dispensing and purification
- Cooling systems
- Sterilisers
- Analysers and diagnostic equipment
- Medical and dental devices
- Welding equipment
- Lubrication equipment
- Beverage dispensing and vending machines
- Oil burners
- Humidification and misting equipment
- Mobile equipment
- Textile and dry cleaning machines
- Irrigation

2/2 Way Solenoid Valves, Brass, Compact Design

Working Temperature:
-10°C to +140°C

Maximum Working Pressure:
10 bar = AC
7 bar = DC



Normally Closed, Viton Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
321K3106-230AC	1/4"	230V AC	321K3106-8993-4889803D
321K3106-24DC	1/4"	24V DC	321K3106-8993-488980C2
321K3306-230AC	3/8"	230V AC	321K3306-8993-4889803D
321K3306-24DC	3/8"	24V DC	321K3306-8993-488980C2
321K3506-230AC	1/2"	230V AC	321K3506-8993-4889803D
321K3506-24DC	1/2"	24V DC	321K3506-8993-488980C2
321K3606-230AC	3/4"	230V AC	321K3606-8993-4889803D
321K3606-24DC	3/4"	24V DC	321K3606-8993-488980C2
321K3706-230AC	1"	230V AC	321K3706-8993-4889803D
321K3706-24DC	1"	24V DC	321K3706-8993-488980C2

Tech Sheet 60417

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
12 bar



Normally Open, Viton Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
322K4106-24DC	1/4"	24V DC	322K4106-2995-481865C2
322K4506-230AC	1/2"	230V AC	322K4506-2995-4818653D
322K4506-24DC	1/2"	24V DC	322K4506-2995-481865C2
322K4606-230AC	3/4"	230V AC	322K4606-2995-4818653D
322K4606-24DC	3/4"	24V DC	322K4606-2995-481865C2

Tech Sheet 60418

2/2 Way Solenoid Valves, Brass, Direct Lift

Working Temperature:
-10°C to +100°C

Maximum Working Pressure:
16 bar = AC
10 bar = DC



Normally Closed, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
221G13-230AC	3/8"	230V AC	221G13-2995-4818653D
221G13-24DC	3/8"	24V DC	221G13-2995-492425C2
221G1530-24DC	1/2"	24V DC	221G1530-2995-481865C2
221G16-230AC	3/4"	230V AC	221G16-2995-4818653D
221G16-24DC	3/4"	24V DC	221G16-2995-492425C2
221G17-24DC	1"	24V DC	221G17-2995-492425C2

Tech Sheet 60416

Normally Closed, Large Flow, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
221G21-230AC	1"	230V AC	221G21-2995-4818653D
221G2130-24DC	1"	24V DC	221G2130-2995-481865C2

Tech Sheet 60416

3/2 Way Solenoid Valve, Aluminium Banjo Design

Working Temperature:
-10°C to +50°C

Maximum Working Pressure:
10 bar



Normally Closed, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
131B14-24DC	1/8"	24V DC	131B14-496131C2
131B14-230AC	1/8"	230V AC	131B14-496131P9
131B04-24DC	1/4"	24V DC	131B04-496131C2
131B04-230AC	1/4"	230V AC	131B04-496131P9

Tech Sheet 60415

SOLENOID VALVES



Parker's 2 way, normally closed and normally open, solenoid valves are used in a wide variety of applications, with or without pressure differential. Ideal for air, liquids and gases, these valves are available with a brass or stainless steel body with a range of sealing materials offering vast chemical compatibilities.

Applications:

- Compressors
- Water dispensing and purification
- Cooling systems
- Sterilisers
- Analysers and diagnostic equipment
- Medical and dental devices
- Welding equipment
- Lubrication equipment
- Beverage dispensing and vending machines
- Oil burners
- Humidification and misting equipment
- Mobile equipment
- Textile and dry cleaning machines
- Irrigation



2/2 Way Solenoid Valves, Brass, Hot Water & Liquids

° Working Temperature: -10°C to +140°C (3/8" to 1")
-10°C to +50°C (1.1/4" to 2")

Maximum Working Pressure: 10 bar

Normally Closed, EPDM Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
550036DIS	3/8"	24V DC	550036DIS
550037DIS	3/8"	230V AC	550037DIS
550026DIS	3/4"	24V DC	550026DIS
550029DIS	1"	230V AC	550029DIS
550218DIS	2"	230V AC	550218DIS

Tech Sheet 60423

2/2 Way Solenoid Valves, Brass, Hot Water & Liquids

° Working Temperature: -10°C to +90°C

Maximum Working Pressure: 20 bar (3/8" to 1/2")
10 bar (3/4" to 3")

Normally Closed, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
550039DIS	3/8"	230V AC	550039DIS
550198DIS	3/4"	230V AC	550198DIS
550030DIS	1"	24V DC	550030DIS
550031DIS	1"	230V AC	550031DIS
550033DIS	1.1/4"	230V AC	550033DIS
550034DIS	1.1/2"	24V DC	550034DIS
550035DIS	1.1/2"	230V AC	550035DIS

Tech Sheet 60424

2/2 Way Solenoid Valves, Brass, Hot Water & Liquids

° Working Temperature: -10°C to +90°C

Maximum Working Pressure: 20 bar (3/8" to 1")
10 bar (1.1/2" to 2")

Normally Open, Nitrile Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
550057DIS	3/8"	230V AC	550057DIS
550046DIS	1/2"	24V DC	550046DIS
550047DIS	1/2"	230V AC	550047DIS
550049DIS	3/4"	230V AC	550049DIS
550050DIS	1"	24V DC	550050DIS
550051DIS	1"	230V AC	550051DIS
550052DIS	1.1/2"	24V DC	550052DIS

Tech Sheet 60425

2/2 Way Solenoid Valves, Brass, Steam & Hot Water

° Working Temperature: -30°C to +180°C

Maximum Working Pressure: 10 bar

Normally Closed, PTFE Seal, BSPP

0484	Thread	Voltage	Manufacturer's Code
550072DIS	1/2"	230V AC	550072DIS
550076DIS	1"	230V AC	550076DIS

Tech Sheet 60426

SOLENOID VALVES



General Purpose 2/2 N/C Pilot Operated Solenoid Valves

Media: Water, oil and air
Seal: Nitrile
Speed Control Screw: Standard on 1.1/2" and 2"
Body: Brass
Protection Class: IP65 (with connector fitted)

Working Temperature:
 -10°C to +90°C



BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
F180-38-230	3/8"	230/50	10VA	13	55	0.3-16	2700
F180-38-110	3/8"	110/50	10VA	13	55	0.3-16	2400
F180-38-24	3/8"	24DC	7W	13	55	0.3-16	2250
F180-12-230	1/2"	230/50	10VA	13	63	0.3-16	2700
F180-12-110	1/2"	110/50	10VA	13	63	0.3-16	2400
F180-12-24	1/2"	24DC	7W	13	63	0.3-16	2250
F180-34-230	3/4"	230/50	10VA	21	90	0.3-16	2700
F180-34-110	3/4"	110/50	10VA	21	90	0.3-16	2400
F180-34-24	3/4"	24DC	7W	21	90	0.3-16	2250
F180-1-230	1"	230/50	10VA	25	216	0.3-16	2700
F180-1-110	1"	110/50	10VA	25	216	0.3-16	2400
F180-1-24	1"	24DC	7W	25	216	0.3-16	2250
F180-112-230	1.1/2"	230/50	18VA	40	400	0.5-16	7700
F180-112-110	1.1/2"	110/50	18VA	40	400	0.5-16	7400
F180-112-24	1.1/2"	24DC	14W	40	400	0.5-16	7250
F180-2-230	2"	230/50	18VA	50	540	0.5-16	7700
F180-2-110	2"	110/50	18VA	50	540	0.5-16	7400
F180-2-24	2"	24DC	14W	50	540	0.5-16	7250

Tech Sheet 10376

General Purpose 2/2 N/O Pilot Operated Solenoid Valves

Media: Water, oil and air
Seal: Nitrile
Speed Control Screw: Standard on 1.1/2" and 2"
Body: Brass
Protection Class: IP65 (with connector fitted)

Working Temperature:
 -10°C to +90°C



BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
F280-38-230	3/8"	230/50	10VA	13	55	0.3-16	2700
F280-38-110	3/8"	110/50	10VA	13	55	0.3-16	2400
F280-38-24	3/8"	24DC	7W	13	55	0.3-16	2250
F280-12-230	1/2"	230/50	10VA	13	63	0.3-16	2700
F280-12-110	1/2"	110/50	10VA	13	63	0.3-16	2400
F280-12-24	1/2"	24DC	7W	13	63	0.3-16	2250
F280-34-230	3/4"	230/50	10VA	21	100	0.3-16	2700
F280-34-110	3/4"	110/50	10VA	21	100	0.3-16	2400
F280-34-24	3/4"	24DC	7W	21	100	0.3-16	2250
F280-1-230	1"	230/50	10VA	21	160	0.3-16	2700
F280-1-110	1"	110/50	10VA	21	160	0.3-16	2400
F280-1-24	1"	24DC	7W	21	160	0.3-16	2250
F280-112-230	1.1/2"	230/50	18VA	40	480	0.5-16	7700
F280-112-24	1.1/2"	24DC	14W	40	480	0.5-16	7250
F280-2-230	2"	230/50	18VA	50	600	0.5-16	7700
F280-2-110	2"	110/50	18VA	50	600	0.5-16	7400
F280-2-24	2"	24DC	14W	50	600	0.5-16	7250

Tech Sheet 10377

General Purpose 2/2 N/C Direct Acting Solenoid Valves

Media: Water, oil and air
Seal: FKM
Body: Brass
Protection Class: IP65 (with connector fitted)

Working Temperature:
 -10°C to +120°C



BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
F133-18-230	1/8"	230/50	10VA	2	1.9	0-12	2700
F133-18-110	1/8"	110/50	10VA	2	1.9	0-12	2400
F133-18-24	1/8"	24DC	7W	2	1.9	0-9	2250
F133-14-230	1/4"	230/50	18VA	3	4.5	0-15	7700
F133-14-110	1/4"	110/50	18VA	3	4.5	0-15	7400
F133-14-24	1/4"	24DC	14W	3	4.5	0-8	7250
F133-38-230	3/8"	230/50	18VA	4	6	0-8	7700
F133-38-110	3/8"	110/50	18VA	4	6	0-8	7400
F133-38-24	3/8"	24DC	14W	4	6	0-5	7250

Tech Sheet 10374

SOLENOID VALVES



Stainless Steel 2/2 N/C Direct Acting Solenoid Valves

Media: Aggressive media
Seal: FKM
Body: Stainless steel
Protection Class: IP65
(with connector fitted)

Working Temperature:
-10°C to +130°C

stainless steel



BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
FSS-18-24	1/8"	24DC	14W	3	4.5	0-8	7250
FSS-14-230	1/4"	230/50	18VA	3	4.5	0-15	7700
FSS-14-110	1/4"	110/50	18VA	3	4.5	0-15	7400
FSS-14-24	1/4"	24DC	14W	3	4.5	0-8	7250

Tech Sheet 10380

General Purpose 3/2 N/C Direct Acting Solenoid Valves

Media: Water, oil and air
Seal: FKM
Body: Brass
Protection Class: IP65
(with connector fitted)

Working Temperature:
-10°C to +130°C



BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
F333-18-230	1/8"	230/50	18VA	2	2.2	0-10	7700
F333-18-110	1/8"	110/50	18VA	2	2.2	0-10	7400
F333-18-24	1/8"	24DC	14W	2	2.2	0-10	7250
F333-14-230	1/4"	230/50	18VA	2	2.2	0-10	7700
F333-14-110	1/4"	110/50	18VA	2	2.2	0-10	7400
F333-14-24	1/4"	24DC	14W	2	2.2	0-10	7250

Tech Sheet 10251

2/2 Way Pilot Operated Valve with Assisted Lift

Media: Water, oil and air
Note:

Other voltages available on request

Working Temperature:
-10°C to +130°C



Compact Version, BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
D884DVU-230/50	1/4"	230/50	18VA	10.5	21	0-16	7700
D884DVU-110/50	1/4"	110/50	18VA	10.5	21	0-16	7400
D885DVU-230/50	3/8"	230/50	18VA	10.5	24	0-16	7700
D885DVU-24	3/8"	24DC	14W	10.5	24	0-4.5	7250
D886DVU-230/50	1/2"	230/50	18VA	10.5	25	0-16	7700
D886DVU-110/50	1/2"	110/50	18VA	10.5	25	0-16	7400
D886DVU-24	1/2"	24DC	14W	10.5	25	0-4.5	7250

Tech Sheet 10379

Now available with WRAS approval, FKM seals, EPDM seals, stainless steel body and normally open configurations on request



High Flow Version, BSPP

0263	Thread	Voltage	Coil Consumption	DN Size	KV LPM	Max Pressure Bar	Replacement Coil
D288DBW-230/50	3/8"	230/50	18VA	15	60	0-16	7700
D288DBW-110/50	3/8"	110/50	18VA	15	60	0-16	7400
D288DBW-24	3/8"	24DC	14W	15	60	0-6	7250
D289DBW-230/50	1/2"	230/50	18VA	15	65	0-16	7700
D289DBW-110/50	1/2"	110/50	18VA	15	65	0-16	7400
D289DBW-24	1/2"	24DC	14W	15	65	0-6	7250
D290DBW-230/50	3/4"	230/50	18VA	15	80	0-16	7700
D290DBW-110/50	3/4"	110/50	18VA	15	80	0-16	7400
D290DBW-24	3/4"	24DC	14W	15	80	0-6	7250
D293DBY-230/50	1"	230/50	18VA	25	170	0-16	7700
D293DBY-110/50	1"	110/50	18VA	25	170	0-16	7400
D293DBY-24	1"	24DC	14W	25	170	0-6	7250

Tech Sheet 10378

SOLENOID VALVES



Steam 2/2 Way N/C Pilot Operated Solenoid Valves

Ambient Temperature:
 -10°C to +70°C
Working Temperature:
 -10°C to +180°C

2/2 Way N/C, BSPP

0263	Thread	LPM	Min Pressure Bar	Max Pressure Bar
D634DTT24VAC	1/4"	21	0.3	10
D634DTT110VAC	1/4"	21	0.3	10
D634DTT240VAC	1/4"	21	0.3	10
D635DTT24VAC	3/8"	24	0.3	10
D635DTT110VAC	3/8"	24	0.3	10
D635DTT240VAC	3/8"	24	0.3	10
D636DTT24VAC	1/2"	25	0.3	10
D636DTT110VAC	1/2"	25	0.3	10
D636DTT240VAC	1/2"	25	0.3	10
D606DTY24VAC	3/4"	120	1	10
D606DTY110VAC	3/4"	120	1	10
D606DTY240VAC	3/4"	120	1	10
D622DTY24VAC	1"	120	1	10
D622DTY110VAC	1"	120	1	10
D622DTY240VAC	1"	120	1	10

Tech Sheet 974



DIN Connectors



Plug to suit F133/F180/F280 (1/8"-1")

0263
2021-7303

Tech Sheet 974

Plug to suit FSS/F153/F180/F280/F333 (1/8"-2")

0263
2021-7329

Tech Sheet 974

DIN Connectors with RED indicating LED



LED Plug to suit F133/F180/F280 (1/8"-1")

0263	Voltage
2027-5384	10V - 50V
2027-5392	70V - 250V

Tech Sheet 974

LED Plug to suit FSS/F153/F180/ F280/F333 (1/8"-2")

0263	Voltage
2027-5400	10V - 50V
2027-5418	70V - 250V

Tech Sheet 974

Valve Coils



0263	Voltage
2700	230/50
2400	110/50
2250	24DC
7700	230/50
7400	110/50
7250	24DC
7701	230/50
7401	110/50
7251	24DC

Tech Sheet 974

Many experts in the fluid power industry frequently utilise pre-wired DIN connectors to meet their hydraulic, pneumatic, and process valve needs. These connectors were once referred to as DIN 43650 but are now industry standard EN175301-803.

- Thoroughly tested and ready for installation.
- Eliminates assembly errors.
- No manual cutting or wiring is required
- Reduction in labour costs
- Proven product efficiency and reliability.
- Improved IP ratings.
- Protection against ingress and environmental elements.

By opting for pre-assembled connectors, engineers can be assured of time and cost savings. Equipment and machinery can be safeguarded from contamination and environmental hazards. Additionally, the application will benefit from a noticeable improvement in IP ratings, which can elevate your rating from IP65 to IP67. Pre-moulded connectors provide a smart and efficient solution to any application.

The moulded insulated cable is crafted with premium-grade PVC to guarantee optimal performance and safety for all your connectors. Our utmost priority is to offer an unparalleled product that meets and exceeds your expectations.

Incorporating pre-assembled DIN connectors is a proven solution for engineers to significantly increase efficiency and reduce costs.



7

MA6 Series



FORM A – Industrial (18mm Pin Spacing) Moulded Cable

0330	Voltage	Size mm Square	LED+VDR	Cable Length Metres
MA634V54PA05100	24V AC/DC	30	LED + VDR	1
MA634V54PA05300	24V AC/DC	30	LED + VDR	3
MA634V54PA05500	24V AC/DC	30	LED + VDR	5
MA634V55PA05100	115V AC	30	LED + VDR	1
MA634V55PA05300	115V AC	30	LED + VDR	3
MA634V55PA05500	115V AC	30	LED + VDR	5
MA634V56PA05100	230V AC	30	LED + VDR	1
MA634V56PA05300	230V AC	30	LED + VDR	3
MA634V56PA05500	230V AC	30	LED + VDR	5

Tech Sheet 10163

MB6 Series



FORM B – Industrial (11mm Pin Spacing) Moulded Cable

0330	Voltage	Size mm Rectangle	LED+VDR	Cable Length Metres
MB635V54PA05100	24V AC/DC	22	LED + VDR	1
MB635V54PA05300	24V AC/DC	22	LED + VDR	3
MB635V54PA05500	24V AC/DC	22	LED + VDR	5
MB635V55PA05100	115V AC	22	LED + VDR	1
MB635V55PA05300	115V AC	22	LED + VDR	3
MB635V55PA05500	115V AC	22	LED + VDR	5
MB635V56PA05100	230V AC	22	LED + VDR	1
MB635V56PA05300	230V AC	22	LED + VDR	3
MB635V56PA05500	230V AC	22	LED + VDR	5

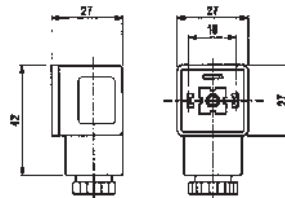
Tech Sheet 10163

Connector DIN43650/A

- Housing colour: Black, grey
- Type of contact: Screw with conductor protection
- Contact spacing: 18mm
- Number of poles: 2 poles + $\frac{1}{3}$ + $\frac{1}{3}$
- Cable diameter 6-8mm for PG9, 8-10mm for PG11.
- Max conductor section: 1.5mm²
- Fixing screw: M3 x 30
- The $\text{Ø}30 \times 20$ profile or $\text{Ø}30 \times 25$ is made of thermoplastic rubber in black.
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)
- $\text{Ø}30 \times 20$ unit pieces $\text{Ø}30 \times 25$ fixing screw and standard gasket

Standard

9072	Description
G1NU2000	PG9 / PG11 Black 2 Poles + Earth

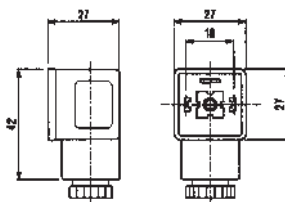


Connector DIN43650/A

- Housing colour: Transparent
- Type of contact: Screw with conductor protection
- Contact spacing: 18mm
- Number of poles: 2 poles + $\frac{1}{3}$
- Cable diameter 6-8mm for PG9, 8-10mm for PG11.
- Max conductor section: 1.5mm²
- Fixing screw: M3 x 30
- The $\text{Ø}30 \times 20$ profile or $\text{Ø}30 \times 25$ is made of thermoplastic rubber in black.
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)
- Working voltages available : 12V, 24V, 48V, 110V and 250V

LED & Protection Circuit

9072	Description
G1TU2VL1	PG9 / PG11 24V 2 Poles + Earth
G1TU2VL2	PG9 / PG11 115V 2 Poles + Earth
G1TU2VL3	PG9 / PG11 230V 2 Poles + Earth



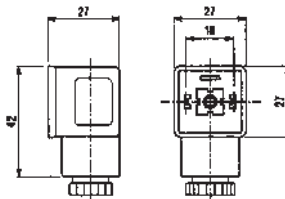
Connector DIN43650/A with cable

- Housing colour: Black
- Type of contact: Soldered
- Contact spacing: 18mm
- Number of poles: 2 poles + 2 $\frac{1}{3}$
- Earth position: h6/h12 (ground connection)
- Item available also with 3P+G
- Type of cable: Section 0,50mm and 0,75mm
- Cable length: 1 or 2 metres (other length upon request)
- Max conductor section: IP 65 with moulded cable
- Fixing screw: M3 x 25
- Profile gasket: NBR (other types upon request)
- Cable diameter 6-8mm for PG9, 8-10mm for PG11.

The gasket is integrated on the head of the connector and made of Sipolprene TPC-ET

Moulded Cable

9072	Description
CG1NO2000C022	2 Metres 2 Poles + Double Earth



Connector DIN43650/A

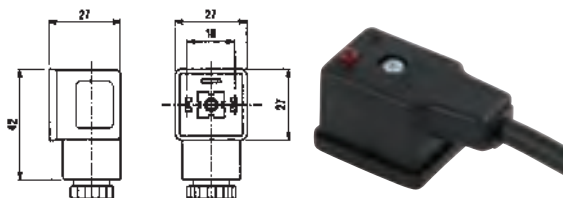
- Housing colour: Black
- Type of contact: Soldered, 18mm
- Number of poles: 2 poles + 2 $\frac{||}{|}$
- Earth position: h6/h12 (ground connection)
- Type of cable: Section 0,50mm and 0,75mm
- Item available also with 3P+G
- Cable length: 1 or 2 metres (other length upon request)
- Max conductor section: 1.5 mm²
- Protection class: IP 65 with moulded cable
- Fixing screw: M3 x 25
- Øprofile gasket: NBR (other types upon request)

The gasket is integrated on the head of the connector and made of Sipolprene TPC-ET

In case of connectors with LED+VDR, working voltages available are 12V, 24V, 48V, 110V and 250V
In case of connectors with LED+diode, working voltages available 10/50V and 70/250V

Moulded Cable, LED & Protection Circuit

9072	Description
CG1N02VL1C022	2 Metre 24V 2 Poles + Double Earth
CG1N02VL2C022	2 Metre 115V 2 Poles + Double Earth
CG1N02VL3C022	2 Metre 230V 2 Poles + Double Earth

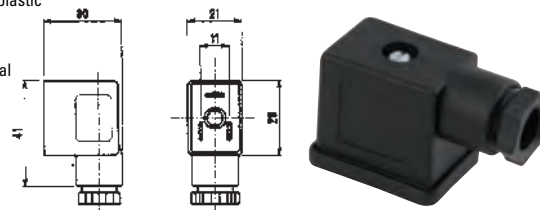


Connector DIN43650/B-Industrial

- Housing colour: Black, grey
- Type of contact: Screw with conductor protection
- Contact spacing: 11mm
- Number of poles: 2 poles + $\frac{||}{|}$
- Cable diameter 6-8mm (PG9)
- Max conductor section: 1.5mm²
- Fixing screw: M3 x 30
- The base (Øprofile or Øat) is made of thermoplastic rubber in black.
- Protection class: IP 65 assembled
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)

Standard

9072	Description
M1NS2000	PG9 Black 2 Poles + Earth

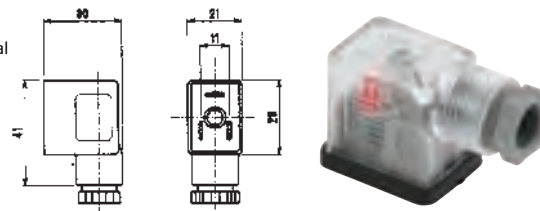


Connector DIN43650/B-Industrial

- Housing colour: Transparent
- Type of contact: Screw with conductor protection
- Contact spacing: 11mm
- Number of poles: 2 poles + $\frac{||}{|}$
- Cable entry: PG9
- Max conductor section: 1.5mm²
- Fixing screw: M3x30
- The base (Øprofile or Øat) is made of thermoplastic rubber in black.
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)

LED & Protection Circuit

9072	Description
M1TS2VL1	PG9 24V 2 Poles + Earth
M1TS2VL2	PG9 115V 2 Poles + Earth
M1TS2VL3	PG9 230V 2 Poles + Earth

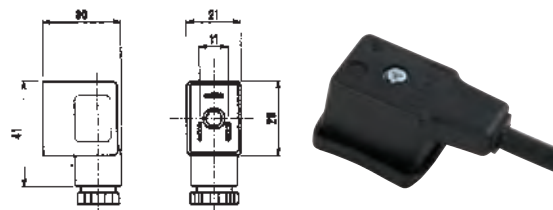


Connector DIN43650/B-Industrial Moulded Cabled

- Housing colour: Black
- Type of contact: Soldered
- Contact spacing: 11mm
- Number of poles: 2 poles + $\frac{||}{|}$
- Item supplied with 2P+2G (double ground H6/H12)
- Type of cable: Section 0,50mm and 0,75mm
- Cable length: 1 or 2 metres (other length upon request)
- Max conductor section: 1.5mm²
- Protection class: IP 65 with moulded cables
- Fixing screw: M3 x 25
- Øprofile gasket: The gasket is integrated on the head of the connector and made of Sipolprene TPC-ET

Connector DIN43650/B-Industrial Moulded Cabled

9072	Description
CM1N02000A022	2 Metre 2 Poles + Earth at Cable End
CM1N02000B022	2 Metre 2 Poles + Earth Opposite Cable End

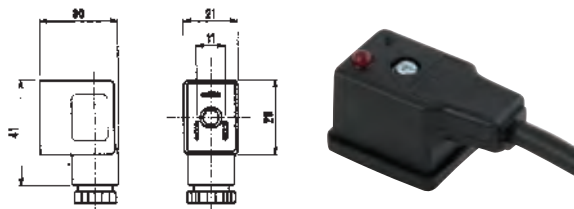


Connector DIN43650/B-Industrial

- Housing colour: Black
- Type of contact: Soldered
- Contact spacing: 11mm
- Number of poles: 2 poles + \perp
- Item supplied with 2P+2G (double ground H6/H12)
- Type of cable: Section 0,50mm and 0,75mm
- Cable length: 1 or 2 metres (other length upon request)
- Max conductor section: 1.5mm²
- Protection class: IP 65 with moulded cables
- Fixing screw: M3 x 25
- Øprofile gasket: The gasket is integrated on the head of the connector and made of Sipolprene TPC-ET
- In case of connectors with LED+VDR, working voltages available are 12V, 24V, 48V, 110V and 250V
- In case of connectors with LED+diode, working voltages available 10/50V and 70/250V

Moulded Cabled, LED & Protection Circuit

9072	Description
CM1N02VL1A022	2 Metre 24V Poles + Earth at Cable End
CM1N02VL2A022	2 Metre 115V Poles + Earth at Cable End
CM1N02VL3A022	2 Metre 230V Poles + Earth at Cable End
CM1N02VL1B022	2 Metre 24V Poles + Earth Opposite End
CM1N02VL2B022	2 Metre 115V Poles + Earth Opposite End
CM1N02VL3B022	2 Metre 230V Poles + Earth Opposite End



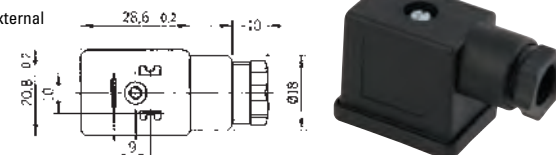
Connector DIN43650/B-ISO6952

- Housing colour: Black, grey
- Type of contact: Screw with conductor protection
- Contact spacing: 10mm
- Number of poles: 2 poles + \perp
- Cable diameter 6-8mm (PG9)
- Max conductor section: 1.5mm²
- Fixing screw: M3 x 30
- The Øbase profile or Øat is made of thermoplastic rubber in black.
- Protection class: IP 65 assembled
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)

Item available also with cable

Standard

9072	Description
M2NS2000	PG9 Black 2 Poles + Earth



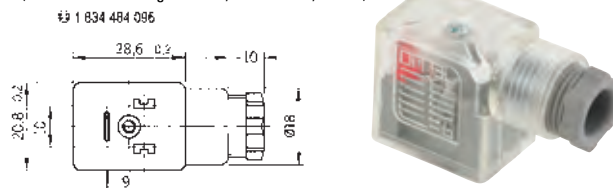
Connector DIN43650/B-ISO6952

- Housing colour: Transparent
- Type of contact: Screw with conductor protection
- Contact spacing: 10mm
- Number of poles: 2 poles + \perp
- Cable entry: PG9
- Max conductor section: 1.5mm²
- Fixing screw: M3 x 30
- The Øbase profile or Øat is made of thermoplastic rubber in black.
- Protection class: IP 65 assembled
- Protection class IP67 is also available (external thread as gland size, cable dia. 4,5-8mm)

Item available also with cable

LED & Protection Circuit

9072	Description
M2TS2VL1	PG9 24V 2 Poles + Earth
M2TS2VL2	PG9 115V 2 Poles + Earth
M2TS2VL3	PG9 230V 2 Poles + Earth



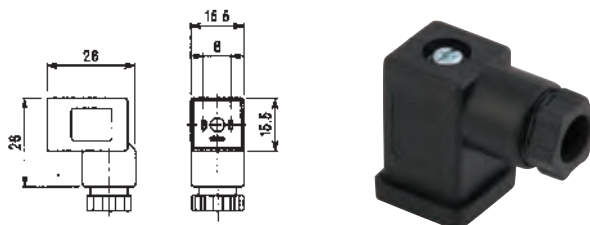
Connector DIN43650/C

- Housing colour: Black, grey
- Type of contact: Screw with conductor protection
- Contact spacing: 9.4mm \perp
- Number of poles: 3 poles + \perp
- Cable entry: PG7 2P+G
- Cable diameter 4-6mm (PG7).
- Max conductor section: 0.75mm²
- Fixing screw: M3 x 27
- Øprofile base or Øat is made of thermoplastic rubber in black.
- Protection class: IP 65 assembled
- Protection class IP67 is also available (external thread as gland size, cable dia. 3,5-6mm)
- Item available also with spacing 8mm
- Item available also with circuitry

Item available also with cable

Standard

9072	Description
P1NZ3000	PG7 Black 3 Poles + Earth





Parker Partnership brands available



Hydraulic Accumulators & Accessories
See section 1 pages 227-228

Hydraulic Oil Coolers
See section 1 page 273



Ball & Check Valves
See section 5 pages 628

Plastic Push-in Fittings
See section 6 pages 793-807

Metal Push-in Fittings
See section 6 pages 848-851

Ball Valves
See section 7 pages 933-935

Blow Guns
See section 15 page 1596



Pneumatic Quick Release Couplings
See section 3 pages 330-390



Filters & Drains Air, Water & Vacuum
See section 4 page 430



Aluminium Ring Main Systems
See section 8 pages 1063-1067



Plastic Push-in Fittings
See section 6 pages 800-803



ENGINEERING YOUR SUCCESS.

Angle Seat Valves with Stainless Steel Body



Pilot Operated 2/2 Solenoid Valve



Direct Acting 2/2 Solenoid Valve



Valve Timer

Features:

- Maintenance free actuator
- Long life piston rings
- Easy installation
- 360° positional actuator head
- Leak free after five million cycles
- Compact design
- Fast response
- Water hammer-free
- Cost effective against other materials

Applications:

- Food and beverage plants
- Textile factories
- Pharmaceuticals manufacture
- Laundries
- Water and sewage plants
- Petrochemical plants
- Automotive sites

Operation:

- Normally open
- Normally closed



Working Temperature:

Medium:
-10°C to +180°C

Environmental:

PA nylon -10°C to +60°C
Stainless steel -10°C to +80°C



Working Pressure
3 to 16 bar*

Construction:

Body:	316 stainless Steel
Actuator:	PA nylon or 316 stainless Steel

° Working Temperature:

Media: -10°C to +180°C

Environmental Temperature

PA Nylon -10°C to +60°C
Stainless steel -10°C to +80°C

Working Pressure:

3 to 16 bar

- Compact design, available in both normally open and normally closed options.
- Normally Closed - Closes with the flow.
- Normally Open - Closes against the flow.
- Pilot operated.
- High flow.
- 360° Actuator housing rotation.
- Single acting spring return.
- Suitable for use with water, oil, air, aggressive media and steam.

316 Stainless Steel Valve, PA Nylon Actuator

Material:
Body: 316L Stainless steel
Actuator: PA
Seals: PTFE



**2 Way 63mm Actuator
Normally Closed, BSPP**

0381	Thread
KASV-SSP-38-NC	3/8"
KASV-SSP-12-NC	1/2"
KASV-SSP-34-NC	3/4"
KASV-SSP-1-NC	1"
KASV-SSP-114-NC	1.1/4"
KASV-SSP-112-NC	1.1/2"
KASV-SSP-2-NC	2"
KASV-SSP-212-NC	2.1/2"

Tech Sheet 10204



**2 Way 63mm Actuator
Normally Open, BSPP**

0381	Thread
KASV-SSP-38-NO	3/8"
KASV-SSP-12-NO	1/2"
KASV-SSP-34-NO	3/4"
KASV-SSP-1-NO	1"
KASV-SSP-114-NO	1.1/4"
KASV-SSP-112-NO	1.1/2"
KASV-SSP-2-NO	2"
KASV-SSP-212-NO	2.1/2"

Tech Sheet 10204

316 Stainless Steel Valve, Stainless Steel Actuator

Material:
Body: 316L Stainless steel
Actuator: 316L Stainless steel
Seals: PTFE



**2 Way 63mm Actuator
Normally Closed, BSPP**

0381	Thread
KASV-SSSS-38-NC	3/8"
KASV-SSSS-12-NC	1/2"
KASV-SSSS-34-NC	3/4"
KASV-SSSS-1-NC	1"
KASV-SSSS-114-NC	1.1/4"
KASV-SSSS-112-NC	1.1/2"
KASV-SSSS-2-NC	2"
KASV-SSSS-212-NC	2.1/2"

Tech Sheet 10204



**2 Way 63mm Actuator
Normally Open, BSPP**

0381	Thread
KASV-SSSS-38-NO	3/8"
KASV-SSSS-12-NO	1/2"
KASV-SSSS-34-NO	3/4"
KASV-SSSS-1-NO	1"
KASV-SSSS-2-NO	2"

Tech Sheet 10204



You might also need...
Polyurethane & Nylon Tube
see pages **897-917**



FESTO ACTUATION

stainless steel

FESTO



Pinch Valves

Features:

- 316 stainless steel body
- Normally open
- Pneumatically actuated
- BSPP or clamp end connections
- EPDM or silicone shut-off element material available
- Quick to install and easy to maintain
- Suitable for use with granulates, liquids containing solid particles, highly viscous, contaminated and abrasive media

° Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
6 bar



VZQA 2/2 Way Normally Open Pinch Valve, BSPP

0009	Size	Shut-Off Element Material	Manufacturer's Code
2931678	1/4"	EPDM	VZQA-C-M22U-6-GG-V4V4E-4
2931683	1/4"	Silicone	VZQA-C-M22U-6-GG-V4V4S1-4
3022829	1/2"	EPDM	VZQA-C-M22U-15-GG-V4V4E-4
3022835	1/2"	Silicone	VZQA-C-M22U-15-GG-V4V4S1-4
3968922	1"	EPDM	VZQA-C-M22U-25-GG-V4V4E-4
3968926	1"	Silicone	VZQA-C-M22U-25-GG-V4V4S1-4

Tech Sheet 6292

VZQA 2/2 Way Normally Open Pinch Valve, Clamp Style

0009	Size	Shut-Off Element Material	Manufacturer's Code
2931681	1/4"	EPDM	VZQA-C-M22U-6-S5S5-V4V4E-4
2931682	1/4"	Silicone	VZQA-C-M22U-6-S5S5-V4V4S1-4
3022833	1/2"	EPDM	VZQA-C-M22U-15-S5S5-V4V4E-4
3022834	1/2"	Silicone	VZQA-C-M22U-15-S5S5-V4V4S1-4
3968924	1"	EPDM	VZQA-C-M22U-25-S5S5-V4V4E-4

Tech Sheet 6292

ANGLE SEAT VALVES

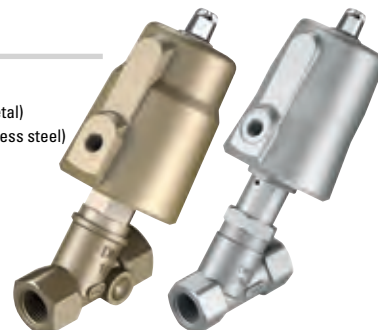
FESTO

VZXF Normally Closed Angle Seat Valves

Features:

- Available in gunmetal or 316 stainless steel valve and actuator
- BSPP threads
- Normally closed
- PTFE seat
- Water hammer free flow under seat
- Suitable for domestic water services, inert gases, oil, hydraulic fluid, neutral liquids and compressed air systems dependent on the valve body

° Working Temperature:
Media: -10°C to +80°C (gunmetal)
Media: -40°C to +200°C (stainless steel)
Environment: -10°C to +60°C



Gunmetal Angle Seat Valve and Actuator

0990	Thread	DN	Manufacturer's Code	Flow Rate (m³/h)
1002501	1/2"	15	VZXF-L-M22C-M-B-G12-120-H3B1-50-16	3.70
1002503	3/4"	20	VZXF-L-M22C-M-B-G34-160-H3B1-50-16	5.20
1002505	1"	25	VZXF-L-M22C-M-B-G1-230-H3B1-50-10	9.60
1002507	1.1/4"	32	VZXF-L-M22C-M-B-G114-290-H3B1-50-7	6
1002509	1.1/2"	40	VZXF-L-M22C-M-B-G112-350-H3B1-50-6	16.50
1002511	2"	50	VZXF-L-M22C-M-B-G2-430-H3B1-50-3	23

Tech Sheet 6269

Stainless Steel Angle Seat Valve and Actuator

0990	Thread	DN	Manufacturer's Code	Flow Rate (m³/h)
1002513	1/2"	15	VZXF-L-M22C-M-B-G12-130-M1-V4V4T-50-40	3.30
1002515	3/4"	20	VZXF-L-M22C-M-B-G34-180-M1-V4V4T-50-20	6.50
1002517	1"	25	VZXF-L-M22C-M-B-G1-240-M1-V4V4T-50-10	11
1002519	1.1/4"	32	VZXF-L-M22C-M-B-G114-310-M1-V4V4T-50-7	10.70
1002521	1.1/2"	40	VZXF-L-M22C-M-B-G112-350-M1-V4V4T-50-6	17.50
1002523	2"	50	VZXF-L-M22C-M-B-G2-450-M1-V4V4T-50-3	19.50

Tech Sheet 6269

VZXA Normally Closed Angle Seat Valves

Features:

- BSPP threads
- Normally closed
- PTFE seat
- ATEX II 2G Ex h IIC T3 Gb / II 2D Ex h IIIC T200°C Db certification
- SIL2 rated
- IP67 rated
- Water hammer free flow under seat
- Suitable for domestic water services, inert gases, oil, hydraulic fluid, neutral liquids, compressed air systems and hazardous areas

- Accessories such as a stroke reducing kit and a position indicator with or without sensors are also available on request

Stainless Steel Angle Seat Valve and Actuator

0990	Thread	DN	Manufacturer's Code	Flow Rate (m³/h)
8060527	1/2"	15	VZXA-B-TS6-13-M2-V13T-30-K-46-17-V4	6
8060528	3/4"	20	VZXA-B-TS6-20-M2-V13T-12.8-K-46-17-V4	13.30
8060530	1"	25	VZXA-B-TS6-25-M2-V13T-8.3-K-46-17-V4	20.30
8060533	1.1/4"	32	VZXA-B-TS6-32-M2-V13T-4.4-K-46-17-V4	27.90
8060536	1.1/2"	40	VZXA-B-TS6-40-M2-V13T-9.3-K-75-20-V4	41.40
8060538	2"	50	VZXA-B-TS6-50-M2-V13T-5.6-K-75-20-V4	50.10

Tech Sheet 6268

° Working Temperature:
Media: -10°C to +180°C
Environment: 0°C to +60°C



ANGLE SEAT VALVES

stainless
steel



Stainless Steel

Construction:

- Stainless steel actuator housing for exceptional durability in steam and aggressive applications
- 304 stainless steel actuator and 316L stainless steel body

Benefits

- Compact design, high flow rate
- Visual position indicator
- Dampened closing anti-water hammer design (fluid under seat)
- Mountable in any position
- Tight shut-off and long service life
- Valves meet Pressure Equipment Directive 97/23/EC
- Conforms to 94/9/CE directive specific to non-electrical equipment for use within potentially explosive environments, zones 1/21 and 2/22

Applications:

- Food and beverage processing
- Water technology and treatment
- Textile industry
- Cooling systems on injection moulding machines
- Pharmaceutical/cosmetics industry
- Chemical process technology
- Refrigeration and cooling/heat exchangers
- Sterilisers and steam supply
- Water applications including mining, cement/concrete systems, pulp and paper
- General industrial applications of aggressive fluid
- Industrial laundry equipment
- Industrial air dryers

Working Temperature:
-10°C to +180°C



High Temperature, Flow Over Seat, 304 Stainless Steel Actuator, 316L Stainless Steel Body, Normally Closed

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA10C1G3R032S	3/8"	13	16	PA10C1G3R032S
PA15C1G4R032S	1/2"	13	16	PA15C1G4R032S
PA20C1G5R032S	3/4"	15	14	PA20C1G5R032S

Tech Sheet 60414

High Temperature, Flow Under Seat, 304 Stainless Steel Actuator, 316L Stainless Steel Body, Normally Closed, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA10C2G3R032S	3/8"	13	16	PA10C2G3R032S
PA15C2G4R032S	1/2"	13	16	PA15C2G4R032S
PA20C2G5R032S	3/4"	15	14	PA20C2G5R032S

Tech Sheet 60414

Flow Over Seat, 304 Stainless Steel Actuator, 316L Stainless Steel Body, Normally Closed, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA10S1G3R050S	3/8"	13	16	PA10S1G3R050S
PA15S1G4R040S	1/2"	13	16	PA15S1G4R040S
PA15S1G4R050S	1/2"	13	16	PA15S1G4R050S
PA20S1G5R050S	3/4"	18	16	PA20S1G5R050S
PA25S1G6R050S	1"	24	16	PA25S1G6R050S
PA25S1G6R063S	1"	24	16	PA25S1G6R063S
PA32S1G7R063S	1.1/4"	31	16	PA32S1G7R063S

Tech Sheet 60414

Flow Over Seat, 304 Stainless Steel Actuator, 316L Stainless Steel Body, Normally Open, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA10S2G3R050S	3/8"	13	16	PA10S2G3R050S
PA15S2G4R050S	1/2"	13	16	PA15S2G4R050S
PA20S2G5R050S	3/4"	18	16	PA20S2G5R050S
PA25S2G6R063S	1"	24	16	PA25S2G6R063S
PA32S2G7R063S	1.1/4"	31	14	PA32S2G7R063S

Tech Sheet 60414

Anti-water Hammer Construction, Flow Under Seat, 304 Stainless Steel Actuator, 316L Stainless Steel Body, Normally Closed, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA10SAG3R050S	3/8"	13	16	PA10SAG3R050S
PA15SAG4R050S	1/2"	13	16	PA15SAG4R050S
PA20SAG5R050S	3/4"	18	10	PA20SAG5R050S
PA25SAG6R063S	1"	24	8	PA25SAG6R063S
PA32SAG7R080S	1.1/4"	31	11	PA32SAG7R080S

Tech Sheet 60414

Anti-water Hammer Construction Flow Under Seat Aluminium Actuator 316L Stainless Steel Body, Normally Closed, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA15SAG4R050A	1/2"	13	16	PA15SAG4R050A
PA20SAG5R050A	3/4"	18	10	PA20SAG5R050A
PA25SAG6R063A	1"	24	8	PA25SAG6R063A

Tech Sheet 60414

Flow Over Seat, Aluminium Actuator, 316L Stainless Steel Body, Normally Closed, BSPP

0484	Thread	Orifice mm	Max Pressure Bar	Manufacturer's Code
PA15S1G4R050A	1/2"	13	16	PA15S1G4R050A
PA20S1G5R050A	3/4"	18	16	PA20S1G5R050A

Tech Sheet 60414

ANGLE SEAT VALVES

stainless
steel



Stainless Steel Angle Seat Piston Valves

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



Compact 45mm Actuator, 2 Way N/C, BSPP

0263	Thread	LPM	Max Pressure Bar
PG205CTW00	1/2"	98	16
PG206CTX00	3/4"	164	16

Tech Sheet 968

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



Compact 45mm Actuator, 2 Way N/O, BSPP

0263	Thread	LPM	Max Pressure Bar
RPG205CTW00	1/2"	98	16
RPG206CTX00	3/4"	164	16

Tech Sheet 969

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



63mm Actuator, 2 Way N/C, BSPP

0263	Thread	LPM	Max Pressure Bar
PG205STW00	1/2"	98	20
PG206STX00	3/4"	164	20
PG207STY00	1"	260	20
PG208STZ00	1.1/4"	410	16
PG209STK00	1.1/2"	700	16
PG210STJ00	2"	950	11

Tech Sheet 968

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



63mm Actuator, 2 Way N/O, BSPP

0263	Thread	LPM	Max Pressure Bar
RPG205STW00	1/2"	98	20
RPG206STX00	3/4"	164	20
RPG207STY00	1"	260	20
RPG208STZ00	1.1/4"	410	16
RPG209STK00	1.1/2"	700	16
RPG210STJ00	2"	950	11

Tech Sheet 969

FT PRO stainless
steel



For **Stainless Steel Push-in Fittings**
see pages **875-879**

ANGLE SEAT VALVES



Bronze Angle Seat Piston Valves

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



Compact 45mm Actuator, 2 Way N/C, BSPP

0263	Thread	LPM	Max Pressure Bar
CG205CTW00	1/2"	98	16
CG206CTX00	3/4"	164	16
CG207CTY00	1"	260	16

Tech Sheet 970

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



Compact 45mm Actuator, 2 Way N/O, BSPP

0263	Thread	LPM	Max Pressure Bar
RCG205CTW00	1/2"	98	16
RCG206CTX00	3/4"	164	16
RCG207CTY00	1"	260	16

Tech Sheet 971

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



63mm Actuator, 2 Way N/C, BSPP

0263	Thread	LPM	Max Pressure Bar
CG205STW00	1/2"	98	20
CG206STX00	3/4"	164	20
CG207STY00	1"	260	20
CG208STZ00	1.1/4"	410	16
CG209STK00	1.1/2"	700	16
CG210STJ00	2"	950	11

Tech Sheet 970

° Ambient Temperature:
-10°C to +60°C
Working Temperature:
-10°C to +180°C



63mm Actuator, 2 Way N/O, BSPP

0263	Thread	LPM	Max Pressure Bar
RCG205STW00	1/2"	98	16
RCG206STX00	3/4"	164	16
RCG207STY00	1"	260	16
RCG208STZ00	1.1/4"	410	16
RCG209STK00	1.1/2"	700	16
RCG210STJ00	2"	950	12

Tech Sheet 971

Banjo Solenoid Valves

° Ambient Temperature:
-10°C to +50°C
Working Temperature:
-10°C to +130°C

- Suitable for use with M&M, CG, PG and BLG piston valves.



Direct Mount

0263	To Suit Actuator Size	Voltage
B356CVCMK24VDC	45	24V DC
B356CVCMK24VAC	45	24V AC
B356CVCMK110VAC	45	110V AC
B356CVCMK240VAC	45	240V AC
B326CVCMK24VDC	63	24V DC
B326CVCMK24VAC	63	24V AC
B326CVCMK110VAC	63	110V AC
B326CVCMK240VAC	63	240V AC

Tech Sheet 972

PRESSURE SWITCHES

Direct Mount Pressure Switches

- **Electrical Connection:** Terminal 6.3 x 0.8
- **Electrical Data:** 10amp x 250V



° Ambient Temperature:
-10°C to +50°C

Working Temperature:
-10°C to +125°C

- Suitable for Hot Water, Steam, Neutral Liquids, Light Oils, Air and Inert Gases

Brass Body, Silicone Membrane, BSPP

0061	Thread	Pressure Range Bar	Fixed Differential Bar	Repeatability Bar
XP73AE61.000	1/8"	0.2-1.2	0.30±0.15	±0.15
XP73CE61.000	1/8"	1.0-2.5	0.30±0.15	±0.2
XP73DE61.000	1/8"	1.5-4.0	0.30±0.15	±0.2
XP73EE61.000	1/8"	2.0-6.0	0.30±0.15	±0.2

Tech Sheet 975

° Ambient Temperature:
-10°C to +50°C

Working Temperature:
-10°C to +80°C

- Suitable for water, neutral liquids, light oils, air and inert gases

Brass Body, Nitrile Membrane, BSPP

0061	Thread	Pressure Range Bar	Fixed Differential Bar	Repeatability Bar
GP73ME31.000	1/8"	0.2-3.0	0.3±0.1	±0.2
GP73PE31.000	1/8"	1.0-5.0	0.5±0.15	±0.2

Tech Sheet 10440

° Ambient Temperature:
-10°C to +50°C

Working Temperature:
-10°C to +125°C

- Suitable for hot water, steam and aggressive media

Stainless Steel Body, BSPP

0061	Thread	Pressure Range Bar	Fixed Differential Bar
XP83FE61000	1/8"	4.0-9.0	0.50±0.20
XP83GE61000	1/8"	9.0-15.0	0.70±0.30

Tech Sheet 976

You might also need...
Galvanised Fittings
 ...see pages **1338-1381**



OMAL ACTUATION



Applications:

Nitrile:

Compatible with air, gas, oils, water etc.

Viton:

High compatibility with the majority of fluids, not advised for steam.

° Working Temperature:

Nitrile:

-20°C to +80°C

Viton:

-20°C to +150°C

Note:

The compact design of a VIP valve with its reduced size and weight allows it to be used in applications where traditional actuated valve packages cannot be utilised. The VIP valve has no external moving parts, which ensures their operation is quick and efficient, without the safety issues of the traditional actuated valve packages.

The VIP valve with the approved gas threaded connections (UN1-ISO 7/1-DIN 2999) coupled with a NAMUR mounting plate makes this valve suitable for every possible plant application.

The valve can be mounted in any position. Full technical specifications available on request

V.I.P. Axial Flow Valves with Nitrile Seals



Double Acting, BSPP

0129	Thread
VDA10003	3/8"
VDA10004	1/2"
VDA10005	3/4"
VDA10006	1"
VDA10007	1.1/4"
VDA10008	1.1/2"
VDA10009	2"

Tech Sheet 862

Single Acting Spring Return Normally Closed, BSPP

0129	Thread
VNC10003	3/8"
VNC10004	1/2"
VNC10005	3/4"
VNC10006	1"
VNC10007	1.1/4"
VNC10008	1.1/2"
VNC10009	2"

Tech Sheet 862

V.I.P. Axial Flow Valves with Viton Seals



Double Acting, BSPP

0129	Thread
VDA20003	3/8"
VDA20004	1/2"
VDA20005	3/4"
VDA20006	1"
VDA20007	1.1/4"
VDA20008	1.1/2"
VDA20009	2"

Tech Sheet 862

Single Acting Spring Return Normally Closed, BSPP

0129	Thread
VNC20003	3/8"
VNC20004	1/2"
VNC20005	3/4"
VNC20006	1"
VNC20007	1.1/4"
VNC20008	1.1/2"
VNC20009	2"

Tech Sheet 862

Stainless Steel Angle Seat Valve with NAMUR Interface

° Working Temperature:
-10°C to 180°C

° Working Pressure:
0-16 bar
(0-10 bar for steam)

Available up to 2" - alternative terminations available.



BSPP

0129	Thread
J4CPG1604	1/2"
J4CPG1605	3/4"
J4CPG1806	1"

Tech Sheet 121

Bronze Angle Seat Valve with NAMUR Interface

° Working Temperature:
-10°C to 180°C

° Working Pressure:
0-16 bar
(0-10 bar for steam)

Available up to 2" - alternative terminations available.



BSPP

0129	Thread
J9CPG1603	3/8"
J9CPG1604	1/2"
J9CPG1605	3/4"
J9CPG1806	1"

Tech Sheet 121

Slide Valves - On/Off Type, Brass

🌡️ Working Temperature:
-20°C to +80°C



Type 6060, BSPP

0090	Thread
6060-18	1/8"
6060-14	1/4"
6060-38	3/8"
6060-12	1/2"

Tech Sheet 10803

FT PRO®



For Push-Fittings
...see page 768

WATER VALVES & ACCESSORIES

Globe Valves



BSPP

0356	Thread	Voltage
KA-32-40-24-AC	1.1/2"	24V AC

Adjustable Pressure Regulators



3/4" Specifications, BSP

0356	Thread	Pressure Range Bar
KA-35-20-10-MF	3/4"	0.8-2.5



1" Specifications, BSP

0356	Thread	Pressure Range Bar
KA-35-25-05	1"	0.5-1.2
KA-35-25-12	1"	1.5-3.5



1.1/2" Specifications, BSP

0356	Thread	Pressure Range Bar
KA-35-40-10	1.1/2"	0.5-1.2
KA-35-40-18	1.1/2"	1.5-3.5

Air & Vacuum Release Valves



1" Automatic Air Release Valve, BSPP


0356	Thread
KA-35-75-20	1"

Standard Cold Water Meters



0356	Description
KA-36-00-25	1" Cold Water Meter 5m ³ Nominal Flow Rate
KA-36-00-40	1.1/2" Cold Water Meter 10m ³ Nominal Flow Rate
	Tech Sheet 663

Filters

 Maximum Working Pressure: 8 bar



3/4" Plastic In-line Filter - 10gpm

0356	Description
KA-39-00-10	3/4" Plastic In-line Filter 100 Micron Mesh Element



1" Plastic In-line Filter - 25gpm

0356	Description
KA-39-10-10	1" Plastic In-line Filter 100 Micron Mesh Element

DRAIN COCK & BLEEDER VALVES



Drain Cock Valves

Features:

- Type A drain-off cock
- BSPT male connection

Working Temperature:
0°C to +120°C

Maximum Working Pressure:
15 bar



Brass, BSPT

0908	Thread
DC-12	1/2"

Tech Sheet 6059

Bleeder Valve

Working Temperature:
-20°C to +85°C

Maximum Working Pressure: 10 bar



BSPP

0234	Thread
124.8	1/8"
124.4	1/4"
124.3	3/8"

7

DRAIN BALL VALVES & PUMP CONNECTORS



Drain Ball Valves, Brass

Working Temperature:
-15°C to +110°C (Air)
0°C to +90°C (Water)

Maximum Working Pressure:
12 bar



Type 139, Male x Hose Tail, BSPP

0089	Thread	To Suit Hose ID mm
IT139-38	3/8"	10
IT139-12	1/2"	13
IT139-34	3/4"	19

Tech Sheet 10339

5 Way Connector for Pumps & Tanks, Brass

Working Temperature:
-20°C to +120°C

Nominal Pressure:
25 bar



Type 110, Male, BSPT x Female, BSPP

0089	Thread
IT110-1	1"

Tech Sheet 10335

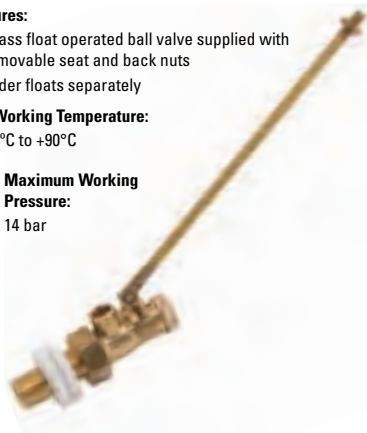
Cistern Valves & Accessories

Features:

- Brass float operated ball valve supplied with removable seat and back nuts
- Order floats separately

Working Temperature:
0°C to +90°C

Maximum Working Pressure:
14 bar



Brass BS 1212 Part 1 Float Valve

0908	Size	BSW	Lever	Float	Kg
DBL101A	1/2"	5/16"	220	4.1/2"	0.39
DBL305	3/4"	5/16"	325	6"	0.90
DBL141	1"	7/16"	400	8"	1.93
DBL161	1.1/4"	9/16"	565	10"	4.33
DBL171	1.1/2"	9/16"	565	10"	4.40
DBL181	2"	5/8"	725	12"	7.99

Tech Sheet 6059

Features:

- Soldered copper floats for use with cold water only

Working Temperature:
0°C to +30°C



Copper Float

0908	Size	BSW	Kg
D1045	4.1/2"	5/16"	0.24
D1060	6"	5/16"	0.30
D1080	8"	7/16"	0.75
D1100	10"	9/16"	1.59
D1120	12"	5/8"	2.78

Tech Sheet 6059

Features:

- Plastic floats with brass threaded inserts

Working Temperature:
0°C to +80°C



Plastic Float

0908	Size	BSW	Kg
D45BTOR	4.1/2"	5/16"	0.24
D60BTOR	6"	5/16"	0.30
D80BTOR	8"	7/16"	0.75
D910BTOR	10"	9/16"	1.59
D912BTOR	12"	5/8"	2.78

Tech Sheet 6059

STAINLESS STEEL VALVES

stainless steel

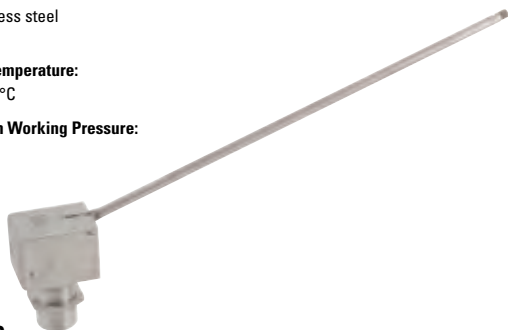
GENEBRE

Stainless Steel Float Valves

Body: 316 stainless steel
Seal: Silicone

Working Temperature:
0°C to +150°C

Maximum Working Pressure:
10 bar



Male, BSPP

0902	Thread
H2856-12	1/2"
H2856-34	3/4"
H2856-1	1"
H2856-114	1.1/4"
H2856-112	1.1/2"
H2856-2	2"
H2856-212	2.1/2"

Tech Sheet 68251

Stainless Steel Floats

Working Temperature:
0°C to +150°C



Metric Female

0902	Thread	OD mm	To Suit
H2852 110	M6	110	1/2" Float Valve
H2852 160	M8	160	3/4"-1.1/4" Float Valve
H2852 200	M12	200	1.1/2"-2.1/2" Float Valve

Tech Sheet 68251

FT PRO VALVES

Spring Auto, Self Close Pour Tap

Polypropylene

- Maximum working pressure is 10 bar (150 psi) operating range
- Black polypropylene with EPDM seals as standard
- Stainless steel 302 spring is in separate chamber to flow
- TPE thread gasket included
- Push button end to open flow, take hand away to allow self-closure
- Guide markings on tap
- Suitable for use with static or portable tanks to prevent unnecessary fluid loss
- Can be used with appropriate chemicals to prevent dangerous spills

Applications

Adopted by many local water authorities to use on emergency supply tankers, avoiding unnecessary waste.



3/4" BSPP Male x 20mm OD Outlet

0680	Thread	OD mm
11PP07	3/4"	20
Tech Sheet 68761		

Nylon

- Maximum working pressure is 10 bar (150 psi) operating range
- Beige nylon with FPM seals for use with paraffin or very rugged duty
- Stainless steel 302 spring is in separate chamber to flow
- TPE thread gasket included
- Push button end to open flow, take hand away to allow self-closure
- Guide markings on tap
- Suitable for use with static or portable tanks to prevent unnecessary fluid loss
- Can be used with appropriate chemicals to prevent dangerous spills

Applications

Adopted by many local water authorities to use on emergency supply tankers, avoiding unnecessary waste.



3/4" BSPP Male x 20mm OD Outlet

0680	Thread	OD mm
11PN07	3/4"	20
Tech Sheet 68761		



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 8

Ring Main

8.01 Aluminium & Plastic Systems **1061-1096**

8.02 ABS Systems **1097-1100**

8.03 UPVC Systems **1101-1115**

8.04 Stainless Steel & Copper Systems **1116-1136**

SECTION 8

8.01 Aluminium & Plastic Systems

- Transair Ring Main System Air & Vacuum Range
- Ring Main System
- Technopolymer System Fittings
- Valves
- Fittings, Aluminium System
- 6" (168.3mm) Tubing & Fittings System
- Ring Main Pipe Kits (CARM)
- Fast-Track Ring Main System
- Polyethylene Compression System
- Polyethylene Pipe Universal Transition fittings
- Polyethylene Pipe Universal Transition Fittings & Valves



1061-1096

8.02 ABS Systems

- ABS Imperial Pipe System



1097-1100

8.03 UPVC Systems

- UPVC Metric Pipe System
- UPVC Imperial Pipe System
- UPVC Threaded Fittings



1101-1115

8.04 Stainless Steel & Copper Systems

- Stainless Steel 316 Press Fit Piping System
- Copper Press Fit Piping System
- Brass Ball Valves
- Nirozan® Stainless Steel Press Fit Piping System



1116-1136

TRANSAIR RING MAIN SYSTEM AIR & VACUUM RANGE



Transair Aluminium Pipe



3 Metres, Single Lengths

1100	Tube OD mm	Tube ID mm
1003A.17.04.00	16.5	13
1003A.25.04.00	25	22
1003A.40.04.00	40	37
1003A.50.04	50	47
1003A.63.04	63	59

6 Metres, Per Pack

1100	Tube OD mm	Tube ID mm	Pack Size
1006A.25.04.00	25	22	6
1006A.40.04.00	40	37	6
1006A.50.04	50	47	5
1006A.63.04	63	59	4



2 Port 45° Threaded Wall Bracket, BSPP

1100	Female Thread
6690.21.21	1/2"

Transair Range



1 Port 45° Tube Wall Bracket, BSPP

1100	Tube OD mm	Female Thread
6639.17.21	16.5	1/2"
6639.25.21	25	1/2"



2 Port 45° Tube Wall Bracket, BSPP

1100	Tube OD mm	Female Thread
6682.17.21	16.5	1/2"
6682.25.21	25	1/2"



3 Port 45° Tube Wall Bracket, BSPP

1100	Tube OD mm	Female Thread
6695.25.21	25	1/2"



2 Port Horizontal Tube Wall Bracket, BSPP

1100	Tube OD mm	Female Thread
6681.17.21	16.5	1/2"
6681.25.21	25	1/2"



1 Port 45° Wall Bracket with Ball Valve

1100	Tube OD mm	Female Thread
6678.17.21	16.5	1/2"
6678.25.21	25	1/2"



2 Port 45° Wall Bracket with Ball Valve

1100	Tube OD mm	Female Thread
6693.17.21	16.5	1/2"
6693.25.21	25	1/2"



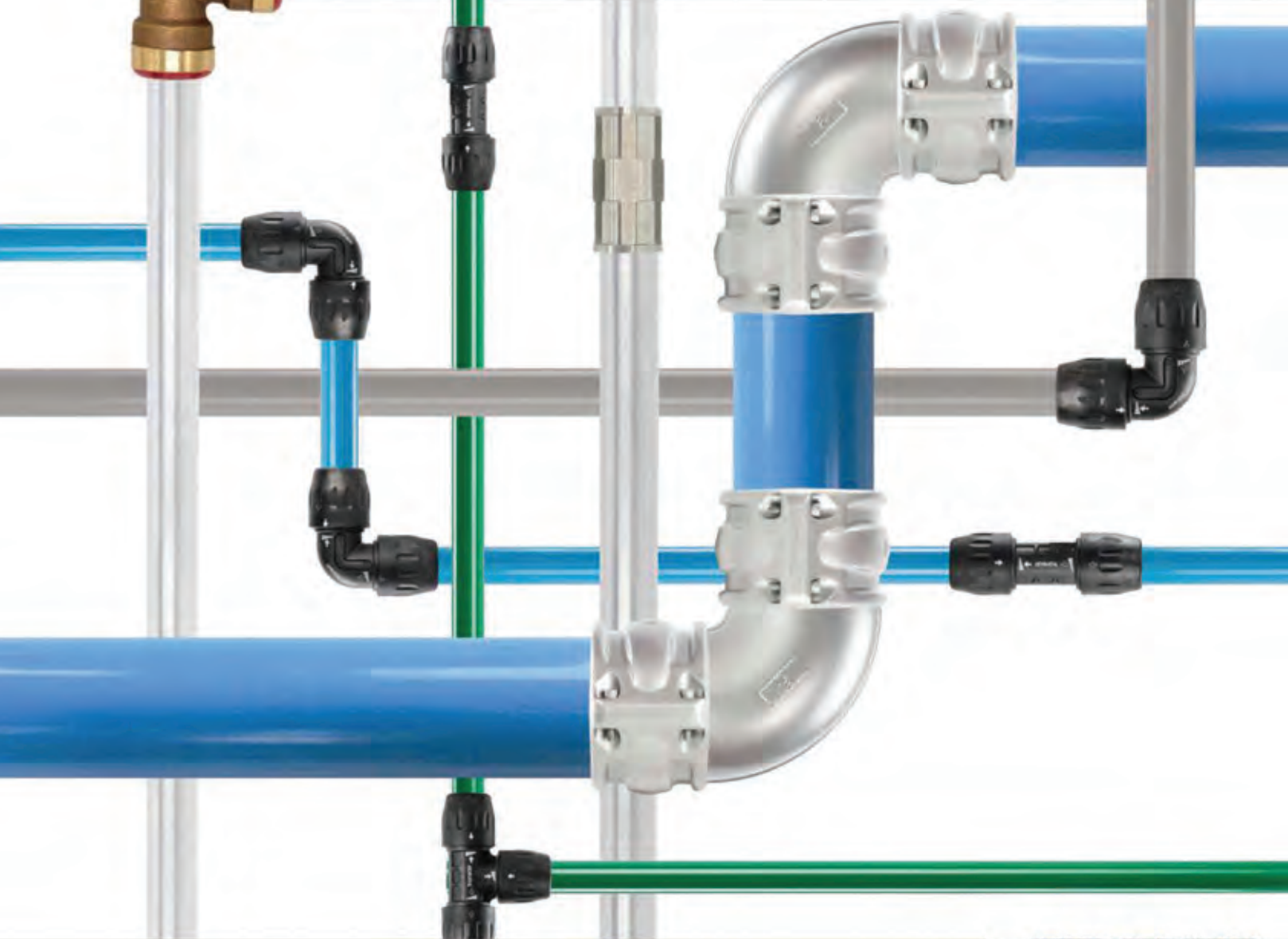
3 Port 45° Wall Bracket with Ball Valve

1100	Tube OD mm	Female Thread
6637.25.21	25	1/2"



Mini Bracket

1100	Tube OD mm	Female Thread
6661.25.21	25	1/2"
6661.40.21	40	1/2"
6661.40.27	40	3/4"
6661.50.21	50	1/2"
6661.50.27	50	3/4"
6662.63.21	63	1/2"



Transair: Modular Pipe Systems

- Lower pressure drop
- Air quality class 1-1-1
- Safest connection technologies
- Labour and installation time reduced
- Services to support your project



 Parker

ENGINEERING YOUR SUCCESS.

TRANSAIR RING MAIN SYSTEM AIR & VACUUM RANGE



Transair Range



Reducing Bracket

1100	Tube OD A mm	Tube OD B mm
6662.25.17	25	16.5
6662.25.00	25	25
6662.40.17	40	16.5
6662.40.25	40	25
6662.50.25	50	25
6662.63.25	63	25



Quick Assembly Bracket with Ball Valve, BSPP

1100	Tube OD mm	Female Thread
6669.25.21	25	1/2"
6669.40.21	40	1/2"
6669.40.27	40	3/4"
6669.50.21	50	1/2"
6669.50.27	50	3/4"
6669.63.21	63	1/2"
6669.63.27	63	3/4"



Quick Assembly Direct Feed Bracket

1100	Tube OD A mm	Tube OD B mm
RA69.50.25	50	25



Quick Assembly Direct Feed Bracket, BSPP

1100	Tube OD mm	Female Thread
RA65.50.04	50	1/2"
RA65.50.08	50	1"



Pressurised System Outlet with Ball Valve

1100	Tube OD mm	Female Thread
EA98.50.04	50	1/2"



Male Stud, BSPT

1100	Tube OD mm	Male Thread
6605.17.13	16.5	1/4"
6605.17.21	16.5	1/2"
6605.25.21	25	1/2"
6605.25.27	25	3/4"
6605.25.34	25	1"
6605.40.34	40	1"
6605.40.42	40	1.1/4"
6605.40.49	40	1.1/2"
6605.50.49	50	1.1/2"
6605.50.48	50	2"
6605.63.48	63	2"



Male Stud BSPT with Fixing Plate

1100	Tube OD mm	Male Thread
6615.50.49	50	1.1/2"
6615.50.48	50	2"



Pipe to Pipe Connector

1100	Tube OD mm
6606.17.00	16.5
6606.25.00	25
6606.40.00	40
6606.50.00	50
6606.63.00	63



Plug-in Reducer

1100	Description
6666.17.25	25mm Pipe to 16.5mm Pipe
6666.25.40	40mm Pipe to 25mm Pipe



Plug-in Reducer

1100	Description
6666.40.50	50mm Pipe to 40mm Pipe
6666.50.63	63mm Pipe to 50mm Pipe



For Parker Blow Guns
see page 1596

TRANSAIR RING MAIN SYSTEM AIR & VACUUM RANGE



Transair Range



Vented End Cap

1100	Tube OD mm
6625.17.00	16.5
6625.25.00	25
6625.40.00	40
6625.50.00	50
6625.63.00	63



90° Elbow

1100	Tube OD mm
6602.17.00	16.5
6602.25.00	25
6602.40.00	40
6602.50.00	50
6602.63.00	63



Reducing Tee

1100	Tube OD A mm	Tube OD B mm
6604.50.25	50	25
6604.50.40	50	40



90° Elbow Male Stud, BSPT

1100	Tube OD mm	Male Thread
6609.17.13	16.5	1/4"
6609.17.21	16.5	1/2"
6609.25.21	25	1/2"
6609.25.27	25	3/4"
6609.25.34	25	1"
6609.40.34	40	1"
6609.40.42	40	1.1/4"
6609.50.49	50	1.1/2"
6609.50.48	50	2"
6609.63.48	63	2"



45° Elbow

1100	Tube OD mm
6612.25.00	25
6612.40.00	40
6612.63.00	63



Lockable Aluminium Valve

1100	Tube OD mm
4092.17.00	16.5
4092.25.00	25
4092.40.00	40
4092.50.00	50
4092.63.00	63



Equal Tee

1100	Tube OD mm
6604.17.00	16.5
6604.25.00	25
6604.40.00	40
6604.50.00	50
6604.63.00	63

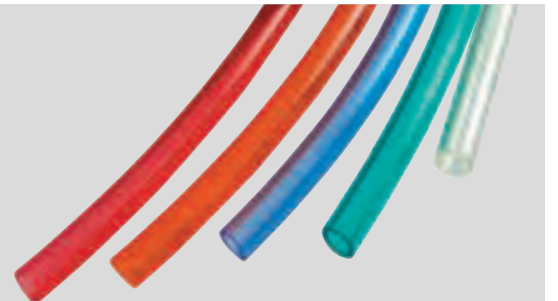


Flexible Hose

1100	Tube OD mm	Length Metres
1001E.250001	25	0.57
1001E.250004	25	2



For Parker Legris Tubing
see pages 906-908



TRANSAIR RING MAIN SYSTEM AIR & VACUUM RANGE



Clips, Clamps, Spacers & Tools



Fixing Clip For Rigid Pipe

1100	Tube OD mm
6697.17.00	16.5
6697.25.00	25
6697.40.00	40
6697.50.00	50
6697.63.00	63



Transair Clips & Spacers

1100	Description
6697.00.03	Spacer Block for Fixing Clip
6697.00.02	Clip Adaptor for Rod M8 x 1 Male x M10 x 1.5 Female



Transair Beam Clamps

1100	Description
6699.03.01	Screw Type Beam Clamp 16.5mm to 40mm
ER99.06.02	Screw Type Beam Clamp 63mm to 100mm for M8 Screw
ER99.06.03	Screw Type Beam Clamp 63mm to 100mm for M10 Screw



Transair Tube Cutter

1100	Description
6698.03.01	Tube Cutter for 16.5mm to 63mm Pipe



Transair Tools

1100	Description
6698.04.02	Deburring Tool for Rigid Aluminium Pipe 16.5mm to 100mm
6698.04.01	Chamfer Tool for Rigid Aluminium Pipe 16.5mm to 40mm
6698.04.03	Marking Tool for Rigid Aluminium Pipe 16.5mm to 40mm
6698.05.03	Tightening Spanners for 63mm Nuts



Transair Drilling Jig

1100	Description
6698.01.03	Drilling Jig 25 to 63mm



Transair Drilling Tool

1100	Description
6698.02.02	Drilling Tool for 25mm Pipe
6698.02.01	Drilling Tool for 40mm & 63mm Pipe

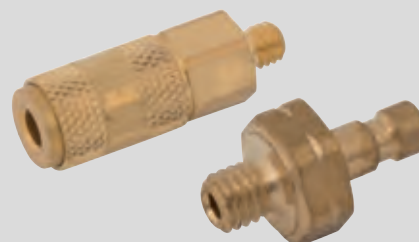


Tool Case

1100	Description
6698.00.05	Complete Kit 16.5mm to 63mm



For Parker Rectus QRC's
see pages 330-390



WHY CHOOSE AIRCOM?



EXPANDABILITY ACCORDING TO REQUIREMENTS
The system grows with the plant.

ELIMINATE WASTED AIR AND LEAKS
Our components in aluminium, technopolymer and HIP guarantee superior, above-average performance.

EASY, RAPID INSTALLATION
Reduction in labor costs and ease of intervention.

MODULAR DESIGN
Flexibility of use and greater adaptability to the specific usage requirements.

OPTIMUM, CONSTANT PERFORMANCE
Constant energy savings over time.

OUR SERVICES

AIRCOM services support our Partners throughout the plant's entire life cycle: from the initial consultancy to support during design.

TECHNICAL TRAINING
We offer advanced training and periodic update courses for our Partners' technical personnel (designers, installers, dealers).

RATIONALISING ENERGY CONSUMPTION
Thanks to the wide choice of components and the flexibility of the systems, as well as to computer simulations, our piping systems help reduce energy costs to the lowest levels possible, in a consistent manner over time: the system pays for itself.

SUPPORT FOR DESIGNERS
We support our Partners at every step, from the more basic plants to the highly complex systems, assisting in totally new designs as well as in revamping and additions to existing structures.

ADVANCED SOFTWARE
We have developed proprietary software to provide support in plant sizing and on site design. Thanks to this software, our Partners can offer the end user a complete, efficient and personalized service.



RING MAIN SYSTEM

Coated Aluminium Pipe



Compressed Air, 5.8 Metres, Blue

9191	Ø mm
QLTUAL020S	20
QLTUAL025S	25
QLTUAL032S	32
QLTUAL040S	40
QLTUAL050S	50
QLTUAL063S	63
QLTUAL080S	80
QLTUAL110S	110

Tech Sheet 110821

Compressed Air, 4 Metres, Blue

9191	Ø mm
QLTUAL4016S	16
QLTUAL4020S	20
QLTUAL4025S	25
QLTUAL4032S	32
QLTUAL4040S	40
QLTUAL4050S	50
QLTUAL4063S	63

Tech Sheet 110821



Vacuum, 5.8 Metres, Grey

9191	Ø mm
QLTUALGY020S	20
QLTUALGY025S	25
QLTUALGY032S	32
QLTUALGY040S	40
QLTUALGY050S	50
QLTUALGY063S	63
QLTUALGY080S	80

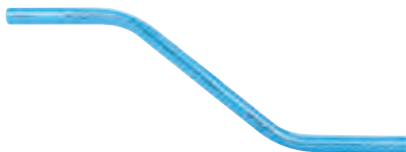
Tech Sheet 110821



Nitrogen, 5.8 Metres, Green

9191	Ø mm
QLTUALG020S	20
QLTUALG025S	25
QLTUALG040S	40
QLTUALG063S	63

Tech Sheet 110821



Double Bend

9191	Ø mm
QLSCI016	16
QLSCI020	20
QLSCI025	25

Tech Sheet 110821

Multilayer Bendable Pipe

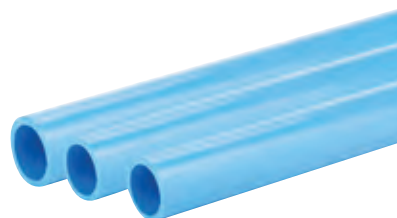


Compressed Air, 50 Metres

9191	Ø mm
QLTUMLST016	16
QLTUMLST020	20
QLTUMLST025	25

Tech Sheet 110841

Technopolymer Pipe



Compressed Air, 4 Metres

9191	Ø mm
AIRTU020S	20
AIRTU025S	25
AIRTU032S	32
AIRTU040S	40

Tech Sheet 110842

You might also need
Pipe & Tube Cutters
 see pages 1743-1746



TECHNOPOLYMER SYSTEM



LIGHTWEIGHT, BUT POWERFUL

The Quick Line technopolymer product range comes in the following diameters:

16, 20, 25, 32, 40, 50 and 63 mm

A careful study and design of dimensions and materials enable us to achieve a light and functional, all-technopolymer product in a wide range of sizes, allowing you to create your aluminium tubing systems without any problems.



SHORT INSTALLATION TIME

The quick and easy assembly of our piping systems is the result of an innovative technology, with an instant connection of the fitting components to the aluminium pipe.

AIR QUALITY AND MAINTENANCE

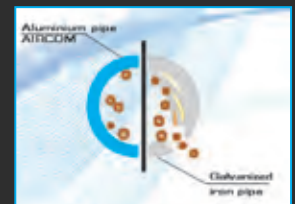
Owing to full technopolymer construction, air quality keeps constant features from compressor outlet up to all end user points. Minimum roughness of internal pipe surfaces allows optimal air flow. The high quality and high resistance features of our fittings will significantly reduce maintenance costs.

MODULARITY AND RESISTANCE

Our modular and lightweight technopolymer systems are an optimal solution to reduce installation time.

Owing to careful study of components and of materials, our fittings feature noticeable resistance to corrosion, mechanical shocks and thermal variations.

Quick Line technopolymer is the most advanced evolution in the field of systems for compressed air and pressurised fluids distribution.



TECHNOPOLYMER SYSTEM FITTINGS



Technopolymer fittings are specifically designed for use with Aluminium tube up to Ø 63mm.
For specific application guidance please speak to our technical team.

Working Temperature:
-15°C to +65°C

Straight Couplings



Equal, Tube x Tube

9183	Ø mm
QLMAPA016	16
QLMAPA020	20
QLMAPA025	25
QLMAPA032	32
QLMAPA040	40
QLMAPA050	50
QLMAPA063	63

Tech Sheet 110822



Sliding Coupling Tube x Tube (No Internal Stopper)

9183	Ø mm
QLMASPA032	32
QLMASPA040	40
QLMASPA050	50
QLMASPA063	63

Tech Sheet 110822



Reducer, Tube x Tube

9183	Ø mm	Ø mm
QLRIDPA025020	25	20
QLRIDPA032025	32	25
QLRIDPA040025	40	25
QLRIDPA040032	40	32
QLRIDPA050040	50	40

Tech Sheet 110822



Male Stud, BSPT Thread x Tube

9183	Ø mm	Thread
QLMNPA016048	16	1/2"
QLMNPA020048	20	1/2"
QLMNPA020068	20	3/4"
QLMNPA025048	25	1/2"
QLMNPA025068	25	3/4"
QLMNPA025088	25	1"
QLMNPA032088	32	1"
QLMNPA032108	32	1.1/4"
QLMNPA040088	40	1"
QLMNPA040108	40	1.1/4"
QLMNPA040128	40	1.1/2"
QLMNPA050128	50	1.1/2"
QLMNPA050168	50	2"
QLMNPA063168	63	2"

Tech Sheet 110822

Elbows



90° Equal, Tube x Tube

9183	Ø mm
QLG090PA016	16
QLG090PA020	20
QLG090PA025	25
QLG090PA032	32
QLG090PA040	40
QLG090PA050	50
QLG090PA063	63

Tech Sheet 110822



45° Equal, Tube x Tube

9183	Ø mm
QLG045PA020	20
QLG045PA025	25
QLG045PA032	32
QLG045PA040	40
QLG045PA050	50
QLG045PA063	63

Tech Sheet 110822



90° Male Stud, BSPT x Tube

9183	Ø mm	Thread
QLG090PM020048	20	1/2"
QLG090PM025048	25	1/2"
QLG090PM025068	25	3/4"

Tech Sheet 110822



For Air Receivers
see pages 433-434

Free design services available for reducing energy costs

TECHNOPOLYMER SYSTEM FITTINGS



Technopolymer fittings are specifically designed for use with Aluminium tube up to Ø 63mm.
For specific application guidance please speak to our technical team.

Working Temperature:
-15°C to +65°C

Tees



Equal Tube x Tube

9183	Ø mm
QLTEPA016	16
QLTEPA020	20
QLTEPA025	25
QLTEPA032	32
QLTEPA040	40
QLTEPA050	50
QLTEPA063	63

Tech Sheet 110822



Unequal, Reducing on Branch, Tube x Tube

9183	Ø mm	Ø mm
QLTRPA020016	20	16
QLTRPA025016	25	16
QLTRPA025020	25	20
QLTRPA032020	32	20
QLTRPA032025	32	25
QLTRPA040020	40	20
QLTRPA040025	40	25
QLTRPA040032	40	32
QLTRPA050020	50	20
QLTRPA050025	50	25
QLTRPA050032	50	32
QLTRPA050040	50	40
QLTRPA063020	63	20
QLTRPA063025	63	25
QLTRPA063040	63	40
QLTRPA063050	63	50

Tech Sheet 110822



Female Stud BSPP, 3.06 mm, Branch x Tube

9183	Ø mm	Thread
QLTPPA020048	20	1/2"
QLTPPA025048	25	1/2"

Tech Sheet 110822

Quick Branch, Saddle Clamp



Tube x Tube

9183	Ø mm	Ø mm
QLDERPA025016	25	16
QLDERPA025020	25	20
QLDERPA032016	32	16
QLDERPA032020	32	20
QLDERPA040016	40	16
QLDERPA040020	40	20
QLDERPA040025	40	25
QLDERPA050016	50	16
QLDERPA050020	50	20
QLDERPA050025	50	25
QLDERPA063020	63	20
QLDERPA063025	63	25
QLDERPA063032	63	32
QLDERPA080020	80	20
QLDERPA080025	80	25
QLDERPA080032	80	32
QLDERPA110025	110	25
QLDERPA110032	110	32

Tech Sheet 110822



Female BSPP x Tube

9183	Ø mm	Thread
DIRDERFF025048	25	1/2"
DIRDERFF032048	32	1/2"
DIRDERFF040048	40	1/2"
DIRDERFF040068	40	3/4"
DIRDERFF050048	50	1/2"
DIRDERFF050068	50	3/4"
DIRDERFF063048	63	1/2"
DIRDERFF063068	63	3/4"
DIRDERFF063088	63	1"
DIRDERFF080048	80	1/2"
DIRDERFF080068	80	3/4"
DIRDERFF080088	80	1"
DIRDERFF110068	110	3/4"
DIRDERFF110088	110	1"

Tech Sheet 110822

End Caps



Tube

9183	Ø mm
QLCAPA016	16
QLCAPA020	20
QLCAPA025	25
QLCAPA032	32
QLCAPA040	40
QLCAPA050	50
QLCAPA063	63

Tech Sheet 110822

Assembly Tools



QL Nut Wrench

9183	Ø mm	Ø mm
QLCLE16020	16	20
QLCLE25032	25	32
QLCLE40050	40	50
QLCLE63	63	63

Tech Sheet 110822



Pipe Fitting Insertion Meter

9183	Ø mm	Ø mm
QLMIS016080	16	80

Tech Sheet 110822

VALVES

Ball Valve Stainless Steel



Tube x Tube

9183	Ø mm
QLVAINOX025	25
QLVAINOX032	32
QLVAINOX040	40
QLVAINOX050	50
QLVAINOX063	63
QLVAINOX080	80

Tech Sheet 110823



Female BSPP x Tube

9183	Ø mm	Thread
QLVAINOXMF025088	25	1"
QLVAINOXMF032128	32	1.1/2"
QLVAINOXMF040128	40	1.1/2"
QLVAINOXMF050168	50	2"
QLVAINOXMF063168	63	2"
QLVAINOXMF080248	80	2"

Tech Sheet 110823

Ball Valve Nickel Plated Brass



Female BSPP x Tube

9183	Ø mm	Thread
QLVAF016048	16	1/2"
QLVAF020048AL	20	1/2"
QLVAF025068AL	25	3/4"

Tech Sheet 110823



Male BSPT x Tube

9183	Ø mm	Thread
QLVAM016048	16	1/2"
QLVAM020048AL	20	1/2"
QLVAM025068AL	25	3/4"

Tech Sheet 110823

Butterfly Valve Stainless Steel



Tube x Tube

9183	Ø mm
QLVALFAR110	110

Tech Sheet 110823



For Ball Valves
see pages 922-955

ALUMINIUM SYSTEM



LIGHTWEIGHT, BUT POWERFUL

The Quick Line aluminium product range comes in the following diameters:

20, 25, 32, 40, 50, 63, 80, and 110 mm

A careful study and design of dimensions and materials enable us to achieve a lightweight but powerful, all-aluminium product in a wide range of sizes. With the Ø 110 mm size you will have a powerful flow rate potential, allowing you to create compressor rooms without any problems.



SHORT INSTALLATION TIME

The quick and easy assembly of our piping systems is the result of an innovative technology, with an instant connection of the fitting components to the aluminium pipe.

AIR QUALITY AND MAINTENANCE

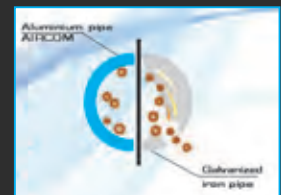
Owing to full aluminium construction, air quality keeps constant features from compressor outlet up to all end user points. Minimum roughness of internal pipe surfaces allows optimal air flow. The high quality and high resistance features of our fittings will significantly reduce maintenance costs.

MODULARITY AND RESISTANCE

Our modular and lightweight aluminium systems are an optimal solution to reduce installation time.

Owing to careful study of components and of materials, our fittings feature noticeable resistance to corrosion, mechanical shocks and thermal variations.

Quick Line aluminium is the most advanced evolution in the field of systems for compressed air and pressurised fluids distribution.



FITTINGS, ALUMINIUM SYSTEM



Swap your Aluminium fittings for echnopolymer fittings for sizes up to Ø 63mm to reduce installation costs. For specific application guidance please speak to our echnical team.

Working Temperature:
-30°C to +80°C

Straight Couplings



Equal, Tube x Tube

9183	Ø mm
QLMAAL020	20
QLMAAL025	25
QLMAAL032	32
QLMAAL040	40
QLMAAL050	50
QLMAAL063	63
QLMAAL080	80
QLMAAL110	110

Tech Sheet 110824



Sliding Coupling, Tube x Tube (No Internal Stopper)

9183	Ø mm
QLMASAL032	32
QLMASAL040	40
QLMASAL050	50
QLMASAL063	63
QLMASAL080	80

Tech Sheet 110824



Female Stud, BSPP Thread x Tube

9183	Ø mm	Thread
QLMPMAL020048	20	1/2"
QLMPMAL020068	20	3/4"
QLMPMAL025068	25	3/4"
QLMPMAL025088	25	1"
QLMPMAL032108	32	1.1/4"
QLMPMAL040128	40	1.1/2"
QLMPMAL050168	50	2"
QLMPMAL063208	63	2.1/2"

Tech Sheet 110824



Male Stud, BSPT Thread x Tube

9183	Ø mm	Thread
QLMNMAL020048	20	1/2"
QLMNMAL020068	20	3/4"
QLMNMAL025068	25	3/4"
QLMNMAL025088	25	1"
QLMNMAL032108	32	1.1/4"
QLMNMAL040128	40	1.1/2"
QLMNMAL050168	50	2"
QLMNMAL063168	63	2"
QLMNMAL063208	63	2.1/2"
QLMNMAL080208	80	2.1/2"
QLMNMAL080248	80	3"

Tech Sheet 110824

Elbows



90° Equal, Tube x Tube

9183	Ø mm
QLG090AL020	20
QLG090AL025	25
QLG090AL032	32
QLG090AL040	40
QLG090AL050	50
QLG090AL063	63
QLG090AL080	80
QLG090AL110	110

Tech Sheet 110824



45° Equal, Tube x Tube

9183	Ø mm
QLG045AL020	20
QLG045AL025	25
QLG045AL032	32
QLG045AL040	40

Tech Sheet 110824



45° Female Stud, BSPP x Tube

9183	Ø mm	Thread
QLG045FAL020048	20	1/2"
QLG045FAL025048	25	1/2"
QLG045FAL025068	25	3/4"

Tech Sheet 110824



90° Male Stud, BSPT x Tube

9183	Ø mm	Thread
QLG090MAL020048	20	1/2"
QLG090MAL025048	25	1/2"
QLG090MAL025068	25	3/4"

Tech Sheet 110824

Free design services available for reducing energy costs

FITTINGS, ALUMINIUM SYSTEM



Tees



Equal, Tube x Tube

9183	Ø mm
QLTEAL020	20
QLTEAL025	25
QLTEAL032	32
QLTEAL040	40
QLTEAL050	50
QLTEAL063	63
QLTEAL080	80
QLTEAL110	110

Tech Sheet 110824



Unequal, Reducing on Branch, Tube x Tube

9183	Ø mm	Ø mm
QLTRAL025020	25	20
QLTRAL032020	32	20
QLTRAL040020	40	20
QLTRAL040025	40	25

Tech Sheet 110824



Female Stud BSPP, Branch x Tube

9183	Ø mm	Thread
QLTPAL020048	20	1/2"
QLTPAL025068	25	3/4"
QLTPAL032088	32	1"
QLTPAL040108	40	1.1/4"
QLTPAL050128	50	1.1/2"
QLTPAL063168	63	2"
QLTPAL080208	80	2.1/2"
QLTPAL110248	110	3"

Tech Sheet 110824

End Caps



Equal, Tube x Tube

9183	Ø mm
QLCAAL020	20
QLCAAL025	25
QLCAAL032	32
QLCAAL040	40
QLCAAL050	50
QLCAAL063	63
QLCAAL080	80

Tech Sheet 110824

Blind Flange



Tube

9183	Ø mm
DIRFC110DIN	110

Tech Sheet 110824

Quick Branch (Saddle Clamp)



Tube x Tube

9183	Ø mm	Ø mm
QLDERAL025020	25	20
QLDERAL032020	32	20
QLDERAL040020	40	20
QLDERAL040025	40	25
QLDERAL050020	50	20
QLDERAL050025	50	25
QLDERAL063020	63	20
QLDERAL063025	63	25
QLDERAL063032	63	32
QLDERAL080020	80	20
QLDERAL080025	80	25
QLDERAL080032	80	32
QLDERAL110020	110	20
QLDERAL110025	110	25
QLDERAL110032	110	32

Tech Sheet 110824

Flanged Couplings



Flange x Tube

9183	Ø mm	DIN Flange
QLMFLAL080248DIN	80	3"
QLMFLAL110328DIN	110	4"

Tech Sheet 110824



Flange x Stem

9183	Ø mm	DIN Flange
QLTFLAL80248DIN	80	3"
QLTFLAL110328DIN	110	4"

Tech Sheet 110824

Assembly Tools



QL Nut Wrench for Aluminium

9183	Ø mm	Ø mm
QLCLEAL020025	20	25
QLCLEAL032040	32	40
QLCLEAL050	50	50
QLCLEAL063	63	63
QLCLEAL080	80	80

Tech Sheet 110824



Pipe Fitting Insertion Meter

9183	Ø mm	Ø mm
QLMISAL020110	20	110

Tech Sheet 110824

Free design services available for reducing energy costs

6" (168.3MM) TUBING & FITTINGS SYSTEM



A full range of ready-to-use, pre-grooved 168.3 mm - 6" aluminium products.

In large industrial sites, main compressed air distribution networks need a flow rate of 3,000 ³ per hour.

Compatibility and Specification

Deliverable Fluids:

- Compressed air
- Inert gases
- Vacuum
- Other (please contact sales office for more information)

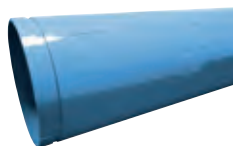
Vacuum Level:

99% (about 10 mbar) approximately

Working Temperature: -30°C to +80°C

Maximum Working Pressure: 12 bar

Coated Aluminium Pipe with Grooved Ends



Compressed Air, 5.8 Metres, Blue

9260	Ø mm
QLTUAL168S	168.3
Tech Sheet 110825	

Elbow with Grooved Ends



90° Equal, Tube x Tube

9260	Ø mm
QLGO90AL168	168.3
Tech Sheet 110825	



45° Equal, Tube x Tube

9260	Ø mm
QLGO45AL168	168.3
Tech Sheet 110825	

Tee with Grooved Ends



Equal, Tube x Tube

9260	Ø mm
QLTEAL168	168.3
Tech Sheet 110825	

Straight Rigid Coupling with Grooved Ends



Equal, Tube x Tube

9260	Ø mm
QLMAAL168	168.3
Tech Sheet 110825	

End Caps with Grooved Ends



Tube

9260	Ø mm
QLCAAL168	168.3
Tech Sheet 110825	

Expansion Joint



Flanged DIN

9260	Ø mm
DIRDIL168DIN	168.3
Tech Sheet 110825	

DIRDIL168DIN requires 1x QLFLA168480DIN on each side.

Flanged Adaptor



Tube x Flange DIN

9260	Ø mm	DIN Flange
QLFLA168480DIN	168.3	4"
Tech Sheet 110825		

Butterfly valve



Flange DIN Coupling

9260	Ø mm
QLVALFAR168	168.3
Tech Sheet 110825	

Pipe Bracket



M10 Insert Pieces

9260	Ø mm	Insert
DIRFEM10168CF	168.3	M10
Tech Sheet 110825		

Portable Manual Grooving Tool for 6" (168.3 mm) Tube



Manual Operation with Ratchet Handle

9260	Ø mm
DIRRULLUNI	168.3
Tech Sheet 110825	

MANIFOLDS, ALUMINIUM TUBING SYSTEM



Single Port



1/2" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
DIRAPMAL048048	1	1
Tech Sheet 110826		



With Fitting Holder Safety Block

9183	Inlet mm	Outlet
DAPG045FAL020048	20	1/2"
DAPG045FAL025048	25	1/2"
DAPG045FAL025068	25	3/4"
Tech Sheet 110826		

Double Port



1/2" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
APLALL048	1	2
Tech Sheet 110826		

3/4" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
APLALL068	1	2
Tech Sheet 110826		

3 Port



1/2" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
DIRAPFRLAL048048	1	3
Tech Sheet 110826		

4 Port



1/2" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
DIRAPLAL048048	1	4
Tech Sheet 110826		

3/4" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
DIRAPLAL068068	1	4
Tech Sheet 110826		

5 Port



3/4" BSPP Inlet x 3/4" & 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets A (side)	No. of Outlet B (front)
DIRPMUAL120	1	2	3
Tech Sheet 110826			

6 Port



3/4" BSPP Inlet x 3/8" BSPP Outlet, No Drain

9183	No. of Inlets	No. of Outlets
APLALLMUL068038	1	6
Tech Sheet 110826		

1/2" BSPP Inlet x 3/4" BSPP Outlet, No Drain

9183	No. of Inlets	No. of Outlets
APLALLMUL068048	1	6
Tech Sheet 110826		

7 Port



3/4" BSPP Inlet x 1/2" BSPP Outlet, with Drain Option, 1/4" (Blind)

9183	No. of Inlets	No. of Outlets
DIRPMUAL200	1	7
Tech Sheet 110826		

Drain Valve



1/4" BSPP Male

9183	Thread
DIRVSP028	1/4"
Tech Sheet 110826	

SYSTEM ACCESSORIES



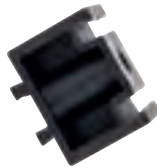
Pipe Brackets



M8 Insert Pieces

9183	Ø mm	Insert
DIRFEM8016CF	16	M8
DIRFEM8020CF	20	M8
DIRFEM8025CF	25	M8
DIRFEM8032CF	32	M8
DIRFEM8040CF	40	M8
DIRFEM8050CF	50	M8
DIRFEM8063CF	63	M8
DIRFEM8080CF	80	M8
DIRFEM8110CF	110	M8

Tech Sheet 110827



Pipe Bracket Spacers

9183	Ø mm	Ø mm
DIRSPE020032	20	32
DIRSPE040063	40	63

Tech Sheet 110827

Assembly Lubrication

Lubrication Fluid (Oil Free)

9183	Size ml
DIRLUB0750	750

Tech Sheet 110844



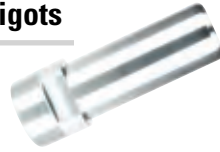
Lubrication Gel (Oil Free)

9183	Size ml
DIRLUBGEL0950	950

Tech Sheet 110827



Aluminium Spigots

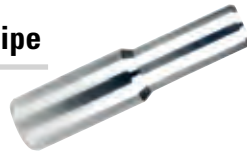


Male BSPP x Stem

9183	Ø mm	Thread
QLPUNM016038	16	3/8"
QLPUNM020048	20	1/2"
QLPUNM020068	20	3/4"
QLPUNM025088	25	1"
QLPUNM032108	32	1.1/4"
QLPUNM040128	40	1.1/2"
QLPUNM050168	50	2"
QLPUNM063168	63	2"
QLPUNM080248	80	3"

Tech Sheet 110827

Reduction Pipe



Stem x Stem

9183	Ø mm	Ø mm
QLRIDTU025020	25	20
QLRIDTU032020	32	20
QLRIDTU032025	32	25
QLRIDTU040025	40	25
QLRIDTU040032	40	32
QLRIDTU050032	50	32
QLRIDTU050040	50	40
QLRIDTU063040	63	40
QLRIDTU063050	63	50
QLRIDTU080050	80	50
QLRIDTU080063	80	63
QLRIDTU110050	110	50
QLRIDTU110063	110	63
QLRIDTU110080	110	80

Tech Sheet 110827

Deburrers



To suit Tube Sizes 16mm - 110mm

9183	Ø mm	Ø mm
DIRSM016050	16	50
DIRSM063110	63	110

Tech Sheet 110827



To suit Tube Sizes 16mm - 168.3mm

9183	Ø mm	Nominal Bore mm
DIRSBVUNI	16	168.3

Tech Sheet 110827

Multilayer Pipe Bending Tools



Bending Gun

9260	Ø mm	Ø mm
DIRPIEGTMLS1625	16	25

Tech Sheet



Calibrator & Chamfering Tool

9260	Ø mm	Ø mm
DIRCALML016025	16	25

Tech Sheet 110827



Outer Bending Spring

9260	Ø mm
DIRMOLMLEST016	16
DIRMOLMLEST020	20
DIRMOLMLEST025	25

Tech Sheet 110827



Inner Bending Spring

9260	Ø mm
DIRMOLMLINT016	16
DIRMOLMLINT020	20
DIRMOLMLINT025	25

Tech Sheet 110827

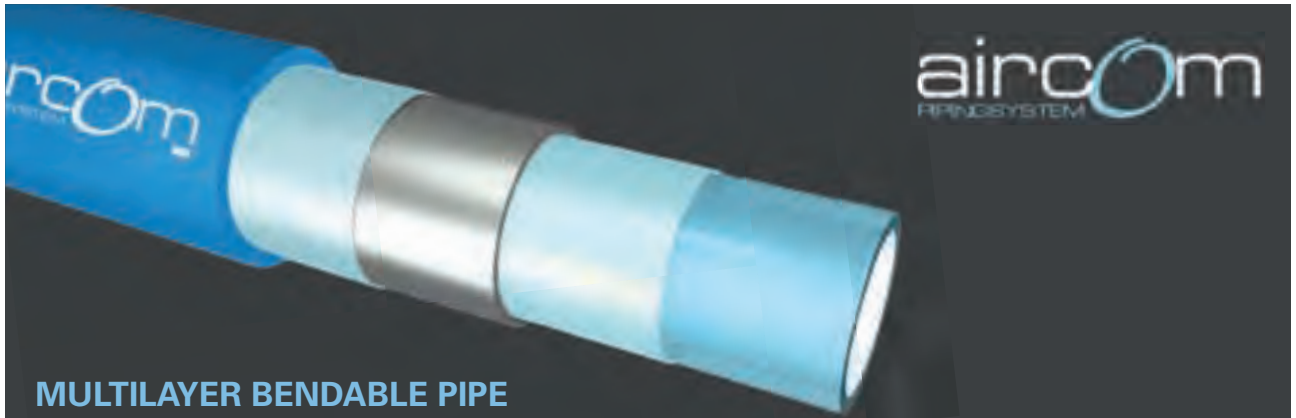
Flexible Hoses



Stem x Stem

9183	Ø mm
QLFLEX020	20
QLFLEX025	25
QLFLEX032	32
QLFLEX040	40
QLFLEX063	63

Tech Sheet 110827



aircom
AIR AND SYSTEM

MULTILAYER BENDABLE PIPE

Bendable, resistant & specific for compressed air

Due to its unique structure, Aircom's multilayer pipe for compressed air delivers excellent physical and chemical features, typical of PE-RT.

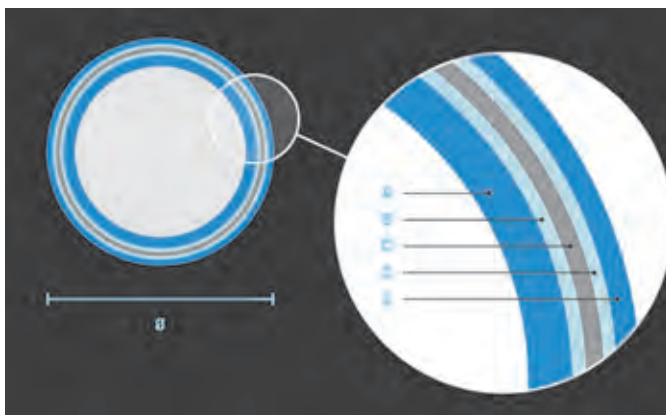
The structure of the multilayer pipe incorporates an aluminium layer, providing resistance to high pressures and high operating temperatures.

The lightness of the material enables easy shaping of piping sections, making installation trouble-free even in problem areas.

AIRCOM'S MULTILAYER PIPE ADVANTAGES

- ✓ Specifically for compressed air piping.
- ✓ Easy creation of shaped piping sections.
- ✓ Easy to fit around obstacles, corners, pillars, etc.
- ✓ Easy installation owing to its bendability.
- ✓ Linear thermal expansion factor similar to aluminium pipe.
- ✓ Corrosion resistant.
- ✓ Outstanding durability.

LAYERS AND MATERIALS



- A PE-RT (inner layer, colourless)
- B Adhesive layer
- C Aluminium layer, overlapped and ultrasonic welded
- D Adhesive layer
- E PE-RT (outer layer, blue)



AIR PIPE LINE "INFINITY" SERIES

Complete selection of fittings and aluminum pipes for air networks.

Patented drop fitting solution and more special features

Fastest assembly operations with ready-to-use and reusable fittings for all sizes

10 year warranty.

MADE IN ITALY

 **AIGNEP**

**EXCELLENT SOLUTIONS
IN FLUIDTECHNOLOGY**

ALUMINIUM RING MAIN SYSTEM



Working Temperature:
-20°C to +80°C

Maximum Working Pressure:
16 bar

Material:
Adaptors: Brass, Nickel Plated
(Ø 50-63 Aluminium), Nitrile Seals
Silicone free

Application:
Compressed air, Vacuum,
Inert gas (NITROGEN-ARGON)

Compliance:
2014/68/EU(PED), REACH EC N°1907/2006,
ROHS 2011/65/EU, ASME B31.1, B31.3

Aluminium Tubing

Tubing may take up to 3 working days to be delivered, dependant on weight and delivery address location. Addition carriage charges may apply. For full details please contact sales.



4 Metre Lengths

0255	OD mm
90000011Y9B5	20
90000011J4B5	25
90000011J9B5	32
90000011K4B5	40
90000011W0B5	50
90000011W3B5	63

Tech Sheet 1609

6 Metre Lengths

0255	OD mm
900006020BL	20
900006025BL	25
900006032BL	32
900006040BL	40
900006050BL	50
900006063BL	63

Tech Sheet 1609

Straight Adaptors



Male Thread, BSPT

0255	OD mm	Thread
9001000001	20	1/2"
9001000009	20	3/4"
9001000011	25	1/2"
9001000002	25	3/4"
9001000003	32	1"
9001000013	40	1"
9001000004	40	1.1/4"
9001000007	40	1.1/2"
9001000014	50	1"
9001000005	50	1.1/2"
9001000012	50	2"
9001000006	63	2"
9001000008A	63	2.1/2"

Tech Sheet 1610

Female Thread, BSPP

0255	OD mm	Thread
9003000001	20	1/2"
9003000002	25	3/4"
9003000003	32	1"
9003000004	40	1.1/4"

Tech Sheet 1610



Elbow Adaptors



Male Thread, BSPT

0255	OD mm	Thread
9015000001	20	1/2"
9015000002	25	3/4"
9015000003	32	1"

Tech Sheet 1611



Female Thread, BSPP

0255	OD mm	Thread
9016000001	20	1/2"
9016000002	25	3/4"
9016000003	32	1"
9016000004	40	1.1/4"

Tech Sheet 1611



Bracketed, Female Thread, BSPP

0255	OD mm	Thread
9060000001	20	1/2"
9060000002	25	3/4"
9060000003	32	1"

Tech Sheet 1611

Tee Adaptors



Female Thread, BSPP

0255	OD mm	Thread
9023600006	20	3/8"
9023600007	20	1/2"
9023600001	25	3/8"
9023600008	25	1/2"
9023600002	32	1/2"
9023600003	40	1/2"
9023600017A	63	1/2"
9023600005	63	3/4"
9023600018A	63	1"

Tech Sheet 10557

Tee Adaptors with Condense Exhaust



Female Thread, BSPP

0255	OD mm	Thread
9025000017A	63	1/2"

Tech Sheet 10557

Straight Connectors



Equal

0255	OD mm
9004000001	20
9004000002	25
9004000003	32
9004000004	40
9004000006	63

Tech Sheet 1614

ALUMINIUM RING MAIN SYSTEM



Elbow Connectors



Equal 90°

0255	OD mm
9013000001	20
9013000002	25
9013000003	32
9013000004	40
9013000005	50
9013000006	63

Tech Sheet 1811



Equal 135°

0255	OD mm
9014000001	20
9014000002	25
9014000003	32
9014000004	40
9014000005	50

Tech Sheet 1811

Tee Connectors



Equal

0255	OD mm
9023000001	20
9023000002	25
9023000003	32
9023000004	40
9023000005	50
9023000006	63

Tech Sheet 10559



Equal and Reducing Branch

0255	OD mm	OD mm
9023500013	20	20
9023500001	25	20
9023500002	32	20
9023500003	32	25
9023500004	40	20
9023500005	40	25
9023500008	50	25

Tech Sheet 10564

Tee Connectors with Condense Exhaust



Equal and Reducing Branch

0255	OD mm
9025900001	20-20-20
9025900002	25-20-25
9025900003	32-20-32
9025900004	40-20-40
9025900005	50-20-50

Tech Sheet 10559

End Caps



0255	OD mm
9061000001	20
9061000002	25
9061000003	32
9061000004	40
9061000006	63

Tech Sheet 1612

Reducers



0255	OD mm	OD mm
9062000001	25	20
9062000002	32	20
9062000003	32	25
9062000005	40	25
9062000006	40	32
9062000011	50	25
9062000007	50	32
9062000008	50	40
9062000009A	63	40
9062000010A	63	50

Tech Sheet 1613

Deburring Tool



For Aluminium Tubing 20-40mm

0255
9088000001

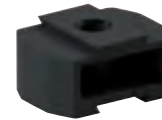
Support Collars



Technopolymer, M6 Thread

0255	OD mm
9081500001	20
9081500002	25
9081500003	32
9081500004	40
9081500005	50
9081500006	63

Tech Sheet 10567



Spacer

0255
9081700001

Tech Sheet 60110

Wall Mount Female Manifolds, Aluminium



BSPP

0255	OD mm	Thread
9060200001	20	1/2"
9060200002	25	1/2"

Tech Sheet 10560



2 Way, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
9064200001	1/2"	1/2"	2
9064200002	3/4"	1/2"	2

Tech Sheet 10576



4 Way, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
9064400001	1/2"	1/2"	4
9064400002	3/4"	1/2"	4

Tech Sheet 10577

ALUMINIUM RING MAIN SYSTEM



Wall Mount Female Manifolds, Plastic

Working Temperature:
-20°C to +50°C

Maximum Working
Pressure: 15 bar



Type VDK 10, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK10	1/2"	1/2"	1



Type VDK 138, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK138	1/2"	3/8"	1



Type VDK 20, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK20	1/2"	1/2"	2



Type VDK 21, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK21	2 x 1/2"	1/2"	2



Type VDK 30, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK30	3/4"	1/2"	3

Type VDK 31, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK31	2 x 3/4"	1/2"	3



Type VDK 34, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK34	1/2"	1/2"	3



Type VDK 35, BSPP

0255	Inlet Size	Outlet Size	No of Outlets
VDK35	2 x 1/2"	1/2"	3

Saddle Clamp Connectors



0255	OD A mm	OD B mm
9024000004	32	25
9024000006	40	25
9024000007	50	20
9024000010	63	20
9024000011	63	25

Tech Sheet 10565

Tube Drilling Jigs & Drill Bits



Tube Drilling Jigs

0255	OD mm
9024200001	32
9024200002	40
9024200004	63

Tech Sheet 10567



Drill Bits for Drilling Jig

0255	To Suit
9024100001	32 & 40
9024100002	50 & 63

Tech Sheet 10566

Ball Valves



Tube x Tube

0255	OD mm
9070000001	20
9070000002	25
9070000003	32
9070000004	40
9070000005	50
9070000006	63

Tech Sheet 10570



Tube x Male Thread, BSPT

0255	OD mm	Thread
9072000001	20	1/2"
9072000002	25	3/4"

Tech Sheet 10572

AIRNET PIPEWORK SYSTEM

Airnet Aluminium Air Pipe



Blue Compressed Air Pipe, 5.70m Lengths

1450	Size mm	Length Metres	Quantity
2811-4000-05	40	5.70	5



Blue S Bends

1450	Size mm
2811-1067-05	20 x 440
2811-2067-05	25 x 460

Airnet Connectors

Equal Straight Connector



1450	Size mm
2811-1002-80	20
2811-2002-80	25
2811-4002-80	40
2811-5002-80	50



Reducing Straight Connector

1450	Size mm
2811-2121-80	25 to 20
2811-4221-80	40 to 25



Male Stud Connector

1450	Size
2811-1017-80	20mm x R1/2"
2811-2117-80	25mm x R3/4"
2811-2217-80	25mm x R1"
2811-4417-80	40mm x R1.1/2"
2811-5417-80	50mm x R1.1/2"
2811-5517-80	50mm x R2"
2811-6517-80	63mm x R2"
2811-6617-80	63mm x R2.1/2"
2811-7717-80	80mm x R3"



Wall Mounting Connector ISO228

1450	Inlet mm	Outlet BSPP
2811-1023-80	20	1/2" x 3
2811-2023-80	25	1/2" x 3



Wall Mounting Connector Threaded

1450	Inlet	Outlet
2811-0025-80	1/2"	1/2" x 1
2811-1025-80	3/4"	1/2" x 1



End Cap

1450	Size mm
2811-1006-80	20
2811-2006-80	25
2811-4006-80	40
2811-5006-80	50



For **Condensate Management**
see page 435



AIRNET PIPEWORK SYSTEM



Airnet Elbows & Tees



Equal 90° Elbow

1450	Size mm
2811-1003-80	20
2811-2003-80	25
2811-4003-80	40
2811-5003-80	50
2811-6003-80	63



Equal 45° Elbow

1450	Size mm
2811-2004-80	25
2811-4004-80	40



Equal Tee

1450	Size mm
2811-1005-80	20
2811-2005-80	25
2811-4005-80	40



Reducing Tee

1450	Size A mm	Size B mm
2811-4107-80	40	20
2811-4207-80	40	25



Reducing Tee, Threaded Branch

1450	Inlet/Outlet mm	Reduced Branch
2811-1008-80	20	G1/2"
2811-2008-80	25	G1/2"
2811-2108-80	25	G3/4"
2811-4208-80	40	G1"
2811-5208-80	50	G1"



For Air Receivers &
Accessories
see pages 433-435

Airnet Quickdrops & Ball Valves



Quickdrop

1450	Inlet mm	Outlet mm
2811-2110-80	25	20
2811-4110-80	40	20



Quickdrop, Threaded Outlet

1450	Inlet mm	Outlet
2811-2011-80	25	G1/2"



Ball Valve

1450	Size mm
2811-1051-81	20
2811-2051-81	25
2811-4051-81	40



Ball Valve Airnet to ISO228 Female

1450	Size
2811-1152-81	20mm x G3/4"
2811-2252-81	25mm x G1"
2811-4452-81	40mm x G1.1/2"

AIRNET PIPEWORK SYSTEM

Airnet Piping Accessories



Pipe Clips

1450	Size mm	Connection
2811-1022-20	20	M6
2811-2022-20	25	M6
2811-4022-20	40	M6



Screw Beam Clamp

1450	Size	Range mm
2810-0036-10	M8	1.5 - 11



Hang Clamp H Profil

1450	Size	Range mm
2810-0038-10	M8	1.5 - 4



Sealing Gel

1450	Volume Litres
2810-0148-00	1

Airnet Installation Tool Kits



PF Series Installation Spanner

1450	Size mm
2811-1028-00	20 - 50



Black Series Installation Spanner

1450	Size mm
2811-6028-00	63 - 80



Belt Spanner

1450	Description
2810-8028-00	Covers 40 - 80 mm



Pipe Deburrer

1450	Size mm
2810-0141-00	20 - 50



Hole Deburrer Pen

1450	Type
2810-0641-00	Heavy-duty



PF Series Tool Kit

1450	Size mm
2811-0045-00	Install Kit to suit 20-50mm Airnet Range



Electrical Pipe Cutter

1450	Voltage
2810-0540-80	220 - 230

RINGMAIN PIPE KITS (CARM)

Simple, easy to install, basic air pipe systems at competitive pricing

Introducing **John Guest Compressed Air Ring Main (CARM) Kits** - the ultimate solution for compressed air piping systems installation. These kits come in three configurations, catering to 15 and 22 mm, and contain all the essential components for hassle-free assembly. No specialized knowledge or expensive equipment is needed, making it the go-to option for small ring-main installations.

Versatile kits for any project:

- Workshops
- Garages
- Domestic applications
- Extension onto existing pipe systems

1 Bay Kit, 15mm Pipe & Fittings

- 1 x bay kit of John Guest 15mm O.D pipe and fittings
- 4 x 3m lengths of 15mm nylon pipe.
- 8 x pipe clips.
- 2 x elbows.
- 1 x flex with 1/2" bsp male stem adaptor.
- 1 x straight connector.
- 1 brass wingback wall bracket with 1 x PCL 19 series coupling

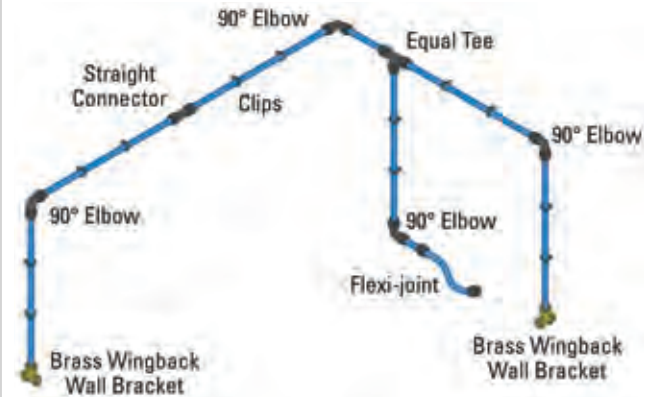


1400

CARMKIT-1

2 Bay Kit, 15mm Pipe & Fittings

- 2 x bay kit of John Guest 15mm OD pipe and fittings
- 6 x 3 metre lengths nylon pipe.
- 12 x clips.
- 4 x elbows.
- 1 x flex 15 with 1/2" bsp male stem adaptor.
- 2 x brass wingback wall brackets.
- 1 x straight connector.
- 1 x tee and 2 PCL 19 series couplings.



1400

CARMKIT-2

3 Bay Kit, 22mm Pipe & Fittings

- 3 x bay kit of John Guest 22mm OD pipe and fittings
- 7 x 3 metre lengths nylon pipe.
- 14 x pipe clips.
- 4 x elbows.
- 1 x flex 22 with 1/2" bsp, male stem adaptor.
- 3 x brass wingback wall brackets.
- 2 x straight connector.
- 2 x tee.
- 3 x PCL 19 series couplings and 3 x 3/4 x 1/2 reducing bush.
- 1 x PTFE Tape



1400

CARMKIT-3

Easy to use Push-fit connectors for air line ring mains

The John Guest range of push-fit fittings and pipe provide the ideal connection from compressor receiver to air line service components through to complete ring main and take off points.

Using the John Guest push-fit system, a compressed air ring main can be installed quickly and easily, with potential time savings of at least 50% when compared to other installation methods.

No need to prepare threaded pipe or solvent, all the connections can be made with a simple push-fit action. The system is then immediately ready for use.

Complex assembly can be performed much more rapidly than with traditional methods and because fittings are easy to disconnect, systems can be altered or extended with much reduced production down time.

To make a connection, the tube is simply pushed in by hand, with the unique collet locking system then holding the tube firmly in place without deforming it or restricting flow.

**The fittings are produced in either tough engineering plastics material or in brass with Sizes 12mm to 28mm. They are intended for use with John Guest's nylon pipe, but can also be used with copper or aluminum alternatives.*

Working Temperature:

-20°C to +70°C

Working Pressure:

10 bar @ 23°C



Making a connection

Standard Fittings



Cut the pipe square

We recommend using the JG Pipe Cutter.



Push up to pipe stop



Pull to check secure

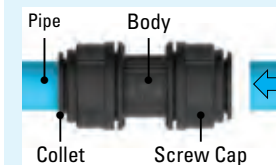
Test the system before use.



To disconnect

Ensure the system is depressurised. Push the collet towards the fitting and remove the pipe. The fitting can be reused.

28mm Fittings



28mm fittings also have a collet with stainless steel teeth and an 'O' ring.



After inserting the pipe, a screw cap is turned approx 1/4 turn. This locks the collet in place and reduces lateral and sideways movement of the pipe.



To disconnect

Turn the screw cap 1/4 turn, push in the collet and remove the pipe. The fitting and pipe can be reused.

FAST-TRACK RING MAIN SYSTEM

Fast-Track Tubing

John Guest Part No. Cross Reference

400-3012	PA-RM1209-3M-20B
400-3015	PA-RM1512-3M-20B
400-3018	PA-RM1814-3M-20B
400-3022	PA-RM2218-3M-20B
400-3028	PA-RM2823-3M-10B

Working Temperature:
-20°C to +70°C

Maximum Working Pressure:
+23°C: 10 bar
+70°C: 7 bar



Nylon 12, 3 Metre Lengths

1400	OD mm	ID mm
400-3012	12	9
400-3015	15	12
400-3018	18	14
400-3022	22	18
400-3028	28	23

Tech Sheet 20629

N.B. Delivery may take up to 48 hours.

Working Temperature:
-20°C to +70°C

Maximum Working Pressure:
+23°C: 10 bar
+70°C: 7 bar



Blue Coated Aluminium, 3 Metre Lengths

1400	OD mm	ID mm
AL-RM1210-3M-20B	12	10
AL-RM1513-3M-20B	15	13
AL-RM1816-3M-20B	18	16
AL-RM2220-3M-20B	22	20
AL-RM2826-3M-10B	28	26

Tech Sheet 20629

N.B. Delivery may take up to 48 hours.

Fast-Track Tube Clips



360° Pipe Retention, Tested to over 100lbs

1400	OD mm
405-1015	15
405-1022	22
405-1028	28
410-1522	Stand-off Spacer

Tech Sheet 20629

U-Bend



1400	OD mm
PMUB15E	15

Tech Sheet 20629

Straight Adaptor

* No thread seal.



BSPP Male

1400	OD mm	Thread
PM011213E	12	3/8"
PM011214E	12	1/2"
PM011514E	15	1/2"
PM011516E	15	3/4"
PM011814E	18	1/2"
PM012216E	22	3/4"

Tech Sheet 20629

Stem Adaptor



BSPP Male

1400	OD mm	Thread
PM051213E	12	3/8"
PM051214E	12	1/2"
PM051513E	15	3/8"
PM051514E	15	1/2"
PM051814E	18	1/2"
PM052214E	22	1/2"
PM052216E	22	3/4"

Tech Sheet 20629

Equal Elbow



1400	OD mm
PM0312E	12
PM0315E	15
PM0318E	18
PM0322E	22
PM0328E	28

Tech Sheet 20629

Stem Elbow



1400	OD mm	Stem OD mm
PM221212E	12	12
PM221515E	15	15
PM221818E	18	18
PM222222E	22	22

Tech Sheet 20629

Equal Tee



1400	OD mm
PM0212E	12
PM0215E	15
PM0218E	18
PM0222E	22

Tech Sheet 20629

Reducing Tee



1400	Ends OD mm	Branch OD mm
PM03018AE	18	15
PM3022AE	22	15

Tech Sheet 20629

FAST-TRACK RING MAIN SYSTEM

Straight Connector



1400	OD mm
PM0412E	12
PM0415E	15
PM0418E	18
PM0422E	22
PM0428E	28

Tech Sheet 20629

Reducer



1400	Stem OD mm	OD mm
PM061512E	15	12
PM061815E	18	15
PM062215E	22	15
PM062218E	22	18
PM062815E	28	15

Tech Sheet 20629

Flexi-joint

When long runs of nylon tube are used, it is recommended a flexi-joint is installed. With temperature change, the tube can expand and contract along the length. This will lead to an unsightly distortion to the run of tube.



1400	OD mm	Max Pressure PSI
FLEX-15	15	145
FLEX-22	22	145

Tech Sheet 20629

Plug



Black

1400	OD mm
PM0812R	12
PM0815E	15
PM0818E	18
PM0822E	22
PM0828E	28

Tech Sheet 20629

Release Aid



1400	OD mm
15RA	15
22RA	22

Tech Sheet 20629

Brass Straight Adaptors



BSPT Male

1400	OD mm	Thread
MM011504N	15	1/2"
MM012206N	22	3/4"
MM012808N	28	1"

Tech Sheet 20629

Brass Wingback Elbow



BSPP Female

1400	OD mm	Thread
PM15WB	15	1/2"
PM22WB	22	3/4"

Tech Sheet 20629

Brass Stem Adaptors



Male Thread

1400	OD mm	Thread
MM051504N	15	1/2" BSPT
MM052206N	22	3/4" BSPT
MM052818N	28	1" BSPT
MM052228N	22	1" NPT
MM052828N	28	1" NPT

Tech Sheet 20629



BSPP Female

1400	OD mm	Thread
MM501514N	15	1/2"
MM502216N	22	3/4"

Tech Sheet 20629



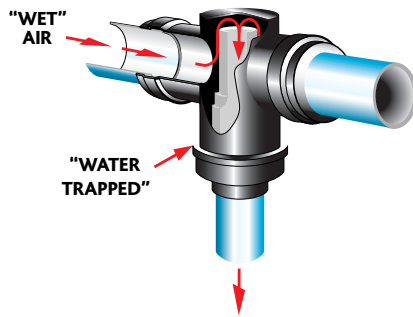
You might also need...
Polyurethane & Nylon Tube
 ...see pages 895-917



FAST-TRACK RING MAIN SYSTEM

Water Trap Tee

The Fast-Track Water Trap Tee solves the on-going problem of moisture in a Ring Main system and provides the easy alternative to the need to install "Swan Necks". The ingenious inside arrangement of the fitting allows air to flow, with minimum head loss, from the main to take-off point without allowing water to follow. The moisture is retained in the line to be drawn off at some suitable location.



Water Trap Tee Installation:

It is of vital importance for the correct function of the Water Trap Tee that the air ring main within which the Tee is installed is near horizontal and that the outlet port faces vertically downwards. Markings to indicate correct orientation have been moulded onto the body to assist installation.



1400	OD mm
PMTT22E	22
Tech Sheet 20629	

Water Trap Tee Convertor



Converts a 28mm Tee to a Water Trap Tee

1400	Size mm
WTC28	28
Tech Sheet 20629	

Collet Covers

Collet Covers prevent accidental removal or tampering with piping. The pipe can be inserted with the Collet Cover already attached to the fitting or the cover can slide into position afterwards.

We recommend covers be fitted when pipework is hidden inside walls, ceilings etc.

Collet Covers can be removed to allow the pipe to be disconnected as and when required.



Black

1400	OD mm
PM1915E	15
PM1922E	22
Tech Sheet 20629	

Pipe Clips & Spacers

Clip



Spacer



Black

1400	Description	OD mm
PC15E	Clip	15
PC22E	Clip	22
PC28E	Clip	28
PCSE	Spacer	-
Tech Sheet 20629		

Pipe Cutters

Please Note: No spare blades available for this cutter.

The blade can be resharpened.



1400	Max Reach mm
JG-TSP	22
Tech Sheet 20629	

Aluminium Pipe Cutter



1400	OD mm
ALU-CUTTER15	15
ALU-CUTTER22	22
ALU-CUTTER28	28
Tech Sheet 20629	

End Stop



1400	OD mm
PM4612E	12
PM4615E	15
PM4622E	22
Tech Sheet 20629	

Porting Block



1/2" BSPP Female

1400	Outlets
JG-L-WSK	5 x 1/2" BSPP
Tech Sheet 20629	

Aluminium Wall Box



BSPP

1400	Inlet Size	Outlet Size	No. of Outlets
JGWALLBOX 1/2	1/2"	1/2"	3
JGWALLBOX 3/4	3/4"	1/2"	3
Tech Sheet 20629			

Applications:

- Drinkable water systems
- Irrigation systems
- Fertilizing irrigation systems
- Wine, beer, beverages and other all-environmental fluids
- Industrial equipment for acid bases and salts
- Swimming pools with fresh or sea water
- Ship Installations

Materials:

- Body and nut: polypropylene
- O-ring: nitrile
- Clenching ring: polyacetal resin
- Metal reinforcements: stainless steel

Maximum Working Temperature:
+80°C

Maximum Working Pressure:
16 bar, atmospheric at 20°C up to 63mm bore
10 bar, atmospheric at 20°C from 75mm bore

NOTE: Materials fully conform to the international specification relating to Hygiene and Sanitary Requirements for the Transport of Potable Water and Alimentary Fluids.

Straight Connector



Tube x Tube

0116	OD mm
PE-701.016	16
PE-701.020	20
PE-701.025	25
PE-701.032	32
PE-701.040	40
PE-701.050	50
PE-701.063	63
PE-701.075	75
PE-701.110	110

Reducing Coupling



Tube x Tube

0116	OD mm	OD mm
PE-702.020	20	16
PE-702.025	25	20
PE-702.031	32	20
PE-702.032	32	25
PE-702.040	40	32
PE-702.049	50	32
PE-702.063	63	50

End Plug



Tube

0116	OD mm
PE-705.020	20
PE-705.025	25
PE-705.032	32
PE-705.050	50
PE-705.063	63

Female Adaptor



BSPT

0116	OD mm	Thread
PE-703.016	16	1/2"
PE-703.020	20	1/2"
PE-703.022	20	3/4"
PE-703.024	25	1/2"
PE-703.025	25	3/4"
PE-703.027	25	1"
PE-703.031	32	3/4"
PE-703.032	32	1"
PE-703.039	40	1"
PE-703.040	40	1.1/4"
PE-703.050	50	1.1/2"
PE-703.063	63	2"
PE-703.075	75	2.1/2"
PE-703.090	90	3"
PE-703.110	110	4"

Male Adaptor



BSPT

0116	OD mm	Thread
PE-704.016	16	1/2"
PE-704.020	20	1/2"
PE-704.021	20	3/4"
PE-704.024	25	1/2"
PE-704.025	25	3/4"
PE-704.026	25	1"
PE-704.031	32	3/4"
PE-704.032	32	1"
PE-704.033	32	1.1/4"
PE-704.039	40	1"
PE-704.040	40	1.1/4"
PE-704.041	40	1.1/2"
PE-704.049	50	1.1/4"
PE-704.050	50	1.1/2"
PE-704.051	50	2"
PE-704.063	63	2"
PE-704.074	75	2"
PE-704.075	75	2.1/2"
PE-704.090	90	3"

90° Equal Elbows



Tube x Tube

0116	OD mm
PE-706.016	16
PE-706.020	20
PE-706.025	25
PE-706.032	32
PE-706.040	40
PE-706.050	50
PE-706.063	63
PE-706.090	90



Male, BSPT

0116	OD mm	Thread
PE-707.020	20	1/2"
PE-707.024	25	1/2"
PE-707.025	25	3/4"
PE-707.031	32	3/4"
PE-707.032	32	1"
PE-707.050	50	1.1/2"
PE-707.063	63	2"



Female, BSPT

0116	OD mm	Thread
PE-708.020	20	1/2"
PE-708.024	25	1/2"
PE-708.025	25	3/4"
PE-708.031	32	3/4"
PE-708.032	32	1"
PE-708.050	50	1.1/2"
PE-708.063	63	2"

90° Equal Tee



Tube x Tube

0116	OD mm
PE-709.020	20
PE-709.025	25
PE-709.032	32
PE-709.040	40
PE-709.050	50
PE-709.063	63
PE-709.075	75



Male, BSPT

0116	OD mm	Thread
PE-711.020	20	1/2"
PE-711.025	25	3/4"
PE-711.032	32	1"
PE-711.050	50	1.1/2"
PE-711.063	63	2"



Female, BSPP

0116	OD mm	Thread
PE-710.020	20	1/2"
PE-710.024	25	1/2"
PE-710.025	25	3/4"
PE-710.031	32	3/4"
PE-710.032	32	1"
PE-710.040	40	1.1/4"
PE-710.050	50	1.1/2"
PE-710.090	90	3"

Wall Support Bracket



BSPP

0116	OD mm	Thread
PE-712.020	20	1/2"
PE-712.025	25	3/4"

90° Reducing Tee



Branch

0116	OD mm	OD mm
PE-713.025	25	20
PE-713.032	32	25
PE-713.063	63	50

Compression Flange

Conforms to the following standards:

UNE EN-712, UNE EN-713, UNE EN-715, UNE EN-714, ISO 351, ISO 3503, ISO 3458, ISO 3459, DIN 8076, ISO 7, ISO 228, DIN 2999, DIN 259



Tube

0116	OD mm
PE-714.050	50
PE-714.063	63
PE-714.075	75
PE-714.090	90

Pipe Liner



0116	To Suit Hose OD mm
PE-780020	20
PE-780025	25
PE-780032	32

Repair Coupling



Tube x Tube

0116	OD mm
PE-725020	20
PE-725025	25
PE-725032	32
PE-725050	50
PE-725075	75

Spanner



0116	To Suit
PE-776001	20mm to 32mm
PE-776002	40mm to 63mm
PE-776003	20mm to 63mm
PE-776004	75mm to 110mm

MDPE Pipes



Blue

0116	OD mm	Length Metres
PE-MDPE20BLU	20	100
PE-MDPE25BLU	25	100
PE-MDPE32BLU	32	100
PE-MDPE63BLU	63	100



Black

0116	OD mm	Length Metres
PE-MDPE20BLK	20	100
PE-MDPE25BLK	25	100
PE-MDPE32BLK	32	100
PE-MDPE63BLK	63	100

POLYETHYLENE PIPE UNIVERSAL TRANSITION FITTINGS



Universal Fittings

This universal fitting is compatible with any fitting, allowing the transition between pipes of any material with diameters from 15mm to 35mm (1/2" to 1" and polyethylene pipes between 16mm to 63mm.



Universal Fittings

0116	Inlet mm	Outlet
PE-715.020	15-22	To suit 25mm Body
PE-715.025	21-27	To suit 32mm Body
PE-715.032	27-35	To suit 40mm Body

Tech Sheet 20360

Rubber adaptor suitable for all FT fittings that allow the transition from copper (15-16 mm) to galvanised or UPVC (1/2").



For Copper Tubing

0116
PE-000.715

Couplings



Tube x Tube

0116	OD A mm	OD A	OD B mm
PE-716016	15-22	1/2"	16
PE-716020	15-22	1/2"	20
PE-716025	15-22	1/2"	25
PE-716032	15-22	1/2"	32
PE-716040	15-22	1/2"	40
PE-717020	21-27	3/4"	20
PE-717025	21-27	3/4"	25
PE-717032	21-27	3/4"	32
PE-717040	21-27	3/4"	40
PE-717050	21-27	3/4"	50
PE-718025	27-35	1"	25
PE-718032	27-35	1"	32
PE-718040	27-35	1"	40
PE-718050	27-35	1"	50
PE-718063	27-35	1"	63
PE-719032	35-50	1.1/2"	32
PE-719040	35-50	1.1/2"	40
PE-719050	35-50	1.1/2"	50
PE-719063	35-50	1.1/2"	63

Adaptors



Male, BSPT

0116	OD mm	OD	Thread
PE-721020	15-22	1/2"	1/2"
PE-721021	15-22	1/2"	3/4"
PE-721022	15-22	1/2"	1"
PE-721025	21-27	3/4"	3/4"
PE-721026	21-27	3/4"	1"
PE-721027	21-27	3/4"	1.1/4"
PE-721032	27-35	1"	1"
PE-721033	27-35	1"	1.1/4"
PE-721034	27-35	1"	1.1/2"
PE-721040	35-50	1.1/2"	1.1/4"
PE-721041	35-50	1.1/2"	1.1/2"
PE-721042	35-50	1.1/2"	2"



Female, BSPP

0116	OD mm	OD	Thread
PE-720020	15-22	1/2"	1/2"
PE-720021	15-22	1/2"	3/4"
PE-720022	15-22	1/2"	1"
PE-720026	21-27	3/4"	1"
PE-720032	27-35	1"	1"
PE-720033	27-35	1"	1.1/4"
PE-720041	35-50	1.1/2"	1.1/2"

End Caps



Tube

0116	OD mm	OD
PE-722020	15-22	1/2"
PE-722025	21-27	3/4"
PE-722032	27-35	1"
PE-722040	35-50	1.1/2"

Elbows



Tube x Tube

0116	OD A mm	OD A	OD B mm
PE-723020	15-22	1/2"	20
PE-723021	15-22	1/2"	25
PE-723025	21-27	3/4"	25
PE-723026	21-27	3/4"	32
PE-723033	27-35	1"	40



Male, BSPT

0116	OD mm	OD	Thread
PE-723121	15-22	1/2"	3/4"
PE-723132	27-35	1"	1"



Female, BSPP

0116	OD mm	OD	Thread
PE-723221	15-22	1/2"	3/4"
PE-723226	21-27	3/4"	1"
PE-723232	27-35	1"	1"
PE-723233	27-35	1"	1.1/4"

POLYETHYLENE PIPE UNIVERSAL TRANSITION FITTINGS & VALVES



Tees



Tube x Tube, Universal x PP x PP

0116	OD A mm	OD A	OD B mm	OD C mm
PE-724001	15-22	1/2"	25	25
PE-724003	15-22	1/2"	25	20
PE-724005	21-27	3/4"	32	32
PE-724007	21-27	3/4"	32	25
PE-724011	27-35	1"	40	40
PE-724013	27-35	1"	40	32



Tube x Tube, Universal x PP x Universal

0116	OD A mm	OD A	OD B mm
PE-724002	15-22	1/2"	25
PE-724004	15-22	1/2"	20
PE-724010	15-22	1/2"	32
PE-724008	21-27	3/4"	25
PE-724006	21-27	3/4"	32
PE-724016	21-27	3/4"	40
PE-724014	27-35	1"	32
PE-724012	27-35	1"	40



Female x BSPP

0116	OD A mm	OD A	OD B mm	Thread
PE-724120	15-22	1/2"	25	1/2"
PE-724121	15-22	1/2"	25	3/4"
PE-724125	21-27	3/4"	32	3/4"
PE-724126	21-27	3/4"	32	1"
PE-724132	27-35	1"	40	1"
PE-724133	27-35	1"	40	1.1/4"



Male x BSPT

0116	OD A mm	OD A	OD B mm	Thread
PE-724221	15-22	1/2"	25	3/4"
PE-724226	21-27	3/4"	32	1"
PE-724233	27-35	1"	40	1.1/4"

Compression Valves



Tube x Tube

0116	OD mm
PE-141020C	20
PE-141025C	25
PE-141032C	32
PE-141040C	40
PE-141050C	50
PE-141063C	63



Tube x BSPT Male

0116	OD mm	Thread
PE-142020C	20	1/2"
PE-142025C	25	3/4"
PE-142032C	32	1"
PE-142040C	40	1.1/4"
PE-142050C	50	1.1/2"
PE-142063C	63	2"



Tube x BSPP Female

0116	OD mm	Thread
PE-140020CX	20	1/2"
PE-140025CX	25	3/4"
PE-140032CX	32	1"
PE-140040CX	40	1.1/4"
PE-140050CX	50	1.1/2"
PE-140063CX	63	2"

Universal Compression Valves



Tube x Tube, Universal x PP

0116	OD mm	OD mm
PE-141024CU	15-22	25
PE-141031CU	15-22	32
PE-141040CU	27-35	40



Universal x Universal

0116	OD mm	OD mm
PE-140025U	15-22	15-22
PE-140031U	21-27	15-22
PE-140040U	27-35	27-35



Tube x BSPP Female

0116	OD mm	Thread
PE-141030UM	15-22	1"
PE-141031UM	21-27	3/4"
PE-141032UM	21-27	1"
PE-141041UM	27-35	1.1/2"



Tube x BSPT Male

0116	OD mm	Thread
PE-142024UM	15-22	1/2"
PE-142025UM	15-22	3/4"
PE-142030UM	15-22	1"
PE-142031UM	21-27	3/4"
PE-142032UM	21-27	1"
PE-142040UM	27-35	1.1/4"
PE-142041UM	27-35	1.1/2"

ABS IMPERIAL PIPE SYSTEM



Working Temperature:
-40°C to 70°C

Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Sockets & Reducing Bushes



Equal Socket

1050	Nominal Bore ID
SO13-12-ABS	1/2"
SO13-34-ABS	3/4"
SO13-1-ABS	1"
SO13-114-ABS	1.1/4"
SO13-112-ABS	1.1/2"
SO13-2-ABS	2"
SO13-212-ABS	2.1/2"
SO13-3-ABS	3"
SO13-4-ABS	4"

Tech Sheet 10255



Plain x Threaded Male, BSPT

1050	Nominal Bore ID	Nominal Bore ID
RS13-3412-ABS	3/4"	1/2"
RS13-134-ABS	1"	3/4"
RS13-1141-ABS	1.1/4"	1"
RS13-112114-ABS	1.1/2"	1.1/4"
RS13-2112-ABS	2"	1.1/2"
RS13-3212-ABS	3"	2.1/2"
RS13-43-ABS	4"	3"

Tech Sheet 10255



Reducing Bush

1050	Nominal Bore ID	Nominal Bore ID
RB93-3412-ABS	3/4"	1/2"
RB93-112-ABS	1"	1/2"
RB93-134-ABS	1"	3/4"
RB93-11412-ABS	1.1/4"	1/2"
RB93-11434-ABS	1.1/4"	3/4"
RB93-1141-ABS	1.1/4"	1"
RB93-11234-ABS	1.1/2"	3/4"
RB93-1121-ABS	1.1/2"	1"
RB93-112114-ABS	1.1/2"	1.1/4"
RB93-21-ABS	2"	1"
RB93-2114-ABS	2"	1.1/4"
RB93-2112-ABS	2"	1.1/2"
RB93-2122-ABS	2.1/2"	2"
RB93-3112-ABS	3"	1.1/2"
RB93-32-ABS	3"	2"
RB93-3212-ABS	3"	2.1/2"
RB93-42-ABS	4"	2"
RB93-4212-ABS	4"	2.1/2"
RB93-43-ABS	4"	3"
RB93-54-ABS	5"	4"

Tech Sheet 10255

Elbows & Bends



Equal 90° Elbow

1050	Nominal Bore ID
EL53-12-ABS	1/2"
EL53-34-ABS	3/4"
EL53-1-ABS	1"
EL53-114-ABS	1.1/4"
EL53-112-ABS	1.1/2"
EL53-2-ABS	2"
EL53-212-ABS	2.1/2"
EL53-3-ABS	3"
EL53-4-ABS	4"
EL53-5-ABS	5"
EL53-6-ABS	6"

Tech Sheet 10255



Equal 90° Bend, Short Radius

1050	Nominal Bore ID
BE33-12-ABS	1/2"
BE33-34-ABS	3/4"
BE33-1-ABS	1"
BE33-114-ABS	1.1/4"
BE33-112-ABS	1.1/2"
BE33-2-ABS	2"
BE33-212-ABS	2.1/2"
BE33-3-ABS	3"
BE33-4-ABS	4"

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Equal 45° Elbow

1050	Nominal Bore ID
EY53-12-ABS	1/2"
EY53-34-ABS	3/4"
EY53-1-ABS	1"
EY53-114-ABS	1.1/4"
EY53-112-ABS	1.1/2"
EY53-2-ABS	2"
EY53-212-ABS	2.1/2"
EY53-3-ABS	3"
EY53-4-ABS	4"
EY53-6-ABS	6"

Tech Sheet 10255

Equal Barrel Nipples



Male, BSPT

1050	Thread
BN11-12-ABS	1/2"
BN11-34-ABS	3/4"
BN11-1-ABS	1"
BN11-114-ABS	1.1/4"
BN11-112-ABS	1.1/2"
BN11-2-ABS	2"
BN11-212-ABS	2.1/2"
BN11-3-ABS	3"
BN11-4-ABS	4"

Tech Sheet 10255



Stem Nipple, BSPT

1050	Thread	Nominal Bore ID	Length mm
BN12-12-ABS	1/2"	1/2"	50
BN12-34-ABS	3/4"	3/4"	56
BN12-1-ABS	1"	1"	63
BN12-114-ABS	1.1/4"	1.1/4"	75
BN12-112-ABS	1.1/2"	1.1/2"	88
BN12-2-ABS	2"	2"	88
BN12-212-ABS	2.1/2"	2.1/2"	106
BN12-3-ABS	3"	3"	128
BN12-4-ABS	4"	4"	153

Tech Sheet 10255

Tees



45° Tee

1050	Nominal Bore ID
TY43-12-ABS	1/2"
TY43-34-ABS	3/4"
TY43-1-ABS	1"
TY43-114-ABS	1.1/4"
TY43-2-ABS	2"

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Equal Tee

1050	Nominal Bore ID
TE43-12-ABS	1/2"
TE43-34-ABS	3/4"
TE43-1-ABS	1"
TE43-112-ABS	1.1/2"
TE43-114-ABS	1.1/4"
TE43-2-ABS	2"
TE43-212-ABS	2.1/2"
TE43-3-ABS	3"
TE43-4-ABS	4"
TE43-5-ABS	5"
TE43-6-ABS	6"

Tech Sheet 10255

ABS IMPERIAL PIPE SYSTEM



Working Temperature:
0°C to 60°C



Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Crosses



Equal Cross

1050	Nominal Bore ID
CR33-12-ABS	1/2"
CR33-34-ABS	3/4"
CR33-1-ABS	1"
CR33-2-ABS	2"

Tech Sheet 10255

Caps



Plain

1050	Nominal Bore ID
CA73-12-ABS	1/2"
CA73-34-ABS	3/4"
CA73-1-ABS	1"
CA73-114-ABS	1.1/4"
CA73-112-ABS	1.1/2"
CA73-2-ABS	2"
CA73-212-ABS	2.1/2"
CA73-3-ABS	3"
CA73-4-ABS	4"

Tech Sheet 10255

Unions



Equal Union

1050	Nominal Bore ID
UN83-12-ABS	1/2"
UN83-34-ABS	3/4"
UN83-1-ABS	1"
UN83-114-ABS	1.1/4"
UN83-112-ABS	1.1/2"
UN83-2-ABS	2"
UN83-212-ABS	2.1/2"
UN83-3-ABS	3"
UN83-4-ABS	4"

Tech Sheet 10255

Tank Connectors



Plain x Female, BSPP

1050	Nominal Bore ID	Thread
TC93-12-ABS	1/2"	1/2"
TC93-34-ABS	3/4"	3/4"
TC93-1-ABS	1"	1"
TC93-114-ABS	1.1/4"	1.1/4"
TC93-112-ABS	1.1/2"	1.1/2"
TC93-2-ABS	2"	2"
TC93-212-ABS	2.1/2"	2.1/2"
TC93-3-ABS	3"	3"
TC93-4-ABS	4"	4"

Tech Sheet 10255

Threaded Sockets & Adaptors



Plain x Threaded Female Socket, BSPP

1050	Nominal Bore ID	Thread
PTS-12-ABS	1/2"	1/2"
PTS-1-ABS	1"	1"
PTS-112-ABS	1.1/2"	1.1/2"
PTS-2-ABS	2"	2"
PTS-212-ABS	2.1/2"	2.1/2"
PTS-3-ABS	3"	3"
PTS-4-ABS	4"	4"

Plain x Threaded Male Adaptor, BSPP



1050	Nominal Bore ID	Spigot	BSPP Male
MFA1-34-ABS	3/4"	1"	3/4"
MFA1-1-ABS	1"	1.1/4"	1"
MFA1-112-ABS	1.1/2"	2"	1.1/2"
MFA1-2-ABS	2"	2.1/2"	2"

Plain x Threaded Female Adaptor, BSPP



1050	Nominal Bore ID	Thread
MFA2-12-ABS	1/2"	1/2"
MFA2-34-ABS	3/4"	3/4"
MFA2-1-ABS	1"	1"
MFA2-2-ABS	2"	2"
MFA2-3-ABS	3"	3"

Hose Connections



Male, BSPP x Hose Tail

1050	Thread	Hose ID mm
MHA-34-ABS	3/4"	25



Female, BSPP x Hose Tail

1050	Thread	Hose ID mm
FHA-1-ABS	1"	20

Reducing Bushes



Plain x Threaded Female, BSPP

1050	Nominal Bore ID	Female BSPP
FRB-12-ABS	1/2"	3/8"
FRB-34-ABS	3/4"	1/2"

Unions



Plain x Brass Composite Male Threaded Union, BSPP

1050	Nominal Bore ID	Thread
MBU-1-ABS	1"	1"
MBU-112-ABS	1.1/2"	1.1/2"



Plain x Brass Composite Female Threaded Union, BSPP

1050	Nominal Bore ID	Thread
FBU-12-ABS	1/2"	1/2"
FBU-34-ABS	3/4"	3/4"
FBU-1-ABS	1"	1"
FBU-114-ABS	1.1/4"	1.1/4"
FBU-112-ABS	1.1/2"	1.1/2"
FBU-2-ABS	2"	2"

ABS IMPERIAL PIPE SYSTEM



Working Temperature:
0°C to 60°C

Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Flanges



Stub Flange, Serrated Face

1050	Nominal Bore
ST23-34-ABS	3/4"
ST23-1-ABS	1"
ST23-112-ABS	1.1/2"
ST23-2-ABS	2"
ST23-212-ABS	2.1/2"
ST23-3-ABS	3"
ST23-4-ABS	4"
ST23-5-ABS	5"
ST23-6-ABS	6"

Tech Sheet 10255



BS4504, PN16 Flange Gasket

1050	Size
SF16-12	1/2"
SF16-34	3/4"
SF16-1	1"
SF16-114	1.1/4"
SF16-112	1.1/2"
SF16-2	2"
SF16-3	3"
SF16-4	4"
SF16-6	6"

Tech Sheet 10255



PN16 Galvanised Backing Ring

1050	Size
GB16-12	1/2"
GB16-34	3/4"
GB16-1	1"
GB16-114	1.1/4"
GB16-112	1.1/2"
GB16-2	2"
GB16-212	2.1/2"
GB16-3	3"
GB16-4	4"
GB16-5	5"
GB16-6	6"

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Full Face Table E

1050	Nominal Bore
FF30-12-ABS	1/2"
FF30-34-ABS	3/4"
FF30-1-ABS	1"
FF30-114-ABS	1.1/4"
FF30-112-ABS	1.1/2"
FF30-2-ABS	2"
FF30-3-ABS	3"
FF30-4-ABS	4"

Tech Sheet 10255



BS10, Table E Flange Gasket

1050	Size
SF10-12	1/2"
SF10-34	3/4"
SF10-1	1"
SF10-114	1.1/4"
SF10-112	1.1/2"
SF10-2	2"
SF10-212	2.1/2"
SF10-3	3"
SF10-4	4"
SF10-6	6"

Tech Sheet 10255



Stub Flange Gasket, EPDM

1050	Size
SG50-1-ABS	1"
SG50-114-ABS	1.1/4"
SG50-112-ABS	1.1/2"
SG50-2-ABS	2"
SG50-212-ABS	2.1/2"
SG50-3-ABS	3"
SG50-4-ABS	4"
SG50-5-ABS	5"

Tech Sheet 10255



ABS Plain Full Face Flange NP10/16

1050	Tube NB
FF31-2-ABS	2"



ABS Blank Flange NP10/16

1050	Tube NB
BF10-212-ABS	2.1/2"

Tube O.D. - Size Conversion Table

Nominal Bore	Outside Diameter
3/8"	17.1mm
1/2"	21.3mm
3/4"	26.7mm
1"	33.4mm
1.1/4"	42.2mm
1.1/2"	48.3mm
2"	60.3mm
2.1/2"	75mm
3"	88.9mm
4"	114.3mm
5"	140mm
6"	168.3mm
8"	219.1mm

ABS IMPERIAL PIPE SYSTEM



Working Temperature:
0°C to 60°C



Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Valves



Industrial Double Union Ball Valve, EPDM Seals

0118	Nominal Bore ID
BVI13-12-ABS	1/2"
BVI13-34-ABS	3/4"
BVI13-1-ABS	1"
BVI13-114-ABS	1.1/4"
BVI13-112-ABS	1.1/2"
BVI13-2-ABS	2"
BVI13-212-ABS	2.1/2"
BVI13-3-ABS	3"
BVI13-4-ABS	4"

Tech Sheet 10255



Standard Double Union Ball Valve, EPDM Seals

1050	Tube NB
BVDUS-12	1/2"
BVDUS-1	1"
BVDUS-112	1.1/2"
BVDUS-2	2"
BVDUS-212	2.1/2"



Industrial Check Valve, EPDM Seals

0118	Nominal Bore ID
CVD13-12-ABS	1/2"
CVD13-34-ABS	3/4"
CVD13-1-ABS	1"
CVD13-114-ABS	1.1/4"
CVD13-112-ABS	1.1/2"
CVD13-2-ABS	2"

Tech Sheet 10255

Solvent Cement



ABS

1050	Millilitres
ABS	500

Tech Sheet 875

Cleaning Fluid



500ml

1050	Millilitres
MEK-TIN	500

Tech Sheet 877



For Pipe Clips & Fixing Systems
...see pages 1549-1557

ABS Tubing

Note: 6 metre length tube is available on a 3 to 5 working day delivery service. Specified delivery dates and times can not be guaranteed. Carriage is charged as an extra based on weight and delivery service required. Please speak to our sales department for further details. Delivery of 2.9 metre lengths may take up to 48 hours.



Class C, 9 bar, 2.9 Metre Lengths

0118	Nominal Bore
ABS/CTUBE-3-1	1"
ABS/CTUBE-3-114	1.1/4"
ABS/CTUBE-3-112	1.1/2"
ABS/CTUBE-3-2	2"
ABS/CTUBE-3-212	2.1/2"
ABS/CTUBE-3-3	3"
ABS/CTUBE-3-4	4"
ABS/CTUBE-3-6	6"
ABS/CTUBE-3-8	8"

Tech Sheet 10255

Class C, 9 bar, 5.8 Metre Lengths

0118	Nominal Bore
ABS/CTUBE-6-1	1"
ABS/CTUBE-6-114	1.1/4"
ABS/CTUBE-6-112	1.1/2"
ABS/CTUBE-6-2	2"
ABS/CTUBE-6-212	2.1/2"
ABS/CTUBE-6-3	3"
ABS/CTUBE-6-4	4"

Tech Sheet 10255

Class E, 15 bar, 2.9 Metre Lengths

0118	Nominal Bore
ABS/ETUBE-3-12	1/2"
ABS/ETUBE-3-34	3/4"
ABS/ETUBE-3-1	1"
ABS/ETUBE-3-114	1.1/4"
ABS/ETUBE-3-112	1.1/2"
ABS/ETUBE-3-2	2"
ABS/ETUBE-3-3	3"
ABS/ETUBE-3-4	4"

Tech Sheet 10255

Class E, 15 bar, 5.8 Metre Lengths

0118	Nominal Bore
ABS/ETUBE-6-12	1/2"
ABS/ETUBE-6-34	3/4"
ABS/ETUBE-6-1	1"
ABS/ETUBE-6-114	1.1/4"
ABS/ETUBE-6-112	1.1/2"
ABS/ETUBE-6-2	2"
ABS/ETUBE-6-3	3"

Tech Sheet 10255

UPVC METRIC PIPE SYSTEM



UPVC (Unplasticised Polyvinyl Chloride) is a **low maintenance material** selected for use across various industries due to its **high tensile strength** and durability. The outstanding feature of this product is its **excellent chemical resistance** which makes it suitable for a wide range of acids, alkalis and chemicals.

Working Temperature:
 All pressures quoted are based on a working temperature of 20°C
PVC-U Systems should never be used for temperatures in excess of 60°C

Maximum Working Pressure:
 16 bar Plain Fittings
 12 bar Threaded Fittings
 (Sizes 200mm/225mm with reduced safety factor)

20°C	30°C	40°C	50°C	60°C
16.0 bar	12.8 bar	9.2 bar	6.2 bar	3.5 bar

Sockets & Reducing Bushes



Equal Socket

1050	ID mm
SO-16-UPVC	16
SO-20-UPVC	20
SO-25-UPVC	25
SO-32-UPVC	32
SO-40-UPVC	40
SO-50-UPVC	50
SO-63-UPVC	63
SO-75-UPVC	75
SO-90-UPVC	90
SO-110-UPVC	110
SO-125-UPVC	125
SO-160-UPVC	160
SO-200-UPVC	200
SO-225-UPVC	225

Tech Sheet 10256



Reducing Socket

1050	ID mm	ID mm
RSO-2016-UPVC	20	16
RSO-2516-UPVC	25	16
RSO-2520-UPVC	25	20
RSO-3220-UPVC	32	20
RSO-3225-UPVC	32	25
RSO-4020-UPVC	40	20
RSO-4025-UPVC	40	25
RSO-4032-UPVC	40	32
RSO-5025-UPVC	50	25
RSO-5032-UPVC	50	32
RSO-5040-UPVC	50	40
RSO-6340-UPVC	63	40
RSO-6350-UPVC	63	50
RSO-7540-UPVC	75	40
RSO-7550-UPVC	75	50
RSO-7563-UPVC	75	63
RSO-9040-UPVC	90	40
RSO-9050-UPVC	90	50
RSO-9063-UPVC	90	63
RSO-9075-UPVC	90	75
RSO-11050-UPVC	110	50
RSO-11063-UPVC	110	63
RSO-11075-UPVC	110	75
RSO-11090-UPVC	110	90
RSO-12590-UPVC	125	90
RSO-125110-UPVC	125	110
RSO-14090-UPVC	140	90
RSO-140110-UPVC	140	110
RSO-140125-UPVC	140	125
RSO-160110-UPVC	160	110
RSO-160140-UPVC	160	140

Tech Sheet 10256



Reducing Bush

1050	OD mm	ID mm
RB-2016-UPVC	20	16
RB-2516-UPVC	25	16
RB-2520-UPVC	25	20
RB-3216-UPVC	32	16
RB-3220-UPVC	32	20
RB-3225-UPVC	32	25
RB-4020-UPVC	40	20
RB-4025-UPVC	40	25
RB-4032-UPVC	40	32
RB-5025-UPVC	50	25
RB-5032-UPVC	50	32
RB-5040-UPVC	50	40
RB-6325-UPVC	63	25
RB-6332-UPVC	63	32
RB-6340-UPVC	63	40
RB-6350-UPVC	63	50
RB-7532-UPVC	75	32
RB-7540-UPVC	75	40
RB-7550-UPVC	75	50
RB-7563-UPVC	75	63
RB-9050-UPVC	90	50
RB-9063-UPVC	90	63
RB-9075-UPVC	90	75
RB-11063-UPVC	110	63
RB-11075-UPVC	110	75
RB-11090-UPVC	110	90
RB-12575-UPVC	125	75
RB-12590-UPVC	125	90
RB-125110-UPVC	125	110
RB-14090-UPVC	140	90
RB-140110-UPVC	140	110
RB-140125-UPVC	140	125
RB-160110-UPVC	160	110
RB-160125-UPVC	160	125
RB-160140-UPVC	160	140
RB-180125-UPVC	180	125
RB-180140-UPVC	180	140
RB-180160-UPVC	180	160
RB-200160-UPVC	200	160
RB-200180-UPVC	200	180
RB-225160-UPVC	225	160
RB-225200-UPVC	225	200

Tech Sheet 10256



Plain x Threaded Socket, BSPP

1050	ID mm	Thread
TSO-16-38-UPVC	16	3/8"
TSO-20-12-UPVC	20	1/2"
TSO-25-34-UPVC	25	3/4"
TSO-32-1-UPVC	32	1"
TSO-40-114-UPVC	40	1.1/4"
TSO-50-112-UPVC	50	1.1/2"
TSO-63-2-UPVC	63	2"
TSO-75-212-UPVC	75	2.1/2"
TSO-90-3-UPVC	90	3"
TSO-110-4-UPVC	110	4"
TSO-125-5-UPVC	125	5"

Tech Sheet 10256

UPVC METRIC PIPE SYSTEM



Working Temperature:

All pressures quoted are based on a working temperature of 20°C

PVC-U Systems should never be used for temperatures in excess of 60°C



Maximum Working Pressure:

16 bar Plain Fittings

12 bar Threaded Fittings

(Sizes 200mm/225mm with reduced safety factor)

20°C	30°C	40°C	50°C	60°C
16.0 bar	12.8 bar	9.2 bar	6.2 bar	3.5 bar

Elbows & Bends



Equal 90° Elbow

1050	ID mm
EE-90-16-UPVC	16
EE-90-20-UPVC	20
EE-90-25-UPVC	25
EE-90-32-UPVC	32
EE-90-40-UPVC	40
EE-90-50-UPVC	50
EE-90-63-UPVC	63
EE-90-75-UPVC	75
EE-90-90-UPVC	90
EE-90-110-UPVC	110
EE-90-125-UPVC	125
EE-90-140-UPVC	140
EE-90-160-UPVC	160
EE-90-200-UPVC	200
EE-90-225-UPVC	225

Tech Sheet 10256



Equal 45° Elbow

1050	ID mm
EE-45-16-UPVC	16
EE-45-25-UPVC	25
EE-45-32-UPVC	32
EE-45-40-UPVC	40
EE-45-50-UPVC	50
EE-45-63-UPVC	63
EE-45-75-UPVC	75
EE-45-90-UPVC	90
EE-45-110-UPVC	110
EE-45-125-UPVC	125
EE-45-140-UPVC	140
EE-45-200-UPVC	200
EE-45-225-UPVC	225

Tech Sheet 10256



Equal 90° Bend, Short Radius

1050	ID mm
EB-90-20-UPVC	20
EB-90-25-UPVC	25
EB-90-32-UPVC	32
EB-90-40-UPVC	40
EB-90-50-UPVC	50
EB-90-63-UPVC	63
EB-90-75-UPVC	75
EB-90-110-UPVC	110

Tech Sheet 10256



Equal 45° Bend, Short Radius

1050	ID mm
EB-45-32-UPVC	32
EB-45-40-UPVC	40
EB-45-63-UPVC	63
EB-45-75-UPVC	75
EB-45-90-UPVC	90

Tech Sheet 10256



Plain x Threaded 90° Elbow, BSPP

1050	ID mm	Thread
TE-90-16-UPVC	16	3/8"
TE-90-20-UPVC	20	1/2"
TE-90-25-UPVC	25	3/4"
TE-90-32-UPVC	32	1"
TE-90-40-UPVC	40	1.1/4"
TE-90-50-UPVC	50	1.1/2"
TE-90-63-UPVC	63	2"
TE-90-75-UPVC	75	2.1/2"

Tech Sheet 10256



Plain x Threaded 45° Elbow, BSPP

1050	ID mm	Thread
TE-45-16-UPVC	16	3/8"
TE-45-20-UPVC	20	1/2"
TE-45-25-UPVC	25	3/4"
TE-45-32-UPVC	32	1"
TE-45-40-UPVC	40	1.1/4"
TE-45-50-UPVC	50	1.1/2"
TE-45-63-UPVC	63	2"
TE-45-75-UPVC	75	2.1/2"
TE-45-110-UPVC	110	4"

Tech Sheet 10256

UPVC METRIC PIPE SYSTEM



Working Temperature:
 All pressures quoted are based on a working temperature of 20°C
PVC-U Systems should never be used for temperatures in excess of 60°C

Maximum Working Pressure:
 16 bar Plain Fittings
 12 bar Threaded Fittings
 (Sizes 200mm/225mm with reduced safety factor)

20°C	30°C	40°C	50°C	60°C
16.0 bar	12.8 bar	9.2 bar	6.2 bar	3.5 bar

Tees



Equal Tee

1050	ID mm
T-16-UPVC	16
T-20-UPVC	20
T-25-UPVC	25
T-32-UPVC	32
T-40-UPVC	40
T-50-UPVC	50
T-63-UPVC	63
T-75-UPVC	75
T-90-UPVC	90
T-110-UPVC	110
T-125-UPVC	125
T-140-UPVC	140
T-160-UPVC	160
T-200-UPVC	200
T-225-UPVC	225

Tech Sheet 10256



Equal 45° Tee

1050	ID mm
TY-16-UPVC	16
TY-20-UPVC	20
TY-25-UPVC	25
TY-32-UPVC	32
TY-40-UPVC	40
TY-50-UPVC	50
TY-63-UPVC	63

Tech Sheet 10256



Reducing Branch Tee

1050	ID mm	ID mm
TR-2016-UPVC	20	16
TR-2516-UPVC	25	16
TR-2520-UPVC	25	20
TR-3216-UPVC	32	16
TR-3220-UPVC	32	20
TR-3225-UPVC	32	25
TR-4016-UPVC	40	16
TR-4025-UPVC	40	25
TR-5020-UPVC	50	20
TR-5025-UPVC	50	25
TR-5032-UPVC	50	32
TR-5040-UPVC	50	40
TR-6325-UPVC	63	25
TR-6332-UPVC	63	32
TR-6340-UPVC	63	40
TR-6350-UPVC	63	50
TR-7532-UPVC	75	32
TR-7540-UPVC	75	40
TR-7550-UPVC	75	50
TR-7563-UPVC	75	63
TR-9040-UPVC	90	40
TR-9050-UPVC	90	50
TR-9063-UPVC	90	63
TR-9075-UPVC	90	75
TR-11050-UPVC	110	50
TR-11075-UPVC	110	75
TR-11090-UPVC	110	90
TR-12563-UPVC	125	63
TR-12575-UPVC	125	75
TR-12590-UPVC	125	90
TR-125110-UPVC	125	110
TR-14075-UPVC	140	75
TR-14090-UPVC	140	90
TR-140110-UPVC	140	110
TR-140125-UPVC	140	125
TR-16090-UPVC	160	90
TR-160110-UPVC	160	110
TR-160125-UPVC	160	125
TR-160140-UPVC	160	140

Tech Sheet 10256

Crosses



Equal Cross

1050	ID mm
X-16-UPVC	16
X-20-UPVC	20
X-25-UPVC	25
X-32-UPVC	32
X-40-UPVC	40
X-50-UPVC	50
X-75-UPVC	75
X-90-UPVC	90
X-110-UPVC	110

Tech Sheet 10256

Caps



Plain

1050	ID mm
BC-16-UPVC	16
BC-20-UPVC	20
BC-25-UPVC	25
BC-32-UPVC	32
BC-40-UPVC	40
BC-50-UPVC	50
BC-63-UPVC	63
BC-75-UPVC	75
BC-90-UPVC	90
BC-110-UPVC	110
BC-125-UPVC	125
BC-140-UPVC	140
BC-160-UPVC	160
BC-200-UPVC	200
BC-225-UPVC	225

Tech Sheet 10256

UPVC METRIC PIPE SYSTEM



Working Temperature:

All Pressures quoted are based on a working temperature of 20°C

PVC-U Systems should never be used for temperatures in excess of 60°C



Maximum Working Pressure:

16 bar Plain Fittings

12 bar Threaded Fittings

(excluding 75mm-110mm Unions, which are 10 bar rated)

20°C	30°C	40°C	50°C	60°C
16.0 bar	12.8 bar	9.2 bar	6.2 bar	3.5 bar

Unions



Equal Union

1050	ID mm
U-16-UPVC	16
U-20-UPVC	20
U-25-UPVC	25
U-32-UPVC	32
U-40-UPVC	40
U-50-UPVC	50
U-63-UPVC	63
U-75-UPVC	75
U-90-UPVC	90
U-110-UPVC	110

Tech Sheet 10256



Plain x Threaded Union, BSPP

1050	ID mm	Thread
UT-16-UPVC	16	3/8"
UT-20-UPVC	20	1/2"
UT-25-UPVC	25	3/4"
UT-32-UPVC	32	1"
UT-40-UPVC	40	1.1/4"
UT-50-UPVC	50	1.1/2"
UT-63-UPVC	63	2"
UT-75-UPVC	75	2.1/2"
UT-90-UPVC	90	3"
UT-110-UPVC	110	4"

Tech Sheet 10256

Threaded Adaptors



Plain x Male Threaded Adaptor, BSPP

1050	ID mm	OD mm	Thread
MTA-12-38-UPVC	12	16	3/8"
MTA-16-12-UPVC	16	20	1/2"
MTA-16-38-UPVC	16	20	3/8"
MTA-20-12-UPVC	20	25	1/2"
MTA-20-34-UPVC	20	25	3/4"
MTA-20-38-UPVC	20	25	3/8"
MTA-25-1-UPVC	25	32	1"
MTA-25-12-UPVC	25	32	1/2"
MTA-25-34-UPVC	25	32	3/4"
MTA-32-1-UPVC	32	40	1"
MTA-32-114-UPVC	32	40	1.1/4"
MTA-32-34UPVC	32	40	3/4"
MTA-40-1-UPVC	40	50	1"
MTA-40-112-UPVC	40	50	1.1/2"
MTA-40-114-UPVC	40	50	1.1/4"
MTA-50-112-UPVC	50	63	1.1/2"
MTA-50-114-UPVC	50	63	1.1/4"
MTA-50-2-UPVC	50	63	2"
MTA-63-112-UPVC	63	75	1.1/2"
MTA-63-2-UPVC	63	75	2"
MTA-63-212-UPVC	63	75	2.1/2"
MTA-75-2-UPVC	75	90	2"
MTA-75-212-UPVC	75	90	2.1/2"
MTA-75-3-UPVC	75	90	3"
MTA-90-212-UPVC	90	110	2.1/2"
MTA-90-3-UPVC	90	110	3"
MTA-90-4-UPVC	90	110	4"
MTA-110-3-UPVC	110	125	3"
MTA-110-4-UPVC	110	125	4"
MTA-110-5-UPVC	110	125	5"

Tech Sheet 10256



Plain x Female Threaded Adaptor, BSPP

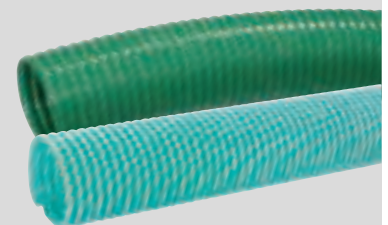
1050	OD mm	Thread
FTA-16-38-UPVC	16	3/8"
FTA-16-12-UPVC	16	1/2"
FTA-20-12-UPVC	20	1/2"
FTA-20-34-UPVC	20	3/4"
FTA-25-1-UPVC	25	1"
FTA-25-12-UPVC	25	1/2"
FTA-25-34-UPVC	25	3/4"
FTA-32-1-UPVC	32	1"
FTA-32-34-UPVC	32	3/4"
FTA-40-1-UPVC	40	1"
FTA-40-114-UPVC	40	1.1/4"
FTA-50-112-UPVC	50	1.1/2"
FTA-50-114-UPVC	50	1.1/4"
FTA-50-2-UPVC	50	2"
FTA-63-112-UPVC	63	1.1/2"
FTA-63-2-UPVC	63	2"
FTA-75-2-UPVC	75	2"
FTA-75-212-UPVC	75	2.1/2"
FTA-90-212-UPVC	90	2.1/2"
FTA-90-3-UPVC	90	3"
FTA-90-4-UPVC	90	4"
FTA-110-3-UPVC	110	3"
FTA-110-4-UPVC	110	4"

Tech Sheet 10256



Industrial Hose & Accessories

Customers who bought from this page also purchased **Suction Hose** see pages **1427-1431**



UPVC METRIC PIPE SYSTEM



Working Temperature:
All pressures quoted are based on

a working temperature of 20°C
PVC-U Systems should never be used for temperatures in excess of 60°C



Maximum Working Pressure:
16 bar Plain fitting
12 bar Threaded fitting

Flanges



Stub Flange, Serrated Face

1050	ID mm
SF-20-UPVC	20
SF-25-UPVC	25
SF-32-UPVC	32
SF-40-UPVC	40
SF-50-UPVC	50
SF-63-UPVC	63
SF-75-UPVC	75
SF-90-UPVC	90
SF-110-UPVC	110

Tech Sheet 10256



PN16 Full Face Flange

1050	ID mm	Flange Size
FPN16-20-UPVC	20	1/2"
FPN16-25-UPVC	25	3/4"
FPN16-32-UPVC	32	1"
FPN16-40-UPVC	40	1.1/4"
FPN16-50-UPVC	50	1.1/2"
FPN16-63-UPVC	63	2"
FPN16-75-UPVC	75	2.1/2"
FPN16-90-UPVC	90	3"
FPN16-110-UPVC	110	4"

Tech Sheet 10256

ASA150 Full Face Flange

1050	ID mm	Flange Size
FASA150-25-UPVC	25	3/4"
FASA150-32-UPVC	32	1"
FASA150-40-UPVC	40	1.1/4"
FASA150-50-UPVC	50	1.1/2"
FASA150-63-UPVC	63	2"
FASA150-90-UPVC	90	3"
FASA150-110-UPVC	110	4"

Tech Sheet 10256



PN16 Blanking Flange

1050	To Suit mm	Flange Size
BPN16-20-UPVC	20	1/2"
BPN16-25-UPVC	25	3/4"
BPN16-32-UPVC	32	1"
BPN16-40-UPVC	40	1.1/4"
BPN16-50-UPVC	50	1.1/2"
BPN16-63-UPVC	63	2"
BPN16-75-UPVC	75	2.1/2"
BPN16-110-UPVC	110	4"

Tech Sheet 10256

ASA150 Blanking Flange

1050	To Suit mm	Flange Size
BASA150-32-UPVC	32	1"
BASA150-40-UPVC	40	1.1/4"
BASA150-50-UPVC	50	1.1/2"
BASA150-63-UPVC	63	2"
BASA150-75-UPVC	75	2.1/2"
BASA150-90-UPVC	90	3"
BASA150-110-UPVC	110	4"

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PN16 Flange Gasket, EPDM

1050	To Suit mm
PNFG-20	20
PNFG-25	25
PNFG-32	32
PNFG-40	40
PNFG-50	50
PNFG-63	63
PNFG-75	75
PNFG-90	90
PNFG-110	110

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ASA150 Flange Gasket, EPDM

1050	To Suit mm
ASAFG-20	20
ASAFG-25	25
ASAFG-32	32
ASAFG-50	50
ASAFG-63	63
ASAFG-75	75
ASAFG-90	90

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PN16 Galvanised Backing Ring

1050	To Suit mm
GBR-25	25
GBR-32	32
GBR-40	40
GBR-50	50
GBR-63	63
GBR-75	75
GBR-90	90
GBR-110	110

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PN16 UPVC Backing Ring

1050	To Suit mm
UPVCBR-20	20
UPVCBR-25	25
UPVCBR-32	32
UPVCBR-40	40
UPVCBR-50	50
UPVCBR-63	63
UPVCBR-110	110

Tech Sheet 10256



Stub Flange Gasket, EPDM

1050	To Suit mm
SFG-20	20
SFG-32	32
SFG-40	40
SFG-50	50
SFG-63	63
SFG-75	75
SFG-90	90
SFG-110	110

Tech Sheet 10256

UPVC METRIC PIPE SYSTEM



Industrial Valves



Working Temperature:

All pressures quoted are based on a working temperature of 20°C

PVC-U Systems

should never be used for temperatures in excess of 60°C



Maximum Working Pressure:

16 bar Plain ends
12 bar Threaded ends up to 63mm.
10 bar 75mm-110mm



Double Union Ball Valve, EPDM Seals

1050	ID mm
DUBV-16-UPVC	16
DUBV-20-UPVC	20
DUBV-25-UPVC	25
DUBV-32-UPVC	32
DUBV-40-UPVC	40
DUBV-50-UPVC	50
DUBV-63-UPVC	63
DUBV-75-UPVC	75
DUBV-90-UPVC	90
DUBV-110-UPVC	110

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Double Union Spring Check Valve, EPDM Seals

1050	ID mm
DUCV-20-UPVC	20
DUCV-25-UPVC	25
DUCV-32-UPVC	32
DUCV-40-UPVC	40
DUCV-50-UPVC	50
DUCV-63-UPVC	63
DUCV-75-UPVC	75
DUCV-90-UPVC	90
DUCV-110-UPVC	110

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Double Union Foot Valve, EPDM Seals

1050	ID mm
DUFV-20-UPVC	20
DUFV-25-UPVC	25
DUFV-40-UPVC	40
DUFV-50-UPVC	50
DUFV-63-UPVC	63
DUFV-75-UPVC	75
DUFV-90-UPVC	90
DUFV-110-UPVC	110

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UPVC Tubing



Working Temperature:

All pressures quoted are based on a working temperature of 20°C

PVC-U Systems should never be used for temperatures in excess of 60°C



Maximum Working Pressure:

16 bar

4 Metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply. For full details please contact sales.



PN16, 6 Metre Lengths

0118	OD mm
UPVC/TUBE-6-16	16
UPVC/TUBE-6-20	20
UPVC/TUBE-6-25	25
UPVC/TUBE-6-32	32
UPVC/TUBE-6-40	40
UPVC/TUBE-6-50	50
UPVC/TUBE-6-63	63
UPVC/TUBE-6-75	75
UPVC/TUBE-6-90	90
UPVC/TUBE-6-110	110
UPVC/TUBE-6-140	140
UPVC/TUBE-6-160	160
UPVC/TUBE-6-225	225

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PN16, 3 Metre Lengths

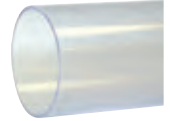
0118	OD mm
UPVC/TUBE-3-16	16
UPVC/TUBE-3-20	20
UPVC/TUBE-3-25	25
UPVC/TUBE-3-32	32
UPVC/TUBE-3-40	40
UPVC/TUBE-3-50	50
UPVC/TUBE-3-63	63
UPVC/TUBE-3-75	75
UPVC/TUBE-3-90	90
UPVC/TUBE-3-110	110
UPVC/TUBE-3-140	140
UPVC/TUBE-3-160	160
UPVC/TUBE-3-225	225

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Clear UPVC Tubing

Please Note: Clear PVC pipe is not suitable for outdoor use without adequate UV protection.

4 Metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply. For full details please contact sales.



With Blue Tint, 5 Metre Lengths

0118	OD mm	Wall Thickness mm
CUPVC/TUBE2015	20	1.5
CUPVC/TUBE2515	25	1.5
CUPVC/TUBE3218	32	1.8
CUPVC/TUBE3224	32	2.4
CUPVC/TUBE4020	40	2
CUPVC/TUBE4030	40	3
CUPVC/TUBE5018	50	1.8
CUPVC/TUBE6318	63	1.8
CUPVC/TUBE6330	63	3
CUPVC/TUBE6347	63	4.7
CUPVC/TUBE-7518	75	1.8
CUPVC/TUBE-7536	75	3.6
CUPVC/TUBE-9018	90	1.8
CUPVC/TUBE-11022	110	2.2
CUPVC/TUBE-11053	110	5.3
CUPVC/TUBE-12525	125	2.5
CUPVC/TUBE-14028	140	2.8
CUPVC/TUBE-16032	160	3.2
CUPVC/TUBE-16047	160	4.7

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Pipe Clips

Type 1



Type 2



Type 3



Black PP Clips

1050	ID mm	Type
PPCLIP-16	16	1
PPCLIP-20	20	1
PPCLIP-25	25	1
PPCLIP-32	32	1
PPCLIP-40	40	2
PPCLIP-50	50	2
PPCLIP-63	63	2
PPCLIP-75	75	2
PPCLIP-90	90	2
PPCLIP-110	110	2
PPCLIP-160	160	2
PPCLIP-225	225	3

Tech Sheet 10256

UPVC METRIC PIPE SYSTEM



Working Temperature:
All pressures quoted are based on

a working temperature of 20°C
PVC-U Systems should never be used for temperatures in excess of 60°C

Maximum Working Pressure:
16 bar Plain fitting
12 bar Threaded fitting

Hose Connections

Male Spigot, Metric x Hose Tail, Metric



1050	Tube OD mm	Hosetail mm
HN50-1212-UPVC	12	12
HN50-1616-UPVC	16	16
HN50-2020-UPVC	20	20
HN50-2525-UPVC	25	25
HN50-3232-UPVC	32	32
HN50-5050-UPVC	50	50
HN50-6060-UPVC	63	63

Tank Connectors



Plain x Female, BSPP

1050	Tube OD mm	Thread
TC-32-1-UPVC	32	1"
TC-10-114-UPVC	40	1.1/4"

Threaded Adaptors

Plain x Threaded Female Stainless Steel Reinforced, BSPP



1050	Tube OD mm	Thread
FFTA-50-112-UPVC	50	1.1/2"



Plain Male x Threaded Female Stainless Steel Reinforced, BSPP

1050	Tube OD mm	Thread
MFTA-50-112-UPVC	50	1.1/2"

Valves

Standard Plain Single Union Ball Valve, EPDM Seals



1050	Tube OD mm
SUBV-32-UPVC	32

Valve End



UPVC Plain Valve End

1050	Tube OD mm
VE-32-UPVC	32

Tubing Accessories

Emery Tape 38mm x 5 Metres



1050	Size
ET-38-5	38mm x 5 Metres

1" Glue Brush



1050	Description
GB-1	1" Glue Brush

Griffon UNI100 UPVC Cement



1050	Size ml
PVC250	250
PVC	500

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Griffon WDF-05 Quick Set Cement



1050	Size ml
QSC-250	250
WDF-05	500

Griffon HCR-36 Chemical Cement



1050	Size ml
CHEMC-1000	1000

Griffon UNI100 GT Slow Setting UPVC Cement



1050	Size
SSC-5000-UPVC	5 Litre

Griffon Aqua-Max Pool Sealant



1050	Size grms
AQM-SEALANT	425

Griffon Chamfering Tool 1/2" - 2"



1050	Description
CT-12-2	Chamfering Tool 1/2" - 2"

UPVC IMPERIAL PIPE SYSTEM



Recommended Working Temperature:
0°C to 60°C



Pressure Ratings for Fittings:
15 bar (8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Sockets & Reducing Bushes



Equal Socket

1050	Nominal Bore ID
SO13-12-UPVC	1/2"
SO13-34-UPVC	3/4"
SO13-1-UPVC	1"
SO13-114-UPVC	1.1/4"
SO13-112-UPVC	1.1/2"
SO13-2-UPVC	2"
SO13-212-UPVC	2.1/2"
SO13-3-UPVC	3"
SO13-4-UPVC	4"
SO13-5-UPVC	5"
SO13-6-UPVC	6"
SO13-8-UPVC	8"

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Socket, Imperial x Metric

1050	Nominal Bore ID	ID mm
SO14-3534-UPVC	3/4"	25
SO14-321-UPVC	1"	32
SO14-40114-UPVC	1.1/4"	40
SO14-50112-UPVC	1.1/2"	50
SO14-632-UPVC	2"	63
SO14-903-UPVC	3"	90
SO14-1104-UPVC	4"	110

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Reducing Bush

1050	Nominal Bore ID	Nominal Bore ID
RB93-3412-UPVC	3/4"	1/2"
RB93-112-UPVC	1"	1/2"
RB93-134-UPVC	1"	3/4"
RB93-11412-UPVC	1.1/4"	1/2"
RB93-11434-UPVC	1.1/4"	3/4"
RB93-1141-UPVC	1.1/4"	1"
RB93-11234-UPVC	1.1/2"	3/4"
RB93-1121-UPVC	1.1/2"	1"
RB93-112114-UPVC	1.1/2"	1.1/4"
RB93-21-UPVC	2"	1"
RB93-2114-UPVC	2"	1.1/4"
RB93-2112-UPVC	2"	1.1/2"
RB93-212112-UPVC	2.1/2"	1.1/2"
RB93-2122-UPVC	2.1/2"	2"
RB93-3112-UPVC	3"	1.1/2"
RB93-32-UPVC	3"	2"
RB93-3212-UPVC	3"	2.1/2"
RB93-42-UPVC	4"	2"
RB93-4212-UPVC	4"	2.1/2"
RB93-43-UPVC	4"	3"
RB93-53-UPVC	5"	3"
RB93-54-UPVC	5"	4"
RB93-64-UPVC	6"	4"
RB93-86-UPVC	8"	6"

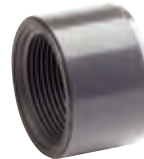
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Reducing Socket

1050	Nominal Bore ID	Nominal Bore ID
RS13-3412-UPVC	3/4"	1/2"
RS13-134-UPVC	1"	3/4"
RS13-1141-UPVC	1.1/4"	1"
RS13-112112-UPVC	1.1/2"	1.1/4"
RS13-2112-UPVC	2"	1.1/2"
RS13-2122-UPVC	2.1/2"	2"
RS13-3212-UPVC	3"	2.1/2"
RS13-43-UPVC	4"	3"

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Plain x Threaded Reducing Bush, BSPP

1050	Nominal Bore ID	Thread
RB30-3814-UPVC	3/8"	1/4"
RB30-1214-UPVC	1/2"	1/4"
RB30-1238-UPVC	1/2"	3/8"
RB30-3438-UPVC	3/4"	1/2"
RB30-112-UPVC	1"	3/4"
RB30-11434-UPVC	1.1/4"	1"
RB30-1121-UPVC	1.1/2"	1.1/4"
RB30-2114-UPVC	2"	1.1/2"
RB30-212112-UPVC	2.1/2"	2"
RB30-3212-UPVC	3"	2.1/2"
RB30-43-UPVC	4"	3"

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Equal Barrel Nipples



Male, BSPT

1050	Thread
BN11-14-UPVC	1/4"
BN11-38-UPVC	3/8"
BN11-12-UPVC	1/2"
BN11-34-UPVC	3/4"
BN11-1-UPVC	1"
BN11-114-UPVC	1.1/4"
BN11-112-UPVC	1.1/2"
BN11-2-UPVC	2"
BN11-212-UPVC	2.1/2"
BN11-3-UPVC	3"
BN11-4-UPVC	4"

Tech Sheet 10254



Plain x Male, BSPT

1050	Thread	Nominal Bore ID	Length mm
BN12-38-UPVC	3/8"	3/8"	43
BN12-12-UPVC	1/2"	1/2"	50
BN12-34-UPVC	3/4"	3/4"	56
BN12-1-UPVC	1"	1"	63
BN12-114-UPVC	1.1/4"	1.1/4"	75
BN12-112-UPVC	1.1/2"	1.1/2"	88
BN12-2-UPVC	2"	2"	88
BN12-212-UPVC	2.1/2"	2.1/2"	106
BN12-3-UPVC	3"	3"	128
BN12-4-UPVC	4"	4"	153

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Tube O.D. - Size Conversion Table

Nominal Bore	Outside Diameter
3/8"	17.1mm
1/2"	21.3mm
3/4"	26.7mm
1"	33.4mm
1.1/4"	42.2mm
1.1/2"	48.3mm
2"	60.3mm
2.1/2"	75mm
3"	88.9mm
4"	114.3mm
5"	140mm
6"	168.3mm
8"	219.1mm

UPVC IMPERIAL PIPE SYSTEM



Recommended Working Temperature:
0°C to 60°C

Pressure Ratings for Fittings:
15 bar (8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Elbows & Bends



Equal 90° Elbow

1050	Nominal Bore ID
EL53-12-UPVC	1/2"
EL53-34-UPVC	3/4"
EL53-1-UPVC	1"
EL53-114-UPVC	1.1/4"
EL53-112-UPVC	1.1/2"
EL53-2-UPVC	2"
EL53-212-UPVC	2.1/2"
EL53-3-UPVC	3"
EL53-4-UPVC	4"
EL53-5-UPVC	5"
EL53-6-UPVC	6"
EL53-8-UPVC	8"

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Plain x Threaded 90° Elbow, BSPP

1050	Nominal Bore ID	Thread
PVEP12	1/2"	1/2"
PVEP34	3/4"	3/4"
PVEP1	1"	1"
PVEP114	1.1/4"	1.1/4"
PVEP112	1.1/2"	1.1/2"
PVEP2	2"	2"
PVEP212	2.1/2"	2.1/2"
PVEP3	3"	3"
PVEP4	4"	4"

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Equal 90° Bend Short Radius

1050	Nominal Bore ID
BE33-12-UPVC	1/2"
BE33-34-UPVC	3/4"
BE33-1-UPVC	1"
BE33-114-UPVC	1.1/4"
BE33-112-UPVC	1.1/2"
BE33-2-UPVC	2"
BE33-212-UPVC	2.1/2"
BE33-3-UPVC	3"
BE33-4-UPVC	4"

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Equal 45° Elbow

1050	Nominal Bore ID
EY53-12-UPVC	1/2"
EY53-34-UPVC	3/4"
EY53-1-UPVC	1"
EY53-114-UPVC	1.1/4"
EY53-112-UPVC	1.1/2"
EY53-2-UPVC	2"
EY53-212-UPVC	2.1/2"
EY53-3-UPVC	3"
EY53-4-UPVC	4"
EY53-5-UPVC	5"
EY53-6-UPVC	6"
EY53-8-UPVC	8"

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Plain x Threaded 45° Elbow, BSPP

1050	Nominal Bore ID	Thread
PVEP45-12	1/2"	1/2"
PVEP45-34	3/4"	3/4"
PVEP45-1	1"	1"
PVEP45-114	1.1/4"	1.1/4"
PVEP45-112	1.1/2"	1.1/2"
PVEP45-2	2"	2"
PVEP45-212	2.1/2"	2.1/2"
PVEP45-3	3"	3"
PVEP45-4	4"	4"

Tech Sheet 10254

Tees



Equal 45° Tee

1050	Nominal Bore ID
TY43-12-UPVC	1/2"
TY43-34-UPVC	3/4"
TY43-1-UPVC	1"
TY43-114-UPVC	1.1/4"
TY43-112-UPVC	1.1/2"
TY43-2-UPVC	2"

Tech Sheet 10254



Plain x Threaded Branch Tee, BSPP

1050	Nominal Bore ID	Thread
PVTP12	1/2"	1/2"
PVTP34	3/4"	3/4"
PVTP1	1"	1"
PVTP114	1.1/4"	1.1/4"
PVTP112	1.1/2"	1.1/2"
PVTP2	2"	2"
PVTP212	2.1/2"	2.1/2"
PVTP3	3"	3"
PVTP4	4"	4"

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Equal Tee

1050	Nominal Bore ID
TE43-12-UPVC	1/2"
TE43-34-UPVC	3/4"
TE43-1-UPVC	1"
TE43-114-UPVC	1.1/4"
TE43-112-UPVC	1.1/2"
TE43-2-UPVC	2"
TE43-212-UPVC	2.1/2"
TE43-3-UPVC	3"
TE43-4-UPVC	4"
TE43-5-UPVC	5"
TE43-6-UPVC	6"
TE43-8-UPVC	8"

Tech Sheet 10254

UPVC IMPERIAL PIPE SYSTEM



Working Temperature:
0°C to 60°C



Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Crosses



Equal Cross

1050	Nominal Bore ID
CR33-12-UPVC	1/2"
CR33-34-UPVC	3/4"
CR33-1-UPVC	1"
CR33-114-UPVC	1.1/4"
CR33-112-UPVC	1.1/2"
CR33-2-UPVC	2"
CR33-212-UPVC	2.1/2"

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Caps



Plain

1050	Nominal Bore ID
CA73-12-UPVC	1/2"
CA73-34-UPVC	3/4"
CA73-1-UPVC	1"
CA73-114-UPVC	1.1/4"
CA73-112-UPVC	1.1/2"
CA73-2-UPVC	2"
CA73-212-UPVC	2.1/2"
CA73-3-UPVC	3"
CA73-4-UPVC	4"
CA73-5-UPVC	5"
CA73-6-UPVC	6"
CA73-8-UPVC	8"

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Unions



Equal Union

1050	Nominal Bore ID
UN83-12-UPVC	1/2"
UN83-34-UPVC	3/4"
UN83-1-UPVC	1"
UN83-114-UPVC	1.1/4"
UN83-112-UPVC	1.1/2"
UN83-2-UPVC	2"
UN83-212-UPVC	2.1/2"
UN83-3-UPVC	3"
UN83-4-UPVC	4"

Tech Sheet 10254



Plain x Male Threaded Union, BSPP

1050	Nominal Bore ID	Thread
PVUPM112	1.1/2"	1.1/2"
PVUPM2-112	2"	1.1/2"
PVUPM2	2"	2"

Tech Sheet 10254



Plain x Female Threaded Union, BSPP

1050	Nominal Bore ID	Thread
PVUPF12	1/2"	1/2"
PVUPF34	3/4"	3/4"
PVUPF1	1"	1"
PVUPF114	1.1/4"	1.1/4"
PVUPF112	1.1/2"	1.1/2"
PVUPF2	2"	2"
PVUPF212	2.1/2"	2.1/2"
PVUPF3	3"	3"
PVUPF4	4"	4"

Tech Sheet 10254

Threaded Adaptors



Male, BSPP

1050	Nominal Bore ID	Thread
AD32-3-UPVC	1/2"	1/2"
AD32-4-UPVC	3/4"	1/2"
AD32-5-UPVC	3/4"	3/4"
AD32-6-UPVC	3/4"	1"
AD32-7-UPVC	1"	1"
AD32-8-UPVC	1"	1.1/4"
AD32-9-UPVC	1.1/4"	1.1/4"
AD32-10-UPVC	1.1/4"	1.1/2"
AD32-11-UPVC	1.1/2"	1.1/2"
AD32-12-UPVC	1.1/2"	2"
AD32-13-UPVC	2"	2"
AD32-15-UPVC	2.1/2"	2.1/2"
AD32-17-UPVC	3"	3"
AD32-19-UPVC	4"	4"

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Plain x Female Threaded Adaptor, BSPP

1050	Nominal Bore ID	Thread
AD42-1212-UPVC	1/2"	1/2"
AD42-3412-UPVC	1/2"	3/4"
AD42-1234-UPVC	3/4"	1/2"
AD42-3434-UPVC	3/4"	3/4"
AD42-341-UPVC	3/4"	1"
AD42-134-UPVC	1"	3/4"
AD42-11-UPVC	1"	1"
AD42-1141-UPVC	1"	1.1/4"
AD42-114114-UPVC	1.1/4"	1.1/4"
AD42-112114-UPVC	1.1/4"	1.1/2"
AD42-112112-UPVC	1.1/2"	1.1/2"
AD42-2112-UPVC	1.1/2"	2"
AD42-1122-UPVC	2"	1.1/2"
AD42-22-UPVC	2"	2"
AD42-2122-UPVC	2"	2.1/2"
AD42-212212-UPVC	2.1/2"	2.1/2"
AD42-3212-UPVC	2.1/2"	3"
AD42-2123-UPVC	3"	2.1/2"
AD42-33-UPVC	3"	3"
AD42-43-UPVC	3"	4"
AD42-34-UPVC	4"	3"
AD42-44-UPVC	4"	4"

Tech Sheet 10254

UPVC IMPERIAL PIPE SYSTEM



Working Temperature:
0°C to 60°C

Maximum Working Pressure:
15 bar
(8" with reduced safety factor)

For Air Ring Mains use ABS. UPVC is not suitable for use with compressed air.

UPVC = Unplasticized Poly Vinyl Chloride
ABS = Acrylonitrile-Butadiene-Styrene Copolymers

Hose Connections



Plain x Hose Tail

1050	Nominal Bore ID	To Suit Hose ID mm
HN63-12-UPVC	1/2"	20
HN63-34-UPVC	3/4"	25
HN63-1-UPVC	1"	32
HN63-114-UPVC	1.1/4"	40
HN63-112-UPVC	1.1/2"	50
HN63-2-UPVC	2"	60

Tech Sheet 10254



Male, BSPP x Hose Tail

1050	Thread	To Suit Hose ID
PVHTM14-12	1/4"	12mm
PVHTM38-58	3/8"	16mm
PVHTM12	1/2"	1/2"
PVHTM12-34	1/2"	20mm
PVHTM34	3/4"	3/4"
PVHTM34-1	3/4"	25mm
PVHTM1	1"	1"
PVHTM1-114	1"	32mm
PVHTM114-112	1.1/4"	40mm
PVHTM112-2	1.1/2"	50mm
PVHTM2-212	2"	60mm

Tech Sheet 10254



Female, BSPP x Hose Tail

1050	Thread	To Suit Hose ID mm
HN64-3416-UPVC	3/4"	16
HN64-120-UPVC	1"	20
HN64-11425-UPVC	1.1/4"	25
HN64-11230-UPVC	1.1/2"	30
HN64-240-UPVC	2"	40
HN64-21450-UPVC	2.1/4"	50
HN64-23460-UPVC	2.3/4"	60

Tech Sheet 10254

Tank Connectors



Plain x Female, BSPP

1050	Nominal Bore ID	Thread
TC93-12-UPVC	1/2"	1/2"
TC93-34-UPVC	3/4"	3/4"
TC93-1-UPVC	1"	1"
TC93-114-UPVC	1.1/4"	1.1/4"
TC93-112-UPVC	1.1/2"	1.1/2"
TC93-2-UPVC	2"	2"
TC93-212-UPVC	2.1/2"	2.1/2"
TC93-3-UPVC	3"	3"
TC93-4-UPVC	4"	4"

Tech Sheet 10254

Flanges



Stub Flange, Serrated Face

1050	Nominal Bore ID
ST23-12-UPVC	1/2"
ST23-34-UPVC	3/4"
ST23-1-UPVC	1"
ST23-114-UPVC	1.1/4"
ST23-112-UPVC	1.1/2"
ST23-2-UPVC	2"
ST23-212-UPVC	2.1/2"
ST23-3-UPVC	3"
ST23-4-UPVC	4"
ST23-5-UPVC	5"
ST23-6-UPVC	6"
ST23-8-UPVC	8"

Tech Sheet 10254



Full Face Table E

1050	Nominal Bore ID
FF30-12-UPVC	1/2"
FF30-34-UPVC	3/4"
FF30-1-UPVC	1"
FF30-114-UPVC	1.1/4"
FF30-112-UPVC	1.1/2"
FF30-2-UPVC	2"
FF30-3-UPVC	3"
FF30-4-UPVC	4"

Tech Sheet 10254



PN16 Blanking Flange

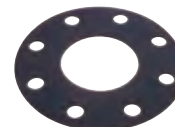
1050	Size
BF00-1-UPVC	1"
BF00-112-UPVC	1.1/2"
BF00-2-UPVC	2"
BF00-3-UPVC	3"
BF00-4-UPVC	4"
BF00-5-UPVC	5"

Tech Sheet 10254

Tube O.D. - Size Conversion Table

Nominal Bore	Outside Diameter	Nominal Bore	Outside Diameter
3/8"	17.1mm	2.1/2"	75mm
1/2"	21.3mm	3"	88.9mm
3/4"	26.7mm	4"	114.3mm
1"	33.4mm	5"	140mm
1.1/4"	42.2mm	6"	168.3mm
1.1/2"	48.3mm	8"	219.1mm
2"	60.3mm		

BS4504, PN16 Flange Gasket



1050	Size
SF16-12	1/2"
SF16-34	3/4"
SF16-1	1"
SF16-114	1.1/4"
SF16-112	1.1/2"
SF16-2	2"
SF16-3	3"
SF16-4	4"
SF16-6	6"

Tech Sheet 10254



BS10, Table E Flange Gasket

1050	Size
SF10-12	1/2"
SF10-34	3/4"
SF10-1	1"
SF10-114	1.1/4"
SF10-112	1.1/2"
SF10-2	2"
SF10-212	2.1/2"
SF10-3	3"
SF10-4	4"
SF10-6	6"

Tech Sheet 10254



PN16 Galvanised Backing Ring

1050	Size
GB16-12	1/2"
GB16-34	3/4"
GB16-1	1"
GB16-114	1.1/4"
GB16-112	1.1/2"
GB16-2	2"
GB16-212	2.1/2"
GB16-3	3"
GB16-4	4"
GB16-5	5"
GB16-6	6"
GB16-8	8"

Tech Sheet 10254

UPVC IMPERIAL PIPE SYSTEM



Valves

Economy Double Union Ball Valve, EPDM Seals



0118	Nominal Bore ID
BVD13-12-PVC	1/2"
BVD13-34-PVC	3/4"
BVD13-1-PVC	1"
BVD13-114-PVC	1.1/4"
BVD13-112-PVC	1.1/2"
BVD13-2-PVC	2"
BVD13-212-PVC	2.1/2"
BVD13-3-PVC	3"
BVD13-4-PVC	4"

Tech Sheet 10254

Industrial Double Union Ball Valve, EPDM Seals



0118	Nominal Bore ID
BVI13-38-PVC	3/8"
BVI13-12-PVC	1/2"
BVI13-34-PVC	3/4"
BVI13-1-PVC	1"
BVI13-114-PVC	1.1/4"
BVI13-112-PVC	1.1/2"
BVI13-2-PVC	2"
BVI13-212-PVC	2.1/2"
BVI13-3-PVC	3"
BVI13-4-PVC	4"

Tech Sheet 10254

Industrial 3 Way Ball Valve, L Port, EPDM Seals



0118	Nominal Bore ID
BVL13-12-PVC	1/2"
BVL13-34-PVC	3/4"
BVL13-1-PVC	1"
BVL13-114-PVC	1.1/4"
BVL13-112-PVC	1.1/2"
BVL13-2-PVC	2"

Tech Sheet 10254

Industrial 3 Way Ball Valve, T Port, EPDM Seals



0118	Nominal Bore ID
BVT13-12-PVC	1/2"
BVT13-34-PVC	3/4"
BVT13-1-PVC	1"
BVT13-112-PVC	1.1/2"
BVT13-2-PVC	2"

Tech Sheet 10254

Industrial Check Valve, EPDM Seals



0118	Nominal Bore ID
CVD13-12-PVC	1/2"
CVD13-34-PVC	3/4"
CVD13-1-PVC	1"
CVD13-114-PVC	1.1/4"
CVD13-112-PVC	1.1/2"
CVD13-2-PVC	2"

Tech Sheet 10254

FT PRO



For Air Blow Guns
...see pages 1549-1557

UPVC Tubing

NOTE: 6 metre length tube is available on a 3 to 5 working day delivery service. Specified delivery dates and times can not be guaranteed. Carriage is charged as an extra based on weight and delivery service required. Please speak to our sales department for further details.

Delivery of 3 metre lengths may take up to 48 hours.



Class C, 9 bar, 3 Metre Lengths

0118	Nominal Bore
UPVC/CTUBE-3-2	2"
UPVC/CTUBE-3-212	2.1/2"
UPVC/CTUBE-3-3	3"
UPVC/CTUBE-3-4	4"
UPVC/CTUBE-3-6	6"
UPVC/CTUBE-3-8	8"

Tech Sheet 10254

Class C, 9 bar, 6 Metre Lengths

0118	Nominal Bore
UPVC/CTUBE-6-2	2"
UPVC/CTUBE-6-212	2.1/2"
UPVC/CTUBE-6-3	3"
UPVC/CTUBE-6-4	4"
UPVC/CTUBE-6-5	5"
UPVC/CTUBE-6-6	6"

Tech Sheet 10254

Class E, 15 bar, 3 Metre Lengths

0118	Nominal Bore
UPVC/ETUBE-3-12	1/2"
UPVC/ETUBE-3-34	3/4"
UPVC/ETUBE-3-1	1"
UPVC/ETUBE-3-114	1.1/4"
UPVC/ETUBE-3-112	1.1/2"
UPVC/ETUBE-3-2	2"
UPVC/ETUBE-3-3	3"
UPVC/ETUBE-3-4	4"

Tech Sheet 10254

Class E, 15 bar, 6 Metre Lengths

0118	Nominal Bore
UPVC/ETUBE-6-12	1/2"
UPVC/ETUBE-6-34	3/4"
UPVC/ETUBE-6-1	1"
UPVC/ETUBE-6-114	1.1/4"
UPVC/ETUBE-6-112	1.1/2"
UPVC/ETUBE-6-2	2"
UPVC/ETUBE-6-3	3"
UPVC/ETUBE-6-4	4"

Tech Sheet 10254

UPVC IMPERIAL PIPE SYSTEM



UPVC Tubing



Class 7, Plain End, 3 Metre Lengths

0118	Size	Pipe OD mm	Pipe ID mm
UPVC/7TUBE-3-12	1/2"	21.4	13.4
UPVC/7TUBE-3-1	1"	33.6	24
UPVC/7TUBE-3-112	1 1/2"	48.3	37.3
UPVC/7TUBE-3-2	2"	60.3	48.3

Class 7, Plain End, 6 Metre Lengths

0118	Size	Pipe OD mm	Pipe ID mm
UPVC/7TUBE-6-112	1.1/2"	48.3	37.3

Threaded Adaptors

Equal, Plain x Threaded Female Stainless Steel Reinforced, BSPP



1050	Nominal Bore ID	Thread
ESRI-12	1/2"	1/2"
ESRI-34	3/4"	3/4"
ESRI-1	1"	1"
ESRI-2	2"	2"

Equal, Plain x Threaded Female



1050	Tube NB	Thread
ESI-12	1/2"	1/2"
ESI-34	3/4"	3/4"
ESI-1	1"	1"
ESI-114	1.1/4"	1.1/4"
ESI-112	1.1/2"	1.1/2"
ESI-2	2"	2"

Unions

Plain x Brass Composite Male Threaded Union, BSPP



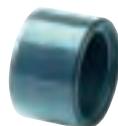
1050	Nominal Bore ID	Male BSPP
MBU-1	1"	1"

Plain x Brass Composite Female Threaded Union, BSPP



1050	Nominal Bore ID	Female BSPP
FBU-112	1.1/2"	1.1/2"

Reducing Bushes



Plain x Threaded Female, BSPP

1050	Nominal Bore ID	Thread
RB30-1238-UPVC	3/4"	1/2"



Threaded Male x Female, BSPP (Long Pattern)

1050	Male Thread	Female Thread
PVR112-1	1.1/2"	1"
PVR2-1	2"	1"
PVR212-112	2.1/2"	1.1/2"



Threaded Male x Female, BSPP (Short Pattern)

1050	Male Thread	Female Thread
PVRB34-12	3/4"	1/2"
PVRB1-34	1"	3/4"
PVRB114-1	1.1/4"	1"
PVRB112-114	1.1/2"	1.1/4"
PVRB2-112	2"	1.1/2"

Equal Hex Nipples



Equal, Male, BSPP

1050	Thread
PVN1	1"
PVN2	2"

Unequal Hex Nipples



Unequal, Male, BSPP

1050	Thread	Thread
PVRN1-34	1"	3/4"
PVRN112-114	1.1/2"	1.1/4"

Backnuts



Female, BSPP

1050	Thread
PVLN12	1/2"
PVLN1	1"
PVLN114	1.1/4"

Valve End



Female, BSPP

1050	Thread
TVI-2	2"

Valves



Standard Plain Single Union Ball Valve, EPDM Seals

0118	Nominal Bore ID
BVSU-34	3/4"
BVSU-1	1"
BVSU-114	1.1/4"
BVSU-112	1.1/2"



Standard Lever Operated Butterfly Valve, EPDM Liner

0118	Nominal Bore ID
BVBS-6	6"

Pipe Clips



Black PP Pipe Clips

1050	Nominal Bore ID	Type
IPPClip-12	1/2"	1
IPPClip-34	3/4"	1
IPPClip-1	1"	1
IPPClip-114	1.1/4"	2
IPPClip-112	1.1/2"	2
IPPClip-2	2"	2
IPPClip-212	2.1/2"	2
IPPClip-3	3"	2
IPPClip-4	4"	2
IPPClip-5	5"	3

Spacing Blocks



Black PP Spacing Block

1050	Nominal Bore ID
IPPSB-1	1" - 32mm
IPPSB-2	2" - 63mm

UPVC THREADED FITTINGS



Double Socket



Female, BSPP

1050	Thread
PVS12	1/2"
PVS34	3/4"
PVS1	1"
PVS114	1.1/4"
PVS112	1.1/2"
PVS2	2"

Reducing Socket



Female, BSPP

1050	Thread	Thread
PVRS12-38	1/2"	3/8"
PVRS34-12	3/4"	1/2"
PVRS1-34	1"	3/4"
PVRS114-1	1.1/4"	1"
PVRS112-114	1.1/2"	1.1/4"
PVRS2-112	2"	1.1/2"
PVRS3-212	3"	2.1/2"
PVRS4-3	4"	3"

Enlarging Piece



Male x Female, BSPP

1050	Male Thread	Female Thread
PVEN38-12	3/8"	1/2"
PVEN12-34	1/2"	3/4"
PVEN34-1	3/4"	1"
PVEN1-114	1"	1.1/4"
PVEN114-112	1.1/4"	1.1/2"
PVEN112-2	1.1/2"	2"
PVEN2-212	2"	2.1/2"
PVEN212-3	2.1/2"	3"
PVEN3-4	3"	4"

Reducing Male x Female



Male x Female, BSPP

1050	Male Thread	Female Thread
PVR12-38	1/2"	3/8"
PVR34-38	3/4"	3/8"
PVR34-12	3/4"	1/2"
PVR1-38	1"	3/8"
PVR1-12	1"	1/2"
PVR1-34	1"	3/4"
PVR114-12	1.1/4"	1/2"
PVR114-34	1.1/4"	3/4"
PVR114-1	1.1/4"	1"
PVR112-34	1.1/2"	3/4"
PVR112-1	1.1/2"	1"
PVR2-1	2"	1"
PVR2-114	2"	1.1/4"
PVR2-112	2"	1.1/2"
PVR212-112	2.1/2"	1.1/2"
PVR212-2	2.1/2"	2"
PVR3-112	3"	1.1/2"
PVR3-2	3"	2"
PVR3-212	3"	2.1/2"
PVR4-2	4"	2"
PVR4-212	4"	2.1/2"
PVR4-3	4"	3"

Reducing Bush Male x Female



Male x Female, BSPP

1050	Male Thread	Female Thread
PVRB34-12	3/4"	1/2"
PVRB1-34	1"	3/4"
PVRB114-1	1.1/4"	1"
PVRB112-114	1.1/2"	1.1/4"
PVRB2-112	2"	1.1/2"
PVRB212-2	2.1/2"	2"
PVRB3-212	3"	2.1/2"
PVRB4-3	4"	3"

Nipple



Male, BSPP

1050	Thread
PVN38	3/8"
PVN12	1/2"
PVN34	3/4"
PVN1	1"
PVN114	1.1/4"
PVN112	1.1/2"
PVN2	2"
PVN212	2.1/2"
PVN4	4"

Reducing Nipple



Male, BSPP

1050	Thread	Thread
PVRN34-12	3/4"	1/2"
PVRN1-34	1"	3/4"
PVRN114-1	1.1/4"	1"
PVRN112-114	1.1/2"	1.1/4"
PVRN212-2	2.1/2"	2"
PVRN3-212	3"	2.1/2"
PVRN4-3	4"	3"

RUST-OLEUM®



For Leak Seal
...see pages 1564

UPVC THREADED FITTINGS



Elbow 90°



Female, BSPP

1050	Thread
PVE12	1/2"
PVE34	3/4"
PVE1	1"
PVE114	1.1/4"
PVE112	1.1/2"
PVE2	2"
PVE212	2.1/2"
PVE3	3"

Elbow 45°



Female, BSPP

1050	Thread
PVE45-38	3/8"
PVE45-12	1/2"
PVE45-34	3/4"
PVE45-1	1"
PVE45-114	1.1/4"
PVE45-112	1.1/2"
PVE45-2	2"
PVE45-212	2.1/2"
PVE45-3	3"
PVE45-4	4"

Tee 90°



Female, BSPP

1050	Thread
PVT38	3/8"
PVT12	1/2"
PVT34	3/4"
PVT1	1"
PVT114	1.1/4"
PVT112	1.1/2"
PVT2	2"
PVT3	3"
PVT4	4"

Union



Female, BSPP

1050	Thread
PVU38	3/8"
PVU12	1/2"
PVU34	3/4"
PVU1	1"
PVU114	1.1/4"
PVU112	1.1/2"
PVU2	2"
PVU212	2.1/2"
PVU3	3"
PVU4	4"

Cap



Female, BSPP

1050	Thread
PVC38	3/8"
PVC12-CAP	1/2"
PVC34	3/4"
PVC1	1"
PVC114	1.1/4"
PVC112	1.1/2"
PVC2	2"
PVC212	2.1/2"
PVC3	3"
PVC4	4"

Plug



Male, BSPP

1050	Thread
PVP38	3/8"
PVP12	1/2"
PVP34	3/4"
PVP1	1"
PVP112	1.1/2"
PVP2	2"
PVP212	2.1/2"
PVP3	3"
PVP4	4"

Locknuts



Female, BSPP

1050	Thread
PVLN38	3/8"
PVLN12	1/2"
PVLN34	3/4"
PVLN1	1"
PVLN114	1.1/4"
PVLN112	1.1/2"
PVLN2	2"
PVLN212	2.1/2"
PVLN3	3"
PVLN4	4"



For Air Prep
...see pages 637-656





M-Press Fittings Ltd

Stainless Steel 316L & Copper Press Fit Piping System

M-Press provides solutions to meet the demands of various industry applications, with capabilities of up to 168mm

stainless
steel



**Choose M-Press for
industry-leading
Press Fit solutions**



Stainless Steel 316L Press Fit Piping System

M-Press's stainless steel ring main system is the perfect solution for all ring main installation requirements.

The M-Press Press Fit system is an all-inclusive and quality-assured system designed to streamline on-site compliances for installers. It removes the need for traditional site hot-work permits, making the installation process hassle-free and efficient. The profile system is equipped with advanced pressing technology that ensures a confident installation process, saving installers considerable time and effort, which ultimately leads to increased productivity and cost savings.

M-Press's Stainless Steel system has been engineered for use in a diverse range of industry applications, providing installers with a versatile solution. This and all other system features ensure that the installation process is always of the highest quality, making the installer's job hassle-free and efficient.



Features:

- ISO 9001 certified
- ISO 14001 certified
- High molybdenum content offering excellent corrosion resistance
- Universally compatible with all profile systems
- Reliable and durable press system
- Leak-free performance
- Excellent hygienic characteristics

Advantages:

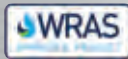
- Removes the need for traditional site hot-work permits
- Ease of installation
- Increased productivity
- Wide choice of products and seal types
- Clean and hassle-free handling
- Lightweight system

The M-Press system is manufactured to meet the highest standards and materials:

- ✓ **M-Press fittings material no:**
1.4404 according to EN 10088 /316L
- ✓ **Pressure fittings material no:**
1.4408 according to EN 10283 /316L
- ✓ **Pipes material no:**
1.4404 according to EN 10312 (ECO 316L).

**M-Press can offer solutions for all
industry application demands up to 168mm**

EPDM Seals



Material	Stainless Steel 316L
Formed Fittings:	1.4404 according to EN 10088 /316L
Threaded Fittings:	1.4408 according to EN 10283 /316L
Pipe:	1.4404 according to EN 10312 (ECO 316L)
Seal Type:	EPDM
Description:	Ethylene Propylene Diene Mnomer

° Temperature: -30°C to +120°C

Pressure: PN16 16 bar

Applications

- Potable water services
- Hydronic heating
- Compressed air
- BCWS (Boosted cold water services)
- Chilled water applications
- Purified water
- Fire suppression systems
- Inert gases

Application Services

- Drinking water
- HWS and commercial/domestic heating
- Compressed air (<25mg/M³ compressor oil concentration)
- Risers and plant rooms
- Cooling water (chilled water) with glycol <50% concentration
- Grey water
- Low pressure steam condensate
- Fire sprinkler/suppression systems
- Helium, Neon, Argon

HNBR Gas Approved Seals



Material	Stainless Steel 316L
Formed Fittings:	1.4404 according to EN 10088 /316L
Threaded Fittings:	1.4408 according to EN 10283 /316L
Pipe:	1.4404 according to EN 10312 (ECO 316L)
Seal Type:	HNBR
Description:	Hydrogenated Nitrile Butadiene Rubber

° Temperature: -20°C to +70°C

Pressure: PN5 5 bar

Applications

- Industrial offshore applications
- Low pressure hydraulic systems
- Hot water supply
- Flammable gases (DVGW G260, 262)
- Inert gases

Application Services

- Commercial / industrial methane gas
- Low pressure hydraulic oil
- Commercial / industrial LPG and natural gases
- Helium, Argon, Neon

FKM Seals



Material	Stainless Steel 316L
Formed Fittings:	1.4404 according to EN 10088 /316L
Threaded Fittings:	1.4408 according to EN 10283 /316L
Pipe:	1.4404 according to EN 10312 (ECO 316L)
Seal Type:	FKM
Description:	Viton Fluoroelastomer

° Temperature: -30°C to +180°C
(+230°C for short periods)

Pressure: PN16 16 bar

Applications

- Domestic and commercial solar thermal heating
- Domestic and commercial heating
- Commercial steam condensate
- Industrial compressed air
- Acidic transportation
- Hydraulic applications
- Oil and fuels

Application Services

- High temperature heating and hot water systems
- Commercial warehouse/large area heating systems
- Low pressure steam condensate
- Industrial compressed air systems (>25mg/M³ compressor oil concentration)
- Some acid solutions
- Hydraulic oils
- Heavy oil and fuel transportation (erosene, paraffin, Diesel)
- Please enquire for exact suitability

stainless
steel



Adaptors



Female x Female Threaded, BSPP, EPDM Seal

3102	Size mm	Thread
1202015012	15	3/8"
1202015012	15	1/2"
1202015034	15	3/4"
1202022012	22	1/2"
1202022034	22	3/4"
1202022100	22	1"
1202028034	28	3/4"
1202028100	28	1"
1202035100	35	1"
1202035114	35	1.1/4"
1202042112	42	1.1/2"
1202054200	54	2"



Female x Male Threaded, BSPP, EPDM Seal

3102	Size mm	Thread
1201015012	15	1/2"
1201015034	15	3/4"
1201015038	15	3/8"
1201022012	22	1/2"
1201022034	22	3/4"
1201022100	22	1"
1201028034	28	3/4"
1201028100	28	1"
1201035100	35	1"
1201035114	35	1.1/4"
1201042112	42	1.1/2"
1201054200	54	2"



Female x Male Threaded, BSPP, EPDM Seal

3102	Size mm	Thread
1208015012	15	1/2"
1208022034	22	3/4"
1208028100	28	1"
1208035114	35	1.1/4"
1208042112	42	1.1/2"
1208054200	54	2"



Female x Female Threaded, BSPP, HNBR Gas Approved Seal

3102	Size mm	Thread
1702015038	15	3/8"
1702015012	15	1/2"
1702015034	15	3/4"
1702022012	22	1/2"
1702022034	22	3/4"
1702022100	22	1"
1702028034	28	3/4"
1702028100	28	1"
1702035100	35	1"
1702035114	35	1.1/4"
1702042112	42	1.1/2"
1702054200	54	2"



Female x Male Threaded, BSPP, HNBR Gas Approved Seal

3102	Size mm	Thread
1701015012	15	1/2"
1701015034	15	3/4"
1701015038	15	3/8"
1701022012	22	1/2"
1701022034	22	3/4"
1701022100	22	1"
1701028034	28	3/4"
1701028100	28	1"
1701035100	35	1"
1701035114	35	1.1/4"
1701042112	42	1.1/2"
1701054200	54	2"



Female x Male Threaded, BSPP, HNBR Gas Approved Seal

3102	Size mm	Thread
1708015012	15	1/2"
1708022034	22	3/4"
1708028100	28	1"
1708035114	35	1.1/4"
1708042112	42	1.1/2"
1708054200	54	2"



Female x Female Threaded, BSPP, FKM Seal

3102	Size mm	Thread
1402015038	15	3/8"
1402015012	15	1/2"
1402015034	15	3/4"
1402022012	22	1/2"
1402022034	22	3/4"
1402022100	22	1"
1402028034	28	3/4"
1402028100	28	1"
1402035100	35	1"
1402035114	35	1.1/4"
1402042112	42	1.1/2"
1402054200	54	2"



Female x Male Threaded, BSPP, FKM Seal

3102	Size mm	Thread
1401015012	15	1/2"
1401015034	15	3/4"
1401015038	15	3/8"
1401022012	22	1/2"
1401022034	22	3/4"
1401022100	22	1"
1401028034	28	3/4"
1401028100	28	1"
1401035100	35	1"
1401035114	35	1.1/4"
1401042112	42	1.1/2"
1401054200	54	2"



Female x Male Threaded, BSPP, FKM Seal

3102	Size mm	Thread
1408015012	15	1/2"
1408022034	22	3/4"
1408028100	28	1"
1408035114	35	1.1/4"
1408042112	42	1.1/2"
1408054200	54	2"



Straight Couplings



Female x Female,
EPDM Seal

3102	Size mm
120001515	15
120002222	22
120002828	28
120003535	35
120004242	42
120005454	54

Slip Couplers



Female x Female,
EPDM Seal

3102	Size mm
120401515	15
120402222	22
120402828	28
120403535	35
120404242	42
120405454	54

Socket Reducers



Female x Male Plain End,
EPDM Seal

3102	Size mm	Size mm
124302215	22	15
124302815	28	15
124302822	28	22
124303522	35	22
124303528	35	28
124304222	42	22
124304228	42	28
124304235	42	35
124305422	54	22
124305428	54	28
124305435	54	35
124305442	54	42



Female x Female,
HNBR Gas Approved Seal



3102	Size mm
170001515	15
170002222	22
170002828	28
170003535	35
170004242	42
170005454	54



Female x Female,
HNBR Gas Approved Seal



3102	Size mm
170401515	15
170402222	22
170402828	28
170403535	35
170404242	42
170405454	54



Female x Male Plain End,
HNBR Gas Approved Seal



3102	Size mm	Size mm
174302215	22	15
174302815	28	15
174302822	28	22
174303522	35	22
174303528	35	28
174304222	42	22
174304228	42	28
174304235	42	35
174305422	54	22
174305428	54	28
174305435	54	35
174305442	54	42

Female x Female,
FKM Seal



3102	Size mm
140001515	15
140002222	22
140002828	28
140003535	35
140004242	42
140005454	54

Female x Female,
FKM Seal



3102	Size mm
140401515	15
140402222	22
140402828	28
140403535	35
140404242	42
140405454	54

Female x Male Plain End,
FKM Seal



3102	Size mm	Size mm
144302215	22	15
144302815	28	15
144302822	28	22
144303522	35	22
144303528	35	28
144304222	42	22
144304228	42	28
144304235	42	35
144305422	54	22
144305428	54	28
144305435	54	35
144305442	54	42

End Caps



Female x End Cap, EPDM Seal

3102	Size mm
1241015	15
1241022	22
1241028	28
1241035	35
1241042	42
1241054	54

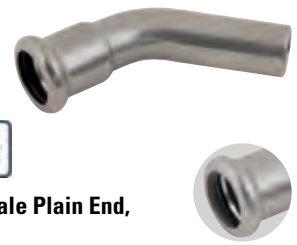
45° Elbows



Female x Female, EPDM Seal

3102	Size mm
122301515	15
122302222	22
122302828	28
122303535	35
122304242	42
122305454	54

45° Street Elbows



Female x Male Plain End, EPDM Seal

3102	Size mm
122401515	15
122402222	22
122402828	28
122403535	35
122404242	42
122405454	54

DVGW

Female x End Cap, HNBR Gas Approved Seal



3102	Size mm
1741015	15
1741022	22
1741028	28
1741035	35
1741042	42
1741054	54

DVGW

Female x Female, HNBR Gas Approved Seal



3102	Size mm
172301515	15
172302222	22
172302828	28
172303535	35
172304242	42
172305454	54

DVGW

Female x Male Plain End, HNBR Gas Approved Seal



3102	Size mm
172401515	15
172402222	22
172402828	28
172403535	35
172404242	42
172405454	54

Female x End Cap, FKM Seal



3102	Size mm
1441015	15
1441022	22
1441028	28
1441035	35
1441042	42
1441054	54

Female x Female, FKM Seal



3102	Size mm
142301515	15
142302222	22
142302828	28
142303535	35
142304242	42
142305454	54

Female x Male Plain End, FKM Seal



3102	Size mm
142401515	22
142402222	28
142402828	35
142403535	42
142404242	54
142405454	54

EPDM Seals

Temperature:
-30°C to +120°C

Pressure:
PN16 16 bar



Description: Ethylene Propylene Diene Mnomer

HNBR Gas Approved Seals

Temperature:
-20°C to +70°C

Pressure:
PN5 5 bar



Description: Hydrogenated Nitrile Butadiene Rubber

FKM Seals

Temperature:
-30°C to +180°C
(+230°C for short periods)

Pressure:
PN16 16 bar



Description: Viton Fluoroelastomer

Equal Tees



Female x Female x Female, EPDM Seal

3102	Size mm
12100151515	15
12100222222	22
12100282828	28
12100353535	35
12100424242	42
12100545454	54



Female x Female x Female, HNBR Gas Approved Seal

3102	Size mm
17100151515	15
17100222222	22
17100282828	28
17100353535	35
17100424242	42
17100545454	54

Female x Female x Female, FKM Seal

3102	Size mm
14100151515	15
14100222222	22
14100282828	28
14100353535	35
14100424242	42
14100545454	54

Reducing Tees



Female x Female x Female, EPDM Seal

3102	Size mm	Size mm	Size mm
12110221522	22	15	22
12110281528	28	25	28
12110282228	28	22	28
12110352235	35	22	35
12110352835	35	28	35
12110422242	42	22	42
12110422842	42	28	42
12110423542	42	35	42
12110542254	54	22	54
12110542854	54	28	54
12110543554	54	35	54
12110544254	54	42	54



Female x Female x Female, HNBR Gas Approved Seal

3102	Size mm	Size mm	Size mm
17110221522	22	15	22
17110281528	28	25	28
17110282228	28	22	28
17110352235	35	22	35
17110352835	35	28	35
17110422242	42	22	42
17110422842	42	28	42
17110423542	42	35	42
17110542254	54	22	54
17110542854	54	28	54
17110543554	54	35	54
17110544254	54	42	54

Female x Female x Female, FKM Seal

3102	Size mm	Size mm	Size mm
14110221522	22	15	22
14110281528	28	25	28
14110282228	28	22	28
14110352235	35	22	35
14110352835	35	28	35
14110422242	42	22	42
14110422842	42	28	42
14110423542	42	35	42
14110542254	54	22	54
14110542854	54	28	54
14110543554	54	35	54
14110544254	54	42	54



Female x Female Threaded, BSPP x Female, EPDM Seal

3102	Size mm	Thread	Size mm
12120151215	15	1/2"	15
12120153815	15	3/8"	15
12120221222	22	1/2"	22
12120223422	22	3/4"	22
12120281228	28	1/2"	28
12120283428	28	3/4"	28
12120351235	35	1/2"	35
12120353435	35	3/4"	35
12120421242	42	1/2"	42
12120423442	42	3/4"	42
12120543454	54	1/2"	54
12120541254	54	3/4"	54



Female x Female Threaded, BSPP x Female, HNBR Gas Approved Seal

3102	Size mm	Thread	Size mm
17120151215	15	1/2"	15
17120153815	15	3/8"	15
17120221222	22	1/2"	22
17120223422	22	3/4"	22
17120281228	28	1/2"	28
17120283428	28	3/4"	28
17120351235	35	1/2"	35
17120353435	35	3/4"	35
17120421242	42	1/2"	42
17120423442	42	3/4"	42
17120541254	54	1/2"	54
17120543454	54	3/4"	54

Female x Female Threaded, BSPP x Female, FKM Seal

3102	Size mm	Thread	Size mm
14120151215	15	1/2"	15
14120153815	15	3/8"	15
14120221222	22	1/2"	22
14120223422	22	3/4"	22
14120281218	28	1/2"	28
14120283428	28	3/4"	28
14120351235	35	1/2"	35
14120353435	35	3/4"	35
14120421242	42	1/2"	42
14120423442	42	3/4"	42
14120541254	54	1/2"	54
14120543454	54	3/4"	54

You might also need...
RIDGID RP 351 Press Tool
...see page 1744

90° Elbows



**Female x Female,
EPDM Seal**

3102	Size mm
122001515	15
122002222	22
122002828	28
122003535	35
122004242	42
122005454	54

90° Bends



**Female x Female Threaded,
BSPP, EPDM Seal**

3102	Size mm	Thread
1232015012	15	1/2"
1232012038	15	3/8"
1232022034	22	3/4"
1232022012	22	1/2"
1232028012	28	1/2"
1232028100	28	1"
1232035012	35	1/2"
1232035114	34	1.1/4"



**Female x Male Threaded,
BSPP, EPDM Seal**

3102	Size mm	Thread
1231015012	15	1/2"
1231015038	15	3/8"
1231022034	22	3/4"
1231028100	28	1"
1231035114	35	1.1/4"
1231042112	42	1.1/2"
1231054200	54	2"

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**Female x Female,
HNBR Gas Approved Seal**



3102	Size mm
172001515	15
172002222	22
172002828	28
172003535	35
172004242	42
172005454	54



**Female x Female Threaded,
BSPP, HNBR Gas Approved Seal**



3102	Size mm	Thread
1732015012	15	1/2"
1732015038	15	3/8"
1732015034	22	3/4"
1732015012	22	1/2"
1732028012	28	1/2"
1732028100	28	1"
1732035012	35	1/2"
1732035114	34	1.1/4"



**Female x Male Threaded,
BSPP, HNBR Gas Approved Seal**



3102	Size mm	Thread
1731015012	15	1/2"
1731015038	15	3/8"
1731022034	22	3/4"
1731028100	28	1"
1731035114	35	1.1/4"
1731042112	42	1.1/2"
1731054200	54	2"

**Female x Female,
FKM Seal**



3102	Size mm
142001515	15
142002222	22
142002828	28
142003535	35
142004242	42
142005454	54

**Female x Female Threaded,
BSPP, FKM Seal**



3102	Size mm	Thread
1432015012	15	1/2"
1432015038	15	3/8"
1432022034	22	3/4"
1432022012	22	1/2"
1432028012	28	1/2"
1432028100	28	1"
1432035012	35	1/2"
1432035114	34	1.1/4"

**Female x Male Threaded,
BSPP, FKM Seal**



3102	Size mm	Thread
1431015012	15	1/2"
1431015038	15	3/8"
1431022034	22	3/4"
1431028100	28	1"
1431035114	35	1.1/4"
1431042112	42	1.1/2"
1431054200	54	2"

EPDM Seals

Temperature:
-30°C to +120°C

Pressure:
PN16 16 bar



Description: Ethylene Propylene Diene Mnomer

HNBR Gas Approved Seals

Temperature:
-20°C to +70°C

Pressure:
PN5 5 bar



Description: Hydrogenated Nitrile Butadiene Rubber

FKM Seals

Temperature:
-30°C to +180°C
(+230°C for short periods)

Pressure:
PN16 16 bar



Description: Viton Fluoroelastomer

90° Street Elbows



Female x Male Plain End,
EPDM Seal

3102	Size mm
122101515	15
122102222	22
122102828	28
122103535	35
122104242	42
122105454	54



Female x Male Plain End,
HNBR Gas Approved Seal

3102	Size mm
172101515	15
172102222	22
172102828	28
172103535	35
172104242	42
172105454	54

Female x Male Plain End,
FKM Seal

3102	Size mm
142101515	15
142102222	22
142102828	28
142103535	35
142104242	42
142105454	54

Wallplates



Female x Female Threaded,
BSPP, EPDM Seal

3102	Size mm	Thread
1234015012	15	1/2"
1234022034	22	3/4"



Female x Female Threaded,
BSPP, HNBR Gas Approved Seal

3102	Size mm	Thread
1734015012	15	1/2"
1734022034	22	3/4"

Female x Female Threaded,
BSPP, FKM Seal

3102	Size mm	Thread
1434015012	15	1/2"
1434022034	22	3/4"

Flange Adaptors



Female PN16,
EPDM Seal

3102	Size mm
1240022	22
1240028	28
1240035	35
1240042	42
1240054	54



Female PN16,
HNBR Gas Approved Seal

3102	Size mm
1740022	22
1740028	28
1740035	35
1740042	42
1740054	54

Female PN16,
FKM Seal

3102	Size mm
1440022	22
1440028	28
1440035	35
1440042	42
1440054	54

RIDGID

You might also need...
RIDGID Press Tool
...see page 1744



Partial Crossovers



**Male Plain End x Male Plain End,
Formed Pipe**

3102	Size mm
123601515	15
123602222	22
123602828	28
123603535	35
123604242	42
123605454	54

90° Bends



**Plain Male x Plain Male,
Formed Pipe**

3102	Size mm
123501515	15
123502222	22
123502828	28
123503535	35
123504242	42
123505454	54

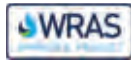
45° Bends



**Plain Male x Plain Male,
Formed Pipe**

3102	Size mm
123801515	15
123802222	22
123802828	28
123803535	35
123804242	42
123805454	54

Pipe



Series 1, 3 Metre Lengths

3102	Size mm	Wall Thickness
129501506-3MTR	15	0.6
129502207-3MTR	22	0.7
129502808-3MTR	28	0.8
129503510-3MTR	35	1.0
2023-9901-3MTR	42	1.1
129505412-3MTR	54	1.2



Series 2, 3 Metre Lengths

3102	Size mm	Wall Thickness
129001510-3MTR	15	1.0
129002212-3MTR	22	1.2
129002812-3MTR	28	1.2
129003515-3MTR	35	1.5
129004215-3MTR	42	1.5
129005415-3MTR	54	1.5

Series 1, 6 Metre Lengths

3102	Size mm	Wall Thickness
129501506	15	0.6
129502207	22	0.7
129502808	28	0.8
129503510	35	1.0
129504211	42	1.1
129505412	54	1.2




Series 2, 6 Metre Lengths

3102	Size mm	Wall Thickness
129001510	15	1.0
129002212	22	1.2
129002812	28	1.2
129003515	35	1.5
129004215	42	1.5
129005415	54	1.5



316L Stainless Steel Press Fit Ball Valves


 **Working Temperature:**
-10°C to +120°C

 **Maximum Working Pressure:**
16 bar



**WRAS, Female x Female,
EPDM Seal**

3105	Size mm
SS60015BH	15
SS60022BH	22
SS60028BH	28
SS60035BH	35
SS60042BH	42
SS60054BH	54

 **Working Temperature:**
-20°C to +70°C

 **Maximum Working Pressure:**
5 bar



**GAS, Female x Female,
HNBR Gas Approved Seal**

3105	Size mm
SS60015YH	15
SS60022YH	22
SS60028YH	28
SS60035YH	35
SS60042YH	42
SS60054YH	54

DVGW



Copper Press Fit Piping System

The M-Press copper ring main system is the leading solution for all copper installation requirements.

Its innovative design and superior quality guarantee a hassle-free installation process and long-lasting performance.

M-Press's copper system is a versatile and reliable solution for a wide range of industrial and domestic applications.

Its innovative design and high-quality construction guarantee a seamless installation process with minimal downtime and complications for the installer.

The system features a range of advanced components and features, including durable copper pipe, precision engineered fittings, and advanced sealing technologies, to ensure maximum performance and reliability in even the most demanding environments.

Whether working on a large industrial project or installing a domestic heating system, M-Press's Copper Press Fit system is the preferred solution for your needs.



Features:

- ISO 9001 certified
- ISO 14001 certified
- Universally compatible with all profile systems
- Reliable and durable press system
- Leak-free performance

Advantages:

- Ease of installation
- Increased productivity
- Removes the need for traditional site hot-work permits
- Wide choice of products and seal types
- Clean and hassle-free handling
- Lightweight system

The M-Press system is manufactured to meet the highest standards and materials:

- ✓ **Fittings:** CW024A according to EN 1254
- ✓ **Threaded fittings:** CC499K according to EN 1282

Trust M-Press to provide a reliable and efficient solution for your ring main installation



EPDM Seals



Material	Copper
Formed Fittings:	CW024A according to EN1254
Threaded Fittings:	CC499K according to EN1282
Pipe:	EN1057
Seal Type:	EPDM
Description:	Ethylene Propylene Diene Mnomer

Temperature:
-30°C to +120°C

Pressure:
PN16 16 bar

Applications

- Potable water services
- Hydronic heating
- Compressed air
- BCWS (Boosted cold water services)
- Chilled water applications
- Purified water
- Inert gases

Application Services

- Drinking water
- HWS and commercial/domestic heating
- Compressed air (<25mg/M³ compressor oil concentration)
- Risers and plant rooms
- Cooling water (chilled water) with glycol <50% concentration
- Grey water
- Low pressure steam condensate
- Helium, Neon, Argon

HNBR Gas Approved Seals



DVGW DVGW G260 & G262

Material	Copper
Formed Fittings:	CW024A according to EN1254
Threaded Fittings:	CC499K according to EN1282
Pipe:	EN1057
Seal Type:	HNBR
Description:	Hydrogenated Nitrile Butadiene Rubber

Temperature:
-20°C to +70°C

Pressure:
PN5 5 bar

Applications

- Offshore applications
- Low pressure hydraulic systems
- Hot water supply
- Flammable gases (DVGW G260, 262)
- Inert gases

Application Services

- Methane gas transportation
- Low pressure hydraulic system
- Domestic and commercial heating systems
- Natural gas and LPG
- Helium, Neon, Argon

FKM Seals



Material	Copper
Formed Fittings:	CW024A according to EN1254
Threaded Fittings:	CC499K according to EN1282
Pipe:	EN1057
Seal Type:	FKM
Description:	Viton Fluoroelastomer

Temperature:
-30°C to +180°C
(+230°C for short periods)

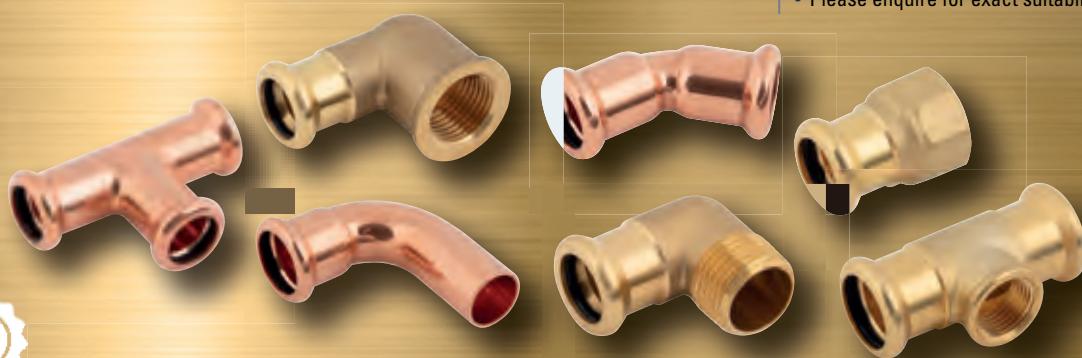
Pressure:
PN16 16 bar

Applications

- Domestic and commercial solar thermal heating
- Domestic and commercial heating
- Commercial steam condensate
- Industrial compressed air
- Acidic transportation
- Hydraulic applications
- Oil and fuels

Application Services

- High temperature heating and hot water systems
- Commercial warehouse/ Large area heating systems
- Low pressure steam condensate
- Industrial compressed air systems (>25mg/M³ compressor oil concentration)
- Some acid solutions
- Hydraulic oils
- Heavy oil and fuel transportation
 (Kerosene, Paraffin, Diesel)
- Please enquire for exact suitability



Adaptors



Female x Female Threaded, BSPP, EPDM Seal

3104	Size mm	Thread
6802015012	15	1/2"
6802015034	15	3/4"
6802022012	22	1/2"
6802022034	22	3/4"
6802022100	22	1"
6802028034	28	3/4"
6802028100	28	1"
6802035114	35	1.1/4"
6802042112	42	1.1/2"
6802054200	54	2"



Female x Female Threaded, BSPP, EPDM Seal

3104	Size mm	Thread
6801015012	15	1/2"
6801015034	15	3/4"
6801022012	22	1/2"
6801022034	22	3/4"
6801022100	22	1"
6801028034	28	3/4"
6801028100	28	1"
6801035114	35	1.1/4"
6801042112	42	1.1/2"
6801054200	54	2"



Female x Male Threaded, BSPP, EPDM Seal

3104	Size mm	Thread
6808015012	15	1/2"
6808022034	22	3/4"
6808028100	28	1"
6808035114	35	1.1/4"
6808042112	42	1.1/2"
6808054200	54	2"



Female x Female Threaded, BSPP, HNBR Gas Approved Seal



3104	Size mm	Thread
7902015012	15	1/2"
7902015034	15	3/4"
7902022012	22	1/2"
7902022034	22	3/4"
7902022100	22	1"
7902028034	28	3/4"
7902028100	28	1"
7902035114	35	1.1/4"
7902042112	42	1.1/2"
7902054200	54	2"



Female x Female Threaded, BSPP, HNBR Gas Approved Seal



3104	Size mm	Thread
7901015012	15	1/2"
7901015034	15	3/4"
7901022012	22	1/2"
7901022034	22	3/4"
7901028100	22	1"
7901035100	28	3/4"
7901035114	28	1"
7901042112	35	1.1/4"
7901054200	42	1.1/2"
7901066212	54	2"



Female x Male Threaded, BSPP, HNBR Gas Approved Seal



3104	Size mm	Thread
7908015012	15	1/2"
7908022034	22	3/4"
7908028100	28	1"
7908035114	35	1.1/4"
7908042112	42	1.1/2"
7908054200	54	2"

Female x Female Threaded, BSPP, FKM Seal



3104	Size mm	Thread
8802015012	15	1/2"
8802015034	15	3/4"
8802022012	22	1/2"
8802022034	22	3/4"
8802022100	22	1"
8802028034	28	3/4"
8802028100	28	1"
8802035114	35	1.1/4"
8802042112	42	1.1/2"
8802054200	54	2"

Female x Female Threaded, BSPP, FKM Seal



3104	Size mm	Thread
8801015012	15	1/2"
8801015034	15	3/4"
8801022012	22	1/2"
8801022034	22	3/4"
8801028100	22	1"
8801035100	28	3/4"
8801035114	28	1"
8801042112	35	1.1/4"
8801054200	42	1.1/2"
8801066212	54	2"

Female x Male Threaded, BSPP, FKM Seal



3104	Size mm	Thread
8808015012	15	1/2"
8808022034	22	3/4"
8808028100	28	1"
8808035114	35	1.1/4"
8808042112	42	1.1/2"
8808054200	54	2"

Union Adaptors with Flat Seal

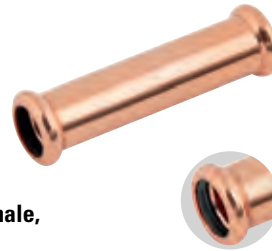
Straight Couplings



**Female x Female,
EPDM Seal**

3104	Size mm
680001515	15
680002222	22
680002828	28
680003535	35
680004242	42
680005454	54

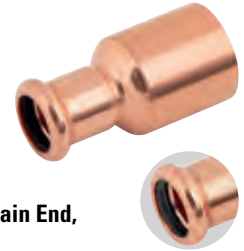
Slip Couplers



**Female x Female,
EPDM Seal**

3104	Size mm
680401515	15
680402222	22
680402828	28
680403535	35
680404242	42
680405454	54

Socket Reducers



**Female x Male Plain End,
EPDM Seal**

3104	Size mm	Size mm
684302215	22	15
684302815	28	15
684302822	28	22
684303522	35	22
684303528	35	28
684304222	42	22
684304228	42	28
684304235	42	35
684305435	54	35
684305442	54	42

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**Female x Female,
HNBR Gas Approved Seal**



3104	Size mm
790001515	15
790002222	22
790002828	28
790003535	35
790004242	42
790005454	54



**Female x Female,
HNBR Gas Approved Seal**



3104	Size mm
790001515	15
790002222	22
790002828	28
790003535	35
790004242	42
790005454	54



**Female x Male Plain End,
HNBR Gas Approved Seal**



3104	Size mm	Size mm
794302215	22	15
794302815	28	15
794302822	28	22
794303522	35	22
794303528	35	28
794304222	42	22
794304228	42	28
794304235	42	35
794305435	54	35
794305442	54	42

**Female x Male Plain End,
FKM Seal**



3104	Size mm
880001515	15
880002222	22
880002828	28
880003535	35
880004242	42
880005454	54

**Female x Male Plain End,
FKM Seal**



3104	Size mm
880401515	15
880402222	22
880402828	28
880403535	35
880404242	42
880405454	54

**Female x Male Plain End,
FKM Seal**



3104	Size mm	Size mm
884302215	22	15
884302815	28	15
884302822	28	22
884303522	35	22
884303528	35	28
884304222	42	22
884304228	42	28
884304235	42	35
884305435	54	35
884305442	54	42

End Caps



Female x End Cap,
EPDM Seal

3104	Size mm
6841015	15
6841022	22
6841028	28
6841035	35
6841042	42
6841054	54



Female x End Cap,
HNBR Gas Approved Seal

3104	Size mm
7941015	15
7941022	22
7941028	28
7941035	35
7941042	42
7941054	54

Female x End Cap,
FKM Seal

3104	Size mm
8841015	15
8841022	22
8841028	28
8841035	35
8841042	42
8841054	54

45° Elbows



Female x Female,
EPDM Seal

3104	Size mm
682301515	15
682302222	22
682302828	28
682303535	35
682304242	42
682305454	54



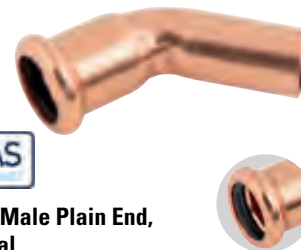
Female x Female,
HNBR Gas Approved Seal

3104	Size mm
792301515	15
792302222	22
792302828	28
792303535	35
792304242	42
792305454	54

Female x Female,
FKM Seal

3104	Size mm
882301515	15
882302222	22
882302828	28
882303535	35
882304242	42
882305454	54

45° Street Elbows



Female x Male Plain End,
EPDM Seal

3104	Size mm
682401515	15
682402222	22
682402828	28
682403535	35
682404242	42
682405454	54



Female x Male Plain End,
HNBR Gas Approved Seal

3104	Size mm
792401515	15
792402222	22
792402828	28
792403535	35
792404242	42
792405454	54

Female x Male Plain End,
FKM Seal

3104	Size mm
882001515	15
882002222	22
882002828	28
882003535	35
882004242	42
882005454	54

EPDM Seals

Temperature:
-30°C to +120°C

Pressure:
PN16 16 bar



Description: Ethylene Propylene Diene Mnomer

HNBR Gas Approved Seals

Temperature:
-20°C to +70°C

Pressure:
PN5 5 bar



Description: Hydrogenated Nitrile Butadiene Rubber

FKM Seals

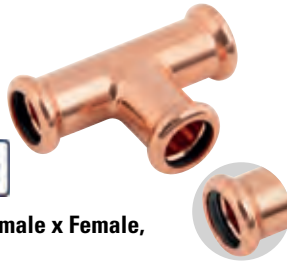
Temperature:
-30°C to +180°C
(+230°C for short periods)

Pressure:
PN16 16 bar



Description: Viton Fluoroelastomer

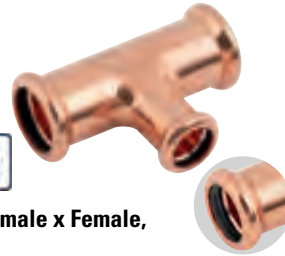
Equal Tees



Female x Female x Female, EPDM Seal

3104	Size mm
68100151515	15
68100222222	22
68100282828	28
68100353535	35
68100424242	42
68100545454	54

Reducing Tees



Female x Female x Female, EPDM Seal

3104	Size mm	Size mm	Size mm
68110221522	22	15	22
68110282228	28	22	28
68110352235	35	22	35
68110352835	35	28	35
68110422242	42	22	42
68110422842	42	28	42
68110423542	42	35	42
68110542254	54	22	54
68110542854	54	28	54
68110543554	54	35	54
68110544254	54	42	54



Female x Female Threaded, BSPP x Female, EPDM Seal

3104	Size mm	Thread	Size mm
68120151215	15	1/2"	15
68120221222	22	1/2"	22
68120223422	22	3/4"	22
68120281228	28	1/2"	28
68120283428	28	3/4"	28
68120351235	35	1/2"	35
68120421242	42	1/2"	42
68120541254	54	1/2"	54



Female x Female x Female, HNBR Gas Approved Seal

3104	Size mm
79100151515	15
79100222222	22
79100282828	28
79100353535	35
79100424242	42
79100545454	54



Female x Female x Female, HNBR Gas Approved Seal

3104	Size mm	Size mm	Size mm
79110221522	22	15	22
79110282228	28	22	28
79110352235	35	22	35
79110352835	35	28	35
79110422842	42	22	42
79110422842	42	28	42
79110423542	42	35	42
79110542254	54	22	54
79110542854	54	28	54
79110543554	54	35	54
79110544254	54	42	54



Female x Female Threaded, BSPP x Female, HNBR Gas Approved Seal

3104	Size mm	Thread	Size mm
79120151215	15	1/2"	15
79120221222	22	1/2"	22
79120223422	22	3/4"	22
79120281228	28	1/2"	28
79120283428	28	3/4"	28
79120351235	35	1/2"	35
79120421242	42	1/2"	42
79120541254	54	1/2"	54

Female x Female x Female, FKM Seal

3104	Size mm
88100151515	15
88100222222	22
88100282828	28
88100353535	35
88100424242	42
88100545454	54

Female x Female x Female, FKM Seal

3104	Size mm	Size mm	Size mm
88110221522	22	15	22
88110282228	28	22	28
88110352235	35	22	35
88110352835	35	28	35
88110422242	42	22	42
88110422842	42	28	42
88110423542	42	35	42
88110542254	54	22	54
88110542854	54	28	54
88110543554	54	35	54
88110544254	54	42	54

Female x Female Threaded, BSPP x Female, FKM Seal

3104	Size mm	Thread	Size mm
88120151215	15	1/2"	15
88120221222	22	1/2"	22
88120223422	22	3/4"	22
88120281228	28	1/2"	28
88120283428	28	3/4"	28
88120351235	35	1/2"	35
88120421242	42	1/2"	42
88120541254	54	1/2"	54

90° Elbows



Female x Female, EPDM Seal

3104	Size mm
682001515	15
682002222	22
682002828	28
682003535	35
682004242	42
682005454	54



Female x Female, HNBR Gas Approved Seal

3104	Size mm
882001515	15
882002222	22
882002828	28
882003535	35
882004242	42
882005454	54

Female x Female, FKM Seal

3104	Size mm
882301515	15
882302222	22
882302828	28
882303535	35
882304242	42
882305454	54

90° Bends



Female x Female Threaded, BSPP, EPDM Seal

3104	Size mm	Thread
6832015012	15	1/2"
6832022034	15	3/8"
6832028100	22	3/4"



Female x Female Threaded, BSPP, HNBR Gas Approved Seal

3104	Size mm	Thread
7932015012	15	1/2"
7932022034	15	3/8"
7932028100	22	3/4"

Female x Female Threaded, BSPP, FKM Seal

3104	Size mm	Thread
8832015012	15	1/2"
8832022034	15	3/8"
8832028100	22	3/4"



Female x Male Threaded, BSPP, EPDM Seal

3104	Size mm	Thread
6831015012	15	1/2"
6831022034	22	3/4"
6831028100	28	1"



Female x Male Threaded, BSPP, HNBR Gas Approved Seal

3104	Size mm	Thread
7931015012	15	1/2"
7931022034	22	3/4"
7931028100	28	1"

Female x Male Threaded, BSPP, FKM Seal

3104	Size mm	Thread
8831015012	15	1/2"
8831022034	22	3/4"
8831028100	28	1"

EPDM Seals

Temperature: -30°C to +120°C

Pressure: PN16 16 bar



Description: Ethylene Propylene Diene Mnomer

HNBR Gas Approved Seals

Temperature: -20°C to +70°C

Pressure: PN5 5 bar



DVGW G260 & G262



Description: Hydrogenated Nitrile Butadiene Rubber

FKM Seals

Temperature: -30°C to +180°C (+230°C for short periods)

Pressure: PN16 16 bar



Description: Viton Fluoroelastomer

90° Street Elbows



Female x Male Plain End,
EPDM Seal



3104	Size mm
682101515	15
682102222	22
682102828	28
682103535	35
682104242	42
682105454	54



Female x Male Plain End,
HNBR Gas Approved Seal



3104	Size mm
792101515	15
792102222	22
792102828	28
792103535	35
792104242	42
792105454	54

Female x Male Plain End,
FKM Seal



3104	Size mm
882001515	15
882002222	22
882002828	28
882003535	35
882004242	42
882005454	54



Brass Press Fit Ball Valves



Working Temperature:
-10°C to +120°C

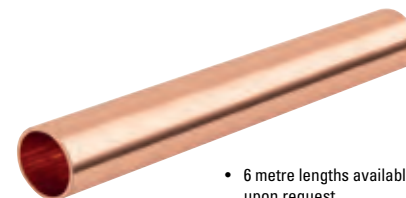
Maximum Working Pressure:
16 bar



Female x Female, EPDM Seal

3105	Size mm
GP60015PP	15
GP60022PP	22
GP60028PP	28
GP60035PP	35
GP60042PP	42
GP60054PP	54

Plumbing Copper Tube



- 6 metre lengths available upon request.

BS EN1057 R250, 3 Metre Lengths

5072	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
PCU15	15	13.6	843	59
PCU22	22	20.2	752	51
PCU28	28	26.2	582	40
PCU35	35	32.6	618	43
PCU42	42	39.6	512	35
PCU54	54	51.6	396	27
PCU67	67	64.6	317	22

RIDGID

You might also need...
RIDGID PC 116 Powered Tubing Cutter
...see page 1743



NIROSAN® STAINLESS STEEL PRESS FIT PIPING SYSTEM

stainless steel

SANHA



NiroSan® press system fittings and NiroSa® system pipes in stainless steel with tool compatibility, leak path feature and 'push and stay' function.

Stainless steel systems from SANHA® can be used universally. The various NiroSan® pipes and NiroSan® press system fittings can be combined with each other, making them particularly user friendly.

Features

- Pressable with V, M and SA profile
- Suitable for a very broad range of applications
- Long service life of fittings and EPDM sealing ring
- Inseparable, pressure-formed connection
- WRAS tested and certified
- All fittings and tube are manufactured from 316 L grade stainless steel

Working Temperature:
-30°C to +120°C

Maximum Working Pressures:
Water: 22mm: 40 bar, 28-35mm: 25 bar, 42-54mm: 16 bar
Flammable Gases: 5 bar
Non-flammable/oxic Gases: 16 bar

Press fittings suitable for both gas and industrial oil applications are available on request

Series 9000, Straights

Female x Male Plain End, Reducer



0473	ID mm	OD mm
692432215	22	15
692432815	28	15
692432822	28	22
692433522	35	22
692433528	35	28
692434228	42	28
692434235	42	35
692435428	54	28
692435435	54	35
692435442	54	42

Tech Sheet 60369

Male Plain End x Male Threaded, BSPT



0473	OD mm	Thread
69280G1512	15	1/2"
69280G2212	22	1/2"
69280G2234	22	3/4"
69280G281	28	1"

Tech Sheet 60369

Female End x Female Threaded, with Flat Centellen Seal, BSPP



0473	ID mm	Thread
69359M1512	15	1/2"
69359M1534	25	3/4"
69359M221	22	1"
69359M28114	28	1.1/4"
69359M35112	35	1.1/2"
69359M42134	42	1.3/4"

Tech Sheet 60369

Coupling



0473	ID mm
6927015	15
6927022	22
6927028	28
6927035	35
6927042	42
6927054	54

Tech Sheet 60369

Female x Male Threaded, BSPT



0473	ID mm	Thread
69243G1512	15	1/2"
69243G1534	15	3/4"
69243G221	22	1"
69243G2212	22	1/2"
69243G2234	22	3/4"
69243G281	28	1"
69243G2834	28	3/4"
69243G351	35	1"
69243G35114	35	1.1/4"
69243G42112	42	1.1/2"
69243G542	54	2"

Tech Sheet 60369

Slip Coupling



0473	ID mm
69270S15	15
69270S22	22
69270S28	28
69270S35	35
69270S42	42
69270S54	54

Tech Sheet 60369

Series 9000, End Caps



Female

0473	ID mm
6930115	15
6930122	22
6930128	28
6930135	35

Tech Sheet 60369

Series 9000, Tube



6 Metre Lengths

0473	ID mm
6960015	15
6960022	22
6960028	28
6960035	35
6960042	42
6960054	54

Tech Sheet 60369

Male Plain End x Female Threaded, BSPT



0473	ID mm	Thread
69246G1512	15	1/2"
69246G2212	22	1/2"
69246G2234	22	3/4"
69246G2834	28	3/4"

Tech Sheet 60369

Female End x Female Threaded, BSPT



0473	ID mm	Thread
69270G1512	15	1/2"
69270G2212	22	1/2"
69270G2234	22	3/4"
69270G281	28	1"
69270G2834	28	3/4"
69270G35114	35	1.1/4"
69270G42112	42	1.1/2"
69270G542	54	2"

Tech Sheet 60369

NIROSAN® STAINLESS STEEL PRESS FIT PIPING SYSTEM

stainless
steel

SANHA



Series 9000, Tees



Equal

0473	ID mm
6913015	15
6913022	22
6913028	28
6913035	35
6913042	42
6913054	54

Tech Sheet 60369



Reducing

0473	ID mm	ID mm
69130221522	22	15
69130281528	28	15
69130352235	35	22
69130352835	35	28
69130422242	42	22
69130422842	42	28
69130423542	42	35
69130542254	54	22
69130542854	54	28
69130543554	54	35
69130544254	54	42

Tech Sheet 60369



Female Threaded Centre Leg, BSPT

0473	ID mm	Thread
69130G151215	15	1/2"
69130G221222	22	1/2"
69130G223422	22	3/4"
69130G281228	28	1/2"
69130G283428	28	3/4"
69130G351235	35	1/2"
69130G353435	35	3/4"
69130G421242	42	1/2"
69130G541254	54	1/2"

Tech Sheet 60369

Press fittings suitable for both gas and industrial oil applications are available on request.

Series 9000, 90° Elbows



Female x Male Plain End

0473	ID mm	OD mm
69001A15	15	15
69001A22	22	22
69001A28	28	28
69001A35	35	35
69001A42	42	42
69001A54	54	54

Tech Sheet 60369



Female x Male Plain End, Long

0473	ID mm	OD mm
69001L15	15	15
69001L22	22	22
69001L28	28	28
69001L35	35	35
69001L42	42	42
69001L54	54	54

Tech Sheet 60369



Equal Female

0473	ID mm
69002A15	15
69002A22	22
69002A28	28
69002A35	35
69002A42	42
69002A54	54

Tech Sheet 60369

Series 9000, 45° Elbows



Female x Male Plain End

0473	ID mm	OD mm
6904015	15	15
6904022	22	22
6904028	28	28
6904035	35	35
6904042	42	42
6904054	54	54

Tech Sheet 60369



Female x Male Thread, BSPT

0473	ID mm	Thread
69002AG1512	15	1/2"
69002AG2234	22	3/4"

Tech Sheet 60369



Female x Female Thread, BSPT

0473	ID mm	Thread
69002G1512	15	1/2"
69002G2234	22	3/4"

Tech Sheet 60369



Compact, Female x Female Thread, BSPT

0473	ID mm	Thread
69090IG1512	15	1/2"
69090IG2234	22	3/4"

Tech Sheet 60369



Compact, Female x Male Thread, BSPT

0473	ID mm	Thread
69092AG1512	15	1/2"
69092AG2234	22	3/4"
69092AG281	28	1"

Tech Sheet 60369



Female x Female

0473	ID mm
6904115	15
6904122	22
6904128	28
6904135	35
6904142	42
6904154	54

Tech Sheet 60369

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 9

Hose Tails, Adaptors, Fittings & Manifolds

9.01	Hose Tails	1137-1154
9.02	Quick Fit Fittings	1155-1164
9.03	Adaptors	1165-1194
9.04	Flanges & Gaskets	1195
9.05	Compression Fittings & Copper Tube	1196-1215
9.06	Plumbing Compression Fittings	1216-1219
9.07	Manifolds	1220-1224

SECTION 9

9.01 Hose Tails

- Nickel Plated Brass & Brass Hose Tails
- Push-on Hose Adaptors
- Polypropylene Hose Tails Adaptors
- Nylon Hose Tails
- PVDF Hose Tails
- Plastic Hose Tails
- Emergency Hose Connector Set
- Oxy-acetylene Fittings



1137-1154



9.02 Quick Fit Fittings

- Miniature Fittings M3-M6
- Brass Quick-fit Fitting
- Flow Regulators
- Finger-tight Fittings
- Polypropylene Quick-Fit Fittings
- PVDF Quick-Fit Fittings



1155-1164



9.03 Adaptors

- Brass Adaptors
- Nickel Plated Brass Adaptors
- Polypropylene Hose Adaptors
- Nylon Adaptors
- PVDF Adaptors
- 3000lb Forged Pipe Fittings, ANSI B16.11
- 150lb 316 Stainless Steel Pipe Fittings
- 3000lb 316 Stainless Steel Pipe Fittings
- Tubing
- BS TYPE, 316L Hygienic Pipe Fittings
- Hygienic Clamp Fittings
- RJT Couplings



1165-1194



9.04 Flanges & Gaskets

- 3000lb 316 Stainless Steel Pipe Fittings



1195



Hose Tails, Adaptors, Fittings & Manifolds

9.05 Compression Fittings & Copper Tube

- Brass Compression Fittings
- Enots Compression Fittings
- Nickel Plated Compression Fittings
- Copper Tubing
- Bundy Tubing
- PVC Covered Copper Tube
- Polyethylene Pipe Insulation



1196-1215



9.06 Plumbing Compression Fittings

- Brass Plumbing Compression Fittings
- Solder Ring
- End Feed Fittings

1216-1219



9.07 Manifolds

- Distribution Manifolds
- Aluminium Manifolds
- Brass Manifolds
- Minifolds



1220-1224



NICKEL PLATED BRASS & BRASS HOSE TAILS



This technical data is applicable to the full range of hose tail fittings and airline fittings including tees, elbows, reducers and silencers etc.

Threads:

Tapered in conformity with ISO 7.1, BS 21, DIN 2999. Parallel in conformity with ISO 228 class A. Metric in conformity with ISO R/262.

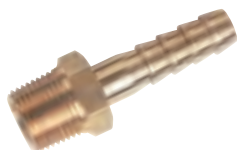
Media:

Compressed air, water, oils and fluids for hydraulics and pneumatic fields.

N.B. Safe pressures and temperatures depend entirely on the tubes being used, for this reason the values must be determined in accordance with the tube features.



Straight Hose Tails, Brass



Male Thread, BSPT

1010	Thread	To Suit Hose ID	To Suit Hose ID mm
GT10/04K	1/8"	1/8"	4
GT10/05K	1/8"	3/16"	5
GT10/06K	1/8"	1/4"	6
GT10/08K	1/8"	5/16"	8
GT10/09K	1/8"	3/8"	9
GT10/13K	1/8"	1/2"	13
GT13/04K	1/4"	1/8"	4
GT13/05K	1/4"	3/16"	5
GT13/06K	1/4"	1/4"	6
GT13/08K	1/4"	5/16"	8
GT13/09K	1/4"	3/8"	9
GT13/13K	1/4"	1/2"	13
GT13/16K	1/4"	5/8"	16
GT13/19K	1/4"	3/4"	19
GT17/05K	3/8"	3/16"	5
GT17/06K	3/8"	1/4"	6
GT17/08K	3/8"	5/16"	8
GT17/09K	3/8"	3/8"	9
GT17/13K	3/8"	1/2"	13
GT17/16K	3/8"	5/8"	16
GT17/19K	3/8"	3/4"	19
GT21/05K	1/2"	3/16"	5
GT21/06K	1/2"	1/4"	6
GT21/08K	1/2"	5/16"	8
GT21/09K	1/2"	3/8"	9
GT21/13K	1/2"	1/2"	13
GT21/16K	1/2"	5/8"	16
GT21/19K	1/2"	3/4"	19
GT21/25K	1/2"	1"	25
GT23/16K	5/8"	5/8"	16
GT26/06K	3/4"	1/4"	6
GT26/08K	3/4"	5/16"	8
GT26/09K	3/4"	3/8"	9
GT26/13K	3/4"	1/2"	13
GT26/16K	3/4"	5/8"	16
GT26/19K	3/4"	3/4"	19
GT26/25K	3/4"	1"	25
GT26/31K	3/4"	1.1/4"	31
GT33/13K	1"	1/2"	13
GT33/16K	1"	5/8"	16
GT33/19K	1"	3/4"	19
GT33/25K	1"	1"	25
GT33/31K	1"	1.1/4"	31
GT33/38K	1"	1.1/2"	38
GT42/19K	1.1/4"	3/4"	19
GT42/25K	1.1/4"	1"	25
GT42/31K	1.1/4"	1.1/4"	31
GT48/31K	1.1/2"	1.1/4"	31
GT48/38K	1.1/2"	1.1/2"	38
GT48/50K	1.1/2"	2"	50
GT52/38K	2"	1.1/2"	38
GT52/50K	2"	2"	50
GT56/53K	2.1/2"	2.1/2"	53
GT60/58K	3"	3"	58

Tech Sheet 20089

Straight Hose Tails, Nickel Plated Brass



Male Thread, BSPT

1010	Thread	To Suit Hose ID	To Suit Hose ID mm
GT10/04KNP	1/8"	1/8"	4
GT10/05KNP	1/8"	3/16"	5
GT10/06KNP	1/8"	1/4"	6
GT10/08KNP	1/8"	5/16"	8
GT10/09KNP	1/8"	3/8"	9
GT13/04KNP	1/4"	1/8"	4
GT13/05KNP	1/4"	3/16"	5
GT13/06KNP	1/4"	1/4"	6
GT13/08KNP	1/4"	5/16"	8
GT13/09KNP	1/4"	3/8"	9
GT13/13KNP	1/4"	1/2"	13
GT13/16KNP	1/4"	5/8"	16
GT17/05KNP	3/8"	3/16"	5
GT17/06KNP	3/8"	1/4"	6
GT17/08KNP	3/8"	5/16"	8
GT17/09KNP	3/8"	3/8"	9
GT17/13KNP	3/8"	1/2"	13
GT17/16KNP	3/8"	5/8"	16
GT17/19KNP	3/8"	3/4"	19
GT21/06KNP	1/2"	1/4"	6
GT21/08KNP	1/2"	5/16"	8
GT21/09KNP	1/2"	3/8"	9
GT21/13KNP	1/2"	1/2"	13
GT21/16KNP	1/2"	5/8"	16
GT21/19KNP	1/2"	3/4"	19
GT21/25KNP	1/2"	1"	25
GT26/09KNP	3/4"	3/8"	9
GT26/13KNP	3/4"	1/2"	13
GT26/16KNP	3/4"	5/8"	16
GT26/19KNP	3/4"	3/4"	19
GT26/25KNP	3/4"	1"	25
GT33/13KNP	1"	1/2"	13
GT33/19KNP	1"	3/4"	19
GT33/25KNP	1"	1"	25
GT33/38KNP	1"	1.1/2"	38
GT33/31KNP	1"	1.1/4"	31
GT42/25KNP	1.1/4"	1"	25
GT42/31KNP	1.1/4"	1.1/4"	31
GT48/38KNP	1.1/2"	1.1/2"	38
GT48/50KNP	1.1/2"	2"	50
GT52/38KNP	2"	1.1/2"	38
GT52/50KNP	2"	2"	50

Tech Sheet 20089

HOSE TAILS



Straight Hose Tails, Brass



Male Thread, BSPP

1010	Thread	To Suit Hose ID mm
GBP-34	3/4"	20
GBP-1	1"	25
GBP-114	1.1/4"	32
GBP-2	2"	50

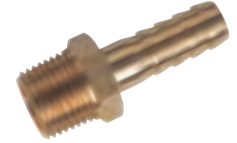


Male Thread, Metric

1010	Thread	To Suit Hose ID mm
MHM5/03	M5 x 0.8	3
MHM5/04	M5 x 0.8	4
MHM6/04	M6 x 1.0	4
MHM8/04	M8 x 1.0	6
MHM10/04	M10 x 1.0	6
MHM10/05	M10 x 1.0	8
MHM10/06	M10 x 1.0	10
MHM12/04	M12 x 1.5	6
MHM12/05	M12 x 1.5	8
MHM12/06	M12 x 1.5	10
MHM14/06	M14 x 1.5	10
MHM16/06	M16 x 1.5	10
MHM16/08	M16 x 1.5	12
MHM18/06	M18 x 1.5	10
MHM18/08	M18 x 1.5	12
MHM22/08	M22 x 1.5	12
MHM22/12	M22 x 1.5	19

Male Thread,
60° Coned Seat, BSPP

1010	Thread	To Suit Hose ID
GT05/03	M5	3mm
GT05/04	M5	4mm
GT06/04	M6	4mm
GT10/04	1/8"	1/8"
GT10/05	1/8"	3/16"
GT10/06	1/8"	1/4"
GT10/08	1/8"	5/16"
GT10/09	1/8"	3/8"
GT13/05	1/4"	3/16"
GT13/04	1/4"	1/8"
GT13/06	1/4"	1/4"
GT13/08	1/4"	5/16"
GT13/09	1/4"	3/8"
GT13/13	1/4"	1/2"
GT17/06	3/8"	1/4"
GT17/08	3/8"	5/16"
GT17/09	3/8"	3/8"
GT17/13	3/8"	1/2"
GT17/16	3/8"	5/8"
GT17/19	3/8"	3/4"
GT21/06	1/2"	1/4"
GT21/08	1/2"	5/16"
GT21/09	1/2"	3/8"
GT21/13	1/2"	1/2"
GT21/16	1/2"	5/8"
GT21/19	1/2"	3/4"
GT21/25	1/2"	1"
GT26/06	3/4"	1/4"
GT26/08	3/4"	5/16"
GT26/10	3/4"	3/8"
GT26/13	3/4"	1/2"
GT26/16	3/4"	5/8"
GT26/19	3/4"	3/4"
GT26/25	3/4"	1"
GT33/13	1"	1/2"
GT33/19	1"	3/4"
GT33/25	1"	1"
GT33/32	1"	1.1/4"
GT42/25	1.1/4"	1"
GT42/32	1.1/4"	1.1/4"
GT42/38	1.1/4"	1.1/2"
GT48/38	1.1/2"	1.1/2"
GT52/50	2"	2"



Male Thread, NPT

1010	Thread	To Suit Hose ID mm
650-1003	1/8"	3
650-1004	1/8"	4
650-1005	1/8"	5
650-1006	1/8"	6
650-1008	1/8"	8
650-1010	1/8"	10
650-1305	1/4"	5
650-1306	1/4"	6
650-1308	1/4"	8
650-1310	1/4"	10
650-1312	1/4"	12
650-1706	3/8"	6
650-1708	3/8"	8
650-1710	3/8"	10
650-1713	3/8"	13
650-1716	3/8"	16
650-1719	3/8"	19
650-2106	1/2"	6
650-2108	1/2"	8
650-2110	1/2"	10
650-2113	1/2"	13
650-2116	1/2"	16
650-2119	1/2"	19
650-2125	1/2"	25
650-2612	3/4"	12
650-2616	3/4"	16
650-2625	3/4"	25
650-2632	3/4"	32
650-3312	1"	12
650-3316	1"	16
650-3319	1"	19
650-3325	1"	25
650-3332	1"	32
650-4219	1.1/4"	19
650-4225	1.1/4"	25
650-4232	1.1/4"	32
650-4238	1.1/4"	38
650-4838	1.1/2"	38

Straight Hose Tails, Brass



Male Thread, NPT, Ball Swivel Joints

1010	Thread	To Suit Hose ID
BSJ-IW13	1 1/4" x 1/4"	-
BSJ-TF06	1/4"	1/4"
BSJ-TF08	1/4"	5/16"
BSJ-TF10	1/4"	3/8"



Female Thread, BSPP

1010	Thread	To Suit Hose ID
FFH02/03	1/8"	3/16"
FFH02/04	1/8"	1/4"
FFH02/05	1/8"	5/16"
FFH02/06	1/8"	3/8"
FFH04/03	1/4"	3/16"
FFH04/04	1/4"	1/4"
FFH04/05	1/4"	5/16"
FFH04/06	1/4"	3/8"
FFH06/04	3/8"	1/4"
FFH06/05	3/8"	5/16"
FFH06/06	3/8"	3/8"
FFH06/08	3/8"	1/2"
FFH08/04	1/2"	1/4"
FFH08/05	1/2"	5/16"
FFH08/06	1/2"	3/8"
FFH08/08	1/2"	1/2"
FFH08/10	1/2"	5/8"
FFH08/12	1/2"	3/4"
FFH08/16	1/2"	1"

Straight Swivel Hose Tails, Brass



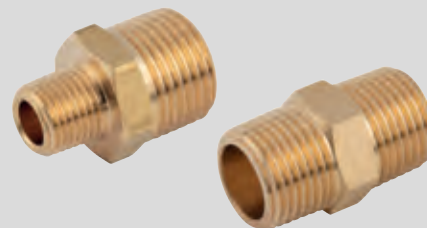
Swivel Female Thread, 60° Coned Seat, BSPP

1010	Thread	To Suit Hose ID
FH10/18	1/8"	1/8"
FH10/316	1/8"	3/16"
FH13/18	1/4"	1/8"
FH13/316	1/4"	3/16"
FH13/14	1/4"	1/4"
FH13/516	1/4"	5/16"
FH13/38	1/4"	3/8"
FH17/14	3/8"	1/4"
FH17/516	3/8"	5/16"
FH17/38	3/8"	3/8"
FH17/12	3/8"	1/2"
FH21/14	1/2"	1/4"
FH21/516	1/2"	5/16"
FH21/38	1/2"	3/8"
FH21/12	1/2"	1/2"
FH26/12	3/4"	1/2"
FH26/34	3/4"	3/4"
FH33/12	1"	1/2"
FH33/58	1"	5/8"
FH33/34	1"	3/4"
FH33/1	1"	1"
FH42/114	1.1/4"	1.1/4"
FH48/114	1.1/2"	1.1/4"
FH48/112	1.1/2"	1.1/2"
FH52/2	2"	2"



Swivel Female Thread, Flat Faced Seat with Washer, BSPP

1010	Thread	To Suit Hose ID
FH10/18FF	1/8"	1/8"
FH10/316FF	1/8"	3/16"
FH10/14FF	1/8"	1/4"
FH13/316FF	1/4"	3/16"
FH13/14FF	1/4"	1/4"
FH13/516FF	1/4"	5/16"
FH13/38FF	1/4"	3/8"
FH17/14FF	3/8"	1/4"
FH17/516FF	3/8"	5/16"
FH17/38FF	3/8"	3/8"
FH17/12FF	3/8"	1/2"
FH21/14FF	1/2"	1/4" (6)
FH21/516FF	1/2"	5/16"
FH21/38FF	1/2"	3/8"
FH21/12FF	1/2"	1/2"
FH21/58FF	1/2"	5/8"
FH26/12FF	3/4"	3/8" (10)
FH26/12FF	3/4"	1/2"
FH26/58FF	3/4"	5/8"
FH26/34FF	3/4"	3/4"
FH33/12FF	1"	1/2" (12)
FH33/34FF	1"	3/4" (19)
FH33/1FF	1"	1"
FH42/114FF	1.1/4"	1.1/4"
FH48/112FF	1.1/2"	1.1/2"
FH52/2FF	2"	2"



For Brass Adaptors
...see pages 1165-1176

HOSE TAILS



Elbow Hose Tails, Brass



Male Thread, BSPT

1010	Thread	To Suit Hose ID mm
600-1008	1/8"	8
600-1306	1/4"	6
600-1308	1/4"	8
600-1310	1/4"	10
600-1708	3/8"	8
600-1710	3/8"	10

Swivel Female Thread, Coned Seat, BSPP



1010	Thread	To Suit Hose ID mm
628-1006	1/8"	6
628-1305	1/4"	5
628-1306	1/4"	6
628-1308	1/4"	8
628-1310	1/4"	10
628-1706	3/8"	6
628-1708	3/8"	8
628-1710	3/8"	10
628-2110	1/2"	10
628-2112	1/2"	12



Female Thread, BSPP

1010	Thread	To Suit Hose ID	To Suit Hose ID mm
FET14-516	1/4"	5/16"	8
FET14-38	1/4"	3/8"	10
FET38-38	3/8"	3/8"	10
FET38-12	3/8"	1/2"	13

Tech Sheet 20182



Male Thread, BSPT

1010	Thread	To Suit Hose ID	To Suit Hose ID mm
EHT-18-6	1/8"	1/4"	6
EHT-18-8	1/8"	5/16"	8
EHT-18-10	1/8"	3/8"	10
EHT-14-6	1/4"	1/4"	6
EHT-14-8	1/4"	5/16"	8
EHT-14-10	1/4"	3/8"	10
EHT-14-13	1/4"	1/2"	13
EHT-38-6	3/8"	1/4"	6
EHT-38-8	3/8"	5/16"	8
EHT-38-10	3/8"	3/8"	10
EHT-38-13	3/8"	1/2"	13
EHT-12-8	1/2"	5/16"	8
EHT-12-10	1/2"	3/8"	10
EHT-12-13	1/2"	1/2"	13

Tech Sheet 20349

Y Hose Tails, Brass



1010	To Suit Hose ID	To Suit Hose ID mm
2020-1940	3/16"	5
2020-1943	1/4"	6
2020-1950	5/16"	8
2020-1968	3/8"	10
2020-1976	1/2"	12

Cross Hose Tails, Brass



1010	To Suit Hose ID	To Suit Hose ID mm
2020-1901	1/4"	6
2020-1919	5/16"	8
2020-1927	3/8"	10
2020-1935	1/2"	12

Tech Sheet 20349

Tee Hose Tails, Brass



Single Barbed

1010	To Suit Hose ID	To Suit Hose ID mm
620-2108	5/16"	8
620-2110	3/8"	10
620-2112	1/2"	12

Multi Barbed



1010	To Suit Hose ID	To Suit Hose ID mm
THT-5	3/16"	5
THT-6	1/4"	6
THT-8	5/16"	8
THT-10	3/8"	10
THT-13	1/2"	13
HRCT12	3/4"	19

Tech Sheet 20348

Hose Joiners, Brass



Equal

0422	To Suit Hose ID
DS04/04	1/8"
DS05/05	3/16"
DS06/06	1/4"
DS08/08	5/16"
DS09/09	3/8"
DS13/13	1/2"
DS16/16	5/8"
DS19/19	3/4"
DS25/25	1"
DS31/31	1.1/4"
DS38/38	1.1/2"
DS50/50	2"

Unequal

0422	To Suit Hose ID	To Suit Hose ID
DS09/06	3/8"	1/4"
DS13/06	1/2"	1/4"
DS13/08	1/2"	5/16"
DS13/09	1/2"	3/8"
DS16/09	5/8"	3/8"
DS16/13	5/8"	1/2"
DS19/09	3/4"	3/8"
DS19/13	3/4"	1/2"
DS19/16	3/4"	5/8"
DS25/19	1"	3/4"

Metric Stand Pipe



0422	Stand Pipe mm	To Suit Hose ID mm
CL15-10	15	10

Soldering Nut & Nipple



Female Thread, BSPP

0447	Thread	To Suit Hose ID
SN02/03	1/8"	3/16"
SN04/04	1/4"	1/4"
SN04/05	1/4"	5/16"
SN06/06	3/8"	3/8"
SN08/08	1/2"	1/2"
SN12/12	3/4"	3/4"

Straight Hose Tails, Nickel Plated Brass



Male Thread, BSPT

0422	Thread	To Suit Hose ID mm
3040-4-1/8	1/8"	4
3040-6-1/8	1/8"	6
3040-7-1/8	1/8"	7
3040-8-1/8	1/8"	8
3040-9-1/8	1/8"	9
3040-10-1/8	1/8"	10
3040-6-1/4	1/4"	6
3040-7-1/4	1/4"	7
3040-8-1/4	1/4"	8
3040-9-1/4	1/4"	9
3040-10-1/4	1/4"	10
3040-12-1/4	1/4"	12
3040-8-3/8	3/8"	8
3040-9-3/8	3/8"	9
3040-10-3/8	3/8"	10
3040-12-3/8	3/8"	12
3040-14-3/8	3/8"	14
3040-16-3/8	3/8"	16
3040-17-3/8	3/8"	17
3040-18-3/8	3/8"	18
3040-20-3/8	3/8"	20
3040-9-1/2	1/2"	9
3040-10-1/2	1/2"	10
3040-12-1/2	1/2"	12
3040-14-1/2	1/2"	14
3040-15-1/2	1/2"	15
3040-16-1/2	1/2"	16
3040-17-1/2	1/2"	17
3040-18-1/2	1/2"	18
3040-20-1/2	1/2"	20
3040-16-3/4	3/4"	16
3040-18-3/4	3/4"	18
3040-20-3/4	3/4"	20
3040-25-3/4	3/4"	25
3040-25-1	1"	25

Tech Sheet 10700



Male Thread, BSPP

0422	Thread	To Suit Hose ID mm
3045-4.5-M5	M5	4.5
3045-4-1/8	1/8"	4
3045-6-1/8	1/8"	6
3045-7-1/8	1/8"	7
3045-8-1/8	1/8"	8
3045-9-1/8	1/8"	9
3045-6-1/4	1/4"	6
3045-7-1/4	1/4"	7
3045-8-1/4	1/4"	8
3045-9-1/4	1/4"	9
3045-12-1/4	1/4"	12
3045-9-3/8	3/8"	9
3045-12-3/8	3/8"	12
3045-17-3/8	3/8"	17
3045-9-1/2	1/2"	9
3045-12-1/2	1/2"	12
3045-15-1/2	1/2"	15
3045-17-1/2	1/2"	17

Tech Sheet 10701



Male Thread, BSPT

5003	Thread	To Suit Hose ID mm
MC3/4-19	3/4"	19
MC1-25	1"	25



Female Thread, BSPP

0422	Thread	To Suit Hose ID mm
FHT6/10	1/8"	6
FHT6/13	1/4"	6
FHT7/10	1/8"	7
FHT7/13	1/4"	7
FHT8/13	1/4"	8
FHT9/13	1/4"	9
FHT9/17	3/8"	9
FHT10/13	1/4"	10
FHT10/17	3/8"	10
FHT12/17	3/8"	12
FHT12/21	1/2"	12

Tech Sheet 10702

Elbow Hose Tails, Nickel Plated Brass



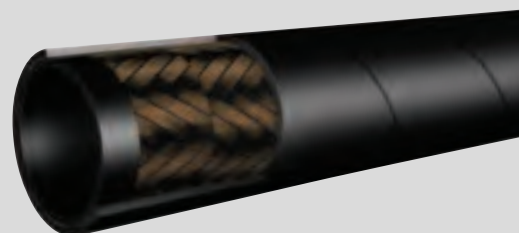
Male Thread, BSPT

1020	Thread	To Suit Hose ID	To Suit Hose ID mm
3055-6-1/8	1/8"	1/4"	6
3055-6-1/4	1/4"	1/4"	6
3055-9-1/4	1/4"	3/8"	9

Tech Sheet 10702



For Hydraulic Hose Range
...see pages 6-14



HOSE TAILS

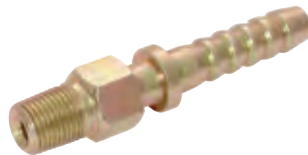


Straight Hose Tails, Steel Zinc Plated



Male Thread, BSPP

1011	Thread	To Suit Hose ID
2049-1460	3/8"	3/8"
2049-1478	1/2"	1/2"
2049-1502	3/4"	3/4"
2049-1528	1"	1"



Male Thread, BSPT, Safety Locking Collar

1011	Thread	To Suit Hose ID
SMH18-14	1/8"	1/4"
SMH14-38	1/4"	3/8"
SMH14-12	1/4"	1/2"
SMH38-14	3/8"	1/4"
SMH12-38	1/2"	3/8"
SMH12-12	1/2"	1/2"
SMH12-34	1/2"	3/4"
SMH34-12	3/4"	1/2"
SMH34-34	3/4"	3/4"
SMH01-01	1"	1"



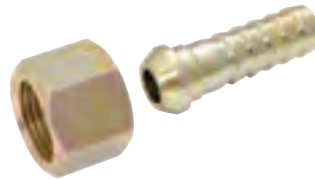
Male Thread, BSPT

1011	Thread	To Suit Hose ID
2049-1536	1/4"	1/4"
2049-1537	1/4"	5/16"
2052-8998	1/4"	3/8"
2049-1538	1/4"	1/2"
2049-1539	3/8"	1/4"
2049-1540	3/8"	5/16"
2049-1544	3/8"	3/8"
2052-9020	3/8"	1/2"
2052-9038	1/2"	3/8"
2049-1551	1/2"	1/2"
2052-9046	3/4"	1/2"
2052-9053	3/4"	1"
2049-1577	1"	1"



Swivel Female Thread, Flat Faced Seat with Washer, BSPP

1011	Thread	To Suit Hose ID
2049-1585	1/2"	1/2"
2049-1593	3/4"	3/4"
2049-1601	1"	1"
2049-1619	1.1/4"	1.1/4"



Swivel Female Thread, Coned Seat, BSPP

1011	Thread	To Suit Hose ID
2049-1630	1/4"	1/4"
2049-1633	1/4"	5/16"
2049-1638	1/4"	3/8"
2049-1640	3/8"	3/8"
2049-1643	1/2"	1/2"
2049-1668	3/4"	3/4"
2049-1684	1"	1"

Straight Hose Tail, Steel Plated



Swivel Male Thread, BSPT

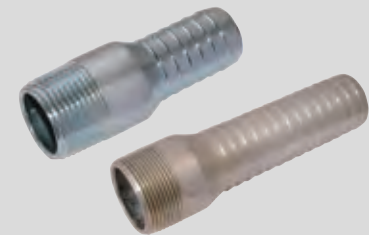
1011	Thread	To Suit Hose ID
MH04/04S	1/4"	1/4"

Hose Joiners, Steel



Equal

1011	To Suit Hose ID
SHRC04/04	1/4"
SHRC05/05	5/16"



For Combination Nipples
...see page 1497

HOSE TAILS

Straight Hose Tails, Aluminium



- These lightweight hose tails are manufactured to a high strength specification with a lower cost in comparison to its brass alternative.
- Tapered in conformity with ISO 7.1, BS 21, DIN 2999.
- Has the appearance of brass.
- Lightweight.
- General use for compressed air, pneumatics, oils and fluids.

Male Thread, BSPT

0383	Thread	To Suit Hose ID
AGT13/06K	1/4"	1/4"
AGT13/08K	1/4"	5/16"
AGT13/09K	1/4"	3/8"
AGT13/13K	1/4"	1/2"
AGT17/09K	3/8"	3/8"
AGT17/13K	3/8"	1/2"
AGT21/13K	1/2"	1/2"
AGT21/19K	1/2"	3/4"
AGT26/19K	3/4"	3/4"
AGT33/25K	1"	1"

N.B. Safe pressures and temperatures depend entirely on the hose being used, for this reason the values must be determined in accordance with the hose features.



Working Temperature:
0°C to +80°C



Maximum Working Pressure
10 bar

PUSH-ON HOSE ADAPTORS




Threads: Metric conforming to ISO R/262

Application: Flexible plastic tubes

Materials: Technopolymer body, Brass hose adaptor

Medium: Compressed air

 **Working Temperature:**
-10°C to +80°C

 **Maximum Working Pressure:**
10 bar

Vacuum: -0.99 bar

Elbow Hose Adaptor



Tube x Tube

1020	To Suit Hose ID mm
1513-2	2
1513-3	3
1513-4	4
1513-6	6
Tech Sheet 983	

Tee Hose Adaptor



Tube x Tube

1020	To Suit Hose ID mm
1523-2	2
1523-3	3
1523-4	4
1523-6	6
Tech Sheet 983	

Straight Hose Adaptor



Tube x Tube

1020	Hose ID mm A	To Suit Hose ID mm B:
1504-22	2	2
1504-32	3	2
1504-33	3	3
1504-43	4	3
1504-44	4	4
1504-64	6	4
1504-66	6	6
Tech Sheet 983		

Straight Male Hose Adaptor



Tube x Metric

1020	To Suit Hose ID mm	Thread
1500-2	2	M5
1500-3	3	M5
1500-4	4	M5
1500-6	6	M5
Tech Sheet 983		



For **Compression Fittings**
...see pages **1209-1211**



POLYPROPYLENE HOSE TAILS ADAPTORS



° Maximum Working Temperature:
+80°C

Maximum Working Pressure:
8 bar

9.01 Hose Tails

Threaded Studs



Male BSPP x Barb OD

0679	OD mm	Thread
28PHA01	6	1/4"
28PHA04	10	3/8"
28PHA05	12	3/8"
28PHA06	16	3/8"
28PHA08	13	1/2"
28PHA09	16	1/2"
28PHA10	20	1/2"
28PHA11	10	3/4"
28PHA12	13	3/4"
28PHA13	16	3/4"
28PHA14	20	3/4"
28PHA15	25	3/4"
28PHA16	20	1"
28PHA17	25	1"
28PHA18	32	1"
28PHA18A	20	1.1/4"
28PHA19	25	1.1/4"
28PHA20	32	1.1/4"
28PHA21	40	1.1/4"
28PHA22	38	1.1/2"
28PHA22A	40	1.1/2"
28PHA23	50	1.1/2"
28PHA24	50	2"

Tech Sheet 68762

Fixed Female BSPP x Barb OD



0679	OD mm	Thread
28PHA50	16	3/4"
28PHA51	20	3/4"

Tech Sheet 68762

Female BSPP, Nut Liner & Seal x Barb OD



0679	OD mm	Thread
28PHA38	10	3/8"
28PHA39	13	1/2"
28PHA40	10	3/4"
28PHA40A	13	3/4"
28PHA40B	16	3/4"
28PHA40C	20	3/4"
28PHA41A	20	1"
28PHA41B	25	1"
28PHA42	20	1.1/4"
28PHA42A	25	1.1/4"
28PHA42B	32	1.1/4"
28PHA43	40	1.1/2"
28PHA43A	38	1.1/2"
28PHA44	50	2"

Tech Sheet 68762

Stepped Male BSPP x Barb OD



0679	OD mm	Thread
28PHA25B1	10/13/20	1/2"
28PHA25C	13/20/25	3/4"
28PHA25D	20/25/32	1"
28PHA25E	25/32/38	1.1/4"
28PHA25F	13/20/25/32/38	1.1/2"

Tech Sheet 68762

90° Male BSPP Elbow x Barb OD



0679	OD mm	Thread
29PHA27	13	1/2"
29PHA28	16	1/2"
29PHA29	20	1/2"
29PHA30	12	3/4"
29PHA31	20	3/4"
29PHA32A	25	3/4"
29PHA33	25	1"
29PHA34	32	1"
29PHA35	32	1.1/4"
29PHA36	40	1.1/2"
29PHA37	51	2"

Tech Sheet 68762

Male BSPP Y Piece, Twin Barb OD



0679	OD mm	Thread
28PHA52	10	3/4"
28PHA53	13	3/4"
28PHA53B	20	3/4"
28PHA53C	25	1"

Tech Sheet 68762

Male BSPP Y Piece, Triple Barb OD



0679	OD mm	Thread
28PHA54	10	3/4"
28PHA55	13	3/4"

Tech Sheet 68762

90° Female BSPP Elbow, Nut Liner & Seal x Barb OD



0679	OD mm	Thread
28PHA45A	12	1/2"
28PHA45B	12	3/4"
28PHA45C	16	3/4"
28PHA46	20	3/4"
28PHA47A	25	1"
28PHA47BC	25	1.1/4"
28PHA47B	32	1.1/4"
28PHA47C	40	1.1/2"
28PHA47D	50	2"

Tech Sheet 68762

OD Barb x OD Barb Adaptors



Equal Hose Menders

0679	OD mm
28PHM01A	6
28PHM03	13
28PHM04B	16
28PHM05	20
28PHM06	25
28PHM07	32
28PHM08	40
28PHM09A	50

Tech Sheet 68762

Unequal Hose Menders



0679	OD A mm	OD B mm
28PHMR04B	13	20
28PHMR04C	13	26
28PHMR05	20	25
28PHMR06	26	32
28PHMR09	25	38
28PHMR08	32	38
28PHMR10	38.5	50

Tech Sheet 68762

90° Equal Elbow Hose Menders



0679	OD mm
28PHLA01	6
28PHLA02	10
28PHLB03	13
28PHLB05	20
28PHLB06	25
28PHLB07	32
28PHLB08	40
28PHLB09A	50

Tech Sheet 68762

NYLON HOSE TAILS



Tefen hose fittings are the perfect choice to connect all types of flexible rubber and plastic tubes in domestic, industrial and all other general applications.

Nylon 6-6

° Temperature:
-20 to 110°C

Working Pressure:
Up to 14 bar (200 psi) at 20°C

Fittings Dimensions: refer to tube ID or OD,
with respect to the common application

Main advantages:

- Strong and durable
- High impact resistant
- Food Certified

Female Swivel Nut x Hose Tail



BSPT

0497	To Suit Hose ID	To Suit Hose ID mm	Thread
PN14-4-18	1/8"	4	1/8"
PN14-5-18	3/16"	5	1/8"
PN14-4-14	1/8"	4	1/4"
PN14-5-14	3/16"	5	1/4"
PN14-6-14	1/4"	6	1/4"
PN14-8-14	5/16"	8	1/4"
PN14-5-38	3/16"	5	3/8"
PN14-6-38	1/4"	6	3/8"
PN14-8-38	5/16"	8	3/8"
PN14-10-38	3/8"	10	3/8"
PN14-6-12	1/4"	6	1/2"
PN14-8-12	5/16"	8	1/2"
PN14-10-12	3/8"	10	1/2"
PN14-12-12	1/2"	12	1/2"
PN14-14-12	-	14	1/2"
PN14-10-34	3/8"	10	3/4"
PN14-12-34	1/2"	12	3/4"
PN14-14-34	-	14	3/4"
PN14-16-34	5/8"	16	3/4"
PN14-19-34	3/4"	19	3/4"

Female x Hose Tail



BSPT

0497	To Suit Hose ID	To Suit Hose ID mm	Thread
PN25-5-18	3/16"	5	1/8"
PN25-6-18	1/4"	6	1/8"
PN25-8-12	5/16"	8	1/2"
PN25-10-12	3/8"	10	1/2"
PN25-12-12	1/2"	12	1/2"
PN25-14-12	-	14	1/2"
PN25-19-12	3/4"	19	1/2"

Male x Hose Tail



BSPT

0497	To Suit Hose ID	To Suit Hose ID mm	Thread
PN15-4-18	1/8"	4	1/8"
PN15-4-14	1/8"	4	1/4"
PN15-5-18	3/16"	5	1/8"
PN15-5-14	3/16"	5	1/4"
PN15-6-18	1/4"	6	1/8"
PN15-6-14	1/4"	6	1/4"
PN15-6-38	1/4"	6	3/8"
PN15-6-12	1/4"	6	1/2"
PN15-6-34	1/4"	6	3/4"
PN15-8-18	5/16"	8	1/8"
PN15-8-14	5/16"	8	1/4"
PN15-8-38	5/16"	8	3/8"
PN15-8-12	5/16"	8	1/2"
PN15-10-14	3/8"	10	1/4"
PN15-10-38	3/8"	10	3/8"
PN15-10-12	3/8"	10	1/2"
PN15-10-34	3/8"	10	3/4"
PN15-12-14	1/2"	12	1/4"
PN15-12-38	1/2"	12	3/8"
PN15-12-12	1/2"	12	1/2"
PN15-12-34	1/2"	12	3/4"
PN15-14-38	-	14	3/8"
PN15-14-12	-	14	1/2"
PN15-14-34	-	14	3/4"
PN15-16-12	5/8"	16	1/2"
PN15-16-34	5/8"	16	3/4"
PN15-19-12	3/4"	19	1/2"
PN15-19-34	3/4"	19	3/4"
PN15-19-1	3/4"	19	1"
PN15-25-34	1"	25	3/4"

Hose Repairer



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID mm
PN20-4	1/8"	4
PN20-5	3/16"	5
PN20-6	1/4"	6
PN20-8	5/16"	8
PN20-10	3/8"	10
PN20-12	1/2"	12
PN20-14	-	14
PN20-16	5/8"	16
PN20-19	3/4"	19

Reducing Hose Repairer



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID mm	To Suit Hose ID	To Suit Hose ID mm
PN19-5-4	3/16"	5	1/8"	4
PN19-6-4	1/4"	6	1/8"	4
PN19-6-5	1/4"	6	3/16"	5
PN19-8-5	5/16"	8	3/16"	5
PN19-8-6	5/16"	8	1/4"	6
PN19-10-6	3/8"	10	1/4"	6
PN19-10-8	3/8"	10	5/16"	8
PN19-12-8	1/2"	12	5/16"	8
PN19-12-10	1/2"	12	3/8"	10
PN19-14-10	3/8"	10	3/8"	10
PN19-14-12	-	14	1/2"	12
PN19-16-12	5/8"	16	1/2"	12
PN19-16-14	5/8"	16	-	14
PN19-19-14	3/4"	19	-	14
PN19-19-16	3/4"	19	5/8"	16

Blanking Plug



BSPT

0497	Thread
PN12-18	1/8"
PN12-14	1/4"
PN12-38	3/8"
PN12-12	1/2"
PN12-34	3/4"

Blanking Cap



BSPT

0497	Thread
PN13-18	1/8"
PN13-14	1/4"
PN13-38	3/8"
PN13-12	1/2"
PN13-34	3/4"

NYLON HOSE TAILS



Nylon 6-6

Temperature:
-20 to 110°C



Working Pressure:
Up to 14 bar (200 psi) at 20°C

Fittings Dimensions: refer to tube ID or OD,
with respect to the common application

Male Elbow Hose Connector



BSPT

0497	To Suit Hose ID	To Suit Hose ID mm	Thread
PN16-4-18	1/8"	4	1/8"
PN16-4-14	1/8"	4	1/4"
PN16-5-18	3/16"	5	1/8"
PN16-5-14	3/16"	5	1/4"
PN16-5-12	3/16"	5	1/2"
PN16-6-18	1/4"	6	1/8"
PN16-6-14	1/4"	6	1/4"
PN16-6-38	1/4"	6	3/8"
PN16-6-12	1/4"	6	1/2"
PN16-8-18	5/16"	8	1/8"
PN16-8-14	5/16"	8	1/4"
PN16-8-38	5/16"	8	3/8"
PN16-8-12	5/16"	8	1/2"
PN16-10-14	3/8"	10	1/4"
PN16-10-38	3/8"	10	3/8"
PN16-10-12	3/8"	10	1/2"
PN16-10-34	3/8"	10	3/4"
PN16-12-14	1/2"	12	1/4"
PN16-12-38	1/2"	12	3/8"
PN16-12-12	1/2"	12	1/2"
PN16-12-34	1/2"	12	3/4"
PN16-14-38	14mm	14	3/8"
PN16-14-12	14mm	14	1/2"
PN16-14-34	14mm	14	3/4"
PN16-16-12	5/8"	16	1/2"
PN16-16-34	5/8"	16	3/4"
PN16-19-12	3/4"	19	1/2"
PN16-19-34	3/4"	19	3/4"

Elbow Hose Connector



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID mm
PN18-4	1/8"	4
PN18-5	3/16"	5
PN18-6	1/4"	6
PN18-8	5/16"	8
PN18-10	3/8"	10
PN18-12	1/2"	12
PN18-14	14mm	14
PN18-16	5/8"	16
PN18-19	3/4"	19

Male Branch Tee Hose Connector



BSPT

0497	To Suit Hose ID	To Suit Hose ID mm	Thread
PN22-4-18	1/8"	4	1/8"
PN22-4-14	1/8"	4	1/4"
PN22-5-18	3/16"	5	1/8"
PN22-5-14	3/16"	5	1/4"
PN22-6-18	1/4"	6	1/8"
PN22-6-14	1/4"	6	1/4"
PN22-6-38	1/4"	6	3/8"
PN22-6-12	1/4"	6	1/2"
PN22-8-18	5/16"	8	1/8"
PN22-8-14	5/16"	8	1/4"
PN22-8-38	5/16"	8	3/8"
PN22-10-14	3/8"	10	1/4"
PN22-10-38	3/8"	10	3/8"
PN22-10-12	3/8"	10	1/2"
PN22-12-14	1/2"	12	1/4"
PN22-12-38	1/2"	12	3/8"
PN22-12-12	1/2"	12	1/2"
PN22-12-34	1/2"	12	3/4"
PN22-14-38	-	14	3/8"
PN22-16-12	5/8"	16	1/2"
PN22-16-34	5/8"	16	3/4"
PN22-19-12	3/4"	19	1/2"
PN22-19-34	3/4"	19	3/4"

Reducing Elbow Hose Connector



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID	To Suit Hose ID mm
PN17-5-4	3/16"	1/8"	4
PN17-6-5	1/4"	3/16"	5
PN17-8-6	5/16"	1/4"	6
PN17-10-6	3/8"	1/4"	6
PN17-10-8	3/8"	5/16"	8
PN17-12-10	1/2"	3/8"	10
PN17-16-14	5/8"	14mm	14
PN17-19-16	3/4"	5/8"	16

Tee Hose Connector



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID mm
PN23-4	1/8"	4
PN23-5	3/16"	5
PN23-6	1/4"	6
PN23-8	5/16"	8
PN23-10	3/8"	10
PN23-12	1/2"	12
PN23-14	14mm	14
PN23-16	5/8"	16
PN23-19	3/4"	19

Reducing Tee Hose Connector



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID	To Suit Hose ID mm
PN24-5-4	3/16"	1/8"	4
PN24-6-5	1/4"	3/16"	5
PN24-8-6	5/16"	1/4"	6
PN24-10-8	3/8"	5/16"	8
PN24-12-10	1/2"	3/8"	10
PN24-16-14	5/8"	14mm	14
PN24-19-16	3/4"	5/8"	16

Hose Connector



Tube x Tube

0497	To Suit Hose ID	To Suit Hose ID mm
PN21-4	1/8"	4
PN21-6	1/4"	6
PN21-8	5/16"	8
PN21-10	3/8"	10

PVDF HOSE TAILS

Fittings made of PVDF function better than nylon when exposed to a wide range of temperatures and high corrosive chemicals.

This enables them to be used in industries such as chemical processing due to their excellent chemical resistance properties.



Working Temperature:
-20°C to +120°C

Maximum Working Pressure:
14 bar at 20°C

Male x Hose Connector



BSPT

0472	To Suit Hose ID	Thread
PPV15-4-18	1/8"	1/8"
PPV15-5-14	3/16"	1/4"
PPV15-6-18	1/4"	1/8"
PPV15-6-14	1/4"	1/4"
PPV15-6-38	1/4"	3/8"
PPV15-6-12	1/4"	1/2"
PPV15-8-14	5/16"	1/4"
PPV15-8-38	5/16"	3/8"
PPV15-8-12	5/16"	1/2"
PPV15-10-14	3/8"	1/4"
PPV15-10-38	3/8"	3/8"
PPV15-10-12	3/8"	1/2"
PPV15-10-34	3/8"	3/4"
PPV15-12-38	1/2"	3/8"
PPV15-12-12	1/2"	1/2"
PPV15-12-34	1/2"	3/4"
PPV15-16-12	5/8"	1/2"
PPV15-19-12	3/4"	1/2"
PPV15-19-34	3/4"	3/4"

Tech Sheet 60237

Female x Hose Connector



BSPT

0472	To Suit Hose ID	Thread
PPV14-5-18	3/16"	1/8"
PPV14-5-14	3/16"	1/4"
PPV14-5-38	3/16"	3/8"
PPV14-6-14	1/4"	1/4"
PPV14-6-38	1/4"	3/8"
PPV14-6-12	1/4"	1/2"
PPV14-8-14	5/16"	1/4"
PPV14-8-38	5/16"	3/8"
PPV14-10-12	3/8"	1/2"
PPV14-12-12	1/2"	1/2"

Tech Sheet 60237

Straight Hose Connector



Tube x Tube

0472	To Suit Hose ID
PV20-5	3/16"
PV20-6	1/4"
PV20-10	3/8"
PV20-12	1/2"

Tech Sheet 60237

Male Elbow Hose Connector



BSPT

0472	To Suit Hose ID	Thread
PPV16-4-18	1/8"	1/8"
PPV16-4-14	1/8"	1/4"
PPV16-5-18	3/16"	1/8"
PPV16-5-14	3/16"	1/4"
PPV16-6-18	1/4"	1/8"
PPV16-6-14	1/4"	1/4"
PPV16-6-38	1/4"	3/8"
PPV16-6-12	1/4"	1/2"
PPV16-8-18	5/16"	1/8"
PPV16-8-14	5/16"	1/4"
PPV16-8-38	5/16"	3/8"
PPV16-8-12	5/16"	1/2"
PPV16-10-14	3/8"	1/4"
PPV16-10-38	3/8"	3/8"
PPV16-10-12	3/8"	1/2"
PPV16-10-34	3/8"	3/4"
PPV16-12-14	1/2"	1/4"
PPV16-12-38	1/2"	3/8"
PPV16-12-12	1/2"	1/2"
PPV16-12-34	1/2"	3/4"
PPV16-16-12	5/8"	1/2"
PPV16-16-34	5/8"	3/4"
PPV16-19-12	3/4"	1/2"
PPV16-19-34	3/4"	3/4"

Tech Sheet 60237

Elbow Hose Connector



Tube x Tube

0472	To Suit Hose ID
PV18-5	3/16"
PV18-8	5/16"
PV18-10	3/8"
PV18-12	1/2"

Tech Sheet 60237

Reducing Elbow Hose Connector

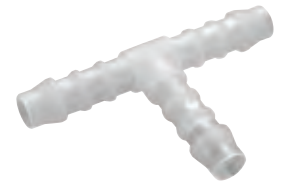


Tube x Tube

0472	To Suit Hose ID	To Suit Hose ID
PV17-6-5	1/4"	3/16"
PV17-8-6	5/16"	1/4"
PV17-10-8	3/8"	5/16"
PV17-12-10	1/2"	3/8"

Tech Sheet 60237

Tee Hose Connector



Tube x Tube

0472	To Suit Hose ID
PV23-5	3/16"
PV23-6	1/4"
PV23-8	5/16"
PV23-10	3/8"
PV23-12	1/2"

Tech Sheet 60237

Male Branch Tee Hose Connector



BSPT

0472	To Suit Hose ID	Thread
PPV22-6-18	1/4"	1/8"
PPV22-6-14	1/4"	1/4"
PPV22-8-14	5/16"	1/4"
PPV22-10-14	3/8"	1/4"
PPV22-12-14	1/2"	1/4"
PPV22-12-12	1/2"	1/2"
PPV22-12-38	1/2"	3/8"
PPV22-16-34	5/8"	3/4"
PPV22-19-34	3/4"	3/4"

Tech Sheet 60237

PLASTIC HOSE TAILS



OUR SUPERIOR DESIGN AND MANUFACTURING PROCESS ENSURES HIGHLY ACCURATE CONNECTOR DIMENSIONS FOR A PERFECT SEAL.

NORMA® Plastic Hose Connectors

- High performance products specified by the world's leading manufacturers for all their hose, tube and pipe applications
- Quality assured engineering and manufacture to ISO 9002, QS 9000 and ISO 14001
- Nylon polyamide 6 material



Reducing Straight

7777	To Suit Hose ID mm	To Suit Hose ID mm
NOR-GRS4-3	4	3
NOR-GRS5-4	5	4
NOR-GRS6-4	6	4
NOR-GRS8-4	8	4
NOR-GRS8-6	8	6
NOR-GRS10-6	10	6
NOR-GRS10-8	10	8
NOR-GRS12-8	12	8
NOR-GRS12-10	12	10

- Acetal POM material



Elbow

7777	To Suit Hose ID mm
NOR-WS3	3
NOR-WS4	4
NOR-WS5	5
NOR-WS6	6
NOR-WS8	8
NOR-WS10	10
NOR-WS12	12
NOR-WS13	13
NOR-WS16	16
NOR-WS19	19
NOR-WS25	25

- Acetal POM material



Equal Tee

7777	To Suit Hose ID mm
NOR-TS3	3
NOR-TS4	4
NOR-TS5	5
NOR-TS6	6
NOR-TS7	7
NOR-TS8	8
NOR-TS10	10
NOR-TS12	12
NOR-TS13	13
NOR-TS14	14
NOR-TS15	15
NOR-TS16	16
NOR-TS19	19
NOR-TS25	25

- Acetal POM material



Equal Y

7777	To Suit Hose ID mm
NOR-YS3	3
NOR-YS4	4
NOR-YS5	5
NOR-YS6	6
NOR-YS8	8
NOR-YS10	10
NOR-YS12	12
NOR-YS13	13
NOR-YS14	14
NOR-YS16	16
NOR-YS19	19

- Acetal POM material



Reducing Tee, on Branch

7777	To Suit Hose ID mm	To Suit Hose ID mm
NOR-TRS4-6-4	4	6
NOR-TRS6-4-6	4	6
NOR-TRS8-4-8	4	8
NOR-TRS8-6-8	6	8
NOR-TRS10-6-10	6	10
NOR-TRS10-8-10	8	10
NOR-TRS10-13-10	10	13
NOR-TRS12-6-12	6	12
NOR-TRS12-8-12	8	12
NOR-TRS12-10-12	10	12
NOR-TRS15-6-15	6	15
NOR-TRS15-8-15	8	15
NOR-TRS18-10-18	10	18

- Acetal POM material



Reducing Y, on Split

7777	To Suit Hose ID mm	To Suit Hose ID mm
NOR-YRS4-6-4	6	4
NOR-YRS6-8-6	8	6

- Acetal POM material



Cross

7777	To Suit Hose ID mm
NOR-KS4	4
NOR-KS5	5
NOR-KS6	6
NOR-KS12	12

- Nylon polyamide 6 material



Straight Taper Thread, BSPT Male

7777	To Suit Hose ID mm	Thread
NOR-GES4R18	4	1/8"
NOR-GES4R14	4	1/4"
NOR-GES5R14	5	1/4"
NOR-GES6R18	6	1/8"
NOR-GES6R14	6	1/4"
NOR-GES6R38	6	3/8"
NOR-GES8R14	8	1/4"
NOR-GES8R38	8	3/8"
NOR-GES8R12	8	1/2"
NOR-GES10R14	10	1/4"
NOR-GES10R38	10	3/8"
NOR-GES12R38	12	3/8"
NOR-GES12R12	12	1/2"
NOR-GES14R12	14	1/2"
NOR-GES16R12	16	1/2"
NOR-GES16R34	16	3/4"
NOR-GES19R34	19	3/4"
NOR-GES25R1	25	1"

- Nylon polyamide 6 material



Elbow Taper Thread, BSPT Male

7777	To Suit Hose ID mm	Thread
NOR-WES4R18	4	1/8"
NOR-WES4R14	4	1/4"
NOR-WES6R18	6	1/8"
NOR-WES6R14	6	1/4"
NOR-WES6R38	6	3/8"
NOR-WES8R14	8	1/4"
NOR-WES8R12	8	1/2"
NOR-WES10R14	10	1/4"
NOR-WES10R38	10	3/8"
NOR-WES12R38	12	3/8"
NOR-WES12R12	12	1/2"
NOR-WES19R34	19	3/4"
NOR-WES25R1	25	1"

- Nylon polyamide 6 material



T Taper Thread, BSPT Male

7777	To Suit Hose ID mm	Thread
NOR-TES6R18	6	1/8"
NOR-TES8R14	8	1/4"
NOR-TES10R38	10	3/8"

- Acetal POM material



Straight Push-on

7777	To Suit Hose ID mm
NOR-GS3	3
NOR-GS4	4
NOR-GS5	5
NOR-GS6	6
NOR-GS8	8
NOR-GS10	10
NOR-GS12	12
NOR-GS13	13
NOR-GS14	14
NOR-GS16	16
NOR-GS19	19
NOR-GS25	25

HOSE TAILS



Emergency Hose Connector Set

Ideal for service engineers, or for workshops in case of a hose failure, this handy kit includes genuine PCL Hose Tails, Union Nuts, Coned Tailpieces and Reducing Bushes - all stored in a solid compact pocket case.

Kit contents:

- 4 x HC5194
- 3 x HC5656, HC1206, HC1217
- 2 x HC2479, HC5276, HC5275, HC1226, HC6897, HC1225
- 1 x HC6560, HC6895, HC6896



7000
HCKIT01

OXY-ACETYLENE FITTINGS



9

Hose Tails

Acetylene Hose Tail LH Thread, BSPP

0121	Thread	Hosetail
GA04/04	1/4"	1/4"
GA06/04	3/8"	1/4"
GA06/05	3/8"	5/16"
GA06/06	3/8"	3/8"



Oxygen Hose Tail RH Thread, BSPP

0121	Thread	Hosetail
G004/04	1/4"	1/4"
G006/04	3/8"	1/4"
G006/05	3/8"	5/16"
G006/06	3/8"	3/8"



Customers who bought from this page
also purchased...

Stainless Steel Hose Clamps
...see page 1513

stainless
steel



Miniature fittings are for use in air connections in confined areas. The hose nipple and hose elbow styles accept nylon, soft nylon and polyurethane tubing.

Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar

Male Studs



Male Thread, Metric

0425	ID mm	OD mm	Thread
MIPC4-M3	2.5	4	M3
MIPC3-M5	2	3	M5
MIPC4-M5	2.5	4	M5
MIPC5-M5	4	6	M5
MIPC4-M6	2.5	4	M6
MIPC6-M6	4	6	M6

Tech Sheet 60240

Male Elbows



Male Thread, Metric

0425	ID mm	OD mm	Thread
MIPL4-M3	2.5	4	M3
MIPL4-M5	2.5	4	M5
MIPL5-M6	4	6	M6

Tech Sheet 60240

Male Stud Tee Centre Leg



Male x Female, Metric

0425	Male Thread	Female Thread
MIUT-M5	M5	M5

Tech Sheet 60240

Female Tee



Female Thread, Metric

0425	Thread
MIFT-M5	M5

Tech Sheet 60240

Barb Male Hose Tails



Male Thread, Metric

0425	To Suit Hose ID mm	Thread
MIMHT2-M3	2	M3
MIMHT4-M3	4	M3
MIMHT3-M5	3	M5
MIMHT4-M5	4	M5
MIMHT6-M5	6	M5

Tech Sheet 60240

Barb Male Elbow Hose Tails



Male Thread, Metric

0425	To Suit Hose ID mm	Thread
MIEHT3-M3	3	M3
MIEHT4-M3	4	M3
MIEHT3-M5	3	M5
MIEHT4-M5	4	M5
MIEHT6-M5	6	M5

Tech Sheet 60240

Barb Male Stud Tees



Centre Leg Male, Metric

0425	To Suit Hose ID mm	Thread
MIBPB4-M5	4	M5

Tech Sheet 60240

Nipple



Male Thread, Metric

0425	Thread
MIMM-M5	M5

Tech Sheet 60240

Plugs



Male Thread, Metric

0425	Thread
MIPP-M5	M5

Tech Sheet 60240

Female Adaptor



Female Thread, Metric

0425	Thread
MIFF-M5	M5

Tech Sheet 60240

Male x Female Reducer



Male x Female, Metric

0425	Male Thread	Female Thread
MIMF-M5	M5	M5

Tech Sheet 60240

Extended Male x Female Adaptor



Male x Female, Metric

0425	Male Thread	Female Thread
MIRB18-M5	1/8"	M5

Tech Sheet 60240

BRASS QUICK-FIT FITTINGS



The working pressures and working temperatures depend on which type of tube is used; for this reason, the values must be determined in accordance with the tubes, cables or the fixed fittings, the values are:

Working Temperature:
-18°C to +70°C

Maximum Working Pressure:
15 bar (220 psi)

Male Studs



BSPT

1030	ID mm	OD mm	Thread
C1-4/2.7-1/8	2.7	4	1/8"
C1-5/3-1/8	3	5	1/8"
C1-6/4-1/8	4	6	1/8"
C1-6/4-1/4	4	6	1/4"
C1-6/4-3/8	4	6	3/8"
C1-8/6-1/8	6	8	1/8"
C1-8/6-1/4	6	8	1/4"
C1-8/6-3/8	6	8	3/8"
C1-10/8-1/8	8	10	1/8"
C1-10/8-1/4	8	10	1/4"
C1-10/8-3/8	8	10	3/8"
C1-10/8-1/2	8	10	1/2"
C1-12/10-3/8	10	12	3/8"
C1-12/10-1/2	10	12	1/2"
C1-15/12.5-1/2	12.5	15	1/2"

Tech Sheet 10705



BSPP & Metric

1030	ID mm	OD mm	Thread
C12-4/2.7-5M	2.7	4	M5
C12-4/2.7-6M	2.7	4	M6
C12-4/2.7-1/8	2.7	4	1/8"
C12-5/3-5M	3	5	M5
C12-5/3-6M	3	5	M6
C12-5/3-1/8	3	5	1/8"
C12-6/4-5M	4	6	M5
C12-6/4-6M	4	6	M6
C12-6/4-1/8	4	6	1/8"
C12-6/4-1/4	4	6	1/4"
C12-6/4-3/8	4	6	3/8"
C12-6/4-1/2	4	6	1/2"
C12-8/6-1/8	6	8	1/8"
C12-8/6-1/4	6	8	1/4"
C12-8/6-3/8	6	8	3/8"
C12-10/8-1/8	8	10	1/8"
C12-10/8-1/4	8	10	1/4"
C12-10/8-3/8	8	10	3/8"
C12-10/8-1/2	8	10	1/2"
C12-12/10-3/8	10	12	3/8"
C12-12/10-1/2	10	12	1/2"

Tech Sheet 10705

Swivel Male Studs



BSPT

1030	ID mm	OD mm	Thread
C1X-6/4-1/4	4	6	1/4"
C1X-8/6-1/8	6	8	1/8"
C1X-8/6-1/4	6	8	1/4"
C1X-12/10-3/8	10	12	3/8"

Tech Sheet 10705



BSPP

1030	ID mm	OD mm	Thread
C1Y-6/4-1/8	4	6	1/8"
C1Y-6/4-1/4	4	6	1/4"
C1Y-8/6-1/8	6	8	1/8"
C1Y-8/6-1/4	6	8	1/4"
C1Y-10/6.5-1/4	6.5	10	1/4"
C1Y-10/8-1/4	8	10	1/4"
C1Y-12/10-3/8	10	12	3/8"

Tech Sheet 10705

Female Studs



BSPP

1030	ID mm	OD mm	Thread
C2-6/4-1/8	4	6	1/8"
C2-6/4-1/4	4	6	1/4"
C2-6/4-3/8	4	6	3/8"
C2-8/6-1/8	6	8	1/8"
C2-8/6-1/4	6	8	1/4"
C2-8/6-3/8	6	8	3/8"
C2-8/6-1/2	6	8	1/2"
C2-10/8-1/4	8	10	1/4"
C2-12/10-3/8	10	12	3/8"

Tech Sheet 10705

Straight Connectors



Equal Tube x Tube

1030	ID mm	OD mm
C3-4/2.7	2.7	4
C3-5/3	3	5
C3-6/4	4	6
C3-8/6	6	8
C3-10/8	8	10
C3-12/10	10	12
C3-15/12.5	12.5	15

Tech Sheet 10705

Unequal Tube x Tube

1030	ID A mm	OD A mm	ID B mm	OD B mm
C3-6/4-5/3	4	6	3	5
C3-8/6-6/4	6	8	4	6
C3-10/8-8/6	8	10	6	8

Tech Sheet 10705

Bulkhead Connectors



Equal Tube x Tube

1030	ID mm	OD mm
C4-4/2.7	2.7	4
C4-6/4	4	6
C4-8/6	6	8
C4-10/8	8	10
C4-12/10	10	12

Tech Sheet 10705

Unequal Tube x Tube

1030	ID A mm	OD A mm	ID B mm	OD B mm
C4-6/4-5/3	4	6	3	5
C4-8/6-6/4	6	8	4	6

Tech Sheet 10705

The working pressures and working temperatures depend on which type of tube is used; for this reason, the values must be observed in accordance with the tube data sheets for the respective fittings, the values are:

Working Temperature:
-18°C to +70°C

Maximum Working Pressure:
15 bar (220 psi)

Male Studs, Spring Guard



BSPT

1030	ID mm	OD mm	Thread
E1-6/4-1/8	4	6	1/8"
E1-6/4-1/4	4	6	1/4"
E1-8/6-1/4	6	8	1/4"
E1-8/6-3/8	6	8	3/8"
E1-10/8-1/8	8	10	1/8"
E1-10/8-1/4	8	10	1/4"
E1-10/8-3/8	8	10	3/8"
E1-10/8-1/2	8	10	1/2"

Tech Sheet 10705



BSPP

1030	ID mm	OD mm	Thread
E1Z-6/4-1/8	4	6	1/8"
E1Z-6/4-1/4	4	6	1/4"
E1Z-8/6-1/4	6	8	1/4"
E1Z-10/8-3/8	8	10	3/8"
E1Z-12/10-3/8	10	12	3/8"

Tech Sheet 10705

Swivel Male Studs, Spring Guard



BSPT

1030	ID mm	OD mm	Thread
E1X-6/4-1/8	4	6	1/8"
E1X-6/4-1/4	4	6	1/4"
E1X-8/6-1/4	6	8	1/4"
E1X-10/6.5-1/4	6.5	10	1/4"
E1X-10/8-1/4	8	10	1/4"
E1X-12/8-3/8	8	12	3/8"

Tech Sheet 10705



BSPP

1030	ID mm	OD mm	Thread
E1Y-6/4-1/8	4	6	1/8"
E1Y-6/4-1/4	4	6	1/4"
E1Y-8/6-1/4	6	8	1/4"
E1Y-10/6.5-1/4	6.5	10	1/4"

Tech Sheet 10705

Female Studs, Spring Guard

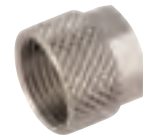


BSPP

1030	ID mm	OD mm	Thread
C2X-6/4-1/4	4	6	1/4"
C2X-8/6-1/4	6	8	1/4"
C2X-8/6-3/8	6	8	3/8"
C2X-10/8-1/4	8	10	1/4"

Tech Sheet 10705

Locking Nuts



Metric

1030	ID mm	OD mm	Thread
C10-4/2.7-M6	2.7	4	M6 x 0.5
C10-5/3-M7	3	5	M7 x 0.75
C10-6/4-M8	4	6	M8 x 0.75
C10-6/4-M10	4	6	M10 x 1
C10-8/6-M12	6	8	M12 x 1
C10-10/8-M14	8	10	M14 x 1
C10-15/12.5-M20	12.5	15	M20 x 1

Tech Sheet 10705

Locking Nuts, Spring Guard



Metric

1030	ID mm	OD mm	Thread
C10X-6/4	4	6	M10 x 1
C10X-8/6	6	8	M12 x 1
C10X-10/8	8	10	M14 x 1
C10X-12/10	10	12	M16 x 1

Tech Sheet 10705



For Hydraulic QRC's
... see pages 290-294



BRASS QUICK-FIT FITTINGS



The working pressures and working temperatures depend on which type of tube is used; for this reason, the values listed below are in accordance with the tubes and wires or the levels of fittings, the values are:

Working Temperature:
-18°C to +70°C

Maximum Working Pressure:
15 bar (220 psi)

Male Stud Elbows



BSPT

1030	ID mm	OD mm	Thread
C5-4/2.7-1/8	2.7	4	1/8"
C5-5/3-1/8	3	5	1/8"
C5-6/4-1/8	4	6	1/8"
C5-6/4-1/4	4	6	1/4"
C5-8/6-1/8	6	8	1/8"
C5-8/6-1/4	6	8	1/4"
C5-8/6-3/8	6	8	3/8"
C5-8/6-1/2	6	8	1/2"
C5-10/8-1/8	8	10	1/8"
C5-10/8-1/4	8	10	1/4"
C5-10/8-3/8	8	10	3/8"
C5-10/8-1/2	8	10	1/2"
C5-12/10-3/8	10	12	3/8"
C5-12/10-1/2	10	12	1/2"
C5-15/12.5-1/2	12.5	15	1/2"

Tech Sheet 10705

Swivel Male Stud Elbows



BSPT

1030	ID mm	OD mm	Thread
C5X-4/2.7-1/8	2.7	4	1/8"
C5X-6/4-1/8	4	6	1/8"
C5X-6/4-1/4	4	6	1/4"
C5X-8/6-1/8	6	8	1/8"
C5X-8/6-1/4	6	8	1/4"
C5X-10/8-1/4	8	10	1/4"

Tech Sheet 10705



BSPP

1030	ID mm	OD mm	Thread
C5Y-4/2.7-1/8	2.7	4	1/8"
C5Y-6/4-M5	4	6	M5
C5Y-6/4-1/8	4	6	1/8"
C5Y-6/4-1/4	4	6	1/4"
C5Y-8/6-1/8	6	8	1/8"
C5Y-8/6-1/4	6	8	1/4"
C5Y-10/8-1/4	8	10	1/4"

Tech Sheet 10705

Female Stud Elbows



BSPP

1030	ID mm	OD mm	Thread
C5F-5/3-1/8	3	5	1/8"
C5F-6/4-1/8	4	6	1/8"
C5F-6/4-1/4	4	6	1/4"
C5F-8/6-1/8	6	8	1/8"
C5F-8/6-1/4	6	8	1/4"
C5F-10/8-1/4	8	10	1/4"
C5F-10/8-3/8	8	10	3/8"

Tech Sheet 10705

Elbow Connectors



Equal Tube x Tube

1030	ID mm	OD mm
C6-4/2.7	2.7	4
C6-5/3	3	5
C6-6/4	4	6
C6-8/6	6	8
C6-10/8	8	10
C6-12/10	10	12

Tech Sheet 10705

Tee Connectors



Equal Tube x Tube

1030	ID mm	OD mm
C9-4/2.7	2.7	4
C9-5/3	3	5
C9-6/4	4	6
C9-8/6	6	8
C9-10/8	8	10
C9-12/10	10	12

Tech Sheet 10705

Unequal Tube x Tube

1030	ID A mm	OD A mm	ID B mm	OD B mm
C9-10/8-8/6	8	10	6	8

Tech Sheet 10705

Male Stud Tees



BSPT, Branch

1030	ID mm	OD mm	Thread
C7-4/2.7-1/8	2.7	4	1/8"
C7-6/4-1/8	4	6	1/8"
C7-6/4-1/4	4	6	1/4"
C7-8/6-1/8	6	8	1/8"
C7-8/6-1/4	6	8	1/4"
C7-10/8-1/4	8	10	1/4"
C7-12/10-3/8	10	12	3/8"
C7-15/12.5-1/2	12.5	15	1/2"

Tech Sheet 10705



BSPT, Run

1030	ID mm	OD mm	Thread
C8-6/4-1/8	4	6	1/8"
C8-6/4-1/4	4	6	1/4"
C8-8/6-1/8	6	8	1/8"
C8-8/6-1/4	6	8	1/4"
C8-10/8-1/4	8	10	1/4"

Tech Sheet 10705

Male Stud Swivel Tees



BSPT, Branch

1030	ID mm	OD mm	Thread
C7X-6/4-1/8	4	6	1/8"
C7X-6/4-1/4	4	6	1/4"
C7X-8/6-1/8	6	8	1/8"
C7X-8/6-1/4	6	8	1/4"
C7X-10/8-1/4	8	10	1/4"

Tech Sheet 10705



BSPP, Branch

1030	ID mm	OD mm	Thread
C7Y-6/4-1/8	4	6	1/8"
C7Y-8/6-1/8	6	8	1/8"
C7Y-8/6-1/4	6	8	1/4"

Tech Sheet 10705

Cross Connectors



Tube x Tube

1030	ID mm	OD mm
C11-6/4	4	6
C11-8/6	6	8
C11-12/10	10	12
C11-15/12.5	12.5	15

Tech Sheet 10705

Female Single Banjo Body



Female Thread, BSPP

1030	Thread
6090-1/8	1/8"
6090-1/4	1/4"

Tech Sheet 10705

Single Banjo Body - Quick-Fit



BSPP & Metric

1030	ID mm	OD mm	Thread
D5-4/2.7-5M	2.7	4	M5
D5-5/3-5M	3	5	M5
D5-6/4-5M	4	6	M5
D5-6/4-1/8	4	6	1/8"
D5-6/4-1/4	4	6	1/4"
D5-8/6-1/8	6	8	1/8"
D5-8/6-1/4	6	8	1/4"
D5-8/6-3/8	6	8	3/8"
D5-10/8-1/4	8	10	1/4"
D5-10/8-3/8	8	10	3/8"
D5-10/8-1/2	8	10	1/2"
D5-12/10-3/8	10	12	3/8"

Tech Sheet 10705

Double Banjo Body - Quick-Fit



BSPP & Metric

1030	ID mm	OD mm	Thread
D6-4/2.7-1/8	2.7	4	1/8"
D6-8/6-1/8	6	8	1/8"
D6-8/6-1/4	6	8	1/4"
D6-8/6-1/2	6	8	1/2"
D6-10/8-1/8	8	10	1/8"
D6-10/8-1/2	8	10	1/2"

Tech Sheet 10705

Washers



Nylon, Notched

1030	Thread
D11X-5M	M5
D11X-1/8	1/8"
D11X-1/4	1/4"
D11X-3/8	3/8"
D11X-1/2	1/2"
D11X-3/4	3/4"

Tech Sheet 10705



Aluminium

1030	Thread
D11-5M	M5
D11-1/8	1/8"
D11-1/4	1/4"
D11-3/8	3/8"
D11-1/2	1/2"
D11-3/4	3/4"
D11-1	1"
D11-11/2	1.1/2"
D11-2	2"

Tech Sheet 10705

Short Banjo Bolts



Single Stem, BSPP & Metric

1030	Thread
D7-5M-L	M5
D7-6M	M6
D7-1/8	1/8"
D7-1/4	1/4"
D7-3/8	3/8"
D7-1/2	1/2"
D7-M12X1.5	M12 x 1.5

Tech Sheet 10705



Double Stem, BSPP

1030	Thread
D8-1/8	1/8"
D8-1/4	1/4"
D8-3/8	3/8"
D8-1/2	1/2"

Tech Sheet 10705



Triple Stem, BSPP

1030	Thread
D13-1/4	1/4"
D13-1/2	1/2"

Tech Sheet 10705



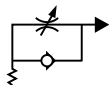
Washer 10mm

1030	Thread
D11Z-1/4	1/4"

Tech Sheet 10705

FLOW REGULATORS

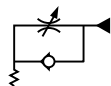
Screwdriver Quick-Fit Flow Regulators



For Cylinders, Metric & BSPP

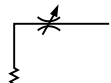
1000	ID mm	OD mm	Thread
8950-4/2.7-1/8	2.7	4	1/8"
8950-6/4-M5	4	6	M5
8950-6/4-1/4	4	6	1/4"
8950-8/6-1/8	6	8	1/8"
8950-8/6-1/4	6	8	1/4"

For Valves, BSPP



1000	ID mm	OD mm	Thread
8960-6/4-1/8	6/4	6	1/8"
8960-8/6-1/8	8/6	8	1/8"

For Bi-directional, BSPP



1000	ID mm	OD mm	Thread
8970-6/4-M5	4	6	M5
8970-6/4-1/4	4	6	1/4"
8970-8/6-1/4	6	8	1/4"

Manual Quick-Fit Female BSPP



For Cylinders, BSPP

1000	Thread
8957-1/8	1/8"
8957-1/4	1/4"

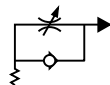
For Valves, BSPP

1000	Thread
8967-1/8	1/8"
8967-1/4	1/4"

For Bi-directional, BSPP

1000	Thread
8977-1/8	1/8"
8977-1/4	1/4"

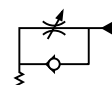
Manual Quick-Fit Flow Regulators



For Cylinders, BSPP

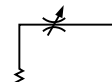
1000	ID mm	OD mm	Thread
8955-6/4-1/8	4	6	1/8"
8955-6/4-1/4	4	6	1/4"
8955-8/6-1/8	6	8	1/8"
8955-10/8-1/4	8	10	1/4"

For Valves, Metric & BSPP



1000	ID mm	OD mm	Thread
8965-4/2.7-M5	2.7	4	M5
8965-6/4-M5	4	6	M5
8965-8/6-1/8	6	8	1/8"
8965-10/8-1/4	8	10	1/4"

For Bi-directional, BSPP



1000	ID mm	OD mm	Thread
8975-4/2.7-1/8	2.7	4	1/8"
8975-6/4-1/8	4	6	1/8"

Screwdriver Flow Regulator Valves



For Cylinders, Male Thread, BSPP

1000	Thread
8900-1/4	1/4"

For Valves, Male Thread, Metric

1000	Thread
8910-M5	M5

For Bi-directional Male Thread, BSPP

1000	Thread
8920-1/8	1/8"
8920-1/4	1/4"

Screwdriver Quick-Fit Female BSPP



For Cylinders, BSPP

1000	Thread
8952-1/8	1/8"
8952-1/4	1/4"

For Valves, BSPP

1000	Thread
8962-1/8	1/8"

For Bi-directional, BSPP

1000	Thread
8972-1/8	1/8"
8972-1/4	1/4"

Manual Flow Regulator Valves



For Valves, Male Thread, Metric

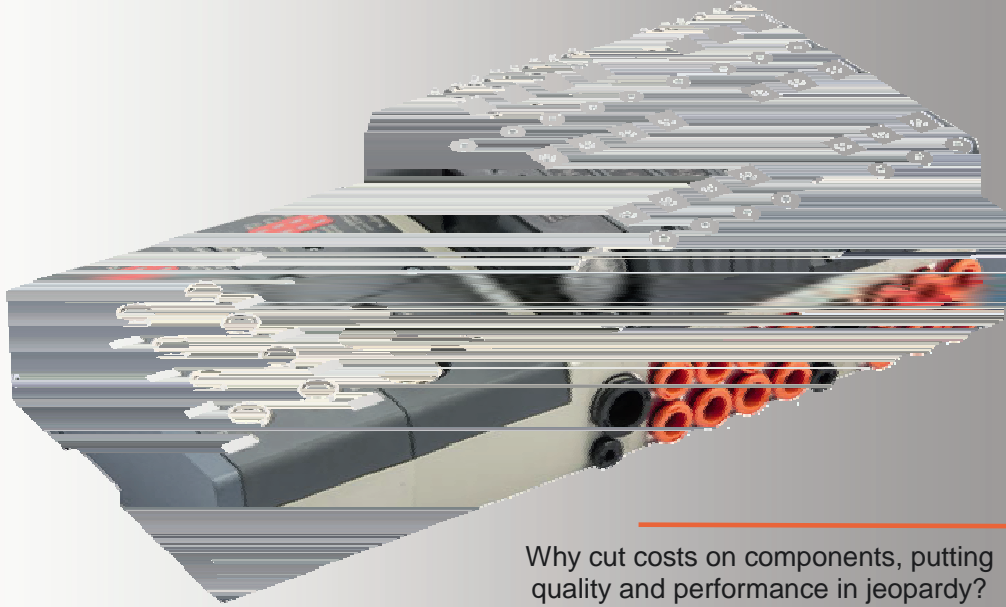
1000	Thread
8915-M5	M5

For Bi-directional Male Thread, Metric & BSPP

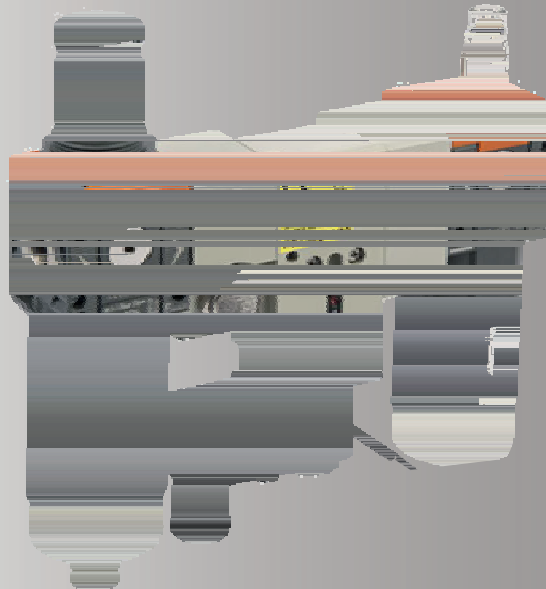
1000	Thread
8925-M5	M5
8925-1/4	1/4"

EB80 VALVES

Driven by Customers Designed by Metal Work



Why cut costs on components, putting quality and performance in jeopardy?
Make your systems ultra efficient with Metal Work Pneumatics.



SYNTESI MONITORED DUMP VALVE

FINGER-TIGHT FITTINGS



Body:
OT 58 brass

Temperature Range:
-45°C to +80°C

Maximum Pressure:
18 bar

Male Stud



BSP Tapered x Tube

9152	Thread BSPT	Tube mm	
		OD	ID
2301001	R1/8"	6	4
2301002	R1/4"	6	4
2301003	R1/8"	8	6
2301004	R1/4"	8	6
2301005	R3/8"	8	6
2301006	R1/4"	10	8
2301007	R3/8"	10	8
2301008	R1/2"	10	8
2301009	R3/8"	12	10
2301010	R1/2"	12	10

Male Stud



BSP Tapered x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2351001	M5	4	2
2356001	M5	5	3
2351002	M5	6	4
2351003	G1/8"	6	4
2351004	G1/4"	6	4
2351005	G1/8"	8	6
2351006	G1/4"	8	6
2351007	G3/8"	8	6
2351008	G1/4"	10	8
2351009	G3/8"	10	8
2351010	G1/2"	10	8
2351011	G3/8"	12	10
2351012	G1/2"	12	10

Female Stud



BSP Parallel x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2302002	G1/4"	6	4
2302004	G1/4"	8	6
2302005	G3/8"	8	6
2302006	G1/4"	10	8
2302007	G3/8"	10	8
2302008	G1/2"	10	8

Equal Elbow



Tube x Tube

9152	Tube mm	
	OD	ID
2306001	6	4
2306003	10	8
2306004	12	10

Male Stud Elbow



BSP Tapered x Tube

9152	Thread BSPT	Tube mm	
		OD	ID
2305001	G1/8"	6	4
2305002	G1/4"	6	4
2305003	G1/8"	8	6
2305004	G1/4"	8	6
2305005	G3/8"	8	6
2305006	G1/4"	10	8
2305007	G3/8"	10	8
2305008	G1/2"	10	8
2305009	G3/8"	12	10
2305010	G1/2"	12	10

Straight Connector



Tube x Tube

9152	Tube mm	
	OD	ID
2303001	6	4
2303002	8	6
2303003	10	8
2303004	12	10

Equal Tee



Tube x Tube

9152	Tube mm	
	OD	ID
2309001	6	4
2309002	8	6
2309004	12	10

Female Stud Elbow



BSP Parallel x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2352002	G1/4"	8	6

Bulkhead Connector



Tube x Tube

9152	Tube mm	
	OD	ID
2304001	6	4
2304002	8	6

Male Stud Branch Tee



BSP Parallel x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2307001	G1/8"	6	4
2307002	G1/4"	6	4
2307003	G1/8"	8	6
2307004	G1/4"	8	6
2307005	G3/8"	8	6
2307008	G1/2"	10	8
2307009	G3/8"	12	10
2307010	G1/2"	12	10

Male Stud Run Tee



BSP Parallel x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2308012	G1/8"	5	3
2308001	G1/8"	6	4
2308002	G1/4"	6	4
2308004	G1/4"	8	6
2308005	G3/8"	8	6
2308006	G1/4"	10	8
2308007	G3/8"	10	8
2308008	G1/2"	10	8
2308009	G3/8"	12	10
2308010	G1/2"	12	10

Swivel Tube Fitting with Spring Guard



BSP Parallel x Tube

9152	Thread BSPP	Tube mm	
		OD	ID
2501010	G1/4"	6	4
2501011	G1/4"	8	6
2501012	G3/8"	10	8

Equal Cross



Tube x Tube

9152	Tube mm	
	OD	ID
2311001	6	4
2311002	8	6
2311003	10	8

POLYPROPYLENE QUICK-FIT FITTINGS



3 Way Valve

EPDM O-rings

Working Temperature:
-5°C to +60°C

Maximum Working Pressure:
10 bar



1/4" BSPT Inlet

0497	Outlet
3WAY-18	1/8" BSPT
3WAY-14	1/4" BSPT
3WAY-8MM	8mm Barb

Tech Sheet 10488

Female Connector



BSPT

0497	ID mm	OD mm	Thread
PP2-6-18	4	6	1/8"
PP2-6-14	4	6	1/4"
PP2-8-14	6	8	1/4"

Male Run Tee



BSPT

0497	ID mm	OD mm	Thread
PP8-6-14	4	6	1/4"
PP8-12-14	10	12	1/4"
PP8-12-12	10	12	1/2"

Male Branch Tee



BSPT

0497	ID mm	OD mm	Thread
PP7-6-14	4	6	1/4"
PP7-8-14	6	8	1/4"
PP7-12-14	10	12	1/4"
PP7-12-38	10	12	3/8"
PP7-12-12	10	12	1/2"

Equal Tee



Tube x Tube

0497	ID mm	OD mm
PP9-6	4	6
PP9-8	6	8
PP9-12	10	12

Reducing Connector



Tube x Tube

0497	ID A mm	OD A mm	ID B mm	OD B mm
PP4-8-6	6	8	4	6

Equal Connector



Tube x Tube

0497	ID mm	OD mm
PP3-6	4	6
PP3-8	6	8
PP3-12	10	12

Equal Elbow



Tube x Tube

0497	ID mm	OD mm
PP5-6	4	6
PP5-8	6	8
PP5-12	10	12

Male Elbow



BSPT

0497	ID mm	OD mm	Thread
PP6-6-18	4	6	1/8"
PP6-6-14	4	6	1/4"
PP6-8-18	6	8	1/8"
PP6-8-14	6	8	1/4"
PP6-8-38	6	8	3/8"
PP6-12-14	10	12	1/4"
PP6-12-38	10	12	3/8"
PP6-12-12	10	12	1/2"

1 Body Type Banjo Bolt



Type PP13, BSPP

0497	Thread
PP13-14	1/4"

Double Banjo Body



BSPP

0497	ID mm	OD mm
PP10-8-8-18	6	8

Male Connector



BSPT

0497	ID mm	OD mm	Thread
PP1-6-18	4	6	1/8"
PP1-6-14	4	6	1/4"
PP1-8-18	6	8	1/8"
PP1-8-14	6	8	1/4"
PP1-12-14	10	12	1/4"
PP1-12-38	10	12	3/8"
PP1-12-12	10	12	1/2"

PVDF QUICK-FIT FITTINGS



Fittings made of PVDF function better than nylon when exposed to a wide range of temperatures and high corrosive chemicals.

This enables them to be used in industries such as chemical processing due to their excellent chemical resistance properties.

Working Temperature:
-20°C to +120°C

Maximum Working Pressure:
14 bar at 20°C

Male Connector



BSPT

0472	ID mm	OD mm	Thread
PPV1-6-18	4	6	1/8"
PPV1-8-14	6	8	1/4"
PPV1-12-38	10	12	3/8"

Tech Sheet 60237

Equal Connector



Tube x Tube

0472	ID mm	OD mm
PPV3-6	4	6
PPV3-8	6	8
PPV3-12	10	12

Tech Sheet 60237

Equal Tee



Tube x Tube

0472	ID mm	OD mm
PPV9-6	4	6
PPV9-8	6	8
PPV9-12	10	12

Tech Sheet 60237

Female Connector



BSPT

0472	ID mm	OD mm	Thread
PPV2-6-18	4	6	1/8"
PPV2-6-14	4	6	1/4"
PPV2-8-14	6	8	1/4"

Tech Sheet 60237

Equal Elbow



Tube x Tube

0472	ID mm	OD mm
PPV5-6	4	6
PPV5-8	6	8
PPV5-12	10	12

Tech Sheet 60237

Male Elbow



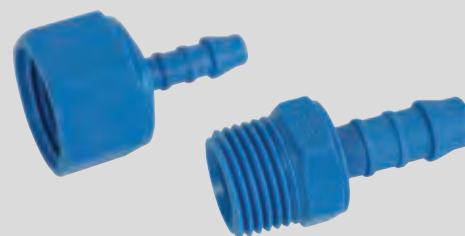
BSPT

0472	ID mm	OD mm	Thread
PPV6-6-18	4	6	1/8"
PPV6-8-14	6	8	1/4"
PPV6-12-38	10	12	3/8"

Tech Sheet 60237



For Nylon Hose Tails
...see pages 1150-1151



Male Adaptors - Equal



Male Thread, BSPT

0447	Thread
UP1-18	1/8"
UP1-14	1/4"
UP1-38	3/8"
UP1-12	1/2"
UP1-34	3/4"
UP1-1	1"
UP1-114	1.1/4"
UP1-112	1.1/2"
UP1-2	2"

Male Thread, NPT x BSPT

0447	Thread
660-1010	1/8"
660-1313	1/4"
660-1717	3/8"
660-2121	1/2"
660-2626	3/4"
660-3333	1"

Male Thread, Metric

0447	Thread
2018-MM05	M5 x 0.8
2018-MM08	M8 x 1.0
2018-MM10	M10 x 1.0
2018-MM12	M12 x 1.5
2018-MM14	M14 x 1.5
2018-MM16	M16 x 1.5
2018-MM18	M18 x 1.5
2018-MM20	M20 x 1.5
2018-MM22	M22 x 1.5



Flat Faced, Male Thread, BSPP

0447	Thread
PM18-18FF	1/8"
PM14-14FF	1/4"
PM38-38FF	3/8"
PM12-12FF	1/2"
PM34-34FF	3/4"
PM1-1FF	1"

Male Adaptors - Unequal



Male Thread, BSPT x BSPT

0447	Thread	Thread
UP2-18-14	1/8"	1/4"
UP2-18-38	1/8"	3/8"
UP2-18-12	1/8"	1/2"
UP2-14-38	1/4"	3/8"
UP2-14-12	1/4"	1/2"
UP2-38-12	3/8"	1/2"
UP2-14-34	1/4"	3/4"
UP2-38-34	3/8"	3/4"
UP2-12-34	1/2"	3/4"
UP2-12-1	1/2"	1"
UP2-34-1	3/4"	1"



Male Thread, BSPP x BSPT

0447	BSPP Thread	BSPT Thread
UP2-14-18P	1/4"	1/8"
UP2-18-14P	1/8"	1/4"
UP2-38-14P	3/8"	1/4"
UP2-12-14P	1/2"	1/4"
UP2-14-38P	1/4"	3/8"
UP2-12-38P	1/2"	3/8"
UP2-14-12P	1/4"	1/2"
UP2-38-12P	3/8"	1/2"
UP2-34-12P	3/4"	1/2"
UP2-12-34P	1/2"	3/4"
UP2-34-1P	3/4"	1"



Male Thread, NPT x NPT

0447	Thread	Thread
2018-2473	1/8"	1/8"
2018-2481	1/8"	1/4"
2018-2499	1/4"	1/4"
2018-2515	3/8"	1/4"
2018-2523	3/8"	3/8"
2018-2531	1/4"	1/2"
2018-2549	1/2"	3/8"
2018-2556	1/2"	1/2"
2018-2564	1/4"	3/4"
2018-2572	3/8"	3/4"
2018-2580	1/2"	3/4"
2018-2598	3/4"	3/4"
2018-2606	1/2"	1"
2018-2614	3/4"	1"
2018-2622	1"	1"

60° Male Adaptors



Coned, Male Thread, BSPP

0447	Thread	Thread
PM18-18	1/8"	1/8"
PM14-18	1/4"	1/8"
PM14-14	1/4"	1/4"
PM38-18	3/8"	1/8"
PM38-14	3/8"	1/4"
PM12-38	1/2"	3/8"
PM12-12	1/2"	1/2"
PM34-38	3/4"	3/8"
PM34-12	3/4"	1/2"
PM34-34	3/4"	3/4"
PM1-38	1"	3/8"
PM1-12	1"	1/2"
PM1-34	1"	3/4"
PM114-1	1.1/4"	1"
PM112-114	1.1/2"	1.1/4"



Male Thread, BSPP x BSPT

0447	Thread
PT18	1/8"
PT14	1/4"
PT38	3/8"
PT12	1/2"
PT1	1"
PT114	1.1/4"
PT112	1.1/2"
PT2	2"

Reducing Bush



Male Thread, BSPT x Female Thread, BSPP

0447	Female Thread	Male Thread
UP3-18-14	1/8"	1/4"
UP3-18-38	1/8"	3/8"
UP3-18-12	1/8"	1/2"
UP3-14-38	1/4"	3/8"
UP3-14-12	1/4"	1/2"
UP3-38-12	3/8"	1/2"
UP3-14-34	3/4"	1/4"
UP3-38-34	3/4"	3/8"
UP3-12-34	3/4"	1/2"
UP3-14-1	1/4"	1"
UP3-38-1	1"	3/8"
UP3-12-1	1"	1/2"
UP3-34-1	1"	3/4"
UP3-34-114	1.1/4"	3/4"
UP3-1-114	1.1/4"	1"
UP3-114-112	1.1/2"	1.1/4"
UP3-114-2	2"	1.1/4"
UP3-112-2	2"	1.1/2"



Male Thread, BSPT x Female Thread, Metric

0447	Male Thread	Female Thread
UP3-M5-18	1/8"	M5 x 0.8



Male Thread, NPT x Female Thread, NPS

0447	Male Thread	Female Thread
UP3-18-14N	1/4"	1/8"
UP3-18-38N	3/8"	1/8"
UP3-14-38N	3/8"	1/4"
UP3-18-12N	1/2"	1/8"
UP3-14-12N	1/2"	1/4"
UP3-38-12N	1/2"	3/8"
UP3-38-34N	3/4"	3/8"
UP3-12-34N	3/4"	1/2"
UP3-14-34N	3/4"	1/4"
UP3-14-11N	1"	1/4"
UP3-12-11N	1"	1/2"
UP3-34-11N	1"	3/4"

Bushes



Male Thread, Metric x Female Thread, Metric & BSPP

0447	Male Thread	Female Thread
UP3-14-M16	M16 x 1.5	1/4"
UP3-14-M18	M18 x 1.5	1/4"
UP3-14-M20	M20 x 1.5	1/4"
UP3-M16-M20	M20 x 1.5	M16 x 1.5
UP3-M16-M22	M22 x 1.5	M16 x 1.5
UP3-14-M22	M22 x 1.5	1/4"
UP3-38-M22	M22 x 1.5	3/8"

Female Equal Socket



Female Thread, BSPP

0447	Thread
UP4-18P	1/8"
UP4-12P	1/2"

Female Thread, Metric

0447	Thread
UP4-MM05	M5 x 0.8
UP4-MM06	M6 x 1.0
UP4-MM08	M8 x 1.0
UP4-MM10	M10 x 1.0
UP4-MM12	M12 x 1.5
UP4-MM14	M14 x 1.5
UP4-MM16	M16 x 1.5
UP4-MM18	M18 x 1.5
UP4-MM20	M20 x 1.5
UP4-MM22	M22 x 1.5
UP4-MM26	M26 x 1.5
UP4-MM30	M30 x 1.5

Female Thread, NPS

0447	Thread
UP4-18N	1/8"
UP4-14N	1/4"
UP4-38N	3/8"
UP4-12N	1/2"
UP4-1N	1"

Female Unequal Socket



Female Thread, BSPP

0447	Thread	Thread
UP4-18-14P	1/8"	1/4"
UP4-38-18P	3/8"	1/8"
UP4-38-14P	3/8"	1/4"
UP4-12-14P	1/2"	1/4"
UP4-12-38P	1/2"	3/8"
UP4-34-14P	3/4"	1/4"
UP4-34-38P	3/4"	3/8"
UP4-12-34P	1/2"	3/4"
UP4-1-34P	1"	3/4"
UP4-1-38P	1"	3/8"
UP4-1-12P	1"	1/2"

Male x Female Unequal Socket



Male Thread, BSPT x Female Thread, BSPP

0447	Male Thread	Female Thread
UP13-18-14P	1/8"	1/4"
UP13-18-38P	1/8"	3/8"
UP13-14-38P	1/4"	3/8"
UP13-14-12P	1/4"	1/2"
UP13-38-12P	3/8"	1/2"
UP13-12-34P	1/2"	3/4"
UP13-34-1P	3/4"	1"

Bulkhead Connector



Male Thread, BSPP

0447	Thread
MB18	1/8"
MB14	1/4"
MB38	3/8"
MB12	1/2"
MB34	3/4"
MB1	1"
MB114	1.1/4"
MB112	1.1/2"
MB2	2"



Male Thread, Metric x Female Thread, BSPP

0447	Thread	Thread
MBM18	M16 x 1.5	1/8"
MBM14	M20 x 1.5	1/4"
MBM38	M26 x 1.5	3/8"
MBM12	M28 x 1.5	1/2"
MBM34	M34 x 1.5	3/4"
MBM1	M42 x 1.5	1"

Connectors



Male Thread, BSPT x Female Thread, BSPP

0447	Thread
UP13-18	1/8"
UP13-14	1/4"
UP13-38	3/8"
UP13-12	1/2"
UP13-34	3/4"
UP13-1	1"

Male Thread, Metric x Female Thread, BSPP

0447	Thread	Thread
UP13-M5-18	M5 x 0.8	1/8"
UP13-M5-14	M5 x 0.8	1/4"
UP13-M6-18	M6 x 1.0	1/8"
UP13-M6-14	M6 x 1.0	1/4"

Male x Female Thread, Metric

0447	Thread	Thread
UP13-M5-M5	M5 x 0.8	M5 x 0.8

Male Thread, NPT x Female Thread, NPS

0447	Thread
UP13-18N	1/8"
UP13-14N	1/4"
UP13-38N	3/8"
UP13-12N	1/2"
UP13-34N	3/4"
UP13-1N	1"

Reducing Connector



Male, NPT x Female Thread, NPS

0447	Thread	Thread
UP13-18-14N	1/8"	1/4"
UP13-18-38N	1/8"	3/8"
UP13-14-38N	1/4"	3/8"
UP13-14-12N	1/4"	1/2"
UP13-38-12N	3/8"	1/2"



Male Thread, UNF x Female Thread, BSPP

0447	Male Thread	Female Thread
UP13-18-14U	1/4"	1/8"

Equal Elbows



Male Thread, BSPT

0447	Thread
UP5-18	1/8"
UP5-14	1/4"
UP5-38	3/8"
UP5-12	1/2"
MML16	1"

Tech Sheet 20183



Male Thread x Female Thread, NPT

0447	Thread
UP5-18N	1/8"
UP5-14N	1/4"
UP5-12N	1/2"
UP5-34N	3/4"
UP5-1N	1"



Female Thread, BSPT

0447	Thread
UP6-18	1/8"
UP6-14	1/4"
UP6-38	3/8"
UP6-12	1/2"
UP6-34	3/4"
UP6-1	1"
UP6-114	1.1/4"

Tech Sheet 20183



Female Thread, NPT

0447	Thread
UP6-14N	1/4"
UP6-34N	3/4"



Female Thread, Metric

0447	Thread
UP6-M5	M5 x 0.8

Equal Elbows

Male Thread x Female Thread, BSPT



0447	Thread
UP7-18	1/8"
UP7-14	1/4"
UP7-38	3/8"
UP7-12	1/2"
UP7-1	1"
UP7-114	1.1/4"
UP7-112	1.1/2"
Tech Sheet 20183	

Male Thread x Female Thread, Metric



0447	Thread
UP7-MM05	M5 x 0.8

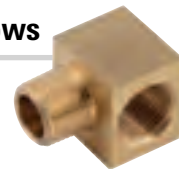
Male Thread, BSPT x Female Thread, BSPP



0447	Thread
MFL02	1/8"
MFL04	1/4"
MFL06	3/8"
MFL08	1/2"
MFL12	3/4"
MFL16	1"
MFL20	1.1/4"
MFL24	1.1/2"
MFL32	2"

Compact 90° Elbows

Male Thread, BSPT x Female Thread, BSPP



0447	Thread
UP7-18C	1/8"
UP7-14C	1/4"
UP7-38C	3/8"
UP7-12C	1/2"

45° Elbows

Female Thread, BSPP



0447	Thread
UP11-12F	1/2"
UP11-34F	3/4"
UP11-114F	1.1/4"
UP11-112F	1.1/2"
UP11-2F	2"

Equal Tees

Female Thread, BSPP x Male Thread, BSPT x Female Thread, BSPP



0447	Thread
UP22-18	1/8"
UP22-14	1/4"
UP22-38	3/8"
UP22-12	1/2"
UP22-34	3/4"

Male Thread, BSPT x Male Thread, BSPT x Female Thread, BSPP



0447	Thread
UP14-18	1/8"
UP14-38	3/8"
UP14-12	1/2"

Male Thread, BSPT x Female Thread, BSPP x Male Thread, BSPT



0447	Thread
UP15-18	1/8"
UP15-14	1/4"
UP15-38	3/8"
UP15-12	1/2"

Female Thread, BSPP x Female Thread, BSPP x Male Thread, BSPT



0447	Thread
UP16-18	1/8"
UP16-14	1/4"
UP16-38	3/8"
UP16-12	1/2"
UP16-34	3/4"
UP16-1	1"

Female Thread, BSPP



0447	Thread
UP8-18	1/8"
UP8-14	1/4"
UP8-38	3/8"
UP8-12	1/2"
UP8-34	3/4"
UP8-1	1"
UP8-114	1.1/4"
UP8-112	1.1/2"
Tech Sheet 20184	

Female Thread, NPT



0447	Thread
UP8-18N	1/8"
UP8-14N	1/4"
UP8-12N	1/2"

Male Thread, BSPT



0447	Thread
UP9-18	1/8"
UP9-14	1/4"
UP9-38	3/8"
UP9-12	1/2"
Tech Sheet 20184	

Female Block Equal Tee



Female Thread, BSPT

0447	Thread
UP10-18	1/8"
UP10-14	1/4"
UP10-38	3/8"
Tech Sheet 20185	

Male x Female 45° Equal Elbow



Male Thread, BSPT x Female Thread, BSPP

Q447	Thread
UP11-18	1/8"
UP11-14	1/4"

Tech Sheet 20186

Cross Adaptors



Male Thread, BSPT

Q447	Thread
UP19-14	1/4"
UP19-38	3/8"



Male Thread, BSPT x Female Thread, BSPP

Q447	Thread
UP20-14	1/4"
UP20-38	3/8"
UP20-12	1/2"
UP20-34	3/4"
UP20-1	1"



Female Thread, BSPP

Q447	Thread
UP21-14	1/4"
UP21-38	3/8"
UP21-12	1/2"

Barrel Nipple



Male Thread, BSPT

Q447	Thread
TT18	1/8"
TT14	1/4"
TT38	3/8"
TT12	1/2"
TT34	3/4"
TT1	1"

Swivel Union



Male Thread, BSPT

1000	Thread	Thread
LD10/10K	1/8"	1/8"
LD13/13K	1/4"	1/4"
LD17/17K	3/8"	3/8"
LD21/21K	1/2"	1/2"
LD26/26K	3/4"	3/4"
LD33/33K	1"	1"

Tech Sheet 20775



Female Thread, BSPP

1000	Thread
LDF21/21K	1/2"
LDF26/26K	3/4"
LDF33/33K	1"
LDF42/42K	1.1/4"
LDF48/48K	1.1/2"
LDF52/52K	2"

Equal Y Branch Outlet



Female Thread, BSPP

1000	Thread
UP17-18	1/8"
UP17-14	1/4"
UP17-38	3/8"
UP17-12	1/2"

Female Thread, BSPP x Female Thread, BSPP x Male Thread, BSPT

1000	Thread
UP18-18	1/8"
UP18-14	1/4"
UP18-38	3/8"
UP18-12	1/2"



Triple Outlet



Female Thread, BSPP

1000	Thread
DO-17	3/8"
DO-21	1/2"

Tech Sheet 20776

Locknuts



Female Thread, BSPP

Q447	Thread
UP12-18	1/8"
UP12-14	1/4"
UP12-38	3/8"
UP12-12	1/2"
UP12-58	5/8"
UP12-34	3/4"
UP12-78	7/8"
UP12-1	1"
UP12-114	1.1/4"
UP12-112	1.1/2"

Flanged Locknuts



Female Thread, BSPP

Q447	Thread
UP12-38F	3/8"
UP12-12F	1/2"
UP12-34F	3/4"
UP12-1F	1"
UP12-114F	1.1/4"
UP12-112F	1.1/2"



Female Thread, Metric

Q447	Thread
UP12-MM10	M10 x 1.0
UP12-MM12	M12 x 1.0
UP12-MM14.1	M14 x 1.0
UP12-MM14	M14 x 1.5
UP12-MM15	M15 x 1.0
UP12-MM16	M16 x 1.5
UP12-MM18	M18 x 1.5
UP12-MM20	M20 x 1.5
UP12-MM22	M22 x 1.5
UP12-MM24	M24 x 1.5
UP12-MM26	M26 x 1.5
UP12-MM28	M28 x 1.5
UP12-MM30	M30 x 1.5
UP12-MM34	M34 x 1.5
UP12-MM38	M38 x 1.5

Flanged Plugs



Male Thread, BSPP

1000	Thread
VFP10	1/8"
VFP13	1/4"
VFP17	3/8"
VFP21	1/2"
VFP26	3/4"
VFP33	1"
VFP42	1.1/4"
VFP48	1.1/2"
VFP52	2"

Hollow Plugs



Male Thread, BSPT

0447	Thread
VHP18	1/8"
VHP14	1/4"
VHP38	3/8"
VHP12	1/2"
VHP58	5/8"
VHP34	3/4"
VHP1	1"
VHP114	1.1/4"

Male Thread, BSPP

0447	Thread
VHP18P	1/8"
VHP14P	1/4"
VHP38P	3/8"
VHP12P	1/2"
VHP58P	5/8"
VHP34P	3/4"
VHP1P	1"
VHP114P	1.1/4"
VHP112P	1.1/2"
VHP2P	2"

Male Thread, NPT

0447	Thread
VHP18N	1/8"
VHP14N	1/4"
VHP38N	3/8"
VHP12N	1/2"
VHP34N	3/4"
VHP2N	2"

Solid Plugs

Male Thread, Metric

0447	Thread
VHPM05	M5 x 0.8
VHPM06	M6 x 1.0
VHPM08	M8 x 1.0
VHPM14	M14 x 1.5
VHPM16	M16 x 1.5
VHPM18	M18 x 1.5
VHPM20	M20 x 1.5
VHPM22	M22 x 1.5
VHPM24	M24 x 1.5
VHPM26	M26 x 1.5
VHPM28	M28 x 1.5

Male Thread, BSPT

0447	Thread
VPS18	1/8"
VPS14	1/4"
VPS38	3/8"
VPS12	1/2"
VPS58	5/8"
VPS34	3/4"
VPS78	7/8"
VPS1	1"
VPS114	1.1/4"
VPS112	1.1/2"
VPS2	2"

Male Thread, BSPP

0447	Thread
VPS18P	1/8"
VPS14P	1/4"
VPS38P	3/8"
VPS12P	1/2"
VPS58P	5/8"
VPS34P	3/4"
VPS1P	1"
VPS112P	1.1/2"
VPS2P	2"

Male Thread, NPT

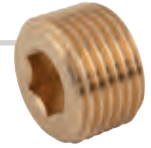
0447	Thread
VPS18N	1/8"
VPS14N	1/4"
VPS38N	3/8"
VPS12N	1/2"
VPS34N	3/4"
VPS1N	1"
VPS114N	1.1/4"
VPS112N	1.1/2"
VPS2N	2"

Square Head Plugs

Male Thread, BSPP

1000	Thread
VPQ14	1/4"
VPQ38	3/8"
VPQ12	1/2"
VPQ34	3/4"
VPQ1	1"
VPQ114	1.1/4"
VPQ112	1.1/2"
VPQ2	2"

Allen Key Plugs



Male Thread, BSPT

0447	Thread
AK-TT18	1/8"
AK-TT14	1/4"
AK-TT38	3/8"
AK-TT12	1/2"
AK-TT34	3/4"
AK-TT1	1"

Male Thread, BSPP

0447	Thread
AK-PP18	1/8"
AK-PP14	1/4"
AK-PP38	3/8"
AK-PP12	1/2"

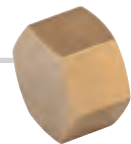
Male Thread, Metric

0447	Thread
AK-MM08	M8 x 1.0
AK-MM10	M10 x 1.0
AK-MM12	M12 x 1.5
AK-MM14	M14 x 1.5
AK-MM16	M16 x 1.5
AK-MM18	M18 x 1.5
AK-MM20	M20 x 1.5
AK-MM22	M22 x 1.5
AK-MM24	M24 x 1.5

Male Thread, NPT

0447	Thread
AK-NN18	1/8"
AK-NN14	1/4"
AK-NN38	3/8"
AK-NN12	1/2"

Caps



Female Thread, BSPP

0447	Thread
VCAP10	1/8"
VCAP13	1/4"
VCAP17	3/8"
VCAP21	1/2"
VCAP26	3/4"
VCAP33	1"
VCAP42	1.1/4"
VCAP48	1.1/2"

Air Vents



Male Thread, BSPP

1000	Thread
AK-VV18	1/8"
AK-VV14	1/4"
AK-VV12	1/2"

NICKEL PLATED BRASS ADAPTORS



Temperature:
+300 °C

Maximum Working Pressure
1/8" - 150 bar 1/4" - 100 bar 3/8" - 75 bar 1/2" - 50 bar 3/4" - 85 bar 1" - 80 bar

Equal Male Adaptors



Male Thread, Metric & BSPP

Male Thread, BSPT

0422	Thread
DN10/10K	1/8"
DN13/13K	1/4"
DN17/17K	3/8"
DN21/21K	1/2"
DN26/26K	3/4"
DN33/33K	1"
DN42/42K	1.1/4"
DN50/50K	1.1/2"

Tech Sheet 1620



Male Thread, Metric & BSPP

0422	Thread
DN05/05	M5
DN10/10	1/8"
DN13/13	1/4"
DN17/17	3/8"
DN21/21	1/2"
DN26/26	3/4"
DN33/33	1"
DN42/42	1.1/4"
DN50/50	1.1/2"
DN55/55	2"

Tech Sheet 1620

Unequal Male Adaptors



Male Thread, BSPT

0422	Thread	Thread
DN10/13K	1/8"	1/4"
DN10/17K	1/8"	3/8"
DN10/21K	1/8"	1/2"
DN13/17K	1/4"	3/8"
DN13/21K	1/4"	1/2"
DN17/21K	3/8"	1/2"
DN21/26K	1/2"	3/4"
DN26/33K	3/4"	1"
DN33/42K	1"	1.1/4"
DN42/50K	1.1/4"	1.1/2"
DN50/55K	1.1/2"	2"

Tech Sheet 1622



Male Thread, Metric & BSPP

0422	Thread	Thread
DN05/10	M5	1/8"
DN10/13	1/8"	1/4"
DN10/17	1/8"	3/8"
DN13/17	1/4"	3/8"
DN13/21	1/4"	1/2"
DN17/21	3/8"	1/2"
DN21/26	1/2"	3/4"
DN26/33	3/4"	1"
DN33/42	1"	1.1/4"
DN42/50	1.1/4"	1.1/2"
DN50/55	1.1/2"	2"

Tech Sheet 1622

Male x Female Adaptors



Male Thread, BSPT x Female Thread, BSPP

0422	Male Thread	Female Thread
RL10/10K	1/8"	1/8"
RL10/13K	1/8"	1/4"
RL10/17K	1/8"	3/8"
RL13/13K	1/4"	1/4"
RL13/17K	1/4"	3/8"
RL13/21K	1/4"	1/2"
RL17/17K	3/8"	3/8"
RL17/21K	3/8"	1/2"
RL17/26K	3/8"	3/4"
RL21/21K	1/2"	1/2"
RL21/26K	1/2"	3/4"
RL21/33K	1/2"	1"
RL26/26K	3/4"	3/4"
RL26/33K	3/4"	1"
RL33/33K	1"	1"

Tech Sheet 10704



Male Thread, BSPP x Female Thread, Metric & BSPP

0422	Male Thread	Female Thread
RL05/05	M5	M5
RL05/10	M5	1/8"
RL10/10	1/8"	1/8"
RL10/13	1/8"	1/4"
RL10/17	1/8"	3/8"
RL13/13	1/4"	1/4"
RL13/17	1/4"	3/8"
RL13/21	1/4"	1/2"
RL17/17	3/8"	3/8"
RL17/21	3/8"	1/2"
RL17/26	3/8"	3/4"
RL21/21	1/2"	1/2"
RL21/26	1/2"	3/4"
RL21/33	1/2"	1"
RL26/26	3/4"	3/4"
RL26/33	3/4"	1"
RL33/33	1"	1"

Tech Sheet 10704



Extension, Male Thread, BSPP x Female Thread, BSPP

0422	Thread	Length mm
RL05/05X	M5	18.5
RL10/10X	1/8"	22
RL10/10Y	1/8"	42
RL13/13X	1/4"	35
RL13/13Y	1/4"	51
RL17/17X	3/8"	41
RL21/21X	1/2"	35
RL26/26X	3/4"	50
RL33/33X	1"	50

Tech Sheet 10704

X = Standard Length (as photo), Y = Extended Length



You might also need
Hose & Tubing
see **Section 12**

Male Thread, NPTF x Female Thread, BSPP

0422	Thread
RL10/10KN	1/8"
RL13/13KN	1/4"
RL17/17KN	3/8"

Tech Sheet 10704

Male Thread, BSPP x Female Thread, NPTF

0422	Thread
RL10/10N	1/8"
RL13/13N	1/4"
RL17/17N	3/8"
RL21/21N	1/2"

Tech Sheet 10704

NICKEL PLATED BRASS ADAPTORS



Equal Swivel Connectors

Male Thread, BSPT x Female Thread, BSPP



0422	Thread
2110-18	1/8"
2110-14	1/4"
2110-38	3/8"

Tech Sheet 10704

Male Thread, BSPP x Female Thread, BSPP



0422	Thread
2115-18	1/8"
2115-14	1/4"
2115-38	3/8"

Tech Sheet 10704

Note:
Un-plated only.

Male Thread, BSPT x Female Thread, BSPP



0422	Thread
SF10	1/8"
SF13	1/4"
SF17	3/8"
SF21	1/2"

Tech Sheet 10704

Equal Bulkhead Connectors

Female Thread, Metric & BSPP x Male Thread, Metric



0422	Female Thread	Male Thread
3060-M5	M5	M10 x 1
3060-1/8	1/8"	M16 x 1.5
3060-1/4	1/4"	M20 x 1.5
3060-3/8	3/8"	M26 x 1.5
3060-1/2	1/2"	M28 x 1.5
3060-3/4	3/4"	M33 x 1.5
3060-1	1"	M42 x 1.5

Tech Sheet 10702

Equal Sockets

Female Thread, Metric & BSPP



0422	Thread
MU05	M5
MU10	1/8"
MU13	1/4"
MU17	3/8"
MU21	1/2"
MU26	3/4"
MU33	1"

Tech Sheet 1621

Unequal Sockets

Female Thread, Metric & BSPP



0422	Thread	Thread
MU05/10	M5	1/8"
MU10/13	1/8"	1/4"
MU10/17	1/8"	3/8"
MU10/21	1/8"	1/2"
MU13/17	1/4"	3/8"
MU13/21	1/4"	1/2"
MU17/21	3/8"	1/2"
MU17/26	3/8"	3/4"
MU21/26	1/2"	3/4"
MU21/33	1/2"	1"
MU26/33	3/4"	1"

Tech Sheet 1621

Reducing Bushes

Male Thread, BSPP x Female Thread, Metric & BSPP



0422	Male Thread	Female Thread
RK05/10	1/8"	M5
RK05/13	1/4"	M5
RK10/13	1/4"	1/8"
RK10/17	3/8"	1/8"
RK10/21	1/2"	1/8"
RK13/17	3/8"	1/4"
RK13/21	1/2"	1/4"
RK13/26	3/4"	1/4"
RK17/21	1/2"	3/8"
RK17/26	3/4"	3/8"
RK17/33	1"	3/8"
RK21/26	3/4"	1/2"
RK21/33	1"	1/2"
RK26/33	1"	3/4"
RK33/42	1.1/4"	1"
RK42/50	1.1/2"	1.1/4"
RK42/55	2"	1.1/4"
RK50/55	2"	1.1/2"

Tech Sheet 1623

Male Thread, BSPT x Female Thread, BSPP



0422	Male Thread	Female Thread
RK05/10K	1/8"	M5x0.8
RK10/13K	1/4"	1/8"
RK10/17K	3/8"	1/8"
RK13/17K	3/8"	1/4"
RK10/21K	1/2"	1/8"
RK13/21K	1/2"	1/4"
RK17/21K	1/2"	3/8"
RK13/26K	3/4"	1/4"
RK17/26K	3/4"	3/8"
RK21/26K	3/4"	1/2"
RK13/33K	1"	1/4"
RK17/33K	1"	3/8"
RK21/33K	1"	1/2"
RK26/33K	1"	3/4"
RK21/42K	1.1/4"	1/2"
RK26/42K	1.1/4"	3/4"
RK33/42K	1.1/4"	1"
RK33/50K	1.1/2"	1"
RK33/55K	2"	1"
RK42/55K	2"	1.1/4"
RK50/55K	2"	1.1/2"

Tech Sheet 1623

Note:
*Un-plated only.

Male Thread, BSPP x Female Thread, Metric & BSPP



0422	Male Thread	Female Thread
2095-13/10	1/4"	1/8"
2095-17/10	3/8"	1/8"
2095-17/13	3/8"	1/4"
2095-21/13	1/2"	1/4"
2095-21/17	1/2"	3/8"
2095-26/21	3/4"	1/2"
2095-33/21	1"	1/2"
2095-33/26	1"	3/4"

Tech Sheet 1623

Equal Elbows



Female Thread, Metric & BSPP

0422	Thread
WIM5	M5
WI10	1/8"
WI13	1/4"
WI17	3/8"
WI21	1/2"
WI26	3/4"
WI33	1"

Tech Sheet 1093



Male Thread, Metric & BSPT x Female Thread, Metric & BSPP

0422	Thread
WSLM5	M5
WSL10	1/8"
WSL13	1/4"
WSL17	3/8"
WSL21	1/2"
WSL26	3/4"
WSL33	1"

Tech Sheet 1093



Male Thread, Metric & BSPT

0422	Thread
WAM5	M5
WA10	1/8"
WA13	1/4"
WA17	3/8"
WA21	1/2"
WA26	3/4"
WA33	1"

Tech Sheet 1093

Equal Tees



Offset Male Thread, BSPT x Female Thread, BSPP

0422	Thread
TD10	1/8"
TD13	1/4"
TD17	3/8"
TD21	1/2"
TD26	3/4"
TD33	1"

Tech Sheet 1094



Branch Female Thread, Metric & BSPP x Male Thread, Metric & BSPT

0422	Thread
TCM5	M5
TC10	1/8"
TC13	1/4"
TC17	3/8"
TC21	1/2"
TC26	3/4"
TC33	1"

Tech Sheet 1094



Male Thread, BSPT

0422	Thread
TA10	1/8"
TA13	1/4"
TA17	3/8"
TA21	1/2"
TA26	3/4"
TA33	1"

Tech Sheet 1094



Female Thread, Metric & BSPP

0422	Thread
TIM5	M5
TI10	1/8"
TI13	1/4"
TI17	3/8"
TI21	1/2"
TI26	3/4"
TI33	1"

Tech Sheet 1094



Branch Male Thread, Metric & BSPT x Female Thread, Metric & BSPP

0422	Thread
TKL05	M5
TKL10	1/8"
TKL13	1/4"
TKL17	3/8"
TKL21	1/2"
TKL26	3/4"
TKL33	1"

Tech Sheet 1094



Offset Female Thread, Metric & BSPP x Male Thread, Metric & BSPT

0422	Thread
TB05	M5
TB10	1/8"
TB13	1/4"
TB17	3/8"
TB21	1/2"
TB26	3/4"
TB33	1"

Tech Sheet 1094

NICKEL PLATED BRASS ADAPTORS



Equal Block Elbows



**Male Thread,
BSPP x Female Thread, BSPP**

0422	Thread
6070-1/8	1/8"
6070-1/4	1/4"

Equal Block Tees



**Male Thread,
BSPP x Female Thread, BSPP**

0422	Thread
6080-1/8	1/8"
6080-1/4	1/4"

90° Wall Bracket Fitting



Female Thread, BSPP

0422	Thread
5050-1/2	1/2"

Tech Sheet 10703

Equal Crosses



**Male Thread
BSPT x Female Thread, BSPP**

0422	Thread
FD10	1/8"
FD13	1/4"
FD17	3/8"
FD21	1/2"

Tech Sheet 1095



Male Thread, BSPT

0422	Thread
FE10	1/8"
FE13	1/4"
FE17	3/8"
FE21	1/2"

Tech Sheet 1095



Female Thread, BSPP

0422	Thread
FC10	1/8"
FC13	1/4"
FC17	3/8"
FC21	1/2"

Tech Sheet 1095

Equal Y Connectors



Female Thread, BSPP

0422	Thread
ZO-10	1/8"
ZO-13	1/4"
ZO-17	3/8"
ZO-21	1/2"

Tech Sheet 1096



**Male Thread,
BSPT x Female Thread, BSPP**

0422	Male Thread
XO-10	1/8"
XO-13	1/4"
XO-17	3/8"
XO-21	1/2"

Tech Sheet 1096

Triple Outlet



Female Thread, BSPP

0422	Thread
TO06NP	3/8"



For Malleable Iron Fittings
...see pages 1178-1380



For Malleable Iron Accessories
...see pages 1184-1385

Blanking Plugs



Male Thread, BSPT

0422	Thread
VZ10K	1/8"
VZ13K	1/4"
VZ17K	3/8"
VZ21K	1/2"
VZ26K	3/4"
VZ33K	1"



Male Thread, Metric & BSPP

0422	Thread
VZ05	M5
VZ10	1/8"
VZ13	1/4"
VZ17	3/8"
VZ21	1/2"
VZ26	3/4"
VZ33	1"

Tech Sheet 10704

Blanking Caps



Female Thread, BSPP

0422	Thread
VK10	1/8"
VK13	1/4"
VK17	3/8"
VK21	1/2"
VK26	3/4"
VK33	1"

Tech Sheet 10700

Nitrile O-Ring Seal & Hexagon Recess, Male Thread, Metric & BSPP



0422	Thread
ZV-05	M5
ZV-10	1/8"
ZV-13	1/4"
ZV-17	3/8"
ZV-21	1/2"
ZV-26	3/4"
ZV-33	1"

Tech Sheet 10704

FKM O-Ring Seal & Hexagon Recess, Male Thread, Metric & BSPP



0422	Thread
ZV-05FKM	M5
ZV-10FKM	1/8"
ZV-13FKM	1/4"
ZV-17FKM	3/8"
ZV-21FKM	1/2"

Lock Nuts



Female Thread, BSPP

0422	Thread
KM10WN	1/8"
KM13WN	1/4"
KM17WN	3/8"
KM21WN	1/2"
KM26WN	3/4"

Tech Sheet 10702

Allen Key Plugs



Male Thread, BSPT

0422	Thread
3025-1/8	1/8"
3025-1/4	1/4"
3025-3/8	3/8"
3025-1/2	1/2"
3025-3/4	3/4"
3025-1	1"

Tech Sheet 10700

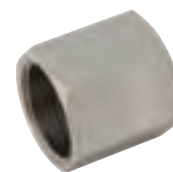


Male Thread, BSPP

0422	Thread
3026-1/8	1/8"
3026-1/4	1/4"
3026-3/8	3/8"
3026-1/2	1/2"
3026-3/4	3/4"

Tech Sheet 10700

Equal Socket



Female Thread, BSPP

0447	Thread
FFA02/02NP	1/8"
FFA04/04NP	1/4"
FFA06/06NP	3/8"
FFA08/08NP	1/2"
FFA12/12NP	3/4"
FFA16/16NP	1"

Unequal Reducing Sockets



Female Thread, BSPP

0447	Thread	Thread
FFR04/02NP	1/4"	1/8"
FFR06/04NP	3/8"	1/4"
FFR08/04NP	1/2"	1/4"
FFR08/06NP	1/2"	3/8"
FFR12/04NP	3/4"	1/4"
FFR12/06NP	3/4"	3/8"
FFR12/08NP	3/4"	1/2"
FFR16/08NP	1"	1/2"
FFR16/12NP	1"	3/4"

Caps



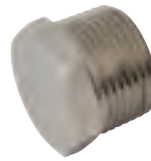
Female Thread, Metric

0447	Thread
CAP04NP	1/4"
CAP06NP	3/8"
CAP08NP	1/2"
CAP16NP	1"



For Reusable
Hydraulic Fittings
... see page 41

Hexagonal Plugs



Male Thread, BSPT

0447	Thread
PBT02SNP	1/8"
PBT04SNP	1/4"
PBT06SNP	3/8"



Male Thread, BSPP

0447	Thread
PBP02SNP	1/8"
PBP06SNP	3/8"
PBP08SNP	1/2"

Allen Key Plugs



Male Thread, NPT

0447	Thread
AKN02NP	1/8"
AKN04NP	1/4"
AKN06NP	3/8"
AKN08NP	1/2"



Steel, Male Thread, BSPT

0447	Thread
SAK02	1/8"
SAK04	1/4"
SAK06	3/8"
SAK08	1/2"

Lock Nuts



Female Thread, Metric

0447	Thread
LN15NP	M15 x 1.0
LN20NP	M20 x 1.5
LN24NP	M24 x 1.5
LN26NP	M26 x 1.5
LN28NP	M28 x 1.5



Female Thread, BSPP

0447	Thread
LN02NP	1/8"
LN04NP	1/4"
LN06NP	3/8"
LN08NP	1/2"
LN12NP	3/4"
LN16NP	1"

Reducing Bush



Male x Female, BSPP

1050	Male Thread	Female Thread
PRB34-12	3/4"	1/2"
PRB1-12	1"	1/2"
PRB1-34	1"	3/4"
PRB114-12	1.1/4"	1/2"
PRB114-34	1.1/4"	3/4"
PRB114-1	1.1/4"	1"
PRB112-34	1.1/2"	3/4"
PRB112-1	1.1/2"	1"
PRB112-114	1.1/2"	1.1/4"
PRB2-34	2"	3/4"
PRB2-1	2"	1"
PRB2-114	2"	1.1/4"
PRB2-112	2"	1.1/2"
PRB212-2	2.1/2"	2"
PRB3-2	3"	2"
PRB3-212	3"	2.1/2"

Tech Sheet 10640

Male x Female Reducer



Male x Female, BSPP

1050	Male Thread	Female Thread
PRE12-38	1/2"	3/8"
PRE34-12	3/4"	1/2"
PRE1-12	1"	1/2"
PRE1-34	1"	3/4"
PRE114-1	1.1/4"	1"
PRE112-114	1.1/2"	1.1/4"
PRE2-112	2"	1.1/2"

Tech Sheet 10640

Reducing Nipple



Male, BSPP

1050	Thread	Thread
PRN34-12	3/4"	1/2"
PRN1-34	1"	3/4"
PRN114-1	1.1/4"	1"
PRN112-114	1.1/2"	1.1/4"
PRN2-112	2"	1.1/2"
PRN212-2	2.1/2"	2"

Tech Sheet 10640

Nipple



Male, BSPP

1050	Thread
PEN12-12	1/2"
PEN34-34	3/4"
PEN1-1	1"
PEN114-114	1.1/4"
PEN112-112	1.1/2"
PEN2-2	2"
PEN3-3	3"

Tech Sheet 10640

Plug



Male, BSPP

1050	Thread
PTP12	1/2"
PTP34	3/4"
PTP1	1"
PTP114	1.1/4"
PTP112	1.1/2"
PTP2	2"
PTP212	2.1/2"

Tech Sheet 10640

Reducing Socket



Female, BSPP

1050	Thread	Thread
PRS34-12	3/4"	1/2"
PRS1-34	1"	3/4"
PRS114-1	1.1/4"	1"
PRS112-114	1.1/2"	1.1/4"
PRS2-112	2"	1.1/2"

Tech Sheet 10640

Socket



Female, BSPP

1050	Thread
PES12-12	1/2"
PES34-34	3/4"
PES1-1	1"
PES114-114	1.1/4"
PES112-112	1.1/2"
PES2-2	2"
PES3-3	3"

Tech Sheet 10640

Cap



Female, BSPP

1050	Thread
PTC12	1/2"
PTC34	3/4"
PTC1	1"
PTC114	1.1/4"
PTC112	1.1/2"
PTC2	2"

Tech Sheet 10640

NYLON ADAPTORS



Nylon 6-6

 ° Temperature:
-20 to 110°C

 Working Pressure:
Up to 14 bar (200 psi) at 20°C

 Fittings Dimensions: refer to tube ID or OD,
with respect to the common application

Unequal Nipple



BSPT

0497	Thread	Thread
PN1-14-18	1/4"	1/8"
PN1-38-14	3/8"	1/4"
PN1-12-14	1/2"	1/4"
PN1-12-38	1/2"	3/8"

Equal Nipple



BSPT

0497	Thread
PN2-18	1/8"
PN2-14	1/4"
PN2-38	3/8"
PN2-12	1/2"

Reducing Socket



BSPT

0497	Thread A	Thread B
PN6-14-18	1/8"	1/4"
PN6-38-18	1/8"	3/8"
PN6-38-14	1/4"	3/8"
PN6-12-14	1/4"	1/2"
PN6-34-14	1/4"	3/4"
PN6-12-38	3/8"	1/2"

Female Socket



BSPT

0497	Thread
PN5-18	1/8"
PN5-14	1/4"
PN5-38	3/8"
PN5-12	1/2"

Bush



BSPT

0497	Male Thread	Female Thread
PN3-18-14	1/4"	1/8"
PN3-18-12	1/2"	1/8"
PN3-14-18	1/8"	1/4"
PN3-14-14	1/4"	1/4"
PN3-14-38	3/8"	1/4"
PN3-38-18	1/8"	3/8"
PN3-38-14	1/4"	3/8"
PN3-38-38	3/8"	3/8"
PN3-38-12	1/2"	3/8"
PN3-12-14	1/4"	1/2"
PN3-12-38	3/8"	1/2"
PN3-12-12	1/2"	1/2"

Reducing Bush



BSPT

0497	Male Thread	Female Thread
PN4-14-18	1/4"	1/8"
PN4-38-18	3/8"	1/8"
PN4-38-14	3/8"	1/4"
PN4-12-14	1/2"	1/4"
PN4-12-38	1/2"	3/8"
PN4-34-14	3/4"	1/4"
PN4-34-38	3/4"	3/8"
PN4-34-12	3/4"	1/2"

Equal Elbow



BSPT

0497	Thread
PN10-18	1/8"
PN10-14	1/4"
PN10-38	3/8"
PN10-12	1/2"

Reducing Elbow



BSPT

0497	Thread	Thread
PN11-14-18	1/4"	1/8"
PN11-38-14	3/8"	1/4"

Equal Tee



BSPT

0497	Thread
PN7-14	1/4"
PN7-38	3/8"
PN7-12	1/2"

PVDF ADAPTORS



Fittings made of PVDF function better than nylon when exposed to a wide range of temperatures and high corrosive chemicals.

This enables them to be used in industries such as chemical processing due to their excellent chemical resistance properties.

Working Temperature: -20°C to +120°C

Maximum Working Pressure: 14 bar at 20°C

Equal Nipple



BSPT

0472	Thread
PV2-18	1/8"
PV2-14	1/4"
PV2-38	3/8"
PV2-12	1/2"

Tech Sheet 60237

Unequal Nipple



BSPT

0472	Thread	Thread
PV1-14-18	1/4"	1/8"
PV1-38-14	3/8"	1/4"
PV1-12-14	1/2"	1/4"
PV1-12-38	1/2"	3/8"

Tech Sheet 60237

Female Socket



BSPT

0472	Thread
PV5-18	1/8"
PV5-14	1/4"
PV5-38	3/8"
PV5-12	1/2"

Tech Sheet 60237

Reducing Socket



BSPT

0472	Thread	Thread
PV6-14-18	1/4"	1/8"
PV6-38-14	3/8"	1/4"
PV6-12-14	1/2"	1/4"

Tech Sheet 60237

Reducing Bush



BSPT

0472	Male Thread	Female Thread
PV4-14-18	1/4"	1/8"
PV4-38-18	3/8"	1/8"
PV4-38-14	3/8"	1/4"
PV4-12-18	1/2"	1/8"
PV4-12-14	1/2"	1/4"
PV4-12-38	1/2"	3/8"

Tech Sheet 60237

Bush



BSPT

0472	Male Thread	Female Thread
PV3-18-38	1/8"	3/8"
PV3-14-18	1/4"	1/8"
PV3-14-14	1/4"	1/4"
PV3-14-38	1/4"	3/8"
PV3-38-18	3/8"	1/8"
PV3-38-14	3/8"	1/4"
PV3-38-12	3/8"	1/2"
PV3-12-14	1/2"	1/4"

Tech Sheet 60237

Equal Elbow



BSPT

0472	Thread
PV10-38	3/8"
PV10-12	1/2"

Tech Sheet 60237

Equal Tee



BSPT

0472	Thread
PV7-18	1/8"
PV7-14	1/4"

Tech Sheet 60237

Blanking Plug

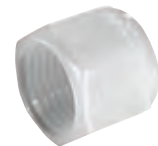


BSPT

0472	Thread
PV12-18	1/8"
PV12-14	1/4"
PV12-38	3/8"
PV12-12	1/2"

Tech Sheet 60237

Blanking Cap



BSPT

0472	Thread
PV13-14	1/4"
PV13-38	3/8"
PV13-12	1/2"

Tech Sheet 60237

Working Temperature:
0°C to +180°C

Maximum Working Pressure:
206 bar

Pressure and temperature ratings according to ASME B16.11

Available up to 4"

90° Equal Elbow



Female Thread, NPT

0506	Thread
1013-0003	1/2"
1013-0005	1"
1013-0008	2"

Tech Sheet 68800

Equal Tee



Female Thread, NPT

0506	Thread
1013-0009	1/4"
1013-0011	1/2"
1013-0013	1"
1013-0016	2"

Tech Sheet 68800

Equal Hexagon Nipple



Male Thread, NPT

0506	Thread
1013-0025	1/4"
1013-0027	1/2"
1013-0028	3/4"
1013-0029	1"
1013-0030	1.1/4"
1013-0032	2"

Tech Sheet 68800

Equal Union



Female Thread, NPT

0506	Thread
1013-0034	3/8"
1013-0035	1/2"
1013-0038	1.1/4"
1013-0039	1.1/2"
1013-0040	2"

Tech Sheet 68800

Hexagon Plug



Male Thread, NPT

0506	Thread
1013-0041	1/4"
1013-0042	3/8"
1013-0043	1/2"
1013-0044	3/4"
1013-0048	2"

Tech Sheet 68800

Equal Coupling



Female Thread, NPT

0506	Thread
1013-0050	3/8"
1013-0051	1/2"
1013-0052	3/4"
1013-0053	1"
1013-0054	1.1/4"
1013-0056	2"

Tech Sheet 68800



For **Flanges & Gaskets**
see pages **1386-1390**

150lb 316 STAINLESS STEEL PIPE FITTINGS



stainless
steel



This technical data is applicable to the full range of 316 Stainless Steel Adaptors only.

Threads: Tapered in conformity with ISO 7.1, BS 21, DIN 2999. Parallel in conformity with BS 2779, ISO 228.

Dimensions: All components are manufactured to the requirements of ASTM A-351.

The dimensions are in accordance with ANSI B16.3.

Working Temperature:
-20°C to +260°C

Working Pressure:
20 bar

Equal Cross



Female Thread, BSPP

1111	Thread
EC-18	1/8"
EC-14	1/4"
EC-38	3/8"
EC-12	1/2"
EC-34	3/4"
EC-1	1"
EC-114	1.1/4"
EC-112	1.1/2"
EC-2	2"

Tech Sheet 1800

Equal Tee



Female Thread, BSPP

1111	Thread
ET-18	1/8"
ET-14	1/4"
ET-38	3/8"
ET-12	1/2"
ET-34	3/4"
ET-1	1"
ET-114	1.1/4"
ET-112	1.1/2"
ET-2	2"
ET-212	2.1/2"
ET-3	3"
ET-4	4"

Tech Sheet 1799

Straight Hose Tails



Male Thread, BSPT

1111	Thread	To Suit Hose ID
HT-18-06	1/8"	1/4" (6mm)
HT-14	1/4"	1/4" (6mm)
HT-14-08	1/4"	5/16" (8mm)
HT-14-10	1/4"	3/8" (10mm)
HT-14-13	1/4"	1/2" (13mm)
HT-38-08	3/8"	5/16" (8mm)
HT-38	3/8"	3/8" (10mm)
HT-38-13	3/8"	1/2" (13mm)
HT-12-06	1/2"	1/4" (6mm)
HT-12-10	1/2"	3/8" (10mm)
HT-12	1/2"	1/2" (13mm)
HT-12-19	1/2"	3/4" (19mm)
HT-12-25	1/2"	1" (25mm)
HT-12-16	1/2"	5/8"
HT-34-13	3/4"	1/2" (13mm)
HT-34	3/4"	3/4" (19mm)
HT-1-19	1"	3/4" (19mm)
HT-1	1"	1" (25mm)
HT-1-31	1"	1.1/4" (31mm)
HT-114	1.1/4"	1.1/4" (31mm)
HT-112	1.1/2"	1.1/2" (38mm)
HT-2	2"	2" (50mm)
HT-212	2.1/2"	2.1/2" (63mm)
HT-3	3"	3" (75mm)
HT-4	4"	4" (100mm)

Tech Sheet 1795



Female Fixed Thread, BSPP

1111	Thread	To Suit Hose ID
SFHT10/06	1/8"	6mm (1/4")
SFHT13/06	1/4"	6mm (1/4")
SFHT13/09	1/4"	9mm (3/8")
SFHT17/10	3/8"	10mm (3/8")
SFHT21/13	1/2"	13mm (1/2")
SFHT26/19	3/4"	19mm (3/4")
SFHT33/25	1"	25mm (1")
SFHT42/32	1.1/4"	32mm (1.1/4")
SFHT48/38	1.1/2"	38mm (1.1/2")
SFHT52/51	2"	51mm (2")

Tech Sheet 2077

Equal Hose Joiner

1111	To Suit Hose ID
DS06-SS	1/4" (6mm)
DS08-SS	5/16" (8mm)
DS10-SS	3/8" (10mm)
DS13-SS	1/2" (13mm)

Tech Sheet 20778

Swivel Female Thread, 60° Coned Seat, BSPP

1111	Thread	To Suit Hose ID
FH13/14SS	1/4"	1/4" (6mm)
FH17/38SS	3/8"	3/8" (10mm)
FH21/12SS	1/2"	1/2" (13mm)
FH26/34SS	3/4"	3/4" (19mm)
FH33/19SS	1"	3/4"
FH48/38SS	1.1/2"	1.1/2"
FH52/50SS	2"	2"

Tech Sheet 20779

Barrel Nipple



Male Thread, BSPT

1111	Thread	Length mm
BN-18X30	1/8"	30
BN-18	1/8"	40
BN-14	1/4"	40
BN-14X80	1/4"	80
BN-38	3/8"	40
BN-38X80	3/8"	80
BN-12	1/2"	60
BN-12X80	1/2"	80
BN-34	3/4"	60
BN-34X80	3/4"	80
BN-1	1"	60
BN-1X100	1"	100
BN-1X150	1"	150
BN-114	1.1/4"	80
BN-112	1.1/2"	80
BN-2	2"	100
BN-212	2.1/2"	100
BN-3	3"	120
BN-4	4"	120

Tech Sheet 1803



For Stainless Steel 304 & 316 see section 10 page 1225

Many of our products are produced in stainless steel (304 or 316) so if that is your focus and to simplify product selection, we have all our products regardless of type or application grouped in **section 10** (coded yellow) of our catalogue.

Food safety starts with rigorous hygiene and nickel-containing stainless steels are the superior, reliable standard at every link of the food and industry supply chain. Though it may not be inherently antimicrobial, stainless steel, particularly 304 or 316 stainless steels, are one of the best materials to use in a food and beverage processing environment.

Industries

- Food
- Brewing
- Transport
- Pharmaceuticals
- Chemicals

Stainless steel is commonly used in the food industry because of its non-toxicity and ease of cleaning. This material does not react chemically with other substances and can be cleaned with high temperatures. In the process of disinfection, we can also use most of the available detergents. Stainless steel is not absorbent and after rinsing its surface with water, you can freely use it for food processing. This material is extremely durable and does not require regular and expensive maintenance. Although stainless steel can be slightly more expensive than other raw materials, it is an excellent compromise between the interests of the consumer and manufacturer.

150lb 316 STAINLESS STEEL PIPE FITTINGS

stainless
steel



9.03 Adaptors

Close Nipple



Male Thread, BSPP

1111	Thread
CPN-14	1/4"
CPN-38	3/8"
CPN-12	1/2"
CPN-34	3/4"
CPN-1	1"
CPN-114	1.1/4"
CPN-112	1.1/2"
CPN-2	2"
CPN-212	2.1/2"

Tech Sheet 1801

Female Reducing Socket



Female Thread, BSPP

1111	Thread	Thread
FRS-14-18	1/4"	1/8"
FRS-38-14	3/8"	1/4"
FRS-38-18	3/8"	1/8"
FRS-12-38	1/2"	3/8"
FRS-12-14	1/2"	1/4"
FRS-12-18	1/2"	1/8"
FRS-34-14	3/4"	1/4"
FRS-34-12	3/4"	1/2"
FRS-34-38	3/4"	3/8"
FRS-1-34	1"	3/4"
FRS-1-14	1"	1/4"
FRS-1-38	1"	3/8"
FRS-1-12	1"	1/2"
FRS-114-1	1.1/4"	1"
FRS-114-12	1.1/4"	1/2"
FRS-114-34	1.1/4"	3/4"
FRS-112-1	1.1/2"	1"
FRS-112-34	1.1/2"	3/4"
FRS-112-114	1.1/2"	1.1/4"
FRS-2-34	2"	3/4"
FRS-2-1	2"	1"
FRS-2-112	2"	1.1/2"
FRS-2-114	2"	1.1/4"
FRS-212-114	2.1/2"	1.1/4"
FRS-212-2	2.1/2"	2"
FRS-3-114	3"	1.1/4"
FRS-3-2	3"	2"
FRS-3-212	3"	2.1/2"
FRS-4-2	4"	2"
FRS-4-3	4"	3"

Tech Sheet 1802

45° Equal Elbow



Female Thread, BSPP

1111	Thread
OE-18	1/8"
OE-14	1/4"
OE-38	3/8"
OE-12	1/2"
OE-34	3/4"
OE-1	1"
OE-114	1.1/4"
OE-112	1.1/2"
OE-2	2"
OE-212	2.1/2"
OE-3	3"
OE-4	4"

Tech Sheet 1796

45° Equal Bracket Elbow



Female Thread, BSPP

1111	Thread
WEP-12	1/2"

Tech Sheet 1797

90° Equal Elbow



Female Thread, BSPP

1111	Thread
EE-18	1/8"
EE-14	1/4"
EE-38	3/8"
EE-12	1/2"
EE-34	3/4"
EE-1	1"
EE-114	1.1/4"
EE-112	1.1/2"
EE-2	2"
EE-212	2.1/2"
EE-3	3"
EE-4	4"

Tech Sheet 1797

90° Street Elbow



Male Thread, BSPT x Female Thread, BSPP

1111	Male Thread	Female Thread
SE-18	1/8"	1/8"
SE-14	1/4"	1/4"
SE-38	3/8"	3/8"
SE-12	1/2"	1/2"
SE-34	3/4"	3/4"
SE-1	1"	1"
SE-114	1.1/4"	1.1/4"
SE-112	1.1/2"	1.1/2"
SE-2	2"	2"
SE-212	2.1/2"	2.1/2"
SE-3	3"	3"
SE-4	4"	4"

Tech Sheet 1798

Equal Nipple



Male Thread, BSPT

1111	Thread
HN-18	1/8"
HN-14	1/4"
HN-38	3/8"
HN-12	1/2"
HN-34	3/4"
HN-1	1"
HN-114	1.1/4"
HN-112	1.1/2"
HN-2	2"
HN-212	2.1/2"
HN-3	3"
HN-4	4"

Tech Sheet 1804

Male Thread, NPT

1111	Thread
NPT62001010	1/8"
NPT62001313	1/4"
NPT62001717	3/8"
NPT62002121	1/2"
NPT62002727	3/4"
NPT62003232	1"
NPT62004242	1.1/4"
NPT62004848	1.1/2"
NPT62006060	2"
NPT62007676	2.1/2"
NPT62008989	3"
NPT62000114	4"

Tech Sheet 1804



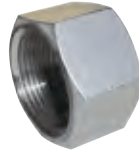
Hose Tails, Adaptors, Fittings & Manifolds

150lb 316 STAINLESS STEEL PIPE FITTINGS

stainless
steel



Hexagon Blanking Cap



Female Thread, BSPP

1111	Thread
HBC-18	1/8"
HBC-14	1/4"
HBC-38	3/8"
HBC-12	1/2"
HBC-34	3/4"
HBC-1	1"
HBC-114	1.1/4"
HBC-112	1.1/2"
HBC-2	2"
HBC-212	2.1/2"
HBC-3	3"
HBC-4	4"

Tech Sheet 1805

Blanking Plug



Male Thread, BSPT

1111	Thread
HP-18	1/8"
HP-14	1/4"
HP-38	3/8"
HP-12	1/2"
HP-34	3/4"
HP-1	1"
HP-114	1.1/4"
HP-112	1.1/2"
HP-2	2"
HP-212	2.1/2"
HP-3	3"

Tech Sheet 1806

Male Thread, NPT

1111	Thread
NPT62181000	1/8"
NPT62181300	1/4"
NPT62181700	3/8"
NPT62182100	1/2"
NPT62182700	3/4"
NPT62183200	1"
NPT62184200	1.1/4"
NPT62184800	1.1/2"
NPT62186000	2"
NPT62187600	2.1/2"
NPT62188900	3"

Tech Sheet 1808

Female Union



Female Thread, BSPP (2 Piece)

1111	Thread
HU-18	1/8"
HU-14	1/4"
HU-38	3/8"
HU-12	1/2"
HU-34	3/4"
HU-1	1"
HU-114	1.1/4"
HU-112	1.1/2"
HU-2	2"
HU-212	2.1/2"
HU-3	3"
HU-4	4"

Tech Sheet 1807

Male/Female Union



Male Thread, BSPT x Female Thread, BSPP (2 Piece)

1111	Thread
MFU-14	1/4"
MFU-38	3/8"
MFU-12	1/2"
MFU-34	3/4"
MFU-1	1"
MFU-114	1.1/4"
MFU-112	1.1/2"
MFU-2	2"
MFU-4	4"

Tech Sheet 1808

Lock Nut



Female Thread, BSPP

1111	Thread
LN-18	1/8"
LN-14	1/4"
LN-38	3/8"
LN-12	1/2"
LN-34	3/4"
LN-1	1"
LN-114	1.1/4"
LN-112	1.1/2"
LN-2	2"
LN-212	2.1/2"
LN-3	3"
LN-4	4"

Tech Sheet 1809

Reducing Bush



Male Thread, BSPT x Female Thread, BSPP

1111	Male Thread	Female Thread
RB-14-18	1/4"	1/8"
RB-38-14	3/8"	1/4"
RB-38-18	3/8"	1/8"
RB-12-14	1/2"	1/4"
RB-12-18	1/2"	1/8"
RB-12-38	1/2"	3/8"
RB-34-12	3/4"	1/2"
RB-34-14	3/4"	1/4"
RB-34-18	3/4"	1/8"
RB-34-38	3/4"	3/8"
RB-1-12	1"	1/2"
RB-1-14	1"	1/4"
RB-1-34	1"	3/4"
RB-1-38	1"	3/8"
RB-114-1	1.1/4"	1"
RB-114-12	1.1/4"	1/2"
RB-114-34	1.1/4"	3/4"
RB-112-1	1.1/2"	1"
RB-112-12	1.1/2"	1/2"
RB-112-34	1.1/2"	3/4"
RB-112-114	1.1/2"	1.1/4"
RB-2-1	2"	1"
RB-2-34	2"	3/4"
RB-2-112	2"	1.1/2"
RB-2-114	2"	1.1/4"
RB-212-1	2.1/2"	1"
RB-212-2	2.1/2"	2"
RB-212-112	2.1/2"	1.1/2"
RB-212-114	2.1/2"	1.1/4"
RB-3-1	3"	1"
RB-3-112	3"	1.1/2"
RB-3-2	3"	2"
RB-3-212	3"	2.1/2"
RB-4-3	4"	3"

Tech Sheet 1810

Male Thread, NPTF x Female Thread, NPTF

1111	Male Thread	Female Thread
NPT62041310	1/4"	1/8"
NPT62041713	3/8"	1/4"
NPT62042117	1/2"	3/8"
NPT62042721	3/4"	1/2"
NPT62043227	1"	3/4"
NPT62044232	1.1/4"	1"
NPT62044842	1.1/2"	1.1/4"
NPT62046048	2"	1.1/2"
NPT62047660	2.1/2"	2"
NPT62048976	3"	2.1/2"



150lb 316 STAINLESS STEEL PIPE FITTINGS

stainless
steel



9.03 Adaptors

Reducing Nipple



Male Thread, BSPT

1111	Thread	Thread
RHN-14-18	1/4"	1/8"
RHN-12-14	1/2"	1/4"
RHN-12-18	1/2"	1/8"
RHN-12-38	1/2"	3/8"
RHN-38-14	3/8"	1/4"
RHN-38-18	3/8"	1/8"
RHN-34-12	3/4"	1/2"
RHN-34-14	3/4"	1/4"
RHN-34-18	3/4"	1/8"
RHN-34-38	3/4"	3/8"
RHN-1-12	1"	1/2"
RHN-1-14	1"	1/4"
RHN-1-34	1"	3/4"
RHN-1-38	1"	3/8"
RHN-114-1	1.1/4"	1"
RHN-114-12	1.1/4"	1/2"
RHN-114-34	1.1/4"	3/4"
RHN-112-1	1.1/2"	1"
RHN-112-12	1.1/2"	1/2"
RHN-112-34	1.1/2"	3/4"
RHN-112-114	1.1/2"	1.1/4"
RHN-2-1	2"	1"
RHN-2-12	2"	1/2"
RHN-2-34	2"	3/4"
RHN-2-112	2"	1.1/2"
RHN-2-114	2"	1.1/4"
RHN-3-2	3"	2"

Tech Sheet 1811

Welding Nipple



Male Thread, BSPT

1111	Thread	Length mm
WN-18	1/8"	30
WN-14	1/4"	30
WN-38	3/8"	30
WN-12	1/2"	35
WN-34	3/4"	40
WN-1	1"	40
WN-114	1.1/4"	50
WN-112	1.1/2"	50
WN-2	2"	50
WN-212	2.1/2"	60
WN-3	3"	70
WN-4	4"	80

Tech Sheet 1813

Square Head Plug



Male Thread, BSPT

1111	Thread
SP-18	1/8"
SP-14	1/4"
SP-38	3/8"
SP-12	1/2"
SP-34	3/4"
SP-1	1"
SP-114	1.1/4"
SP-112	1.1/2"
SP-2	2"
SP-212	2.1/2"
SP-3	3"

Tech Sheet 1814

Round Blanking Cap



Female Thread, BSPP

1111	Thread
RC-18	1/8"
RC-14	1/4"
RC-38	3/8"
RC-12	1/2"
RC-34	3/4"
RC-1	1"
RC-114	1.1/4"
RC-112	1.1/2"
RC-2	2"
RC-212	2.1/2"
RC-3	3"

Tech Sheet 1812

Threaded Half Socket



Female Thread, BSPP

1111	Thread
HS-18	1/8"
HS-14	1/4"
HS-38	3/8"
HS-12	1/2"
HS-34	3/4"
HS-1	1"
HS-114	1.1/4"
HS-112	1.1/2"
HS-2	2"
HS-212	2.1/2"
HS-3	3"
HS-4	4"

Tech Sheet 1816

Threaded Full Socket



Female Thread, BSPP

1111	Thread
FS-18	1/8"
FS-14	1/4"
FS-38	3/8"
FS-12	1/2"
FS-34	3/4"
FS-1	1"
FS-114	1.1/4"
FS-112	1.1/2"
FS-2	2"
FS-212	2.1/2"
FS-3	3"
FS-4	4"

Tech Sheet 1815

Female Thread, NPT

1111	Thread
NPT62061010	1/8"
NPT62061313	1/4"
NPT62061717	3/8"
NPT62062121	1/2"
NPT62062727	3/4"
NPT62063232	1"
NPT62064242	1.1/4"
NPT62064848	1.1/2"
NPT62066060	2"
NPT62067676	2.1/2"
NPT62068989	3"
NPT62060114	4"

316 Stainless Steel Tube

Seamless schedule 40 ASTM A312/AMSE SA312-A530.
Conforms to NACE standard MR-01-75,
Din50049-3.1.B.

N.B. Delivery may take up to
48 hours.



3 Metre Lengths, Random

0214	NB	Wall Thickness mm
2028-5839	1/8"	1.73
2028-5854	1/4"	2.24
2028-5862	3/8"	2.31
2028-5870	1/2"	2.77
2028-5953	3/4"	2.87
2028-5961	1"	3.38
2028-5979	1.1/4"	3.56
2028-5987	1.1/2"	3.68
2028-5995	2"	3.91

Tech Sheet 831



Hose Tails, Adaptors, Fittings & Manifolds

3000lb 316 STAINLESS STEEL PIPE FITTINGS

stainless
steel

FT PRO®

- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

 **Working Temperature:**
-100°C to +525°C

 **Maximum Working Pressure:**
207 bar

90° Equal Female Elbow



NPT

0434	Thread
1012-0001	1/4"
1012-0002	3/8"
1012-0003	1/2"
1012-0004	3/4"
1012-0005	1"
1012-0006	1.1/4"
1012-0007	1.1/2"
1012-0008	2"

Tech Sheet 20506

90° Equal Male/
Female Street Elbow

NPT

0434	Thread
1012-0041	1/4"
1012-0042	3/8"
1012-0043	1/2"
1012-0044	3/4"
1012-0045	1"
1012-0046	1.1/4"
1012-0047	1.1/2"
1012-0048	2"

Tech Sheet 20515

Equal Tee



NPT

0434	Thread
1012-0049	1/4"
1012-0050	3/8"
1012-0051	1/2"
1012-0052	3/4"
1012-0053	1"
1012-0054	1.1/4"
1012-0055	1.1/2"
1012-0056	2"

Tech Sheet 20516

BSPT

0434	Thread
1012-0009	1/4"
1012-0010	3/8"
1012-0011	1/2"
1012-0012	3/4"
1012-0013	1"
1012-0014	1.1/4"
1012-0016	2"

Tech Sheet 20494

45° Equal Female Elbow



NPT

0434	Thread
1012-0025	1/4"
1012-0027	1/2"
1012-0028	3/4"
1012-0029	1"
1012-0030	1.1/4"
1012-0031	1.1/2"
1012-0032	2"

Tech Sheet 20505

BSPT

0434	Thread
1012-0057	1/4"
1012-0058	3/8"
1012-0059	1/2"
1012-0060	3/4"
1012-0061	1"
1012-0062	1.1/4"
1012-0063	1.1/2"
1012-0064	2"

Tech Sheet 20495

Socket Weld

0434	NB
1012-0017	1/4"
1012-0018	3/8"
1012-0019	1/2"
1012-0021	1"
1012-0022	1.1/4"
1012-0023	1.1/2"
1012-0024	2"

Tech Sheet 20521



Socket Weld

0434	NB
1012-0033	1/4"
1012-0034	3/8"
1012-0035	1/2"
1012-0036	3/4"
1012-0037	1"
1012-0038	1.1/4"
1012-0039	1.1/2"

Tech Sheet 20520


Socket Weld

0434	NB
1012-0065	1/4"
1012-0066	3/8"
1012-0067	1/2"
1012-0068	3/4"
1012-0069	1"
1012-0070	1.1/4"
1012-0071	1.1/2"
1012-0072	2"

Tech Sheet 20526



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

 **Working Temperature:**
-100°C to +525°C

 **Maximum Working Pressure:**
207 bar

Equal Cross



NPT

0434	Thread
1012-0073	1/4"
1012-0074	3/8"
1012-0075	1/2"
1012-0076	3/4"
1012-0077	1"
1012-0078	1.1/4"
1012-0079	1.1/2"
1012-0080	2"

Tech Sheet 20504



Socket Weld

0434	NB
1012-0082	3/8"
1012-0083	1/2"
1012-0084	3/4"
1012-0085	1"
1012-0086	1.1/4"
1012-0087	1.1/2"
1012-0088	2"

Tech Sheet 20519

Male / Female Union

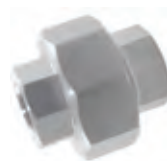


NPT

0434	Thread
1012-0089	1/4"
1012-0090	3/8"
1012-0091	1/2"
1012-0092	3/4"
1012-0093	1"
1012-0094	1.1/4"
1012-0095	1.1/2"
1012-0096	2"

Tech Sheet 20518

Female Union



NPT

0434	Thread
1012-0097	1/4"
1012-0098	3/8"
1012-0099	1/2"
1012-0100	3/4"
1012-0101	1"
1012-0102	1.1/4"
1012-0103	1.1/2"
1012-0104	2"

Tech Sheet 20517

BSPT

0434	Thread
1012-0106	3/8"
1012-0107	1/2"
1012-0108	3/4"
1012-0109	1"
1012-0110	1.1/4"
1012-0111	1.1/2"
1012-0112	2"

Tech Sheet 20500



Socket Weld

0434	NB
1012-0113	1/4"
1012-0114	3/8"
1012-0115	1/2"
1012-0116	3/4"
1012-0117	1"
1012-0118	1.1/4"
1012-0119	1.1/2"
1012-0120	2"

Tech Sheet 20527

Male Hex Nipple



NPT

0434	Thread
1012-0121	1/4"
1012-0122	3/8"
1012-0123	1/2"
1012-0124	3/4"
1012-0125	1"
1012-0126	1.1/4"
1012-0127	1.1/2"
1012-0128	2"

Tech Sheet 20509

BSPT

0434	Thread
1012-0129	1/4"
1012-0130	3/8"
1012-0131	1/2"
1012-0132	3/4"
1012-0133	1"
1012-0134	1.1/4"
1012-0135	1.1/2"
1012-0136	2"

Tech Sheet 20498

Male Barrel Nipple



NPT

0434	Thread	Length mm
1012-0137	1/4"	30
1012-0138	3/8"	40
1012-0139	1/2"	60
1012-0140	3/4"	60
1012-0141	1"	60
1012-0142	1.1/4"	80
1012-0143	1.1/2"	80
1012-0144	2"	100

Tech Sheet 20503

3000lb 316 STAINLESS STEEL PIPE FITTINGS



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1

- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

Working Temperature:
-100°C to +525°C

Maximum Working Pressure:
207 bar

Male Hex Reducing Nipple



BSPT

0434	Thread	Thread
1012-0166	1/4"	1/8"
1012-0167	3/8"	1/8"
1012-0168	1/2"	1/4"
1012-0169	1/2"	3/8"
1012-0170	3/4"	3/8"
1012-0171	3/4"	1/2"
1012-0172	1"	1/2"
1012-0173	1"	3/4"
1012-0174	1.1/4"	3/4"
1012-0175	1.1/4"	1"
1012-0176	1.1/2"	1"
1012-0177	1.1/2"	1.1/4"
1012-0178	2"	1"
1012-0179	2"	1.1/4"
1012-0180	2"	1.1/2"

Tech Sheet 20499

NPT

0434	Thread	Thread
1012-0145	1/4"	1/8"
1012-0146	3/8"	1/8"
1012-0147	3/8"	1/4"
1012-0148	1/2"	1/8"
1012-0149	1/2"	1/4"
1012-0150	1/2"	3/8"
1012-0151	3/4"	1/4"
1012-0152	3/4"	3/8"
1012-0153	3/4"	1/2"
1012-0154	1"	3/8"
1012-0155	1"	1/2"
1012-0156	1"	3/4"
1012-0157	1.1/4"	1/2"
1012-0158	1.1/4"	3/4"
1012-0159	1.1/4"	1"
1012-0160	1.1/2"	3/4"
1012-0161	1.1/2"	1"
1012-0162	1.1/2"	1.1/4"
1012-0163	2"	1"
1012-0164	2"	1.1/4"
1012-0165	2"	1.1/2"

Tech Sheet 20513

Full Coupling



NPT

0434	Thread
1012-0181	1/4"
1012-0182	3/8"
1012-0183	1/2"
1012-0184	3/4"
1012-0185	1"
1012-0186	1.1/4"
1012-0187	1.1/2"
1012-0188	2"

Tech Sheet 20507

BSPT

0434	Thread
1012-0189	1/4"
1012-0190	3/8"
1012-0191	1/2"
1012-0192	3/4"
1012-0193	1"
1012-0194	1.1/4"
1012-0195	1.1/2"
1012-0196	2"

Tech Sheet 20496

Socket Weld

0434	NB
1012-0197	1/4"
1012-0198	3/8"
1012-0199	1/2"
1012-0200	3/4"
1012-0201	1"
1012-0202	1.1/4"
1012-0203	1.1/2"
1012-0204	2"

Tech Sheet 20522

Half Coupling



NPT

0434	Thread
1012-0205	1/4"
1012-0206	3/8"
1012-0208	3/4"
1012-0209	1"
1012-0210	1.1/4"
1012-0211	1.1/2"
1012-0212	2"

Tech Sheet 20508

BSPT

0434	Thread
1012-0213	1/4"
1012-0214	3/8"
1012-0215	1/2"
1012-0216	3/4"
1012-0217	1"
1012-0218	1.1/4"
1012-0219	1.1/2"
1012-0220	2"

Tech Sheet 20497

Socket Weld

0434	NB
1012-0221	1/4"
1012-0222	3/8"
1012-0223	1/2"
1012-0224	3/4"
1012-0225	1"
1012-0226	1.1/4"
1012-0228	2"

Tech Sheet 20523

3000lb 316 STAINLESS STEEL PIPE FITTINGS

stainless
steel



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

Working Temperature:
-100°C to +525°C

Maximum Working Pressure:
207 bar

Reducing Coupling



NPT

0434	Thread	Thread
1012-0229	1/4"	1/8"
1012-0231	1/2"	1/4"
1012-0232	1/2"	3/8"
1012-0233	3/4"	3/8"
1012-0234	3/4"	1/2"
1012-0235	1"	1/2"
1012-0236	1"	3/4"
1012-0237	1.1/4"	3/4"
1012-0238	1.1/4"	1"
1012-0239	1.1/2"	1"
1012-0240	1.1/2"	1.1/4"
1012-0241	2"	1"
1012-0242	2"	1.1/4"
1012-0243	2"	1.1/2"

Tech Sheet 20512



Socket Weld

0434	NB	NB
1012-0244	1/4"	1/8"
1012-0245	3/8"	1/4"
1012-0246	1/2"	1/4"
1012-0247	1/2"	3/8"
1012-0248	3/4"	3/8"
1012-0249	3/4"	1/2"
1012-0250	1"	1/2"
1012-0252	1.1/4"	1"
1012-0253	1.1/2"	1"
1012-0254	1.1/2"	1.1/4"
1012-0255	2"	1"
1012-0256	2"	1.1/4"
1012-0257	2"	1.1/2"

Tech Sheet 20524

Reducing Bush



NPT

0434	Thread	Thread
1012-0258	1/4"	1/8"
1012-0259	3/8"	1/8"
1012-0260	3/8"	1/4"
1012-0261	1/2"	1/8"
1012-0262	1/2"	1/4"
1012-0263	1/2"	3/8"
1012-0264	3/4"	1/4"
1012-0265	3/4"	3/8"
1012-0266	3/4"	1/2"
1012-0267	1"	1/4"
1012-0268	1"	3/8"
1012-0269	1"	1/2"
1012-0270	1"	3/4"
1012-0271	1.1/4"	1/2"
1012-0272	1.1/4"	3/4"
1012-0273	1.1/4"	1"
1012-0274	1.1/2"	3/4"
1012-0275	1.1/2"	1"
1012-0276	1.1/2"	1.1/4"
1012-0277	2"	1"
1012-0278	2"	1.1/4"
1012-0279	2"	1.1/2"

Tech Sheet 20511

BSPT

0434	Thread	Thread
1012-0280	1/4"	1/8"
1012-0281	3/8"	1/8"
1012-0282	3/8"	1/4"
1012-0283	1/2"	1/8"
1012-0284	1/2"	1/4"
1012-0285	1/2"	3/8"
1012-0286	3/4"	1/4"
1012-0287	3/4"	3/8"
1012-0288	3/4"	1/2"
1012-0289	1"	1/4"
1012-0290	1"	3/8"
1012-0291	1"	1/2"
1012-0292	1"	3/4"
1012-0293	1.1/4"	1/2"
1012-0294	1.1/4"	3/4"
1012-0295	1.1/4"	1"
1012-0296	1.1/2"	3/4"
1012-0297	1.1/2"	1"
1012-0298	1.1/2"	1.1/4"
1012-0299	2"	1"
1012-0300	2"	1.1/4"
1012-0301	2"	1.1/2"

Tech Sheet 20502

Hex Head Plug



NPT

0434	Thread
1012-0302	1/4"
1012-0303	3/8"
1012-0304	1/2"
1012-0305	3/4"
1012-0306	1"
1012-0307	1.1/4"
1012-0308	1.1/2"
1012-0309	2"

Tech Sheet 20510

BSPT

0434	Thread
1012-0310	1/4"
1012-0311	3/8"
1012-0312	1/2"
1012-0313	3/4"
1012-0314	1"
1012-0315	1.1/4"
1012-0316	1.1/2"
1012-0317	2"

Tech Sheet 20501

Round Cap



NPT

0434	Thread
1012-0318	1/4"
1012-0319	3/8"
1012-0320	1/2"
1012-0321	3/4"
1012-0322	1"
1012-0323	1.1/4"
1012-0324	1.1/2"
1012-0325	2"

Tech Sheet 20514

Socket Weld

0434	NB
1012-0326	1/4"
1012-0327	3/8"
1012-0328	1/2"
1012-0329	3/4"
1012-0330	1"
1012-0331	1.1/4"
1012-0332	1.1/2"
1012-0333	2"

Tech Sheet 20525

TUBING

316 Stainless Steel Tube

3 metre lengths next day.

6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

For full details please contact our Business Development Team.

Minimum of 10 lengths is advised up to 8mm to prevent damage in transit.



Seamless ASTM A269, Metric, 6 Metre Lengths

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610-6M	6	1	428
765-6X1.5-6M	6	1.5	627
765-0810-6M	8	1	321
765-8X1.5-6M	8	1.5	472
765-1013-6M	10	1	257
765-10X1.5-6M	10	1.5	385
765-12X1.5-6M	12	1.5	321
765-1515-6M	15	1.5	257
765-16X1.5-6M	16	1.5	235
765-1602-6M	16	2	321
765-20X2-6M	20	2	257
765-25X2.5-6M	25	2.5	210
765-30X3-6M	30	3	257

Tech Sheet 831

Seamless ASTM A269, Metric, 3 Metre Lengths, Random

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610	6	1	428
765-6X1.5	6	1.5	627
765-6X2	6	2	942
765-0813	8	1	321
765-8X1.5	8	1.5	472
765-8X2	8	2	706
765-1013	10	1	257
765-10X1.5	10	1.5	385
765-10X2	10	2	564
765-1213	12	1	210
765-12X1.5	12	1.5	321
765-12X2	12	2	420
765-1513	15	1	200
765-15X1.5	15	1.5	257
765-15X2	15	2	376
765-16X1.5	16	1.5	235
765-16X2	16	2	321
765-18X1.5	18	1.5	235
765-18X2	18	2	314
765-20X1.5	20	1.5	212
765-20X2	20	2	257
765-20X3	20	3	424
765-22X1.5	22	1.5	193
765-22X2	22	2	256
765-25X1.5	25	1.5	169
765-25X2	25	2	226
765-25X2.5	25	2.5	210
765-25X3	25	3	339
765-28X2	28	2	201
765-30X3	30	3	257
765-35X3	35	3	242
765-42X3	42	3	201

Tech Sheet 831

Seamless ASTM A269, Imperial, 3 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372	1/8"	20	718
2020-1380	1/4"	20	360
2020-1406	3/8"	20	240
2020-1414	1/2"	20	180
2020-1422	3/4"	20	120
2020-1430	1"	20	90

Tech Sheet 831

Seamless ASTM A269, Imperial, 6 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372-6M	1/8"	20	750
2020-1380-6M	1/4"	20	360
2020-1406-6M	3/8"	20	240
2020-1414-6M	1/2"	20	180
2020-1422-6M	3/4"	20	120
2020-1430-6M	1"	20	90

Tech Sheet 831



You might also need...
Stainless Steel Fittings
 see pages 166-178

Elbows



90° Bends, Long

0706	OD
BSL2S-316-1	1"
BSL2S-316-1.5	1.1/2"
BSL2S-316-2	2"
BSL2S-316-2.5	2.1/2"
BSL2S-316-3	3"
BSL2S-316-4	4"

Tech Sheet 68082



90° Bends, Short

0706	OD
BS2WCL-316-1	1"
BS2WCL-316-1.5	1.1/2"
BS2WCL-316-2	2"
BS2WCL-316-2.5	2.1/2"
BS2WCL-316-3	3"
BS2WCL-316-4	4"

Tech Sheet 68082



45° Bends, Long

0706	OD
BSL2KS-316-1	1"
BSL2KS-316-1.5	1.1/2"
BSL2KS-316-2	2"
BSL2KS-316-2.5	2.1/2"
BSL2KS-316-3	3"
BSL2KS-316-4	4"

Tech Sheet 68082

Tees



Short Tees

0706	OD
BS7WWW-316-3/4	3/4"
BS7WWW-316-1	1"
BS7WWW-316-1.5	1.1/2"
BS7WWW-316-2	2"
BS7WWW-316-2.5	2.1/2"
BS7WWW-316-3	3"

Tech Sheet 68082



Pulled Tees

0706	OD
BS7WWO-316-1	1"
BS7WWO-316-1.5	1.1/2"
BS7WWO-316-2	2"
BS7WWO-316-2.5	2.1/2"
BS7WWO-316-3	3"
BS7WWO-316-4	4"

Tech Sheet 68082

Reducers



Concentric Reducing Cones

0706	OD A	OD B
BSL31-316-1X0.5	1"	1/2"
BSL31-316-1.5X1	1.1/2"	1"
BSL31-316-2X1	2"	1"
BSL31-316-2X1.5	2"	1.1/2"
BSL31-316-2.5X1	2.1/2"	1"
BSL31-316-2.5X1.5	2.1/2"	1.1/2"
BSL31-316-2.5X2	2.1/2"	2"
BSL31-316-3X2	3"	2"
BSL31-316-3X2.5	3"	2.1/2"
BSL31-316-4X1.5	4"	1.1/2"
BSL31-316-4X2	4"	2"
BSL31-316-4X2.5	4"	2.1/2"
BSL31-316-4X3	4"	3"

Tech Sheet 68082



Eccentric Reducing Cones

0706	OD A	OD B
BSL32-316075X0.5	3/4"	1/2"
BSL32-316-2X1	2"	1"
BSL32-316-2X1.5	2"	1.1/2"
BSL32-316-2.5X2	2.1/2"	2"
BSL32-316-3X2	3"	2"
BSL32-316-3X2.5	3"	2.1/2"
BSL32-316-4X1.5	4"	1.1/2"
BSL32-316-4X2	4"	2"
BSL32-316-4X3	4"	3"

Tech Sheet 68082

IDF Weld Fittings



Hex Nut

0706	Size
BSIDF-13H-1	1"
BSIDF-13H-1.5	1.1/2"
BSIDF-13H-2	2"
BSIDF-13H-2.5	2.1/2"
BSIDF-13H-3	3"

Tech Sheet 68081



Welding Male

0706	Size
BSIDF-15-1	1"
BSIDF-15-1.5	1.1/2"
BSIDF-15-2	2"
BSIDF-15-2.5	2.1/2"
BSIDF-15-3	3"
BSIDF-15-4	4"

Tech Sheet 68081



Welding Liner

0706	Size
BSIDF-14-1	1"
BSIDF-14-1.5	1.1/2"
BSIDF-14-2	2"
BSIDF-14-2.5	2.1/2"
BSIDF-14-3	3"
BSIDF-14-4	4"

Tech Sheet 68081



EPDM Seal

0706	Size
BSIDF-SEAL-1	1"
BSIDF-SEAL-1.5	1.1/2"
BSIDF-SEAL-2	2"
BSIDF-SEAL-2.5	2.1/2"
BSIDF-SEAL-3	3"
BSIDF-SEAL-4	4"

Tech Sheet 68081

RJT Weld Fittings



Hex Nut

0706	Size
BSRJT-13H-1	1"
BSRJT-13H-1.5	1.1/2"
BSRJT-13H-2	2"
BSRJT-13H-2.5	2.1/2"
BSRJT-13H-3	3"
BSRJT-13H-4	4"

Tech Sheet 68081



Welding Male

0706	Size
BSRJT-15-1	1"
BSRJT-15-1.5	1.1/2"
BSRJT-15-2	2"
BSRJT-15-2.5	2.1/2"
BSRJT-15-3	3"
BSRJT-15-4	4"

Tech Sheet 68081



Welding Liner

0706	Size
BSRJT-14-1	1"
BSRJT-14-1.5	1.1/2"
BSRJT-14-2	2"
BSRJT-14-2.5	2.1/2"
BSRJT-14-3	3"
BSRJT-14-4	4"

Tech Sheet 68081



Blanking Nut

0706	Size
BSRJT-13HBN-1	1"
BSRJT-13HBN-1.5	1.1/2"
BSRJT-13HBN-2	2"
BSRJT-13HBN-2.5	2.1/2"
BSRJT-13HBN-3	3"
BSRJT-13HBN-4	4"

Tech Sheet 68081



EPDM Seal

0706	Size
BSRJT-SEAL-1	1"
BSRJT-SEAL-1.5	1.1/2"
BSRJT-SEAL-2	2"
BSRJT-SEAL-2.5	2.1/2"
BSRJT-SEAL-3	3"
BSRJT-SEAL-4	4"

Tech Sheet 68081

RJT Fittings

Most process lines have to be frequently dismantled for cleaning and all ranges of our hygienic fittings are suitable for this purpose.

Clamp unions provide a crevice free connection with a rapid break down and assembly, with no tools required.

RJT unions are probably the most widely used for frequent break down and cleaning.

IDF unions provide an alternative security and limit unauthorised access.

Sizes to suit OD tube.



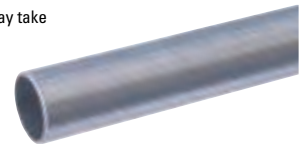
RJT Spanner

0147	Size
RJT-SPANNER-1.0	1"
RJT-SPANNER-1.5	1.1/2"
RJT-SPANNER-2	2"
RJT-SPANNER-2.5	2.1/2"
RJT-SPANNER-3	3"
RJT-SPANNER-4	4"

Tech Sheet 68081

Hygienic Tube

N.B. Delivery may take up to 48 hours.



3 Metre Lengths

0214	Size
ODT316L-W-H-1.0	1"
ODT316L-W-H-1.5	1.1/2"
ODT316L-W-H-2	2"
ODT316L-W-H-2.5	2.1/2"
ODT316L-W-H-3	3"
ODT316L-W-H-4	4"

Tech Sheet 68081

Clamp Fittings



Weld Ferrule

0707	Clamp Size
14MMP-0.5	1/2"
14MMP-0.75	3/4"
14MMP-1	1"
14MMP-1.5	1.1/2"
14MMP-2	2"
14MMP-2.5	2.1/2"
14MMP-3	3"
14MMP-4	4"

Tech Sheet 68084



Heavy-duty Single Pin Clamp

0707	Clamp Size
13MHH-2.5	2.1/2"
13MHH-0.5	1/2" - 3/4"
13MHH-1	1" - 1.1/2"
13MHH-2	2"
13MHH-3	3"
13MHH-4	4"

Tech Sheet 68084



End Cap

0707	Clamp Size
16AMP-0.5	1/2" - 3/4"
16AMP-1	1" - 1.1/2"
16AMP-2	2"
16AMP-2.5	2.1/2"
16AMP-3	3"
16AMP-4	4"

Tech Sheet 68084



Heavy-duty Double Pin Clamp

0707	Clamp Size
13MHHM-1	1" - 1.1/2"
13MHHM-2	2"
13MHHM-2.5	2.1/2"
13MHHM-3	3"
13MHHM-4	4"

Tech Sheet 68084



Clamp Joint Seal, EPDM

0707	Clamp Size
HFE03-050	1/2"
HFE03-075	3/4"
HFE03-1	1"
HFE03-1.5	1.1/2"
HFE03-2	2"
HFE03-2.5	2.1/2"
HFE03-3	3"
HFE03-4	4"

Tech Sheet 68084



stainless steel

You might also need...

Hygienic Stainless Steel Butterfly Valves

see page 967



Weld Liner



Stainless Steel

0354	Size
RJTWL1	1"
RJTWL112	1.1/2"
RJTWL2	2"
RJTWL212	2.1/2"
RJTWL3	3"

Tech Sheet 60554

Hose Liner



Stainless Steel

0354	Size
RJTHL1	1"
RJTHL112	1.1/2"
RJTHL2	2"
RJTHL212	2.1/2"
RJTHL3	3"

Tech Sheet 60554

BSPP Adaptor



Stainless Steel

0354	Size	Thread
RJTA1	1"	1"
RJTA112	1.1/2"	1.1/2"
RJTD2	2"	2"
RJTA3	3"	3"

Tech Sheet 60554

Reducing Weld Liner



Stainless Steel

0354	Size
RJTRWL2112	2" to 1.1/2"

Tech Sheet 60554

Hex Nut



Stainless Steel

0354	Size
RJTN1	1"
RJTN112	1.1/2"
RJTN2	2"
RJTN3	3"

Tech Sheet 60554

Seal



0354	Size
RJTS1	1"
RJTS112	1.1/2"
RJTS2	2"
RJTS3	3"

Tech Sheet 60554

Blank Liner



Stainless Steel

0354	Size
RJTBL1	1"
RJTBL112	1.1/2"
RJTBL2	2"
RJTBL212	2.1/2"
RJTBL3	3"

Tech Sheet 60554

Weld Male



Stainless Steel

0354	Size
RJTWM1	1"
RJTWM112	1.1/2"
RJTWM2	2"
RJTWM3	3"

Tech Sheet 60554

Slip-on PN16/3



BS4504: Sect 3.1:1989

1113	Size
SSFSB-12	1/2"
SSFSB-34	3/4"
SSFSB-1	1"
SSFSB-114	1.1/4"
SSFSB-112	1.1/2"
SSFSB-2	2"
SSFSB-3	3"

Tech Sheet 1500

Slip-on 150lb



ANSI B16.5

1113	Size
SSFSA-12	1/2"
SSFSA-1	1"
SSFSA-112	1.1/2"
SSFSA-2	2"

Tech Sheet 1500

Table D



1113	Size
TABLE-D-112	1.1/2"
TABLE-D-4	4"

Tech Sheet 1500

Table E



1113	Size
TABLE-E-1	1"
TABLE-E-112	1.1/2"
TABLE-E-2	2"
TABLE-E-3	3"

Tech Sheet 1500

Blind PN16/8



BS4504: Sect 3.1:1989

1113	Size
SSFBB-12	1/2"
SSFBSB-34	3/4"
SSFBSB-1	1"
SSFBSB-114	1.1/4"
SSFBSB-112	1.1/2"
SSFBB-2	2"
SSFBB-3	3"

Tech Sheet 1500

Blind 150lb



BS4504: Sect 3.1:1989

1113	Size
SSFBA-12	1/2"
SSFBA-34	3/4"
SSFBA-1	1"
SSFBA-2	2"
SSFBA-3	3"

Tech Sheet 1500

Weld Neck 150lb



ANSI B16.5

1113	Size
SSFWA-34	3/4"
SSFWA-2	2"
SSFWA-3	3"

Tech Sheet 1500

Customers who bought from this page also purchased...



Flange Gaskets



...see page 1389



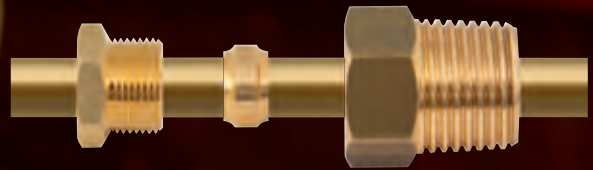
**LEAK
FREE**

Compression Fittings

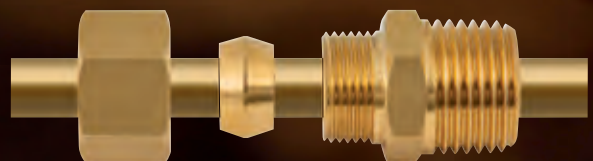
- To be used in conjunction with Nylon, Polyurethane & Metallic tube
- Superior to a Push-in Fitting where there are extremes of Temperature & Pressure

Brand	Fitting Variations	Nut Type	Tube Range	Thread Type	Finish
FT Pro	32	Internal	4-28mm	1/8" - 3/4"	Brass
FT Pro	34	Internal	1/8" - 3/4"	1/8" - 3/4"	Brass
Norgren Enots	26	Internal	4-12mm	1/8" - 3/4"	Brass
Norgren Enots	13	Internal	3/16" - 3/4"	1/8" - 1/2"	Brass
FT Pro	36	External	1/8" - 3/4"	1/8" - 3/4"	Brass
Aignep	18	External	4-22mm	1/8" - 3/4"	Brass
Aignep	12	External	4-18mm	1/8" - 1/2"	Nickel Plated Brass
Metal Work	11	External	4-15mm	1/8" - 1/2"	Nickel Plated Brass

Internal Nut



External Nut



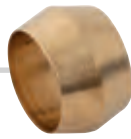
Tubing Nuts



Tubing Nut, Metric

1315	Tube OD mm	Equivalent
TNM04	4	36050002
TNM05	5	36050003
TNM06	6	36050004
TNM08	8	36050005
TNM10	10	36050006
TNM12	12	36050007
TNM15	15	36050015
TNM16	16	36050008
TNM22	22	36050010
TNM28	28	-

Tubing Sleeves



Tubing Sleeve, Metric

1315	Tube OD mm	Equivalent
OMB04	4	36050202
OMB05	5	36050203
OMB06	6	36050204
OMB08	8	36050205
OMB10	10	36050206
OMB12	12	36050207
OMB15	15	36050215
OMB16	16	36050208

Universal Tubing Sleeve, Metric



1315	Tube OD mm	Equivalent
OM04	4	36050102
OM06	6	36050104
OM08	8	36050105
OM10	10	36050106
OM12	12	36050107
OM15	15	36050115
OM16	16	36050108
OM18	18	36050118
OM22	22	36050110
OM28	28	-

Tubing Plugs



Tubing Plug, Metric

1315	Tube OD mm	Equivalent
CMP04	4	36050902
CMP05	5	36050903
CMP06	6	36050904
CMP08	8	36050905
CMP10	10	36050906
CMP12	12	36050907
CMP22	22	36050910

Male Adaptors



Straight Male Adaptor, Metric, BSPT

1315	Tube OD mm	Thread	Equivalent
CM04/02	4	1/8"	36053002
CM04/04	4	1/4"	36053008
CM05/02	5	1/8"	36053003
CM05/04	5	1/4"	36053009
CM06/02	6	1/8"	36053004
CM06/04	6	1/4"	36053010
CM06/06	6	3/8"	36053018
CM08/02	8	1/8"	36053005
CM08/04	8	1/4"	36053011
CM08/06	8	3/8"	36053019
CM08/08	8	1/2"	36053028
CM10/02	10	1/8"	36053006
CM10/04	10	1/4"	36053012
CM10/06	10	3/8"	36053020
CM10/08	10	1/2"	36053029
CM12/04	12	1/4"	36053013
CM12/06	12	3/8"	36053021
CM12/08	12	1/2"	36053030
CM12/12	12	3/4"	36053044
CM15/08	15	1/2"	36053057
CM16/06	16	3/8"	36053022
CM16/08	16	1/2"	36053031
CM16/12	16	3/4"	36053045
CM22/08	22	1/2"	-
CM22/12	22	3/4"	-

Straight Male Adaptor, Metric, BSPP

1315	Tube OD mm	Thread	Equivalent
CMP04/02	4	1/8"	36050402
CMP04/04	4	1/4"	36050408
CMP05/02	5	1/8"	36050403
CMP05/04	5	1/4"	36050409
CMP06/02	6	1/8"	36050404
CMP06/04	6	1/4"	36050410
CMP08/02	8	1/8"	36050405
CMP08/04	8	1/4"	36050411
CMP08/06	8	3/8"	36050419
CMP08/08	8	1/2"	36050428
CMP10/04	10	1/4"	36050412
CMP10/06	10	3/8"	36050420
CMP10/08	10	1/2"	36050429
CMP12/06	12	3/8"	36050421
CMP12/08	12	1/2"	36050430
CMP16/08	16	1/2"	36050431

Female Adaptors



Straight Female Adaptor, Metric, BSPP

1315	Tube OD mm	Thread	Equivalent
CMF04/02	4	1/8"	36050502
CMF05/02	5	1/8"	36050503
CMF05/04	5	1/4"	36050509
CMF06/02	6	1/8"	36050504
CMF06/04	6	1/4"	36050510
CMF08/02	8	1/8"	36050505
CMF08/04	8	1/4"	36050511
CMF08/06	8	3/8"	36050519
CMF10/04	10	1/4"	36050512
CMF10/06	10	3/8"	36050520
CMF12/06	12	3/8"	36050521
CMF12/08	12	1/2"	36050530
CMF16/08	16	1/2"	36050531

Nipple Adaptors



Nipple Adaptor Tube Male, BSPT x Male, Metric

1315	Tube OD mm	Thread	Equivalent
CMA05/02	5	1/8"	36055603
CMA06/02	6	1/8"	36055604
CMA06/04	6	1/4"	36055610
CMA08/04	8	1/4"	36055611
CMA08/06	8	3/8"	36055619
CMA12/08	12	1/2"	36055630

Nipple Adaptor Tube Male, BSP x Female, Metric

1315	Tube OD mm	Female Thread	Equivalent
CMNF04/02	4	1/8"	36055702
CMNF05/02	5	1/8"	36055703
CMNF06/02	6	1/8"	36055704
CMNF06/04	6	1/4"	36055710
CMNF08/04	8	1/4"	36055711
CMNF10/04	10	1/4"	36055712
CMNF12/06	12	3/8"	36055721
CMNF12/08	12	1/2"	36055730

BRASS COMPRESSION FITTINGS, METRIC



Nipple Connectors



Nipple Connector, Metric

1315	Tube OD mm	Equivalent
CMNC05	5	36063203
CMNC06	6	36063204
CMNC08	8	36063205

Reducing Connectors



Reducing Connector, Metric

1315	Tube OD mm Male	Tube OD mm Female	Equivalent
CMMFB05/04	5	4	36051726
CMMFB08/06	8	6	36051747
CMMFB10/06	10	6	36051748
CMMFB10/08	10	8	36051756
CMMFB12/06	12	6	36051749
CMMFB12/08	12	8	36051757
CMMFB12/10	12	10	36051764
CMMFB16/08	16	8	36051758
CMMFB16/12	16	12	36051771

Straight Connectors



Straight Connector, Metric

1315	Tube OD mm	Equivalent
CMS04	4	36050302
CMS05	5	36050303
CMS06	6	36050304
CMS08	8	36050305
CMS10	10	36050306
CMS12	12	36050307
CMS16	16	36050308
CMS22	22	36050310

Bulkhead Connectors



Bulkhead Connector, Metric

1315	Tube OD mm	Male Thread	Equivalent
CMBH04	4	M12 x 1	36050802
CMBH05	5	M15 x 1	36050803
CMBH06	6	M15 x 1	36050804
CMBH08	8	M18 x 1.5	36050805
CMBH10	10	M20 x 1.5	36050806
CMBH12	12	M24 x 1.5	36050807
CMBH16	16	M30 x 1.5	36050808

Locknuts



Locknut NP, Metric

1315	Thread
LNM15NP	M15 x 1.0
LNM20NP	M20 x 1.5
LNM24NP	M24 x 1.5
LNM26NP	M26 x 1.5
LNM28NP	M28 x 1.5

Elbows



Male Elbow Adaptor, Metric, BSPT

1315	Tube OD mm	Male Thread	Equivalent
CMLM04/02	4	1/8"	36000502
CMLM04/04	4	1/4"	36000508
CMLM05/02	5	1/8"	36000503
CMLM05/04	5	1/4"	36000509
CMLM06/02	6	1/8"	36000504
CMLM06/04	6	1/4"	36000510
CMLM06/06	6	3/8"	36000518
CMLM08/02	8	1/8"	36000505
CMLM08/04	8	1/4"	36000511
CMLM08/06	8	3/8"	36000519
CMLM08/08	8	1/2"	36000528
CMLM10/04	10	1/4"	36000512
CMLM10/06	10	3/8"	36000520
CMLM12/06	12	3/8"	36000521
CMLM12/08	12	1/2"	36000530
CMLM16/08	16	1/2"	36000531
CMLM16/12	16	3/4"	36000545



Female Elbow Adaptor, Metric, BSPT

1315	Tube OD mm	Male Thread	Equivalent
CMLF06/04	6	1/4"	36055510
CMLF08/04	8	1/4"	36055511
CMLF10/04	10	1/4"	36055512
CMLF10/06	10	3/8"	36055520

Bracketed Elbow, Metric



1315	Tube OD mm	Equivalent
CMBL10	10	36054806

Elbow Connector, Metric



1315	Tube OD mm	Equivalent
CML04	4	36051102
CML05	5	36051103
CML06	6	36051104
CML08	8	36051105
CML10	10	36051106
CML12	12	36051107
CML16	16	36051108

Elbow Connectors



Stem Elbow Connector, Metric

1315	Tube OD mm	Stem OD mm	Equivalent
CMLS06	6	6	36055104
CMLS08	8	8	36055105
CMLS10	10	10	36055106
CMLS12	12	12	36055107
CMLS16	16	16	36055108

Tees



Male Tee Adaptor, Metric, BSPT

1315	Tube OD mm	Male Thread	Equivalent
CMTM04/02	4	1/8"	36062702
CMTM06/02	6	1/8"	36062704
CMTM08/04	8	1/4"	36062711
CMTM10/04	10	1/4"	36062712



Tee Connector, Metric

1315	Tube OD mm	Equivalent
CMT04	4	36051402
CMT05	5	36051403
CMT06	6	36051404
CMT08	8	36051405
CMT10	10	36051406
CMT12	12	36051407
CMT16	16	36051408



Male Tee Adaptor, Metric, BSPT

1315	Tube OD mm	Male Thread	Equivalent
CMTR06/02	6	1/8"	36062804



Bracketed Tee, Metric

1315	Tube OD mm	Equivalent
CMBT06	6	36054904
CMBT08	8	36054905
CMBT10	10	36054906

Tee Connectors



Stem Tee Connector, Metric

1315	Tube OD mm	Stem OD mm	Equivalent
CMTS08	8	8	36055005
CMTS10	10	10	36055006
CMTS12	12	12	36055007
CMTS16	16	16	36055008



Stem Run Tee Connector, Metric

1315	Tube OD mm	Stem OD mm	Equivalent
CMTRS06	6	6	36062604
CMTRS10	10	10	36062606
CMTRS12	12	12	36062607

Crosses



Four Way Connector, Metric

1315	Tube OD mm	Equivalent
CMX06	6	36051604

Stem Adaptors



Nippled Stem Connector, Metric

1315	Tube OD mm	Stem OD mm	Equivalent
CMSPN12/12	12	12	36062507



Stem (Stand Pipe) x Hosetail Adaptor, Metric

1315	Standpipe mm	Hosetail	Equivalent
CMSPH04/03	4	3/16"	36052415
CMSPH06/04	6	1/4"	36052424
CMSPH08/04	8	1/4"	36052425
CMSPH12/06	12	3/8"	36052443



Straight Stem Adaptor, Metric

1315	Thread	Standpipe mm	Equivalent
CMSPO2/08	1/8"	8	36053105
CMSPO4/06	1/4"	6	36053110
CMSPO4/08	1/4"	8	36053111
CMSPO6/10	3/8"	10	36053120
CMSPO6/12	3/8"	12	36053121
CMSPO8/12	1/2"	12	-

Manifolds



Single Side 4 Output Manifold, Metric

1315	Inlet Tube OD mm	Outlet Tube OD mm	No. of Outlets	Equivalent
CMMB12/08	12	8	4	36030457
CMMB16/10	16	10	4	36030465

BRASS COMPRESSION FITTINGS, IMPERIAL



Tubing Nuts



Tubing Nut, Imperial

1315	Tube OD	Equivalent
TNI02	1/8"	34027902
TNI03	3/16"	34027903
TNI04	1/4"	34027904
TNI05	5/16"	34027905
TNI06	3/8"	34027906
TNI08	1/2"	34027907
TNI10	5/8"	34027908
TNI12	3/4"	34027909

Tubing Sleeves



Tubing Sleeve, Imperial

1315	Tube OD	Equivalent
OIB02	1/8"	34000302
OIB03	3/16"	34000303
OIB04	1/4"	34000304
OIB05	5/16"	34000305
OIB06	3/8"	34000306
OIB08	1/2"	34000307



Universal Tubing Sleeve, Imperial

1315	Tube OD	Equivalent
O102	1/8"	34027802
O104	1/4"	34027804
O105	5/16"	34027805
O106	3/8"	34027806
O108	1/2"	34027807
O110	5/8"	34027808
O112	3/4"	34027809

Tubing Plugs



Tubing Plug, Imperial

1315	Tube OD	Equivalent
CIP04	1/4"	34003604
CIP05	5/16"	34003605
CIP06	3/8"	34003606
CIP08	1/2"	34003607

Male Adaptors



Straight Male Adaptor, Imperial, BSPT

1315	Tube OD	Thread	Equivalent
CI02/02	1/8"	1/8"	34034607
CI03/02	3/16"	1/8"	34034608
CI03/04	3/16"	1/4"	34034615
CI04/02	1/4"	1/8"	34034609
CI04/04	1/4"	1/4"	34034616
CI05/02	5/16"	1/8"	34034610
CI05/04	5/16"	1/4"	34034617
CI05/06	5/16"	3/8"	34034625
CI05/08	5/16"	1/2"	34034634
CI06/02	3/8"	1/8"	34034611
CI06/04	3/8"	1/4"	34034618
CI06/06	3/8"	3/8"	34034626
CI06/08	3/8"	1/2"	34034635
CI08/04	1/2"	1/4"	34034619
CI08/06	1/2"	3/8"	34034627
CI08/08	1/2"	1/2"	34034636
CI08/12	1/2"	3/4"	34034653
CI10/08	5/8"	1/2"	34034637
CI12/08	3/4"	1/2"	34034638
CI12/12	3/4"	3/4"	34034655



Straight Male Adaptor, Imperial, BSPP

1315	Tube OD	Thread	Equivalent
CIP03/02	3/16"	1/8"	34034808
CIP04/02	1/4"	1/8"	34034809
CIP04/04	1/4"	1/4"	34034816
CIP06/06	3/8"	3/8"	34034826
CIP08/06	1/2"	3/8"	34034827

Female Adaptors



Straight Female Adaptor, Imperial, BSPP

1315	Tube OD	Thread	Equivalent
CIF03/02	3/16"	1/8"	34034408
CIF03/04	3/16"	1/4"	34034415
CIF04/02	1/4"	1/8"	34034409
CIF04/04	1/4"	1/4"	34034416
CIF05/04	5/16"	1/4"	34034417
CIF06/04	3/8"	1/4"	34034418
CIF06/06	3/8"	3/8"	34034426
CIF08/08	1/2"	1/2"	34034436
CIF10/08	5/8"	1/2"	34034437

Nipple Adaptors



Nipple Adaptor Tube Male, BSPT x Male, Imperial

1315	Tube OD	Thread	Equivalent
CIA04/02	1/4"	1/8"	34035009
CIA05/04	5/16"	1/4"	34035017
CIA06/04	3/8"	1/4"	34035018
CIA06/06	3/8"	3/8"	34035026
CIA08/08	1/2"	1/2"	34035036



Nipple Adaptor Tube Male, BSP x Female, Imperial

1315	Tube OD	Female Thread	Equivalent
CINF03/02	3/16"	1/8"	34035108
CINF05/04	5/16"	1/4"	34035117
CINF06/06	3/8"	3/8"	34035126
CINF08/06	1/2"	3/8"	34035127
CINF08/08	1/2"	1/2"	34035136

Reducing Connectors



Reducing Connector, Imperial

1315	Tube OD Male	Tube OD Female	Equivalent
CIMFB04/03	1/4"	3/16"	34035231
CIMFB05/04	5/16"	1/4"	34035239
CIMFB06/04	3/8"	1/4"	34035240
CIMFB06/05	3/8"	5/16"	34035246
CIMFB08/05	1/2"	5/16"	34035247
CIMFB08/06	1/2"	3/8"	34035252

Nipple Connectors



Nipple Connector, Imperial

1315	Tube OD	Equivalent
CINCO8	1/2"	34029107

Straight Connectors



Straight Connector, Imperial

1315	Tube OD	Equivalent
CIS03	3/16"	34000703
CIS04	1/4"	34000704
CIS05	5/16"	34000705
CIS06	3/8"	34000706
CIS08	1/2"	34000707
CIS12	3/4"	34000709

Bulkhead Connectors



Bulkhead Connector, Imperial

1315	Tube OD	Male Thread	Equivalent
CIBH03	3/16"	1/4"	34002103
CIBH04	1/4"	3/8"	34002104
CIBH05	5/16"	3/8"	34002105
CIBH06	3/8"	1/2"	34002106
CIBH08	1/2"	3/4"	34002107

Locknuts



Locknut, BSPP

1315	Thread	Equivalent
LN12	3/4"	34022306
LN16	1"	34022308



Locknut NP, BSPP

1315	Thread
LN02NP	1/8"
LN04NP	1/4"
LN06NP	3/8"
LN08NP	1/2"
LN12NP	3/4"
LN16NP	1"

Elbow Connectors



Stem Elbow Connector, Imperial

1315	Tube OD	Stem OD	Equivalent
CILS03	3/16"	3/16"	34005703
CILS04	1/4"	1/4"	34005704
CILS05	5/16"	5/16"	34005705
CILS06	3/8"	3/8"	34005706
CILS08	1/2"	1/2"	34005707



Universal Stem Elbow, Imperial

1315	Stem OD	Equivalent
CIUSL05	5/16"	34029205
CIUSL06	3/8"	34029206

Elbows



Female Elbow Adaptor, Imperial, BSPP

1315	Tube OD	Male Thread	Equivalent
CILF06/06	3/8"	3/8"	34032826
CILF08/06	1/2"	3/8"	34032827
CILF08/08	1/2"	1/2"	34032836



Elbow Connector, Imperial

1315	Tube OD	Equivalent
CIL04	1/4"	34006004
CIL05	5/16"	34006005
CIL06	3/8"	34006006
CIL08	1/2"	34006007



Male Elbow Adaptor, Imperial, BSPT

1315	Tube OD	Male Thread	Equivalent
CILM03/02	3/16"	1/8"	34033008
CILM03/04	3/16"	1/4"	34033015
CILM04/02	1/4"	1/8"	34033009
CILM04/04	1/4"	1/4"	34033016
CILM05/02	5/16"	1/8"	34033010
CILM05/04	5/16"	1/4"	34033017
CILM05/06	5/16"	3/8"	34033025
CILM06/04	3/8"	1/4"	34033018
CILM06/06	3/8"	3/8"	34033026

BRASS COMPRESSION FITTINGS, IMPERIAL



Tees



Male Tee Adaptor, Imperial, BSPT

1315	Tube OD	Male Thread	Equivalent
CITM04/02	1/4"	1/8"	34033409
CITM06/04	3/8"	1/4"	34033418



Tee Connector, Imperial

1315	Tube OD	Equivalent
CIT03	3/16"	34029003
CIT04	1/4"	34029004
CIT05	5/16"	34029005
CIT06	3/8"	34029006
CIT08	1/2"	34029007
CIT12	3/4"	34029009



Male Tee Adaptor, Imperial, BSPT

1315	Tube OD	Male Thread	Equivalent
CITR06/04	3/8"	1/4"	34033618



Bracketed Tee, Imperial

1315	Tube OD	Equivalent
CIBT03	3/16"	34029303

Tee Connectors



Stem Tee Connector, Imperial

1315	Tube OD	Stem OD	Equivalent
CITS04	1/4"	1/4"	34033904
CITS06	3/8"	3/8"	34033906



Stem Run Tee Connector, Imperial

1315	Tube OD	Stem OD	Equivalent
CITRS04	1/4"	1/4"	34034104



Universal Stem Tee, Imperial

1315	Stem OD	Equivalent
CIUST04	1/4"	34034204
CIUST06	3/8"	34034206

Y Connectors



Y Connector, Imperial

1315	Tube OD	Equivalent
CIY06	3/8"	34012706
CIY08	1/2"	34012707

Crosses



Four Way Connector, Imperial

1315	Tube OD	Equivalent
CIX06	3/8"	34013106

Stem Adaptors



Nipped Stem Connector, Imperial

1315	Tube OD	Stem OD	Equivalent
CISPN03/03	3/16"	3/16"	34001303
CISPN04/04	1/4"	1/4"	34001304
CISPN05/05	5/16"	5/16"	34001305
CISPN06/06	3/8"	3/8"	34001306



Stem (Stand Pipe) x Hosetail Adaptor, Imperial

1315	Standpipe	Hosetail	Equivalent
CISPH03/03	3/16"	3/16"	34005603
CISPH04/04	1/4"	1/4"	34005604
CISPH05/05	5/16"	5/16"	34005605
CISPH06/06	3/8"	3/8"	34005606
CISPH08/08	1/2"	1/2"	34005607



Straight Stem Adaptor, Imperial, BSPT

1315	Thread	Standpipe	Equivalent
CISP04/04	1/4"	1/4"	-
CISP04/05	1/4"	5/16"	34034317

Manifolds



Single Side 4 Output Manifold, Imperial

1315	Inlet Tube OD	Outlet Tube OD	No. of Outlets	Equivalent
CIMB08/04	1/2"	1/4"	4	34030441

ENOTS COMPRESSION FITTINGS, METRIC

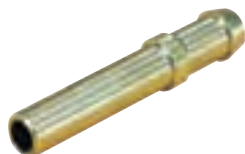


- Wide range of types and sizes
- Suitable for use under extreme conditions of temperature and pressure
- Rugged and durable
- Ideal for most general industrial applications

Tube Nut, Sleeve and Body
Manufactured from Bar:
 Brass to BS 2874: 1986 (CZ 121)
Body Manufactured from Stamping:
 Brass to BS 2872: 1969 (CZ 122)
 Banjo bolts have a bright nickel plated finish

Tube Types:
 Nylon 11 or 12 and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS5409: Part 1 1976. Copper, annealed and half-hard to BS2871: Part 2. Double wall brazed steel.

Stem Adaptors



Tailpiece

0038	Stem OD mm	To Suit Hose ID mm
36052424	6	6.3
36052425	8	6.3
36052442	10	10



Nippled

0038	Stem OD mm	OD mm
36062507	12	12



Straight, BSPP

0038	Stem OD mm	Thread
36052105	8	1/8"
36052111	8	1/4"



Straight, BSPT

0038	Stem OD mm	Thread
36053104	6	1/8"
36053110	6	1/4"
36053111	8	1/4"
36053112	10	1/4"

Tubing Plugs



Tube

0038	OD mm
36050902	4
36050905	8
36050906	10
36050907	12

Bulkhead Locknuts



Metric

0038	Thread
36052001	M12 x 1.0
36052003	M15 x 1.0
36052005	M18 x 1.5
36052006	M20 x 1.5
36052007	M24 x 1.5

Bulkhead Connectors



Metric

0038	OD mm	Thread
36050804	6	M15 x 1.0
36050805	8	M18 x 1.5
36050806	10	M20 x 1.5
36050807	12	M24 x 1.5

Reducing Connectors



Tube x Tube

0038	OD A mm	OD B mm
36051727	4	6
36051728	4	8
36051747	6	8
36051749	6	12
36051757	8	12

Fast Rotating Joints



BSPT

0038	Thread
04016100	1/4"

Straight Connectors



Equal

0038	OD mm
36050302	4
36050304	6
36050305	8
36050306	10
36050307	12



Bracketed

0038	OD mm
36055205	8

Nippled Adaptors



BSPT

0038	OD mm	Thread
36055605	8	1/8"
36055611	8	1/4"



BSPP

0038	OD mm	Thread
36055711	8	1/4"
36055712	10	1/4"
36055721	12	3/8"

ENOTS COMPRESSION FITTINGS, METRIC

Straight Adaptors



Male, BSPT

0038	OD mm	Thread
36053002	4	1/8"
36053008	4	1/4"
36053004	6	1/8"
36053010	6	1/4"
36053005	8	1/8"
36053011	8	1/4"
36053019	8	3/8"
36053028	8	1/2"
36053006	10	1/8"
36053012	10	1/4"
36053020	10	3/8"
36053029	10	1/2"
36053013	12	1/4"
36053030	12	1/2"
36053044	12	3/4"



Male, BSPP

0038	OD mm	Thread
36050402	4	1/8"
36050404	6	1/8"
36050405	8	1/8"
36050411	8	1/4"
36050428	8	1/2"
36050412	10	1/4"
36050420	10	3/8"
36050429	10	1/2"
36050413	12	1/4"
36050421	12	3/8"
36050430	12	1/2"



Female, BSPP

0038	OD mm	Thread
36050502	4	1/8"
36050510	6	1/4"
36050511	8	1/4"
36050512	10	1/4"
36050521	12	3/8"
36050530	12	1/2"

Elbow Connectors



Equal

0038	OD mm
36051104	6
36051107	12



Stem

0038	OD mm	Stem OD mm
36055104	6	6
36055105	8	8
36055106	10	10
36055107	12	12



Bracketed

0038	OD mm
36054804	6
36054805	8

Tee Connectors



Equal

0038	OD mm
36051404	6
36051405	8
36051406	10
36051407	12



Bracketed

0038	OD mm
36054905	8

Tubing Nuts



Tube

0038	OD mm
36050002	4
36050003	5
36050004	6
36050005	8
36050006	10
36050007	12
36050008	16

Elbow Adaptors



Female, BSPP

0038	OD mm	Thread
36055502	4	1/8"
36055510	6	1/4"
36055512	10	1/4"
36055520	10	3/8"



Male, BSPT

0038	OD mm	Thread
36000502	4	1/8"
36000508	4	1/4"
36000504	6	1/8"
36000510	6	1/4"
36000505	8	1/8"
36000511	8	1/4"
36000512	10	1/4"
36000520	10	3/8"
36000529	10	1/2"
36000513	12	1/4"
36000521	12	3/8"
36000530	12	1/2"

Universal Tubing Sleeves



To suit Metal & Nylon Tube

0038	OD mm
36050102	4
36050103	5
36050105	8
36050106	10
36050107	12
36050108	16

Elbow Banjo Assemblies



Non-regulating, BSPP

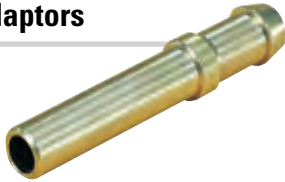
0038	OD mm	Thread
18A511028	10	1/4"
18A511048	10	1/2"
18A511238	12	3/8"

ENOTS COMPRESSION FITTINGS, IMPERIAL



- Wide range of types and sizes
- Rugged and durable
- Suitable for use under extreme conditions of temperature and pressure
- Ideal for most general industrial applications

Stem Adaptors



Tailpiece

0038	Stem OD	To Suit Hose ID
34005607	1/2"	1/2"

Tubing Plugs



Tube

0038	OD
34003604	1/4"

Bulkhead Locknuts



BSPP

0038	Thread
34022302	1/4"
34022303	3/8"

Bulkhead Connectors



BSPP

0038	OD	Thread
34002104	1/4"	3/8"

Straight Connectors



Equal

0038	OD
34000704	1/4"
34000705	5/16"
34000706	3/8"
34000707	1/2"

Tubing Nut, Sleeve and Body Manufactured from Bar:
Brass to BS 2874: 1986 (CZ 121)

Body Manufactured from Stamping:
Brass to BS 2872: 1969 (CZ 122)

Banjo bolts have a bright nickel plated finish

Straight Adaptors



Male, BSPT

0038	OD	Thread
34034610	5/16"	1/8"
34034616	1/4"	1/4"
34034617	5/16"	1/4"
34034618	3/8"	1/4"
34034626	3/8"	3/8"
34034635	3/8"	1/2"
34034619	1/2"	1/4"
34034636	1/2"	1/2"



Male, BSPP

0038	OD	Thread
34034809	1/4"	1/8"



Female, BSPP

0038	OD	Thread
34034416	1/4"	1/4"

Elbow Connectors



Stem

0038	OD	Stem OD
34005704	1/4"	1/4"
34005706	3/8"	3/8"
34005707	1/2"	1/2"

Tube Types:

Nylon 11 or 12 and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS5409: Part 1 1976. Copper, annealed and half-hard to BS2871: Part 2. Double wall brazed steel.

Elbow Adaptors



Male, BSPT

0038	OD	Thread
34033009	1/4"	1/8"
34033016	1/4"	1/4"
34033018	3/8"	1/4"
34033026	3/8"	3/8"
34033019	1/2"	1/4"
34033027	1/2"	3/8"

Tubing Nuts



Tube

0038	OD
34027903	3/16"
34027904	1/4"
34027905	5/16"
34027906	3/8"
34027907	1/2"
34027909	3/4"

Tubing Sleeves



To suit Metal Tube Only

0038	OD
34000303	3/16"
34000304	1/4"

Universal, To suit Metal & Nylon Tube

0038	OD
34027803	3/16"
34027804	1/4"
34027805	5/16"
34027806	3/8"

IMPERIAL BRASS COMPRESSION FITTINGS



Please note: Safe pressures and temperatures depend entirely on the tubes being used, for this reason the values must be determined in accordance with the tube features.

Media: Water, oils, compressed air

Use universal barrel olive for copper and nylon tube.

Male Studs



BSPT

0062	OD	Thread
APMS-14-18	1/4"	1/8"
APMS-14-14	1/4"	1/4"
APMS-14-38	1/4"	3/8"
APMS-14-12	1/4"	1/2"
APMS-516-18	5/16"	1/8"
APMS-516-14	5/16"	1/4"
APMS-516-38	5/16"	3/8"
APMS-516-12	5/16"	1/2"
APMS-38-18	3/8"	1/8"
APMS-38-14	3/8"	1/4"
APMS-38-38	3/8"	3/8"
APMS-38-12	3/8"	1/2"
APMS-12-14	1/2"	1/4"
APMS-12-38	1/2"	3/8"
APMS-12-12	1/2"	1/2"

Tech Sheet 20193

Male Stud Elbows



BSPT

0062	OD	Thread
APSE-14-18	1/4"	1/8"
APSE-14-14	1/4"	1/4"
APSE-14-38	1/4"	3/8"
APSE-14-12	1/4"	1/2"
APSE-516-18	5/16"	1/8"
APSE-516-14	5/16"	1/4"
APSE-516-38	5/16"	3/8"
APSE-38-18	3/8"	1/8"
APSE-38-14	3/8"	1/4"
APSE-38-38	3/8"	3/8"
APSE-38-12	3/8"	1/2"
APSE-12-14	1/2"	1/4"
APSE-12-38	1/2"	3/8"
APSE-12-12	1/2"	1/2"

Tech Sheet 20194

Female Studs



BSPP

0062	OD	Thread
APFS-14-18	1/4"	1/8"
APFS-14-14	1/4"	1/4"
APFS-14-38	1/4"	3/8"
APFS-14-12	1/4"	1/2"
APFS-516-14	5/16"	1/4"
APFS-516-38	5/16"	3/8"
APFS-516-12	5/16"	1/2"
APFS-38-14	3/8"	1/4"
APFS-38-38	3/8"	3/8"
APFS-38-12	3/8"	1/2"
APFS-12-14	1/2"	1/4"
APFS-12-38	1/2"	3/8"
APFS-12-12	1/2"	1/2"

Tech Sheet 20192

Brass Barrel Olives



0062	OD
APBO-14	1/4"
APBO-516	5/16"
APBO-38	3/8"
APBO-12	1/2"

Female Stud Elbows



BSPP

0062	OD	Thread
APFE-14-14	1/4"	1/4"
APFE-516-14	5/16"	1/4"
APFE-38-38	3/8"	3/8"

Tech Sheet 20191

Brass Nuts



0062	OD
APBN-14	1/4"
APBN-38	3/8"
APBN-12	1/2"

Tech Sheet 20189

Tees, Male Stud Branch



BSPT

0062	OD	Thread
APST-14-18	1/4"	1/8"
APST-14-14	1/4"	1/4"
APST-516-14	5/16"	1/4"
APST-38-14	3/8"	1/4"
APST-12-14	1/2"	1/4"

Tech Sheet 20195

Equal Connectors



Tube x Tube

0062	OD
APEC-14	1/4"
APEC-516	5/16"
APEC-38	3/8"
APEC-12	1/2"

Tech Sheet 20187

Equal Tees



Tube x Tube

0062	OD
APET-14	1/4"
APET-516	5/16"
APET-38	3/8"
APET-12	1/2"

Tech Sheet 20190

Equal Elbows



Tube x Tube

0062	OD
APEE-14	1/4"
APEE-516	5/16"
APEE-38	3/8"
APEE-12	1/2"

Tech Sheet 20188

Please note: Safe pressures and temperatures depend entirely on the tubes being used, for this reason the values must be determined in accordance with the tube features.

Media: Water, oils, compressed air

Male Studs



BSPP

1300	OD	Thread
MST18-18	1/8"	1/8"
MST18-14	1/8"	1/4"
MST316-18	3/16"	1/8"
MST316-14	3/16"	1/4"
MST14-18	1/4"	1/8"
MST14-14	1/4"	1/4"
MST14-38	1/4"	3/8"
MST14-12	1/4"	1/2"
MST516-18	5/16"	1/8"
MST516-14	5/16"	1/4"
MST516-38	5/16"	3/8"
MST38-18	3/8"	1/8"
MST38-14	3/8"	1/4"
MST38-38	3/8"	3/8"
MST38-12	3/8"	1/2"
MST12-14	1/2"	1/4"
MST12-38	1/2"	3/8"
MST12-12	1/2"	1/2"
MST34-12	3/4"	1/2"
MST34-34	3/4"	3/4"



BSPP

1300	OD	Thread
MSP18-18	1/8"	1/8"
MSP18-14	1/8"	1/4"
MSP316-18	3/16"	1/8"
MSP316-14	3/16"	1/4"
MSP316-38	3/16"	3/8"
MSP14-18	1/4"	1/8"
MSP14-14	1/4"	1/4"
MSP14-38	1/4"	3/8"
MSP516-18	5/16"	1/8"
MSP516-14	5/16"	1/4"
MSP516-38	5/16"	3/8"
MSP516-12	5/16"	1/2"
MSP38-18	3/8"	1/8"
MSP38-14	3/8"	1/4"
MSP38-38	3/8"	3/8"
MSP38-12	3/8"	1/2"
MSP12-38	1/2"	3/8"
MSP12-12	1/2"	1/2"
MSP12-34	1/2"	3/4"
MSP34-12	3/4"	1/2"
MSP34-34	3/4"	3/4"
MSP1-1	1"	1"

Female Studs



BSPP

1300	OD	Thread
FSC18-18	1/8"	1/8"
FSC18-14	1/8"	1/4"
FSC316-18	3/16"	1/8"
FSC316-14	3/16"	1/4"
FSC316-38	3/16"	3/8"
FSC14-18	1/4"	1/8"
FSC14-14	1/4"	1/4"
FSC14-38	1/4"	3/8"
FSC14-12	1/4"	1/2"
FSC516-18	5/16"	1/8"
FSC516-14	5/16"	1/4"
FSC516-38	5/16"	3/8"
FSC516-12	5/16"	1/2"
FSC38-18	3/8"	1/8"
FSC38-14	3/8"	1/4"
FSC38-38	3/8"	3/8"
FSC38-12	3/8"	1/2"
FSC12-14	1/2"	1/4"
FSC12-12	1/2"	1/2"
FSC34-12	3/4"	1/2"
FSC34-34	3/4"	3/4"
FSC1-1	1"	1"

Equal Ended



Tube x Tube

1300	Thread
EEC18	1/8"
EEC316	3/16"
EEC14	1/4"
EEC516	5/16"
EEC38	3/8"
EEC12	1/2"
EEC34	3/4"
EEC1	1"

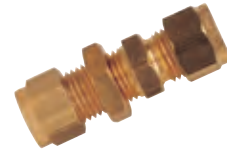
Imperial to Metric Couplings



Tube x Tube

1300	OD	ODmm
IMC38-10	3/8"	10

Equal Ended Bulkheads



Tube x Tube

1300	OD	Thread
EB18	1/8"	1/8"
EB316	3/16"	1/8"
EB14	1/4"	1/4"
EB14/2	1/4"	3/8"
EB516	5/16"	1/8"
EB38	3/8"	3/8"
EB12	1/2"	1/2"

Reducing Couplings



Tube x Tube

1300	OD	OD
RDC316-18	3/16"	1/8"
RDC14-18	1/4"	1/8"
RDC14-316	1/4"	3/16"
RDC516-316	5/16"	3/16"
RDC516-14	5/16"	1/4"
RDC38-14	3/8"	1/4"
RDC38-516	3/8"	5/16"
RDC12-14	1/2"	1/4"
RDC12-516	1/2"	5/16"
RDC12-38	1/2"	3/8"

Tees, Male Stud Branch



BSPT

1300	OD	Thread
MSB14-18	1/4"	1/8"
MSB14-14	1/4"	1/4"
MSB38-14	3/8"	1/4"
MSB38-38	3/8"	3/8"
MSB12-12	1/2"	1/2"

Equal Tees



Tube x Tube

1300	OD
TE18	1/8"
TE316	3/16"
TE14	1/4"
TE516	5/16"
TE38	3/8"
TE12	1/2"
TE34	3/4"

IMPERIAL BRASS COMPRESSION FITTINGS



Tees, Male Stud Run



BSPT

1300	OD	Thread
MSR14-18	1/4"	1/8"
MSR14-14	1/4"	1/4"
MSR516-14	5/16"	1/4"
MSR38-38	3/8"	3/8"

Reducing Branch Tees



Tube x Tube

1300	OD	Branch OD
RT14-316	1/4"	3/16"
RT516-14	5/16"	1/4"
RT38-14	3/8"	1/4"
RT38-516	3/8"	5/16"
RT12-14	1/2"	1/4"
RT12-38	1/2"	3/8"

Equal Ended Crosses



Tube x Tube

1300	OD
EX14	1/4"
EX516	5/16"
EX12	1/2"

Flanged Blanking Plugs



BSPP

1300	Thread
FBP18	1/8"
FBP14	1/4"
FBP38	3/8"
FBP12	1/2"
FBP34	3/4"
FBP1	1"

End Stops



Tube

1300	OD
ES316	3/16"
ES14	1/4"
ES516	5/16"
ES38	3/8"
ES12	1/2"
ES34	3/4"

Standpipe Elbows



Tube x Stem

1300	Stem OD	OD
SPE516	5/16"	5/16"
SPE38	3/8"	3/8"
SPE12	1/2"	1/2"

Female Stud Elbows



BSPP

1300	OD	Thread
FSE316-18	3/16"	1/8"
FSE14-18	1/4"	1/8"
FSE14-14	1/4"	1/4"
FSE516-14	5/16"	1/4"
FSE38-14	3/8"	1/4"
FSE38-38	3/8"	3/8"
FSE38-12	3/8"	1/2"
FSE12-12	1/2"	1/2"

Equal Elbows



Tube x Tube

1300	OD
EL18	1/8"
EL316	3/16"
EL14	1/4"
EL516	5/16"
EL38	3/8"
EL12	1/2"
EL34	3/4"

Male Stud Elbows



BSPT

1300	OD	Thread
MSE18-18	1/8"	1/8"
MSE316-18	3/16"	1/8"
MSE316-14	3/16"	1/4"
MSE14-18	1/4"	1/8"
MSE14-14	1/4"	1/4"
MSE14-38	1/4"	3/8"
MSE516-18	5/16"	1/8"
MSE516-14	5/16"	1/4"
MSE38-18	3/8"	1/8"
MSE38-14	3/8"	1/4"
MSE38-38	3/8"	3/8"
MSE12-14	1/2"	1/4"
MSE12-38	1/2"	3/8"
MSE12-12	1/2"	1/2"
MSE34-34	3/4"	3/4"

Brass Compression Rings



1300	OD
CR18	1/8"
CR316	3/16"
CR14	1/4"
CR516	5/16"
CR38	3/8"
CR12	1/2"
CR34	3/4"
CR1	1"

Fulham Nozzles



Female Thread, BSPP

1300	To Suit Hose ID	Thread
FNF18	3/8"	1/8"
FNF14	3/8"	1/4"
FNF38	3/8"	3/8"

Male Thread, BSPT



1300	To Suit Hose ID	Thread
FN18	3/8"	1/8"
FN14	3/8"	1/4"
FN38	3/8"	3/8"

Male Thread, BSPP



1300	To Suit Hose ID	Thread
FNP18	3/8"	1/8"
FNP14	3/8"	1/4"

Tube x Hose Tail



1300	To Suit Hose ID	OD
FNT14	3/8"	1/4"
FNT516	3/8"	5/16"

Compression Nuts



BSPP

1300	OD	Thread
UN18	1/8"	1/8"
UN316	3/16"	1/8"
UN14	1/4"	1/4"
UN516	5/16"	1/4"
UN38	3/8"	3/8"
UN12	1/2"	1/2"
UN34	3/4"	3/4"

Copper Washers for BSPP Stud Ends



To suit BSPP

1300	Male Thread	Female Thread
CW18	1/8"	3/8"
CW14	1/4"	1/2"
CW38	3/8"	3/4"
CW12	1/2"	7/8"
CW34	3/4"	-
CW1	1"	-
CW114	1.1/4"	-
CW112	1.1/2"	-
CW2	2"	-

Tech Sheet 20358

METRIC BRASS COMPRESSION FITTINGS



Please note: Safe pressures and temperatures depend entirely on the tubes being used, for this reason the values must be determined in accordance with the tube features.

Media: Water, oils, compressed air

Male Studs



BSPT

1040	OD mm	Thread
13480-4-18	4	1/8"
13480-4-14	4	1/4"
13480-6-18	6	1/8"
13480-6-14	6	1/4"
13480-6-38	6	3/8"
13480-8-18	8	1/8"
13480-8-14	8	1/4"
13480-8-38	8	3/8"
13480-10-14	10	1/4"
13480-10-38	10	3/8"
13480-10-12	10	1/2"
13480-12-14	12	1/4"
13480-12-38	12	3/8"
13480-12-12	12	1/2"
13480-14-12	14	1/2"
13480-15-12	15	1/2"
13480-22-12	22	1/2"
13480-22-34	22	3/4"

Tech Sheet 68743



BSPP

1040	OD mm	Thread
13485-4-18	4	1/8"
13485-6-18	6	1/8"
13485-6-14	6	1/4"
13485-8-18	8	1/8"
13485-8-14	8	1/4"
13485-8-38	8	3/8"
13485-10-14	10	1/4"
13485-10-38	10	3/8"
13485-22-34	22	3/4"
13485-22-1	22	1"

Tech Sheet 68743

Standpipe Adaptors

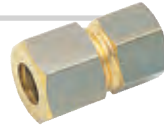


BSPP

1040	OD mm	Thread
13530-6-18	6	1/8"
13530-6-14	6	1/4"
13530-8-14	8	1/4"
13530-8-38	8	3/8"
13530-10-14	10	1/4"
13530-10-38	10	3/8"

Tech Sheet 68743

Female Studs



BSPP

1040	OD mm	Thread
13500-4-18	4	1/8"
13500-4-14	4	1/4"
13500-6-18	6	1/8"
13500-6-14	6	1/4"
13500-8-18	8	1/8"
13500-8-14	8	1/4"
13500-8-38	8	3/8"
13500-10-14	10	1/4"
13500-10-38	10	3/8"
13500-10-12	10	1/2"
13500-12-14	12	1/4"
13500-12-38	12	3/8"
13500-12-12	12	1/2"
13500-14-12	14	1/2"
13500-15-12	15	1/2"
13500-22-34	22	3/4"

Tech Sheet 68743

Male Stud Elbows



BSPT

1040	OD mm	Thread
13280-4-18	4	1/8"
13280-6-18	6	1/8"
13280-6-14	6	1/4"
13280-8-18	8	1/8"
13280-8-14	8	1/4"
13280-8-38	8	3/8"
13280-10-14	10	1/4"
13280-10-38	10	3/8"
13280-10-12	10	1/2"
13280-12-14	12	1/4"
13280-12-38	12	3/8"
13280-12-12	12	1/2"
13280-14-12	14	1/2"
13280-15-12	15	1/2"
13280-22-34	22	3/4"

Tech Sheet 68743

Equal Elbows



Tube x Tube

1040	OD mm
13260-4	4
13260-6	6
13260-8	8
13260-10	10
13260-12	12
13260-15	15
13260-22	22

Tech Sheet 68743

Bulkhead Connectors



Tube x Tube

1040	OD mm
13465-4	4
13465-6	6
13465-8	8
13465-10	10
13465-12	12
13465-14	14

Tech Sheet 68743

Straight Connectors



Tube x Tube

1040	OD mm
13460-4	4
13460-6	6
13460-8	8
13460-10	10
13460-12	12
13460-15	15
13460-22	22

Tech Sheet 68743

Internal Tube Supports

- This internal tube support, will prevent the tube from crushing caused by over tightening of compression type fittings or clamps



Tube

1000	To Suit Hose ID mm
877-0027	2.7
877-0004	4
877-0006	6
877-0008	8
877-0009	9
877-0010	10
877-0012	12
877-0125	12.5
877-0013	13
877-0015	15
877-0016	16
877-0018	18

METRIC BRASS COMPRESSION FITTINGS



Equal Crosses

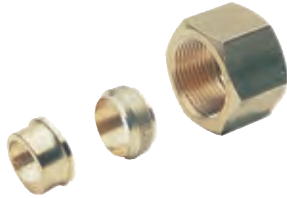


Tube x Tube

1040	OD mm
13510-6	6
13510-8	8
13510-10	10
13510-12	12

Tech Sheet 68743

Reducers



Tube

1040	ID mm	OD mm
13600-4-6	4	6
13600-6-8	6	8
13600-8-10	8	10
13600-10-12	10	12

Tech Sheet 68743

Male Stud Tees



BSPT

1040	OD mm	Thread
13220-4-18	4	1/8"
13220-6-18	6	1/8"
13220-6-14	6	1/4"
13220-8-18	8	1/8"
13220-8-14	8	1/4"
13220-8-38	8	3/8"
13220-10-14	10	1/4"
13220-10-38	10	3/8"
13220-10-12	10	1/2"
13220-12-38	12	3/8"
13220-14-12	14	1/2"
13220-15-12	15	1/2"
13220-22-34	22	3/4"

Tech Sheet 68743

Equal Tees



Tube x Tube

1040	OD mm
13200-4	4
13200-6	6
13200-8	8
13200-10	10
13200-12	12
13200-14	14
13200-22	22

Tech Sheet 68743

Hose Tail Stem Adaptors

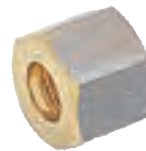


Stem x Hose Tail

1040	Stem OD mm	To Suit Hose ID mm
13540-6-7	6	7
13540-8-7	8	7
13540-8-10	8	10
13540-10-10	10	10
13540-12-10	12	10
13540-12-13	12	13

Tech Sheet 68743

Nuts



Tube

1040	OD mm	Thread
13680-4	4	M8 x 1
13680-6	6	M10 x 1
13680-8	8	M12 x 1
13680-10	10	M16 x 1.5
13680-12	12	M18 x 1.5
13680-14	14	M20 x 1.5
13680-15	15	M20 x 1.5

Tech Sheet 68743

Brass Olives



Tube

1040	OD mm
13740-4	4
13740-6	6
13740-8	8
13740-10	10
13740-12	12
13740-14	14
13740-15	15
13740-22	22

Tech Sheet 68743

Single Banjo Body with Stem



BSPP

1040	OD mm	Thread
13550-4-18	4	1/8"
13550-6-18	6	1/8"
13550-6-14	6	1/4"
13550-8-18	8	1/8"
13550-8-14	8	1/4"
13550-8-38	8	3/8"
13550-10-14	10	1/4"
13550-10-38	10	3/8"

Tech Sheet 68743

Blanking Plugs



Tube

1040	OD mm
13780-4	4
13780-6	6
13780-8	8
13780-10	10
13780-12	12
13780-14	14
13780-15	15
13780-22	22

Tech Sheet 68743

METRIC NICKEL PLATED COMPRESSION FITTINGS



Please note: Safe pressures and temperatures depend entirely on the tubes being used. For this reason, the values must be determined in accordance with the tube features.

Media: Water, oils and compressed air.

Male Studs



BSPT

1040	OD mm	Thread
2018-5336	4	1/8"
2018-5344	6	1/8"
2018-5351	6	1/4"
2018-5369	8	1/8"
2018-5377	8	1/4"
2018-5385	8	3/8"
2018-5393	10	1/4"
2018-5401	10	3/8"
2018-5419	12	3/8"
2018-5435	12	1/2"
2018-5436	14	1/2"
2018-5914	15	1/2"
2018-5915	16	1/2"
2018-5916	18	1/2"

Tech Sheet 68742

Female Studs



BSPP

1040	OD mm	Thread
2018-5468	4	1/8"
2018-5476	6	1/8"
2018-5484	6	1/4"
2018-5492	8	1/8"
2018-5500	8	1/4"
2018-5518	8	3/8"
2018-5526	10	1/4"
2018-5534	10	3/8"
2018-5542	12	3/8"
2018-5559	12	1/2"
2018-5567	15	1/2"

Tech Sheet 68742

Straight Connectors



Tube x Tube

1040	OD mm
2018-5773	4
2018-5880	6
2018-5922	8
2018-5930	10
2018-5948	12
2018-5951	16

Tech Sheet 68742

Male Stud Elbows



BSPT

1040	OD mm	Thread
2018-5666	4	1/8"
2018-5674	6	1/8"
2018-5682	6	1/4"
2018-5690	8	1/8"
2018-5708	8	1/4"
2018-5716	8	3/8"
2018-5724	10	1/4"
2018-5732	10	3/8"
2018-5740	12	3/8"
2018-5757	12	1/2"
2018-5766	14	1/2"
2018-5765	15	1/2"
2018-5767	16	1/2"

Tech Sheet 68742

Equal Elbows



Tube x Tube

1040	OD mm
2018-5575	4
2018-5583	6
2018-5591	8
2018-5609	10
2018-5617	12
2018-5626	14
2018-5625	15

Tech Sheet 68742

Equal Tees



Tube x Tube

1040	OD mm
2018-5971	6
2018-5989	8
2018-5997	10
2018-6003	12

Tech Sheet 68742

Male Stud Branch Tees



BSPT

1040	OD mm	Thread
2018-6045	6	1/4"
2018-6060	8	1/8"
2018-6094	8	1/4"
2018-6128	10	1/4"
2018-6151	12	3/8"
2018-6169	12	1/2"
2018-6177	15	1/2"

Tech Sheet 68742

Olives

Brass

1040	OD mm
2018-6243	4
2018-6250	6
2018-6268	8
2018-6276	10
2018-6284	12
2018-6292	15
2018-6296	18

Tech Sheet 68742



Nuts

BSPP

1040	OD mm	Thread
2018-6185	4	M8 x 1
2018-6193	6	M10 x 1
2018-6201	8	M12 x 1

Tech Sheet 68742



Brass, Universal

1040	OD mm
2018-3001	4
2018-3002	6
2018-3003	8
2018-3004	10
2018-3005	12
2018-3009	18

Tech Sheet 68742



PTFE

1040	OD mm
2018-3022	4
2018-3023	6
2018-3024	8
2018-3025	10
2018-3026	12
2018-3029	16
2018-3031	22

Tech Sheet 30104



Single Banjos



BSPP

1040	OD mm	Thread
2018-3041	6	1/8"
2018-3042	6	1/4"
2018-3044	8	1/4"

Tech Sheet 68742



METRIC NICKEL PLATED COMPRESSION FITTINGS

Body:
OT 58 brass

Temperature Range:
-45°C to +80°C

Maximum Pressure:
60 bar (dependant upon tubing specification)

For use with copper tube

Male Stud



**BSP Tapered x Tube,
Nickel Plated Brass**

9152	Thread	Tube mm	
		OD	ID
2201001	1/8"	4	2
2201002	1/8"	6	4
2201003	1/4"	6	4
2201004	1/8"	8	6
2201005	1/4"	8	6

Male Stud Elbow



**BSP Tapered x Tube,
Nickel Plated Brass**

9152	Thread BSPT	Tube mm	
		OD	ID
2205001	1/8"	4	2
2205002	1/8"	6	4
2205003	1/4"	6	4
2205004	1/8"	8	6
2205005	1/4"	8	6
2205007	1/4"	10	8
2205008	3/8"	10	8
2205009	1/2"	10	8
2205010	3/8"	12	10
2205011	1/2"	12	10
2205012	1/2"	15	12

Female Stud



BSP Parallel x Tube, Nickel Plated Brass

9152	Thread BSPP	Tube mm	
		OD	ID
2202001	1/8"	6	4
2202002	1/4"	6	4
2202004	1/4"	8	6
2202005	3/8"	8	6
2202006	1/4"	10	8
2202007	3/8"	10	8

Equal Elbow



Tube x Tube, Nickel Plated Brass

9152	Tube mm		
	OD	ID	ID
2206001	4	2	
2206002	6	4	
2206003	8	6	
2206004	10	8	
2206005	12	10	
2206006	15	12	

Equal Tee



Tube x Tube, Nickel Plated Brass

9152	Tube mm		
	OD	ID	ID
2209001	4	2	
2209002	6	4	
2209003	8	6	
2209004	10	8	
2209005	12	10	
2209006	15	12	

Male Stud Branch Tee



BSP Tapered x Tube

9152	Thread	Tube mm	
		OD	ID
2207001	1/8"	4	2
2207002	1/8"	6	4
2207003	1/4"	6	4
2207004	1/8"	8	6
2207005	1/4"	8	6
2207006	3/8"	8	6
2207008	3/8"	10	8
2207011	1/2"	12	10

Male Run Tee



BSP Tapered x Tube

9152	Thread	Tube mm	
		OD	ID
2208002	1/4"	6	4
2208003	1/8"	8	6
2208005	3/8"	8	6
2208006	1/4"	10	8
2208007	3/8"	10	8
2208009	3/8"	12	10
2208010	1/2"	12	10
2208011	1/2"	15	12

Straight Connector



Tube x Tube

9152	Tube mm	
	OD	ID
2203001	4	2
2203002	6	4
2203003	8	6
2203004	10	8
2203005	12	10
2203006	15	12

Bulkhead Connector



Tube x Tube

9152	Tube mm	
	OD	ID
2204001	6	4
2204002	8	6
2204003	10	8
2204004	12	10

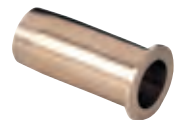
Spare Compression Olive



Brass

9152	Tube mm	
	OD	ID
2211001	4	2
2211002	6	4
2211003	8	6
2211004	10	8
2211005	12	10

Tube Inserts



Brass

9152	To Suit Tube mm	
	OD	ID
2212001	6	4
2212002	8	6
2212003	10	8
2212004	12	10
2212005	15	12

COPPER TUBING

Copper Tubing - Annealed to BS EN12449/C106 (Soft)



Metric, 10 Metre Lengths

5070	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
MCT-4	4	2.8	1,993	137
MCT-5	5	3.4	2,124	146
MCT-6	6	4.4	1,760	121
MCT-8	8	6.4	1,324	91
MCT-10	10	8.4	1,047	72
MCT-12	12	10.4	1,000	69

Tech Sheet 820

Metric, 30 Metre Lengths

5070	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
MCT-4/30	4	2.8	1,993	137
MCT-6/30	6	4.4	1,760	121
MCT-6-4/30	6	4	2,669	184
MCT-8/30	8	6.4	1,324	91
MCT-10/30	10	8.4	1,047	72
MCT-12/30	12	10.4	1,000	69
MCT-15/30	15	13	1,091	75

Tech Sheet 820

Imperial, 10 Metre Lengths

5070	OD	ID	SWG	Max Pressure PSI	Max Pressure Bar
ICT-18	1/8"	0.069"	22	3,026	209
ICT-316	3/16"	0.131"	22	1,978	136
ICT-14	1/4"	0.194"	22	1,484	102
ICT-516	5/16"	0.256"	22	1,178	81
ICT-38	3/8"	0.319"	22	974	67
ICT-12	1/2"	0.428"	20	945	65
ICT-58	5/8"	0.553"	20	742	51

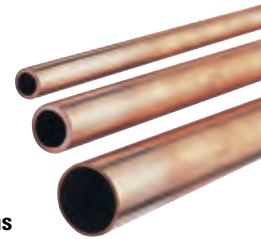
Tech Sheet 820

Imperial, 30 Metre Lengths

5070	OD	ID	SWG	Max Pressure PSI	Max Pressure Bar
ICT-18/30	1/8"	0.069"	22	3,026	209
ICT-316/30	3/16"	0.131"	22	1,978	136
ICT-14/30	1/4"	0.194"	22	1,484	102
ICT-14/30-20SWG	1/4"	0.178"	20	2,244	155
ICT-516/30	5/16"	0.256"	22	1,178	81
ICT-38/30	3/8"	0.319"	22	974	67
ICT-38/30-18SWG	3/8"	0.279"	18	1,958	135
ICT-12/30	1/2"	0.428"	20	945	65
ICT-12/30-18SWG	1/2"	0.404"	18	1,417	98
ICT-58/30	5/8"	0.553"	18	742	51

Tech Sheet 820

Plumbing Copper Tube



Type: BS EN1057 R250, 3 Metre Lengths

5072	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
PCU15	15	13.6	843	59
PCU22	22	20.2	752	51
PCU28	28	26.2	582	40
PCU35	35	32.6	618	43
PCU42	42	39.6	512	35
PCU54	54	51.6	396	27
PCU67	67	64.6	317	22

Copper Tubing - Half Hard



Metric, 3 Metre Lengths

5070	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
MTS-4	4	2.8	2,604	180
MTS-6	6	4	2,885	199
MTS-8	8	6	2,167	149
MTS-10	10	8	1,731	119
MTS-12	12	10	1,440	99
MTS-15	15	13	1,149	79
MTS-16	16	13.6	1,280	88
MTS-18	18	15.6	1,193	82
MTS-22	22	20	931	64
MTS-28	28	25	902	62

Imperial, 3 Metre Lengths

5070	OD	ID	SWG	Max Pressure PSI	Max Pressure Bar
ITS-18	1/8"	0.069"	22	3,928	271
ITS-316	3/16"	0.131"	22	2,589	179
ITS-14	1/4"	0.178"	20	2,488	172
ITS-516	5/16"	0.241"	20	1,978	136
ITS-38	3/8"	0.303"	20	1,644	113
ITS-12	1/2"	0.428"	20	1,236	85
ITS-12-18SWG	1/2"	0.404"	18	1,848	127
ITS-12-16SWG	1/2"	0.372"	16	2,556	176
ITS-12-10SWG	1/2"	0.244"	10	5,988	413
ITS-58	5/8"	0.529"	18	974	67
ITS-34-18SWG	3/4"	0.654"	18	1,190	82
ITS-34	3/4"	0.622"	16	1,484	102
ITS-78-16SWG	7/8"	0.747"	16	1,374	95
ITS-1-18SWG	1"	0.904"	18	877	60
ITS-1-16SWG	1"	0.872"	16	1,190	82
ITS-118-18SWG	1.1/8"	1.029"	18	776	54
ITS-118-16SWG	1.1/8"	0.997"	16	1,050	72

Please note: Delivery may take up to 48 hours.



BALL VALVES



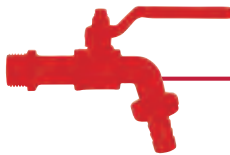
CHECK & FOOT VALVES



STRAINERS



FITTINGS



BIBCOCKS



PRESSURE REDUCING VALVES



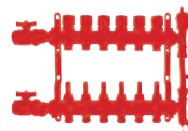
CONVERTIBLE VALVES &
THERMOSTATIC HEAD



MANUAL VALVES &
LOCKSHIELDS



ZONE BALL VALVES



MANIFOLDS IN BRASS &
STAINLESS STEEL



COPPER & BUNDY TUBING

Bundy Tube



Metric, 3.2 Metre Lengths

5071	OD mm	Wall Thickness	Burst Pressure PSI
BTM06	6	0.075"	13500
BTM08	8	0.075"	10875
BTM10	10	0.075"	7500

Imperial, 3.2 Metre Lengths

5071	OD	Wall Thickness	Burst Pressure PSI
BTI03	3/16"	0.028"	16500
BTI04	1/4"	0.028"	12000
BTI05	5/16"	0.028"	10875
BTI06	3/8"	0.028"	8200
BTI08	1/2"	0.028"	5000

PVC Covered Copper Tube

Annealed, soft copper tube to BS2871/2/C106 with a black PVC outer cover.

Please note: OD measurement is for copper tube, excluding cover.



Metric, 30 Metre Coils

5070	OD mm	ID mm	Max Pressure PSI	Max Pressure Bar
MSCT-6	6	4	2,053	142
MSCT-8	8	6	1,906	131
MSCT-10	10	8	1,483	102
MSCT-12	12	10	1,091	75

Annealed, soft copper tube to BS2871/2/C106 with a 1/16" black PVC outer cover.

Imperial, 30 Metre Coils

5070	OD	ID	SWG	Max Pressure PSI	Max Pressure Bar
ISCT-14	1/4"	0.194"	22	1,682	116
ISCT-38	3/8"	0.303"	20	1,416	98
ISCT-12	1/2"	0.444"	20	945	65

ACCESSORIES

Polyethylene Pipe Insulation

Thermal Conductivity DIN 52613:
0.035W(m.K) at 0°C.

Working Temperature:
-50°C to +100°C

Fire Rating BS479 Part 5:1979:
Class P (not easily ignitable).

High quality CFC easy-fit closed cell pipe insulation. Particularly effective for the thermal insulation of domestic heating and plumbing pipe work for energy conservation and frost protection. Easy to install, none fibrous and creates no dust during installation and is resistant to oils and greases



9mm Wall Insulation (Semi Split), 2 Metre Lengths

5073	ID mm
POLY15X9	15
POLY22X9	22
POLY28X9	28

19mm Wall Insulation (Split through 1 Wall Thickness), 2 Metre Lengths

5073	ID mm
POLY15X19	15
POLY22X19	22
POLY28X19	28

13mm Wall Insulation (Semi Split), 2 Metre Lengths

5073	ID mm
POLY15X13	15
POLY22X13	22
POLY28X13	28

25mm Wall Insulation (Split through 1 Wall Thickness), 2 Metre Lengths

5073	ID mm
POLY15X25	15
POLY22X25	22
POLY28X25	28



For Tube Cutters and accessories see page 905

BRASS PLUMBING COMPRESSION FITTINGS, METRIC

Couplings

Straight



0242	OD mm
EPS-CFS-6	6
EPS-CFS-8	8
EPS-CFS-10	10
EPS-CFS-12	12
EPS-CFS-15	15
EPS-CFS-22	22
EPS-CFS-28	28
EPS-CFS-35	35
EPS-CFS-42	42
EPS-CFS-54	54

Reducing Straight



0242	OD mm	OD mm
EPS-CFR-10-8	10	8
EPS-CFR-12-10	12	10
EPS-CFR-15-8	15	8
EPS-CFR-15-10	15	10
EPS-CFR-15-12	15	12
EPS-CFR-22-15	22	15
EPS-CFR-28-15	28	15
EPS-CFR-28-22	28	22

BSPT Male x Metric Straight



0242	OD mm	Thread
EPS-CFM-6-14	6	1/4"
EPS-CFM-8-14	8	1/4"
EPS-CFM-8-12	8	1/2"
EPS-CFM-10-14	10	1/4"
EPS-CFM-10-38	10	3/8"
EPS-CFM-12-14	12	1/4"
EPS-CFM-12-38	12	3/8"
EPS-CFM-15-14	15	1/4"
EPS-CFM-15-38	15	3/8"

BSPP Male x Metric Straight

0242	OD mm	Thread
EPS-CFM-8-38	8	3/8"
EPS-CFM-10-12	10	1/2"
EPS-CFM-15-12	15	1/2"
EPS-CFM-15-34	15	3/4"
EPS-CFM-22-12	22	1/2"
EPS-CFM-22-34	22	3/4"
EPS-CFM-22-1	22	1"
EPS-CFM-28-34	28	3/4"
EPS-CFM-28-1	28	1"
EPS-CFM-35-114	35	1.1/4"
EPS-CFM-42-112	42	1.1/2"
EPS-CFM-54-2	54	2"

BSPP Female x Metric Straight



0242	OD mm	Thread
EPS-CFF-6-14	6	1/4"
EPS-CFF-8-14	8	1/4"
EPS-CFF-8-38	8	3/8"
EPS-CFF-10-14	10	1/4"
EPS-CFF-10-38	10	3/8"
EPS-CFF-10-12	10	1/2"
EPS-CFF-15-14	15	1/4"
EPS-CFF-15-38	15	3/8"
EPS-CFF-15-12	15	1/2"
EPS-CFF-15-34	15	3/4"
EPS-CFF-22-12	22	1/2"
EPS-CFF-22-34	22	3/4"
EPS-CFF-22-1	22	1"
EPS-CFF-28-34	28	3/4"
EPS-CFF-28-1	28	1"
EPS-CFF-35-114	35	1.1/4"
EPS-CFF-42-112	42	1.1/2"
EPS-CFF-54-2	54	2"

Elbows



BSPT Male x Metric

0242	OD mm	Thread
EPS-CFME-8-14	8	1/4"
EPS-CFME-8-38	8	3/8"
EPS-CFME-10-14	10	1/4"
EPS-CFME-10-38	10	3/8"
EPS-CFME-10-12	10	1/2"
EPS-CFME-15-14	15	1/4"

BSPP Male x Metric

0242	OD mm	Thread
EPS-CFME-15-12	15	1/2"
EPS-CFME-15-34	15	3/4"
EPS-CFME-22-34	22	3/4"
EPS-CFME-22-1	22	1"
EPS-CFME-28-1	28	1"
EPS-CFME-35-114	35	1.1/4"
EPS-CFME-42-112	42	1.1/2"
EPS-CFME-54-2	54	2"

90°



0242	OD mm
EPS-CFE-6	6
EPS-CFE-8	8
EPS-CFE-10	10
EPS-CFE-12	12
EPS-CFE-15	15
EPS-CFE-22	22
EPS-CFE-28	28
EPS-CFE-35	35
EPS-CFE-42	42
EPS-CFE-54	54

Wall Plate, BSPP



0242	OD mm	Thread
EPS-CFWE-15-12	15	1/2"
EPS-CFWE-22-12	22	1/2"
EPS-CFWE-22-34	22	3/4"

Reducing 90°



0242	OD mm	OD mm
EPS-CFE-22-15	22	15

BSPP Female x Metric



0242	OD mm	Thread
EPS-CFFE-8-14	8	1/4"
EPS-CFFE-10-14	10	1/4"
EPS-CFFE-10-38	10	3/8"
EPS-CFFE-10-12	10	1/2"
EPS-CFFE-15-14	15	1/4"
EPS-CFFE-15-12	15	1/2"
EPS-CFFE-15-34	15	3/4"
EPS-CFFE-22-12	22	1/2"
EPS-CFFE-22-34	22	3/4"
EPS-CFFE-22-1	22	1"
EPS-CFFE-28-1	28	1"
EPS-CFFE-35-114	35	1.1/4"
EPS-CFFE-54-2	54	2"

BRASS PLUMBING COMPRESSION FITTINGS, METRIC

Tees



Equal

0242	OD mm
EPS-CFET-6	6
EPS-CFET-8	8
EPS-CFET-10	10
EPS-CFET-12	12
EPS-CFET-15	15
EPS-CFET-22	22
EPS-CFET-28	28
EPS-CFET-35	35
EPS-CFET-42	42
EPS-CFET-54	54



Reducing

0242	OD A mm	OD B mm	OD C mm
CFRT-15-15-22	15	15	22
CFRT-22-22-15	22	22	15
CFRT-22-15-15	22	15	15
CFRT-22-15-22	22	15	22
CFRT-28-28-22	28	28	22
CFRT-35-35-15	35	35	15



Reducing Female

0242	OD mm	Thread
CFRFT-15-15-12	15	1/2"
CFRFT-22-22-12	22	1/2"
CFRFT-22-22-34	22	3/4"

Tank Connectors



Tank Connectors & Washers

0242	OD mm
EPS-CFTC-15	15
EPS-CFTC-22	22
EPS-CFTC-28	28
EPS-CFTC-35	35
EPS-CFTC-42	42
EPS-CFTC-54	54

Tap Connectors



Straight, BSPP

0242	OD mm	Thread
EPS-CFSTC-15-12	15	1/2"
EPS-CFSTC-15-34	15	3/4"
EPS-CFSTC-22-34	22	3/4"



90°, BSPP

0242	OD mm	Thread
EPS-CFBTC-15-12	15	1/2"

Internal Reducing Sets



3 Piece

0242	Reducing From-To mm
EPS-CFR3-10-6	10-6
EPS-CFR3-10-8	10-8
EPS-CFR3-15-8	15-8
EPS-CFR3-15-10	15-10
EPS-CFR3-15-12	15-12
EPS-CFR3-28-15	28-15
EPS-CFR3-28-22	28-22
EPS-CFR3-35-15	35-15
EPS-CFR3-35-22	35-22
EPS-CFR3-42-15	42-15
EPS-CFR3-42-28	42-28
EPS-CFR3-54-28	54-28
EPS-CFR3-54-42	54-42

Olives



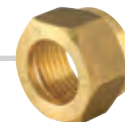
Brass

0242	OD mm
EPS-CFBO-8	8
EPS-CFBO-10	10
EPS-CFBO-12	12
EPS-CFBO-15	15
EPS-CFBO-20	20
EPS-CFBO-22	22
EPS-CFBO-25	25
EPS-CFBO-28	28
EPS-CFBO-35	35
EPS-CFBO-42	42
EPS-CFBO-54	54
EPS-CFBO-3/4	3/4"

Copper

0242	OD mm
EPS-CFCO-8	8
EPS-CFCO-10	10
EPS-CFCO-12	12
EPS-CFCO-15	15
EPS-CFCO-20	20
EPS-CFCO-22	22
EPS-CFCO-25	25
EPS-CFCO-28	28
EPS-CFCO-35	35
EPS-CFCO-42	42
EPS-CFCO-54	54
EPS-CFCO-3/4	3/4"

Compression Nuts



0242	OD mm
EPS-CFN-8	8
EPS-CFN-10	10
EPS-CFN-15	15
EPS-CFN-22	22
EPS-CFN-28	28

Stop Ends



0242	OD mm
EPS-CFSE-8	8
EPS-CFSE-10	10
EPS-CFSE-12	12
EPS-CFSE-15	15
EPS-CFSE-22	22
EPS-CFSE-28	28
EPS-CFSE-35	35
EPS-CFSE-42	42
EPS-CFSE-54	54

SOLDER RING

Manufactured from copper and copper alloy. Designed for jointing copper tubes to BS EN 1057 in hot and cold water services, in small bore and mini bore central heating, low pressure steam heating, and in-vented/un-vented closed circuit heating systems.

- WRAS approved
- Manufactured to BS EN 1254 Part 1



Working Temperature:
-40°C to +110°C



Maximum Working Pressure:
16 bar (-40°C to +30°C)
10 bar (+30°C to +65°C)
6 bar (+65°C to +110°C)

Couplings



Straight

0474	OD mm
M-SRSC10	10
M-SRSC-22	22
M-SRSC-28	28
M-SRSC-35	35
M-SRSC-42	42
M-SRSC-54	54

Tech Sheet 60249



Reducing Coupling

0474	OD mm	OD mm
M-SRRC-10-8	10	8
M-SRRC-15-10	15	10
M-SRRC-22-15	22	15
M-SRRC-28-22	28	22

Tech Sheet 60249



Reducing Fitting

0474	OD mm	OD mm
M-SRRF-22-15	22	15
M-SRRF-28-15	28	15
M-SRRF-28-22	28	22
M-SRRF-35-22	35	22
M-SRRF-35-28	35	28
M-SRRF-42-15	42	15
M-SRRF-42-28	42	28
M-SRRF-42-35	42	35
M-SRRF-54-22	54	22
M-SRRF-54-35	54	35
M-SRRF-54-42	54	42

Tech Sheet 60249

Elbows



90° Elbows

0474	OD mm
M-SR90-8	8
M-SR90-10	10
M-SR90-15	15
M-SR90-22	22
M-SR90-28	28
M-SR90-35	35
M-SR90-42	42
M-SR90-54	54

Tech Sheet 60249



45° Elbows

0474	OD mm
M-SR45EL-15	15
M-SR45EL-22	22
M-SR45EL-35	35
M-SR45EL-45	42

Tech Sheet 60249



Street Elbows

0474	OD mm
M-SRST90-15	15
M-SRST90-22	22
M-SRST90-28	28

Tech Sheet 60249

End Caps



End Caps

0474	OD mm
M-SREC-15	15
M-SREC-22	22

Tech Sheet 60249

Tees



Equal

0474	OD mm
M-SRET-10	10
M-SRET-15	15
M-SRET-22	22
M-SRET-28	28
M-SRET-42	42

Tech Sheet 60249



Reducing Branch

0474	OD mm	OD mm
M-SRRB-22-15	22	15
M-SRRB-28-15	28	15
M-SRRB-28-22	28	22
M-SRRB-42-15	42	15
M-SRRB-42-22	42	22
M-SRRB-42-28	42	28
M-SRRB-42-35	42	35
M-SRRB-54-15	54	15
M-SRRB-54-22	54	22
M-SRRB-54-28	54	28
M-SRRB-54-35	54	35
M-SRRB-54-42	54	42

Tech Sheet 60249

Tap Connectors



Straight

0474	OD mm	Thread
M-SRTC-15-12	15	1/2"
M-SRTC-15-34	15	3/4"
M-SRTC-22-34	22	3/4"

Tech Sheet 60249



Bent

0474	OD mm	Thread
M-SRBTC-15-12	15	1/2"

Tech Sheet 60249

END FEED FITTINGS

Designed for end-feeding with soft solder or hard solder (brazing alloy). Ideal for use in hot and cold water services, central heating, fuel services and general engineering applications.

- WRAS approved
- Manufactured to BS EN 1354 Part 1



Working Temperature:
-40°C to +110°C

Maximum Working Pressure:
 ♂ p ♂ ♂ ♂
 25 bar (-40°C to +65°C), 16 bar (+110°C)
 ♂ ♂ ♂ ♂
 25 bar (-40°C to +30°C), 16 bar (+65°C)
 10 bar (+110°C)

Couplings



Straight

0474	OD mm
M-EFSC-28	28
M-EFSC-35	35
M-EFSC-42	42
M-EFSC-54	54

Tech Sheet 60249

Tap Connectors



Straight

0474	OD mm	Thread
M-EFTCS-15-12	15	1/2"
M-EFTCS-22-34	22	3/4"

Tech Sheet 60249



Bent

0474	OD mm	Thread
M-EFTCB-15-12	15	1/2"
M-EFTCB-15-34	15	3/4"
M-EFTCB-22-34	22	3/4"

Tech Sheet 60249

Crossovers



Part

0474	OD mm
M-EFCOP-15	15

Tech Sheet 60249

End Caps



End Caps

0474	OD mm
M-EFTC-8	8
M-EFTC-22	22
M-EFTC-28	28

Tech Sheet 60249

Elbows



90° Elbows

0474	OD mm
M-EF90E-10	10
M-EF90E-15	15
M-EF90E-22	22

Tech Sheet 60249



45° Elbows

0474	OD mm
M-EF45E-22	22
M-EF45E-42	42

Tech Sheet 60249

Tees



Equal

0474	OD mm
M-EFET-8	8
M-EFET-10	10
M-EFET-15	15
M-EFET-35	35
M-EFET-42	42
M-EFET-54	54

Tech Sheet 60249



Reducing Branch

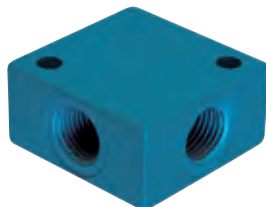
0474	OD mm	OD mm
M-EFRBT-22-15	22	15
M-EFRBT-28-22	28	22
M-EFRBT-35-15	35	15
M-EFRBT-35-22	35	22
M-EFRBT-35-28	35	28
M-EFRBT-42-15	42	15
M-EFRBT-42-22	42	22
M-EFRBT-42-28	42	28
M-EFRBT-42-35	42	35
M-EFRBT-54-28	54	28
M-EFRBT-54-35	54	35
M-EFRBT-54-42	54	42

Tech Sheet 60249

DISTRIBUTION MANIFOLDS



Equal Cross Manifolds



Female, BSPP

0315	Thread
KMDS-1/8	1/8"
KMDS-1/4	1/4"
KMDS-3/8	3/8"
KMDS-1/2	1/2"

Tech Sheet 3108

ALUMINIUM MANIFOLDS



Single Distribution Manifold

Working Temperature:
0°C to +80°C

Maximum Working Pressure:
12 bar



1/4" BSPT Inlet x 1/4" BSPT Outlet

1000	No. of Inlets	No. of Outlets
MD-2	2	2
MD-3	2	3
MD-4	2	4
MD-5	2	5

Single Distribution Manifold



1/4" BSPP Inlet x 1/8" BSPP Outlet

1000	No. of Inlets	No. of Outlets
DM13/3	2	3
DM13/4	2	4
DM13/5	2	5
DM13/6	2	6

Round Manifolds

Working Temperature:
0°C to +80°C

Maximum Working Pressure:
10 bar



1/4" BSPT Inlet x 1/4" BSPT Outlet

1000	No. of Inlets	No. of Outlets
M2-14	1	2

Round Manifolds

Working Temperature:
0°C to +80°C

Maximum Working Pressure:
10 bar



1/4" BSPT Inlet x 1/4" BSPT Outlet

1000	No. of Inlets	No. of Outlets
M3-14	1	3

Single Distribution Manifolds



1/8" BSPP Inlet x M5 Outlet

0012	No. of Inlets	No. of Outlets
MAN-155.02	2	2
MAN-155.06	2	6

Tech Sheet 12

1/4" BSPP Inlet x 1/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-151.02	2	2
MAN-151.03	2	3
MAN-151.04	2	4
MAN-151.05	2	5
MAN-151.06	2	6

Tech Sheet 12

3/8" BSPP Inlet x 1/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-153.03	2	3
MAN-153.04	2	4
MAN-153.05	2	5
MAN-153.06	2	6

Tech Sheet 12

3/8" BSPP Inlet x 1/4" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-152.02	2	2
MAN-152.03	2	3
MAN-152.04	2	4
MAN-152.05	2	5
MAN-152.06	2	6

Tech Sheet 12

1/2" BSPP Inlet x 1/4" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-154.02	2	2
MAN-154.03	2	3
MAN-154.04	2	4
MAN-154.05	2	5
MAN-154.06	2	6

Tech Sheet 12

1/2" BSPP Inlet x 3/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-156.02	2	2
MAN-156.03	2	3
MAN-156.04	2	4
MAN-156.05	2	5
MAN-156.06	2	6

Tech Sheet 12

1/2" BSPP Inlet x 1/2" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-157.02	2	2
MAN-157.03	2	3
MAN-157.04	2	4
MAN-157.05	2	5

Tech Sheet 12

Double Distribution Manifolds



1/8" BSPP Inlet x M5 Outlet

0012	No. of Inlets	No. of Outlets
MAN-155.22	2	5mm x 2 + 2

Tech Sheet 12

1/4" BSPP Inlet x 1/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-151.22	2	2 + 2
MAN-151.33	2	3 + 3
MAN-151.44	2	4 + 4
MAN-151.55	2	5 + 5

Tech Sheet 12

3/8" BSPP Inlet x 1/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-153.33	2	3 + 3
MAN-153.44	2	4 + 4
MAN-153.55	2	5 + 5

Tech Sheet 12

3/8" BSPP Inlet x 1/4" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-152.22	2	2 + 2
MAN-152.33	2	3 + 3
MAN-152.44	2	4 + 4
MAN-152.55	2	5 + 5

Tech Sheet 12

1/2" BSPP Inlet x 1/4" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-154.22	2	2 + 2
MAN-154.33	2	3 + 3
MAN-154.44	2	4 + 4
MAN-154.55	2	5 + 5

Tech Sheet 12

1/2" BSPP Inlet x 3/8" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-156.44	2	4 + 4
MAN-156.55	2	5 + 5

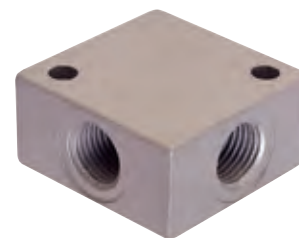
Tech Sheet 12

1/2" BSPP Inlet x 1/2" BSPP Outlet

0012	No. of Inlets	No. of Outlets
MAN-157.22	2	2 + 2
MAN-157.33	2	3 + 3
MAN-157.44	2	4 + 4
MAN-157.55	2	5 + 5

Tech Sheet 12

Equal Cross Manifolds



Female, BSPP

0012	Thread
MAN-145.8	1/8"
MAN-145.4	1/4"
MAN-145.3	3/8"
MAN-145.2	1/2"

Tech Sheet 12

A wide range of aluminium manifolds, ideal for multi-feeds and supplies in systems and for grouping valves.

BRASS MANIFOLDS



Single Sided Manifold Block, Brass



1/8" BSPP Inlet x 1/8" BSPP Outlet

1420	No. of Outlets
MB02/04	4
MB02/06	6
MB02/08	8

1/4" BSPP Inlet x 1/4" BSPP Outlet

1420	No. of Outlets
MB04/02	2
MB04/04	4
MB04/06	6
MB04/08	8
MB04/10	10

3/8" BSPP Inlet x 3/8" BSPP Outlet

1420	No. of Outlets
MB06/04	4
MB06/06	6
MB06/08	8

1/2" BSPP Inlet x 1/2" BSPP Outlet

1420	No. of Outlets
MB08/04	4
MB08/06	6
MB08/08	8

3/4" BSPP Inlet x 3/4" BSPP Outlet

1420	No. of Outlets
MB12/04	4
MB12/06	6

Unequal Manifold Block, Brass



3/4" BSPP Inlet x 1/2" BSPP Outlet

1420	No. of Outlets
MB12/08/04	4

3/8" BSPP Inlet x 1/4" BSPP Outlet

1420	No. of Outlets
MB06/04/04	4
MB06/04/06	6
MB06/04/08	8




For **Hydraulic Ball Valves**
...see pages **238-240**


MINIFOLDS

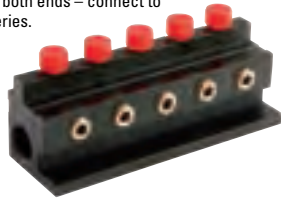
Aluminium 5 & 10 Way Manifolds

Replace complex assemblies of valves and fittings with anodised aluminium Minifolds
Each Minifold comprises of a number of valved outlets on a common header.

Minifold blocks have tapped inlet connections at both ends – connect to one and plug the other or connect Minifolds in series.

 **Working Temperature:**
-20°C to +90°C

 **Maximum Working Pressure:**
Vacuum to 10 bar



1/2" BSPP Inlet x 1/4" BSPP Outlet

0202	No. of Inlets	No. of Outlets
971-05-251	2	5
971-10-251	2	10
Tech Sheet 10556		

1/2" BSPP Inlet x 6mm Outlet

0202	No. of Inlets	No. of Outlets
971-05-256	2	5
971-10-256	2	10
Tech Sheet 10556		

3/4" BSPP Inlet x 3/8" BSPP Outlet

0202	No. of Inlets	No. of Outlets
975-05-272	2	5
975-10-272	2	10
Tech Sheet 10556		

Specifications

Series 971: Nominal Bore 18mm
1/2" BSP Female or
1/2" NPT Female inlets
1/4" BSP Female or
1/4" NPT Female or 6mm
push-in outlets

Series 975: Nominal Bore 25mm
3/4" BSP Female or
3/4" NPT Female inlets
3/8" BSP Female or
3/8" NPT Female outlets

Materials:

Blocks: Anodised aluminium
Valve Spindles: Thermoplastic
(red for BSP, grey for NPT)
Seals: Nitrile
Push-in Fittings: Plated brass




1/2" NPT Inlet x 1/4" NPT Outlet

0202	No. of Inlets	No. of Outlets
971-10-263	2	10
Tech Sheet 10556		

1/2" NPT Inlet x 6mm Outlet

0202	No. of Inlets	No. of Outlets
971-10-266	2	10
Tech Sheet 10556		

Stainless Steel 4, 6 & 10 Way Manifolds

 **Working Temperature:**
60 bar @ 40°C
40 bar @ 100°C
25 bar @ 150°C

Replace complex assemblies of valves and fitting with stainless steel manifolds.
Each Minifold comprises of a number of ball valves on a common header.

Minifold blocks have tapped inlet connections at both ends – connect to one and plug the other or connect Minifold in series.

Specifications

Series 910: Nominal Bore 18mm
1/2" or 3/4" BSP Taper or NPT inlets
1/4" or 1/2" BSP Taper or NPT outlet
Supplied with two mounting brackets

Materials:

Blocks: 316 Stainless steel
Valve Body/Ball: 316 Stainless steel
Valve Handle: 304 Stainless steel
(Red for BSP, black for NPT)
Valve Seals: PTFE

stainless steel

1/2" BSPT Inlet x 1/4" BSPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP011414	2	4
910.06.SDP011414	2	6
910.10.SDP011414	2	10



3/4" BSPT Inlet x 1/2" BSPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP142828	2	4
910.06.SDP142828	2	6



3/4" NPT Inlet x 1/4" NPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP032727	2	4



3/4" BSPT Inlet x 1/4" BSPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP012828	2	4
910.10.SDP012828	2	10



1/2" NPT Inlet x 1/4" NPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP030606	2	4
910.06.SDP030606	2	6



3/4" NPT Inlet x 1/2" NPT Outlet

0202	No. of Inlets	No. of Outlets
910.04.SDP062727	2	4
910.06.SDP062727	2	6



Rotating Joints

- Viton seals as standard
- Suitable for fluids and air
- Units suitable for vacuum and non standard pressures available on request

Working Temperature:
-10°C to +85°C

Maximum Working Pressure:
12 bar



1 Inlet x 6 Outlets

0064	No. of Inlets	No. of Outlets	Rotation	RPM
300/V	1 x 3/8"	6 x 1/8"	Right/Left	300

Tech Sheet 29

Working Temperature:
-10°C to +85°C

Maximum Working Pressure:
12 bar



1 Inlet x 3 Outlets

0064	No. of Inlets	No. of Outlets	Rotation	RPM
302/V	1 x 3/8"	3 x 1/4"	Right/Left	300

Tech Sheet 29

Working Temperature:
-10°C to +85°C

Maximum Working Pressure:
12 bar



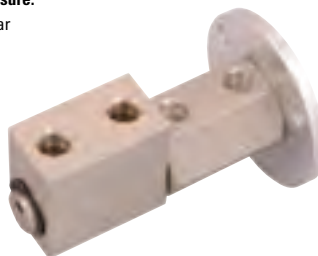
1 Inlet x 1 Outlet

0064	No. of Inlets	No. of Outlets	Rotation	RPM
303/V	1 x 1/8"	1 x 1/8"	Right/Left	550
304/V	1 x 1/4"	1 x 1/4"	Right/Left	550
305/V	1 x 3/8"	1 x 3/8"	Right/Left	300
307/V	1 x 3/4"	1 x 3/4"	Right/Left	160

Tech Sheet 30

Working Temperature:
-10°C to +85°C

Maximum Working Pressure:
12 bar



2 Independent Inlets & Outlets

0064	No. of Inlets	No. of Outlets	Rotation	RPM
312/V	2 x 1/4"	2 x 1/4"	Right/Left	200

Tech Sheet 31

Swivel Joints - Aluminium

Working Temperature:
0°C to +70°C

Maximum Working Pressure:
12 bar



Male x Female Thread, without Regulator

1000	Thread
RJ-14	1/4"



For Globe Valves
... see page 975



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 **Stainless Steel** **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 10

Stainless Steel

10.01 Stainless Steel Hydraulics **1225-1287**

10.02 Stainless Steel Valves **1288-1303**

10.03 Stainless Steel Couplings **1304-1310**

10.04 Stainless Steel Pipe Fittings **1311-1322**

10.05 Stainless Steel Pneumatic
Push-in Fittings **1323-1326**

10.06 Stainless Steel Pneumatic QRC **1327**

10.07 Stainless Steel Solenoid Valves **1328**

10.08 Stainless Steel Pressure Gauges **1329-1332**

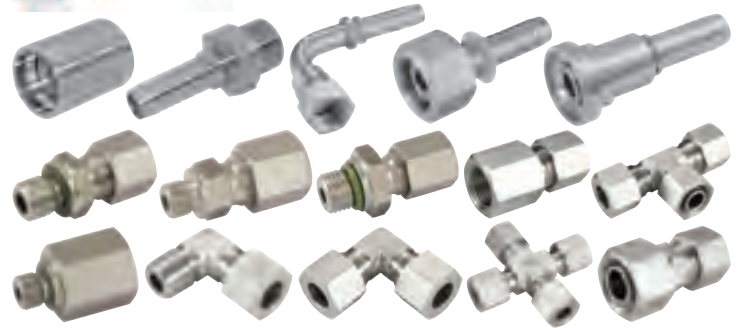
SECTION 10

10.01 Stainless Steel Hydraulics

- Hydraulic Stainless Steel Ferrules
- Hydraulic Stainless Steel Inserts
- 316 Stainless Steel DIN EN ISO 8434-1 Tube Fittings



1225-1287



10.02 Stainless Steel Valves

- Stainless Steel Hydraulic Valves
- Stainless Steel Valves
- Gate Valves
- Check Valves
- Y Strainers
- Stainless Steel Compression Ball Valves



1288-1303



10.03 Stainless Steel Couplings

- ISO A Interchange Couplings & Plugs
- ISO B Interchange Couplings & Plugs
- Hydraulic Quick Release Couplings
- Cam & Groove Quick Couplings
- Claw Couplings
- RJT Couplings
- Stainless Steel Lever Lock Water Pump Couplings



1304-1310



10.04 Stainless Steel Pipe Fittings

- 150lb 316 Stainless Steel Pipe Fittings
- 3000lb 316 Stainless Steel Pipe Fittings
- BS TYPE, 316L Hygienic Pipe Fittings
- Hygienic Clamp Fittings



1311-1322



Stainless Steel

10.05 Stainless Steel Pneumatic Push-in Fittings

- One Touch All Stainless Steel Push-In Fittings
- 316 Stainless Steel Push-In Fittings



1323-1326



10.06 Stainless Steel Pneumatic QRC

- Series 25 Quick Coupling European Profile Stainless Steel



1327



10.07 Stainless Steel Solenoid Valves

- Solenoid Valves



1328



10.08 Stainless Steel Pressure Gauges

- Glycerine Gauges & Accessories
- Test Point Couplings
- Silencers
- Float Level Switches



1329-1332



HYDRAULIC STAINLESS STEEL FERRULES

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



Ferrules



R1AT Non-skive

0044	To Suit Hose ID
SFR1-05	3/16"
SFR1-06	1/4"
SFR1-08	5/16"
SFR1-10	3/8"
SFR1-12	1/2"
SFR1-16	5/8"
SFR1-20	3/4"
SFR1-25	1"
SFR1-31	1.1/4"
SFR1-38	1.1/2"
SFR1-51	2"

Tech Sheet 60587



R2AT Non-skive

0044	To Suit Hose ID
SFR2-05	3/16"
SFR2-06	1/4"
SFR2-08	5/16"
SFR2-10	3/8"
SFR2-12	1/2"
SFR2-16	5/8"
SFR2-20	3/4"
SFR2-25	1"
SFR2-31	1.1/4"
SFR2-38	1.1/2"
SFR2-51	2"

Tech Sheet 60588



R1AT & R2AT Dual, Non-skive

0044	To Suit Hose ID
SFR3-06	1/4"
SFR3-08	5/16"
SFR3-10	3/8"
SFR3-12	1/2"
SFR3-16	5/8"
SFR3-20	3/4"
SFR3-25	1"

Tech Sheet 60587

EN857-1SC Non-skive

0044	To Suit Hose ID
SFR1-06SC	1/4"
SFR1-08SC	5/16"
SFR1-10SC	3/8"
SFR1-12SC	1/2"

Tech Sheet 60587

EN857-2SC Non-skive

0044	To Suit Hose ID
SFR2-06SC	1/4"
SFR2-08SC	5/16"
SFR2-10SC	3/8"
SFR2-12SC	1/2"
SFR2-16SC	5/8"
SFR2-20SC	3/4"
SFR2-25SC	1"

Tech Sheet 60587



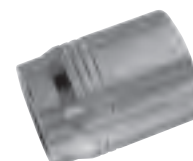
PTFE, Smooth Bore

0044	To Suit Hose ID
SFPTFE-05	3/16"
SFPTFE-06	1/4"
SFPTFE-08	5/16"
SFPTFE-10	3/8"
SFPTFE-12	1/2"
SFPTFE-16	5/8"
SFPTFE-20	3/4"
SFPTFE-25	1"

Tech Sheet 60586



For Full range of Hydraulic Hose
see pages 6-14



PTFE, Convuluted Bore

0044	To Suit Hose ID
SCFPTFE-06	1/4"
SCFPTFE-08	5/16"
SCFPTFE-10	3/8"
SCFPTFE-12	1/2"
SCFPTFE-16	5/8"
SCFPTFE-20	3/4"
SCFPTFE-25	1"

Tech Sheet 60585

HYDRAULIC STAINLESS STEEL INSERTS

stainless steel



Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



BSP

Male Inserts, BSPP



0044	Thread	To Suit Hose ID
SMI05-14	1/4"	3/16"
SMI06-18	1/8"	1/4"
SMI06-14	1/4"	1/4"
SMI06-38	3/8"	1/4"
SMI06-12	1/2"	1/4"
SMI08-14	1/4"	5/16"
SMI08-38	3/8"	5/16"
SMI08-12	1/2"	5/16"
SMI10-14	1/4"	3/8"
SMI10-38	3/8"	3/8"
SMI10-12	1/2"	3/8"
SMI12-38	3/8"	1/2"
SMI12-12	1/2"	1/2"
SMI12-34	3/4"	1/2"
SMI16-12	1/2"	5/8"
SMI16-58	5/8"	5/8"
SMI16-34	3/4"	5/8"
SMI20-34	3/4"	3/4"
SMI20-1	1"	3/4"
SMI25-1	1"	1"
SMI25-34	3/4"	1"
SMI25-114	1.1/4"	1"
SMI31-114	1.1/4"	1.1/4"
SMI31-112	1.1/2"	1.1/4"
SMI38-112	1.1/2"	1.1/2"
SMI51-2	2"	2"

Tech Sheet 60593

Male Inserts, BSPT



0044	Thread	To Suit Hose ID
AGRK-1/8-DN05	1/8"	3/16"
AGRK-1/8-DN06	1/8"	1/4"
AGRK-1/4-DN05	1/4"	3/16"
AGRK-1/4-DN06	1/4"	1/4"
AGRK-1/4-DN10	1/4"	3/8"
AGRK-1/4-DN08	1/4"	5/16"
AGRK-3/8-DN06	3/8"	1/4"
AGRK-3/8-DN08	3/8"	5/16"
AGRK-3/8-DN10	3/8"	3/8"
AGRK-3/8-DN12	3/8"	1/2"
AGRK-1/2-DN10	1/2"	3/8"
AGRK-1/2-DN12	1/2"	1/2"
AGRK-1/2-DN19	1/2"	3/4"
AGRK-3/4-DN12	3/4"	1/2"
AGRK-3/4-DN16	3/4"	5/8"
AGRK-3/4-DN19	3/4"	3/4"
AGRK-3/4-DN25	3/4"	1"
AGRK-1-DN19	1"	3/4"
AGRK-1-DN25	1"	1"
AGRK-11/4-DN31	1.1/4"	1.1/4"
AGRK-11/2-DN38	1.1/2"	1.1/2"
AGRK-2-DN51	2"	2"

Tech Sheet 60589

Swivel Female Inserts, BSPP



0044	Thread	To Suit Hose ID
SFI05-18	1/8"	3/16"
SFI05-14	1/4"	3/16"
SFI06-18	1/8"	1/4"
SFI06-14	1/4"	1/4"
SFI06-38	3/8"	1/4"
SFI06-12	1/2"	1/4"
SFI08-14	1/4"	5/16"
SFI08-38	3/8"	5/16"
SFI08-12	1/2"	5/16"
SFI10-14	1/4"	3/8"
SFI10-38	3/8"	3/8"
SFI10-12	1/2"	3/8"
SFI12-38	3/8"	1/2"
SFI12-12	1/2"	1/2"
SFI12-58	5/8"	1/2"
SFI16-12	1/2"	5/8"
SFI16-58	5/8"	5/8"
SFI16-34	3/4"	5/8"
SFI20-12	1/2"	3/4"
SFI20-34	3/4"	3/4"
SFI20-1	1"	3/4"
SFI20-114	1.1/4"	3/4"
SFI25-1	1"	1"
SFI25-34	3/4"	1"
SFI25-114	1.1/4"	1"
SFI31-1	1"	1.1/4"
SFI31-114	1.1/4"	1.1/4"
SFI31-112	1.1/2"	1.1/4"
SFI38-112	1.1/2"	1.1/2"
SFI38-2	2"	1.1/2"
SFI51-2	2"	2"

Tech Sheet 60592

Female Swept 90° Inserts, BSPP



0044	Thread	To Suit Hose ID
SEI05-14	1/4"	3/16"
SEI05-18	1/8"	3/16"
SEI06-18	1/8"	1/4"
SEI06-14	1/4"	1/4"
SEI06-38	3/8"	1/4"
SEI08-14	1/4"	5/16"
SEI08-38	3/8"	5/16"
SEI10-14	1/4"	3/8"
SEI10-38	3/8"	3/8"
SEI10-12	1/2"	3/8"
SEI12-38	3/8"	1/2"
SEI12-12	1/2"	1/2"
SEI12-58	5/8"	1/2"
SEI16-12	1/2"	5/8"
SEI16-58	5/8"	5/8"
SEI16-34	3/4"	5/8"
SEI20-34	3/4"	3/4"
SEI20-1	1"	3/4"
SEI25-1	1"	1"
SEI25-114	1.1/4"	1"
SEI31-114	1.1/4"	1.1/4"
SEI31-112	1.1/2"	1.1/4"
SEI38-112	1.1/2"	1.1/2"
SEI38-2	2"	1.1/2"
SEI51-2	2"	2"

Tech Sheet 60591

Female Swept 45° Inserts, BSPP



0044	Thread	To Suit Hose ID
DKR-1/8-45-DN05	1/8"	3/16"
DKR-1/8-45-DN06	1/8"	1/4"
DKR-1/4-45-DN05	1/4"	3/16"
DKR-1/4-45-DN06	1/4"	1/4"
DKR-1/4-45-DN08	1/4"	5/16"
DKR-1/4-45-DN10	1/4"	3/8"
DKR-3/8-45-DN06	3/8"	1/4"
DKR-3/8-45-DN08	3/8"	5/16"
DKR-3/8-45-DN10	3/8"	3/8"
DKR-3/8-45-DN12	3/8"	1/2"
DKR-1/2-45-DN10	1/2"	3/8"
DKR-1/2-45-DN12	1/2"	1/2"
DKR-1/2-45-DN16	1/2"	5/8"
DKR-5/8-45-DN12	5/8"	1/2"
DKR-5/8-45-DN16	5/8"	5/8"
DKR-3/4-45-DN12	3/4"	1/2"
DKR-3/4-45-DN16	3/4"	5/8"
DKR-3/4-45-DN19	3/4"	3/4"
DKR-1-45-DN19	1"	3/4"
DKR-1-45-DN25	1"	1"
DKR-11/4-45-DN25	1.1/4"	1"
DKR-11/4-45-DN31	1.1/4"	1.1/4"
DKR-11/2-45-DN31	1.1/2"	1.1/4"
DKR-11/2-45-DN38	1.1/2"	1.1/2"
DKR-2-45-DN38	2"	1.1/2"
DKR-2-45-DN51	2"	2"

Tech Sheet 60590

HYDRAULIC STAINLESS STEEL INSERTS

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



JIC 37°



Male Inserts

0044	Thread	To Suit Hose ID
AGJ-7/16-DN05	7/16"	3/16"
AGJ-7/16-DN06	7/16"	1/4"
AGJ-1/2-DN05	1/2"	3/16"
AGJ-1/2-DN06	1/2"	1/4"
AGJ-1/2-DN08	1/2"	5/16"
AGJ-9/16-DN05	9/16"	3/16"
AGJ-9/16-DN06	9/16"	1/4"
AGJ-9/16-DN08	9/16"	5/16"
AGJ-9/16-DN10	9/16"	3/8"
AGJ-3/4-DN10	3/4"	3/8"
AGJ-3/4-DN12	3/4"	1/2"
AGJ-7/8-DN10	7/8"	3/8"
AGJ-7/8-DN12	7/8"	1/2"
AGJ-7/8-DN16	7/8"	5/8"
AGJ-11/16-DN12	1.1/16"	1/2"
AGJ-11/16-DN16	1.1/16"	5/8"
AGJ-11/16-DN19	1.1/16"	3/4"
AGJ-15/16-DN19	1.5/16"	3/4"
AGJ-15/16-DN25	1.5/16"	1"
AGJ-15/8-DN25	1.5/8"	1"
AGJ-15/8-DN31	1.5/8"	1.1/4"
AGJ-17/8-DN31	1.7/8"	1.1/4"
AGJ-17/8-DN38	1.7/8"	1.1/2"
AGJ-2 1/2-DN38	2.1/2"	1.1/2"
AGJ-2 1/2-DN51	2.1/2"	2"

Tech Sheet 60594



Female Swivel Inserts

0044	Thread	To Suit Hose ID
DKJ7/16-DN05	7/16"	3/16"
DKJ7/16-DN06	7/16"	1/4"
DKJ1/2-DN05	1/2"	3/16"
DKJ1/2-DN06	1/2"	1/4"
DKJ1/2-DN08	1/2"	5/16"
DKJ9/16-DN05	9/16"	3/16"
DKJ9/16-DN06	9/16"	1/4"
DKJ9/16-DN08	9/16"	5/16"
DKJ9/16-DN10	9/16"	3/8"
DKJ9/16-DN12	9/16"	1/2"
DKJ3/4-DN06	3/4"	1/4"
DKJ3/4-DN08	3/4"	5/16"
DKJ3/4-DN10	3/4"	3/8"
DKJ3/4-DN12	3/4"	1/2"
DKJ3/4-DN16	3/4"	5/8"
DKJ3/4-DN19	3/4"	3/4"
DKJ7/8-DN10	7/8"	3/8"
DKJ7/8-DN12	7/8"	1/2"
DKJ7/8-DN16	7/8"	5/8"
DKJ7/8-DN19	7/8"	3/4"
DKJ11/16-DN12	1.1/16"	1/2"
DKJ11/16-DN16	1.1/16"	5/8"
DKJ11/16-DN19	1.1/16"	3/4"
DKJ11/16-DN25	1.1/16"	1"
DKJ15/16-DN16	1.5/16"	5/8"
DKJ15/16-DN25	1.5/16"	1"
DKJ15/8-DN25	1.5/8"	1"
DKJ15/8-DN31	1.5/8"	1.1/4"
DKJ17/8-DN31	1.7/8"	1.1/4"
DKJ17/8-DN38	1.7/8"	1.1/2"
DKJ21/2-DN38	2.1/2"	1.1/2"
DKJ21/2-DN51	2.1/2"	2"

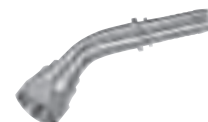
Tech Sheet 60597



Female Swept 90° Inserts

0044	Thread	To Suit Hose ID
DKJ7/16-90-DN05	7/16"	3/16"
DKJ7/16-90-DN06	7/16"	1/4"
DKJ1/2-90-DN05	1/2"	3/16"
DKJ1/2-90-DN06	1/2"	1/4"
DKJ1/2-90-DN08	1/2"	5/16"
DKJ9/16-90-DN05	9/16"	3/16"
DKJ9/16-90-DN06	9/16"	1/4"
DKJ9/16-90-DN08	9/16"	5/16"
DKJ9/16-90-DN10	9/16"	3/8"
DKJ3/4-90-DN10	3/4"	3/8"
DKJ3/4-90-DN12	3/4"	1/2"
DKJ7/8-90-DN10	7/8"	3/8"
DKJ7/8-90-DN12	7/8"	1/2"
DKJ7/8-90-DN16	7/8"	5/8"
DKJ11/16-90-DN12	1.1/16"	1/2"
DKJ11/16-90-DN16	1.1/16"	5/8"
DKJ11/16-90-DN19	1.1/16"	3/4"
DKJ15/16-90-DN19	1.5/16"	3/4"
DKJ15/16-90-DN25	1.5/16"	1"
DKJ15/8-90-DN25	1.5/8"	1"
DKJ15/8-90-DN31	1.5/8"	1.1/4"
DKJ17/8-90-DN31	1.7/8"	1.1/4"
DKJ17/8-90-DN38	1.7/8"	1.1/2"
DKJ21/2-90-DN38	2.1/2"	1.1/2"
DKJ21/2-90-DN51	2.1/2"	2"

Tech Sheet 60596



Female Swept 45° Inserts

0044	Thread	To Suit Hose ID
DKJ-7/16-45-DN06	7/16"	1/4"
DKJ-1/2-45-DN06	1/2"	1/4"
DKJ-1/2-45-DN08	1/2"	5/16"
DKJ-9/16-45-DN06	9/16"	1/4"
DKJ-9/16-45-DN08	9/16"	5/16"
DKJ-9/16-45-DN10	9/16"	3/8"
DKJ-3/4-45-DN10	3/4"	3/8"
DKJ-3/4-45-DN12	3/4"	1/2"
DKJ-7/8-45-DN10	7/8"	3/8"
DKJ-7/8-45-DN12	7/8"	1/2"
DKJ-7/8-45-DN16	7/8"	5/8"
DKJ-1116-45-DN12	1.1/16"	1/2"
DKJ-1116-45-DN16	1.1/16"	5/8"
DKJ-1116-45-DN19	1.1/16"	3/4"
DKJ-1516-45-DN19	1.5/16"	3/4"
DKJ-1516-45-DN25	1.5/16"	1"
DKJ-15/8-45-DN25	1.5/8"	1"
DKJ-15/8-45-DN31	1.5/8"	1.1/4"
DKJ-17/8-45-DN31	1.7/8"	1.1/4"
DKJ-17/8-45-DN38	1.7/8"	1.1/2"
DKJ-21/2-45-DN38	2.1/2"	1.1/2"
DKJ-21/2-45-DN51	2.1/2"	2"

Tech Sheet 60595



For Hose & Pipe Cleaning
see page 49

HYDRAULIC STAINLESS STEEL INSERTS

stainless steel



Metric Light Series

Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



Metric Male 24° Cone Seat, L Series DIN 2353

0044	Thread	To Suit Hose ID
CEL-06-DN05	M12 x 1.5	3/16"
CEL-06-DN06	M12 x 1.5	1/4"
CEL-08-DN05	M14 x 1.5	3/16"
CEL-08-DN06	M14 x 1.5	1/4"
CEL-10-DN06	M16 x 1.5	1/4"
CEL-10-DN08	M16 x 1.5	5/16"
CEL-10-DN10	M16 x 1.5	3/8"
CEL-12-DN06	M18 x 1.5	1/4"
CEL-12-DN08	M18 x 1.5	5/16"
CEL-12-DN10	M18 x 1.5	3/8"
CEL-12-DN12	M18 x 1.5	1/2"
CEL-15-DN10	M22 x 1.5	3/8"
CEL-15-DN12	M22 x 1.5	1/2"
CEL-18-DN12	M26 x 1.5	1/2"
CEL-18-DN16	M26 x 1.5	5/8"
CEL-18-DN19	M26 x 1.5	3/4"
CEL-22-DN16	M30 x 2	5/8"
CEL-22-DN19	M30 x 2	3/4"
CEL-28-DN19	M36 x 2	3/4"
CEL-28-DN25	M36 x 2	1"
CEL-35-DN31	M45 x 2	1.1/4"
CEL-42-DN38	M52 x 2	1.1/2"

Tech Sheet 60598



Metric Female 24° Cone Seat, L Series with O-Ring, DIN 2353

0044	Thread	To Suit Hose ID
DKOL-06-DN05	M12 x 1.5	3/16"
DKOL-06-DN06	M12 x 1.5	1/4"
DKOL-08-DN05	M14 x 1.5	3/16"
DKOL-08-DN06	M14 x 1.5	1/4"
DKOL-08-DN08	M14 x 1.5	5/16"
DKOL-08-DN10	M14 x 1.5	3/8"
DKOL-10-DN06	M16 x 1.5	1/4"
DKOL-10-DN08	M16 x 1.5	5/16"
DKOL-10-DN10	M16 x 1.5	3/8"
DKOL-10-DN12	M16 x 1.5	1/2"
DKOL-12-DN06	M18 x 1.5	1/4"
DKOL-12-DN08	M18 x 1.5	5/16"
DKOL-12-DN10	M18 x 1.5	3/8"
DKOL-12-DN12	M18 x 1.5	1/2"
DKOL-15-DN06	M22 x 1.5	1/4"
DKOL-15-DN08	M22 x 1.5	5/16"
DKOL-15-DN10	M22 x 1.5	3/8"
DKOL-15-DN12	M22 x 1.5	1/2"
DKOL-15-DN16	M22 x 1.5	5/8"
DKOL-18-DN10	M26 x 1.5	3/8"
DKOL-18-DN12	M26 x 1.5	1/2"
DKOL-18-DN16	M26 x 1.5	5/8"
DKOL-18-DN19	M26 x 1.5	3/4"
DKOL-22-DN12	M30 x 2	1/2"
DKOL-22-DN16	M30 x 2	5/8"
DKOL-22-DN19	M30 x 2	3/4"
DKOL-22-DN25	M30 x 2	1"
DKOL-28-DN16	M36 x 2	5/8"
DKOL-28-DN19	M36 x 2	3/4"
DKOL-28-DN25	M36 x 2	1"
DKOL-35-DN25	M45 x 2	1"
DKOL-35-DN31	M45 x 2	1.1/4"
DKOL-42-DN31	M52 x 2	1.1/4"
DKOL-42-DN38	M52 x 2	1.1/2"

Tech Sheet 60601



90° Metric Female 24° Cone Seat, L Series with O-Ring DIN 2353

0044	Thread	To Suit Hose ID
DKOL-06-90-DN05	M12 X 1.5	3/16"
DKOL-06-90-DN06	M12 x 1.5	1/4"
DKOL-08-90-DN06	M14 x 1.5	1/4"
DKOL-08-90-DN08	M14 x 1.5	5/16"
DKOL-10-90-DN06	M16 x 1.5	1/4"
DKOL-10-90-DN08	M16 x 1.5	5/16"
DKOL-10-90-DN10	M16 x 1.5	3/8"
DKOL-12-90-DN06	M18 x 1.5	1/4"
DKOL-12-90-DN08	M18 x 1.5	5/16"
DKOL-12-90-DN10	M18 x 1.5	3/8"
DKOL-12-90-DN12	M18 x 1.5	1/2"
DKOL-15-90-DN10	M22 x 1.5	3/8"
DKOL-15-90-DN12	M22 x 1.5	1/2"
DKOL-18-90-DN12	M26 x 1.5	1/2"
DKOL-18-90-DN16	M26 x 1.5	5/8"
DKOL-22-90-DN16	M30 x 2	5/8"
DKOL-22-90-DN19	M30 x 2	3/4"
DKOL-28-90-DN19	M36 x 2	3/4"
DKOL-28-90-DN25	M36 x 2	1"
DKOL-35-90-DN31	M45 x 2	1.1/4"
DKOL-42-90-DN38	M52 x 2	1.1/2"

Tech Sheet 60600



45° Metric Female 24° Cone Seat, L Series with O-Ring DIN 2353

0044	Thread	To Suit Hose ID
DKOL-06-45-DN05	M12 x 1.5	3/16"
DKOL-06-45-DN06	M12 x 1.5	1/4"
DKOL-08-45-DN05	M14 x 1.5	3/16"
DKOL-08-45-DN06	M14 x 1.5	1/4"
DKOL-08-45-DN08	M14 x 1.5	5/16"
DKOL-10-45-DN06	M16 x 1.5	1/4"
DKOL-10-45-DN08	M16 x 1.5	5/16"
DKOL-10-45-DN10	M16 x 1.5	3/8"
DKOL-12-45-DN06	M18 x 1.5	1/4"
DKOL-12-45-DN08	M18 x 1.5	5/16"
DKOL-12-45-DN10	M18 x 1.5	3/8"
DKOL-12-45-DN12	M18 x 1.5	1/2"
DKOL-15-45-DN10	M22 x 1.5	3/8"
DKOL-15-45-DN12	M22 x 1.5	1/2"
DKOL-18-45-DN12	M26 x 1.5	1/2"
DKOL-18-45-DN16	M26 x 1.5	5/8"
DKOL-22-45-DN16	M30 x 2	5/8"
DKOL-22-45-DN19	M30 x 2	3/4"
DKOL-28-45-DN19	M36 x 2	3/4"
DKOL-28-45-DN25	M36 x 2	1"
DKOL-35-45-DN31	M45 x 2	1.1/4"
DKOL-42-45-DN38	M52 x 2	1.1/2"

Tech Sheet 60599



For Polypropylene Protective Hose Sleeves see pages 47-48



HYDRAULIC STAINLESS STEEL INSERTS

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



Metric Heavy Series



Metric Male 24° Cone Seat, S Series DIN 2353

0044	Thread	To Suit Hose ID
CES-06-DN06	M14 x 1.5	1/4"
CES-08-DN06	M16 x 1.5	1/4"
CES-10-DN06	M18 x 1.5	1/4"
CES-10-DN08	M18 x 1.5	5/16"
CES-10-DN10	M18 x 1.5	3/8"
CES-12-DN08	M20 x 1.5	5/16"
CES-12-DN10	M20 x 1.5	3/8"
CES-14-DN08	M22 x 1.5	5/16"
CES-14-DN10	M22 x 1.5	3/8"
CES-16-DN10	M24 x 1.5	3/8"
CES-16-DN12	M24 x 1.5	1/2"
CES-20-DN12	M30 x 2	1/2"
CES-20-DN16	M30 x 2	5/8"
CES-20-DN19	M30 x 2	3/4"
CES-25-DN19	M36 x 2	3/4"
CES-25-DN25	M36 x 2	1"
CES-38-DN31	M52 x 2	1.1/4"
CES-30-DN25	M42 x 2	1"

Tech Sheet 60602



Metric Female 24° Cone Seat, S Series, DIN 2353

0044	Thread	To Suit Hose ID
DKOS-06-DN05	M14 x 1.5	3/16"
DKOS-06-DN06	M14 x 1.5	1/4"
DKOS-08-DN05	M16 x 1.5	3/16"
DKOS-08-DN06	M16 x 1.5	1/4"
DKOS-08-DN08	M16 x 1.5	5/16"
DKOS-08-DN10	M16 x 1.5	3/8"
DKOS-10-DN06	M18 x 1.5	1/4"
DKOS-10-DN08	M18 x 1.5	5/16"
DKOS-10-DN10	M18 x 1.5	3/8"
DKOS-12-DN06	M20 x 1.5	1/4"
DKOS-12-DN08	M20 x 1.5	5/16"
DKOS-12-DN10	M20 x 1.5	3/8"
DKOS-12-DN12	M20 x 1.5	1/2"
DKOS-14-DN08	M22 x 1.5	5/16"
DKOS-14-DN10	M22 x 1.5	3/8"
DKOS-16-DN06	M24 x 1.5	1/4"
DKOS-16-DN08	M24 x 1.5	5/16"
DKOS-16-DN10	M24 x 1.5	3/8"
DKOS-16-DN12	M24 x 1.5	1/2"
DKOS-16-DN16	M24 x 1.5	5/8"
DKOS-20-DN10	M30 x 2	3/8"
DKOS-20-DN12	M30 x 2	1/2"
DKOS-20-DN16	M30 x 2	5/8"
DKOS-20-DN19	M30 x 2	3/4"
DKOS-25-DN12	M36 x 2	1/2"
DKOS-25-DN16	M36 x 2	5/8"
DKOS-25-DN19	M36 x 2	3/4"
DKOS-25-DN25	M36 x 2	1"
DKOS-30-DN19	M42 x 2	3/4"
DKOS-30-DN25	M42 x 2	1"
DKOS-38-DN25	M52 x 2	1"
DKOS-38-DN31	M52 x 2	1.1/4"
DKOS-50-DN38	M68 x 2	1.1/2"

Tech Sheet 60605



90° Metric Female 24° Cone Seat, S Series with O-Ring, DIN 2353

0044	Thread	To Suit Hose ID
DKOS-06-90-DN06	M14 x 1.5	1/4"
DKOS-08-90-DN06	M16 x 1.5	1/4"
DKOS-08-90-DN08	M16 x 1.5	5/16"
DKOS-10-90-DN06	M18 x 1.5	1/4"
DKOS-10-90-DN08	M18 x 1.5	5/16"
DKOS-10-90-DN10	M18 x 1.5	3/8"
DKOS-12-90-DN06	M20 x 1.5	1/4"
DKOS-12-90-DN08	M20 x 1.5	5/16"
DKOS-12-90-DN10	M20 x 1.5	3/8"
DKOS-12-90-DN12	M20 x 1.5	1/2"
DKOS-14-90-DN10	M22 x 1.5	3/8"
DKOS-16-90-DN10	M24 x 1.5	3/8"
DKOS-16-90-DN12	M24 x 1.5	1/2"
DKOS-20-90-DN12	M30 x 2	1/2"
DKOS-20-90-DN16	M30 x 2	5/8"
DKOS-20-90-DN19	M30 x 2	3/4"
DKOS-25-90-DN19	M36 x 2	3/4"
DKOS-25-90-DN25	M36 x 2	1"
DKOS-30-90-DN19	M42 x 2	3/4"
DKOS-30-90-DN25	M42 x 2	1"
DKOS-38-90-DN25	M52 x 2	1"
DKOS-38-90-DN31	M52 x 2	1.1/4"

Tech Sheet 60604



45° Metric Female 24° Cone Seat, S Series with O-Ring, DIN 2353

0044	Thread	To Suit Hose ID
DKOS-06-45-DN06	M14 x 1.5	1/4"
DKOS-08-45-DN06	M16 x 1.5	1/4"
DKOS-08-45-DN08	M16 x 1.5	5/16"
DKOS-10-45-DN06	M18 x 1.5	1/4"
DKOS-10-45-DN08	M18 x 1.5	5/16"
DKOS-10-45-DN10	M18 x 1.5	3/8"
DKOS-12-45-DN06	M20 x 1.5	1/4"
DKOS-12-45-DN08	M20 x 1.5	5/16"
DKOS-12-45-DN10	M20 x 1.5	3/8"
DKOS-12-45-DN12	M20 x 1.5	1/2"
DKOS-14-45-DN10	M22 x 1.5	3/8"
DKOS-16-45-DN10	M24 x 1.5	3/8"
DKOS-16-45-DN12	M24 x 1.5	1/2"
DKOS-20-45-DN12	M30 x 2	1/2"
DKOS-20-45-DN16	M30 x 2	5/8"
DKOS-20-45-DN19	M30 x 2	3/4"
DKOS-25-45-DN19	M36 x 2	3/4"
DKOS-25-45-DN25	M36 x 2	1"
DKOS-30-45-DN19	M42 x 2	3/4"
DKOS-30-45-DN25	M42 x 2	1"
DKOS-38-45-DN25	M52 x 2	1"
DKOS-38-45-DN31	M52 x 2	1.1/4"

Tech Sheet 60603



For Hose Retention System
see pages 42-43

HYDRAULIC STAINLESS STEEL INSERTS

stainless steel



ORFS

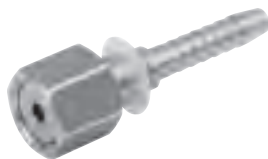
Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



Male (O-Ring Face) Inserts

0044	Thread	To Suit Hose ID
ORFSM0404SS	9/16"	1/4"
ORFSM0606SS	11/16"	3/8"
ORFSM0808SS	13/16"	1/2"
ORFSM1010SS	1"	5/8"
ORFSM1212SS	1.3/16"	3/4"
ORFSM1616SS	1.7/16"	1"
ORFSM2020SS	1.11/16"	1.1/4"
ORFSM2424SS	2"	1.1/2"

Tech Sheet 60610



Female Inserts

0044	Thread	To Suit Hose ID
ORFSF0404SS	9/16"	1/4"
ORFSF0604SS	11/16"	1/4"
ORFSF0605SS	11/16"	5/16"
ORFSF0606SS	11/16"	3/8"
ORFSF0806SS	13/16"	3/8"
ORFSF0808SS	13/16"	1/2"
ORFSF1008SS	1"	1/2"
ORFSF1010SS	1"	5/8"
ORFSF1012SS	1"	3/4"
ORFSF1208SS	1.3/16"	1/2"
ORFSF1210SS	1.3/16"	5/8"
ORFSF1212SS	1.7/16"	3/4"
ORFSF1612SS	1.7/16"	3/4"
ORFSF1616SS	1.7/16"	1"
ORFSF2020SS	1.11/16"	1.1/4"
ORFSF2424SS	2"	1.1/2"

Tech Sheet 60607



Female Swept 90° Elbow Inserts

0044	Thread	To Suit Hose ID
ORFSF049004SS	9/16"	1/4"
ORFSF069004SS	11/16"	1/4"
ORFSF069005SS	11/16"	5/16"
ORFSF069006SS	11/16"	3/8"
ORFSF089006SS	13/16"	3/8"
ORFSF089008SS	13/16"	1/2"
ORFSF109010SS	1"	5/8"
ORFSF109012SS	1"	3/4"
ORFSF129012SS	1.7/16"	3/4"
ORFSF169012SS	1.7/16"	3/4"
ORFSF169016SS	1.7/16"	1"
ORFSF209020SS	1.11/16"	1.1/4"
ORFSF209024SS	2"	1.1/2"

Tech Sheet 60609



Female Swept 45° Elbow Inserts

0044	Thread	To Suit Hose ID
ORFSF044504SS	9/16"	1/4"
ORFSF064504SS	11/16"	1/4"
ORFSF064505SS	11/16"	5/16"
ORFSF064506SS	11/16"	3/8"
ORFSF084506SS	13/16"	3/8"
ORFSF084508SS	13/16"	1/2"
ORFSF104510SS	1"	5/8"
ORFSF104512SS	1"	3/4"
ORFSF124512SS	1.7/16"	3/4"
ORFSF164516SS	1.7/16"	1"
ORFSF204520SS	1.11/16"	1.1/4"
ORFSF204524SS	2"	1.1/2"

Tech Sheet 60608

Jet Wash Female



M22 x 1.5

0044	To Suit Hose ID
DKO-KA-DN06	1/4"
DKO-KA-DN08	5/16"
DKO-KA-DN10	3/8"
DKO-KA-DN12	1/2"

Tech Sheet 60627

Banjos



Bolt, Metric

0044	Thread
HS-M10X1	M10 x 1
HS-M12X1.5	M12 x 1.5
HS-M14X1.5	M14 x 1.5
HS-M16X1.5	M16 x 1.5
HS-M18X1.5	M18 x 1.5
HS-M22X1.5	M22 x 1.5
HS-M26X1.5	M26 x 1.5

Tech Sheet 60606

Bolt, Imperial

0044	Thread
HS-G1/8	1/8"
HS-G1/4	1/4"
HS-G3/8	3/8"
HS-G1/2	1/2"
HS-G3/4	3/4"

Tech Sheet 60606



Inserts, Metric/Imperial

0044	Thread	Thread	To Suit Hose ID
RGN-10-DN06	M10 x 1	1/8"	1/4"
RGN-10-DN08	M10 x 1	1/8"	5/16"
RGN-12-DN06	M12 x 1.5	-	1/4"
RGN-12-DN08	M12 x 1.5	-	5/16"
RGN-14-DN06	M14 x 1.5	-	1/4"
RGN-14-DN06	-	1/4"	1/4"
RGN-14-DN08	M14 x 1.5	-	5/16"
RGN-14-DN10	M14 x 1.5	-	3/8"
RGN-16-DN08	M16 x 1.5	3/8"	5/16"
RGN-16-DN10	M16 x 1.5	3/8"	3/8"
RGN-16-DN12	M16 x 1.5	3/8"	1/2"
RGN-18-DN10	M18 x 1.5	-	3/8"
RGN-1/2-DN10	-	1/2"	3/8"
RGN-1/2-DN12	-	1/2"	1/2"
RGN-18-DN12	M18 x 1.5	-	1/2"
RGN-22-DN12	M22 x 1.5	-	1/2"
RGN-22-DN16	M22 x 1.5	-	5/8"
RGN-26-DN19	M26 x 1.5	3/4"	3/4"

Tech Sheet 60611

HYDRAULIC STAINLESS STEEL INSERTS

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)



Standpipes



Straight, L Series

0044	OD mm	To Suit Hose ID
BEL-06-DN05	6	3/16"
BEL-06-DN06	6	1/4"
BEL-08-DN05	8	3/16"
BEL-08-DN06	8	1/4"
BEL-08-DN08	8	5/16"
BEL-10-DN08	10	5/16"
BEL-10-DN10	10	3/8"
BEL-12-DN10	12	3/8"
BEL-12-DN12	12	1/2"
BEL-15-DN10	15	3/8"
BEL-15-DN12	15	1/2"
BEL-18-DN12	18	1/2"
BEL-18-DN16	18	5/8"
BEL-22-DN16	22	5/8"
BEL-22-DN19	22	3/4"
BEL-28-DN25	28	1"
BEL-35-DN31	35	1.1/4"
BEL-42-DN38	42	1.1/2"

Tech Sheet 60615



Swept 90°, L Series

0044	OD mm	To Suit Hose ID
BEL-06-90-DN05	6	3/16"
BEL-06-90-DN06	6	1/4"
BEL-08-90-DN06	8	1/4"
BEL-10-90-DN06	10	1/4"
BEL-10-90-DN08	10	5/16"
BEL-10-90-DN10	10	3/8"
BEL-12-90-DN08	12	5/16"
BEL-12-90-DN10	12	3/8"
BEL-12-90-DN12	12	1/2"
BEL-15-90-DN12	15	1/2"
BEL-18-90-DN16	18	5/8"
BEL-22-90-DN19	22	3/4"
BEL-28-90-DN25	28	1"
BEL-35-90-DN31	35	1.1/4"
BEL-42-90-DN38	42	1.1/2"

Tech Sheet 60614



Swept 45°, L Series

0044	OD mm	To Suit Hose ID
BEL-06-45-DN05	6	3/16"
BEL-06-45-DN06	6	1/4"
BEL-08-45-DN06	8	1/4"
BEL-10-45-DN06	10	1/4"
BEL-10-45-DN08	10	5/16"
BEL-10-45-DN10	10	3/8"
BEL-12-45-DN08	12	5/16"
BEL-12-45-DN10	12	3/8"
BEL-15-45-DN12	15	1/2"
BEL-18-45-DN16	18	5/8"
BEL-22-45-DN19	22	3/4"
BEL-28-45-DN25	28	1"
BEL-35-45-DN31	35	1.1/4"
BEL-42-45-DN38	42	1.1/2"

Tech Sheet 60613

Straight, S Series

0044	OD mm	To Suit Hose ID
BES-06-DN05	6	3/16"
BES-06-DN06	6	1/4"
BES-08-DN06	8	1/4"
BES-08-DN08	8	5/16"
BES-10-DN06	10	1/4"
BES-10-DN08	10	5/16"
BES-10-DN10	10	3/8"
BES-12-DN06	12	1/4"
BES-12-DN08	12	5/16"
BES-12-DN10	12	3/8"
BES-12-DN12	12	1/2"
BES-14-DN10	14	3/8"
BES-16-DN12	16	1/2"
BES-20-DN12	20	1/2"
BES-20-DN16	20	5/8"
BES-20-DN19	20	3/4"
BES-25-DN19	25	3/4"
BES-25-DN25	25	1"
BES-30-DN25	30	1"
BES-38-DN31	38	1.1/4"

Tech Sheet 60616

Swept 90°, S Series

0044	OD mm	To Suit Hose ID
BES-06-90-DN05	6	3/16"
BES-06-90-DN06	6	1/4"
BES-08-90-DN06	8	1/4"
BES-10-90-DN06	10	1/4"
BES-10-90-DN08	10	5/16"
BES-10-90-DN10	10	3/8"
BES-12-90-DN08	12	5/16"
BES-12-90-DN10	12	3/8"
BES-14-90-DN10	14	3/8"
BES-16-90-DN12	16	1/2"
BES-20-90-DN16	20	5/8"
BES-25-90-DN19	25	3/4"
BES-30-90-DN25	30	1"
BES-38-90-DN31	38	1.1/4"

Tech Sheet 60614

Swept 45°, S Series

0044	OD mm	To Suit Hose ID
BES-06-45-DN05	6	3/16"
BES-06-45-DN06	6	1/4"
BES-08-45-DN06	8	1/4"
BES-10-45-DN06	10	1/4"
BES-10-45-DN08	10	5/16"
BES-10-45-DN10	10	3/8"
BES-12-45-DN08	12	5/16"
BES-14-45-DN10	14	3/8"
BES-16-45-DN12	16	1/2"
BES-20-45-DN16	20	5/8"
BES-25-45-DN19	25	3/4"
BES-30-45-DN25	30	1"
BES-38-45-DN31	38	1.1/4"

Tech Sheet 60613

Straight, Imperial

0044	OD	To Suit Hose ID
BE-14-DN06	1/4"	1/4"
BE-516-DN08	5/16"	5/16"
BE-38-DN10	3/8"	3/8"
BE-12-DN12	1/2"	1/2"
BE-58-DN16	5/8"	5/8"
BE-34-DN19	3/4"	3/4"
BE-1-DN25	1"	1"
BE-114-DN31	1.1/4"	1.1/4"
BE-112-DN38	1.1/2"	1.1/2"

Tech Sheet 60612



For Hose & Assemblies
see page 15

HYDRAULIC STAINLESS STEEL INSERTS

stainless steel



SAE 3000 psi (3k)

Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)



Straight Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-DN12	1/2"	1/2"
SFL3-1/2-DN16	1/2"	5/8"
SFL3-3/4-DN12	3/4"	1/2"
SFL3-3/4-DN16	3/4"	5/8"
SFL3-3/4-DN19	3/4"	3/4"
SFL3-1-DN19	1"	3/4"
SFL3-1-DN25	1"	1"
SFL3-1 1/4-DN25	1.1/4"	1"
SFL3-1 1/4-DN31	1.1/4"	1.1/4"
SFL3-1 1/2-DN31	1.1/2"	1.1/4"
SFL3-1 1/2-DN38	1.1/2"	1.1/2"
SFL3-2-DN38	2"	1.1/2"
SFL3-2-DN51	2"	2"

Tech Sheet 60618



90° Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-90-DN12	1/2"	1/2"
SFL3-1/2-90-DN16	1/2"	5/8"
SFL3-3/4-90-DN12	3/4"	1/2"
SFL3-3/4-90-DN16	3/4"	5/8"
SFL3-3/4-90-DN19	3/4"	3/4"
SFL3-1-90-DN19	1"	3/4"
SFL3-1-90-DN25	1"	1"
SFL3-1 1/4-90-DN25	1.1/4"	1"
SFL3-1 1/4-90-DN31	1.1/4"	1.1/4"
SFL3-1 1/2-90-DN31	1.1/2"	1.1/4"
SFL3-1 1/2-90-DN38	1.1/2"	1.1/2"
SFL3-2-90-DN38	2"	1.1/2"
SFL3-2-90-DN51	2"	2"

Tech Sheet 60620



45° Flanges

0044	Flange ND	To Suit Hose ID
SFL3-1/2-45-DN12	1/2"	1/2"
SFL3-1/2-45-DN16	1/2"	5/8"
SFL3-3/4-45-DN12	3/4"	1/2"
SFL3-3/4-45-DN16	3/4"	5/8"
SFL3-3/4-45-DN19	3/4"	3/4"
SFL3-1-45-DN19	1"	3/4"
SFL3-1-45-DN25	1"	1"
SFL3-1 1/4-45-DN25	1.1/4"	1"
SFL3-1 1/4-45-DN31	1.1/4"	1.1/4"
SFL3-1 1/2-45-DN31	1.1/2"	1.1/4"
SFL3-1 1/2-45-DN38	1.1/2"	1.1/2"
SFL3-2-45-DN38	2"	1.1/2"
SFL3-2-45-DN51	2"	2"

Tech Sheet 60619

SAE 6000 psi (6k)



Straight Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-DN12	1/2"	1/2"
SFS6-1/2-DN16	1/2"	5/8"
SFS6-3/4-DN12	3/4"	1/2"
SFS6-3/4-DN16	3/4"	5/8"
SFS6-3/4-DN19	3/4"	3/4"
SFS6-1-DN19	1"	3/4"
SFS6-1-DN25	1"	1"
SFS6-1 1/4-DN25	1.1/4"	1"
SFS6-1 1/4-DN31	1.1/4"	1.1/4"
SFS6-1 1/2-DN31	1.1/2"	1.1/4"
SFS6-1 1/2-DN38	1.1/2"	1.1/2"
SFS6-2-DN38	2"	1.1/2"
SFS6-2-DN51	2"	2"

Tech Sheet 60618



90° Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-90-DN12	1/2"	1/2"
SFS6-1/2-90-DN16	1/2"	5/8"
SFS6-3/4-90-DN12	3/4"	1/2"
SFS6-3/4-90-DN16	3/4"	5/8"
SFS6-3/4-90-DN19	3/4"	3/4"
SFS6-1-90-DN19	1"	3/4"
SFS6-1-90-DN25	1"	1"
SFS6-1 1/4-90-DN25	1.1/4"	1"
SFS6-1 1/4-90-DN31	1.1/4"	1.1/4"
SFS6-1 1/2-90-DN31	1.1/2"	1.1/4"
SFS6-1 1/2-90-DN38	1.1/2"	1.1/2"
SFS6-2-90-DN38	2"	1.1/2"
SFS6-2-90-DN51	2"	2"

Tech Sheet 60620



45° Flanges

0044	Flange ND	To Suit Hose ID
SFS6-1/2-45-DN12	1/2"	1/2"
SFS6-1/2-45-DN16	1/2"	5/8"
SFS6-3/4-45-DN12	3/4"	1/2"
SFS6-3/4-45-DN16	3/4"	5/8"
SFS6-3/4-45-DN19	3/4"	3/4"
SFS6-1-45-DN19	1"	3/4"
SFS6-1-45-DN25	1"	1"
SFS6-1 1/4-45-DN25	1.1/4"	1"
SFS6-1 1/4-45-DN31	1.1/4"	1.1/4"
SFS6-1 1/2-45-DN31	1.1/2"	1.1/4"
SFS6-1 1/2-45-DN38	1.1/2"	1.1/2"
SFS6-2-45-DN38	2"	1.1/2"
SFS6-2-45-DN51	2"	2"

Tech Sheet 60619

Split Flanges

0044	Flange Size	Bolt Type Metric	Bolt Type UNC
FLH-3-1/2	1/2"	M8 x 25	5/16" x 1.1/4"
FLH-3-3/4	3/4"	M10 x 30	3/8" x 1.1/4"
FLH-3-1	1"	M10 x 30	3/8" x 1.1/4"
FLH-3-1.1/4	1.1/4"	M10 x 30	7/16" x 1.1/2"
FLH-3-1.1/2	1.1/2"	M12 x 35	1/2" x 1.1/2"
FLH-3-2	2"	M12 x 35	1/2" x 1.1/2"

Tech Sheet 60617

0044	Flange Size	Bolt Type Metric	Bolt Type UNC
FLH-6-1/2	1/2"	M8 x 30	5/16" x 1.1/4"
FLH-6-3/4	3/4"	M10 x 35	3/8" x 1.1/4"
FLH-6-1	1"	M12 x 45	-
FLH-6-1.1/4	1.1/4"	M14 x 50	-
FLH-6-1.1/2	1.1/2"	M16 x 55	5/8" x 2"
FLH-6-2	2"	M20 x 65	3/4" x 2.1/2"

Tech Sheet 60617



as a half of halves require for each flange insert.

as a half of halves require for each flange insert.

Bolts, washers and O-rings are not included and must be purchased separately

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



☞ Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Male Stud Couplings



L Series, BSPP (Captive Seal)

0291	OD mm	Thread
GE-6L-2EO	6	1/8"
GE-6L-4EO	6	1/4"
GE-6L-6EO	6	3/8"
GE-6L-8EO	6	1/2"
GE-8L-2EO	8	1/8"
GE-8L-4EO	8	1/4"
GE-8L-6EO	8	3/8"
GE-8L-8EO	8	1/2"
GE-10L-2EO	10	1/8"
GE-10L-4EO	10	1/4"
GE-10L-6EO	10	3/8"
GE-10L-8EO	10	1/2"
GE-10L-12EO	10	3/4"
GE-12L-2EO	12	1/8"
GE-12L-4EO	12	1/4"
GE-12L-6EO	12	3/8"
GE-12L-8EO	12	1/2"
GE-12L-12EO	12	3/4"
GE-15L-4EO	15	1/4"
GE-15L-6EO	15	3/8"
GE-15L-8EO	15	1/2"
GE-15L-12EO	15	3/4"
GE-15L-16EO	15	1"
GE-18L-6EO	18	3/8"
GE-18L-8EO	18	1/2"
GE-18L-12EO	18	3/4"
GE-18L-16EO	18	1"
GE-22L-6EO	22	3/8"
GE-22L-8EO	22	1/2"
GE-22L-12EO	22	3/4"
GE-22L-16EO	22	1"
GE-22L-20EO	22	1.1/4"
GE-28L-8EO	28	1/2"
GE-28L-12EO	28	3/4"
GE-28L-16EO	28	1"
GE-28L-20EO	28	1.1/4"
GE-28L-24EO	28	1.1/2"
GE-35L-12EO	35	3/4"
GE-35L-16EO	35	1"
GE-35L-20EO	35	1.1/4"
GE-35L-24EO	35	1.1/2"
GE-42L-16EO	42	1"
GE-42L-20EO	42	1.1/4"
GE-42L-24EO	42	1.1/2"
GE-42L-32EO	42	2"

Tech Sheet 10585

S Series, BSPP (Captive Seal)

0291	OD mm	Thread
GE-6S-2EO	6	1/8"
GE-6S-4EO	6	1/4"
GE-6S-6EO	6	3/8"
GE-6S-8EO	6	1/2"
GE-8S-2EO	8	1/8"
GE-8S-4EO	8	1/4"
GE-8S-6EO	8	3/8"
GE-8S-8EO	8	1/2"
GE-10S-2EO	10	1/8"
GE-10S-4EO	10	1/4"
GE-10S-6EO	10	3/8"
GE-10S-8EO	10	1/2"
GE-10S-12EO	10	3/4"
GE-12S-4EO	12	1/4"
GE-12S-6EO	12	3/8"
GE-12S-8EO	12	1/2"
GE-12S-12EO	12	3/4"
GE-14S-6EO	14	3/8"
GE-14S-8EO	14	1/2"
GE-14S-12EO	14	3/4"
GE-16S-4EO	16	1/4"
GE-16S-6EO	16	3/8"
GE-16S-8EO	16	1/2"
GE-16S-12EO	16	3/4"
GE-16S-16EO	16	1"
GE-20S-6EO	20	3/8"
GE-20S-8EO	20	1/2"
GE-20S-12EO	20	3/4"
GE-20S-16EO	20	1"
GE-20S-20EO	20	1.1/4"
GE-25S-8EO	25	1/2"
GE-25S-12EO	25	3/4"
GE-25S-16EO	25	1"
GE-25S-20EO	25	1.1/4"
GE-30S-12EO	30	3/4"
GE-30S-16EO	30	1"
GE-30S-20EO	30	1.1/4"
GE-30S-24EO	30	1.1/2"
GE-38S-16EO	38	1"
GE-38S-20EO	38	1.1/4"
GE-38S-24EO	38	1.1/2"

Tech Sheet 10585

L Series, Metric (Captive Seal)

0291	OD mm	Thread
GE-6L-10MEO	6	M10 x 1
GE-6L-12MEO	6	M12 x 1.5
GE-6L-14MEO	6	M14 x 1.5
GE-8L-10MEO	8	M10 x 1.0
GE-8L-12MEO	8	M12 x 1.5
GE-8L-14MEO	8	M14 x 1.5
GE-8L-16MEO	8	M16 x 1.5
GE-8L-18MEO	8	M18 x 1.5
GE-10L-10MEO	10	M10 x 1.0
GE-10L-12MEO	10	M12 x 1.5
GE-10L-14MEO	10	M14 x 1.5
GE-10L-16MEO	10	M16 x 1.5
GE-10L-18MEO	10	M18 x 1.5
GE-10L-22MEO	10	M22 x 1.5
GE-12L-12MEO	12	M12 x 1.5
GE-12L-14MEO	12	M14 x 1.5
GE-12L-16MEO	12	M16 x 1.5
GE-12L-18MEO	12	M18 x 1.5
GE-12L-22MEO	12	M22 x 1.5
GE-15L-16MEO	15	M16 x 1.5
GE-15L-18MEO	15	M18 x 1.5
GE-15L-22MEO	15	M22 x 1.5
GE-18L-18MEO	18	M18 x 1.5
GE-18L-22MEO	18	M22 x 1.5
GE-18L-26MEO	18	M26 x 1.5
GE-22L-22MEO	22	M22 x 1.5
GE-22L-26MEO	22	M26 x 1.5
GE-28L-33MEO	28	M33 x 2
GE-35L-42MEO	35	M42 x 2.0
GE-42L-48MEO	42	M48 x 2.0

Tech Sheet 10586

S Series, Metric (Captive Seal)

0291	OD mm	Thread
GE-6S-12MEO	6	M12 x 1.5
GE-6S-14MEO	6	M14 x 1.5
GE-8S-12MEO	8	M12 x 1.5
GE-8S-14MEO	8	M14 x 1.5
GE-8S-16MEO	8	M16 x 1.5
GE-10S-14MEO	10	M14 x 1.5
GE-10S-16MEO	10	M16 x 1.5
GE-10S-18MEO	10	M18 x 1.5
GE-12S-14MEO	12	M14 x 1.5
GE-12S-16MEO	12	M16 x 1.5
GE-12S-18MEO	12	M18 x 1.5
GE-12S-20MEO	12	M20 x 1.5
GE-12S-22MEO	12	M22 x 1.5
GE-14S-20MEO	14	M20 x 1.5
GE-14S-22MEO	14	M22 x 1.5
GE-16S-18MEO	16	M18 x 1.5
GE-16S-22MEO	16	M22 x 1.5
GE-20S-27MEO	20	M27 x 2
GE-25S-33MEO	25	M33 x 2
GE-30S-42MEO	30	M42 x 2
GE-38S-48MEO	38	M48 x 2

Tech Sheet 10586

For **Stainless Steel Bonded Seals**
see pages 109-112



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Male Stud Couplings

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series, BSPP, Form B Sealing

0291	OD mm	Thread
GE-6L-2RP	6	1/8"
GE-6L-4RP	6	1/4"
GE-6L-6RP	6	3/8"
GE-6L-8RP	6	1/2"
GE-8L-2RP	8	1/8"
GE-8L-4RP	8	1/4"
GE-8L-6RP	8	3/8"
GE-8L-8RP	8	1/2"
GE-10L-2RP	10	1/8"
GE-10L-4RP	10	1/4"
GE-10L-6RP	10	3/8"
GE-10L-8RP	10	1/2"
GE-10L-12RP	10	3/4"
GE-12L-2RP	12	1/8"
GE-12L-4RP	12	1/4"
GE-12L-6RP	12	3/8"
GE-12L-8RP	12	1/2"
GE-12L-12RP	12	3/4"
GE-15L-4RP	15	1/4"
GE-15L-6RP	15	3/8"
GE-15L-8RP	15	1/2"
GE-15L-12RP	15	3/4"
GE-18L-6RP	18	3/8"
GE-18L-8RP	18	1/2"
GE-18L-12RP	18	3/4"
GE-18L-16RP	18	1"
GE-22L-6RP	22	3/8"
GE-22L-8RP	22	1/2"
GE-22L-12RP	22	3/4"
GE-22L-16RP	22	1"
GE-22L-20RP	22	1.1/4"
GE-28L-8RP	28	1/2"
GE-28L-12RP	28	3/4"
GE-28L-16RP	28	1"
GE-28L-20RP	28	1.1/4"
GE-28L-24RP	28	1.1/2"
GE-35L-12RP	35	3/4"
GE-35L-16RP	35	1"
GE-35L-20RP	35	1.1/4"
GE-35L-24RP	35	1.1/2"
GE-42L-16RP	42	1"
GE-42L-20RP	42	1.1/4"
GE-42L-24RP	42	1.1/2"

Tech Sheet 20796

S Series, BSPP, Form B Sealing

0291	OD mm	Thread
GE-6S-2RP	6	1/8"
GE-6S-4RP	6	1/4"
GE-6S-6RP	6	3/8"
GE-6S-8RP	6	1/2"
GE-8S-2RP	8	1/8"
GE-8S-4RP	8	1/4"
GE-8S-6RP	8	3/8"
GE-8S-8RP	8	1/2"
GE-10S-2RP	10	1/8"
GE-10S-4RP	10	1/4"
GE-10S-6RP	10	3/8"
GE-10S-8RP	10	1/2"
GE-10S-12RP	10	3/4"
GE-12S-4RP	12	1/4"
GE-12S-6RP	12	3/8"
GE-12S-8RP	12	1/2"
GE-12S-12RP	12	3/4"
GE-14S-4RP	14	1/4"
GE-14S-6RP	14	3/8"
GE-14S-8RP	14	1/2"
GE-14S-12RP	14	3/4"
GE-16S-4RP	16	1/4"
GE-16S-6RP	16	3/8"
GE-16S-8RP	16	1/2"
GE-16S-12RP	16	3/4"
GE-16S-16RP	16	1"
GE-20S-6RP	20	3/8"
GE-20S-8RP	20	1/2"
GE-20S-12RP	20	3/4"
GE-20S-16RP	20	1"
GE-20S-20RP	20	1.1/4"
GE-25S-8RP	25	1/2"
GE-25S-12RP	25	3/4"
GE-25S-16RP	25	1"
GE-25S-20RP	25	1.1/4"
GE-30S-12RP	30	3/4"
GE-30S-16RP	30	1"
GE-30S-20RP	30	1.1/4"
GE-30S-24RP	30	1.1/2"
GE-38S-16RP	38	1"
GE-38S-20RP	38	1.1/4"
GE-38S-24RP	38	1.1/2"

Tech Sheet 20796

L Series, Metric Parallel, Form B Sealing

0291	OD mm	Thread
GE-6L-10MPB	6	M10 x 1
GE-6L-12MPB	6	M12 x 1.5
GE-6L-14MPB	6	M14 x 1.5
GE-8L-10MPB	8	M10 x 1.0
GE-8L-12MPB	8	M12 x 1.5
GE-8L-14MPB	8	M14 x 1.5
GE-8L-18MPB	8	M18 x 1.5
GE-8L-16MPB	8	M16 x 1.5
GE-10L-10MPB	10	M16 x 1.5
GE-10L-14MPB	10	M14 x 1.5
GE-10L-12MPB	10	M12 x 1.5
GE-10L-16MPB	10	M16 x 1.5
GE-10L-18MPB	10	M18 x 1.5
GE-10L-22MPB	10	M22 x 1.5
GE-12L-14MPB	12	M14 x 1.5
GE-12L-12MPB	12	M12 x 1.5
GE-12L-16MPB	12	M16 x 1.5
GE-12L-18MPB	12	M18 x 1.5
GE-12L-22MPB	12	M22 x 1.5
GE-15L-16MPB	15	M16 x 1.5
GE-15L-18MPB	15	M18 x 1.5
GE-15L-22MPB	15	M22 x 1.5
GE-18L-18MPB	18	M18 x 1.5
GE-18L-22MPB	18	M22 x 1.5
GE-18L-26MPB	18	M26 x 1.5
GE-22L-22MPB	22	M22 x 1.5
GE-22L-26MPB	22	M26 x 1.5
GE-28L-33MPB	28	M33 x 1.5
GE-35L-42MPB	35	M42 x 2
GE-42L-48MPB	42	M48 x 2

Tech Sheet 10587

S Series, Metric Parallel, Form B Sealing

0291	OD mm	Thread
GE-6S-12MPB	6	M12 x 1.5
GE-6S-14MPB	6	M14 x 1.5
GE-8S-14MPB	8	M14 x 1.5
GE-10S-16MPB	10	M16 x 1.5
GE-10S-18MPB	10	M18 x 1.5
GE-12S-14MPB	12	M14 x 1.5
GE-12S-16MPB	12	M16 x 1.5
GE-12S-18MPB	12	M18 x 1.5
GE-12S-22MPB	12	M22 x 1.5
GE-14S-20MPB	14	M20 x 1.5
GE-16S-18MPB	16	M18 x 1.5
GE-16S-22MPB	16	M22 x 1.5
GE-20S-27MPB	20	M27 x 2
GE-25S-33MPB	25	M33 x 2
GE-30S-42MPB	30	M42 x 2
GE-38S-48MPB	38	M48 x 2

Tech Sheet 10587

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Male Stud Couplings

L Series, BSPT

0291	OD mm	Thread
GE-6L-2RT	6	1/8"
GE-6L-4RT	6	1/4"
GE-6L-6RT	6	3/8"
GE-6L-8RT	6	1/2"
GE-8L-2RT	8	1/8"
GE-8L-4RT	8	1/4"
GE-8L-6RT	8	3/8"
GE-8L-8RT	8	1/2"
GE-10L-2RT	10	1/8"
GE-10L-4RT	10	1/4"
GE-10L-6RT	10	3/8"
GE-10L-8RT	10	1/2"
GE-12L-2RT	12	1/8"
GE-12L-4RT	12	1/4"
GE-12L-6RT	12	3/8"
GE-12L-8RT	12	1/2"
GE-12L-12RT	12	3/4"
GE-15L-4RT	15	1/4"
GE-15L-6RT	15	3/8"
GE-15L-8RT	15	1/2"
GE-15L-12RT	15	3/4"
GE-18L-6RT	18	3/8"
GE-18L-8RT	18	1/2"
GE-18L-12RT	18	3/4"
GE-22L-6RT	22	3/8"
GE-22L-8RT	22	1/2"
GE-22L-12RT	22	3/4"
GE-22L-16RT	22	1"
GE-28L-8RT	28	1/2"
GE-28L-12RT	28	3/4"
GE-28L-16RT	28	1"
GE-28L-20RT	28	1.1/4"
GE-35L-16RT	35	1"
GE-35L-20RT	35	1.1/4"
GE-35L-24RT	35	1.1/2"
GE-42L-20RT	42	1.1/4"
GE-42L-24RT	42	1.1/2"

Tech Sheet 10588

S Series, BSPT

0291	OD mm	Thread
GE-6S-2RT	6	1/8"
GE-6S-4RT	6	1/4"
GE-6S-6RT	6	3/8"
GE-8S-2RT	8	1/8"
GE-8S-4RT	8	1/4"
GE-8S-6RT	8	3/8"
GE-10S-4RT	10	1/4"
GE-10S-6RT	10	3/8"
GE-12S-4RT	12	1/4"
GE-12S-6RT	12	3/8"
GE-12S-8RT	12	1/2"
GE-14S-6RT	14	3/8"
GE-14S-8RT	14	1/2"
GE-16S-6RT	16	3/8"
GE-16S-8RT	16	1/2"
GE-16S-12RT	16	3/4"
GE-20S-8RT	20	1/2"
GE-20S-12RT	20	3/4"
GE-25S-12RT	25	3/4"
GE-25S-16RT	25	1"
GE-30S-20RT	30	1.1/4"
GE-38S-24RT	38	1.1/2"

Tech Sheet 10588



L Series, NPT

0291	OD mm	Thread
GE-6L-2N	6	1/8"
GE-6L-4N	6	1/4"
GE-6L-6N	6	3/8"
GE-6L-8N	6	1/2"
GE-8L-2N	8	1/8"
GE-8L-4N	8	1/4"
GE-8L-6N	8	3/8"
GE-8L-8N	8	1/2"
GE-10L-2N	10	1/8"
GE-10L-4N	10	1/4"
GE-10L-6N	10	3/8"
GE-10L-8N	10	1/2"
GE-10L-12N	10	3/4"
GE-12L-2N	12	1/8"
GE-12L-4N	12	1/4"
GE-12L-6N	12	3/8"
GE-12L-8N	12	1/2"
GE-12L-12N	12	3/4"
GE-15L-4N	15	1/4"
GE-15L-6N	15	3/8"
GE-15L-8N	15	1/2"
GE-15L-12N	15	3/4"
GE-18L-6N	18	3/8"
GE-18L-8N	18	1/2"
GE-18L-12N	18	3/4"
GE-18L-16N	18	1"
GE-22L-6N	22	3/8"
GE-22L-8N	22	1/2"
GE-22L-12N	22	3/4"
GE-22L-16N	22	1"
GE-22L-20N	22	1.1/4"
GE-28L-8N	28	1/2"
GE-28L-12N	28	3/4"
GE-28L-16N	28	1"
GE-28L-20N	28	1.1/4"
GE-35L-16N	35	1"
GE-35L-20N	35	1.1/4"
GE-35L-24N	35	1.1/2"
GE-42L-16N	42	1"
GE-42L-20N	42	1.1/4"
GE-42L-24N	42	1.1/2"

Tech Sheet 10589

S Series, NPT

0291	OD mm	Thread
GE-6S-2N	6	1/8"
GE-6S-4N	6	1/4"
GE-6S-6N	6	3/8"
GE-6S-8N	6	1/2"
GE-8S-2N	8	1/8"
GE-8S-4N	8	1/4"
GE-8S-6N	8	3/8"
GE-8S-8N	8	1/2"
GE-10S-2N	10	1/8"
GE-10S-4N	10	1/4"
GE-10S-6N	10	3/8"
GE-10S-8N	10	1/2"
GE-10S-12N	10	3/4"
GE-12S-4N	12	1/4"
GE-12S-6N	12	3/8"
GE-12S-8N	12	1/2"
GE-12S-12N	12	3/4"
GE-14S-6N	14	3/8"
GE-14S-8N	14	1/2"
GE-14S-12N	14	3/4"
GE-16S-6N	16	3/8"
GE-16S-8N	16	1/2"
GE-16S-12N	16	3/4"
GE-16S-16N	16	1"
GE-20S-6N	20	3/8"
GE-20S-12N	20	3/4"
GE-20S-16N	20	1"
GE-20S-20N	20	1.1/4"
GE-25S-8N	25	1/2"
GE-25S-12N	25	3/4"
GE-25S-16N	25	1"
GE-25S-20N	25	1.1/4"
GE-30S-12N	30	3/4"
GE-30S-16N	30	1"
GE-30S-20N	30	1.1/4"
GE-30S-24N	30	1.1/2"
GE-38S-16N	38	1"
GE-38S-20N	38	1.1/4"
GE-38S-24N	38	1.1/2"

Tech Sheet 10589

stainless
steel



For Stainless Steel
Component parts
see page 1255

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Male Stud Couplings



L Series, UNF, O-Ring Sealing

0291	OD mm	Thread
GE-6L-7/16UNF	6	7/16"
GE-6L-1/2UNF	6	1/2"
GE-6L-9/16UNF	6	9/16"
GE-8L-7/16UNF	8	7/16"
GE-8L-1/2UNF	8	1/2"
GE-8L-9/16UNF	8	9/16"
GE-10L-7/16UNF	10	7/16"
GE-10L-1/2UNF	10	1/2"
GE-10L-9/16UNF	10	9/16"
GE-10L-3/4UNF	10	3/4"
GE-12L-9/16UNF	12	9/16"
GE-12L-3/4UNF	12	3/4"
GE-12L-7/8UNF	12	7/8"
GE-15L-9/16UNF	15	9/16"
GE-15L-3/4UNF	15	3/4"
GE-15L-7/8UNF	15	7/8"
GE-18L-3/4UNF	18	3/4"
GE-18L-7/8UNF	18	7/8"
GE-18L-11/16UNF	18	1.1/16"
GE-22L-3/4UNF	22	3/4"
GE-22L-7/8UNF	22	7/8"
GE-22L-11/16UNF	22	1.1/16"
GE-22L-15/16UNF	22	1.5/16"
GE-28L-11/16UNF	28	1.1/16"
GE-28L-15/16UNF	28	1.5/16"
GE-28L-15/8UNF	28	1.5/8"
GE-35L-15/16UNF	35	1.5/16"
GE-35L-15/8UNF	35	1.5/8"
GE-42L-15/8UNF	42	1.5/8"
GE-42L-17/8UNF	42	1.7/8"

Tech Sheet 20797

S Series, UNF, O-Ring Sealing

0291	OD mm	Thread
GE-6S-7/16UNF	6	7/16"
GE-8S-1/2UNF	8	1/2"
GE-8S-7/16UNF	8	7/16"
GE-8S-9/16UNF	8	9/16"
GE-10S-3/4UNF	10	3/4"
GE-12S-9/16UNF	12	9/16"
GE-12S-3/4UNF	12	3/4"
GE-12S-7/8UNF	12	7/8"
GE-14S-3/4UNF	14	3/4"
GE-16S-3/4UNF	16	3/4"
GE-16S-7/8UNF	16	7/8"
GE-16S-11/16UNF	16	1.1/16"
GE-20S-3/4UNF	20	3/4"
GE-20S-7/8UNF	20	7/8"
GE-20S-11/16UNF	20	1.1/16"
GE-20S-15/16UNF	20	1.5/16"
GE-25S-11/16UNF	25	1.1/16"
GE-25S-15/16UNF	25	1.5/16"
GE-30S-11/16UNF	30	1.1/16"
GE-30S-15/16UNF	30	1.5/16"
GE-30S-15/8UNF	30	1.5/8"
GE-38S-15/8UNF	38	1.5/8"
GE-38S-17/8UNF	38	1.7/8"

Female Stud Couplings



L Series, BSPP

0291	OD mm	Thread
GAI-6L-2RG	6	1/8"
GAI-6L-4RG	6	1/4"
GAI-6L-6RG	6	3/8"
GAI-6L-8RG	6	1/2"
GAI-8L-2RG	8	1/8"
GAI-8L-4RG	8	1/4"
GAI-8L-6RG	8	3/8"
GAI-8L-8RG	8	1/2"
GAI-10L-2RG	10	1/8"
GAI-10L-4RG	10	1/4"
GAI-10L-6RG	10	3/8"
GAI-10L-8RG	10	1/2"
GAI-12L-4RG	12	1/4"
GAI-12L-6RG	12	3/8"
GAI-12L-8RG	12	1/2"
GAI-15L-6RG	15	3/8"
GAI-15L-8RG	15	1/2"
GAI-15L-12RG	15	3/4"
GAI-18L-6RG	18	3/8"
GAI-18L-8RG	18	1/2"
GAI-18L-12RG	18	3/4"
GAI-22L-8RG	22	1/2"
GAI-22L-12RG	22	3/4"
GAI-28L-16RG	28	1"
GAI-35L-20RG	35	1.1/4"
GAI-42L-24RG	42	1.1/2"

Tech Sheet 10590

S Series, BSPP

0291	OD mm	Thread
GAI-6S-4RG	6	1/4"
GAI-8S-4RG	8	1/4"
GAI-8S-6RG	8	3/8"
GAI-8S-8RG	8	1/2"
GAI-10S-6RG	10	3/8"
GAI-10S-8RG	10	1/2"
GAI-12S-4RG	12	1/4"
GAI-12S-6RG	12	3/8"
GAI-12S-8RG	12	1/2"
GAI-14S-6RG	14	3/8"
GAI-14S-8RG	14	1/2"
GAI-16S-6RG	16	3/8"
GAI-16S-8RG	16	1/2"
GAI-20S-8RG	20	1/2"
GAI-20S-12RG	20	3/4"
GAI-25S-12RG	25	3/4"
GAI-25S-16RG	25	1"
GAI-30S-20RG	30	1.1/4"
GAI-38S-24RG	38	1.1/2"

L Series, NPT

0291	OD mm	Thread
GAI-6L-2N	6	1/8"
GAI-6L-4N	6	1/4"
GAI-8L-4N	8	1/4"
GAI-10L-4N	10	1/4"
GAI-10L-6N	10	3/8"
GAI-10L-8N	10	1/2"
GAI-12L-4N	12	1/4"
GAI-12L-6N	12	3/8"
GAI-12L-8N	12	1/2"
GAI-15L-8N	15	1/2"
GAI-18L-8N	18	1/2"
GAI-22L-12N	22	3/4"
GAI-28L-16N	28	1"
GAI-35L-20N	35	1.1/4"
GAI-42L-24N	42	1.1/2"

S Series, NPT

0291	OD mm	Thread
GAI-6S-4N	6	1/4"
GAI-8S-4N	8	1/4"
GAI-10S-6N	10	3/8"
GAI-12S-6N	12	3/8"
GAI-12S-8N	12	1/2"
GAI-14S-8N	14	1/2"
GAI-16S-6N	16	3/8"
GAI-16S-8N	16	1/2"
GAI-20S-12N	20	3/4"
GAI-25S-16N	25	1"
GAI-30S-20N	30	1.1/4"
GAI-38S-24N	38	1.1/2"

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

Straight Stud Standpipes



L Series, BSPP (Captive Seal)

0291	OD mm	Thread
EVGE-6L-2EO	6	1/8"
EVGE-8L-4EO	8	1/4"
EVGE-8L-6EO	8	3/8"
EVGE-10L-4EO	10	1/4"
EVGE-10L-6EO	10	3/8"
EVGE-10L-8EO	10	1/2"
EVGE-12L-4EO	12	1/4"
EVGE-12L-6EO	12	3/8"
EVGE-12L-8EO	12	1/2"
EVGE-15L-6EO	15	3/8"
EVGE-15L-8EO	15	1/2"
EVGE-18L-6EO	18	3/8"
EVGE-18L-8EO	18	1/2"
EVGE-18L-12EO	18	3/4"
EVGE-22L-6EO	22	3/8"
EVGE-22L-8EO	22	1/2"
EVGE-22L-12EO	22	3/4"
EVGE-28L-12EO	28	3/4"
EVGE-28L-16EO	28	1"
EVGE-35L-20EO	35	1.1/4"
EVGE-42L-24EO	42	1.1/2"

Tech Sheet 10591

S Series, BSPP (Captive Seal)

0291	OD mm	Thread
EVGE-6S-2EO	6	1/8"
EVGE-6S-4EO	6	1/4"
EVGE-8S-4EO	8	1/4"
EVGE-8S-6EO	8	3/8"
EVGE-10S-4EO	10	1/4"
EVGE-10S-6EO	10	3/8"
EVGE-10S-8EO	10	1/2"
EVGE-12S-4EO	12	1/4"
EVGE-12S-6EO	12	3/8"
EVGE-12S-8EO	12	1/2"
EVGE-14S-8EO	14	1/2"
EVGE-16S-6EO	16	3/8"
EVGE-16S-8EO	16	1/2"
EVGE-16S-12EO	16	3/4"
EVGE-20S-8EO	20	1/2"
EVGE-20S-12EO	20	3/4"
EVGE-25S-12EO	25	3/4"
EVGE-25S-16EO	25	1"
EVGE-30S-20EO	30	1.1/4"
EVGE-38S-24EO	38	1.1/2"

Tech Sheet 10591

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

stainless
steel



Reducing Bush



Male x Female, BSPP

0291	OD mm	Thread
GRI-6-2RG	3/8"	1/8"
GRI-8-2RG	1/2"	1/8"
GRI-8-4RG	1/2"	1/4"
GRI-12-2RG	3/4"	1/8"
GRI-12-4RG	3/4"	1/4"
GRI-12-6RG	3/4"	3/8"
GRI-16-4RG	1"	1/4"
GRI-16-6RG	1"	3/8"
GRI-16-8RG	1"	1/2"
GRI-20-6RG	1.1/4"	3/8"
GRI-20-8RG	1.1/4"	1/2"
GRI-20-12RG	1.1/4"	3/4"
GRI-24-8RG	1.1/2"	1/2"
GRI-24-12RG	1.1/2"	3/4"
GRI-24-16RG	1.1/2"	1"
GRI-32-8RG	2"	1/2"
GRI-32-12RG	2"	3/4"
GRI-32-16RG	2"	1"
GRI-32-20RG	2"	1.1/4"
GRI-32-24RG	2"	1.1/2"

Tech Sheet 10593

Adjustable Branch Tees



L Series, Metric, Female Thread

0291	OD mm	Thread
EVT-6L	6	M12 x 1.5
EVT-8L	8	M14 x 1.5
EVT-10L	10	M16 x 1.5
EVT-12L	12	M18 x 1.5
EVT-15L	15	M22 x 1.5
EVT-18L	18	M26 x 1.5
EVT-22L	22	M30 x 2
EVT-28L	28	M36 x 2
EVT-35L	35	M45 x 2
EVT-42L	42	M52 x 2

Tech Sheet 10594

S Series, Metric, Female Thread

0291	OD mm	Thread
EVT-6S	6	M14 x 1.5
EVT-8S	8	M16 x 1.5
EVT-10S	10	M18 x 1.5
EVT-12S	12	M20 x 1.5
EVT-14S	14	M22 x 1.5
EVT-16S	16	M24 x 1.5
EVT-20S	20	M30 x 2
EVT-25S	25	M36 x 2
EVT-30S	30	M42 x 2
EVT-38S	38	M52 x 2

Tech Sheet 10594

L Series, Metric Parallel (Captive Seal)

0291	OD mm	Thread
EVGE-6L-10MEO	6	M10 x 1
EVGE-8L-12MEO	8	M12 x 1.5
EVGE-10L-14MEO	10	M14 x 1.5
EVGE-15L-18MEO	15	M18 x 1.5
EVGE-18L-22MEO	18	M22 x 1.5
EVGE-22L-26MEO	22	M26 x 1.5
EVGE-28L-33MEO	28	M33 x 2
EVGE-35L-42MEO	35	M42 x 2
EVGE-42L-48MEO	42	M48 x 2

Tech Sheet 10592

S Series, Metric Parallel (Captive Seal)

0291	OD mm	Thread
EVGE-6S-12MEO	6	M12 x 1.5
EVGE-8S-14MEO	8	M14 x 1.5
EVGE-10S-16MEO	10	M16 x 1.5
EVGE-12S-18MEO	12	M18 x 1.5
EVGE-14S-20MEO	14	M20 x 1.5
EVGE-16S-22MEO	16	M22 x 1.5
EVGE-20S-27MEO	20	M27 x 2
EVGE-30S-42MEO	30	M42 x 2
EVGE-38S-48MEO	38	M48 x 2

Tech Sheet 10592

Reducing Adaptors



Male x Female, BSPP

0291	OD mm	Thread
GRI-2-4RG	1/8"	1/4"
GRI-2-6RG	1/8"	3/8"
GRI-4-2RG	1/4"	1/8"
GRI-4-6RG	1/4"	3/8"
GRI-4-8RG	1/4"	1/2"
GRI-4-12RG	1/4"	3/4"
GRI-6-4RG	3/8"	1/4"
GRI-6-8RG	3/8"	1/2"
GRI-6-12RG	3/8"	3/4"
GRI-6-16RG	3/8"	1"
GRI-8-6RG	1/2"	3/8"
GRI-8-12RG	1/2"	3/4"
GRI-8-16RG	1/2"	1"
GRI-8-20RG	1/2"	1.1/4"
GRI-12-8RG	3/4"	1/2"
GRI-12-16RG	3/4"	1"
GRI-12-20RG	3/4"	1.1/4"
GRI-12-24RG	3/4"	1.1/2"
GRI-16-12RG	1"	3/4"
GRI-16-20RG	1"	1.1/4"
GRI-16-24RG	1"	1.1/2"
GRI-20-16RG	1.1/4"	1"
GRI-24-20RG	1.1/2"	1.1/4"
GRI-20-24RG	1.1/4"	1.1/2"

Tech Sheet 10593

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Adjustable Run Tees



L Series, Metric, Female Thread

0291	OD mm	Thread
EVL-6L	6	M12 x 1.5
EVL-8L	8	M14 x 1.5
EVL-10L	10	M16 x 1.5
EVL-12L	12	M18 x 1.5
EVL-15L	15	M22 x 1.5
EVL-18L	18	M26 x 1.5
EVL-22L	22	M30 x 2
EVL-28L	28	M36 x 2
EVL-35L	35	M45 x 2
EVL-42L	42	M52 x 2

Tech Sheet 10597

S Series, Metric, Female Thread

0291	OD mm	Thread
EVL-6S	6	M14 x 1.5
EVL-8S	8	M16 x 1.5
EVL-10S	10	M18 x 1.5
EVL-12S	12	M20 x 1.5
EVL-14S	14	M22 x 1.5
EVL-16S	16	M24 x 1.5
EVL-20S	20	M30 x 2
EVL-25S	25	M36 x 2
EVL-30S	30	M42 x 2
EVL-38S	38	M52 x 2

Tech Sheet 10597

stainless
steel



For **Stainless Steel Tubing**
see page **1287**

Male Stud Elbows



L Series, BSPT

0291	OD mm	Thread
WE6L-2RT	6	1/8"
WE6L-4RT	6	1/4"
WE6L-6RT	6	3/8"
WE6L-8RT	6	1/2"
WE8L-2RT	8	1/8"
WE8L-4RT	8	1/4"
WE8L-6RT	8	3/8"
WE8L-8RT	8	1/2"
WE10L-2RT	10	1/8"
WE10L-4RT	10	1/4"
WE10L-6RT	10	3/8"
WE10L-8RT	10	1/2"
WE12L-2RT	12	1/8"
WE12L-4RT	12	1/4"
WE12L-6RT	12	3/8"
WE12L-8RT	12	1/2"
WE15L-4RT	15	1/4"
WE15L-6RT	15	3/8"
WE15L-8RT	15	1/2"
WE15L-12RT	15	3/4"
WE18L-6RT	18	3/8"
WE18L-8RT	18	1/2"
WE18L-12RT	18	3/4"
WE22L-8RT	22	1/2"
WE22L-12RT	22	3/4"
WE28L-16RT	28	1"
WE35L-20RT	35	1.1/4"

Tech Sheet 10600

S Series, BSPT

0291	OD mm	Thread
WE6S-2RT	6	1/8"
WE6S-4RT	6	1/4"
WE6S-6RT	6	3/8"
WE6S-8RT	6	1/2"
WE8S-4RT	8	1/4"
WE8S-6RT	8	3/8"
WE8S-8RT	8	1/2"
WE10S-4RT	10	1/4"
WE10S-6RT	10	3/8"
WE10S-8RT	10	1/2"
WE12S-4RT	12	1/4"
WE12S-6RT	12	3/8"
WE12S-8RT	12	1/2"
WE14S-6RT	14	3/8"
WE14S-8RT	14	1/2"
WE16S-6RT	16	3/8"
WE16S-8RT	16	1/2"
WE16S-12RT	16	3/4"
WE20S-8RT	20	1/2"
WE20S-12RT	20	3/4"

Tech Sheet 10600

L Series, NPT

0291	OD mm	Thread
WE6L-2N	6	1/8"
WE6L-4N	6	1/4"
WE6L-6N	6	3/8"
WE6L-8N	6	1/2"
WE8L-2N	8	1/8"
WE8L-4N	8	1/4"
WE8L-6N	8	3/8"
WE8L-8N	8	1/2"
WE10L-2N	10	1/8"
WE10L-4N	10	1/4"
WE10L-8N	10	1/2"
WE12L-4N	12	1/4"
WE12L-6N	12	3/8"
WE12L-8N	12	1/2"
WE15L-6N	15	3/8"
WE15L-8N	15	1/2"
WE15L-12N	15	3/4"
WE18L-6N	18	3/8"
WE18L-8N	18	1/2"
WE18L-12N	18	3/4"
WE22L-8N	22	1/2"
WE22L-12N	22	3/4"
WE28L-12N	28	3/4"
WE28L-16N	28	1"
WE35L-20N	35	1.1/4"
WE42L-24N	42	1.1/2"

Tech Sheet 10601

S Series, NPT

0291	OD mm	Thread
WE6S-4N	6	1/4"
WE6S-6N	6	3/8"
WE6S-8N	6	1/2"
WE8S-4N	8	1/4"
WE8S-6N	8	3/8"
WE8S-8N	8	1/2"
WE10S-4N	8	1/4"
WE10S-6N	10	3/8"
WE10S-8N	10	1/2"
WE12S-4N	12	1/4"
WE12S-6N	12	3/8"
WE12S-8N	12	1/2"
WE14S-6N	14	3/8"
WE14S-8N	14	1/2"
WE16S-6N	16	3/8"
WE16S-8N	16	1/2"
WE16S-12N	16	3/4"
WE20S-8N	20	1/2"
WE20S-12N	20	3/4"
WE25S-16N	25	1"
WE30S-20N	30	1.1/4"
WE38S-24N	38	1.1/2"

Tech Sheet 10601

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature: -20°C to +200°C (FPM/Viton)



Adjustable Elbows



L Series, Metric, Female Thread

0291	OD mm	Thread
EVW-6L	6	M12 x 1.5
EVW-8L	8	M14 x 1.5
EVW-10L	10	M16 x 1.5
EVW-12L	12	M18 x 1.5
EVW-15L	15	M22 x 1.5
EVW-18L	18	M26 x 1.5
EVW-22L	22	M30 x 2
EVW-28L	28	M36 x 2
EVW-35L	35	M45 x 2
EVW-42L	42	M52 x 2

Tech Sheet 10602

S Series, Metric, Female Thread

0291	OD mm	Thread
EVW-6S	6	M14 x 1.5
EVW-8S	8	M16 x 1.5
EVW-10S	10	M18 x 1.5
EVW-12S	12	M20 x 1.5
EVW-14S	14	M22 x 1.5
EVW-16S	16	M24 x 1.5
EVW-20S	20	M30 x 2
EVW-25S	25	M36 x 2
EVW-30S	30	M42 x 2
EVW-38S	38	M52 x 2

Tech Sheet 10602

Straights



L Series

0291	OD mm
G6-UL	6
G8-UL	8
G10-UL	10
G12-UL	12
G15-UL	15
G18-UL	18
G22-UL	22
G28-UL	28
G35-UL	35
G42-UL	42

Tech Sheet 10605

S Series

0291	OD mm
G6-US	6
G8-US	8
G10-US	10
G12-US	12
G14-US	14
G16-US	16
G20-US	20
G25-US	25
G30-US	30
G38-US	38

Tech Sheet 10605

Straight Reducers



L Series

0291	OD mm	OD mm
GR-8L-6L	8	6
GR-10L-6L	10	6
GR-10L-8L	10	8
GR-12L-6L	12	6
GR-12L-8L	12	8
GR-12L-10L	12	10
GR-15L-6L	15	6
GR-15L-8L	15	8
GR-15L-10L	15	10
GR-15L-12L	15	12
GR-18L-8L	18	8
GR-18L-10L	18	10
GR-18L-12L	18	12
GR-18L-15L	18	15
GR-22L-8L	22	8
GR-22L-10L	22	10
GR-22L-12L	22	12
GR-22L-15L	22	15
GR-22L-18L	22	18
GR-28L-10L	28	10
GR-28L-12L	28	12
GR-28L-15L	28	15
GR-28L-18L	28	18
GR-28L-22L	28	22
GR-35L-15L	35	15
GR-35L-18L	35	18
GR-35L-22L	35	22
GR-35L-28L	35	28
GR-42L-15L	42	15
GR-42L-18L	42	18
GR-42L-22L	42	22
GR-42L-28L	42	28
GR-42L-35L	42	35

Tech Sheet 10606

S Series

0291	OD mm	OD mm
GR-8S-6S	8	6
GR-10S-6S	10	6
GR-10S-8S	10	8
GR-12S-6S	12	6
GR-12S-8S	12	8
GR-12S-10S	12	10
GR-14S-6S	14	6
GR-14S-8S	14	8
GR-14S-10S	14	10
GR-14S-12S	14	12
GR-16S-6S	16	6
GR-16S-8S	16	8
GR-16S-10S	16	10
GR-16S-12S	16	12
GR-16S-14S	16	14
GR-20S-6S	20	6
GR-20S-8S	20	8
GR-20S-10S	20	10
GR-20S-12S	20	12
GR-20S-14S	20	14
GR-20S-16S	20	16
GR-25S-8S	25	8
GR-25S-10S	25	10
GR-25S-12S	25	12
GR-25S-14S	25	14
GR-25S-16S	25	16
GR-25S-20S	25	20
GR-30S-10S	30	10
GR-30S-12S	30	12
GR-30S-14S	30	14
GR-30S-16S	30	16
GR-30S-20S	30	20
GR-30S-25S	30	25
GR-38S-10S	38	10
GR-38S-12S	38	12
GR-38S-14S	38	14
GR-38S-16S	38	16
GR-38S-20S	38	20
GR-38S-25S	38	25
GR-38S-30S	38	30

Tech Sheet 10606

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Equal Elbows



L Series

0291	OD mm
W6-UEL	6
W8-UEL	8
W10-UEL	10
W12-UEL	12
W15-UEL	15
W18-UEL	18
W22-UEL	22
W28-UEL	28
W35-UEL	35
W42-UEL	42

Tech Sheet 10607

S Series

0291	OD mm
W6-UES	6
W8-UES	8
W10-UES	10
W12-UES	12
W14-UES	14
W16-UES	16
W20-UES	20
W25-UES	25
W30-UES	30
W38-UES	38

Tech Sheet 10607

Equal Tees



L Series

0291	OD mm
T6-UTL	6
T8-UTL	8
T10-UTL	10
T12-UTL	12
T15-UTL	15
T18-UTL	18
T22-UTL	22
T28-UTL	28
T35-UTL	35
T42-UTL	42

Tech Sheet 10608

S Series

0291	OD mm
T6-UTS	6
T8-UTS	8
T10-UTS	10
T12-UTS	12
T14-UTS	14
T16-UTS	16
T20-UTS	20
T25-UTS	25
T30-UTS	30
T38-UTS	38

Tech Sheet 10608

Equal Crosses



L Series

0291	OD mm
K6-UCL	6
K8-UCL	8
K10-UCL	10
K12-UCL	12
K15-UCL	15
K18-UCL	18
K22-UCL	22
K28-UCL	28
K35-UCL	35
K42-UCL	42

Tech Sheet 10609

S Series

0291	OD mm
K6-UCS	6
K8-UCS	8
K10-UCS	10
K12-UCS	12
K14-UCS	14
K16-UCS	16
K20-UCS	20
K25-UCS	25
K30-UCS	30
K38-UCS	38

Tech Sheet 10609

stainless
steel

For **Stainless Steel Gauges**
see page **1330**



316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature: -20°C to +200°C (FPM/Viton)



Reducing Standpipes



L Series

0291	OD mm	OD mm
KOR-8L-6L	8	6
KOR-10L-6L	10	6
KOR-10L-8L	10	8
KOR-12L-6L	12	6
KOR-12L-8L	12	8
KOR-12L-10L	12	10
KOR-15L-6L	15	6
KOR-15L-8L	15	8
KOR-15L-10L	15	10
KOR-15L-12L	15	12
KOR-18L-6L	18	6
KOR-18L-8L	18	8
KOR-18L-10L	18	10
KOR-18L-12L	18	12
KOR-18L-15L	18	15
KOR-22L-6L	22	6
KOR-22L-8L	22	8
KOR-22L-10L	22	10
KOR-22L-12L	22	12
KOR-22L-15L	22	15
KOR-22L-18L	22	18
KOR-28L-6L	28	6
KOR-28L-8L	28	8
KOR-28L-10L	28	10
KOR-28L-12L	28	12
KOR-28L-15L	28	15
KOR-28L-18L	28	18
KOR-28L-22L	28	22
KOR-35L-6L	35	6
KOR-35L-8L	35	8
KOR-35L-10L	35	10
KOR-35L-12L	35	12
KOR-35L-15L	35	15
KOR-35L-18L	35	18
KOR-35L-22L	35	22
KOR-35L-28L	35	28
KOR-42L-10L	42	10
KOR-42L-12L	42	12
KOR-42L-15L	42	15
KOR-42L-18L	42	18
KOR-42L-22L	42	22
KOR-42L-28L	42	28
KOR-42L-35L	42	35

Tech Sheet 10610

S Series

0291	OD mm	OD mm
KOR-8S-6S	8	6
KOR-10S-6S	10	6
KOR-10S-8S	10	8
KOR-12S-6S	12	6
KOR-12S-8S	12	8
KOR-12S-10S	12	10
KOR-14S-6S	14	6
KOR-14S-8S	14	8
KOR-14S-10S	14	10
KOR-14S-12S	14	12
KOR-16S-6S	16	6
KOR-16S-8S	16	8
KOR-16S-10S	16	10
KOR-16S-12S	16	12
KOR-16S-14S	16	14
KOR-20S-6S	20	6
KOR-20S-8S	20	8
KOR-20S-10S	20	10
KOR-20S-12S	20	12
KOR-20S-14S	20	14
KOR-20S-16S	20	16
KOR-25S-6S	25	6
KOR-25S-8S	25	8
KOR-25S-10S	25	10
KOR-25S-12S	25	12
KOR-25S-14S	25	14
KOR-25S-16S	25	16
KOR-25S-20S	25	20
KOR-30S-6S	30	6
KOR-30S-8S	30	8
KOR-30S-10S	30	10
KOR-30S-12S	30	12
KOR-30S-14S	30	14
KOR-30S-16S	30	16
KOR-30S-20S	30	20
KOR-30S-25S	30	25
KOR-38S-6S	38	6
KOR-38S-8S	38	8
KOR-38S-10S	38	10
KOR-38S-12S	38	12
KOR-38S-14S	38	14
KOR-38S-16S	38	16
KOR-38S-20S	38	20
KOR-38S-25S	38	25
KOR-38S-30S	38	30

Tech Sheet 10610



For **Stainless Steel Seals
& Bonded washers**
see page 110



For **Stainless Steel Tube**
see page 1287

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Tee Reducers

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series

0291	OD A mm	OD B mm	OD C mm
TR-6-8-6L	6	8	6
TR-6-10-6L	6	10	6
TR-8-6-8L	8	6	8
TR-8-10-8L	8	10	8
TR-8-12-8L	8	12	8
TR-10-6-10L	10	6	10
TR-10-8-10L	10	8	10
TR-10-10-6L	10	10	6
TR-10-12-10L	10	12	10
TR-10-15-10L	10	15	10
TR-12-6-12L	12	6	12
TR-12-8-8L	12	8	8
TR-12-8-12L	12	8	12
TR-12-10-10L	12	10	10
TR-12-10-12L	12	10	12
TR-12-12-10L	12	12	10
TR-12-15-12L	12	15	12
TR-12-18-12L	12	18	12
TR-15-6-15L	15	6	15
TR-15-10-15L	15	10	15
TR-15-12-12L	15	12	12
TR-15-12-15L	15	12	15
TR-15-15-12L	15	15	12
TR-18-10-10L	18	10	10
TR-18-10-18L	18	10	18
TR-18-12-18L	18	12	18
TR-18-15-18L	18	15	18
TR-18-18-10L	18	18	10
TR-22-10-22L	22	10	22
TR-22-12-22L	22	12	22
TR-22-15-15L	22	15	15
TR-22-15-22L	22	15	22
TR-22-18-18L	22	18	18
TR-22-18-22L	22	18	22
TR-22-22-18L	22	22	18
TR-28-10-28L	28	10	28
TR-28-12-28L	28	12	28
TR-28-15-28L	28	15	28
TR-28-18-28L	28	18	28
TR-28-22-22L	28	22	22
TR-28-22-28L	28	22	28
TR-28-35-28L	28	35	28
TR-35-12-35L	35	12	35
TR-35-15-35L	35	15	35
TR-35-18-35L	35	18	35
TR-35-22-35L	35	22	35
TR-35-28-35L	35	28	35
TR-35-42-35L	35	42	35
TR-42-15-42L	42	15	42
TR-42-18-42L	42	18	42
TR-42-22-42L	42	22	42
TR-42-28-42L	42	28	42
TR-42-35-42L	42	35	42

Tech Sheet 10611

S Series

0291	OD A mm	OD B mm	OD C mm
TR-8-6-8S	8	6	8
TR-10-6-10S	10	6	10
TR-10-8-10S	10	8	10
TR-12-6-12S	12	6	12
TR-12-8-8S	12	8	8
TR-12-8-12S	12	8	12
TR-12-10-12S	12	10	12
TR-12-16-12S	12	16	12
TR-14-8-14S	14	8	14
TR-14-10-14S	14	10	14
TR-16-6-16S	16	6	16
TR-16-8-16S	16	8	16
TR-16-10-16S	16	10	16
TR-16-12-16S	16	12	16
TR-16-14-16S	16	14	16
TR-16-20-16S	16	20	16
TR-20-8-20S	20	08	20
TR-20-10-20S	20	10	20
TR-20-12-20S	20	12	20
TR-20-14-20S	20	14	20
TR-20-16-20S	20	16	20
TR-20-25-20S	20	25	20
TR-25-10-25S	25	10	25
TR-25-12-25S	25	12	25
TR-25-14-25S	25	14	25
TR-25-16-25S	25	16	25
TR-25-20-25S	25	20	25
TR-25-30-25S	25	30	25
TR-30-12-30S	30	12	30
TR-30-16-30S	30	16	30
TR-30-20-30S	30	20	30
TR-30-25-30S	30	25	30
TR-30-38-30S	30	38	30
TR-38-16-38S	38	16	38
TR-38-20-38S	38	20	38
TR-38-25-38S	38	25	38
TR-38-30-38S	38	30	38

Tech Sheet 10611

Straight Bulkheads



L Series

0291	OD mm
SV-6L	6
SV-8L	8
SV-10L	10
SV-12L	12
SV-15L	15
SV-18L	18
SV-22L	22
SV-28L	28
SV-35L	35
SV-42L	42

Tech Sheet 10612

S Series

0291	OD mm
SV-6S	6
SV-8S	8
SV-10S	10
SV-12S	12
SV-14S	14
SV-16S	16
SV-20S	20
SV-25S	25
SV-30S	30
SV-38S	38

Tech Sheet 10612

Weld Bulkheads



L Series

0291	OD mm
ESV-6L-FT	6
ESV-8L-FT	8
ESV-10L-FT	10
ESV-12L-FT	12
ESV-15L-FT	15
ESV-18L-FT	18
ESV-20L-FT	20
ESV-28L-FT	28

Tech Sheet 10613

S Series

0291	OD mm
ESV-6S-FT	6
ESV-8S-FT	8
ESV-10S-FT	10
ESV-12S-FT	12
ESV-14S-FT	14
ESV-16S-FT	16
ESV-20S-FT	20
ESV-25S-FT	25

Tech Sheet 10613

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Bulkhead Elbows



L Series

0291	OD mm
WSV-6L-FT	6
WSV-8L-FT	8
WSV-10L-FT	10
WSV-12L-FT	12
WSV-15L-FT	15
WSV-18L-FT	18
WSV-22L-FT	22
WSV-28L-FT	28
WSV-35L-FT	35
WSV-42L-FT	42

Tech Sheet 10614

S Series

0291	OD mm
WSV-6S-FT	6
WSV-8S-FT	8
WSV-10S-FT	10
WSV-12S-FT	12
WSV-14S-FT	14
WSV-16S-FT	16
WSV-20S-FT	20
WSV-25S-FT	25
WSV-30S-FT	30
WSV-38S-FT	38

Tech Sheet 10614

Weld Nipples



O-Ring Sealing, Nitrile

0291	OD mm	Diameter mm
SKA-108	10	8
SKA-107	10	7
SKA-106	10	6
SKA-129	12	9
SKA-128	12	8
SKA-127	12	7
SKA-1613	16	13
SKA-1612	16	12
SKA-1611	16	11
SKA-1610	16	10
SKA-2016	20	16
SKA-2015	20	15
SKA-2014	20	14
SKA-2012	20	12
SKA-2519	25	19
SKA-2517	25	17
SKA-2515	25	15

Tech Sheet 10615

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)

Butt Weld Fittings



L Series

0291	OD mm
AS-6L	6
AS-8L	8
AS-10L	10
AS-12L	12
AS-15L	15
AS-18L	18
AS-22L	22
AS-28L	28

Tech Sheet 10616

S Series

0291	OD mm
AS-6S	6
AS-8S	8
AS-10S	10
AS-12S	12
AS-14S	14
AS-16S	16
AS-20S	20
AS-25S	25

Tech Sheet 10616

Weld Standpipe



0291	OD mm	Diameter mm
ASK-108	10	8
ASK-107	10	7
ASK-106	10	6
ASK-129	12	9
ASK-128	12	8
ASK-127	12	7
ASK-1612	16	12
ASK-1611	16	11
ASK-1610	16	10
ASK-2016	20	16
ASK-2015	20	15
ASK-2014	20	14
ASK-2012	20	12
ASK-2519	25	19
ASK-2517	25	17
ASK-2515	25	15

Tech Sheet 10617

Special Weld Nipples (Reducers)



O-Ring Sealing, Nitrile

0291	OD mm	Diameter mm
SKAR-10-6	10	6
SKAR-10-8	10	8
SKAR-12-8	12	8
SKAR-12-10	12	10
SKAR-16-12	16	12
SKAR-20-12	20	12
SKAR-20-16	20	16
SKAR-25-16	25	16
SKAR-25-20	25	20
SKAR-25-15	25	15

Tech Sheet 10618

Metric Standpipe Adaptors, BSPP



L Series

0291	Thread	OD mm
2101-8247	1/8"	6
2101-8254	1/4"	8
2101-8262	1/4"	10
2101-8270	3/8"	12
2101-8288	1/2"	15
2101-8296	1/2"	18
2101-8304	3/4"	22
2101-8312	1"	28
2101-8445	1.1/4"	35
2101-8338	1.1/2"	42

Tech Sheet 20799

S Series

0291	Thread	OD mm
2101-8346	1/4"	6
2101-8353	1/4"	8
2101-8361	3/8"	10
2101-8379	3/8"	12
2101-8387	1/2"	14
2101-8395	1/2"	16
2101-8403	3/4"	20
2101-8411	1"	25
2101-8429	1.1/4"	30
2101-8437	1.1/2"	38

Tech Sheet 20799

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Gauge Couplings



L Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
MV-6L-4RG	6	1/4"
MV-6L-8RG	6	1/2"
MV-8L-4RG	8	1/4"
MV-8L-8RG	8	1/2"
MV-10L-4RG	10	1/4"
MV-10L-8RG	10	1/2"
MV-12L-4RG	12	1/4"
MV-12L-8RG	12	1/2"

Tech Sheet 20737



L Series, NPT

0291	OD mm	Thread
MV-6L-4N	6	1/4"
MV-6L-8N	6	1/2"
MV-8L-4N	8	1/4"
MV-8L-8N	8	1/2"
MV-10L-4N	10	1/4"
MV-10L-8N	10	1/2"
MV-12L-4N	12	1/4"
MV-12L-8N	12	1/2"

Tech Sheet 20901



S Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
MV-6S-8RG	6	1/2"
MV-8S-4RG	8	1/4"
MV-8S-8RG	8	1/2"
MV-10S-4RG	10	1/4"
MV-10S-8RG	10	1/2"
MV-12S-4RG	12	1/4"
MV-12S-8RG	12	1/2"

Tech Sheet 20737



S Series, NPT

0291	OD mm	Thread
MV-6S-8N	6	1/2"
MV-8S-8N	8	1/2"
MV-10S-8N	10	1/2"
MV-12S-8N	12	1/2"

Tech Sheet 20901

90° Compact Adjustable Elbows

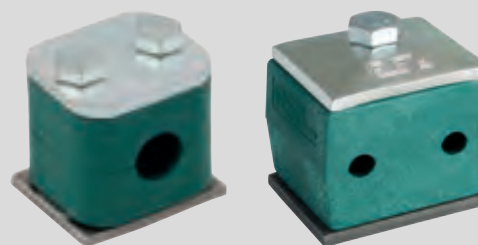


L Series, Metric, BSPP Male Thread with Viton O-Ring

0291	OD mm	Thread
WEEV-06L-1/8	6	1/8"
WEEV-08L-1/4	8	1/4"
WEEV-10L-1/4	10	1/4"
WEEV-12L-3/8	12	3/8"
WEEV-15L-1/2	15	1/2"
WEEV-18L-1/2	18	1/2"
WEEV-22L-3/4	22	3/4"
WEEV-28L-1	28	1"
WEEV-35L-114	35	1.1/4"

Tech Sheet 67962

stainless
steel



For Stainless Steel Clamps
see page 186

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Non-return Valves

All valves supplied with 1 bar cracking pressure unless stated, other pressures available on request are 0.2, 0.5, 2.0 and 3.0

L Series, BSPP, Flow Towards Thread



0291	OD mm	Thread
RZ-6L-2RG	6	1/8"
RZ-8L-4RG	8	1/4"
RZ-10L-4RG	10	1/4"
RZ-12L-6RG	12	3/8"
RZ-15L-8RG	15	1/2"
RZ-18L-8RG	18	1/2"
RZ-22L-12RG	22	3/4"
RZ-28L-16RG	28	1"
RZ-35L-20RG	35	1.1/4"
RZ-42L-24RG	42	1.1/2"

Tech Sheet 20352

L Series, BSPP, Flow Away From Thread



0291	OD mm	Thread
RV-6L-2RG	6	1/8"
RV-8L-4RG	8	1/4"
RV-10L-4RG	10	1/4"
RV-12L-6RG	12	3/8"
RV-15L-8RG	15	1/2"
RV-18L-8RG	18	1/2"
RV-22L-12RG	22	3/4"
RV-28L-16RG	28	1"
RV-35L-20RG	35	1.1/4"
RV-42L-24RG	42	1.1/2"

Tech Sheet 20352

L Series, Tube x Tube



0291	OD mm	Cracking Pressure Bar
770-0606	6	0.5
770-0808	8	0.5
770-1010	10	0.5
770-1212	12	0.5
770-1515	15	0.5
770-1818	18	0.5
770-2222	22	0.5
770-2828	28	0.5
770-3535	35	0.5
770-4242	42	0.5

Tech Sheet 10619

S Series, BSPP, Flow Towards Thread

0291	OD mm	Thread
RZ-6S-2RG	6	1/8"
RZ-8S-4RG	8	1/4"
RZ-10S-4RG	10	1/4"
RZ-12S-6RG	12	3/8"
RZ-14S-8RG	14	1/2"
RZ-16S-8RG	16	1/2"
RZ-20S-12RG	20	3/4"
RZ-25S-16RG	25	1"
RZ-30S-20RG	30	1.1/4"
RZ-38S-24RG	38	1.1/2"

S Series, BSPP, Flow Away From Thread

0291	OD mm	Thread
RV-6S-2RG	6	1/8"
RV-8S-4RG	8	1/4"
RV-10S-4RG	10	1/4"
RV-12S-6RG	12	3/8"
RV-14S-8RG	14	1/2"
RV-16S-8RG	16	1/2"
RV-20S-12RG	20	3/4"
RV-25S-16RG	25	1"
RV-30S-20RG	30	1.1/4"
RV-38S-24RG	38	1.1/2"

S Series, Tube x Tube

0291	OD mm
RD-6S	6
RD-8S	8
RD-10S	10
RD-12S	12
RD-14S	14
RD-16S	16
RD-20S	20
RD-25S	25
RD-30S	30
RD-38S	38

Tech Sheet 10619

Blanking Plugs, Threaded



BSPP

0291	Thread
VSTI-2EO	1/8"
VSTI-4EO	1/4"
VSTI-6EO	3/8"
VSTI-8EO	1/2"
VSTI-12EO	3/4"
VSTI-16EO	1"
VSTI-20EO	1.1/4"
VSTI-24EO	1.1/2"

Tech Sheet 10620

Metric

0291	Thread
VSTI-10M	M10 x 1
VSTI-12M	M12 x 1.5
VSTI-14M	M14 x 1.5
VSTI-16M	M16 x 1.5
VSTI-18M	M18 x 1.5
VSTI-20M	M20 x 1.5
VSTI-22M	M22 x 1.5
VSTI-26M	M26 x 1.5
VSTI-27M	M27 x 2
VSTI-33M	M33 x 2
VSTI-42M	M42 x 2
VSTI-48M	M48 x 2

Tech Sheet 10620

Blanking Plugs



L Series

0291	OD mm
VKA-6L	6
VKA-8L	8
VKA-10L	10
VKA-12L	12
VKA-15L	15
VKA-18L	18
VKA-22L	22
VKA-28L	28
VKA-35L	35
VKA-42L	42

Tech Sheet 10621

S Series

0291	OD mm
VKA-6S	6
VKA-8S	8
VKA-10S	10
VKA-12S	12
VKA-14S	14
VKA-16S	16
VKA-20S	20
VKA-25S	25
VKA-30S	30
VKA-38S	38

Tech Sheet 10621

Blanking Ends



L Series

0291	OD mm
ROV-6L	6
ROV-8L	8
ROV-10L	10
ROV-12L	12
ROV-15L	15
ROV-18L	18
ROV-22L	22
ROV-28L	28
ROV-35L	35
ROV-42L	42

Tech Sheet 10622

S Series

0291	OD mm
ROV-6S	6
ROV-8S	8
ROV-10S	10
ROV-12S	12
ROV-14S	14
ROV-16S	16
ROV-20S	20
ROV-25S	25
ROV-30S	30
ROV-38S	38

Tech Sheet 10622

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Nut



L Series

0291	OD mm
M-6L-FT	6
M-8L-FT	8
M-10L-FT	10
M-12L-FT	12
M-15L-FT	15
M-18L-FT	18
M-22L-FT	22
M-28L-FT	28
M-35L-FT	35
M-42L-FT	42
Tech Sheet 10623	

S Series

0291	OD mm
M-6S-FT	6
M-8S-FT	8
M-10S-FT	10
M-12S-FT	12
M-14S-FT	14
M-16S-FT	16
M-20S-FT	20
M-25S-FT	25
M-30S-FT	30
M-38S-FT	38
Tech Sheet 10623	

Compression Ring

- Hardened, nickel plated.



L Series

0291	OD mm
DPR-6L	6
DPR-8L	8
DPR-10L	10
DPR-12L	12
DPR-15L	15
DPR-18L	18
DPR-22L	22
DPR-28L	28
DPR-35L	35
DPR-42L	42
Tech Sheet 10624	

S Series

0291	OD mm
DPR-6S	6
DPR-8S	8
DPR-10S	10
DPR-12S	12
DPR-14S	14
DPR-16S	16
DPR-20S	20
DPR-25S	25
DPR-30S	30
DPR-38S	38
Tech Sheet 10624	

stainless
steel

For **Stainless Steel Tubing**
see page **1287**



METRIC STAINLESS STEEL COMPRESSION FITTINGS

stainless
steel

FT PRO®

Stainless steel compression fittings.

The perfect solution for multiple applications and connections. Can be connected to several rigid metallic tubes in complete safety (stainless steel, brass, aluminium and copper) and can also be connected to plastic tubes (polyurethane, polyamide and Teflon).

Main Advantages:

- No ple range fittings, suitable for all corrosive fluids and environments
- Made completely of AISI 316L stainless steel
- Good mechanical strength
- Sealing is guaranteed on different types of tube
- No sealing elements (elastomeric)
- 4-12mm diameters

Applications:

- Farming
- Chemical, petrochemical and pharmaceutical
- Medical and science
- Inkjet and printing
- Pneumatic and fluid automation
- Food and beverages
- Inert gases
- Heavy-duty pneumatic automation and tools
- Automotive

Male Studs



BSPT

0676	OD mm	Thread
69480-4-1/8	4	1/8"
69480-6-1/8	6	1/8"
69480-6-1/4	6	1/4"
69480-8-1/8	8	1/8"
69480-8-1/4	8	1/4"
69480-8-3/8	8	3/8"
69480-10-1/4	10	1/4"
69480-10-3/8	10	3/8"
69480-12-3/8	12	3/8"
69480-12-1/2	12	1/2"

Tech Sheet 68741



BSPP

0676	OD mm	Thread
69485-4-1/8	4	1/8"
69485-6-1/8	6	1/8"
69485-6-1/4	6	1/4"
69485-8-1/8	8	1/8"
69485-8-1/4	8	1/4"
69485-8-3/8	8	3/8"
69485-10-1/4	10	1/4"
69485-10-3/8	10	3/8"
69485-12-3/8	12	3/8"
69485-12-1/2	12	1/2"

Tech Sheet 68741

Male Stud Elbows



BSPT

0676	OD mm	Thread
69280-4-1/8	4	1/8"
69280-6-1/8	6	1/8"
69280-6-1/4	6	1/4"
69280-8-1/8	8	1/8"
69280-8-1/4	8	1/4"
69280-8-3/8	8	3/8"
69280-10-1/4	10	1/4"
69280-10-3/8	10	3/8"
69280-12-3/8	12	3/8"
69280-12-1/2	12	1/2"

Tech Sheet 68741

Equal Elbows



Tube x Tube

0676	OD mm
69260-4	4
69260-6	6
69260-8	8
69260-10	10
69260-12	12

Tech Sheet 68741

Equal Tees



Tube x Tube

0676	OD mm
69200-4	4
69200-6	6
69200-8	8
69200-10	10
69200-12	12

Tech Sheet 68741

Male Stud Branch Tees



BSPT

0676	OD mm	Thread
69220-4-1/8	4	1/8"
69220-6-1/8	6	1/8"
69220-6-1/4	6	1/4"
69220-8-1/8	8	1/8"
69220-8-1/4	8	1/4"
69220-8-3/8	8	3/8"
69220-10-1/4	10	1/4"
69220-10-3/8	10	3/8"
69220-12-3/8	12	3/8"
69220-12-1/2	12	1/2"

Tech Sheet 68741

Straight Connectors



Tube x Tube

0676	OD mm
69460-4	4
69460-6	6
69460-8	8
69460-10	10
69460-12	12

Tech Sheet 68741

Nuts



Tube

0676	OD mm	Thread
69680-4	4	M8 x 1
69680-6	6	M10 x 1
69680-8	8	M12 x 1
69680-10	10	M16 x 1.5
69680-12	12	M18 x 1.5

Tech Sheet 68741

Olives



Tube

0676	OD mm
69740-4	4
69740-6	6
69740-8	8
69740-10	10
69740-12	12

Tech Sheet 68741

NB: safe pressures and temperatures depend entirely on the tubes being used. For this reason, the values must be determined in accordance with the tube features.

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Technical details of ISO 8434-1 24° Fittings

Cone sealing couplings with 24° Cone and O-ring - FPM

Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature: -20°C to +200°C (FPM/Viton)



There are several advantages to using DKO couplings:

- They are simple to assemble with low torque requirements.
- There is a wide variety of couplings to choose from.
- They are also easy to combine with each other.
- Additionally, DKO couplings have a super low leakage rate thanks to the O-ring sealing.

Straight Swivel Unions - DKO



L Series

0291	OD mm	Thread
GV-DKOL-06	6	M12 x 1.5
GV-DKOL-08	8	M 4 x 1.5
GV-DKOL-10	10	M16 x 1.5
GV-DKOL-12	12	M18 x 1.5
GV-DKOL-15	15	M22 x 1.5
GV-DKOL-18	18	M26 x 1.5
GV-DKOL-22	22	M30 x 2
GV-DKOL-28	28	M36 x 2
GV-DKOL-35	35	M45 x 2
GV-DKOL-42	42	M52 x 2

Tech Sheet 71713

S Series

0291	OD mm	Thread
GV-DKOS-06	6	M14 x 1.5
GV-DKOS-08	8	M16 x 1.5
GV-DKOS-10	10	M18 x 1.5
GV-DKOS-12	12	M20 x 1.5
GV-DKOS-14	14	M22 x 1.5
GV-DKOS-16	16	M24 x 1.5
GV-DKOS-20	20	M30 x 2
GV-DKOS-25	25	M36 x 2
GV-DKOS-30	30	M42 x 2
GV-DKOS-38	38	M52 x 2

Tech Sheet 71713

Straight Swivel Reducers - DKO



L/L Series

0291	OD mm	OD mm
GVR-DKO-08L/06L	8	6
GVR-DKO-10L/06L	10	6
GVR-DKO-10L/08L	10	8
GVR-DKO-12L/06L	12	6
GVR-DKO-12L/08L	12	8
GVR-DKO-12L/10L	12	10
GVR-DKO-15L/08L	15	8
GVR-DKO-15L/10L	15	10
GVR-DKO-15L/12L	15	12
GVR-DKO-18L/10L	18	10
GVR-DKO-18L/12L	18	12
GVR-DKO-18L/15L	18	15
GVR-DKO-22L/12L	22	12
GVR-DKO-22L/15L	22	15
GVR-DKO-22L/18L	22	18
GVR-DKO-28L/15L	28	15
GVR-DKO-28L/18L	28	18
GVR-DKO-28L/22L	28	22
GVR-DKO-35L/18L	35	18
GVR-DKO-35L/22L	35	22
GVR-DKO-35L/28L	35	28
GVR-DKO-42L/22L	42	22
GVR-DKO-42L/28L	42	28
GVR-DKO-42L/35L	42	35

Tech Sheet 71714

S/S Series

0291	OD mm	OD mm
GVR-DKO-08S/06S	8	6
GVR-DKO-10S/06S	10	6
GVR-DKO-10S/08S	10	8
GVR-DKO-12S/06S	12	6
GVR-DKO-12S/08S	12	8
GVR-DKO-12S/10S	12	10
GVR-DKO-16S/10S	16	10
GVR-DKO-16S/12S	16	12
GVR-DKO-16S/14S	16	14
GVR-DKO-20S/12S	20	12
GVR-DKO-20S/14S	20	14
GVR-DKO-20S/16S	20	16
GVR-DKO-25S/16S	25	16
GVR-DKO-25S/20S	25	20
GVR-DKO-30S/16S	30	16
GVR-DKO-30S/20S	30	20
GVR-DKO-30S/25S	30	25
GVR-DKO-38S/20S	38	20
GVR-DKO-38S/25S	38	25
GVR-DKO-38S/30S	38	30

Tech Sheet 71714

L/S Series

0291	OD mm	OD mm
GVR-DKO-06L/06S	6	6
GVR-DKO-08L/06S	8	6
GVR-DKO-08L/08S	8	8
GVR-DKO-10L/10S	10	10
GVR-DKO-12L/10S	12	10
GVR-DKO-12L/12S	12	12
GVR-DKO-15L/12S	15	12
GVR-DKO-15L/14S	15	14
GVR-DKO-18L/16S	18	16
GVR-DKO-22L/20S	22	20
GVR-DKO-28L/25S	28	25
GVR-DKO-35L/30S	35	30
GVR-DKO-42L/38S	42	38

Tech Sheet 71715

S/L Series

0291	OD mm	OD mm
GVR-DKO-10S/08L	10	8
GVR-DKO-12S/08L	12	8
GVR-DKO-12S/10L	12	10
GVR-DKO-16S/10L	16	10
GVR-DKO-16S/12L	16	12
GVR-DKO-16S/15L	16	15
GVR-DKO-20S/18L	20	18
GVR-DKO-25S/18L	25	18
GVR-DKO-25S/22L	25	22
GVR-DKO-30S/28L	30	28
GVR-DKO-38S/35L	38	35

Tech Sheet 71715

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



° Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



Adjustable Elbows - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
EW-DKOL-06	6	M12 x 1,5
EW-DKOL-08	8	M14 x 1,5
EW-DKOL-10	10	M16 x 1,5
EW-DKOL-12	12	M18 x 1,5
EW-DKOL-15	15	M22 x 1,5
EW-DKOL-18	18	M26 x 1,5
EW-DKOL-22	22	M30 x 2
EW-DKOL-28	28	M36 x 2
EW-DKOL-35	35	M45 x 2
EW-DKOL-42	42	M52 x 2

Tech Sheet 71716

S Series, Metric, Female Thread

0291	OD mm	Thread
EW-DKOS-06	6	M14 x 1,5
EW-DKOS-08	8	M16 x 1,5
EW-DKOS-10	10	M18 x 1,5
EW-DKOS-12	12	M20 x 1,5
EW-DKOS-14	14	M22 x 1,5
EW-DKOS-16	16	M24 x 1,5
EW-DKOS-20	20	M30 x 2
EW-DKOS-25	25	M36 x 2
EW-DKOS-30	30	M42 x 2
EW-DKOS-38	38	M52 x 2

Tech Sheet 71716

45° Adjustable Elbows



L Series, Metric, BSPP Female Thread with Viton O-Ring

0291	OD mm	Thread
EV-DKOL-06	6	M12 x 1,5
EV-DKOL-08	8	M14 x 1,5
EV-DKOL-10	10	M16 x 1,5
EV-DKOL-12	12	M18 x 1,5
EV-DKOL-15	15	M22 x 1,5
EV-DKOL-18	18	M26 x 1,5
EV-DKOL-22	22	M30 x 2
EV-DKOL-28	28	M36 x 2
EV-DKOL-35	35	M45 x 2
EV-DKOL-42	42	M52 x 2

Tech Sheet 67963

Adjustable Branch Tees - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
ET-DKOL-06	6	M12 x 1,5
ET-DKOL-08	8	M14 x 1,5
ET-DKOL-10	10	M16 x 1,5
ET-DKOL-12	12	M18 x 1,5
ET-DKOL-15	15	M22 x 1,5
ET-DKOL-18	18	M26 x 1,5
ET-DKOL-22	22	M30 x 2
ET-DKOL-28	28	M36 x 2
ET-DKOL-35	35	M45 x 2
ET-DKOL-42	42	M52 x 2

Tech Sheet 71717

S Series, Metric, Female Thread

0291	OD mm	OD mm
ET-DKOS-06	6	M14 x 1,5
ET-DKOS-08	8	M16 x 1,5
ET-DKOS-10	10	M18 x 1,5
ET-DKOS-12	12	M20 x 1,5
ET-DKOS-14	14	M22 x 1,5
ET-DKOS-16	16	M24 x 1,5
ET-DKOS-20	20	M30 x 2
ET-DKOS-25	25	M36 x 2
ET-DKOS-30	30	M42 x 2
ET-DKOS-38	38	M52 x 2

Tech Sheet 71717

Adjustable Run Tees - DKO



L Series, Metric, Female Thread

0291	OD mm	Thread
EL-DKOL-06	6	M12 x 1,5
EL-DKOL-08	8	M14 x 1,5
EL-DKOL-10	10	M16 x 1,5
EL-DKOL-12	12	M18 x 1,5
EL-DKOL-15	15	M22 x 1,5
EL-DKOL-18	18	M26 x 1,5
EL-DKOL-22	22	M30 x 2
EL-DKOL-28	28	M36 x 2
EL-DKOL-35	35	M45 x 2
EL-DKOL-42	42	M52 x 2

Tech Sheet 71718

S Series, Metric, Female Thread

0291	OD mm	Thread
EL-DKOS-06	6	M14 x 1,5
EL-DKOS-08	8	M16 x 1,5
EL-DKOS-10	10	M18 x 1,5
EL-DKOS-12	12	M20 x 1,5
EL-DKOS-14	14	M22 x 1,5
EL-DKOS-16	16	M24 x 1,5
EL-DKOS-20	20	M30 x 2
EL-DKOS-25	25	M36 x 2
EL-DKOS-30	30	M42 x 2
EL-DKOS-38	38	M52 x 2

Tech Sheet 71718

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

stainless
steel



Reducing Couplings - DKO

Stainless Steel 1.4571 Working Temperature:
-60°C to +400°C (DIN 17 440, AD W 10)

Seal Working Temperature:
-20°C to +200°C (FPM/Viton)



L Series

0291	OD mm	OD mm
RED-DKOL-08/06	8	6
RED-DKOL-10/06	10	6
RED-DKOL-10/08	10	8
RED-DKOL-12/06	12	6
RED-DKOL-12/08	12	8
RED-DKOL-12/10	12	10
RED-DKOL-15/06	15	6
RED-DKOL-15/08	15	8
RED-DKOL-15/10	15	10
RED-DKOL-15/12	15	12
RED-DKOL-18/06	18	6
RED-DKOL-18/08	18	8
RED-DKOL-18/10	18	10
RED-DKOL-18/12	18	12
RED-DKOL-18/15	18	15
RED-DKOL-22/06	22	6
RED-DKOL-22/08	22	8
RED-DKOL-22/10	22	10
RED-DKOL-22/12	22	12
RED-DKOL-22/15	22	15
RED-DKOL-22/18	22	18
RED-DKOL-28/06	28	6
RED-DKOL-28/08	28	8
RED-DKOL-28/10	28	10
RED-DKOL-28/12	28	12
RED-DKOL-28/15	28	15
RED-DKOL-28/18	28	18
RED-DKOL-28/22	28	22
RED-DKOL-35/06	35	6
RED-DKOL-35/08	35	8
RED-DKOL-35/10	35	10
RED-DKOL-35/12	35	12
RED-DKOL-35/15	35	15
RED-DKOL-35/18	35	18
RED-DKOL-35/22	35	22
RED-DKOL-35/28	35	28
RED-DKOL-42/06	42	6
RED-DKOL-42/08	42	8
RED-DKOL-42/10	42	10
RED-DKOL-42/12	42	12
RED-DKOL-42/15	42	15
RED-DKOL-42/18	42	18
RED-DKOL-42/22	42	22
RED-DKOL-42/28	42	28
RED-DKOL-42/35	42	35

Tech Sheet 71719

S Series

0291	OD mm	OD mm
RED-DKOS-08/06	8	6
RED-DKOS-10/06	10	6
RED-DKOS-10/08	10	8
RED-DKOS-12/06	12	6
RED-DKOS-12/08	12	8
RED-DKOS-12/10	12	10
RED-DKOS-14/06	14	6
RED-DKOS-14/08	14	8
RED-DKOS-14/10	14	10
RED-DKOS-14/12	14	12
RED-DKOS-16/06	16	6
RED-DKOS-16/08	16	8
RED-DKOS-16/10	16	10
RED-DKOS-16/12	16	12
RED-DKOS-16/14	16	14
RED-DKOS-20/06	20	6
RED-DKOS-20/08	20	8
RED-DKOS-20/10	20	10
RED-DKOS-20/12	20	12
RED-DKOS-20/14	20	14
RED-DKOS-20/16	20	16
RED-DKOS-25/06	25	6
RED-DKOS-25/08	25	8
RED-DKOS-25/10	25	10
RED-DKOS-25/12	25	12
RED-DKOS-25/14	25	14
RED-DKOS-25/16	25	16
RED-DKOS-25/20	25	20
RED-DKOS-30/06	30	6
RED-DKOS-30/08	30	8
RED-DKOS-30/10	30	10
RED-DKOS-30/12	30	12
RED-DKOS-30/14	30	14
RED-DKOS-30/16	30	16
RED-DKOS-30/20	30	20
RED-DKOS-30/25	30	25
RED-DKOS-38/06	38	6
RED-DKOS-38/08	38	8
RED-DKOS-38/10	38	10
RED-DKOS-38/12	38	12
RED-DKOS-38/14	38	14
RED-DKOS-38/16	38	16
RED-DKOS-38/20	38	20
RED-DKOS-38/25	38	25
RED-DKOS-38/30	38	30

Tech Sheet 71720

Swivel Female - Male, Connectors - DKO



L Series

0291	OD mm	Thread BSPP
EGE-DKO-06L-2EO	6	1/8"
EGE-DKO-06L-4EO	6	1/4"
EGE-DKO-06L-6EO	6	3/8"
EGE-DKO-08L-2EO	8	1/8"
EGE-DKO-08L-4EO	8	1/4"
EGE-DKO-08L-6EO	8	3/8"
EGE-DKO-08L-8EO	8	1/2"
EGE-DKO-10L-2EO	10	1/8"
EGE-DKO-10L-4EO	10	1/4"
EGE-DKO-10L-6EO	10	3/8"
EGE-DKO-10L-8EO	10	1/2"
EGE-DKO-12L-2EO	12	1/8"
EGE-DKO-12L-4EO	12	1/4"
EGE-DKO-12L-6EO	12	3/8"
EGE-DKO-12L-8EO	12	1/2"
EGE-DKO-15L-6EO	15	3/8"
EGE-DKO-15L-8EO	15	1/2"
EGE-DKO-15L-12EO	15	3/4"
EGE-DKO-18L-6EO	18	3/8"
EGE-DKO-18L-8EO	18	1/2"
EGE-DKO-18L-12EO	18	3/4"
EGE-DKO-22L-8EO	22	1/2"
EGE-DKO-22L-12EO	22	3/4"
EGE-DKO-22L-16EO	22	1"
EGE-DKO-28L-12EO	28	3/4"
EGE-DKO-28L-16EO	28	1"
EGE-DKO-35L-20EO	35	1.1/4"
EGE-DKO-42L-20EO	42	1.1/4"
EGE-DKO-42L-24EO	42	1.1/2"

Tech Sheet 71721

S Series

0291	OD mm	Thread BSPP
EGE-DKO-06S-4EO	6	1/4"
EGE-DKO-08S-4EO	8	1/4"
EGE-DKO-08S-6EO	8	3/8"
EGE-DKO-10S-4EO	10	1/4"
EGE-DKO-10S-6EO	10	3/8"
EGE-DKO-10S-8EO	10	1/2"
EGE-DKO-12S-4EO	12	1/4"
EGE-DKO-12S-6EO	12	3/8"
EGE-DKO-12S-8EO	12	1/2"
EGE-DKO-14S-8EO	14	1/2"
EGE-DKO-16S-6EO	16	3/8"
EGE-DKO-16S-8EO	16	1/2"
EGE-DKO-16S-12EO	16	3/4"
EGE-DKO-20S-8EO	20	1/2"
EGE-DKO-20S-12EO	20	3/4"
EGE-DKO-20S-16EO	20	1"
EGE-DKO-25S-12EO	25	3/4"
EGE-DKO-25S-16EO	25	1"
EGE-DKO-30S-16EO	30	1"
EGE-DKO-30S-20EO	30	1.1/4"
EGE-DKO-38S-24EO	38	1.1/2"

Tech Sheet 71721

316 STAINLESS STEEL DIN EN ISO 8434-1 TUBE FITTINGS (FORMERLY DIN 2353)

° Stainless Steel 1.4571 Working Temperature: -60°C to +400°C (DIN 17 440, AD W 10) Seal Working Temperature: -20°C to +200°C (FPM/Viton)

Banjo Elbows



LL Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-4LL-2EO-WDS	4	1/8"
WHV-6LL-2EO-WDS	6	1/8"
WHV-8LL-2EO-WDS	8	1/8"

Tech Sheet 71722

L Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-06L-2EO-WDS	6	1/8"
WHV-08L-4EO-WDS	8	1/4"
WHV-10L-4EO-WDS	10	1/4"
WHV-10L-6EO-WDS	10	3/8"
WHV-12L-4EO-WDS	12	1/4"
WHV-12L-6EO-WDS	12	3/8"
WHV-12L-8EO-WDS	12	1/2"
WHV-15L-8EO-WDS	15	1/2"
WHV-18L-8EO-WDS	18	1/2"
WHV-22L-12EO-WDS	22	3/4"
WHV-28L-16EO-WDS	28	1"
WHV-35L-20EO-WDS	35	1.1/4"
WHV-42L-24EO-WDS	42	1.1/2"

Tech Sheet 71722

S Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
WHV-06S-4EO-WDS	6	1/4"
WHV-08S-4EO-WDS	8	1/4"
WHV-10S-4EO-WDS	10	1/4"
WHV-10S-6EO-WDS	10	3/8"
WHV-12S-6EO-WDS	12	3/8"
WHV-14S-8EO-WDS	14	1/2"
WHV-16S-8EO-WDS	16	1/2"
WHV-20S-12EO-WDS	20	3/4"
WHV-25S-16EO-WDS	25	1"
WHV-30S-20EO-WDS	30	1.1/4"
WHV-38S-24EO-WDS	38	1.1/2"

Tech Sheet 71722

Banjo Elbows



L Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
WHV-6L-2RG	6	1/8"
WHV-8L-4RG	8	1/4"
WHV-10L-4RG	10	1/4"
WHV-10L-6G	10	3/8"
WHV-12L-4RG	12	1/4"
WHV-12L-6RG	12	3/8"
WHV-12L-8RG	12	1/2"
WHV-15L-8RG	15	1/2"
WHV-18L-8RG	18	1/2"
WHV-22L-12RG	22	3/4"
WHV-28L-16RG	28	1"
WHV-35L-20RG	35	1.1/4"
WHV-42L-24RG	42	1.1/2"

Tech Sheet 20736

S Series, BSPP, Metal Sealing Ring

0291	OD mm	Thread
WHV-6S-4RG	6	1/4"
WHV-8S-4RG	8	1/4"
WHV-10S-4RG	10	1/4"
WHV-10S-6G	10	3/8"
WHV-12S-6RG	12	3/8"
WHV-14S-8RG	14	1/2"
WHV-16S-8RG	16	1/2"
WHV-20S-12RG	20	3/4"
WHV-25S-16RG	25	1"
WHV-30S-20RG	30	1.1/4"
WHV-38S-24RG	38	1.1/2"

Tech Sheet 20736

stainless
steel



Banjo Tees



LL Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-4LL-2EO-WDS	4	1/8"
THV-6LL-2EO-WDS	6	1/8"
THV-8LL-2EO-WDS	8	1/8"

Tech Sheet 71723

L Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-06L-2EO-WDS	6	1/8"
THV-08L-4EO-WDS	8	1/4"
THV-10L-4EO-WDS	10	1/4"
THV-12L-4EO-WDS	12	1/4"
THV-12L-6EO-WDS	12	3/8"
THV-15L-8EO-WDS	15	1/2"
THV-18L-8EO-WDS	18	1/2"
THV-22L-12EO-WDS	22	3/4"
THV-28L-16EO-WDS	28	1"
THV-35L-20EO-WDS	35	1.1/4"
THV-42L-24EO-WDS	42	1.1/2"

Tech Sheet 71723

S Series, BSPP, WDS, Standard

0291	OD mm	Thread BSPP
THV-06S-4EO-WDS	6	1/4"
THV-08S-4EO-WDS	8	1/4"
THV-10S-4EO-WDS	10	1/4"
THV-10S-6EO-WDS	10	3/8"
THV-12S-6EO-WDS	12	3/8"
THV-14S-8EO-WDS	14	1/2"
THV-16S-8EO-WDS	16	1/2"
THV-20S-12EO-WDS	20	3/4"
THV-25S-16EO-WDS	25	1"
THV-30S-20EO-WDS	30	1.1/4"
THV-38S-24EO-WDS	38	1.1/2"

Tech Sheet 71723

STAINLESS STEEL COMPONENT PARTS

stainless
steel

10.01 Stainless Steel Hydraulics

Seals



Banjo Couplings

0291	Thread
DKR-2RG	1/8"
DKR-4RG	1/4"
DKR-6RG	3/8"
DKR-8RG	1/2"
DKR-12RG	3/4"
DKR-16RG	1"
DKR-20RG	1.1/4"
DKR-24RG	1.1/2"



Gauge Couplings

0291	Thread
DKRI-4RG	1/4"
DKRI-8RG	1/2"



Viton

0291	Thread
WD-10X1	M10 x 1 (1/8")
WD-12X1.5	M12 x 1.5
WD-14X1.5	M14 x 1.5 (1/4")
WD-16X1.5	M16 x 1.5
WD-3/8	3/8"
WD-18X1.5	M18 x 1.5
WD-20X1.5	M20 x 1.5
WD-1/2	1/2"
WD-26X1.5	M26 x 1.5 (3/4")
WD-22X1.5	M22 x 1.5
WD-27X2	M27 x 2 (3/4")
WD-33X2	M33 x 2 (1")
WD-42X2	M42 x 2 (1.1/4")
WD-48X2	M48 x 2 (1.1/2")

One-Bite Cutting Rings - SPH Finish



LL Series Sealing Ring with SPH Finish

0291	OD mm
SR-LL-04/1 K-SPH	4
SR-LL-06/1 K-SPH	6
SR-LL-08/1 K-SPH	8

Tech Sheet 71724

Double-Bite Cutting Rings - SPH Finish



L Series Sealing Ring with SPH Finish

0291	OD mm
SR-L-06/2 K-SPH	6
SR-L-08/2 K-SPH	8
SR-L-10/2 K-SPH	10
SR-L-12/2 K-SPH	12
SR-L-15/2 K-SPH	15
SR-L-18/2 K-SPH	18
SR-L-22/2 K-SPH	22
SR-L-28/2 K-SPH	28
SR-L-35/2 K-SPH	35
SR-L-42/2 K-SPH	42

Tech Sheet 71724

S Series Sealing Ring with SPH Finish

0291	OD mm
SR-S-06/2 K-SPH	6
SR-S-08/2 K-SPH	8
SR-S-10/2 K-SPH	10
SR-S-12/2 K-SPH	12
SR-S-16/2 K-SPH	16
SR-S-20/2 K-SPH	20
SR-S-25/2 K-SPH	25
SR-S-30/2 K-SPH	30
SR-S-38/2 K-SPH	38

Tech Sheet 71724

Soft Sealed Cutting Ring



L Series Sealing Ring with Viton Seal

0291	OD mm
ES4-L-06-WD	6
ES4-L-08-WD	8
ES4-L-10-WD	10
ES4-L-12-WD	12
ES4-L-15-WD	15
ES4-L-18-WD	18
ES4-L-22-WD	22
ES4-L-28-WD	28
ES4-L-35-WD	35
ES4-L-42-WD	42

Tech Sheet 67964

S Series Sealing Ring with Viton Seal

0291	OD mm
ES4-S-06-WD	6
ES4-S-08-WD	8
ES4-S-10-WD	10
ES4-S-12-WD	12
ES4-S-14-WD	14
ES4-S-16-WD	16
ES4-S-20-WD	20
ES4-S-25-WD	25
ES4-S-30-WD	30
ES4-S-38-WD	38

Tech Sheet 67964

Silver Plated Stainless Steel Nuts (AGP)

There is a high risk for cold welding (gripping) at the threads without silver-coating.

Together with ABF-grease easy assembly due to reduction in tightening torque by up to 70%.

Reduced torsion load to the coupling body.

Applications: Marine industry.



Light-duty

0294	Thread	OD mm
M18L-1.4571AGP	M26 x 1.5	18
M22L-1.4571AGP	M30 x 2	22
M28L-1.4571AGP	M36 x 2	28
M35L-1.4571AGP	M45 x 2	35

Heavy-duty

0294	Thread	OD mm
M20S-1.4571AGP	M30 x 2	20
M25S-1.4571AGP	M36 x 2	25
M30S-1.4571AGP	M42 x 2	30
M38S-1.4571AGP	M52 x 2	38

ABF Anti Bloc Grease

Special grease for the installation of stainless couplings, material 1.4571.

Applications: Marine industry.
To avoid gripping and reduce the coefficient of friction



1000g Can

0294	Grams
ANTI-BLOC 1KG	1000



100g Tube

0294	Grams
ANTI-BLOC 100G	100

10

Stainless Steel

INTRODUCING TWIN FERRULE TUBE COMPRESSION FITTINGS

stainless steel



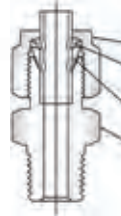
Panam Instrumentation tube fittings provide a zero leak proof seal which will withstand high pressure, impulse, vibration and temperature. These features offer high safety and maintenance free smooth working. Each component is precision machined to the most accurate tolerance; maintain TQM practices throughout manufacturing process.

The fittings are manufactured in accordance with ISO9001 quality standards and CE marking requirements with complete traceability records available upon request.

Available in 316 SS, Brass, CS, Monel materials in a variety of end connections. Straight fittings are machined from bar stock and shaped bodies are machined from forgings.

The fittings are used on instrumentation process control systems, analysers and environmental equipment in oil and gas, Petro-chemical, Power generation, Pulp and Paper industry and many more.

Functions



- Compression nut Threads are silver plated which prevents galling.
- Back Ferrule locks together the fittings and tube forms a primary Seal which absorbs the pressure pulses and vibration.
- Front Ferrule Forms a secondary seal which connects tube and fitting and guarantees a bubble tight Zero Leak Sealing.
- Rugged body construction, high precision machined surface and standardised tolerances provides maximum trouble free service life in severe working conditions.

The above illustrates sealing action of a Tube Fitting assembly which takes place after the assembly is fully tightened

Assembly Instructions

SIZE M6 thru M25 (6mm-25mm)



1-1/4 Turns from Finger Tight

SIZE M3 thru M4 (3mm-4mm)



Only 3/4 Turn from Finger Tight is necessary to seal and will result in additional remakes of the fitting

- 1 Insert the tubing in to the Tube Fitting until it comes up to the tube stop.
- 2 Ensure that the nut is finger tight and tighten the nut 1-1/4 turns as shown in figure.
- 3 For 1/8" and 3/16 Fittings only 3/4 turns as shown in Fig-3.

Identification of Twin Ferrule Fittings



Metric Tube End with Stepped Shoulder on Nut and Fitting

The Metric size of the Fittings have extra stepped shoulder on the body and nut to distinguish them from imperial size.

All Dimensions are in mm unless otherwise stated. Dimensions are for reference only, subject to change.

Material Standards

Material	Bar Stock a	Forging b	Tubeing
316 Stainless Steel	ASTM A276 ASME SA479	ASTM A182 ASME SA182	ASME-SA-213 / ASTM-A-213/ ASTM-A-249 / ASTM-A-269 / MIL T-88504 / MIL T-8506
Brass	ASTM B16	ASTM B283	ASTM-B75 / ASME-SB75 (TEMPER "O")
Alloy 400	ASTM B164 ASME SB164	ASTM B564 ASME SB564	
Alloy 600	ASTM B166 ASME SB166	ASTM B564 ASME SB564	ASTM-B-163
Alloy C-276	ASTM B574	ASTM SB564	ASTM-B-622 / ASTM-B-626
Carbon Steel	ASTM A108		SAE J524b / SAE J525b / ASTM-A-179
PTFE	ASTM D1710	ASTM D3293	

A includes straight configuration B includes all elbows, crosses and tees

Stress Values based on ASME B31.3 Code for Process Piping

Material	Allowable Stress Value		Design Factor	Ultimate Tensile Strength	
	Psig	bar		Psig	bar
316SS	20000	1378	3.75:1	75000	5170
Brass	10000	689	4:1	40000	2760
Steel	20000	1378	3:1	60000	4140

Pipe End Pressure Ratings

Calculations based on ASME B31.3 code for Process Piping

NPT/ISO Pipe Size Inches	316 SS and Carbon Steel				Brass			
	Male		Female		Male		Female	
	Psig	bar	Psig	bar	Psig	bar	Psig	bar
1/16	11000	760	6700	460	5500	380	3300	230
1/8	10000	690	6500	440	5000	340	3200	220
1/4	8000	550	6600	450	4000	270	3300	220
3/8	7800	540	5300	360	3900	270	2600	180
1/2	7700	530	4900	330	3800	260	2400	160
3/4	7300	500	4600	320	3600	250	2300	160
1	5300	370	4400	300	2600	180	2200	150
1.1/4	6000	410	5000	350	3000	200	2500	170
1.1/2	5000	340	4600	310	2500	170	2300	150
2	3900	270	3900	270	1900	130	1900	130

To determine working pressure ratings in accordance with ASME B31.1 Power Piping For 316 stainless steel, multiply psig by 0.94; for carbon steel multiply psig by 0.75; Brass ratings remain the same. To determine working pressure kPa multiply psig by 6.89

SAE Pressure Ratings

Pressure Ratings are from SAE J1926/3

SAE/MS Thread Size	316 SS and Carbon Steel			
	(Nonpositionable)		(Positionable)	
	Psig	bar	Psig	bar
5/16-24				
7/16-20			4568	315
1/2-20	4568	315		
9/16-18			3626	250
3/4-16				
7/8-14	3626	250	2900	200
1.1/16-12				
1.3/16-12	2900	200	2320	160
1.5/16-12				
1.5/8-12	2320	160	1813	125
1.7/8-12				
1.1/2-12	1813	125	1450	100

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Connectors



Male Thread, NPT

0292	OD	Thread
MC-125-125N	1/8"	1/8"
MC-125-250N	1/8"	1/4"
MC-125-375N	1/8"	3/8"
MC-125-500N	1/8"	1/2"
MC-187-125N	3/16"	1/8"
MC-187-250N	3/16"	1/4"
MC-250-125N	1/4"	1/8"
MC-250-250N	1/4"	1/4"
MC-250-375N	1/4"	3/8"
MC-250-500N	1/4"	1/2"
MC-250-750N	1/4"	3/4"
MC-312-125N	5/16"	1/8"
MC-312-250N	5/16"	1/4"
MC-312-375N	5/16"	3/8"
MC-312-500N	5/16"	1/2"
MC-375-125N	5/16"	1/8"
MC-375-250N	3/8"	1/4"
MC-375-375N	3/8"	3/8"
MC-375-500N	3/8"	1/2"
MC-375-750N	3/8"	3/4"
MC-500-125N	1/2"	1/8"
MC-500-250N	1/2"	1/4"
MC-500-375N	1/2"	3/8"
MC-500-500N	1/2"	1/2"
MC-500-750N	1/2"	3/4"
MC-500-1000N	1/2"	1"
MC-625-375N	5/8"	3/8"
MC-625-500N	5/8"	1/2"
MC-625-750N	5/8"	3/4"
MC-750-500N	3/4"	1/2"
MC-750-750N	3/4"	3/4"
MC-750-1000N	3/4"	1"
MC-875-750N	7/8"	3/4"
MC-875-1000N	7/8"	1"
MC-1000-500N	1"	1/2"
MC-1000-750N	1"	3/4"
MC-1000-1000N	1"	1"

Tech Sheet 20234



Male Thread, BSPT

0292	OD	Thread
MC-125-125RT	1/8"	1/8"
MC-125-250RT	1/8"	1/4"
MC-250-125RT	1/4"	1/8"
MC-250-250RT	1/4"	1/4"
MC-250-375RT	1/4"	3/8"
MC-250-500RT	1/4"	1/2"
MC-312-125RT	5/16"	1/8"
MC-312-250RT	5/16"	1/4"
MC-375-125RT	3/8"	1/8"
MC-375-250RT	3/8"	1/4"
MC-375-375RT	3/8"	3/8"
MC-375-500RT	3/8"	1/2"
MC-500-250RT	1/2"	1/4"
MC-500-375RT	1/2"	3/8"
MC-500-500RT	1/2"	1/2"
MC-500-750RT	1/2"	3/4"
MC-750-750RT	3/4"	3/4"
MC-1000-1000RT	1"	1"

Tech Sheet 20233



Male Thread, SAE/MS

0292	OD	Thread
MC-125-312SE	1/8"	5/16"-24
MC-125-562SE	1/8"	9/16"-18
MC-250-437SE	1/4"	7/16"-20
MC-250-750SE	1/4"	3/4"-16
MC-250-875SE	1/4"	7/8"-14
MC-312-500SE	5/16"	1/2"-20
MC-375-437SE	3/8"	7/16"-20
MC-375-562SE	3/8"	9/16"-18
MC-375-750SE	3/8"	3/4"-16
MC-375-875SE	3/8"	7/8"-14
MC-500-562SE	1/2"	9/16"-18
MC-500-750SE	1/2"	3/4"-16
MC-500-875SE	1/2"	7/8"-14
MC-500-1062SE	1/2"	1.1/16"-12
MC-625-750SE	5/8"	3/4"-16
MC-625-875SE	5/8"	7/8"-14
MC-750-750SE	3/4"	3/4"-16
MC-750-1062SE	3/4"	1.1/16"-12
MC-875-1187SE	7/8"	1.3/16"-12
MC-1000-1062SE	1"	1.1/16"-12
MC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20807



Male Thread, SAE/MS (Long)

0292	OD	Thread
LMC-250-437SE	1/4"	7/16"-20
LMC-312-500SE	5/16"	1/2"-20
LMC-375-562SE	3/8"	9/16"-18
LMC-500-750SE	1/2"	3/4"-16
LMC-625-875SE	5/8"	7/8"-14
LMC-750-1062SE	3/4"	1.1/16"-12
LMC-875-1187SE	7/8"	1.3/16"-12
LMC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20808



Male Thread, SAE/MS (Captive Seal)

0292	OD	Thread
OMC-125-312SE	1/8"	5/16"-24
OMC-187-375SE	3/16"	3/8"-24
OMC-250-437SE	1/4"	7/16"-20
OMC-312-500SE	5/16"	1/2"-20
OMC-375-562SE	3/8"	9/16"-18
OMC-500-750SE	1/2"	3/4"-16
OMC-750-1062SE	3/4"	1.1/16"-12
OMC-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20809

Male Thread, BSPP (Captive Seal)

0292	OD	Thread
OMC-250-250EO	1/4"	1/4"
OMC-250-500EO	1/4"	1/2"
OMC-375-375EO	3/8"	3/8"
OMC-500-250EO	1/2"	1/4"
OMC-500-375EO	1/2"	3/8"
OMC-500-500EO	1/2"	1/2"
OMC-750-750EO	3/4"	3/4"

Tech Sheet 20809

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Connectors

Stainless steel washer with a Viton inner ring.



Male Thread-RS, BSPP

0292	OD	Thread
MC-125-125RS	1/8"	1/8"
MC-125-250RS	1/8"	1/4"
MC-125-375RS	1/8"	3/8"
MC-250-125RS	1/4"	1/8"
MC-250-250RS	1/4"	1/4"
MC-250-375RS	1/4"	3/8"
MC-250-500RS	1/4"	1/2"
MC-375-250RS	3/8"	1/4"
MC-375-375RS	3/8"	3/8"
MC-375-500RS	3/8"	1/2"
MC-500-250RS	1/2"	1/4"
MC-500-375RS	1/2"	3/8"
MC-500-500RS	1/2"	1/2"
MC-750-500RS	3/4"	1/2"
MC-750-750RS	3/4"	3/4"
MC-1000-500RS	1"	1/2"
MC-1000-1000RS	1"	1"

Tech Sheet 20810

Female Connectors



Female Thread, NPT

0292	OD	Thread
FC-125-125N	1/8"	1/8"
FC-125-250N	1/8"	1/4"
FC-187-125N	3/16"	1/8"
FC-250-125N	1/4"	1/8"
FC-250-250N	1/4"	1/4"
FC-250-375N	1/4"	3/8"
FC-250-500N	1/4"	1/2"
FC-312-125N	5/16"	1/8"
FC-312-250N	5/16"	1/4"
FC-312-375N	5/16"	3/8"
FC-375-125N	3/8"	1/8"
FC-375-250N	3/8"	1/4"
FC-375-375N	3/8"	3/8"
FC-375-500N	3/8"	1/2"
FC-375-750N	3/8"	3/4"
FC-500-250N	1/2"	1/4"
FC-500-375N	1/2"	3/8"
FC-500-500N	1/2"	1/2"
FC-500-750N	1/2"	3/4"
FC-625-375N	5/8"	3/8"
FC-625-500N	5/8"	1/2"
FC-625-750N	5/8"	3/4"
FC-750-500N	3/4"	1/2"
FC-750-750N	3/4"	3/4"
FC-875-750N	7/8"	3/4"
FC-1000-750N	1"	3/4"
FC-1000-1000N	1"	1"

Tech Sheet 20235

Female Thread, BSPT

0292	OD	Thread
FC-250-125RT	1/4"	1/8"
FC-250-250RT	1/4"	1/4"
FC-250-375RT	1/4"	3/8"
FC-250-500RT	1/4"	1/2"
FC-375-250RT	3/8"	1/4"
FC-375-375RT	3/8"	3/8"
FC-375-500RT	3/8"	1/2"
FC-500-250RT	1/2"	1/4"
FC-500-375RT	1/2"	3/8"
FC-500-500RT	1/2"	1/2"

Tech Sheet 20237

Female Thread, BSPP

0292	OD	Thread
FC-250-250RG	1/4"	1/4"
FC-250-375RG	1/4"	3/8"
FC-250-500RG	1/4"	1/2"
FC-312-250RG	5/16"	1/4"
FC-312-500RG	5/16"	1/2"
FC-375-250RG	3/8"	1/4"
FC-375-375RG	3/8"	3/8"
FC-375-500RG	3/8"	1/2"
FC-500-375RG	1/2"	3/8"
FC-500-500RG	1/2"	1/2"

Tech Sheet 20236

Bulkhead Male Connectors



Male Thread, NPT

0292	OD	Thread
BMC-125-125N	1/8"	1/8"
BMC-187-125N	3/16"	1/8"
BMC-250-125N	1/4"	1/8"
BMC-250-250N	1/4"	1/4"
BMC-250-375N	1/4"	3/8"
BMC-250-500N	1/4"	1/2"
BMC-312-125N	5/16"	1/8"
BMC-312-250N	5/16"	1/4"
BMC-375-125N	3/8"	1/8"
BMC-375-250N	3/8"	1/4"
BMC-375-375N	3/8"	3/8"
BMC-500-250N	1/2"	1/4"
BMC-500-375N	1/2"	3/8"
BMC-500-500N	1/2"	1/2"
BMC-500-750N	1/2"	3/4"
BMC-625-375N	5/8"	3/8"
BMC-625-500N	5/8"	1/2"
BMC-750-500N	3/4"	1/2"
BMC-750-750N	3/4"	3/4"
BMC-875-750N	7/8"	3/4"
BMC-1000-750N	1"	3/4"

Tech Sheet 20814

Bulkhead Female Connectors



Female Thread, NPT

0292	OD	Thread
BFC-125-125N	1/8"	1/8"
BFC-187-125N	3/16"	1/8"
BFC-250-125N	1/4"	1/8"
BFC-250-250N	1/4"	1/4"
BFC-312-125N	5/16"	1/8"
BFC-375-250N	3/8"	1/4"
BFC-500-375N	1/2"	3/8"
BFC-500-500N	1/2"	1/2"
BFC-625-500N	5/8"	1/2"
BFC-750-750N	3/4"	3/4"
BFC-875-750N	7/8"	3/4"
BFC-1000-1000N	1"	1"

Tech Sheet 20815

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Unions



Tube x Tube

0292	OD
U-125	1/8"
U-187	3/16"
U-250	1/4"
U-312	5/16"
U-375	3/8"
U-500	1/2"
U-625	5/8"
U-750	3/4"
U-875	7/8"
U-1000	1"

Tech Sheet 20297



Metric Tube x Imperial Tube

0292	OD mm	OD
U-3-125	3	1/8"
U-4-125	4	1/8"
U-4-250	4	1/4"
U-6-125	6	1/8"
U-6-250	6	1/4"
U-6-312	6	5/16"
U-8-250	8	1/4"
U-8-375	8	3/8"
U-10-125	10	1/8"
U-10-250	10	1/4"
U-10-312	10	5/16"
U-10-375	10	3/8"
U-12-312	12	5/16"
U-12-375	12	3/8"
U-12-500	12	1/2"
U-15-500	15	1/2"
U-18-750	18	3/4"
U-20-500	20	1/2"
U-20-1000	20	1"
U-25-1000	25	1"

Tech Sheet 20817

Reducing Unions



Tube x Tube

0292	OD	OD
RU-187-125	3/16"	1/8"
RU-250-125	1/4"	1/8"
RU-250-187	1/4"	3/16"
RU-312-125	5/16"	1/8"
RU-312-250	5/16"	1/4"
RU-375-125	3/8"	1/8"
RU-375-250	3/8"	1/4"
RU-375-312	3/8"	5/16"
RU-500-125	1/2"	1/8"
RU-500-250	1/2"	1/4"
RU-500-375	1/2"	3/8"
RU-625-375	5/8"	3/8"
RU-625-500	5/8"	1/2"
RU-750-250	3/4"	1/4"
RU-750-375	3/4"	3/8"
RU-750-500	3/4"	1/2"
RU-750-625	3/4"	5/8"
RU-1000-500	1"	1/2"
RU-1000-750	1"	3/4"

Tech Sheet 20298

Bulkhead Unions



Tube x Tube

0292	OD
BU-125	1/8"
BU-187	3/16"
BU-250	1/4"
BU-312	5/16"
BU-375	3/8"
BU-500	1/2"
BU-625	5/8"
BU-750	3/4"
BU-1000	1"

Tech Sheet 20238

Male Branch Tees



Male Thread, NPT

0292	OD	Thread
MBT-125-125N	1/8"	1/8"
MBT-125-250N	1/8"	1/4"
MBT-187-125N	3/16"	1/8"
MBT-250-125N	1/4"	1/8"
MBT-250-250N	1/4"	1/4"
MBT-312-125N	5/16"	1/8"
MBT-375-250N	3/8"	1/4"
MBT-375-375N	3/8"	3/8"
MBT-500-375N	1/2"	3/8"
MBT-500-500N	1/2"	1/2"
MBT-625-500N	5/8"	1/2"
MBT-750-750N	3/4"	3/4"

Tech Sheet 20240

Male Positionable Branch Tees



Male Thread, SAE/MS

0292	OD	Thread
MBTP-250-437SE	1/4"	7/16"-20
MBTP-375-562SE	3/8"	9/16"-18
MBTP-500-750SE	1/2"	3/4"-16
MBTP-750-1062SE	3/4"	1.1/16"-12
MBTP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20821

Male Thread, BSPP

0292	OD	Thread
MBTP-250-125PR	1/4"	1/8"
MBTP-250-250PR	1/4"	1/4"
MBTP-375-250PR	3/8"	1/4"
MBTP-500-375PR	1/2"	3/8"
MBTP-500-500PR	1/2"	1/2"
MBTP-625-500PR	5/8"	1/2"
MBTP-750-500PR	3/4"	1/2"
MBTP-750-750PR	3/4"	3/4"
MBTP-1000-1000PR	1"	1"

Tech Sheet 20822

Male Run Tees



Male Thread, NPT

0292	OD	Thread
MRT-125-125N	1/8"	1/8"
MRT-125-250N	1/8"	1/4"
MRT-187-125N	3/16"	1/8"
MRT-250-125N	1/4"	1/8"
MRT-250-250N	1/4"	1/4"
MRT-312-125N	5/16"	1/8"
MRT-375-250N	3/8"	1/4"
MRT-375-375N	3/8"	3/8"
MRT-500-375N	1/2"	3/8"
MRT-500-500N	1/2"	1/2"
MRT-625-500N	5/8"	1/2"
MRT-750-750N	3/4"	3/4"

Tech Sheet 20299

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Male Positionable Run Tees



Male Thread, SAE/MS

0292	OD	Thread
M RTP-250-437SE	1/4"	7/16"-20
M RTP-375-562SE	3/8"	9/16"-18
M RTP-500-750SE	1/2"	3/4"-16
M RTP-750-1062SE	3/4"	1.1/16"-12
M RTP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20824

Male Thread, BSPP

0292	OD	Thread
M RTP-250-125PR	1/4"	1/8"
M RTP-250-250PR	1/4"	1/4"
M RTP-375-250PR	3/8"	1/4"
M RTP-500-375PR	1/2"	3/8"
M RTP-500-500PR	1/2"	1/2"
M RTP-625-500PR	5/8"	1/2"
M RTP-750-500PR	3/4"	1/2"
M RTP-750-750PR	3/4"	3/4"
M RTP-1000-1000PR	1"	1"

Tech Sheet 20825

Female Branch Tees



Female Thread, NPT

0292	OD	Thread
F BT-125-125N	1/8"	1/8"
F BT-250-125N	1/4"	1/8"
F BT-250-250N	1/4"	1/4"
F BT-375-250N	3/8"	1/4"
F BT-375-375N	3/8"	3/8"
F BT-375-500N	3/8"	1/2"
F BT-500-250N	1/2"	1/4"
F BT-500-375N	1/2"	3/8"
F BT-500-500N	1/2"	1/2"
F BT-625-500N	5/8"	1/2"
F BT-750-750N	3/4"	3/4"
F BT-1000-750N	1"	3/4"
F BT-1000-1000N	1"	1"

Tech Sheet 20826

Female Run Tees



Female Thread, NPT

0292	OD	Thread
F RT-125-125N	1/8"	1/8"
F RT-250-125N	1/4"	1/8"
F RT-250-250N	1/4"	1/4"
F RT-375-250N	3/8"	1/4"
F RT-500-375N	1/2"	3/8"
F RT-500-500N	1/2"	1/2"
F RT-750-750N	3/4"	3/4"
F RT-1000-750N	1"	3/4"
F RT-1000-1000N	1"	1"

Tech Sheet 20239

Male Elbows



Male Thread, NPT

0292	OD	Thread
M E-125-125N	1/8"	1/8"
M E-125-250N	1/8"	1/4"
M E-187-125N	3/16"	1/8"
M E-187-250N	3/16"	1/4"
M E-250-125N	1/4"	1/8"
M E-250-250N	1/4"	1/4"
M E-250-375N	1/4"	3/8"
M E-250-500N	1/4"	1/2"
M E-312-125N	5/16"	1/8"
M E-312-250N	5/16"	1/4"
M E-312-375N	5/16"	3/8"
M E-375-125N	3/8"	1/8"
M E-375-250N	3/8"	1/4"
M E-375-375N	3/8"	3/8"
M E-375-500N	3/8"	1/2"
M E-375-750N	3/8"	3/4"
M E-500-250N	1/2"	1/4"
M E-500-375N	1/2"	3/8"
M E-500-500N	1/2"	1/2"
M E-500-750N	1/2"	3/4"
M E-625-375N	5/8"	3/8"
M E-625-500N	5/8"	1/2"
M E-625-750N	5/8"	3/4"
M E-750-500N	3/4"	1/2"
M E-750-750N	3/4"	3/4"
M E-875-750N	7/8"	3/4"
M E-1000-750N	1"	3/4"
M E-1000-1000N	1"	1"

Tech Sheet 20295

Male Thread, BSPT

0292	OD	Thread
M EP-250-125RT	1/4"	1/8"
M EP-250-250RT	1/4"	1/4"
M EP-250-375RT	1/4"	3/8"
M EP-250-500RT	1/4"	1/2"
M EP-312-250RT	5/16"	1/4"
M EP-375-250RT	3/8"	1/4"
M EP-375-375RT	3/8"	3/8"

Tech Sheet 20294

Female Elbows



Female Thread, NPT

0292	OD	Thread
F E-125-125N	1/8"	1/8"
F E-125-250N	1/8"	1/4"
F E-187-125N	3/16"	1/8"
F E-250-125N	1/4"	1/8"
F E-250-250N	1/4"	1/4"
F E-250-375N	1/4"	3/8"
F E-250-500N	1/4"	1/2"
F E-312-125N	5/16"	1/8"
F E-312-250N	5/16"	1/4"
F E-375-125N	3/8"	1/8"
F E-375-250N	3/8"	1/4"
F E-375-375N	3/8"	3/8"
F E-375-500N	3/8"	1/2"
F E-500-250N	1/2"	1/4"
F E-500-375N	1/2"	3/8"
F E-500-500N	1/2"	1/2"
F E-625-375N	5/8"	3/8"
F E-625-500N	5/8"	1/2"
F E-750-500N	3/4"	1/2"
F E-750-750N	3/4"	3/4"
F E-875-750N	7/8"	3/4"
F E-1000-750N	1"	3/4"
F E-1000-1000N	1"	1"

Tech Sheet 20296

Positionable Elbows



Male Thread, SAE/MS

0292	OD	Thread
M EP-250-437SE	1/4"	7/16"-20
M EP-250-562SE	1/4"	9/16"-18
M EP-312-500SE	5/16"	1/2"-20
M EP-375-562SE	3/8"	9/16"-18
M EP-375-750SE	3/8"	3/4"-16
M EP-500-750SE	1/2"	3/4"-16
M EP-625-875SE	5/8"	7/8"-14
M EP-750-1062SE	3/4"	1.1/16"-12
M EP-875-1187SE	7/8"	1.3/16"-12
M EP-1000-1312SE	1"	1.5/16"-12

Tech Sheet 20831

Male Thread, BSPP

0292	OD	Thread
M EP-250-125PR	1/4"	1/8"
M EP-250-250PR	1/4"	1/4"
M EP-375-250PR	3/8"	1/4"
M EP-375-375PR	3/8"	3/8"
M EP-500-250PR	1/2"	1/4"
M EP-500-375PR	1/2"	3/8"
M EP-500-500PR	1/2"	1/2"
M EP-625-500PR	5/8"	1/2"
M EP-750-500PR	3/4"	1/2"
M EP-750-750PR	3/4"	3/4"
M EP-1000-750PR	1"	3/4"
M EP-1000-1000PR	1"	1"

Tech Sheet 20832

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Bulkhead Reducing Unions



Tube x Tube

0292	OD	OD
RBU-250-125	1/4"	1/8"
RBU-375-250	3/8"	1/4"
RBU-500-250	1/2"	1/4"

Tech Sheet 20833

Union Elbows



Tube x Tube

0292	OD
UE-125	1/8"
UE-187	3/16"
UE-250	1/4"
UE-312	5/16"
UE-375	3/8"
UE-500	1/2"
UE-625	5/8"
UE-750	3/4"
UE-875	7/8"
UE-1000	1"

Tech Sheet 20289

Reducing Union Elbows



Tube x Tube

0292	OD	OD
RUE-187-125	3/16"	1/8"
RUE-250-125	1/4"	1/8"
RUE-312-125	5/16"	1/8"
RUE-312-250	5/16"	1/4"
RUE-375-125	3/8"	1/8"
RUE-375-250	3/8"	1/4"
RUE-375-312	3/8"	5/16"
RUE-500-250	1/2"	1/4"
RUE-500-312	1/2"	5/16"
RUE-500-375	1/2"	3/8"
RUE-625-375	5/8"	3/8"
RUE-625-500	5/8"	1/2"
RUE-750-250	3/4"	1/4"
RUE-750-375	3/4"	3/8"
RUE-750-500	3/4"	1/2"
RUE-875-250	7/8"	1/4"
RUE-1000-500	1"	1/2"
RUE-1000-750	1"	3/4"

Tech Sheet 20835

Union Tees



Tube x Tube

0292	OD
UT-125	1/8"
UT-187	3/16"
UT-250	1/4"
UT-312	5/16"
UT-375	3/8"
UT-500	1/2"
UT-625	5/8"
UT-750	3/4"
UT-875	7/8"
UT-1000	1"

Tech Sheet 20288

Reducing Branch, Union Tees



Tube x Tube

0292	OD	OD
RUT-375-250	3/8"	1/4"
RUT-500-250	1/2"	1/4"
RUT-500-375	1/2"	3/8"
RUT-625-375	5/8"	3/8"
RUT-750-375	3/4"	3/8"
RUT-750-500	3/4"	1/2"
RUT-1000-375	1"	3/8"
RUT-1000-500	1"	1/2"
RUT-1000-750	1"	3/4"

Tech Sheet 20837

Union Crosses



Tube x Tube

0292	OD
UC-125	1/8"
UC-250	1/4"
UC-312	5/16"
UC-375	3/8"
UC-500	1/2"
UC-750	3/4"
UC-1000	1"

Tech Sheet 20290

AN Unions



Male Thread, AN

0292	OD	Thread
NU-125-125AN	1/8"	5/16"
NU-125-250AN	1/8"	7/16"
NU-250-250AN	1/4"	7/16"
NU-312-312AN	5/16"	1/2"
NU-375-250AN	3/8"	7/16"
NU-375-375AN	3/8"	9/16"
NU-500-500AN	1/2"	3/4"
NU-750-750AN	3/4"	1.1/16"
NU-1000-1000AN	1"	1.5/16"

Tech Sheet 20839

AN Bulkhead Unions



Male Thread, AN

0292	OD	Thread
ABU-250-250AN	1/4"	7/16"
ABU-375-375AN	3/8"	9/16"
ABU-500-500AN	1/2"	3/4"
ABU-750-750AN	3/4"	1.1/16"
ABU-1000-1000AN	1"	1.5/16"

Tech Sheet 20840

Weld Union, Sockets



Tube x Tube

0292	OD
SWU-125	1/8"
SWU-250	1/4"
SWU-375	3/8"
SWU-500	1/2"
SWU-750	3/4"
SWU-1000	1"

Tech Sheet 20841

Weld Elbow, Sockets



Tube x Tube

0292	OD
SWE-250	1/4"
SWE-375	3/8"
SWE-500	1/2"
SWE-750	3/4"
SWE-1000	1"

Tech Sheet 20842

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Weld Union, Connectors



Tube x Tube

0292	OD	Stem OD
MWC-125-125	1/8"	1/8"
MWC-187-125	3/16"	1/8"
MWC-250-125	1/4"	1/8"
MWC-250-250	1/4"	1/4"
MWC-312-125	5/16"	1/8"
MWC-312-250	5/16"	1/4"
MWC-375-250	3/8"	1/4"
MWC-375-375	3/8"	3/8"
MWC-375-500	3/8"	1/2"
MWC-375-750	3/8"	3/4"
MWC-500-375	1/2"	3/8"
MWC-500-500	1/2"	1/2"
MWC-500-750	1/2"	3/4"
MWC-625-500	5/8"	1/2"
MWC-750-750	3/4"	3/4"
MWC-1000-1000	1"	1"

Tech Sheet 20843

Weld Elbow, Connectors



Tube x Tube

0292	OD	Stem OD
MWE-250-125	1/4"	1/8"
MWE-250-250	1/4"	1/4"
MWE-375-250	3/8"	1/4"
MWE-500-500	1/2"	1/2"
MWE-750-750	3/4"	3/4"

Tech Sheet 20844

Bulkhead Reducers



Tube x Tube

0292	OD
BR-125	1/8"
BR-250	1/4"
BR-375	3/8"
BR-500	1/2"
BR-625	5/8"
BR-1000	1"

Tech Sheet 20287

Reducers



Tube x Tube

0292	OD	Stem OD
R-125-125	1/8"	1/8"
R-125-187	1/8"	3/16"
R-125-250	1/8"	1/4"
R-125-375	1/8"	3/8"
R-125-500	1/8"	1/2"
R-187-125	3/16"	1/8"
R-187-250	3/16"	1/4"
R-250-125	1/4"	1/8"
R-250-187	1/4"	3/16"
R-250-250	1/4"	1/4"
R-250-312	1/4"	5/16"
R-250-375	1/4"	3/8"
R-250-500	1/4"	1/2"
R-250-625	1/4"	5/8"
R-250-750	1/4"	3/4"
R-312-375	5/16"	3/8"
R-312-500	5/16"	1/2"
R-375-250	3/8"	1/4"
R-375-375	3/8"	3/8"
R-375-500	3/8"	1/2"
R-375-625	3/8"	5/8"
R-375-750	3/8"	3/4"
R-500-250	1/2"	1/4"
R-500-375	1/2"	3/8"
R-500-500	1/2"	1/2"
R-500-625	1/2"	5/8"
R-500-750	1/2"	3/4"
R-500-1000	1/2"	1"
R-625-750	5/8"	3/4"
R-625-875	5/8"	7/8"
R-625-1000	5/8"	1"
R-750-500	3/4"	1/2"
R-750-1000	3/4"	1"

Tech Sheet 20286

Port Connectors



Tube x Tube

0292	OD
PC-125	1/8"
PC-250	1/4"
PC-312	5/16"
PC-375	3/8"
PC-500	1/2"
PC-750	3/4"
PC-1000	1"

Tech Sheet 20378

Reducing Port Connectors



Tube x Tube

0292	OD	Stem OD
RPC-250-125	1/4"	1/8"
RPC-375-125	3/8"	1/8"
RPC-375-250	3/8"	1/4"
RPC-500-250	1/2"	1/4"
RPC-750-500	3/4"	1/2"
RPC-1000-500	1"	1/2"
RPC-1000-750	1"	3/4"

Tech Sheet 20849

316 STAINLESS STEEL TWIN FERRULE IMPERIAL TUBE FITTINGS

stainless
steel



Caps



Tube

0292	OD
C-125-FT	1/8"
C-187	3/16"
C-250	1/4"
C-312	5/16"
C-375	3/8"
C-500	1/2"
C-625	5/8"
C-750	3/4"
C-875	7/8"
C-1000	1"

Tech Sheet 20284

Nuts



Tube

0292	OD
N-125-FT	1/8"
N-187	3/16"
N-250	1/4"
N-312	5/16"
N-375	3/8"
N-500	1/2"
N-625	5/8"
N-750	3/4"
N-875	7/8"
N-1000	1"

Tech Sheet 20283

Front Ferrules



Tube

0292	OD
FF-125	1/8"
FF-187	3/16"
FF-250	1/4"
FF-312	5/16"
FF-375	3/8"
FF-500	1/2"
FF-625	5/8"
FF-750	3/4"
FF-875	7/8"
FF-1000	1"

Tech Sheet 20854

Plugs



Tube

0292	OD
P-125	1/8"
P-187	3/16"
P-250	1/4"
P-312	5/16"
P-375	3/8"
P-500	1/2"
P-625	5/8"
P-750	3/4"
P-875	7/8"
P-1000	1"

Tech Sheet 20282

Back Ferrules



Tube

0292	OD
BF-125	1/8"
BF-187	3/16"
BF-250	1/4"
BF-312	5/16"
BF-375	3/8"
BF-500	1/2"
BF-625	5/8"
BF-750	3/4"
BF-875	7/8"
BF-1000	1"

Tech Sheet 20285

Lock Nuts



To suit Bulkheads

0292	OD
BLN-125	1/8"
BLN-187	3/16"
BLN-250	1/4"
BLN-312	5/16"
BLN-375	3/8"
BLN-500	1/2"
BLN-625	5/8"
BLN-750	3/4"
BLN-875	7/8"
BLN-1000	1"

Tech Sheet 20855

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Male Connectors



Male Thread, NPT

0292	OD mm	Thread
MC-3-125N	3	1/8"
MC-3-250N	3	1/4"
MC-4-125N	4	1/8"
MC-4-250N	4	1/4"
MC-6-125N	6	1/8"
MC-6-250N	6	1/4"
MC-6-375N	6	3/8"
MC-6-500N	6	1/2"
MC-8-125N	8	1/8"
MC-8-250N	8	1/4"
MC-8-375N	8	3/8"
MC-8-500N	8	1/2"
MC-10-125N	10	1/8"
MC-10-250N	10	1/4"
MC-10-375N	10	3/8"
MC-10-500N	10	1/2"
MC-10-750N	10	3/4"
MC-12-125N	12	1/8"
MC-12-250N	12	1/4"
MC-12-375N	12	3/8"
MC-12-500N	12	1/2"
MC-12-750N	12	3/4"
MC-14-250N	14	1/4"
MC-14-375N	14	3/8"
MC-14-500N	14	1/2"
MC-15-500N	15	1/2"
MC-16-375N	16	3/8"
MC-16-500N	16	1/2"
MC-16-750N	16	3/4"
MC-18-500N	18	1/2"
MC-18-750N	18	3/4"
MC-20-500N	20	1/2"
MC-20-750N	20	3/4"
MC-22-750N	22	3/4"
MC-22-1000N	22	1"
MC-25-500N	25	1/2"
MC-25-750N	25	3/4"
MC-25-1000N	25	1"

Tech Sheet 20281



Male Thread, BSPT

0292	OD mm	Thread
MC-3-125RT	3	1/8"
MC-3-250RT	3	1/4"
MC-4-125RT	4	1/8"
MC-4-250RT	4	1/4"
MC-6-125RT	6	1/8"
MC-6-250RT	6	1/4"
MC-6-375RT	6	3/8"
MC-6-500RT	6	1/2"
MC-8-125RT	8	1/8"
MC-8-250RT	8	1/4"
MC-8-375RT	8	3/8"
MC-8-500RT	8	1/2"
MC-10-125RT	10	1/8"
MC-10-250RT	10	1/4"
MC-10-375RT	10	3/8"
MC-10-500RT	10	1/2"
MC-12-125RT	12	1/8"
MC-12-250RT	12	1/4"
MC-12-375RT	12	3/8"
MC-12-500RT	12	1/2"
MC-12-750RT	12	3/4"
MC-15-500RT	15	1/2"
MC-16-250RT	16	1/4"
MC-16-375RT	16	3/8"
MC-16-500RT	16	1/2"
MC-16-750RT	16	3/4"
MC-18-500RT	18	1/2"
MC-18-750RT	18	3/4"
MC-20-500RT	20	1/2"
MC-20-750RT	20	3/4"
MC-22-750RT	22	3/4"
MC-22-1000RT	22	1"
MC-25-750RT	25	3/4"
MC-25-1000RT	25	1"

Tech Sheet 20278



Male Thread-RS, BSPP

0292	OD mm	Thread
MC-3-125RS	3	1/8"
MC-3-250RS	3	1/4"
MC-4-125RS	4	1/8"
MC-6-125RS	6	1/8"
MC-6-250RS	6	1/4"
MC-6-375RS	6	3/8"
MC-6-500RS	6	1/2"
MC-8-125RS	8	1/8"
MC-8-250RS	8	1/4"
MC-8-375RS	8	3/8"
MC-8-500RS	8	1/2"
MC-10-250RS	10	1/4"
MC-10-375RS	10	3/8"
MC-10-500RS	10	1/2"
MC-12-250RS	12	1/4"
MC-12-375RS	12	3/8"
MC-12-500RS	12	1/2"
MC-12-750RS	12	3/4"
MC-16-375RS	16	3/8"
MC-16-500RS	16	1/2"
MC-18-500RS	18	1/2"
MC-18-750RS	18	3/4"
MC-20-500RS	20	1/2"
MC-20-750RS	20	3/4"
MC-22-750RS	22	3/4"
MC-22-1000RS	22	1"
MC-25-750RS	25	3/4"
MC-25-1000RS	25	1"

Tech Sheet 20279



Male Thread, BSPP (Captive Seal)

0292	OD mm	Thread
OMC-6-125EO	6	1/8"
OMC-6-250EO	6	1/4"
OMC-6-375EO	6	3/8"
OMC-6-500EO	6	1/2"
OMC-10-250EO	10	1/4"
OMC-10-375EO	10	3/8"
OMC-10-500EO	10	1/2"
OMC-12-250EO	12	1/4"
OMC-12-375EO	12	3/8"
OMC-12-500EO	12	1/2"

Tech Sheet 20856

stainless
steel



You might also need
Stainless Steel Tubing
see page 1287

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless steel



Female Connectors



Female Thread, NPT

0292	OD mm	Thread
FC-3-125N	3	1/8"
FC-3-250N	3	1/4"
FC-4-125N	4	1/8"
FC-6-125N	6	1/8"
FC-6-250N	6	1/4"
FC-6-375N	6	3/8"
FC-6-500N	6	1/2"
FC-8-125N	8	1/8"
FC-8-250N	8	1/4"
FC-8-375N	8	3/8"
FC-8-500N	8	1/2"
FC-10-250N	10	1/4"
FC-10-375N	10	3/8"
FC-10-500N	10	1/2"
FC-12-250N	12	1/4"
FC-12-375N	12	3/8"
FC-12-500N	12	1/2"
FC-15-500N	15	1/2"
FC-16-500N	16	1/2"
FC-20-500N	20	1/2"
FC-20-750N	20	3/4"
FC-22-750N	22	3/4"
FC-22-1000N	22	1"
FC-25-750N	25	3/4"
FC-25-1000N	25	1"

Tech Sheet 20275

Female Thread, BSPT

0292	OD mm	Thread
FC-3-125RT	3	1/8"
FC-6-125RT	6	1/8"
FC-6-250RT	6	1/4"
FC-6-375RT	6	3/8"
FC-6-500RT	6	1/2"
FC-8-125RT	8	1/8"
FC-8-250RT	8	1/4"
FC-8-375RT	8	3/8"
FC-8-500RT	8	1/2"
FC-10-125RT	10	1/8"
FC-10-250RT	10	1/4"
FC-10-375RT	10	3/8"
FC-10-500RT	10	1/2"
FC-12-125RT	12	1/8"
FC-12-250RT	12	1/4"
FC-12-375RT	12	3/8"
FC-12-500RT	12	1/2"
FC-12-750RT	12	3/4"
FC-15-375RT	15	3/8"
FC-15-500RT	15	1/2"
FC-20-500RT	20	1/2"
FC-20-750RT	20	3/4"
FC-22-750RT	22	3/4"
FC-22-1000RT	22	1"
FC-25-750RT	25	3/4"
FC-25-1000RT	25	1"

Tech Sheet 20274



Female Thread, BSPP

0292	OD mm	Thread
FC-3-250RG	3	1/4"
FC-6-250RG	6	1/4"
FC-6-375RG	6	3/8"
FC-6-500RG	6	1/2"
FC-8-250RG	8	1/4"
FC-8-375RG	8	3/8"
FC-8-500RG	8	1/2"
FC-10-250RG	10	1/4"
FC-10-375RG	10	3/8"
FC-10-500RG	10	1/2"
FC-12-250RG	12	1/4"
FC-12-375RG	12	3/8"
FC-12-500RG	12	1/2"
FC-20-500RG	20	1/2"
FC-22-500RG	22	1/2"

Tech Sheet 20273

Bulkhead Male Connectors



Male Thread, NPT

0292	OD mm	Thread
BMC-6-125N	6	1/8"
BMC-6-250N	6	1/4"
BMC-8-125N	8	1/8"
BMC-8-250N	8	1/4"
BMC-10-250N	10	1/4"
BMC-10-375N	10	3/8"
BMC-10-500N	10	1/2"
BMC-12-250N	12	1/4"
BMC-12-375N	12	3/8"
BMC-12-500N	12	1/2"

Tech Sheet 20276

Bulkhead Female Connectors



Female Thread, NPT

0292	OD mm	Thread
BFC-6-125N	6	1/8"
BFC-6-250N	6	1/4"
BFC-8-125N	8	1/8"
BFC-10-250N	10	1/4"
BFC-12-375N	12	3/8"
BFC-12-500N	12	1/2"

Tech Sheet 20277

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Unions



Tube x Tube

0292	OD mm
U-3	3
U-4	4
U-6	6
U-8	8
U-10	10
U-12	12
U-15	15
U-16	16
U-18	18
U-20-FT	20
U-22	22
U-25	25

Tech Sheet 20266

Reducing Unions



Tube x Tube

0292	OD mm	OD mm
RU-6-3	6	3
RU-6-4	6	4
RU-8-6	8	6
RU-10-6	10	6
RU-10-8	10	8
RU-12-6	12	6
RU-12-8	12	8
RU-12-10	12	10
RU-16-10	16	10
RU-16-12	16	12
RU-18-12	18	12
RU-25-18	25	18
RU-25-20	25	20

Tech Sheet 20267

Bulkhead Unions



Tube x Tube

0292	OD mm
BU-3-FT	3
BU-4	4
BU-6	6
BU-8	8
BU-10	10
BU-12-FT	12
BU-14	14
BU-15	15
BU-16	16
BU-18	18
BU-20	20

Tech Sheet 20272

Male Branch Tees



Male Thread, NPT

0292	OD mm	Thread
MBT-6-125N	6	1/8"
MBT-6-250N	6	1/4"
MBT-8-125N	8	1/8"
MBT-8-250N	8	1/4"
MBT-10-250N	10	1/4"
MBT-12-250N	12	1/4"
MBT-12-375N	12	3/8"
MBT-12-500N	12	1/2"
MBT-16-500N	16	1/2"

Tech Sheet 20269

Male Positionable Branch Tees



Male Thread, BSPP

0292	OD mm	Thread
MBTP-6-125PR	6	1/8"
MBTP-6-250PR	6	1/4"
MBTP-8-125PR	8	1/8"
MBTP-8-250PR	8	1/4"
MBTP-10-250PR	10	1/4"
MBTP-12-375PR	12	3/8"
MBTP-12-500PR	12	1/2"

Tech Sheet 20861

Male Run Tees



Male Thread, NPT

0292	OD mm	Thread
MRT-6-125N	6	1/8"
MRT-6-250N	6	1/4"
MRT-8-250N	8	1/4"
MRT-12-250N	12	1/4"
MRT-12-375N	12	3/8"
MRT-12-500N	12	1/2"
MRT-16-500N	16	1/2"

Tech Sheet 20268

Male Positionable Run Tees



Male Thread, BSPP

0292	OD mm	Thread
MRTP-6-125PR	6	1/8"
MRTP-6-250PR	6	1/4"
MRTP-8-125PR	8	1/8"
MRTP-8-250PR	8	1/4"
MRTP-10-250PR	10	1/4"
MRTP-12-375PR	12	3/8"
MRTP-12-500PR	12	1/2"

Tech Sheet 20863

Female Branch Tees



Female Thread, NPT

0292	OD mm	Thread
FBT-6-125N	6	1/8"
FBT-6-250N	6	1/4"
FBT-8-125N	8	1/8"
FBT-8-250N	8	1/4"
FBT-10-250N	10	1/4"
FBT-12-250N	12	1/4"
FBT-12-375N	12	3/8"
FBT-16-500N	16	1/2"

Tech Sheet 20271

Female Run Tees



Female Thread, NPT

0292	OD mm	Thread
FRT-6-125N	6	1/8"
FRT-6-250N	6	1/4"
FRT-8-125N	8	1/8"
FRT-8-250N	8	1/4"
FRT-10-250N	10	1/4"
FRT-12-250N	12	1/4"
FRT-12-375N	12	3/8"
FRT-16-500N	16	1/2"

Tech Sheet 20270

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Male Elbows



Male Thread, NPT

0292	OD mm	Thread
ME-3-250N	3	1/4"
ME-4-125N	4	1/8"
ME-4-250N	4	1/4"
ME-6-125N	6	1/8"
ME-6-250N	6	1/4"
ME-6-375N	6	3/8"
ME-6-500N	6	1/2"
ME-8-125N	8	1/8"
ME-8-250N	8	1/4"
ME-8-375N	8	3/8"
ME-8-500N	8	1/2"
ME-10-250N	10	1/4"
ME-10-375N	10	3/8"
ME-10-500N	10	1/2"
ME-12-250N	12	1/4"
ME-12-375N	12	3/8"
ME-12-500N	12	1/2"
ME-12-750N	12	3/4"
ME-15-500N	15	1/2"
ME-16-375N	16	3/8"
ME-16-500N	16	1/2"
ME-16-750N	16	3/4"
ME-18-500N	18	1/2"
ME-18-750N	18	3/4"
ME-20-500N	20	1/2"
ME-22-750N	22	3/4"
ME-22-1000N	22	1"
ME-25-750N	25	3/4"
ME-25-1000N	25	1"

Tech Sheet 20264



Male Thread, BSPT

0292	OD mm	Thread
ME-3-125RT	3	1/8"
ME-3-250RT	3	1/4"
ME-4-125RT	4	1/8"
ME-4-250RT	4	1/4"
ME-6-125RT	6	1/8"
ME-6-250RT	6	1/4"
ME-6-375RT	6	3/8"
ME-6-500RT	6	1/2"
ME-8-125RT	8	1/8"
ME-8-250RT	8	1/4"
ME-8-375RT	8	3/8"
ME-8-500RT	8	1/2"
ME-10-250RT	10	1/4"
ME-10-375RT	10	3/8"
ME-10-500RT	10	1/2"
ME-12-250RT	12	1/4"
ME-12-375RT	12	3/8"
ME-12-500RT	12	1/2"
ME-12-750RT	12	3/4"
ME-16-375RT	16	3/8"
ME-16-500RT	16	1/2"
ME-18-500RT	18	1/2"
ME-18-750RT	18	3/4"
ME-20-500RT	20	1/2"
ME-20-750RT	20	3/4"
ME-22-750RT	22	3/4"
ME-22-1000RT	22	1"
ME-25-750RT	25	3/4"
ME-25-1000RT	25	1"

Tech Sheet 20263

Female Elbows



Female Thread, NPT

0292	OD mm	Thread
FE-6-125N	6	1/8"
FE-6-250N	6	1/4"
FE-6-500N	6	1/2"
FE-8-250N	8	1/4"
FE-10-125N	10	1/8"
FE-10-250N	10	1/4"
FE-12-250N	12	1/4"
FE-12-375N	12	3/8"
FE-12-500N	12	1/2"
FE-16-500N	16	1/2"

Tech Sheet 20265



Male Thread, BSPP

0292	OD mm	Thread
MEP-6-125PR	6	1/8"
MEP-6-250PR	6	1/4"
MEP-8-125PR	8	1/8"
MEP-8-250PR	8	1/4"
MEP-10-250PR	10	1/4"
MEP-10-375PR	10	3/8"
MEP-12-250PR	12	1/4"
MEP-12-375PR	12	3/8"
MEP-12-500PR	12	1/2"
MEP-12-750PR	12	3/4"

Tech Sheet 20265

Positionable Elbows

Union Elbows



Tube x Tube

0292	OD mm
UE-3	3
UE-4	4
UE-6	6
UE-8	8
UE-10	10
UE-12	12
UE-14	14
UE-15	15
UE-16	16
UE-18	18
UE-20	20
UE-22	22
UE-25	25

Tech Sheet 20261

Union Tees



Tube x Tube

0292	OD mm
UT-3	3
UT-4	4
UT-6	6
UT-8	8
UT-10	10
UT-12	12
UT-14	14
UT-15	15
UT-16	16
UT-18	18
UT-20	20
UT-22	22
UT-25	25

Tech Sheet 20260

Union Crosses



Tube x Tube

0292	OD mm
UC-3	3
UC-6	6
UC-8	8
UC-10	10
UC-12	12
UC-16	16
UC-18	18
UC-20	20
UC-25	25

Tech Sheet 20262

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Weld Union, Connectors



Tube x Tube

0292	OD mm	Stem OD
MWC-3-125	3	1/8"
MWC-4-125	4	1/8"
MWC-6-125	6	1/8"
MWC-6-250	6	1/4"
MWC-8-125	8	1/8"
MWC-8-250	8	1/4"
MWC-8-500	8	1/2"
MWC-10-250	10	1/4"
MWC-10-500	10	1/2"
MWC-12-250	12	1/4"
MWC-12-375	12	3/8"
MWC-12-500	12	1/2"
MWC-14-375	14	3/8"
MWC-15-500	15	1/2"
MWC-16-500	16	1/2"
MWC-18-500	18	1/2"

Tech Sheet 20873

Port Connectors



Tube x Tube

0292	OD mm
PC-3	3
PC-6	6
PC-8	8
PC-10	10
PC-12-FT	12
PC-15-FT	15
PC-16	16
PC-18-FT	18
PC-20	20
PC-25	25

Tech Sheet 20874

Reducing Port Connectors



Tube x Tube

0292	OD mm	Stem OD mm
RPC-6-3	6	3
RPC-8-6	8	6
RPC-10-6	10	6
RPC-10-8	10	8
RPC-12-6	12	6
RPC-12-8	12	8
RPC-12-10	12	10
RPC-16-12	16	12

Tech Sheet 20875

Reducers



Tube x Tube

0292	OD mm	Stem OD mm
R-3-4	3	4
R-3-6	3	6
R-3-10	3	10
R-4-6	4	6
R-6-3	6	3
R-6-8	6	8
R-6-10	6	10
R-6-12	6	12
R-6-18	6	18
R-8-6	8	6
R-8-10	8	10
R-8-12	8	12
R-10-6	10	6
R-10-12	10	12
R-10-15	10	15
R-10-18	10	18
R-12-6	12	6
R-12-8	12	8
R-12-10	12	10
R-12-16	12	16
R-12-18	12	18
R-12-20	12	20
R-12-22	12	22
R-12-25	12	25
R-16-12	16	12
R-18-12	18	12
R-18-16	18	16
R-18-20	18	20
R-18-22	18	22
R-18-25	18	25
R-20-16	20	16
R-20-22	20	22
R-20-25	20	25
R-22-18	22	18
R-22-20	22	20
R-22-25	22	25
R-25-18	25	18
R-25-20	25	20

Tech Sheet 20258



Metric Tube x Imperial Tube

0292	OD mm	Stem OD
R-3-125	3	1/8"
R-3-250	3	1/4"
R-4-250	4	1/4"
R-6-125	6	1/8"
R-6-250	6	1/4"
R-6-312	6	5/16"
R-6-375	6	3/8"
R-6-500	6	1/2"
R-8-375	8	3/8"
R-8-500	8	1/2"
R-10-375	10	3/8"
R-10-500	10	1/2"
R-12-500	12	1/2"
R-12-750	12	3/4"
R-18-750	18	3/4"
R-25-1000	25	1"

Tech Sheet 20877

Caps



Tube

0292	OD mm
C-3	3
C-4	4
C-6	6
C-8	8
C-10	10
C-12	12
C-14	14
C-15	15
C-16	16
C-18	18
C-20	20
C-22	22
C-25	25

Tech Sheet 20259

316 STAINLESS STEEL TWIN FERRULE METRIC TUBE FITTINGS

stainless
steel



Plugs



Tube

0292	OD mm
P-3-FT	3
P-4	4
P-6-FT	6
P-8	8
P-10	10
P-12	12
P-15	15
P-16	16
P-18	18
P-20	20
P-22	22
P-25	25

Tech Sheet 20254

Nuts



Tube

0292	OD mm
N-3	3
N-4	4
N-6	6
N-8	8
N-10	10
N-12	12
N-15	15
N-16	16
N-18	18
N-20	20
N-25	25

Tech Sheet 20255

Back Ferrules



Tube

0292	OD mm
BF-3	3
BF-4	4
BF-6	6
BF-8	8
BF-10	10
BF-12	12
BF-14	14
BF-15	15
BF-16	16
BF-18	18
BF-20	20
BF-22	22
BF-25	25

Tech Sheet 20257

Front Ferrules



Tube

0292	OD mm
FF-3	3
FF-4	4
FF-6	6
FF-8	8
FF-10	10
FF-12	12
FF-14	14
FF-15	15
FF-16	16
FF-18	18
FF-20	20
FF-22	22
FF-25	25

Tech Sheet 20256

Lock Nuts



To suit Bulkheads

0292	OD mm
BLN-3	3
BLN-4	4
BLN-6	6
BLN-8	8
BLN-10-FT	10
BLN-12-FT	12
BLN-14	14
BLN-16-FT	16
BLN-18	18
BLN-20-FT	20

Tech Sheet 20883

stainless
steel



For Stainless Steel Tubing
see page 1287

HYDRAULIC STAINLESS STEEL ADAPTORS

stainless steel



Male x Male Straight Adaptors



BSPP x BSPP

0044	Thread	Thread
2025-1401	1/8"	1/8"
2025-1419	1/4"	1/8"
2025-1427	1/4"	1/4"
2025-1435	3/8"	1/8"
2025-1443	3/8"	1/4"
2025-1450	3/8"	3/8"
2025-1468	1/2"	1/4"
2025-1476	1/2"	3/8"
2025-1484	1/2"	1/2"
2025-1495	5/8"	1/2"
2025-1505	5/8"	5/8"
2025-1520	3/4"	1/4"
2025-1526	3/4"	3/8"
2025-1534	3/4"	1/2"
2025-1538	3/4"	5/8"
2025-1559	3/4"	3/4"
2025-1567	1"	1/2"
2025-1572	1"	5/8"
2025-1583	1"	3/4"
2025-1591	1"	1"
2025-1595	1.1/4"	3/4"
2025-1600	1.1/4"	1"
2025-1609	1.1/4"	1.1/4"
2025-1611	1.1/2"	1"
2025-1615	1.1/2"	1.1/4"
2025-1617	1.1/2"	1.1/2"
2025-1620	2"	1.1/2"
2025-1625	2"	2"

Tech Sheet 20884



BSPP x BSPT

0044	Thread
2033-9693	1/4"
2033-9761	3/8"
2033-9719	1/2"
2033-9727	3/4"
2033-9735	1"

Tech Sheet 20884

BSPP x NPT



0044	BSPP Thread	NPT Thread
2025-1633	1/8"	1/8"
2025-1636	1/8"	1/4"
2025-1639	1/4"	1/8"
2025-1641	1/4"	1/4"
2025-1643	1/4"	3/8"
2025-1656	3/8"	1/4"
2025-1658	3/8"	3/8"
2025-1661	3/8"	1/2"
2025-1671	1/2"	3/8"
2025-1674	1/2"	1/2"
2025-1677	5/8"	1/2"
2025-1679	5/8"	3/4"
2025-1681	3/4"	1/2"
2025-1682	3/4"	3/4"
2025-1684	3/4"	1"
2025-1687	1"	3/4"
2025-1690	1"	1"
2025-1700	1.1/4"	1.1/4"
2025-1710	1.1/2"	1.1/2"
2025-1720	2"	2"

Tech Sheet 20884



BSPT x BSPT

0044	Thread	Thread
2025-1708	1/8"	1/8"
2025-1715	1/4"	1/8"
2025-1724	1/4"	1/4"
2025-1727	3/8"	1/8"
2025-1732	3/8"	1/4"
2025-1740	3/8"	3/8"
2025-1845	1/2"	1/8"
2025-1852	1/2"	1/4"
2025-1856	1/2"	3/8"
2025-1865	1/2"	1/2"
2025-1881	3/4"	1/8"
2025-1885	3/4"	1/4"
2025-1889	3/4"	3/8"
2025-1894	3/4"	1/2"
2025-1898	3/4"	3/4"
2025-1905	1"	1/8"
2025-1910	1"	1/4"
2025-1915	1"	3/8"
2025-1920	1"	1/2"
2025-1925	1"	3/4"
2025-1931	1"	1"
2025-1935	1.1/4"	1"
2025-1940	1.1/4"	1.1/4"
2025-1945	1.1/2"	1"
2025-1950	1.1/2"	1.1/2"
2025-1956	2"	1"
2025-1960	2"	1.1/2"
2025-1965	2"	2"

Tech Sheet 20884

Male x Female Straight Adaptors



Male x Female Swivel, BSPP

0044	Male Thread	Female Thread
2025-1930	1/8"	1/8"
2025-1948	1/4"	1/4"
2025-1955	1/4"	3/8"
2025-1961	1/4"	1/2"
2025-1963	3/8"	1/4"
2025-1971	3/8"	3/8"
2025-1989	3/8"	1/2"
2025-1997	1/2"	3/8"
2025-2003	1/2"	1/2"
2025-2020	1/2"	3/4"
2025-2029	3/4"	1/2"
2025-2037	3/4"	3/4"
2025-2043	3/4"	1"
2025-2060	1"	1"

Tech Sheet 20884

Female Swivel, BSPP x BSPT Male

0044	Thread
2033-9862	1/8"
2033-9867	1/4"
2033-9875	3/8"
2033-9883	1/2"
2033-9891	3/4"
2033-9896	1"

Tech Sheet 20884

Male x Female Fixed, BSPP



0044	Male Thread	Female Thread
2025-8121	1/8"	1/8"
2025-8131	1/4"	1/8"
2025-8142	1/4"	1/4"
2025-8151	3/8"	1/8"
2025-8161	3/8"	1/4"
2025-8171	3/8"	3/8"
2025-8181	1/2"	1/4"
2025-8201	1/2"	3/8"
2025-8211	1/2"	1/2"
2025-8191	3/4"	1/4"
2025-8221	3/4"	3/8"
2025-8231	3/4"	1/2"
2025-8241	3/4"	3/4"
2025-8251	1"	1/2"
2025-8261	1"	1"
2025-8271	1"	3/4"
2025-8281	1.1/4"	1/2"
2025-8291	1.1/4"	3/4"
2025-8301	1.1/4"	1"
2025-8311	1.1/4"	1.1/4"
2025-8321	1.1/2"	3/4"
2025-8331	1.1/2"	1"
2025-8341	1.1/2"	1.1/2"
2025-8351	1.1/2"	1.1/4"
2025-8361	2"	2"

Tech Sheet 20884

HYDRAULIC STAINLESS STEEL ADAPTORS

stainless
steel



Female x Female Straight Adaptors



Swivel, BSPP

0044	Thread	Thread
2025-2078	1/4"	1/4"
2025-2082	3/8"	1/4"
2025-2086	3/8"	3/8"
2025-2089	1/2"	1/4"
2025-2093	1/2"	3/8"
2025-2094	1/2"	1/2"
2025-2100	5/8"	5/8"
2025-2122	3/4"	1/2"
2025-2132	3/4"	3/4"
2025-2110	1"	1"

Tech Sheet 20884

Fixed Female Hexagon Socket, BSPP



0044	Thread
2025-2466	1/8"
2025-2474	1/4"
2025-2482	3/8"
2025-2490	1/2"
2025-2508	3/4"
2025-2516	1"

Tech Sheet 20884

Elbows



Equal Elbow, BSPP

0044	Thread
2033-9922	1/8"
2033-9933	1/4"
2033-9941	3/8"
2033-9958	1/2"
2033-9962	5/8"
2033-9963	3/4"
2033-9974	1"
2033-9982	1.1/4"
2033-9992	1.1/2"

Tech Sheet 20884

Male x Female Swivel, BSPP



0044	Thread
2025-2185	1/8"
2025-2193	1/4"
2025-2201	3/8"
2025-2219	1/2"
2025-2223	5/8"
2025-2227	3/4"
2025-2232	1"
2025-2240	1.1/4"
2025-2245	1.1/2"

Tech Sheet 20884

Female Swivel, BSPP



0044	Thread
2025-2128	1/8"
2025-2136	1/4"
2025-2151	1/2"
2025-2169	3/4"

Tech Sheet 20884

Tees



Male, BSPP

0044	Thread
2025-2321	1/8"
2025-2326	1/4"
2025-2334	3/8"
2025-2342	1/2"
2025-2449	3/4"
2025-2354	1"

Tech Sheet 20884



Female Swivel, BSPP

0044	Thread
2025-2250	1/4"
2025-2258	3/8"
2025-2263	1/2"
2025-2273	5/8"
2025-2283	3/4"
2025-2293	1"

Tech Sheet 20884



Female Swivel Branch, BSPP

0044	Thread
2025-4001	1/8"
2025-4011	1/4"
2025-4021	3/8"
2025-4031	1/2"
2025-4041	3/4"
2025-4051	1"

Tech Sheet 20884



Female Swivel Run, BSPP

0044	Thread
2025-4501	1/8"
2025-4511	1/4"
2025-4521	3/8"
2025-4531	1/2"
2025-4541	3/4"
2025-4551	1"

Tech Sheet 20884

Bulkhead complete with Locknut



BSPP

0044	Thread
2025-2391	1/4"
2025-2409	3/8"
2025-2417	1/2"
2025-2425	5/8"
2025-2433	3/4"
2025-2441	1"
2025-2445	1.1/4"
2025-2450	1.1/2"

Tech Sheet 20884

Plugs



BSPP

0044	Thread
2033-4002	1/8"
2033-4012	1/4"
2033-4022	3/8"
2033-4032	1/2"
2033-4042	5/8"
2033-4052	3/4"
2033-4062	1"
2033-4072	1.1/4"
2033-4082	1.1/2"
2033-4092	2"

Tech Sheet 20884



BSPT

0044	Thread
2025-2524	1/8"
2025-2532	1/4"
2025-2540	3/8"
2025-2557	1/2"
2025-2565	3/4"
2025-2573	1"
2025-2582	1.1/4"
2025-2592	1.1/2"
2025-2602	2"

Tech Sheet 20884

Caps



BSPP

0044	Thread
2033-8301	1/8"
2033-8311	1/4"
2033-8321	3/8"
2033-8331	1/2"
2033-8341	3/4"
2033-8351	1"

Tech Sheet 20884

316 PRECISION INSTRUMENTATION PIPE FITTINGS

stainless
steel



Hexagon Nipples



Male x Male, NPT

0342	Thread
PHN-01	1/16"
PHN-02	1/8"
PHN-04	1/4"
PHN-06	3/8"
PHN-08	1/2"
PHN-12	3/4"
PHN-16	1"

Tech Sheet 20885

Hexagon Nipples, Long



Male x Male, NPT

0342	Thread	Length
PHNL-02-L1.5	1/8"	1.5"
PHNL-02-L2	1/8"	2"
PHNL-02-L3	1/8"	3"
PHNL-02-L4	1/8"	4"
PHNL-02-L6	1/8"	6"
PHNL-04-L1.5	1/4"	1.5"
PHNL-04-L2	1/4"	2"
PHNL-04-L3	1/4"	3"
PHNL-04-L4	1/4"	4"
PHNL-04-L6	1/4"	6"
PHNL-06-L1.5	3/8"	1.5"
PHNL-06-L2	3/8"	2"
PHNL-06-L3	3/8"	3"
PHNL-06-L4	3/8"	4"
PHNL-06-L6	3/8"	6"
PHNL-08-L1.5	1/2"	1.5"
PHNL-08-L2	1/2"	2"
PHNL-08-L3	1/2"	3"
PHNL-08-L4	1/2"	4"
PHNL-08-L6	1/2"	6"
PHNL-12-L2	3/4"	2"
PHNL-12-L3	3/4"	3"
PHNL-12-L4	3/4"	4"
PHNL-12-L6	3/4"	6"
PHNL-16-L1.5	1"	1.5"
PHNL-16-L2	1"	2"
PHNL-16-L3	1"	3"
PHNL-16-L4	1"	4"
PHNL-16-L6	1"	6"

Tech Sheet 20885

Reducing Hexagon Nipples

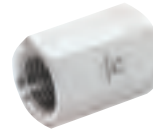


Male x Male, NPT

0342	Thread	Thread
PRHN-02-01	1/8"	1/16"
PRHN-04-02	1/4"	1/8"
PRHN-06-02	3/8"	1/8"
PRHN-06-04	3/8"	1/4"
PRHN-08-02	1/2"	1/8"
PRHN-08-04	1/2"	1/4"
PRHN-08-06	1/2"	3/8"
PRHN-12-06	3/4"	1/4"
PRHN-12-08	3/4"	1/2"
PRHN-16-08	1"	1/2"
PRHN-16-12	1"	3/4"

Tech Sheet 20885

Hexagon Coupling



Female x Female, NPT

0342	Thread
PHC-02	1/8"
PHC-04	1/4"
PHC-06	3/8"
PHC-08	1/2"
PHC-12	3/4"
PHC-16	1"

Tech Sheet 20885

Reducing Hexagon Couplings



Female x Female, NPT

0342	Thread	Thread
PRC-04-02	1/4"	1/8"
PRC-06-04	3/8"	1/4"
PRC-08-02	1/2"	1/8"
PRC-08-04	1/2"	1/4"
PRC-08-06	1/2"	3/8"
PRC-12-04	3/4"	1/4"
PRC-12-08	3/4"	1/2"
PRC-16-08	1"	1/2"

Tech Sheet 20885

Equal Male x Female Adaptors



Male x Female, NPT

0342	Thread
PPA-02	1/8"
PPA-04	1/4"
PPA-06	3/8"
PPA-08	1/2"
PPA-12	3/4"
PPA-16	1"

Tech Sheet 20885

Reducing Male x Female Adaptors



Male x Female, NPT

0342	Male Thread	Female Thread
PRA-02-01	1/16"	1/8"
PRA-04-02	1/8"	1/4"
PRA-06-02	1/8"	3/8"
PRA-06-04	1/4"	3/8"
PRA-08-02	1/8"	1/2"
PRA-08-04	1/4"	1/2"
PRA-08-06	3/8"	1/2"
PRA-12-04	1/4"	3/4"
PRA-12-06	3/8"	3/4"
PRA-12-08	1/2"	3/4"
PRA-16-04	1/4"	1"
PRA-16-08	1/2"	1"
PRA-16-12	3/4"	1"

Tech Sheet 20885

Gauge Adaptor



Male NPT x Female, BSPP

0342	Male Thread	Female Thread
PGA-04-04	1/4"	1/4"
PGA-06-06	3/8"	3/8"
PGA-08-08	1/2"	1/2"

Tech Sheet 20885

316 PRECISION INSTRUMENTATION PIPE FITTINGS

stainless
steel



Reducing Bushes



Male x Female, NPT

0342	Male Thread	Female Thread
PRB-02-01	1/8"	1/16"
PRB-04-02	1/4"	1/8"
PRB-06-02	3/8"	1/8"
PRB-06-04	3/8"	1/4"
PRB-08-02	1/2"	1/8"
PRB-08-04	1/2"	1/4"
PRB-08-06	1/2"	3/8"
PRB-12-04	3/4"	1/4"
PRB-12-06	3/4"	3/8"
PRB-12-08	3/4"	1/2"
PRB-16-04	1"	1/4"
PRB-16-06	1"	3/8"
PRB-16-08	1"	1/2"
PRB-16-12	1"	3/4"

Tech Sheet 20885

Pipe Caps



NPT

0342	Thread
PCP-02	1/8"
PCP-04	1/4"
PCP-06	3/8"
PCP-08	1/2"
PCP-12	3/4"
PCP-16	1"

Tech Sheet 20885

Pipe Plugs



NPT

0342	Thread
PP-01	1/16"
PP-02	1/8"
PP-04	1/4"
PP-06	3/8"
PP-08	1/2"
PP-12	3/4"
PP-16	1"

Tech Sheet 20885

Equal Elbows



Female, NPT

0342	Thread
PPFE-02	1/8"
PPFE-04	1/4"
PPFE-06	3/8"
PPFE-08	1/2"
PPFE-12	3/4"
PPFE-16	1"

Tech Sheet 20885



Male, NPT

0342	Thread
PPME-02	1/8"
PPME-04	1/4"
PPME-06	3/8"
PPME-08	1/2"

Tech Sheet 20885



Male x Female, NPT

0342	Thread
PSE-01	1/16"
PSE-02	1/8"
PSE-04	1/4"
PSE-06	3/8"
PSE-08	1/2"
PSE-12	3/4"
PSE-16	1"

Tech Sheet 20885

Equal Tees



Female, NPT

0342	Thread
PFT-02	1/8"
PFT-04	1/4"
PFT-06	3/8"
PFT-08	1/2"
PFT-12	3/4"
PFT-16	1"

Tech Sheet 20885



Male, NPT

0342	Thread
PMT-02	1/8"
PMT-04	1/4"
PMT-06	3/8"
PMT-08	1/2"

Tech Sheet 20885

Branch Tees



Female x Male, NPT

0342	Thread
PBT-02	1/8"
PBT-04	1/4"
PBT-06	3/8"
PBT-08	1/2"

Tech Sheet 20885

Equal Crosses



Female, NPT

0342	Thread
PPC-02	1/8"
PPC-04	1/4"
PPC-06	3/8"
PPC-08	1/2"
PPC-12	3/4"
PPC-16	1"

Tech Sheet 20885

316 STAINLESS STEEL ADAPTORS



stainless
steel



Threads:

Tapered gas in conformity with ISO 7.1, BS 21, DIN 2999.
Parallel gas in conformity with ISO 228 Class A.
Metric in conformity with ISO R/262.

Working Temperature:
-110°C to +300°C

Maximum Working Pressure:
-0.99 - 140 bar

Adaptors



Equal Male Thread, BSPT

0188	Thread
62000-1/8	1/8"
62000-1/4	1/4"
62000-3/8	3/8"
62000-1/2	1/2"
62000-3/4	3/4"

Tech Sheet 10708



Unequal Male Thread, BSPT

0188	Thread	Thread
62020-1/8-1/4	1/8"	1/4"
62020-1/8-3/8	1/8"	3/8"
62020-1/4-3/8	1/4"	3/8"
62020-1/4-1/2	1/4"	1/2"
62020-3/8-1/2	3/8"	1/2"
62020-1/2-3/4	1/2"	3/4"

Tech Sheet 10708



Male Thread, BSPT x Female Thread, BSPP

0188	Male Thread	Female Thread
62040-1/8-1/4	1/8"	1/4"
62040-1/4-3/8	1/4"	3/8"
62040-1/4-1/2	1/4"	1/2"
62040-3/8-1/2	3/8"	1/2"
62040-1/2-3/4	1/2"	3/4"

Tech Sheet 10708

Reducing Bush



Male Thread, BSPT x Female Thread, BSPP

0188	Male Thread	Female Thread
62080-1/4-1/8	1/4"	1/8"
62080-3/8-1/8	3/8"	1/8"
62080-3/8-1/4	3/8"	1/4"
62080-1/2-1/4	1/2"	1/4"
62080-1/2-3/8	1/2"	3/8"
62080-3/4-1/2	3/4"	1/2"

Tech Sheet 10708

Sockets



Equal Female Thread, BSPP

0188	Thread
62300-1/8	1/8"
62300-1/4	1/4"
62300-3/8	3/8"
62300-1/2	1/2"
62300-3/4	3/4"

Tech Sheet 10708



Unequal Female Thread, BSPP

0188	Thread	Thread
62310-1/8-1/4	1/8"	1/4"
62310-1/4-3/8	1/4"	3/8"
62310-3/8-1/2	3/8"	1/2"
62310-1/2-3/4	1/2"	3/4"

Tech Sheet 10708

Blanking Plugs



FKM O-Ring & Hexagon Recess, Male Thread, BSPP

0188	Thread
62315-M5	M5
62315-1/8	1/8"
62315-1/4	1/4"
62315-3/8	3/8"
62315-1/2	1/2"

Tech Sheet 10708



Male Thread, BSPP

0188	Thread
62320-1/8	1/8"
62320-1/4	1/4"
62320-3/8	3/8"
62320-1/2	1/2"
62320-3/4	3/4"

Tech Sheet 10708

Male Plugs



Male Thread, BSPT

0188	Thread
62325-1/8	1/8"
62325-1/4	1/4"
62325-3/8	3/8"
62325-1/2	1/2"

Tech Sheet 10708

316 STAINLESS STEEL ADAPTORS

stainless
steel


AIGNEP


Threads:

Tapered gas in conformity with ISO 7.1, BS 21, DIN 2999.

Parallel gas in conformity with ISO 228 Class A.

Metric in conformity with ISO R/262.

 **Working Temperature:**
-110°C to +300°C

 **Maximum Working Pressure:**
-0.99 - 140 bar

Equal Tees



Female Thread, BSPP

0188	Thread
62400-1/8	1/8"
62400-1/4	1/4"
62400-3/8	3/8"
62400-1/2	1/2"

Tech Sheet 10708



Female BSPP Run Tee x Male BSPT Branch

0188	Thread
62440-1/8	1/8"
62440-1/4	1/4"
62440-3/8	3/8"
62440-1/2	1/2"

Tech Sheet 10708



Male BSPT x Female BSPP Run Tee x Female BSPP Branch

0188	Thread
62450-1/8	1/8"
62450-1/4	1/4"
62450-3/8	3/8"
62450-1/2	1/2"

Tech Sheet 10708

Equal Elbows



Female Thread, BSPP

0188	Thread
62510-1/8	1/8"
62510-1/4	1/4"
62510-3/8	3/8"
62510-1/2	1/2"

Tech Sheet 10708



Male Thread, BSPT x Female Thread, BSPP

0188	Thread
62520-1/8	1/8"
62520-1/4	1/4"
62520-3/8	3/8"
62520-1/2	1/2"

Tech Sheet 10708

Bulkhead with Locknut



Female Thread, BSPP

0188	Thread
62360-1/8	1/8"
62360-1/4	1/4"
62360-3/8	3/8"
62360-1/2	1/2"
62360-3/4	3/4"

Tech Sheet 10708

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Male Stud Couplings



UNF

0215	Thread
205BM6	7/16"-20
205BM8	1/2"-20
205BM10	9/16"-18
205BM12	3/4"-16
205BM16	7/8"-14
205BM20	1.1/16"-12
205BM22	1.3/16"-12
205BM25	1.5/16"-12
205BM32	1.5/8"-12

Tech Sheet 20886



UNF x BSPT

0215	Thread	Thread
210BM6R18	7/16"-20	1/8"
210BM6R14	7/16"-20	1/4"
210BM6R12	7/16"-20	1/2"
210BM8R18	1/2"-20	1/8"
210BM8R14	1/2"-20	1/4"
210BM10R14	9/16"-18	1/4"
210BM10R18	9/16"-18	1/8"
210BM10R38	9/16"-18	3/8"
210BM10R12	9/16"-18	1/2"
210BM12R14	3/4"-16	1/4"
210BM12R38	3/4"-16	3/8"
210BM12R12	3/4"-16	1/2"
210BM16R12	7/8"-14	1/2"
210BM16R34	7/8"-14	3/4"
210BM20R12	1.1/16"-12	1/2"
210BM20R34	1.1/16"-12	3/4"
210BM20R1	1.1/16"-12	1"
210BM22R34	1.3/16"-12	3/4"
210BM25R34	1.5/16"-12	3/4"
210BM25R1	1.5/16"-12	1"
210BM32R1	1.5/8"-12	1"
210BM32R114	1.5/8"-12	1.1/4"
210BM38R112	1.7/8"-12	1.1/2"

Tech Sheet 20886



UNF x BSPP

0215	Thread	Thread
210SM6G18	7/16"-20	1/8"
210SM6G14	7/16"-20	1/4"
210SM6G38	7/16"-20	3/8"
210SM6G12	7/16"-20	1/2"
210SM8G18	1/2"-20	1/8"
210SM8G14	1/2"-20	1/4"
210SM8G38	1/2"-20	3/8"
210SM10G18	9/16"-18	1/8"
210SM10G14	9/16"-18	1/4"
210SM10G38	9/16"-18	3/8"
210SM10G12	9/16"-18	1/2"
210SM12G14	3/4"-16	1/4"
210SM12G38	3/4"-16	3/8"
210SM12G12	3/4"-16	1/2"
210SM12G34	3/4"-16	3/4"
210SM16G38	7/8"-14	3/8"
210SM16G12	7/8"-14	1/2"
210SM16G34	7/8"-14	3/4"
210SM20G12	1.1/16"-12	1/2"
210SM20G34	1.1/16"-12	3/4"
210SM20G1	1.1/16"-12	1"
210SM22G34	1.3/16"-12	3/4"
210SM25G34	1.5/16"-12	3/4"
210SM25G1	1.5/16"-12	1"
210SM25G114	1.5/16"-12	1.1/4"
210SM32G1	1.5/8"-12	1"
210SM32G114	1.5/8"-12	1.1/4"
210SM38G114	1.7/8"-12	1.1/4"
210SM38G112	1.7/8"-12	1.1/2"

Tech Sheet 20886



UNF x NPT

0215	Thread	Thread
214BM6N18	7/16"-20	1/8"
214BM6N14	7/16"-20	1/4"
214BM8N18	1/2"-20	1/8"
214BM8N14	1/2"-20	1/4"
214BM10N18	9/16"-18	1/8"
214BM10N14	9/16"-18	1/4"
214BM10N38	9/16"-18	3/8"
214BM10N12	9/16"-18	1/2"
214BM12N14	3/4"-16	1/4"
214BM12N38	3/4"-16	3/8"
214BM12N12	3/4"-16	1/2"
214BM12N34	3/4"-16	3/4"
214BM16N12	7/8"-14	1/2"
214BM20N12	1.1/16"-12	1/2"
214BM20N34	1.1/16"-12	3/4"
214BM20N1	1.1/16"-12	1"
214BM25N34	1.5/16"-12	3/4"
214BM25N1	1.5/16"-12	1"
214BM32N1	1.5/8"-12	1"
214BM32N114	1.5/8"-12	1.1/4"
214BM38N114	1.7/8"-12	1.1/4"
214BM38N112	1.7/8"-12	1.1/2"

Tech Sheet 20886

stainless
steel

For 316 Stainless Steel Tubing
see page 1287



For Flare Seals see page 111

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Female Stud Couplings



Male UNF x Female BSPP

0215	Male Thread	Female Thread
230BM6G18	7/16"-20	1/8"
230BM6G14	7/16"-20	1/4"
230BM6G12	7/16"-20	1/2"
230BM8G14	1/2"-20	1/4"
230BM10G18	9/16"-18	1/8"
230BM10G14	9/16"-18	1/4"
230BM10G38	9/16"-18	3/8"
230BM10G12	9/16"-18	1/2"
230BM12G14	3/4"-16	1/4"
230BM12G38	3/4"-16	3/8"
230BM12G12	3/4"-16	1/2"
230BM12G34	3/4"-16	3/4"
230BM16G38	7/8"-14	3/8"
230BM16G12	7/8"-14	1/2"
230BM16G34	7/8"-14	3/4"
230BM18G1	1.1/16"-12	1"
230BM22G34	1.3/16"-12	3/4"
230BM25G34	1.5/16"-12	3/4"
230BM25G1	1.5/16"-12	1"
230BM32G1	1.5/8"-12	1"
230BM32G114	1.5/8"-12	1.1/4"
230BM38G114	1.7/8"-12	1.1/2"
230BM38G112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Male UNF x Female NPT

0215	Male Thread	Female Thread
232BM6N18	7/16"-20	1/8"
232BM6N14	7/16"-20	1/4"
232BM8N14	1/2"-20	1/4"
232BM10N14	9/16"-18	1/4"
232BM10N38	9/16"-18	3/8"
232BM12N12	3/4"-16	1/2"
232BM20N12	1.1/16"-12	1/2"
232BM20N34	1.1/16"-12	3/4"
232BM25N1	1.5/16"-12	1"
232BM32N114	1.5/8"-12	1.1/4"
232BM38N112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Male UNF x Female BSPT

0215	Male Thread	Female Thread
231M6R18	7/16"-20	1/8"
231M6R14	7/16"-20	1/4"
231M6R12	7/16"-20	1/2"
231M8R18	1/2"-20	1/8"
231M8R14	1/2"-20	1/4"
231M10R18	9/16"-18	1/8"
231M10R14	9/16"-18	1/4"
231M10R38	9/16"-18	3/8"
231M10R12	9/16"-18	1/2"
231M12R14	3/4"-16	1/4"
231M12R38	3/4"-16	3/8"
231M12R12	3/4"-16	1/2"
231M12R34	3/4"-16	3/4"
231M16R38	7/8"-14	3/8"
231M16R12	7/8"-14	1/2"
231M16R34	7/8"-14	3/4"
231M18R34	1.1/16"-12	3/4"
231M18R1	1.1/16"-12	1"
231M22R34	1.3/16"-12	3/4"
231M25R34	1.5/16"-12	3/4"
231M25R1	1.5/16"-12	1"
231M32R1	1.5/8"-12	1"
231M32R114	1.5/8"-12	1.1/4"
231M38R114	1.7/8"-12	1.1/4"
231M38R112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Female Swivel Connectors



Male UNF x Female UNF

0215	Male Thread	Female Thread
273M6U716	7/16"-20	7/16"-20
273M8U716	1/2"-20	7/16"-20
273M8U12	1/2"-20	1/2"-20
273M10U716	9/16"-18	7/16"-20
273M10U916	9/16"-18	9/16"-18
273M12U916	3/4"-16	9/16"-18
273M16U34	7/8"-14	3/4"-16
273M18U34	1.1/16"-12	3/4"-16
273M18U1116	1.1/16"-12	1.1/16"-12
273M22U1116	1.3/16"-12	1.1/16"-12
273M25U1116	1.5/16"-12	1.1/16"-12
273M25U1516	1.5/16"-12	1.5/16"-12

Tech Sheet 20886

Male BSPP x Female UNF

0215	Male Thread	Female Thread
273M6G18	1/8"	7/16"-20
273M8G18	1/8"	1/2"-20
273M8G14	1/4"	1/2"-20
273M10G14	1/4"	9/16"-18
273M10G38	3/8"	9/16"-18
273M12G38	3/8"	3/4"-16
273M16G12	1/2"	7/8"-14
273M20G34	3/4"	1.1/16"-12
273M22G34	3/4"	1.3/16"-12
273M25G1	1"	1.5/16"-12
273M32G114	1.1/4"	1.5/8"-12
273M38G112	1.1/2"	1.7/8"-12

Tech Sheet 20886

Male NPT x Female UNF

0215	Male Thread	Female Thread
276M6N18	1/8"	7/16"-20
276M8N18	1/8"	1/2"-20
276M6N14	1/4"	7/16"-20
276M8N14	1/4"	1/2"-20
276M10N14	1/4"	9/16"-18
276M10N38	3/8"	9/16"-18
276M12N38	3/8"	3/4"-16
276M16N12	1/2"	7/8"-14
276M20N12	1/2"	1.1/16"-12
276M20N34	3/4"	1.1/16"-12
276M22N34	3/4"	1.3/16"-12
276M25N34	3/4"	1.5/16"-12
276M25N1	1"	1.5/16"-12
276M32N114	1.1/4"	1.5/8"-12
276M38N112	1.1/2"	1.7/8"-12

Tech Sheet 20886

Male BSPT x Female UNF

0215	Male Thread	Female Thread
273M6R18	1/8"	7/16"-20
273M8R14	1/4"	1/2"-20
273M10R14	1/4"	9/16"-18
273M12R14	1/4"	3/4"-16
273M12R38	3/8"	3/4"-16
273M16R12	1/2"	7/8"-14
273M20R12	1/2"	1.1/16"-12
273M20R34	3/4"	1.1/16"-12
273M22R34	3/4"	1.3/16"-12
273M25R34	3/4"	1.5/16"-12
273M25R1	1"	1.5/16"-12
273M32R114	1.1/4"	1.5/8"-12
273M38R112	1.1/2"	1.7/8"-12

Tech Sheet 20886

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Bulkhead Unions



Bulkhead complete with Locknut, UNF

0215	Thread
204M6U716	7/16"-20
204M8U12	1/2"-20
204M10U916	9/16"-18
204M12U34	3/4"-16
204M16U78	7/8"-14
204M18U1116	1.1/16"-12
204M22U1316	1.3/16"-12
204M25U1516	1.5/16"-12
204M32U158	1.5/8"-12
204M38U178	1.7/8"-12

Tech Sheet 20886

Bulkhead Locknuts

0215	Thread
199M6U716	7/16"-20
199M8U12	1/2"-20
199M10U916	9/16"-18
199M12U34	3/4"-16
199M16U78	7/8"-14
199M18U1116	1.1/16"-12
199M22U1316	1.3/16"-12
199M25U1516	1.5/16"-12
199M32U158	1.5/8"-12
199M38U178	1.7/8"-12

Tech Sheet 20886

Fixed Elbows



UNF

0215	Thread
206BM6	7/16"-20
206BM8	1/2"-20
206BM12	3/4"-16
206BM20	1.1/16"-12
206BM22	1.3/16"-12
206BM25	1.5/16"-12
206BM32	1.5/8"-12
206BM38	1.7/8"-12

Tech Sheet 20886

UNF Male x BSPT Male

0215	Thread	Thread
206M6R18	7/16"-20	1/8"
206M6R14	7/16"-20	1/4"
206M6R12	7/16"-20	1/2"
206M8R18	1/2"-20	1/8"
206M8R14	1/2"-20	1/4"
206M10R18	9/16"-18	1/8"
206M10R14	9/16"-18	1/4"
206M10R38	9/16"-18	3/8"
206M10R12	9/16"-18	1/2"
206M12R14	3/4"-16	1/4"
206M12R38	3/4"-16	3/8"
206M12R12	3/4"-16	1/2"
206M12R34	3/4"-16	3/4"
206M16R38	7/8"-14	3/8"
206M16R12	7/8"-14	1/2"
206M16R34	7/8"-14	3/4"
206M18R34	1.1/16"-12	3/4"
206M18R1	1.1/16"-12	1"
206M22R34	1.3/16"-12	3/4"
206M25R34	1.5/16"-12	3/4"
206M25R1	1.5/16"-12	1"
206M32R1	1.5/8"-12	1"
206M32R114	1.5/8"-12	1.1/4"
206M38R114	1.7/8"-12	1.1/4"
206M38R112	1.7/8"-12	1.1/2"

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UNF Male x 45° NPT Male

0215	Thread	Thread
285M6N18	7/16"-20	1/8"
285M8N14	1/2"-20	1/8"
285M10N12	9/16"-18	1/4"
285M12N18	3/4"-16	3/8"
285M16N14	7/8"-14	1/2"
285M18N18	1.1/16"-12	3/4"
285M22N14	1.3/16"-12	3/4"
285M25N38	1.5/16"-12	1"
285M32N12	1.5/8"-12	1.1/4"
285M38N14	1.7/8"-12	1.1/2"

Tech Sheet 20886



For Hydraulic Oil
see page 283

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Swivel Elbows



Male x Female, UNF

0215	Thread
275M6U716	7/16"-20
275M8U12	1/2"-20
275M10U916	9/16"-18
275M12U34	3/4"-16
275M16U78	7/8"-14
275M18U1116	1.1/16"-12
275M22U1316	1.3/16"-12
275M25U1516	1.5/16"-12
275M32U158	1.5/8"-12
275M38U178	1.7/8"-12

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Equal Female, UNF

0215	Thread
265M6U716	7/16"-20
265M8U12	1/2"-20
265M10U916	9/16"-18
265M12U34	3/4"-16
265M16U78	7/8"-14
265M18U1116	1.1/16"-12
265M22U1316	1.3/16"-12
265M25U1516	1.5/16"-12
265M32U158	1.5/8"-12
265M38U178	1.7/8"-12

Tech Sheet 20886



NPT Male x UNF Female

0215	Thread	Thread
275M6N18	7/16"-20	1/8"
275M6N14	7/16"-20	1/4"
275M6N12	7/16"-20	1/2"
275M8N18	1/2"-20	1/8"
275M8N14	1/2"-20	1/4"
275M10N18	9/16"-18	1/8"
275M10N14	9/16"-18	1/4"
275M10N38	9/16"-18	3/8"
275M10N12	9/16"-18	1/2"
275M12N14	3/4"-16	1/4"
275M12N38	3/4"-16	3/8"
275M12N12	3/4"-16	1/2"
275M12N34	3/4"-16	3/4"
275M16N38	7/8"-14	3/8"
275M16N12	7/8"-14	1/2"
275M16N34	7/8"-14	3/4"
275M18N34	1.1/16"-12	3/4"
275M18N1	1.1/16"-12	1"
275M22N34	1.3/16"-12	3/4"
275M25N34	1.5/16"-12	3/4"
275M25N1	1.5/16"-12	1"
275M32N1	1.5/8"-12	1"
275M32N114	1.5/8"-12	1.1/4"
275M38N114	1.7/8"-12	1.1/4"
275M38N112	1.7/8"-12	1.1/2"

Tech Sheet 20886

90° Position Elbows



UNF x BSPP

0215	Thread	Thread
216SM6G18	7/16"-20	1/8"
216SM6G14	7/16"-20	1/4"
216SM8G18	1/2"-20	1/8"
216SM10G38	9/16"-18	3/8"
216SM12G14	3/4"-16	1/4"
216SM12G38	3/4"-16	3/8"
216SM12G12	3/4"-16	1/2"
216SM12G34	3/4"-16	3/4"
216SM16G14	7/8"-14	1/4"
216SM16G38	7/8"-14	3/8"
216SM16G12	7/8"-14	1/2"
216SM16G34	7/8"-14	3/4"
216SM20G12	1.1/16"-12	1/2"
216SM20G34	1.1/16"-12	3/4"
216SM22G12	1.3/16"-12	1/2"
216SM22G34	1.3/16"-12	3/4"
216SM22G1	1.3/16"-12	1/2"
216SM25G12	1.5/16"-12	1/2"
216SM25G1	1.5/8"-12	1"
216SM32G1	1.5/8"-12	1"
216SM38G112	1.7/8"-12	1.1/2"

Tech Sheet 20886

Fixed Tees



UNF

0215	Thread
207BM6	7/16"-20
207BM8	1/2"-20
207BM10	9/16"-18
207BM12	3/4"-16
207BM16	7/8"-14
207BM20	1.1/16"-12
207BM22	1.3/16"-12
207BM25	1.5/16"-12
207BM32	1.5/8"-12

Tech Sheet 20886



UNF Male x NPT Male Branch

0215	Thread	Thread
307M6N18	7/16"-20	1/8"
307M6N14	7/16"-20	1/4"
307M6N12	7/16"-20	1/2"
307M8N18	1/2"-20	1/8"
307M8N14	1/2"-20	1/4"
307M10N18	9/16"-18	1/8"
307M10N14	9/16"-18	1/4"
307M10N38	9/16"-18	3/8"
307M10N12	9/16"-18	1/2"
307M12N14	3/4"-16	1/4"
307M12N38	3/4"-16	3/8"
307M12N12	3/4"-16	1/2"
307M12N34	3/4"-16	3/4"
307M16N38	7/8"-14	3/8"
307M16N12	7/8"-14	1/2"
307M16N34	7/8"-14	3/4"
307M18N34	1.1/16"-12	3/4"
307M18N1	1.1/16"-12	1"
307M22N34	1.3/16"-12	3/4"
307M25N34	1.5/16"-12	3/4"
307M25N1	1.5/16"-12	1"
307M32N1	1.5/8"-12	1"
307M32N114	1.5/8"-12	1.1/4"
307M38N114	1.7/8"-12	1.1/4"
307M38N112	1.7/8"-12	1.1/2"

Tech Sheet 20886

For Flare Seals see page 111

37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Fixed Tees



UNF Male x NPT Male Run

0215	Thread	Thread
309M6N18	7/16"-20	1/8"
309M6N14	7/16"-20	1/4"
309M6N12	7/16"-20	1/2"
309M8N18	1/2"-20	1/8"
309M8N14	1/2"-20	1/4"
309M10N18	9/16"-18	1/8"
309M10N14	9/16"-18	1/4"
309M10N38	9/16"-18	3/8"
309M10N12	9/16"-18	1/2"
309M12N14	3/4"-16	1/4"
309M12N38	3/4"-16	3/8"
309M12N12	3/4"-16	1/2"
309M12N34	3/4"-16	3/4"
309M16N38	7/8"-14	3/8"
309M16N12	7/8"-14	1/2"
309M16N34	7/8"-14	3/4"
309M18N34	1.1/16"-12	3/4"
309M18N1	1.1/16"-12	1"
309M22N34	1.3/16"-12	3/4"
309M25N34	1.5/16"-12	3/4"
309M25N1	1.5/16"-12	1"
309M32N1	1.5/8"-12	1"
309M32N114	1.5/8"-12	1.1/4"
309M38N114	1.7/8"-12	1.1/4"
309M38N112	1.7/8"-12	1.1/2"

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Swivel Tees



Female Swivel, UNF

0215	Thread
310M6U716	7/16"-20
310M8U12	1/2"-20
310M10U916	9/16"-18
310M12U34	3/4"-16
310M16U78	7/8"-14
310M18U1116	1.1/16"-12
310M22U1316	1.3/16"-12
310M25U1516	1.5/16"-12
310M32U158	1.5/8"-12
310M38U178	1.7/8"-12

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Female Swivel Branch, UNF

0215	Thread
314M6U716	7/16"-20
314M8U12	1/2"-20
314M10U916	9/16"-18
314M12U34	3/4"-16
314M16U78	7/8"-14
314M18U1116	1.1/16"-12
314M22U1316	1.3/16"-12
314M25U1516	1.5/16"-12
314M32U158	1.5/8"-12
314M38U178	1.7/8"-12

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Female Swivel Run, UNF

0215	Thread
312M6U716	7/16"-20
312M8U12	1/2"-20
312M10U916	9/16"-18
312M12U34	3/4"-16
312M16U78	7/8"-14
312M18U1116	1.1/16"-12
312M22U1316	1.3/16"-12
312M25U1516	1.5/16"-12
312M32U158	1.5/8"-12
312M38U178	1.7/8"-12

Tech Sheet 20886

Position Tees



UNF Male x BSPP Male

0215	Thread	Thread
308M6G18	7/16"-20	1/8"
308M6G14	7/16"-20	1/4"
308M8G18	1/2"-20	1/8"
308M8G14	1/2"-20	1/4"
308M10G14	9/16"-18	1/4"
308M10G38	9/16"-18	3/8"
308M12G14	3/4"-16	1/4"
308M12G38	3/4"-16	3/8"
308M12G12	3/4"-16	1/2"
308M12G34	3/4"-16	3/4"
308M16G14	7/8"-14	1/4"
308M16G38	7/8"-14	3/8"
308M16G12	7/8"-14	1/2"
308M16G34	7/8"-14	3/4"
308M20G12	1.1/16"-12	1/2"
308M20G34	1.1/16"-12	3/4"
308M22G34	1.3/16"-12	1/2"
308M22G1	1.3/16"-12	3/4"
308M22G12	1.3/16"-12	1"
308M25G34	1.5/16"-12	1/2"
308M25G1	1.5/16"-12	3/4"
308M32G1	1.5/8"-12	1"
308M32G114	1.5/8"-12	1"
308M38G114	1.7/8"-12	1.1/4"
308M38G112	1.7/8"-12	1.1/2"

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Cross



Male, UNF

0215	Thread
320M6U716	7/16"-20
320M8U12	1/2"-20
320M10U916	9/16"-18
320M12U34	3/4"-16
320M16U78	7/8"-14
320M18U1116	1.1/16"-12
320M22U1316	1.3/16"-12
320M25U1516	1.5/16"-12
320M32U158	1.5/8"-12
320M38U178	1.7/8"-12

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37° JIC STAINLESS STEEL FLARE FITTINGS

stainless
steel



Swivel Caps



UNF

0215	Thread
289M6U716	7/16"-20
289M8U12	1/2"-20
289M10U916	9/16"-18
289M12U34	3/4"-16
289M16U78	7/8"-14
289M22U1316	1.3/16"-12
289M25U1516	1.5/16"-12
289M32U158	1.5/8"-12
289M38U178	1.7/8"-12

Tech Sheet 20886

Blanking Plugs



UNF

0215	Thread
299M6	7/16"-20
299M8	1/2"-20
299M10	9/16"-18
299M12	3/4"-16
299M16	7/8"-14
299M20	1.1/16"-12
299M22	1.3/16"-12
299M25	1.5/16"-12
299M32	1.5/8"-12
299M38	1.7/8"-12

Tech Sheet 20886

Reducing Adaptors



UNF Tube x UNF Male

0215	OD mm	OD mm	Male Thread
303M6U716	10	6	7/16"-20
303M6U34	12	6	3/4"-16
303M10U34	12	10	3/4"-16
303M6U78	16	6	7/8"-14
303M10U78	16	10	7/8"-14
303M6U1116	18	6	1.1/16"-12
303M10U1116	18	10	1.1/16"-12
303M12U1116	18	12	1.1/16"-12
303M10U1316	22	10	1.3/16"-12
303M16U1316	22	16	1.3/16"-12
303M6U1516	25	6	1.5/16"-12
303M10U1516	25	10	1.5/16"-12
303M12U1516	25	12	1.5/16"-12
303M16U1516	25	16	1.5/16"-12
303M18U1516	25	18	1.5/16"-12
303M18U158	32	18	1.5/8"-12
303M25U158	32	25	1.5/8"-12
303M12U178	38	12	1.7/8"-12
303M18U178	38	18	1.7/8"-12
303M25U178	38	25	1.7/8"-12

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Tube Nuts



UNF

0215	Thread
201M6U716	7/16"-20
201M8U12	1/2"-20
201M10U916	9/16"-18
201M12U34	3/4"-16
201M16U78	7/8"-14
201M20U1116	1.1/16"-12
201M22U1316	1.3/16"-12
201M25U1516	1.5/16"-12
201M32U158	1.5/8"-12
201M38U178	1.7/8"-12

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Flare Sleeves



Metric

0215	OD mm
203M6	6
203M8	8
203M10	10
203M12	12
203M14	14
203M15	15
203M16Z58	16
203M18	18
203M20	20
203M25	25
203M30	30
203M32	32
203M38Z112	38

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Imperial

0215	OD
203Z14	1/4"
203Z516	5/16"
203Z38	3/8"
203Z12	1/2"
203M15Z58	5/8"
203Z34	3/4"
203Z1	1"

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For Flare Seals see page 111

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Male x Male Straight Adaptors



BSPP x BSPP

0339	Thread	Thread
2G-2G-MM-10K	1/8"	1/8"
2G-4G-MM-10K	1/8"	1/4"
2G-6G-MM-10K	1/8"	3/8"
2G-8G-MM-10K	1/8"	1/2"
2G-12G-MM-10K	1/8"	3/4"
2G-16G-MM-10K	1/8"	1"
4G-4G-MM-10K	1/4"	1/4"
4G-6G-MM-10K	1/4"	3/8"
4G-8G-MM-10K	1/4"	1/2"
4G-12G-MM-10K	1/4"	3/4"
4G-16G-MM-10K	1/4"	1"
6G-6G-MM-10K	3/8"	3/8"
6G-8G-MM-10K	3/8"	1/2"
6G-12G-MM-10K	3/8"	3/4"
6G-16G-MM-10K	3/8"	1"
8G-8G-MM-10K	1/2"	1/2"
8G-12G-MM-10K	1/2"	3/4"
8G-16G-MM-10K	1/2"	1"
12G-12G-MM-10K	3/4"	3/4"
12G-16G-MM-10K	3/4"	1"
16G-16G-MM-10K	1"	1"

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BSPP x NPT

0339	Thread	Thread
2G-2N-MM-10K	1/8"	1/8"
2G-4N-MM-10K	1/8"	1/4"
2G-6N-MM-10K	1/8"	3/8"
2G-8N-MM-10K	1/8"	1/2"
2G-12N-MM-10K	1/8"	3/4"
2G-16N-MM-10K	1/8"	1"
4G-2N-MM-10K	1/4"	1/8"
4G-4N-MM-10K	1/4"	1/4"
4G-6N-MM-10K	1/4"	3/8"
4G-8N-MM-10K	1/4"	1/2"
4G-12N-MM-10K	1/4"	3/4"
4G-16N-MM-10K	1/4"	1"
6G-4N-MM-10K	3/8"	1/4"
6G-6N-MM-10K	3/8"	3/8"
6G-8N-MM-10K	3/8"	1/2"
6G-12N-MM-10K	3/8"	3/4"
6G-16N-MM-10K	3/8"	1"
8G-4N-MM-10K	1/2"	1/4"
8G-6N-MM-10K	1/2"	3/8"
8G-8N-MM-10K	1/2"	1/2"
8G-12N-MM-10K	1/2"	3/4"
8G-16N-MM-10K	1/2"	1"
12G-12N-MM-10K	3/4"	3/4"
12G-16N-MM-10K	3/4"	1"
16G-16N-MM-10K	1"	1"

Tech Sheet 20887



BSPP x JIC

0339	Thread	Thread
2G-4J-MM-10K	1/8"	7/16"
2G-6J-MM-10K	1/8"	9/16"
4G-4J-MM-10K	1/4"	7/16"
4G-6J-MM-10K	1/4"	9/16"
4G-8J-MM-10K	1/4"	3/4"
6G-4J-MM-10K	3/8"	7/16"
6G-6J-MM-10K	3/8"	9/16"
6G-8J-MM-10K	3/8"	3/4"
6G-10J-MM-10K	3/8"	7/8"
6G-12J-MM-10K	3/8"	1.1/16"
8G-4J-MM-10K	1/2"	7/16"
8G-8J-MM-10K	1/2"	3/4"
8G-10J-MM-10K	1/2"	7/8"
8G-12J-MM-10K	1/2"	1.1/16"
8G-16J-MM-10K	1/2"	1.5/16"
12G-8J-MM-10K	3/4"	3/4"
12G-10J-MM-10K	3/4"	7/8"
12G-12J-MM-10K	3/4"	1.1/16"
12G-16J-MM-10K	3/4"	1.5/16"
16G-10J-MM-10K	1"	7/8"
16G-12J-MM-10K	1"	1.1/16"
16G-16J-MM-10K	1"	1.5/16"

Tech Sheet 20887



NPT x NPT

0339	Thread	Thread
2N-2N-MM-10K	1/8"	1/8"
2N-4N-MM-10K	1/8"	1/4"
4N-4N-MM-10K	1/4"	1/4"
4N-6N-MM-10K	1/4"	3/8"
4N-8N-MM-10K	1/4"	1/2"
6N-2N-MM-10K	3/8"	1/8"
6N-6N-MM-10K	3/8"	3/8"
6N-8N-MM-10K	3/8"	1/2"
8N-2N-MM-10K	1/2"	1/8"
8N-8N-MM-10K	1/2"	1/2"
12N-2N-MM-10K	3/4"	1/8"
12N-4N-MM-10K	3/4"	1/4"
12N-6N-MM-10K	3/4"	3/8"
12N-8N-MM-10K	3/4"	1/2"
12N-12N-MM-10K	3/4"	3/4"
16N-2N-MM-10K	1"	1/8"
16N-4N-MM-10K	1"	1/4"
16N-6N-MM-10K	1"	3/8"
16N-8N-MM-10K	1"	1/2"
16N-12N-MM-10K	1"	3/4"
16N-16N-MM-10K	1"	1"

Tech Sheet 20887



NPT x JIC

0339	Thread	Thread
2N-2J-MM-10K	1/8"	5/16"
2N-4J-MM-10K	1/8"	7/16"
4N-4J-MM-10K	1/4"	7/16"
4N-6J-MM-10K	1/4"	9/16"
4N-8J-MM-10K	1/4"	3/4"
6N-4J-MM-10K	3/8"	7/16"
6N-6J-MM-10K	3/8"	9/16"
6N-8J-MM-10K	3/8"	3/4"
6N-12J-MM-10K	3/8"	1.1/16"
8N-4J-MM-10K	1/2"	7/16"
8N-6J-MM-10K	1/2"	9/16"
8N-8J-MM-10K	1/2"	3/4"
8N-12J-MM-10K	1/2"	1.1/16"
12N-8J-MM-10K	3/4"	3/4"
12N-12J-MM-10K	3/4"	1.1/16"
12N-16J-MM-10K	3/4"	1.5/16"
16N-12J-MM-10K	1"	1.1/16"
16N-16J-MM-10K	1"	1.5/16"

Tech Sheet 20887



JIC x JIC

0339	Thread	Thread
4J-4J-MM-10K	7/16"	7/16"
4J-6J-MM-10K	7/16"	9/16"
4J-8J-MM-10K	7/16"	3/4"
6J-6J-MM-10K	9/16"	9/16"
6J-8J-MM-10K	9/16"	3/4"
6J-10J-MM-10K	9/16"	7/8"
8J-8J-MM-10K	3/4"	3/4"
8J-10J-MM-10K	3/4"	7/8"
8J-12J-MM-10K	3/4"	1.1/16"
10J-10J-MM-10K	7/8"	7/8"
10J-12J-MM-10K	7/8"	1.1/16"
10J-16J-MM-10K	7/8"	1.5/16"
12J-16J-MM-10K	1.1/16"	1.5/16"
16J-16J-MM-10K	1.5/16"	1.5/16"

Tech Sheet 20887

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPF fittings are 60° coned for connection to hoses.

Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Straight Adaptors



BSPP x BSPP

0339	Male Thread	Female Thread
2G-2G-MF-A-10K	1/8"	1/8"
2G-4G-MF-A-10K	1/8"	1/4"
2G-6G-MF-A-10K	1/8"	3/8"
2G-8G-MF-A-10K	1/8"	1/2"
2G-12G-MF-A-10K	1/8"	3/4"
4G-4G-MF-A-10K	1/4"	1/4"
4G-6G-MF-A-10K	1/4"	3/8"
4G-8G-MF-A-10K	1/4"	1/2"
4G-12G-MF-A-10K	1/4"	3/4"
6G-6G-MF-A-10K	3/8"	3/8"
6G-8G-MF-A-10K	3/8"	1/2"
6G-12G-MF-A-10K	3/8"	3/4"
8G-16G-MF-A-10K	3/8"	1"
8G-8G-MF-A-10K	1/2"	1/2"
8G-12G-MF-A-10K	1/2"	3/4"
8G-16G-MF-A-10K	1/2"	1"
12G-12G-MF-A-10K	3/4"	3/4"
12G-16G-MF-A-10K	3/4"	1"
16G-16G-MF-A-10K	1"	1"

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NPT x NPT

0339	Male Thread	Female Thread
2N-2N-MF-A-10K	1/8"	1/8"
2N-4N-MF-A-10K	1/8"	1/4"
2N-6N-MF-A-10K	1/8"	3/8"
2N-8N-MF-A-10K	1/8"	1/2"
2N-12N-MF-A-10K	1/8"	3/4"
4N-4N-MF-A-10K	1/4"	1/4"
4N-6N-MF-A-10K	1/4"	3/8"
4N-8N-MF-A-10K	1/4"	1/2"
4N-12N-MF-A-10K	1/4"	3/4"
4N-16N-MF-A-10K	1/4"	1"
6N-6N-MF-A-10K	3/8"	3/8"
6N-8N-MF-A-10K	3/8"	1/2"
6N-12N-MF-A-10K	3/8"	3/4"
6N-16N-MF-A-10K	3/8"	1"
8N-8N-MF-A-10K	1/2"	1/2"
8N-12N-MF-A-10K	1/2"	3/4"
8N-16N-MF-A-10K	1/2"	1"
12N-12N-MF-A-10K	3/4"	3/4"
12N-16N-MF-A-10K	3/4"	1"
16N-16N-MF-A-10K	1"	1"

Tech Sheet 20887

JIC x NPT

0339	Male Thread	Female Thread
4J-2N-MF-A-10K	7/16"-20	1/8"
4J-4N-MF-A-10K	7/16"-20	1/4"
6J-4N-MF-A-10K	9/16"-18	1/4"
4J-6N-MF-A-10K	7/16"-20	3/8"
6J-6N-MF-A-10K	9/16"-18	3/8"
8J-6N-MF-A-10K	3/4"-16	3/8"
8J-8N-MF-A-10K	9/16"-18	1/2"
10J-8N-MF-A-10K	3/4"-16	1/2"
12J-8N-MF-A-10K	7/8"-14	1/2"
12J-12N-MF-A-10K	3/4"-16	1/2"
16J-16N-MF-A-10K	7/8"-14	1/2"

Tech Sheet 20887

BSPP x JIC, Swivel

0339	Male Thread	Female Thread
4G-4J-MF-10K	1/4"	7/16"
4G-5J-MF-10K	1/4"	1/2"
4G-6J-MF-10K	1/4"	9/16"
6G-6J-MF-10K	3/8"	9/16"
8G-6J-MF-10K	1/2"	9/16"
6G-8J-MF-10K	3/8"	3/4"
8G-8J-MF-10K	1/2"	3/4"
6G-10J-MF-10K	3/8"	7/8"
8G-10J-MF-10K	1/2"	7/8"
12G-10J-MF-10K	3/4"	7/8"
8G-12J-MF-10K	1/2"	1.1/16"
12G-12J-MF-10K	3/4"	1.1/16"
16G-12J-MF-10K	1"	1.1/16"
12G-16J-MF-10K	3/4"	1.5/16"
16G-16J-MF-10K	1"	1.5/16"

Tech Sheet 20887



NPT x JIC, Swivel

0339	Male Thread	Female Thread
4N-4J-MF-10K	1/4"	7/16"
6N-6J-MF-10K	3/8"	9/16"
6N-8J-MF-10K	3/8"	3/4"
8N-10J-MF-10K	1/2"	7/8"
8N-12J-MF-10K	1/2"	1.1/16"
12N-12J-MF-10K	3/4"	1.1/16"
12N-14J-MF-10K	3/4"	1.3/16"
12N-16J-MF-10K	3/4"	1.5/16"
16N-16J-MF-10K	1"	1.5/16"

Tech Sheet 20887



JIC x JIC, Swivel

0339	Male Thread	Female Thread
4J-4J-MF-10K	7/16"	7/16"
4J-6J-MF-10K	7/16"	9/16"
4J-8J-MF-10K	7/16"	3/4"
6J-4J-MF-10K	9/16"	7/16"
6J-6J-MF-10K	9/16"	9/16"
6J-8J-MF-10K	9/16"	3/4"
8J-4J-MF-10K	3/4"	7/16"
8J-6J-MF-10K	3/4"	9/16"
10J-8J-MF-10K	7/8"	3/4"
12J-8J-MF-10K	1.1/16"	3/4"
12J-12J-MF-10K	1.1/16"	1.1/16"
14J-12J-MF-10K	1.3/16"	1.1/16"
16J-12J-MF-10K	1.5/16"	1.1/16"
16J-16J-MF-10K	1.5/16"	1.5/16"

Tech Sheet 20887



For Hydraulic Adaptors
see pages 82-84

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.

Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Straight Reducers



BSPP

0339	Male Thread	Female Thread
4G-2G-MF-B-10K	1/4"	1/8"
6G-2G-MF-B-10K	3/8"	1/8"
6G-4G-MF-B-10K	3/8"	1/4"
8G-2G-MF-B-10K	1/2"	1/8"
8G-4G-MF-B-10K	1/2"	1/4"
8G-6G-MF-B-10K	1/2"	3/8"
12G-2G-MF-B-10K	3/4"	1/8"
12G-4G-MF-B-10K	3/4"	1/4"
12G-6G-MF-B-10K	3/4"	3/8"
12G-8G-MF-B-10K	3/4"	1/2"
16G-2G-MF-B-10K	1"	1/8"
16G-4G-MF-B-10K	1"	1/4"
16G-6G-MF-B-10K	1"	3/8"
16G-8G-MF-B-10K	1"	1/2"
16G-12G-MF-B-10K	1"	3/4"

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NPT

0339	Male Thread	Female Thread
4N-2N-MF-B-10K	1/4"	1/8"
6N-2N-MF-B-10K	3/8"	1/8"
6N-4N-MF-B-10K	3/8"	1/4"
8N-2N-MF-B-10K	1/2"	1/8"
8N-4N-MF-B-10K	1/2"	1/4"
8N-6N-MF-B-10K	1/2"	3/8"
12N-2N-MF-B-10K	3/4"	1/8"
12N-4N-MF-B-10K	3/4"	1/4"
12N-6N-MF-B-10K	3/4"	3/8"
12N-8N-MF-B-10K	3/4"	1/2"
16N-2N-MF-B-10K	1"	1/8"
16N-4N-MF-B-10K	1"	1/4"
16N-6N-MF-B-10K	1"	3/8"
16N-8N-MF-B-10K	1"	1/2"
16N-12N-MF-B-10K	1"	3/4"

Tech Sheet 20887

Female x Female Straight Adaptors



Swivel, BSPP

0339	Thread	Thread
4G-4G-FF-10K	1/4"	1/4"
4G-6G-FF-10K	1/4"	3/8"
4G-8G-FF-10K	1/4"	1/2"
6G-6G-FF-10K	3/8"	3/8"
6G-8G-FF-10K	3/8"	1/2"
8G-8G-FF-10K	1/2"	1/2"
12G-12G-FF-10K	3/4"	3/4"
16G-16G-FF-10K	1"	1"

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Fixed, NPT

0339	Thread	Thread
2N-2N-FF-10K	1/8"	1/8"
2N-4N-FF-10K	1/8"	1/4"
2N-6N-FF-10K	1/8"	3/8"
2N-8N-FF-10K	1/8"	1/2"
2N-12N-FF-10K	1/8"	3/4"
2N-16N-FF-10K	1/8"	1"
4N-4N-FF-10K	1/4"	1/4"
4N-6N-FF-10K	1/4"	3/8"
4N-8N-FF-10K	1/4"	1/2"
4N-12N-FF-10K	1/4"	3/4"
4N-16N-FF-10K	1/4"	1"
6N-6N-FF-10K	3/8"	3/8"
6N-8N-FF-10K	3/8"	1/2"
6N-12N-FF-10K	3/8"	3/4"
6N-16N-FF-10K	3/8"	1"
8N-8N-FF-10K	1/2"	1/2"
8N-12N-FF-10K	1/2"	3/4"
8N-16N-FF-10K	1/2"	1"
12N-12N-FF-10K	3/4"	3/4"
12N-16N-FF-10K	3/4"	1"
16N-16N-FF-10K	1"	1"

Tech Sheet 20887



Swivel, JIC

0339	Thread	Thread
4J-4J-FF-10K	7/16"	7/16"
4J-6J-FF-10K	7/16"	9/16"
4J-8J-FF-10K	9/16"	3/4"
6J-6J-FF-10K	9/16"	9/16"
6J-8J-FF-10K	9/16"	3/4"
8J-8J-FF-10K	3/4"	3/4"
12J-12J-FF-10K	1.1/16"	1.1/16"
16J-16J-FF-10K	1.5/16"	1.5/16"

Tech Sheet 20887

Male x Male Elbows



BSPP

0339	Thread
2G-E-MM-10K	1/8"
4G-E-MM-10K	1/4"
6G-E-MM-10K	3/8"
8G-E-MM-10K	1/2"
12G-E-MM-10K	3/4"
16G-E-MM-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-E-MM-10K	1/8"
4N-E-MM-10K	1/4"
6N-E-MM-10K	3/8"
8N-E-MM-10K	1/2"
12N-E-MM-10K	3/4"
16N-E-MM-10K	1"

Tech Sheet 20887

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Male x Female Elbows



Swivel, BSPP

0339	Thread
2G-E-MF-10K	1/8"
4G-E-MF-10K	1/4"
6G-E-MF-10K	3/8"
8G-E-MF-10K	1/2"
12G-E-MF-10K	3/4"
16G-E-MF-10K	1"

Tech Sheet 20887



Fixed, NPT

0339	Thread
2N-E-MF-10K	1/8"
4N-E-MF-10K	1/4"
6N-E-MF-10K	3/8"
8N-E-MF-10K	1/2"
12N-E-MF-10K	3/4"
16N-E-MF-10K	1"

Tech Sheet 20887



Swivel, JIC

0339	Thread
4J-E-MF-10K	7/16"
6J-E-MF-10K	9/16"
8J-E-MF-10K	3/4"
10J-E-MF-10K	7/8"
12J-E-MF-10K	1.1/16"
16J-E-MF-10K	1.5/16"

Tech Sheet 20887



NPT x JIC

0339	Male Thread	Female Thread
4N-4J-E-MF-10K	1/4"	7/16"
6N-6J-E-MF-10K	3/8"	9/16"
8N-8J-E-MF-10K	1/2"	3/4"
12N-12J-E-MF-10K	3/4"	1.1/16"

Tech Sheet 20887

Female x Female Elbows



BSPP

0339	Thread
2G-E-FF-10K	1/8"
4G-E-FF-10K	1/4"
6G-E-FF-10K	3/8"
8G-E-FF-10K	1/2"
12G-E-FF-10K	3/4"
16G-E-FF-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-E-10K	1/8"
4N-E-10K	1/4"
6N-E-10K	3/8"
8N-E-10K	1/2"
12N-E-10K	3/4"
16N-E-10K	1"

Tech Sheet 20887



JIC

0339	Thread
2J-E-FF-10K	7/16"
4J-E-FF-10K	9/16"
6J-E-FF-10K	3/4"
8J-E-FF-10K	7/8"
12J-E-FF-10K	1.1/16"
16J-E-FF-10K	1.5/16"

Tech Sheet 20887

Male x Male Tees



BSPP

0339	Thread
2G-T-MM-10K	1/8"
4G-T-MM-10K	1/4"
6G-T-MM-10K	3/8"
8G-T-MM-10K	1/2"
12G-T-MM-10K	3/4"
16G-T-MM-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-T-MM-10K	1/8"
4N-T-MM-10K	1/4"
6N-T-MM-10K	3/8"
8N-T-MM-10K	1/2"
12N-T-MM-10K	3/4"
16N-T-MM-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-T-MM-10K	7/16"
5J-T-MM-10K	1/2"
6J-T-MM-10K	9/16"
8J-T-MM-10K	3/4"
10J-T-MM-10K	7/8"
12J-T-MM-10K	1.1/16"
14J-T-MM-10K	1.3/16"
16J-T-MM-10K	1.5/16"

Tech Sheet 20887

10,000 PSI RATED, 316 STAINLESS STEEL ADAPTORS

stainless
steel



These fittings within the industry are known as 10K fittings which have a 10,000 psi working pressure rating. All BSPP fittings are 60° coned for connection to hoses.



Maximum Working Pressure:
10,000 psi (690 bar)

Female x Female Tees



BSPP

0339	Thread
2G-T-FF-10K	1/8"
4G-T-FF-10K	1/4"
6G-T-FF-10K	3/8"
8G-T-FF-10K	1/2"
12G-T-FF-10K	3/4"
16G-T-FF-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-T-10K	1/8"
4N-T-10K	1/4"
6N-T-10K	3/8"
8N-T-10K	1/2"
12N-T-10K	3/4"

Tech Sheet 20887



JIC

0339	Thread
2J-T-FF-10K	7/16"
4J-T-FF-10K	9/16"
6J-T-FF-10K	3/4"
8J-T-FF-10K	7/8"
12J-T-FF-10K	1.1/16"
16J-T-FF-10K	1.5/16"

Tech Sheet 20887

Female Equal Cross



NPT

0339	Thread
2N-X-10K	1/8"
4N-X-10K	1/4"
6N-X-10K	3/8"
8N-X-10K	1/2"
12N-X-10K	3/4"
16N-X-10K	1"

Tech Sheet 20887

Plugs



BSPP

0339	Thread
2G-P-10K	1/8"
4G-P-10K	1/4"
6G-P-10K	3/8"
8G-P-10K	1/2"
12G-P-10K	3/4"
16G-P-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-P-10K	1/8"
4N-P-10K	1/4"
6N-P-10K	3/8"
8N-P-10K	1/2"
12N-P-10K	3/4"
16N-P-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-P-10K	7/16"
6J-P-10K	9/16"
8J-P-10K	3/4"
10J-P-10K	7/8"
12J-P-10K	1.1/16"
16J-P-10K	1.5/16"

Tech Sheet 20887

Caps



BSPP

0339	Thread
2G-C-10K	1/8"
4G-C-10K	1/4"
6G-C-10K	3/8"
8G-C-10K	1/2"
12G-C-10K	3/4"
16G-C-10K	1"

Tech Sheet 20887



NPT

0339	Thread
2N-C-10K	1/8"
4N-C-10K	1/4"
6N-C-10K	3/8"
8N-C-10K	1/2"
12N-C-10K	3/4"
16N-C-10K	1"

Tech Sheet 20887



JIC

0339	Thread
4J-C-10K	7/16"
6J-C-10K	9/16"
8J-C-10K	3/4"
10J-C-10K	7/8"
12J-C-10K	1.1/16"
16J-C-10K	1.5/16"

Tech Sheet 20887

316 Stainless Steel Tube

3 metre lengths next day.

6 metre lengths may take up to 3 working days to be delivered, dependant on weight and delivery address location. Additional carriage charges may apply.

For full details please contact our Business Development Team.

Minimum of 10 lengths is advised up to 8mm to prevent damage in transit.



Seamless ASTM A269, Metric, 6 Metre Lengths

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610-6M	6	1	428
765-6X1.5-6M	6	1.5	627
765-0810-6M	8	1	321
765-8X1.5-6M	8	1.5	472
765-1013-6M	10	1	257
765-10X1.5-6M	10	1.5	385
765-12X1.5-6M	12	1.5	321
765-1515-6M	15	1.5	257
765-16X1.5-6M	16	1.5	235
765-1602-6M	16	2	321
765-20X2-6M	20	2	257
765-25X2.5-6M	25	2.5	210
765-30X3-6M	30	3	257

Tech Sheet 831

Seamless ASTM A269, Metric, 3 Metre Lengths, Random

0214	OD mm	Wall Thickness mm	Max Pressure Bar
765-0610	6	1	428
765-6X1.5	6	1.5	627
765-6X2	6	2	942
765-0813	8	1	321
765-8X1.5	8	1.5	472
765-8X2	8	2	706
765-1013	10	1	257
765-10X1.5	10	1.5	385
765-10X2	10	2	564
765-1213	12	1	210
765-12X1.5	12	1.5	321
765-12X2	12	2	420
765-1513	15	1	200
765-15X1.5	15	1.5	257
765-15X2	15	2	376
765-16X1.5	16	1.5	235
765-16X2	16	2	321
765-18X1.5	18	1.5	235
765-18X2	18	2	314
765-20X1.5	20	1.5	212
765-20X2	20	2	257
765-20X3	20	3	424
765-22X1.5	22	1.5	193
765-22X2	22	2	256
765-25X1.5	25	1.5	169
765-25X2	25	2	226
765-25X2.5	25	2.5	210
765-25X3	25	3	339
765-28X2	28	2	201
765-30X3	30	3	257
765-35X3	35	3	242
765-42X3	42	3	201

Tech Sheet 831

Seamless ASTM A269, Imperial, 3 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372	1/8"	20	718
2020-1380	1/4"	20	360
2020-1406	3/8"	20	240
2020-1414	1/2"	20	180
2020-1422	3/4"	20	120
2020-1430	1"	20	90

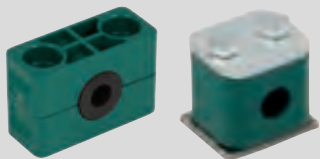
Tech Sheet 831

Seamless ASTM A269, Imperial, 6 Metre Lengths, Random

0214	OD	SWG	Max Pressure Bar
2020-1372-6M	1/8"	20	750
2020-1380-6M	1/4"	20	360
2020-1406-6M	3/8"	20	240
2020-1414-6M	1/2"	20	180
2020-1422-6M	3/4"	20	120
2020-1430-6M	1"	20	90

Tech Sheet 831

RSB



For **Tube Clamps**
Stainless Steel
see pages **186-189**

High Pressure Stainless Steel Ball Valves

Working Temperature:
-20°C to +120°C

- Nitrile seals



2 Way, BSPP

0098	Thread	Max Pressure Bar
HBVSS-14	1/4"	500
HBVSS-38	3/8"	500
HBVSS-12	1/2"	500
HBVSS-34	3/4"	315
HBVSS-1	1"	315

Tech Sheet 20888

High Pressure Stainless Steel Block Style Ball Valves



2 Way, BSPP

0098	Thread	DN Size	Length mm	Max Pressure Bar
HBVSS-14	1/4"	6	69	500
HBVSS-38	3/8"	10	72	500
HBVSS-12	1/2"	13	83	500
HBVSS-34	3/4"	20	95	315
HBVSS-1	1"	25	113	315

Tech Sheet 10224

Lockable High Pressure Stainless Steel Block Style Ball Valves

Lock not included



2 Way, BSPP

0098	Thread	DN Size	Length mm	Max Pressure Bar
HBBVSS-14-LK	1/4"	6	69	500
HBBVSS-38-LK	3/8"	10	72	500
HBBVSS-12-LK	1/2"	13	83	500
HBBVSS-34-LK	3/4"	20	95	315
HBBVSS-1-LK	1"	25	113	315

Tech Sheet 10224

Locking Device



Stainless Steel

0177	To Suit
HPBVLD-1	DN6, DN8, DN10, DN13
HPBVLD-2	DN20, DN25
HPBVLD-3	DN32, DN38, DN50


Tech Sheet 10171


Due to the nature of stainless steel finishes used by our supplier, the product you receive may look slightly different to that illustrated.

Stainless Steel Lockable Ball Valves

Suitable for domestic water services, heating and air-conditioning plants, and compressed air systems.

- Full bore
- PTFE seals
- PTFE O-rings

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
63 bar: up to 3/4"
50 bar: 1" and 1.1/4"
40 bar: 1.1/2" upwards



2 Piece, Full Bore, Male x Female, BSPP

0901	Thread
789-14	1/4"
789-38	3/8"
789-12	1/2"
789-34	3/4"
789-1	1"
789-114	1.1/4"
789-112	1.1/2"
789-2	2"

Tech Sheet 6019

316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Full bore
- PN16 flanged ends
- Direct mount ISO 5211
- Bureau Veritas certification
- Blowout proof stem
- Locking lever for 1" to 4"
- Suitable for applications such as chemical, petrochemical, hydraulic and compressed air

 **Working Temperature:**
-20°C to +180°C

 **Maximum Working Pressure:**
16 bar



Flanged PN16 Wafer Pattern Direct Mount Ball Valve


0901	Size
771 04	1/2"
771 05	3/4"
771 06	1"
771 07	1.1/4"
771 08	1.1/2"
771 09	2"
771 10	2.1/2"
771 11	3"
771 12	4"
771 13	5"
771 14	6"


Tech Sheet 6030

316 Stainless Steel Mini Ball Valves

Features:

- Suitable for domestic water services, heating and air-conditioning plants and compressed air systems

 **Working Temperature:**
-29°C to +160°C

 **Maximum Working Pressure:** 63 bar



Hexagon Body, Female, BSPP

0902	Thread
HEXSMBV14	1/4"
HEXSMBV38	3/8"
HEXSMBV12	1/2"
HEXSMBV34	3/4"
HEXSMBV1	1"

Tech Sheet 6018



Hexagon Body, Male x Female, BSPP

0902	Thread
HEXSMBV14M	1/4"
HEXSMBV38M	3/8"
HEXSMBV12M	1/2"
HEXSMBV34M	3/4"
HEXSMBV1M	1"

Tech Sheet 6018

Hygienic Stainless Steel Butterfly Valves



Weld End

0708	OD	OD mm	Length mm
BUTVWE-1	1"	12.7	68
BUTVWE-112	1.1/2"	19.05	76
BUTVWE-2	2"	25.4	80
BUTVWE-212	2.1/2"	38.1	80
BUTVWE-3	3"	50.8	82
BUTVWE-4	4"	63.5	88

Tech Sheet 68172



Clamp End

0708	Size	Length mm
BUTVCE-1	1"	66
BUTVCE-112	1.1/2"	70
BUTVCE-2	2"	70

Tech Sheet 68172



RJT Male x Male


0708	Size	Thread	Length mm
BUTVRJT-1	1"	45.72 x 8T WHIT	68
BUTVRJT-112	1.1/2"	58.42 x 8T WHIT	76
BUTVRJT-2	2"	72.72 x 6T WHIT	80
BUTVRJT-212	2.5"	85.42 x 6T WHIT	80
BUTVRJT-3	3"	98.12 x 6T WHIT	82
BUTVRJT-4	4"	123.52 x 6T WHIT	100


Tech Sheet 68172

316 Stainless Steel Ball Valves

Features:

- ATEX approved
- Investment casting
- Blowout proof stem
- Locking lever

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:** 63 bar



2 Piece, Full Bore, BSPP

0099	Thread
2006S-14	1/4"
2006S-38	3/8"
2006S-12	1/2"
2006S-34	3/4"
2006S-1	1"
2006S-114	1.1/4"
2006S-112	1.1/2"
2006S-2	2"

Tech Sheet 1966


2 Piece, Full Bore, NPT


0099	Thread
2006S-14N	1/4"
2006S-38N	3/8"
2006S-12N	1/2"
2006S-34N	3/4"
2006S-1N	1"
2006S-114N	1.1/4"
2006S-112N	1.1/2"
2006S-2N	2"

Tech Sheet 1966

Features:

- ATEX approved
- Investment casting
- Blowout proof stem
- Locking lever

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:** 138 bar




2 Piece, Full Bore, BSPP

0099	Thread
2006-14	1/4"
2006-38	3/8"
2006-12	1/2"
2006-34	3/4"
2006-1	1"

Tech Sheet 6003

Features:

- Full bore
- Investment casting
- Blowout proof stem
- Locking lever or wing handle

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
63 bar



Wing Handle, BSPP

0099	Size
2006FW-14W	1/4"
2006FW-38W	3/8"
2006FW-12W	1/2"

Tech Sheet 6001

STAINLESS STEEL VALVES

stainless
steel



316 Stainless Steel Ball Valves

° Working Temperature:
-20°C to +200°C

Maximum Working
Pressure:
63 bar

Features:

- Investment casting
- Blowout proof stem
- Locking lever



1 Piece, Reduced Bore, BSPP

0924	Thread
2017FW-14	1/4"
2017FW-38	3/8"
2017FW-12	1/2"
2017FW-34	3/4"
2017FW-1	1"
2017FW-114	1.1/4"
2017FW-112	1.1/2"
2017FW-2	2"

Tech Sheet 6000



2 Piece, Full Bore, BSPP

0924	Thread
2006FW-14	1/4"
2006FW-38	3/8"
2006FW-12	1/2"
2006FW-34	3/4"
2006FW-1	1"
2006FW-114	1.1/4"
2006FW-112	1.1/2"
2006FW-2	2"
2006FW-212	2.1/2"
2006FW-3	3"

Tech Sheet 6001



3 Piece, Full Bore, BSPP

0924	Thread
2013FW-14	1/4"
2013FW-38	3/8"
2013FW-12	1/2"
2013FW-34	3/4"
2013FW-1	1"
2013FW-114	1.1/4"
2013FW-112	1.1/2"
2013FW-2	2"
2013FW-212	2.1/2"
2013FW-3	3"
2013FW-4	4"

Tech Sheet 6005



3 Piece, Full Bore, NPT

0924	Thread
2013FW-14N	1/4"
2013FW-38N	3/8"
2013FW-12N	1/2"
2013FW-34N	3/4"
2013FW-1N	1"
2013FW-114N	1.1/4"
2013FW-112N	1.1/2"
2013FW-2N	2"
2013FW-212N	2.1/2"
2013FW-3N	3"
2013FW-4N	4"

Tech Sheet 6005



3 Piece, Full Bore, Butt Weld

0924	Size
2012FW-14	1/4"
2012FW-38	3/8"
2012FW-12	1/2"
2012FW-34	3/4"
2012FW-1	1"
2012FW-114	1.1/4"
2012FW-112	1.1/2"
2012FW-2	2"
2012FW-212	2.1/2"
2012FW-3	3"
2012FW-4	4"

Tech Sheet 6005



3 Piece, Full Bore, Socket Weld


0924	Thread
2011FW-14	1/4"
2011FW-38	3/8"
2011FW-12	1/2"
2011FW-34	3/4"
2011FW-1	1"
2011FW-114	1.1/4"
2011FW-112	1.1/2"
2011FW-2	2"
2011FW-212	2.1/2"
2011FW-3	3"
2011FW-4	4"


Tech Sheet 6005

316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Direct mount ISO 5211
- ATEX approved
- TA Luft
- ISO 15848-1:2006 fugitive emissions
- Anti-static device
- Investment casting
- Blowout proof stem

 Working Temperature:
-20°C to +200°C

 Maximum Working Pressure: 63 bar



2 Piece, Full Bore, BSPP


0924	Thread
2006SD-14	1/4"
2006SD-38	3/8"
2006SD-12	1/2"
2006SD-34	3/4"
2006SD-1	1"
2006SD-114	1.1/4"
2006SD-112	1.1/2"
2006SD-2	2"

Tech Sheet 6004

Features:

- Direct mount ISO 5211
- ATEX approved
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 6 bar

 Working Temperature:
-20°C to +200°C

 Maximum Working Pressure: 63 bar



3 Piece, Full Bore, BSPP

0924	Thread
2013ND-14	1/4"
2013ND-38	3/8"
2013ND-12	1/2"
2013ND-34	3/4"
2013ND-1	1"
2013ND-114	1.1/4"
2013ND-112	1.1/2"
2013ND-2	2"
2013ND-212	2.1/2"
2013ND-3	3"
2013ND-4	4"

Tech Sheet 6006

3 Piece, Full Bore, NPT

0924	Thread
2013ND-12N	1/2"
2013ND-34N	3/4"
2013ND-1N	1"
2013ND-114N	1.1/4"
2013ND-112N	1.1/2"
2013ND-2N	2"

Tech Sheet 6006

3 Piece, Full Bore, Butt Weld

0924	Thread
2012ND-12	1/2"
2012ND-34	3/4"
2012ND-1	1"
2012ND-114	1.1/4"
2012ND-112	1.1/2"
2012ND-2	2"
2012ND-212	2.1/2"
2012ND-3	3"
2012ND-4	4"

Tech Sheet 6006

3 Piece, Full Bore, Socket Weld

0924	Thread
2011ND-12	1/2"
2011ND-34	3/4"
2011ND-1	1"
2011ND-114	1.1/4"
2011ND-112	1.1/2"
2011ND-2	2"
2011ND-212	2.1/2"
2011ND-3	3"
2011ND-4	4"

Tech Sheet 6006



You might also need a...
Haitima Pneumatic Actuator
...see page 1015

STAINLESS STEEL VALVES

stainless
steel



316 Stainless Steel Ball Valves

Features:

- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +200°C

Maximum Working Pressure: 16 bar



PN16 Full Bore

0924	Flange Size	Bore mm
2019S 04	1/2"	15
2019S 05	3/4"	20
2019S 06	1"	25
2019S 07	1.1/4"	32
2019S 08	1.1/2"	40
2019S 09	2"	50
2019S 10	2.1/2"	65
2019S 11	3"	80
2019S 12	4"	100
2019S 14	6"	150

Tech Sheet 6011

Features:

- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +200°C

Maximum Working Pressure: 19.6 bar



ANSI150 Full Bore

0099	Flange Size	Bore mm
2020S 04	1/2"	15
2020S 05	3/4"	20
2020S 06	1"	25
2020S 08	1.1/2"	40
2020S 09	2"	50
2020S 10	2.1/2"	65
2020S 11	3"	80
2020S 12	4"	100
2020S 14	6"	150

Tech Sheet 6013

3 Piece Full Bore Fire Safe Direct Mount Ball Valve

Features:

- Full bore
- Direct mount ISO 5211
- ATEX approved
- DNV certifie
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever

Working Temperature:
-20°C to +220°C

Maximum Working Pressure:
138 bar: 1/2" to 1"
103 bar: 1.1/4" to 2"
63 bar: 2.1/2" upwards



BSPP

0924	Thread
2013KMD-12	1/2"
2013KMD-34	3/4"
2013KMD-1	1"
2013KMD-114	1.1/4"
2013KMD-112	1.1/2"
2013KMD-2	2"
2013KMD-212	2.1/2"
2013KMD-3	3"

Tech Sheet 6007

NPT

0924	Thread
2013KMD-12N	1/2"
2013KMD-34N	3/4"
2013KMD-1N	1"
2013KMD-114N	1.1/4"
2013KMD-112N	1.1/2"
2013KMD-2N	2"
2013KMD-3N	3"

Tech Sheet 6007

Butt Weld

0924	Size
2012KMD-12	1/2"
2012KMD-34	3/4"
2012KMD-1	1"
2012KMD-112	1.1/2"
2012KMD-2	2"

Tech Sheet 6007

Socket Weld

0924	Size
2011KMD-12	1/2"
2011KMD-34	3/4"
2011KMD-1	1"
2011KMD-114	1.1/4"
2011KMD-112	1.1/2"
2011KMD-2	2"

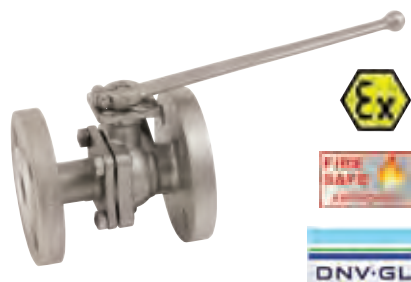
Tech Sheet 6007

Fire Safe Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- DNV certifie
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

° Working Temperature:
-20°C to +200°C



2 Piece, Flanged PN16, Full Bore

0924	Flange Size	Flange	Max Pressure bar
2019D 04	1/2"	PN16/40	40
2019D 05	3/4"	PN16/40	40
2019D 06	1"	PN16/40	40
2019D 07	1.1/4"	PN16/40	40
2019D 08	1.1/2"	PN16/40	40
2019D 09	2"	PN16/40	40
2019D 10	2.1/2"	PN16	16
2019D4 10	2.1/2"	PN40	40
2019D 11	3"	PN16	16
2019D4 11	3"	PN40	40
2019D 12	4"	PN16	16
2019D4 12	4"	PN40	40
2019D 13	5"	PN16	16
2019D 14	6"	PN16	16
2019D 16	8"	PN16	16

Tech Sheet 10336

316 Stainless Steel Ball Valve Accessories

Features:

- ISO mounting pad to ISO 5211

° Working Temperature:
-20°C to +200°C



Stem Extension

0924	Valve ISO	Stem Size
TSM 1	F04	9
TSM 2	F05	11
TSM 3	F07	14
TSM 4	F10	17
TSM 5	F12	22

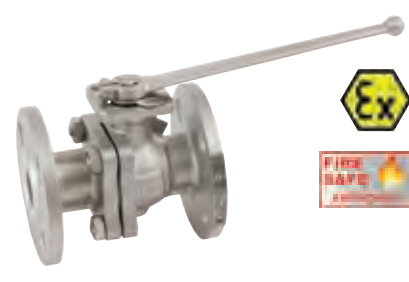
Tech Sheet 6016

Features:

- Direct mount ISO 5211
- ATEX approved
- Fire Safe API 607 4th edition
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- NACE MR0175

° Working Temperature:
-20°C to +230°C

Maximum Working Pressure:
19.6 bar



2 Piece, Flanged ANSI150, Full Bore

0924	Flange Size
2020D 04	1/2"
2020D 05	3/4"
2020D 06	1"
2020D 07	1.1/4"
2020D 08	1.1/2"
2020D 09	2"
2020D 10	2.1/2"
2020D 11	3"
2020D 12	4"
2020D 14	6"

Tech Sheet 10331

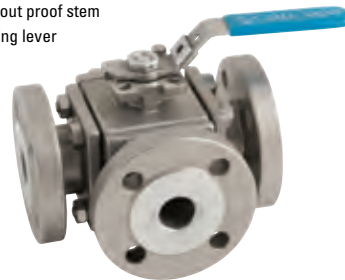
Other Flanged End connections are available on request

316 Stainless Steel Direct Mount Ball Valves

Features:

- Direct mount ISO 5211
- Investment casting
- Blowout proof stem
- Locking lever

° Working Temperature:
-20°C to +200°C



3 Way, L Port, Flanged PN16, Full Bore

0924	Flange Size	Max Pressure bar
2059DL16 04	1/2"	16
2059DL16 06	1"	16
2059DL16 08	1.1/2"	16
2059DL16 09	2"	16
2059DL16 10	2.1/2"	16
2059DL16 11	3"	16
2059DL16 12	4"	16
2059DL16 14	6"	16

Tech Sheet 6015

3 Way, L Port, Flanged ANSI150, Full Bore

0924	Flange Size	Max Pressure bar
2059DL150 04	1/2"	19.6
2059DL150 06	1"	19.6
2059DL150 08	1.1/2"	19.6
2059DL150 09	2"	19.6
2059DL150 11	3"	19.6
2059DL150 12	4"	19.6
2059DL150 14	6"	19.6

Tech Sheet 6015

3 Way, T Port, Flanged PN16, Full Bore

0924	Flange Size	Max Pressure bar
2059DT16 04	1/2"	16
2059DT16 06	1"	16
2059DT16 08	1.1/2"	16
2059DT16 09	2"	16
2059DT16 10	2.1/2"	16
2059DT16 11	3"	16
2059DT16 12	4"	16
2059DT16 14	6"	16

Tech Sheet 6015

3 Way, T Port, Flanged ANSI150, Full Bore

0924	Flange Size	Max Pressure bar
2059DT150 04	1/2"	19.6
2059DT150 06	1"	19.6
2059DT150 08	1.1/2"	19.6
2059DT150 09	2"	19.6
2059DT150 11	3"	19.6
2059DT150 12	4"	19.6
2059DT150 14	6"	19.6

Tech Sheet 6015

STAINLESS STEEL VALVES


stainless steel


GENEBRE

316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Reduced bore
- Direct mount ISO 5211
- Anti-static device
- Blowout proof stem
- Locking lever

 **Working Temperature:**
-25°C to +180°C

 **Maximum Working Pressure:** 63 bar



3 Way, L Port, BSPP

0902	Thread
2040-14	1/4"
2040-38	3/8"
2040-12	1/2"
2040-34	3/4"
2040-1	1"
2040-114	1.1/4"
2040-112	1.1/2"
2040-2	2"
2040-212	2.1/2"

Tech Sheet 6025



3 Way, T Port, BSPP

0902	Thread
2041-14	1/4"
2041-38	3/8"
2041-12	1/2"
2041-34	3/4"
2041-1	1"
2041-114	1.1/4"
2041-112	1.1/2"
2041-2	2"
2041-212	2.1/2"

Tech Sheet 6025

GATE VALVES


stainless steel


HAITIMA

Stainless Steel Flanged Gate Valves

Features:

- Investment casting
- Rising stem

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
PN16: 16 bar




PN16

0982	Flange Size
2054SL16 04	1/2"
2054SL16 06	1"
2054SL16 07	1.1/4"
2054SL16 08	1.1/2"
2054SL16 09	2"
2054SL16 11	3"
2054SL16 12	4"
2054SL16 14	6"

Tech Sheet 1876

Features:

- Investment casting
- Rising stem

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
196 bar



ANSI150

0982	Flange Size
2054SL150 04	1/2"
2054SL150 06	1"
2054SL150 08	1.1/2"
2054SL150 09	2"
2054SL150 10	2.1/2"
2054SL150 11	3"
2054SL150 12	4"
2054SL150 14	6"

Tech Sheet 1873

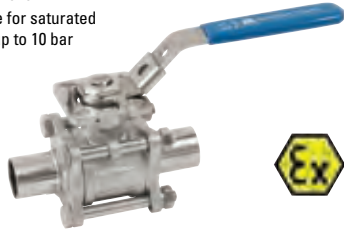
Hygienic 316 Stainless Steel Ball Valves ISO Pad Mount

Features:

- Cavity filled seats
- Direct mount ISO 5211
- ATEX approved
- Anti-static device
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Piece, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2012CD-12	1/2"	15	12.70	90.70	F03/F04
2012CD-34	3/4"	20	19.10	103	F03/F04
2012CD-1	1"	25	25.40	115	F04/F05
2012CD-112	1.1/2"	40	38.10	139	F05/F07
2012CD-2	2"	50	50.80	158	F05/F07
2012CD-212	2.1/2"	65	63.50	197	F07/F10
2012CD-3	3"	80	76.20	228	F07/F10
2012CD-4	4"	100	101.60	241.80	F10/F12

Tech Sheet 6009

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Piece, Clamp End

0924	Size	DN	Length	ISO 5211
2013CD-12	1/2"	15	90.70	F03/F04
2013CD-34	3/4"	20	103	F03/F04
2013CD-1	1"	25	115	F04/F05
2013CD-112	1.1/2"	40	139	F05/F07
2013CD-2	2"	50	158	F05/F07
2013CD-212	2.1/2"	65	197	F07/F10
2013CD-3	3"	80	228	F07/F10
2013CD-4	4"	100	241.80	F10/F12

Tech Sheet 6009

Features:

- Direct mount ISO 5211
- Investment casting
- Blowout proof stem
- Locking lever
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar



3 Way, L Port, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2057CBL-12	1/2"	15	12.70	118	F03/F04
2057CBL-1	1"	25	25.40	152.40	F04/F05
2057CBL-112	1.1/2"	40	38.10	175	F05/F07
2057CBL-2	2"	50	50.80	190	F05/F07
2057CBL-212	2.1/2"	65	63.50	228	F07/F10
2057CBL-3	3"	80	76.20	260	F07/F10
2057CBL-4	4"	100	102	289	F10/F12

Tech Sheet 6009

3 Way, T Port, Butt Weld

0924	Size	DN	OD mm	Length	ISO 5211
2057CBT-12	1/2"	15	12.70	118	F03/F04
2057CBT-1	1"	25	25.40	152.40	F04/F05
2057CBT-112	1.1/2"	40	38.10	175	F05/F07
2057CBT-2	2"	50	50.80	190	F05/F07
2057CBT-212	2.1/2"	65	63.50	228	F07/F10
2057CBT-3	3"	80	76.20	260	F07/F10
2057CBT-4	4"	100	102	289	F10/F12

Tech Sheet 6009

Hygienic 316 Stainless Steel Ball Valves



Working Temperature:
-20°C to +160°C

Maximum Working Pressure:
8 bar

Features:

- Cavity filled seats
- Locking lever

3 Piece, Weld End

0708	OD	OD mm	Length mm
HSBVWE-12	1/2"	12.7	89
HSBVWE-34	3/4"	19.05	101
HSBVWE-1	1"	25.4	114
HSBVWE-112	1.1/2"	38.1	140
HSBVWE-2	2"	50.8	156
HSBVWE-212	2.1/2"	63.5	197
HSBVWE-3	3"	76.2	229
HSBVWE-4	4"	101.6	242.7

Tech Sheet 68171



Working Temperature:
-20°C to +160°C

Maximum Working Pressure:
8 bar

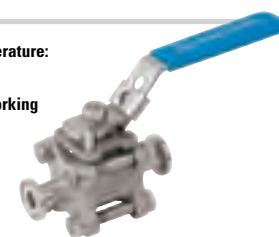
Features:

- Cavity filled seats
- Locking lever

3 Piece, Clamp End

0708	Clamp Size	Length mm
HSBVCE-12	1/2"	89
HSBVCE-34	3/4"	101
HSBVCE-1	1"	114
HSBVCE-112	1.1/2"	140
HSBVCE-2	2"	156
HSBVCE-212	2.1/2"	197
HSBVCE-3	3"	229
HSBVCE-4	4"	242.7

Tech Sheet 68171



CHECK VALVES

stainless
steel



Stainless Steel Flanged Check Valves

Features:

- Installation in a horizontal position only
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
19.6 bar: ANSI150
16 bar: PN16



ANSI150

0982	Flange Size
2024SL150 06	1"
2024SL150 08	1.1/2"
2024SL150 09	2"
2024SL150 11	3"
2024SL150 12	4"
2024SL150 14	6"
Tech Sheet 1875	

Other sizes on request.

PN16

0982	Flange Size
2024SL16 06	1"
2024SL16 08	1.1/2"
2024SL16 09	2"
2024SL16 10	2.1/2"
2024SL16 11	3"
2024SL16 12	4"
2024SL16 14	6"
Tech Sheet 1875	

Cannot see the product you're looking for? Contact us. More often than not, we can acquire that product.



stainless
steel



You may also need...
Stainless Steel 150lb Fittings
...see pages 1181-1185

CHECK VALVES

stainless
steel

GENEBRE

Cromax Spring Check Valves

Body: 304SS or 316SS

Seal: Viton

Other sizes on request.

° Working Temperature:
-20°C - +150°C

Maximum Working
Pressure: 16 bar



304 Stainless Steel, BSPP

0902	Thread
2440-14	1/4"
2440-38	3/8"
2440-12	1/2"
2440-34	3/4"
2440-1	1"
2440-114	1.1/4"
2440-112	1.1/2"
2440-2	2"

Tech Sheet 1871

316 Stainless Steel, BSPP

0902	Thread
2445-14	1/4"
2445-38	3/8"
2445-12	1/2"
2445-34	3/4"
2445-1	1"
2445-114	1.1/4"
2445-112	1.1/2"
2445-2	2"

Tech Sheet 1871

Check Valves Basket

Features:

- BSPP threads
- Mesh size 1mm up to 2". 1.9mm for 2.1/2" upwards

° Working Temperature:
-20°C to +150°C

Maximum Working Pressure:
16 bar



Strainer Basket for CROMAX Spring Check Valve

0902	Size	DN
2447-12	1/2"	15
2447-34	3/4"	20
2447-1	1"	25
2447-114	1.1/4"	32
2447-112	1.1/2"	40
2447-2	2"	50
2447-212	2.1/2"	65
2447-3	3"	80
2447-4	4"	100

Tech Sheet 6094

Wafer Check Valves

Seal: Viton

- Can be mounted between PN10/16 and ANSI150 flange

° Working Temperature:
-20°C to +180°C

Maximum Working Pressure:
16 bar



Wafer Pattern, Swing

0902	Flange Size
2406 08	1.1/2"
2406 09	2"
2406 10	2.1/2"
2406 11	3"
2406 12	4"
2406 13	5"
2406 14	6"
2406 16	8"
2406 18	10"
2406 20	12"

Tech Sheet 1878

Features:

- Can be mounted between PN25 and ANSI150 flange
- Can be installed in any position

° Working Temperature:
-20°C to +180°C

Maximum Working Pressure:
25 bar



Dual Plate Spring Assisted Swing

0902	Flange Size
2402 09	2"
2402 10	2.1/2"
2402 11	3"
2402 12	4"
2402 13	5"
2402 14	6"
2402 16	8"

Tech Sheet 6096

CHECK VALVES



Stainless Steel Spring Check Valves

Features:

- Installation in a horizontal position only

Working Temperature:
-25°C to +180°C

Maximum Working Pressure:
200 psi (13.8 bar)



Swing, BSPP

0900	Thread
2030-12	1/2"
2030-34	3/4"
2030-1	1"
2030-114	1.1/4"
2030-112	1.1/2"
2030-2	2"
2030-212	2.1/2"
2030-3	3"

Tech Sheet 6098

Features:

- Can be installed in any position

Working Temperature:
-25°C to +180°C



Spring Assisted, BSPP

0900	Thread	Max Pressure bar
2413-14	1/4"	83
2413-38	3/8"	83
2413-12	1/2"	83
2413-34	3/4"	83
2413-1	1"	83
2413-114	1.1/4"	69
2413-112	1.1/2"	69
2413-2	2"	63

Tech Sheet 6093

Features:

- Can be mounted between PN16/25/40 and ANSI150 flanges
- Can be installed in any position
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +180°C

Maximum Working Pressure: 40 bar



Spring Assisted Wafer Pattern

0933	Flange Size
2026 04	1/2"
2026 05	3/4"
2026 06	1"
2026 07	1.1/4"
2026 08	1.1/2"
2026 09	2"
2026 10	2.1/2"
2026 11	3"
2026 12	4"

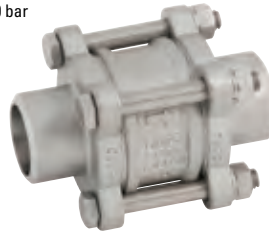
Tech Sheet 6095

Features:

- Can be installed in any position
- Suitable for saturated steam up to 10 bar

Working Temperature:
-20°C to +180°C

Maximum Working Pressure: 40 bar



3 Piece, Spring Assisted, BSPP

0933	Thread
2026C-12	1/2"
2026C-34	3/4"
2026C-1	1"
2026C-114	1.1/4"
2026C-112	1.1/2"
2026C-2	2"
2026C-212	2.1/2"
2026C-3	3"
2026C-4	4"

Tech Sheet 6097

High Pressure Check Valves

Maximum Working Pressure: 350 bar

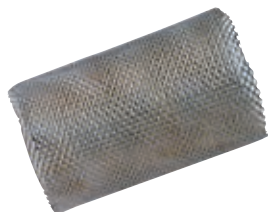


BSPP, 0.5 bar Cracking Pressure

0098	Thread
HCVSS-3/8	3/8"
HCVSS-1/2	1/2"
HCVSS-3/4	3/4"
HCVSS-1	1"

Tech Sheet 10043

Strainers for YS Series



Stainless Steel AISI 304

0090	To Suit
192-12-STRAINER	YS-12
192-34-STRAINER	YS-34
192-1-STRAINER	YS-1
192-114-STRAINER	YS-114
192-112-STRAINER	YS-112
192-2-STRAINER	YS-2
192-212-STRAINER	YS-212
192-3-STRAINER	YS-3
192-4-STRAINER	YS-4

Tech Sheet 2032

Stainless Steel Y Strainers

Features:

- 0.4mm perforations
- Suitable for saturated steam up to 10 bar

Working Temperature:
-25°C to +180°C

Maximum Working Pressure:
800 psi (55.16 bar)

stainless steel



BSP

0900	Size
2049-38	3/8"
2049-12	1/2"
2049-34	3/4"
2049-1	1"
2049-114	1.1/4"
2049-112	1.1/2"
2049-2	2"

Tech Sheet 2049

NPT

0900	Size
2049-12N	1/2"
2049-34N	3/4"
2049-1N	1"
2049-114N	1.1/4"
2049-112N	1.1/2"
2049-2N	2"

Tech Sheet 2049

Y STRAINERS

stainless steel



HAITIMA

Flanged Y Strainers

Features:

- 0.4mm perforations

Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
16 bar: PN16
19.6 bar: ANSI150

PN16

0982	Size
2049SL16 04	1/2"
2049SL16 05	3/4"
2049SL16 06	1"
2049SL16 07	1.1/4"
2049SL16 08	1.1/2"
2049SL16 09	2"
2049SL16 10	2.1/2"
2049SL16 11	3"
2049SL16 12	4"
2049SL16 13	5"
2049SL16 14	6"

Tech Sheet 1877

ANSI150

0982	Size
2049SL150 04	1/2"
2049SL150 05	3/4"
2049SL150 06	1"
2049SL150 08	1.1/2"
2049SL150 09	2"
2049SL150 10	2.1/2"
2049SL150 11	3"
2049SL150 12	4"
2049SL150 13	5"
2049SL150 14	6"

Tech Sheet 1874



STAINLESS STEEL VALVES

stainless
steel



3,000 psi Rated Mini Needle Valve

Working Temperature:
-50°C to +121°C

Maximum Working Pressure:
205 bar

Seal: Viton



NPT

0292	Thread	Description
PMV-H-S-4-FF-V	1/4"	Female x Female
PMV-H-S-4-MF-V	1/4"	Male x Female

Tech Sheet 10506

6,000 psi Rated Imperial Needle Valves

The 'IB' series of needle valves are specially designed and manufactured for use in corrosive and hazardous environments. These valves are for use in process control, instrumentation and flow control applications.

Feature Benefits

One piece body construction for strength and safety. Non rotating Vee tip design, which forms a bearing joint with the stem eliminating

any rotation between the plug and seat on closure ensuring long life. **Testing:** All valves are 100% factory tested and complete traceability is available upon request. **Material:** Body, panel nut, washer and gland nut A479-316 **Stem:** A479-316 / 17-4PH **Packing:** PTFE **Grub Screw:** Steel plated **Handle:** Stainless steel **Vee Tip:** A 564-630

Working Temperature:
-29°C to +121°C

Maximum Working Pressure:
413 bar (6,000 psi)

Female x Female, NPTF

0292	Thread
PNV-IB-S-2-FF	1/8"
PNV-IB-S-4-FF	1/4"
PNV-IB-S-6-FF	3/8"
PNV-IB-S-8-FF	1/2"
PNV-IB-S-12-FF	3/4"
PNV-IB-S-16-FF	1"

Tech Sheet 2156

Female x Female, BSPP

0099	Thread
2018-6938	1/4"
2018-6946	3/8"
2018-6953	1/2"

Tech Sheet 10036

Male x Female, NPTF

0292	Thread
PNV-IB-S-2-MF	1/8"
PNV-IB-S-4-MF	1/4"
PNV-IB-S-6-MF	3/8"
PNV-IB-S-8-MF	1/2"
PNV-IB-S-12-MF	3/4"
PNV-IB-S-16-MF	1"

Tech Sheet 2156

OD Compression

0292	OD
NV6000-18	1/8"
NV6000-14	1/4"
NV6000-38	3/8"
NV6000-12	1/2"
NV6000-34	3/4"
NV6000-1	1"

Tech Sheet 2156



10,000 psi Rated Imperial Needle Valves

The 'HP' series of needle valves are specially designed and manufactured for use in corrosive and hazardous environments. These valves are for use in process control, instrumentation and flow control applications.

Feature Benefits

One piece body construction for strength and safety. Non rotating Vee tip design, which forms a bearing joint with the stem eliminating any rotation between the plug and seat on closure ensuring long life. **Testing:** Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. A Hydrostatic test is

performed with pure water or other liquids of similar or lower viscosity at 1.5 times and seat leakage test at 1.1 times of the maximum working pressure. Each valve is also tested with nitrogen gas at 1000psi for seat, seal and shell leakage. Other tests like vibration, temperature and helium are available upon request. **Material:** Body, stem, packing washer, lock nut and gland retainer A479-316/A-105 **Gland Packing:** Glass Filled PTFE **Packing:** PTFE **Handle:** Stainless steel **Dust Cap:** Plastic **Vee Tip:** A 564-630

Working Temperature:
-50°C to +93°C

Maximum Working Pressure:
700 bar (10,000 psi)

Female x Female, NPTF

0292	Thread
PNV-HP-S-2-FF	1/8"
PNV-HP-S-4-FF	1/4"
PNV-HP-S-6-FF	3/8"
PNV-HP-S-8-FF	1/2"
PNV-HP-S-16-FF	1"

Tech Sheet 2175



Male x Female, NPTF

0292	Thread
PNV-HP-S-2-MF	1/8"
PNV-HP-S-4-MF	1/4"
PNV-HP-S-6-MF	3/8"
PNV-HP-S-8-MF	1/2"
PNV-HP-S-12-MF	3/4"
PNV-HP-S-16-MF	1"

Tech Sheet 2157



STAINLESS STEEL VALVES

stainless steel



Manifold Valves

Working Temperature:
-29°C to +121°C

Maximum Working Pressure:
414 bar

2 Valve manifold pipe to pipe design for separate mounting, connection system impulse lines and transmitters, having a simple 2 valve configuration, which allows for easy block, bleed and calibration of static pressure transmitter of gauge.

Other mounting options are available on request.



2 Valve Manifold, Pipe to Pipe, NPT

0380	Thread
P2VM-SS-8-R	1/2"

Tech Sheet 10216

3 Valve manifold pipe to pipe design for connecting system impulse lines and transmitters. This valve consists of 1/2" NPT female connectors on 54mm centres and 1 equalizer valve and 2 block valves.

Other mounting options are available on request.



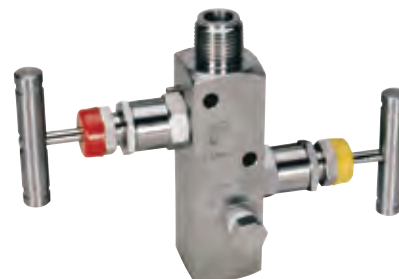
3 Valve Manifold, Pipe to Pipe, NPT

0380	Thread
P3VM-SS-8-R	1/2"

Tech Sheet 10216

2 Valve manifold remote mount flange to flange design for separate mounting, connecting system impulse lines and transmitters, having a simple 2 valve configuration, which allows for easy block, bleed and calibration of static pressure transmitter of gauge.

Other mounting options are available on request.



2 Valve Manifold, Remote Mount, NPT

0380	Thread
P2VM-SS-8-RM	1/2"

Tech Sheet 10216

STAINLESS STEEL COMPRESSION BALL VALVES

stainless steel



Stainless Steel 6,000 psi, Check Valves

Working Temperature:
-26°C to +190°C

Cracking Pressure:
0.35 psi

Maximum Working Pressure:
414 bar

Seal: Viton



Female, NPT

0292	Thread
PCV-02-SS-FF	1/8"
PCV-04-SS-FF	1/4"
PCV-06-SS-FF	3/8"
PCV-08-SS-FF	1/2"
PCV-12-SS-FF	3/4"
PCV-16-SS-FF	1"

Tech Sheet 10507

6,000 psi Rated Ball Valves

Working Temperature:
0°C to +40°C

Maximum Working Pressure:
400 bar



Female, NPT

0292	Thread
PBV-2-S-02-FF	1/8"
PBV-2-S-04-FF	1/4"
PBV-2-S-06-FF	3/8"
PBV-2-S-08-FF	1/2"
PBV-2-S-12-FF	3/4"
PBV-2-S-16-FF	1"

Tech Sheet 10508

Ball Valves

Working Pressure:
6000 psi



Compression, 2 Way

0292	OD
BV6000-18	1/8"
BV6000-12	1/2"

Tech Sheet 20847

ISO A INTERCHANGE COUPLINGS & PLUGS

stainless
steel

ISO A Interchange

° Working Temperature:
-25°C to +120°C Nitrile
-25°C to +175°C Viton



316 Stainless Steel ISO A Coupling with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HFSSFC7314-V	1/4"	250
HFSSFC7338-V	3/8"	200
HFSSFC7312-V	1/2"	200
HFSSFC7334-V	3/4"	160
HFSSFC7310-V	1"	125

Tech Sheet 10002



316 Stainless Steel ISO A Plug with Viton Seals, BSPP

8111	Thread	Max Pressure Bar
HFSSFP7314-V	1/4"	250
HFSSFP7338-V	3/8"	200
HFSSFP7312-V	1/2"	200
HFSSFP7334-V	3/4"	160
HFSSFP7310-V	1"	125

Tech Sheet 10002

316 Stainless Steel ISO A Coupling with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKSA04SS-NPT	1/4"	250
HKSA06SS-NPT	3/8"	200
HKSA08SS-NPT	1/2"	200
HKSA12SS-NPT	3/4"	160
HKSA16SS-NPT	1"	125

Tech Sheet 10002

316 Stainless Steel ISO A Plug with Nitrile Seals, NPT

8111	Thread	Max Pressure Bar
HKPA04SS-NPT	1/4"	250
HKPA06SS-NPT	3/8"	200
HKPA08SS-NPT	1/2"	200
HKPA12SS-NPT	3/4"	160
HKPA16SS-NPT	1"	125

Tech Sheet 10002

ISO B INTERCHANGE COUPLINGS & PLUGS

stainless
steel

ISO B Interchange

° Working Temperature:
-25°C to +120°C Nitrile
-25°C to +175°C Viton



316 Stainless Steel ISO B Coupling with Nitrile Seal, BSPP

0249	Thread	Max Pressure Bar
HKS02SS	1/8"	250
HKS04SS	1/4"	250
HKS06SS	3/8"	200
HKS08SS	1/2"	200
HKS12SS	3/4"	160
HKS16SS	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Coupling with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKS04SS-NPT	1/4"	250
HKS06SS-NPT	3/8"	200
HKS08SS-NPT	1/2"	200
HKS12SS-NPT	3/4"	160
HKS16SS-NPT	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Coupling with Viton Seal, BSPP

0249	Thread	Max Pressure Bar
HKS02SS-V	1/8"	250
HKS04SS-V	1/4"	250
HKS06SS-V	3/8"	200
HKS08SS-V	1/2"	200
HKS12SS-V	3/4"	160
HKS16SS-V	1"	125

Tech Sheet 10003

Other seals available on request



316 Stainless Steel ISO B Plug with Nitrile Seal, BSPP

0249	Thread	Max Pressure Bar
HKP02SS	1/8"	250
HKP04SS	1/4"	250
HKP06SS	3/8"	200
HKP08SS	1/2"	200
HKP12SS	3/4"	160
HKP16SS	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Plug with Nitrile Seal, NPT

8111	Thread	Max Pressure Bar
HKP04SS-NPT	1/4"	250
HKP06SS-NPT	3/8"	200
HKP08SS-NPT	1/2"	200
HKP12SS-NPT	3/4"	160
HKP16SS-NPT	1"	125

Tech Sheet 10003

316 Stainless Steel ISO B Plug with Viton Seal, BSPP

0249	Thread	Max Pressure Bar
HKP02SS-V	1/8"	250
HKP04SS-V	1/4"	250
HKP06SS-V	3/8"	200
HKP08SS-V	1/2"	200
HKP12SS-V	3/4"	160
HKP16SS-V	1"	125

Tech Sheet 10003

HYDRAULIC QUICK RELEASE COUPLINGS



PAVX Series, ISO A Stainless Steel Couplings

Working Temperature:
-25°C to +200°C Viton

Maximum Working Pressure:
450 bar

Standard: ISO 7241-1 A
Occlusion: Poppet
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PAVX.0606.002	1/4"	6.3	450
PAVX.1010.002	3/8"	10	300
PAVX.1313.002	1/2"	12.5	300
PAVX.2019.002	3/4"	20	250
PAVX.2525.002	1"	25	200
PAVX.3031.002	1.1/4"	31.5	100
PAVX.3939.002	1.1/2"	40	80
PAVX.5051.002	2"	50	60

Tech Sheet 20474



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PAVX.0606.003	1/4"	6.3	450
PAVX.1010.003	3/8"	10	300
PAVX.1313.003	1/2"	12.5	300
PAVX.2019.003	3/4"	19	250
PAVX.2525.003	1"	25	200
PAVX.3031.003	1.1/4"	31.5	100
PAVX.3939.003	1.1/2"	40	80
PAVX.5051.003	2"	50	60

Tech Sheet 20474



PBVX Series, ISO B Stainless Steel Couplings

Working Temperature:
-25°C to +200°C

Maximum Working Pressure:
400 bar

Standard: ISO 7241-1 B
Occlusion: Poppet
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVX.0404.002	1/8"	5	400
PBVX.0606.002	1/4"	6.3	350
PBVX.1010.002	3/8"	10	300
PBVX.1313.002	1/2"	12.5	300
PBVX.2019.002	3/4"	20	220
PBVX.2525.002	1"	25	200
PBVX.3931.002	1.1/4"	40	80
PBVX.3939.002	1.1/2"	40	80
PBVX.5051.002	2"	50	60

Tech Sheet 20478



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PBVX.0404.003	1/8"	5	400
PBVX.0606.003	1/4"	6.3	350
PBVX.1010.003	3/8"	10	300
PBVX.1313.003	1/2"	12.5	300
PBVX.2019.003	3/4"	20	220
PBVX.2525.003	1"	25	200
PBVX.3931.003	1.1/4"	40	80
PBVX.3939.003	1.1/2"	40	80
PBVX.5051.003	2"	50	60

Tech Sheet 20478



HYDRAULIC QUICK RELEASE COUPLINGS

PLTX Series, ISO 16028 Flat Face Couplings, Stainless Steel

Standard: ISO 16028
Occlusion: Flat face
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT, SAE
Standard Seals: Viton
Optional Seals: EPDM, FFKM
Connection Under Pressure: Not allowed

Working Temperature:
-25°C to +100°C

Maximum Working Pressure: 350 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLTX.0606.112	1/4"	6.3	400
PLTX.1310.112	3/8"	10	250
PLTX.1313.112	1/2"	10	250
PLTX.2013.112	1/2"	12.5	250
PLTX.2019.112	3/4"	12.5	250
PLTX.2519.112	3/4"	19	250
PLTX.2525.112	1"	19	250
PLTX.3031.112	1.1/4"	25	250
PLTX.3939.112	1.1/2"	40	150
PLTX.5051.112	2"	50	100

Tech Sheet 20483



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLTX.0606.113	1/4"	6.3	400
PLTX.1310.113	3/8"	10	250
PLTX.1313.113	1/2"	10	250
PLTX.2013.113	1/2"	12.5	250
PLTX.2019.113	3/4"	12.5	250
PLTX.2519.113	3/4"	19	250
PLTX.2525.113	1"	19	250
PLTX.3031.113	1.1/4"	25	250
PLTX.3939.113	1.1/2"	40	150
PLTX.5051.113	2"	50	100

Tech Sheet 20483

PLSX Series, Flat Face, Stainless Steel

Interchange: Snap-Tite 71
Occlusion: Flat face
Locking: Radial balls
Material: Stainless steel AISI 316

Available Threads: BSP, NPT
Standard Seals: Viton
Optional Seals: FFKM, EPDM
Connection Under Pressure: Not allowed

Working Temperature:
-25°C to +100°C

Maximum Working Pressure: 350 bar



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLSX.0606.112	1/4"	6.3	350
PLSX.1010.112	3/8"	10	350
PLSX.1013.112	1/2"	10	350
PLSX.1313.112	1/2"	12.5	350
PLSX.2019.112	3/4"	19	350
PLSX.2525.112	1"	25	350
PLSX.2531.112	1.1/4"	25	350

Tech Sheet 20485



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLSX.0606.113	1/4"	6.3	350
PLSX.1010.113	3/8"	10	350
PLSX.1013.113	1/2"	10	350
PLSX.1313.113	1/2"	12.5	350
PLSX.2019.113	3/4"	19	350
PLSX.2525.113	1"	25	350
PLSX.2531.113	1.1/4"	25	350

Tech Sheet 20485

PLS1 Series, Flat Face

Material: Steel
Finishing: Zn-Fe (Cr III)
Available Threads: BSP, NPT, SAE

Standard Seals: Nitrile
Optional Seals: Viton, EPDM
Connection Under Pressure: Not allowed



Coupling, BSPP

0457	Thread	ISO	Max Pressure Bar
PLS1.0606.112	1/4"	6.3	350
PLS1.1010.112	3/8"	10	350
PLS1.1013.112	1/2"	10	350
PLS1.1313.112	1/2"	12.5	350
PLS1.2019.112	3/4"	19	350
PLS1.2525.112	1"	25	350
PLS1.2531.112	1.1/4"	25	350

Tech Sheet 20484



Plug, BSPP

0457	Thread	ISO	Max Pressure Bar
PLS1.0606.113	1/4"	6.3	350
PLS1.1010.113	3/8"	10	350
PLS1.1013.113	1/2"	10	350
PLS1.1313.113	1/2"	12.5	350
PLS1.2019.113	3/4"	19	350
PLS1.2525.113	1"	25	350
PLS1.2531.113	1.1/4"	25	350

Tech Sheet 20484

ISO 16028 Flat Face Protection Caps & Plugs

Plug for Coupling



Cap for Plug



Plug for Coupling

0457	To Suit	Material
SPLT.06002	ISO 6.3	Plastic
SPLT.13002	ISO 10	Plastic
SPLT.20002	ISO 12.5	Plastic
SPLT.25002	ISO 19	Plastic

Tech Sheet 20483

Cap for Plug

0457	To Suit	Material
SPLT.06003	ISO 6.3	Plastic
SPLT.13003	ISO 10	Plastic
SPLT.20003	ISO 12.5	Plastic
SPLT.25003	ISO 19	Plastic
SPLT.30003	ISO 25	Plastic

Tech Sheet 20483

ISO 16028 Automatic Caps



Cap for Coupling

0457	To Suit	Colour
SPLT.13302	ISO 10	Red
SPLT.13342	ISO 10	Black
SPPV.13302	ISO 12.5	Black
SPPV.13312	ISO 12.5	Black
SPPV.13322	ISO 12.5	Yellow
SPPV.13342	ISO 12.5	Red

Tech Sheet 20483

316 Stainless Steel Couplings

See page 1472 for spare seals.

A



Female Threaded Plug, BSPP

0060	Thread
A12-SS	1/2"
A34-SS	3/4"
A1-SS	1"
A114-SS	1.1/4"
A112-SS	1.1/2"
A2-SS	2"
A212-SS	2.1/2"
A3-SS	3"
A4-SS	4"
A6-SS	6"

Tech Sheet 532

Female Threaded Plug, NPT

0060	Thread
A12-SS-NPT	1/2"
A34-SS-NPT	3/4"
A1-SS-NPT	1"
A114-SS-NPT	1.1/4"
A112-SS-NPT	1.1/2"
A2-SS-NPT	2"
A212-SS-NPT	2.1/2"
A3-SS-NPT	3"
A4-SS-NPT	4"

Tech Sheet 532

B



Male Threaded Lever Coupling, BSPT

0060	Thread
B12-SS	1/2"
B34-SS	3/4"
B1-SS	1"
B114-SS	1.1/4"
B112-SS	1.1/2"
B2-SS	2"
B212-SS	2.1/2"
B3-SS	3"
B4-SS	4"

Tech Sheet 532

Male Threaded Lever Coupling, NPT

0060	Thread
B12-SS-NPT	1/2"
B34-SS-NPT	3/4"
B1-SS-NPT	1"
B114-SS-NPT	1.1/4"
B112-SS-NPT	1.1/2"
B2-SS-NPT	2"
B3-SS-NPT	3"
B4-SS-NPT	4"

Tech Sheet 532

C



Hose Tail Lever Coupling

0060	Body
C12-SS	1/2"
C34-SS	3/4"
C1-SS	1"
C114-SS	1.1/4"
C112-SS	1.1/2"
C2-SS	2"
C212-SS	2.1/2"
C3-SS	3"
C4-SS	4"

Tech Sheet 532

D



Female Lever Coupling, BSPP

0060	Thread
D12-SS	1/2"
D34-SS	3/4"
D1-SS	1"
D114-SS	1.1/4"
D112-SS	1.1/2"
D2-SS	2"
D212-SS	2.1/2"
D3-SS	3"
D4-SS	4"

Tech Sheet 532

Female Lever Coupling, NPT

0060	Thread
D12-SS-NPT	1/2"
D34-SS-NPT	3/4"
D1-SS-NPT	1"
D114-SS-NPT	1.1/4"
D112-SS-NPT	1.1/2"
D2-SS-NPT	2"
D212-SS-NPT	2.1/2"
D3-SS-NPT	3"
D4-SS-NPT	4"

Tech Sheet 532

Dust Plug



0060	Body
DP12-SS	1/2"
DP34-SS	3/4"
DP1-SS	1"
DP112-SS	1.1/2"
DP2-SS	2"
DP212-SS	2.1/2"
DP3-SS	3"

Tech Sheet 532

Lever Stop



0060	Body
DC34-SS	3/4"
DC1-SS	1"
DC114-SS	1.1/4"
DC112-SS	1.1/2"
DC2-SS	2"
DC3-SS	3"
DC4-SS	4"

Tech Sheet 532

E



Hose Tail

0060	Thread
E12-SS	1/2"
E34-SS	3/4"
E1-SS	1"
E114-SS	1.1/4"
E112-SS	1.1/2"
E2-SS	2"
E212-SS	2.1/2"
E3-SS	3"
E4-SS	4"

Tech Sheet 532

F



Male Threaded Plug, BSPT

0060	Thread
F12-SS	1/2"
F34-SS	3/4"
F1-SS	1"
F114-SS	1.1/4"
F112-SS	1.1/2"
F2-SS	2"
F212-SS	2.1/2"
F3-SS	3"
F4-SS	4"

Tech Sheet 532

Male Threaded Plug, NPT

0060	Body
F12-SS-NPT	1/2"
F34-SS-NPT	3/4"
F1-SS-NPT	1"
F114-SS-NPT	1.1/4"
F112-SS-NPT	1.1/2"
F2-SS-NPT	2"
F212-SS-NPT	2.1/2"
F3-SS-NPT	3"
F4-SS-NPT	4"


Tech Sheet 532


Please note: 1/2" sizes are only supplied with one locking arm.

CLAW COUPLINGS

LÜDECKE

Claw Couplings DIN 3489, Stainless Steel

 **Working Temperature:**
-30°C to +200°C

 **Maximum Working Pressure:** 16 bar

Universal system for aggressive fluids in chemical or petrochemical industry, as well as food or drinking water applications.
Use original DIN 3489 Seal GPOR (EPDM) food or drinking water applications.

Material: Stainless steel 1.4401/1.4404
Seal: FKM
Media: Chemical substances
Claw Distance: 42 mm



stainless steel



Hose Tail

6295	To Suit Hose ID mm
EKT10V	10
EKT13V	13
EKT19V	19
EKT25V	25

stainless steel



Female Thread, BSPP

6295	Thread
EKI38V	3/8"
EKI12V	1/2"
EKI34V	3/4"
EKI10V	1"

stainless steel



Male Thread, BSPP

6295	Thread
EKA12V	1/2"
EKA34V	3/4"
EKA10V	1"

stainless steel



Blank End

6295	Description
EKO V	Blank End
EKM V	Blank End with Chain
EKM V-K	Spare Chain 200mm

Weld Liner



Stainless Steel

0108	Size
RJTWL1	1"
RJTWL112	1.1/2"
RJTWL2	2"
RJTWL212	2.1/2"
RJTWL3	3"

Tech Sheet 60554

Reducing Weld Liner



Stainless Steel

0108	Size
RJTRWL2112	2" to 1.1/2"

Tech Sheet 60554

Blank Liner



Stainless Steel

0108	Size
RJTBL1	1"
RJTBL112	1.1/2"
RJTBL2	2"
RJTBL212	2.1/2"
RJTBL3	3"

Tech Sheet 60554

Hose Liner



Stainless Steel

0108	Size
RJTHL1	1"
RJTHL112	1.1/2"
RJTHL2	2"
RJTHL212	2.1/2"
RJTHL3	3"

Tech Sheet 60554

Hex Nut



Stainless Steel

0108	Size
RJTN1	1"
RJTN112	1.1/2"
RJTN2	2"
RJTN3	3"

Tech Sheet 60554

Weld Male



Stainless Steel

0108	Size
RJTWM1	1"
RJTWM112	1.1/2"
RJTWM2	2"
RJTWM3	3"

Tech Sheet 60554

BSP Adaptor



Stainless Steel

0108	Size	Thread
RJTA1	1"	1"
RJTA112	1.1/2"	1.1/2"
RJTD2	2"	2"
RJTA3	3"	3"

Tech Sheet 60554

Seal



0108	Size
RJTS1	1"
RJTS112	1.1/2"
RJTS2	2"
RJTS3	3"

Tech Sheet 60554

STAINLESS STEEL LEVER LOCK WATER PUMP COUPLINGS

stainless
steel



Male x Hose Connector



0120	Coupling Size	To Suit Hose ID
LLSSMT2	50	2"
LLSSMT33	76	3"
LLSSMT3312	89	3" Tail x 3.1/2"
LLSSMT4	108	4"
LLSSMT6	159	6"
LLSSMT8	194	8"

Female x Hose Connector



0120	Coupling Size	To Suit Hose ID
LLSFT2	50	2"
LLSFT3312	89	3" Tail x 3.1/2"
LLSFT4	108	4"
LLSFT6	159	6"
LLSFT8	194	8"

Male Weld End

Other sizes available on request.
Minimum quantity order may apply.



0120	Coupling Size
LLSSMWE2	50
LLSSMWE3312	89
LLSSMWE4	108
LLSSMWE6	159

Female Weld End



0120	Coupling Size
LLSSFWE2	50
LLSSFWE33	76
LLSSFWE3312	89
LLSSFWE4	108
LLSSFWE6	159

Male x Male BSPP Pipe Thread

Other sizes available on request.
Minimum quantity order may apply.



With Lever Closure Ring, BSPP

0120	Coupling Size	To Suit Hose ID
LLSSMBSP2	50	2"
LLSSMBSP33	76	3"
LLSSMBSP3312	89	3" BSPP x 3.1/2"
LLSSMBSP4	108	4"

Female complete with BSPP Male Pipe Thread

Other sizes available on request.
Minimum quantity order may apply.



0120	Coupling Size	Thread
LLSFBSP2	50	2"
LLSFBSP33	76	3"
LLSFBSP3312	89	3" BSPP x 3.1/2"
LLSFBSP4	108	4"
LLSFBSP5	133	5"
LLSFBSP6	159	6"

Male End Cap



0120	Coupling Size
LLSSMEC2	50
LLSSMEC33	76
LLSSMEC3312	89
LLSSMEC4	108
LLSSMEC5	133
LLSSMEC6	159

Female End Cap

Other sizes available on request.
Minimum quantity order may apply.



0120	Coupling Size
LLSSFEC3312	89
LLSSFEC4	108
LLSSFEC6	159

150lb 316 STAINLESS STEEL PIPE FITTINGS



stainless steel



This technical data is applicable to the full range of 316 Stainless Steel Adaptors only.
Threads: Tapered in conformity with ISO 7.1, BS 21, DIN 2999. Parallel in conformity with BS 2779, ISO 228.
Dimensions: All components are manufactured to the requirements of ASTM A-351.
 The dimensions are in accordance with ANSI B16.3.

Working Temperature:
-20°C to +260°C

Working Pressure:
20 bar

Equal Cross



Female Thread, BSPP

1111	Thread
EC-18	1/8"
EC-14	1/4"
EC-38	3/8"
EC-12	1/2"
EC-34	3/4"
EC-1	1"
EC-114	1.1/4"
EC-112	1.1/2"
EC-2	2"

Tech Sheet 1800

Equal Tee

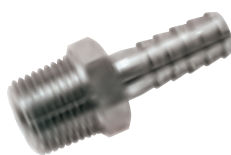


Female Thread, BSPP

1111	Thread
ET-18	1/8"
ET-14	1/4"
ET-38	3/8"
ET-12	1/2"
ET-34	3/4"
ET-1	1"
ET-114	1.1/4"
ET-112	1.1/2"
ET-2	2"
ET-212	2.1/2"
ET-3	3"
ET-4	4"

Tech Sheet 1799

Straight Hose Tails



Male Thread, BSPT

1111	Thread	To Suit Hose ID
HT-18-06	1/8"	1/4" (6mm)
HT-14	1/4"	1/4" (6mm)
HT-14-08	1/4"	5/16" (8mm)
HT-14-10	1/4"	3/8" (10mm)
HT-14-13	1/4"	1/2" (13mm)
HT-38-08	3/8"	5/16" (8mm)
HT-38	3/8"	3/8" (10mm)
HT-38-13	3/8"	1/2" (13mm)
HT-12-06	1/2"	1/4" (6mm)
HT-12-10	1/2"	3/8" (10mm)
HT-12	1/2"	1/2" (13mm)
HT-12-19	1/2"	3/4" (19mm)
HT-12-25	1/2"	1" (25mm)
HT-12-16	1/2"	5/8"
HT-34-13	3/4"	1/2" (13mm)
HT-34	3/4"	3/4" (19mm)
HT-1-19	1"	3/4" (19mm)
HT-1	1"	1" (25mm)
HT-1-31	1"	1.1/4" (31mm)
HT-114	1.1/4"	1.1/4" (31mm)
HT-112	1.1/2"	1.1/2" (38mm)
HT-2	2"	2" (50mm)
HT-212	2.1/2"	2.1/2" (63mm)
HT-3	3"	3" (75mm)
HT-4	4"	4" (100mm)

Tech Sheet 1795

Female Fixed Thread, BSPP

1111	Thread	To Suit Hose ID
SFHT10/06	1/8"	6mm (1/4")
SFHT13/06	1/4"	6mm (1/4")
SFHT13/09	1/4"	9mm (3/8")
SFHT17/10	3/8"	10mm (3/8")
SFHT21/13	1/2"	13mm (1/2")
SFHT26/19	3/4"	19mm (3/4")
SFHT33/25	1"	25mm (1")
SFHT42/32	1.1/4"	32mm (1.1/4")
SFHT48/38	1.1/2"	38mm (1.1/2")
SFHT52/51	2"	51mm (2")

Tech Sheet 2077

Equal Hose Joiner



1111	To Suit Hose ID
DS06-SS	1/4" (6mm)
DS08-SS	5/16" (8mm)
DS10-SS	3/8" (10mm)
DS13-SS	1/2" (13mm)

Tech Sheet 20778



Swivel Female Thread, 60° Coned Seat, BSPP

1111	Thread	To Suit Hose ID
FH13/14SS	1/4"	1/4" (6mm)
FH17/38SS	3/8"	3/8" (10mm)
FH21/12SS	1/2"	1/2" (13mm)
FH26/12SS	3/4"	1/2" (13mm)
FH26/34SS	3/4"	3/4" (19mm)
FH33/19SS	1"	3/4"
FH33/25SS	1"	1"
FH48/38SS	1.1/2"	1.1/2"
FH52/50SS	2"	2"

Tech Sheet 20779

Barrel Nipple



Male Thread, BSPT

1111	Thread	Length mm
BN-18X30	1/8"	30
BN-18	1/8"	40
BN-14	1/4"	40
BN-14X80	1/4"	80
BN-38	3/8"	40
BN-38X80	3/8"	80
BN-12	1/2"	60
BN-12X80	1/2"	80
BN-34	3/4"	60
BN-34X80	3/4"	80
BN-1	1"	60
BN-1X100	1"	100
BN-1X150	1"	150
BN-114	1.1/4"	80
BN-112	1.1/2"	80
BN-2	2"	100
BN-212	2.1/2"	100
BN-3	3"	120
BN-4	4"	120

Tech Sheet 1803

150lb 316 STAINLESS STEEL PIPE FITTINGS



stainless steel



Close Nipple



Male Thread, BSPP

1111	Thread
CPN-14	1/4"
CPN-38	3/8"
CPN-12	1/2"
CPN-34	3/4"
CPN-1	1"
CPN-114	1.1/4"
CPN-112	1.1/2"
CPN-2	2"
CPN-212	2.1/2"

Tech Sheet 1801

Female Reducing Socket



Female Thread, BSPP

1111	Thread	Thread
FRS-14-18	1/4"	1/8"
FRS-38-14	3/8"	1/4"
FRS-38-18	3/8"	1/8"
FRS-12-38	1/2"	3/8"
FRS-12-14	1/2"	1/4"
FRS-12-18	1/2"	1/8"
FRS-34-14	3/4"	1/4"
FRS-34-12	3/4"	1/2"
FRS-34-38	3/4"	3/8"
FRS-1-34	1"	3/4"
FRS-1-14	1"	1/4"
FRS-1-38	1"	3/8"
FRS-1-12	1"	1/2"
FRS-114-1	1.1/4"	1"
FRS-114-12	1.1/4"	1/2"
FRS-114-34	1.1/4"	3/4"
FRS-112-1	1.1/2"	1"
FRS-112-34	1.1/2"	3/4"
FRS-112-114	1.1/2"	1.1/4"
FRS-2-34	2"	3/4"
FRS-2-1	2"	1"
FRS-2-112	2"	1.1/2"
FRS-2-114	2"	1.1/4"
FRS-212-114	2.1/2"	1.1/4"
FRS-212-2	2.1/2"	2"
FRS-3-114	3"	1.1/4"
FRS-3-2	3"	2"
FRS-3-212	3"	2.1/2"
FRS-4-2	4"	2"
FRS-4-3	4"	3"

Tech Sheet 1802

45° Equal Elbow



Female Thread, BSPP

1111	Thread
OE-18	1/8"
OE-14	1/4"
OE-38	3/8"
OE-12	1/2"
OE-34	3/4"
OE-1	1"
OE-114	1.1/4"
OE-112	1.1/2"
OE-2	2"
OE-212	2.1/2"
OE-3	3"
OE-4	4"

Tech Sheet 1796

45° Equal Bracket Elbow



Female Thread, BSPP

1111	Thread
WEP-12	1/2"

Tech Sheet 1797

90° Equal Elbow



Female Thread, BSPP

1111	Thread
EE-18	1/8"
EE-14	1/4"
EE-38	3/8"
EE-12	1/2"
EE-34	3/4"
EE-1	1"
EE-114	1.1/4"
EE-112	1.1/2"
EE-2	2"
EE-212	2.1/2"
EE-3	3"
EE-4	4"

Tech Sheet 1797

90° Street Elbow



Male Thread, BSPT x Female Thread, BSPP

1111	Male Thread	Female Thread
SE-18	1/8"	1/8"
SE-14	1/4"	1/4"
SE-38	3/8"	3/8"
SE-12	1/2"	1/2"
SE-34	3/4"	3/4"
SE-1	1"	1"
SE-114	1.1/4"	1.1/4"
SE-112	1.1/2"	1.1/2"
SE-2	2"	2"
SE-212	2.1/2"	2.1/2"
SE-3	3"	3"
SE-4	4"	4"

Tech Sheet 1798

Equal Nipple



Male Thread, BSPT

1111	Thread
HN-18	1/8"
HN-14	1/4"
HN-38	3/8"
HN-12	1/2"
HN-34	3/4"
HN-1	1"
HN-114	1.1/4"
HN-112	1.1/2"
HN-2	2"
HN-212	2.1/2"
HN-3	3"
HN-4	4"

Tech Sheet 1804

Male Thread, NPT

1111	Thread
NPT62001010	1/8"
NPT62001313	1/4"
NPT62001717	3/8"
NPT62002121	1/2"
NPT62002727	3/4"
NPT62003232	1"
NPT62004242	1.1/4"
NPT62004848	1.1/2"
NPT62006060	2"
NPT62007676	2.1/2"
NPT62008989	3"
NPT62000114	4"

Tech Sheet 1804



150lb 316 STAINLESS STEEL PIPE FITTINGS



stainless
steel



Hexagon Blanking Cap



Female Thread, BSPP

1111	Thread
HBC-18	1/8"
HBC-14	1/4"
HBC-38	3/8"
HBC-12	1/2"
HBC-34	3/4"
HBC-1	1"
HBC-114	1.1/4"
HBC-112	1.1/2"
HBC-2	2"
HBC-212	2.1/2"
HBC-3	3"
HBC-4	4"

Tech Sheet 1805

Blanking Plug



Male Thread, BSPT

1111	Thread
HP-18	1/8"
HP-14	1/4"
HP-38	3/8"
HP-12	1/2"
HP-34	3/4"
HP-1	1"
HP-114	1.1/4"
HP-112	1.1/2"
HP-2	2"
HP-212	2.1/2"
HP-3	3"

Tech Sheet 1806

Male Thread, NPT

1111	Thread
NPT62181000	1/8"
NPT62181300	1/4"
NPT62181700	3/8"
NPT62182100	1/2"
NPT62182700	3/4"
NPT62183200	1"
NPT62184200	1.1/4"
NPT62184800	1.1/2"
NPT62186000	2"
NPT62187600	2.1/2"
NPT62188900	3"

Tech Sheet 1808

Female Union



Female Thread, BSPP (2 Piece)

1111	Thread
HU-18	1/8"
HU-14	1/4"
HU-38	3/8"
HU-12	1/2"
HU-34	3/4"
HU-1	1"
HU-114	1.1/4"
HU-112	1.1/2"
HU-2	2"
HU-212	2.1/2"
HU-3	3"
HU-4	4"

Tech Sheet 1807

Male/Female Union



Male Thread, BSPT x Female Thread, BSPP (2 Piece)

1111	Thread
MFU-14	1/4"
MFU-38	3/8"
MFU-12	1/2"
MFU-34	3/4"
MFU-1	1"
MFU-114	1.1/4"
MFU-112	1.1/2"
MFU-2	2"
MFU-4	4"

Tech Sheet 1808

Lock Nut



Female Thread, BSPP

1111	Thread
LN-18	1/8"
LN-14	1/4"
LN-38	3/8"
LN-12	1/2"
LN-34	3/4"
LN-1	1"
LN-114	1.1/4"
LN-112	1.1/2"
LN-2	2"
LN-212	2.1/2"
LN-3	3"
LN-4	4"

Tech Sheet 1809

Reducing Bush



Male Thread, BSPT x Female Thread, BSPP

1111	Male Thread	Female Thread
RB-14-18	1/4"	1/8"
RB-38-14	3/8"	1/4"
RB-38-18	3/8"	1/8"
RB-12-14	1/2"	1/4"
RB-12-18	1/2"	1/8"
RB-12-38	1/2"	3/8"
RB-34-12	3/4"	1/2"
RB-34-14	3/4"	1/4"
RB-34-18	3/4"	1/8"
RB-34-38	3/4"	3/8"
RB-1-12	1"	1/2"
RB-1-14	1"	1/4"
RB-1-34	1"	3/4"
RB-1-38	1"	3/8"
RB-114-1	1.1/4"	1"
RB-114-12	1.1/4"	1/2"
RB-114-34	1.1/4"	3/4"
RB-112-1	1.1/2"	1"
RB-112-12	1.1/2"	1/2"
RB-112-34	1.1/2"	3/4"
RB-112-114	1.1/2"	1.1/4"
RB-2-1	2"	1"
RB-2-34	2"	3/4"
RB-2-112	2"	1.1/2"
RB-2-114	2"	1.1/4"
RB-212-1	2.1/2"	1"
RB-212-2	2.1/2"	2"
RB-212-112	2.1/2"	1.1/2"
RB-212-114	2.1/2"	1.1/4"
RB-3-1	3"	1"
RB-3-112	3"	1.1/2"
RB-3-2	3"	2"
RB-3-212	3"	2.1/2"
RB-4-3	4"	3"

Tech Sheet 1810

Male Thread, NPTF x Female Thread, NPTF

1111	Male Thread	Female Thread
NPT62041310	1/4"	1/8"
NPT62041713	3/8"	1/4"
NPT62042117	1/2"	3/8"
NPT62042721	3/4"	1/2"
NPT62043227	1"	3/4"
NPT62044232	1.1/4"	1"
NPT62044842	1.1/2"	1.1/4"
NPT62046048	2"	1.1/2"
NPT62047660	2.1/2"	2"
NPT62048976	3"	2.1/2"



150lb 316 STAINLESS STEEL PIPE FITTINGS

RoHS 3
COMPLIANT ✓



stainless
steel



Reducing Nipple



Male Thread, BSPT

1111	Thread	Thread
RHN-14-18	1/4"	1/8"
RHN-12-14	1/2"	1/4"
RHN-12-18	1/2"	1/8"
RHN-12-38	1/2"	3/8"
RHN-38-14	3/8"	1/4"
RHN-38-18	3/8"	1/8"
RHN-34-12	3/4"	1/2"
RHN-34-14	3/4"	1/4"
RHN-34-18	3/4"	1/8"
RHN-34-38	3/4"	3/8"
RHN-1-12	1"	1/2"
RHN-1-14	1"	1/4"
RHN-1-34	1"	3/4"
RHN-1-38	1"	3/8"
RHN-114-1	1.1/4"	1"
RHN-114-12	1.1/4"	1/2"
RHN-114-34	1.1/4"	3/4"
RHN-112-1	1.1/2"	1"
RHN-112-12	1.1/2"	1/2"
RHN-112-34	1.1/2"	3/4"
RHN-112-114	1.1/2"	1.1/4"
RHN-2-1	2"	1"
RHN-2-12	2"	1/2"
RHN-2-34	2"	3/4"
RHN-2-112	2"	1.1/2"
RHN-2-114	2"	1.1/4"
RHN-3-2	3"	2"

Tech Sheet 1811

Welding Nipple



Male Thread, BSPT

1111	Thread	Length mm
WN-18	1/8"	30
WN-14	1/4"	30
WN-38	3/8"	30
WN-12	1/2"	35
WN-34	3/4"	40
WN-1	1"	40
WN-114	1.1/4"	50
WN-112	1.1/2"	50
WN-2	2"	50
WN-212	2.1/2"	60
WN-3	3"	70
WN-4	4"	80

Tech Sheet 1813

Square Head Plug



Male Thread, BSPT

1111	Thread
SP-18	1/8"
SP-14	1/4"
SP-38	3/8"
SP-12	1/2"
SP-34	3/4"
SP-1	1"
SP-114	1.1/4"
SP-112	1.1/2"
SP-2	2"
SP-212	2.1/2"
SP-3	3"

Tech Sheet 1814

Round Blanking Cap



Female Thread, BSPP

1111	Thread
RC-18	1/8"
RC-14	1/4"
RC-38	3/8"
RC-12	1/2"
RC-34	3/4"
RC-1	1"
RC-114	1.1/4"
RC-112	1.1/2"
RC-2	2"
RC-212	2.1/2"
RC-3	3"

Tech Sheet 1812

Threaded Half Socket



Female Thread, BSPP

1111	Thread
HS-18	1/8"
HS-14	1/4"
HS-38	3/8"
HS-12	1/2"
HS-34	3/4"
HS-1	1"
HS-114	1.1/4"
HS-112	1.1/2"
HS-2	2"
HS-212	2.1/2"
HS-3	3"
HS-4	4"

Tech Sheet 1816

Threaded Full Socket



Female Thread, BSPP

1111	Thread
FS-18	1/8"
FS-14	1/4"
FS-38	3/8"
FS-12	1/2"
FS-34	3/4"
FS-1	1"
FS-114	1.1/4"
FS-112	1.1/2"
FS-2	2"
FS-212	2.1/2"
FS-3	3"
FS-4	4"

Tech Sheet 1815

Female Thread, NPT

1111	Thread
NPT62061010	1/8"
NPT62061313	1/4"
NPT62061717	3/8"
NPT62062121	1/2"
NPT62062727	3/4"
NPT62063232	1"
NPT62064242	1.1/4"
NPT62064848	1.1/2"
NPT62066060	2"
NPT62067676	2.1/2"
NPT62068989	3"
NPT62060114	4"

316 Stainless Steel Tube

Seamless schedule 40 ASTM A312/AMSE SA312-A530.
Conforms to NACE standard MR-01-75,
Din50049-3.1.B.

N.B. Delivery may take up to
48 hours.



3 Metre Lengths, Random


0214	NB	Wall Thickness mm
2028-5839	1/8"	1.73
2028-5854	1/4"	2.24
2028-5862	3/8"	2.31
2028-5870	1/2"	2.77
2028-5953	3/4"	2.87
2028-5961	1"	3.38
2028-5979	1.1/4"	3.56
2028-5987	1.1/2"	3.68
2028-5995	2"	3.91

Tech Sheet 831



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1

- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

 **Working Temperature:**
-100°C to +525°C

 **Maximum Working Pressure:**
207 bar

90° Equal Female Elbow



NPT

0434	Thread
1012-0001	1/4"
1012-0002	3/8"
1012-0003	1/2"
1012-0004	3/4"
1012-0005	1"
1012-0006	1.1/4"
1012-0007	1.1/2"
1012-0008	2"

Tech Sheet 20506

BSPT

0434	Thread
1012-0009	1/4"
1012-0010	3/8"
1012-0011	1/2"
1012-0012	3/4"
1012-0013	1"
1012-0014	1.1/4"
1012-0016	2"

Tech Sheet 20494

Socket Weld

0434	NB
1012-0017	1/4"
1012-0018	3/8"
1012-0019	1/2"
1012-0021	1"
1012-0022	1.1/4"
1012-0023	1.1/2"
1012-0024	2"

Tech Sheet 20521

90° Equal Male/Female Street Elbow



NPT

0434	Thread
1012-0041	1/4"
1012-0042	3/8"
1012-0043	1/2"
1012-0044	3/4"
1012-0045	1"
1012-0046	1.1/4"
1012-0047	1.1/2"
1012-0048	2"

Tech Sheet 20515

45° Equal Female Elbow



NPT

0434	Thread
1012-0025	1/4"
1012-0027	1/2"
1012-0028	3/4"
1012-0029	1"
1012-0030	1.1/4"
1012-0031	1.1/2"
1012-0032	2"

Tech Sheet 20505

Socket Weld

0434	NB
1012-0033	1/4"
1012-0034	3/8"
1012-0035	1/2"
1012-0036	3/4"
1012-0037	1"
1012-0038	1.1/4"
1012-0039	1.1/2"

Tech Sheet 20520

Equal Tee



NPT

0434	Thread
1012-0049	1/4"
1012-0050	3/8"
1012-0051	1/2"
1012-0052	3/4"
1012-0053	1"
1012-0054	1.1/4"
1012-0055	1.1/2"
1012-0056	2"

Tech Sheet 20516

BSPT

0434	Thread
1012-0057	1/4"
1012-0058	3/8"
1012-0059	1/2"
1012-0060	3/4"
1012-0061	1"
1012-0062	1.1/4"
1012-0063	1.1/2"
1012-0064	2"

Tech Sheet 20495

Socket Weld

0434	NB
1012-0065	1/4"
1012-0066	3/8"
1012-0067	1/2"
1012-0068	3/4"
1012-0069	1"
1012-0070	1.1/4"
1012-0071	1.1/2"
1012-0072	2"

Tech Sheet 20526

3000lb 316 STAINLESS STEEL PIPE FITTINGS



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

Working Temperature:
-100°C to +525°C

Maximum Working Pressure:
207 bar

Equal Cross



NPT

0434	Thread
1012-0073	1/4"
1012-0074	3/8"
1012-0075	1/2"
1012-0076	3/4"
1012-0077	1"
1012-0078	1.1/4"
1012-0079	1.1/2"
1012-0080	2"

Tech Sheet 20504



Socket Weld

0434	NB
1012-0082	3/8"
1012-0083	1/2"
1012-0084	3/4"
1012-0085	1"
1012-0086	1.1/4"
1012-0087	1.1/2"
1012-0088	2"

Tech Sheet 20519

Male / Female Union



NPT

0434	Thread
1012-0089	1/4"
1012-0090	3/8"
1012-0091	1/2"
1012-0092	3/4"
1012-0093	1"
1012-0094	1.1/4"
1012-0095	1.1/2"
1012-0096	2"

Tech Sheet 20518

Female Union



NPT

0434	Thread
1012-0097	1/4"
1012-0098	3/8"
1012-0099	1/2"
1012-0100	3/4"
1012-0101	1"
1012-0102	1.1/4"
1012-0103	1.1/2"
1012-0104	2"

Tech Sheet 20517

BSPT

0434	Thread
1012-0106	3/8"
1012-0107	1/2"
1012-0108	3/4"
1012-0109	1"
1012-0110	1.1/4"
1012-0111	1.1/2"
1012-0112	2"

Tech Sheet 20500



Socket Weld

0434	NB
1012-0113	1/4"
1012-0114	3/8"
1012-0115	1/2"
1012-0116	3/4"
1012-0117	1"
1012-0118	1.1/4"
1012-0119	1.1/2"
1012-0120	2"

Tech Sheet 20527

Male Hex Nipple



NPT

0434	Thread
1012-0121	1/4"
1012-0122	3/8"
1012-0123	1/2"
1012-0124	3/4"
1012-0125	1"
1012-0126	1.1/4"
1012-0127	1.1/2"
1012-0128	2"

Tech Sheet 20509

BSPT

0434	Thread
1012-0129	1/4"
1012-0130	3/8"
1012-0131	1/2"
1012-0132	3/4"
1012-0133	1"
1012-0134	1.1/4"
1012-0135	1.1/2"
1012-0136	2"

Tech Sheet 20498

Male Barrel Nipple




NPT

0434	Thread	Length mm
1012-0137	1/4"	30
1012-0138	3/8"	40
1012-0139	1/2"	60
1012-0140	3/4"	60
1012-0141	1"	60
1012-0142	1.1/4"	80
1012-0143	1.1/2"	80
1012-0144	2"	100

Tech Sheet 20503

- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

 **Working Temperature:**
-100°C to +525°C

 **Maximum Working Pressure:**
207 bar

Male Hex Reducing Nipple



BSPT

0434	Thread	Thread
1012-0166	1/4"	1/8"
1012-0167	3/8"	1/8"
1012-0168	1/2"	1/4"
1012-0169	1/2"	3/8"
1012-0170	3/4"	3/8"
1012-0171	3/4"	1/2"
1012-0172	1"	1/2"
1012-0173	1"	3/4"
1012-0174	1.1/4"	3/4"
1012-0175	1.1/4"	1"
1012-0176	1.1/2"	1"
1012-0177	1.1/2"	1.1/4"
1012-0178	2"	1"
1012-0179	2"	1.1/4"
1012-0180	2"	1.1/2"

Tech Sheet 20499

NPT

0434	Thread	Thread
1012-0145	1/4"	1/8"
1012-0146	3/8"	1/8"
1012-0147	3/8"	1/4"
1012-0148	1/2"	1/8"
1012-0149	1/2"	1/4"
1012-0150	1/2"	3/8"
1012-0151	3/4"	1/4"
1012-0152	3/4"	3/8"
1012-0153	3/4"	1/2"
1012-0154	1"	3/8"
1012-0155	1"	1/2"
1012-0156	1"	3/4"
1012-0157	1.1/4"	1/2"
1012-0158	1.1/4"	3/4"
1012-0159	1.1/4"	1"
1012-0160	1.1/2"	3/4"
1012-0161	1.1/2"	1"
1012-0162	1.1/2"	1.1/4"
1012-0163	2"	1"
1012-0164	2"	1.1/4"
1012-0165	2"	1.1/2"

Tech Sheet 20513

Full Coupling



NPT

0434	Thread
1012-0181	1/4"
1012-0182	3/8"
1012-0183	1/2"
1012-0184	3/4"
1012-0185	1"
1012-0186	1.1/4"
1012-0187	1.1/2"
1012-0188	2"

Tech Sheet 20507

BSPT

0434	Thread
1012-0189	1/4"
1012-0190	3/8"
1012-0191	1/2"
1012-0192	3/4"
1012-0193	1"
1012-0194	1.1/4"
1012-0195	1.1/2"
1012-0196	2"

Tech Sheet 20496

Socket Weld

0434	NB
1012-0197	1/4"
1012-0198	3/8"
1012-0199	1/2"
1012-0200	3/4"
1012-0201	1"
1012-0202	1.1/4"
1012-0203	1.1/2"
1012-0204	2"

Tech Sheet 20522

Half Coupling



NPT

0434	Thread
1012-0205	1/4"
1012-0206	3/8"
1012-0208	3/4"
1012-0209	1"
1012-0210	1.1/4"
1012-0211	1.1/2"
1012-0212	2"

Tech Sheet 20508

BSPT

0434	Thread
1012-0213	1/4"
1012-0214	3/8"
1012-0215	1/2"
1012-0216	3/4"
1012-0217	1"
1012-0218	1.1/4"
1012-0219	1.1/2"
1012-0220	2"

Tech Sheet 20497

Socket Weld

0434	NB
1012-0221	1/4"
1012-0222	3/8"
1012-0223	1/2"
1012-0224	3/4"
1012-0225	1"
1012-0226	1.1/4"
1012-0228	2"

Tech Sheet 20523

3000lb 316 STAINLESS STEEL PIPE FITTINGS



- ASTM A182 316/L stainless steel
- Dimensions to ANSI B16.11/BS3799
- Sizes 1/4" to 2"
- NPT threaded to ANSI B2.1
- BSPT threaded to ISO 7/1
- Pressure/temperature ratings according to BS 3799
- Pressure rating performance will vary depending on temperature.

Working Temperature:
-100°C to +525°C

Maximum Working Pressure:
207 bar

Reducing Coupling



NPT

0434	Thread	Thread
1012-0229	1/4"	1/8"
1012-0231	1/2"	1/4"
1012-0232	1/2"	3/8"
1012-0233	3/4"	3/8"
1012-0234	3/4"	1/2"
1012-0235	1"	1/2"
1012-0236	1"	3/4"
1012-0237	1.1/4"	3/4"
1012-0238	1.1/4"	1"
1012-0239	1.1/2"	1"
1012-0240	1.1/2"	1.1/4"
1012-0241	2"	1"
1012-0242	2"	1.1/4"
1012-0243	2"	1.1/2"

Tech Sheet 20512



Socket Weld

0434	NB	NB
1012-0244	1/4"	1/8"
1012-0245	3/8"	1/4"
1012-0246	1/2"	1/4"
1012-0247	1/2"	3/8"
1012-0248	3/4"	3/8"
1012-0249	3/4"	1/2"
1012-0250	1"	1/2"
1012-0252	1.1/4"	1"
1012-0253	1.1/2"	1"
1012-0254	1.1/2"	1.1/4"
1012-0255	2"	1"
1012-0256	2"	1.1/4"
1012-0257	2"	1.1/2"

Tech Sheet 20524

Reducing Bush



NPT

0434	Thread	Thread
1012-0258	1/4"	1/8"
1012-0259	3/8"	1/8"
1012-0260	3/8"	1/4"
1012-0261	1/2"	1/8"
1012-0262	1/2"	1/4"
1012-0263	1/2"	3/8"
1012-0264	3/4"	1/4"
1012-0265	3/4"	3/8"
1012-0266	3/4"	1/2"
1012-0267	1"	1/4"
1012-0268	1"	3/8"
1012-0269	1"	1/2"
1012-0270	1"	3/4"
1012-0271	1.1/4"	1/2"
1012-0272	1.1/4"	3/4"
1012-0273	1.1/4"	1"
1012-0274	1.1/2"	3/4"
1012-0275	1.1/2"	1"
1012-0276	1.1/2"	1.1/4"
1012-0277	2"	1"
1012-0278	2"	1.1/4"
1012-0279	2"	1.1/2"

Tech Sheet 20511

BSPT

0434	Thread	Thread
1012-0280	1/4"	1/8"
1012-0281	3/8"	1/8"
1012-0282	3/8"	1/4"
1012-0283	1/2"	1/8"
1012-0284	1/2"	1/4"
1012-0285	1/2"	3/8"
1012-0286	3/4"	1/4"
1012-0287	3/4"	3/8"
1012-0288	3/4"	1/2"
1012-0289	1"	1/4"
1012-0290	1"	3/8"
1012-0291	1"	1/2"
1012-0292	1"	3/4"
1012-0293	1.1/4"	1/2"
1012-0294	1.1/4"	3/4"
1012-0295	1.1/4"	1"
1012-0296	1.1/2"	3/4"
1012-0297	1.1/2"	1"
1012-0298	1.1/2"	1.1/4"
1012-0299	2"	1"
1012-0300	2"	1.1/4"
1012-0301	2"	1.1/2"

Tech Sheet 20502

Hex Head Plug



NPT

0434	Thread
1012-0302	1/4"
1012-0303	3/8"
1012-0304	1/2"
1012-0305	3/4"
1012-0306	1"
1012-0307	1.1/4"
1012-0308	1.1/2"
1012-0309	2"

Tech Sheet 20510

BSPT

0434	Thread
1012-0310	1/4"
1012-0311	3/8"
1012-0312	1/2"
1012-0313	3/4"
1012-0314	1"
1012-0315	1.1/4"
1012-0316	1.1/2"
1012-0317	2"

Tech Sheet 20501

Round Cap



NPT

0434	Thread
1012-0318	1/4"
1012-0319	3/8"
1012-0320	1/2"
1012-0321	3/4"
1012-0322	1"
1012-0323	1.1/4"
1012-0324	1.1/2"
1012-0325	2"

Tech Sheet 20514

Socket Weld

0434	NB
1012-0326	1/4"
1012-0327	3/8"
1012-0328	1/2"
1012-0329	3/4"
1012-0330	1"
1012-0331	1.1/4"
1012-0332	1.1/2"
1012-0333	2"

Tech Sheet 20525

Slip-on PN16/3



BS4504: Sect 3.1:1989

1113	Size
SSFSB-12	1/2"
SSFSB-34	3/4"
SSFSB-1	1"
SSFSB-114	1.1/4"
SSFSB-112	1.1/2"
SSFSB-2	2"
SSFSB-3	3"

Tech Sheet 1500

Slip-on 150lb



ANSI B16.5

1113	Size
SSFSA-12	1/2"
SSFSA-1	1"
SSFSA-112	1.1/2"
SSFSA-2	2"

Tech Sheet 1500

Table D



1113	Size
TABLE-D-112	1.1/2"
TABLE-D-4	4"

Tech Sheet 1500

Table E



1113	Size
TABLE-E-1	1"
TABLE-E-112	1.1/2"
TABLE-E-2	2"
TABLE-E-3	3"

Tech Sheet 1500

Blind PN16/8



BS4504: Sect 3.1:1989

1113	Size
SSFBB-12	1/2"
SSFBSB-34	3/4"
SSFBSB-1	1"
SSFBSB-114	1.1/4"
SSFBSB-112	1.1/2"
SSFBB-2	2"
SSFBB-3	3"

Tech Sheet 1500

Blind 150lb



BS4504: Sect 3.1:1989

1113	Size
SSFBA-12	1/2"
SSFBA-34	3/4"
SSFBA-1	1"
SSFBA-2	2"
SSFBA-3	3"

Tech Sheet 1500

Weld Neck 150lb



ANSI B16.5

1113	Size
SSFWA-34	3/4"
SSFWA-2	2"
SSFWA-3	3"

Tech Sheet 1500

Customers who bought from this page also purchased...



Flange Gaskets



...see page 1389

BS TYPE, 316L HYGIENIC PIPE FITTINGS

stainless
steel

FT PRO

Elbows



90° Bends, Long

0706	OD
BSL2S-316-1	1"
BSL2S-316-1.5	1.1/2"
BSL2S-316-2	2"
BSL2S-316-2.5	2.1/2"
BSL2S-316-3	3"
BSL2S-316-4	4"

Tech Sheet 68082



90° Bends, Short

0706	OD
BS2WCL-316-1	1"
BS2WCL-316-1.5	1.1/2"
BS2WCL-316-2	2"
BS2WCL-316-2.5	2.1/2"
BS2WCL-316-3	3"
BS2WCL-316-4	4"

Tech Sheet 68082



45° Bends, Long

0706	OD
BSL2KS-316-1	1"
BSL2KS-316-1.5	1.1/2"
BSL2KS-316-2	2"
BSL2KS-316-2.5	2.1/2"
BSL2KS-316-3	3"
BSL2KS-316-4	4"

Tech Sheet 68082

Tees



Short Tees

0706	OD
BS7WWW-316-3/4	3/4"
BS7WWW-316-1	1"
BS7WWW-316-1.5	1.1/2"
BS7WWW-316-2	2"
BS7WWW-316-2.5	2.1/2"
BS7WWW-316-3	3"

Tech Sheet 68082



Pulled Tees

0706	OD
BS7WWO-316-1	1"
BS7WWO-316-1.5	1.1/2"
BS7WWO-316-2	2"
BS7WWO-316-2.5	2.1/2"
BS7WWO-316-3	3"
BS7WWO-316-4	4"

Tech Sheet 68082

Reducers



Concentric Reducing Cones

0706	OD A	OD B
BSL31-316-1X0.5	1"	1/2"
BSL31-316-1.5X1	1.1/2"	1"
BSL31-316-2X1	2"	1"
BSL31-316-2X1.5	2"	1.1/2"
BSL31-316-2.5X1	2.1/2"	1"
BSL31-316-2.5X1.5	2.1/2"	1.1/2"
BSL31-316-2.5X2	2.1/2"	2"
BSL31-316-3X2	3"	2"
BSL31-316-3X2.5	3"	2.1/2"
BSL31-316-4X1.5	4"	1.1/2"
BSL31-316-4X2	4"	2"
BSL31-316-4X2.5	4"	2.1/2"
BSL31-316-4X3	4"	3"

Tech Sheet 68082



Eccentric Reducing Cones

0706	OD A	OD B
BSL32-316075X0.5	3/4"	1/2"
BSL32-316-2X1	2"	1"
BSL32-316-2X1.5	2"	1.1/2"
BSL32-316-2.5X2	2.1/2"	2"
BSL32-316-3X2	3"	2"
BSL32-316-3X2.5	3"	2.1/2"
BSL32-316-4X1.5	4"	1.1/2"
BSL32-316-4X2	4"	2"
BSL32-316-4X3	4"	3"

Tech Sheet 68082

IDF Weld Fittings



Hex Nut

0706	Size
BSIDF-13H-1	1"
BSIDF-13H-1.5	1.1/2"
BSIDF-13H-2	2"
BSIDF-13H-2.5	2.1/2"
BSIDF-13H-3	3"

Tech Sheet 68081



Welding Male

0706	Size
BSIDF-15-1	1"
BSIDF-15-1.5	1.1/2"
BSIDF-15-2	2"
BSIDF-15-2.5	2.1/2"
BSIDF-15-3	3"
BSIDF-15-4	4"

Tech Sheet 68081



Welding Liner

0706	Size
BSIDF-14-1	1"
BSIDF-14-1.5	1.1/2"
BSIDF-14-2	2"
BSIDF-14-2.5	2.1/2"
BSIDF-14-3	3"
BSIDF-14-4	4"

Tech Sheet 68081



EPDM Seal

0706	Size
BSIDF-SEAL-1	1"
BSIDF-SEAL-1.5	1.1/2"
BSIDF-SEAL-2	2"
BSIDF-SEAL-2.5	2.1/2"
BSIDF-SEAL-3	3"
BSIDF-SEAL-4	4"

Tech Sheet 68081

RJT Weld Fittings



Hex Nut

0706	Size
BSRJT-13H-1	1"
BSRJT-13H-1.5	1.1/2"
BSRJT-13H-2	2"
BSRJT-13H-2.5	2.1/2"
BSRJT-13H-3	3"
BSRJT-13H-4	4"

Tech Sheet 68081



Welding Male

0706	Size
BSRJT-15-1	1"
BSRJT-15-1.5	1.1/2"
BSRJT-15-2	2"
BSRJT-15-2.5	2.1/2"
BSRJT-15-3	3"
BSRJT-15-4	4"

Tech Sheet 68081



Welding Liner

0706	Size
BSRJT-14-1	1"
BSRJT-14-1.5	1.1/2"
BSRJT-14-2	2"
BSRJT-14-2.5	2.1/2"
BSRJT-14-3	3"
BSRJT-14-4	4"

Tech Sheet 68081



Blanking Nut

0706	Size
BSRJT-13HBN-1	1"
BSRJT-13HBN-1.5	1.1/2"
BSRJT-13HBN-2	2"
BSRJT-13HBN-2.5	2.1/2"
BSRJT-13HBN-3	3"
BSRJT-13HBN-4	4"

Tech Sheet 68081



EPDM Seal

0706	Size
BSRJT-SEAL-1	1"
BSRJT-SEAL-1.5	1.1/2"
BSRJT-SEAL-2	2"
BSRJT-SEAL-2.5	2.1/2"
BSRJT-SEAL-3	3"
BSRJT-SEAL-4	4"

Tech Sheet 68081

RJT Fittings

Most process lines have to be frequently dismantled for cleaning and all ranges of our hygienic fittings are suitable for this purpose.

Clamp unions provide a crevice free connection with a rapid break down and assembly, with no tools required.

RJT unions are probably the most widely used for frequent break down and cleaning.

IDF unions provide an alternative security and limit unauthorised access.

Sizes to suit OD tube.



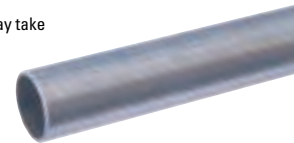
RJT Spanner

0147	Size
RJT-SPANNER-1.0	1"
RJT-SPANNER-1.5	1.1/2"
RJT-SPANNER-2	2"
RJT-SPANNER-2.5	2.1/2"
RJT-SPANNER-3	3"
RJT-SPANNER-4	4"

Tech Sheet 68081

Hygienic Tube

N.B. Delivery may take up to 48 hours.



3 Metre Lengths

0214	Size
ODT316L-W-H-1.0	1"
ODT316L-W-H-1.5	1.1/2"
ODT316L-W-H-2	2"
ODT316L-W-H-2.5	2.1/2"
ODT316L-W-H-3	3"
ODT316L-W-H-4	4"

Tech Sheet 68081

HYGIENIC CLAMP FITTINGS

stainless steel

FT PRO

Clamp Fittings



Weld Ferrule

0707	Clamp Size
14MMP-0.5	1/2"
14MMP-0.75	3/4"
14MMP-1	1"
14MMP-1.5	1.1/2"
14MMP-2	2"
14MMP-2.5	2.1/2"
14MMP-3	3"
14MMP-4	4"

Tech Sheet 68084



Heavy-duty Single Pin Clamp

0707	Clamp Size
13MHH-2.5	2.1/2"
13MHH-0.5	1/2" - 3/4"
13MHH-1	1" - 1.1/2"
13MHH-2	2"
13MHH-3	3"
13MHH-4	4"

Tech Sheet 68084



Heavy-duty Double Pin Clamp

0707	Clamp Size
13MHMM-1	1" - 1.1/2"
13MHMM-2	2"
13MHMM-2.5	2.1/2"
13MHMM-3	3"
13MHMM-4	4"

Tech Sheet 68084



End Cap

0707	Clamp Size
16AMP-0.5	1/2" - 3/4"
16AMP-1	1" - 1.1/2"
16AMP-2	2"
16AMP-2.5	2.1/2"
16AMP-3	3"
16AMP-4	4"

Tech Sheet 68084



Clamp Joint Seal, EPDM

0707	Clamp Size
13PG-0.5	1/2"
13PG-0.75	3/4"
13PG-1	1"
13PG-1.5	1.1/2"
13PG-2	2"
13PG-2.5	2.1/2"
13PG-3	3"
13PG-4	4"

Tech Sheet 68084





M-Press Fittings Ltd



For M-Press Stainless Steel Fittings
see pages 1120-1125

ONE TOUCH ALL STAINLESS STEEL PUSH-IN FITTINGS

 **Working Temperature:**
-20°C to +200°C

 **Maximum Working Pressure:**
10 bar
Negative Pressure:
750mm Hg (10Torr)

Material:
Body and Collet: 316 stainless steel
O-Ring: Viton

Tube to Connect: PU, Nylon and PTFE
Media: Compressed air, steam water and other compatible liquids

Male Studs



Male Thread, BSPP

0386	OD mm	Thread
SSPC4-01	4	1/8"
SSPC6-01	6	1/8"
SSPC6-02	6	1/4"
SSPC8-01	8	1/8"
SSPC8-02	8	1/4"
SSPC10-02	10	1/4"
SSPC10-03	10	3/8"
SSPC12-04	12	1/2"

Tech Sheet 10257



Male Thread, BSPP

0386	OD mm	Thread
SSPC4-G01	4	1/8"
SSPC6-G01	6	1/8"
SSPC6-G02	6	1/4"
SSPC8-G01	8	1/8"
SSPC8-G02	8	1/4"
SSPC10-G02	10	1/4"
SSPC10-G03	10	3/8"
SSPC12-G04	12	1/2"

Tech Sheet 10257

Female Studs



Female Thread, BSPP

0386	OD mm	Thread
SSPCF4-G01	4	1/8"
SSPCF6-G01	6	1/8"
SSPCF6-G02	6	1/4"
SSPCF8-G01	8	1/8"
SSPCF8-G02	8	1/4"
SSPCF10-G02	10	1/4"
SSPCF10-G03	10	3/8"
SSPCF12-G03	12	3/8"
SSPCF12-G04	12	1/2"

Tech Sheet 10257

Male Stud Swivel Elbows



Male Thread, BSPP

0386	OD mm	Thread
SSPL4-01	4	1/8"
SSPL6-01	6	1/8"
SSPL6-02	6	1/4"
SSPL8-01	8	1/8"
SSPL8-02	8	1/4"
SSPL10-02	10	1/4"
SSPL10-03	10	3/8"
SSPL12-04	12	1/2"

Tech Sheet 10257



Male Thread, BSPP

0386	OD mm	Thread
SSPL4-G01	4	1/8"
SSPL6-G01	6	1/8"
SSPL6-G02	6	1/4"
SSPL8-G01	8	1/8"
SSPL8-G02	8	1/4"
SSPL10-G02	10	1/4"
SSPL10-G03	10	3/8"
SSPL12-G04	12	1/2"

Tech Sheet 10257

Female Stud Elbows



Female Thread, BSPP

0386	OD mm	Thread
SSPLF4-G01	4	1/8"
SSPLF6-G01	6	1/8"
SSPLF6-G02	6	1/4"
SSPLF8-G01	8	1/8"
SSPLF8-G02	8	1/4"
SSPLF10-G02	10	1/4"
SSPLF10-G03	10	3/8"
SSPLF12-G03	12	3/8"
SSPLF12-G04	12	1/2"

Tech Sheet 10257

Male Stud Swivel Tees



Branch Male Thread, BSPP

0386	OD mm	Thread
SSPB4-G01	4	1/8"
SSPB6-G01	6	1/8"
SSPB6-G02	6	1/4"
SSPB8-G01	8	1/8"
SSPB8-G02	8	1/4"
SSPB10-G02	10	1/4"
SSPB10-G03	10	3/8"
SSPB12-G03	12	3/8"
SSPB12-G04	12	1/2"

Tech Sheet 10257

Speed Control Valves



Male Thread, BSPP

0386	OD mm	Thread
SSNSE4-G01	4	1/8"
SSNSE6-G01	6	1/8"
SSNSE6-G02	6	1/4"
SSNSE8-G01	8	1/8"
SSNSE8-G02	8	1/4"
SSNSE8-G03	8	3/8"
SSNSE10-G02	10	1/4"
SSNSE10-G03	10	3/8"
SSNSE10-G04	10	1/2"
SSNSE12-G04	12	1/2"

Tech Sheet 10257



ONE TOUCH ALL STAINLESS STEEL PUSH-IN FITTINGS



Working Temperature:
-20°C to +200°C

Maximum Working Pressure:
10 bar
Negative Pressure:
750mm Hg (10Torr)

Material:
Body and Collet: 316 stainless steel
O-Ring: Viton

Tube to Connect: PU, Nylon and PTFE
Media: Compressed air, steam water and other compatible liquids

Tube x Tube Connectors



Equal Straights

0386	OD mm
SSPUC-4	4
SSPUC-6	6
SSPUC-8	8
SSPUC-10	10
SSPUC-12	12

Tech Sheet 10257



Equal Tees

0386	OD mm
SSPUT-4	4
SSPUT-6	6
SSPUT-8	8
SSPUT-10	10
SSPUT-12	12

Tech Sheet 10257

Stem Connectors



Tube x Stem Reducers

0386	OD mm	OD mm
SSPGJ6-4	6	4
SSPGJ8-4	8	4
SSPGJ8-6	8	6
SSPGJ10-6	10	6
SSPGJ10-8	10	8
SSPGJ12-8	12	8
SSPGJ12-10	12	10

Tech Sheet 10257



Unequal Straights

0386	OD mm	OD mm
SSPG6-4	6	4
SSPG8-4	8	4
SSPG8-6	8	6
SSPG10-6	10	6
SSPG10-8	10	8
SSPG12-8	12	8
SSPG12-10	12	10

Tech Sheet 10257



Equal Bulkheads

0386	OD mm
SSPM-4	4
SSPM-6	6
SSPM-8	8
SSPM-10	10
SSPM-12	12

Tech Sheet 10257

Plugs



Tube

0386	OD mm
SSPP-4	4
SSPP-6	6
SSPP-8	8
SSPP-10	10
SSPP-12	12

Tech Sheet 10257



Equal Elbows

0386	OD mm
SSPUL-4	4
SSPUL-6	6
SSPUL-8	8
SSPUL-10	10
SSPUL-12	12

Tech Sheet 10257



Equal Ys

0386	OD mm
SSPY-4	4
SSPY-6	6
SSPY-8	8
SSPY-10	10
SSPY-12	12

Tech Sheet 10257



certification

316 STAINLESS STEEL PUSH-IN FITTINGS



stainless
steel

AIGNEP

° Working Temperature:
-15°C to +190°C



Maximum Working
Pressure:
-0.99 bar to 20 bar

This series is fully made of stainless steel AISI 316L and developed to be used with aggressive fluids and food applications. Also ideal for use in salty environments and in machines that need frequent washing with aggressive detergents. Certified NSF 169 and conformed to NSF 61 & NSF 372 standards. All parallel threads have a Food FKM seal as standard

Male Studs



Male Thread, BSPT

0006	OD mm	Thread
60000-4-1/8	4	1/8"
60000-4-1/4	4	1/4"
60000-6-1/8	6	1/8"
60000-6-1/4	6	1/4"
60000-8-1/8	8	1/8"
60000-8-1/4	8	1/4"
60000-10-1/4	10	1/4"
60000-10-3/8	10	3/8"
60000-12-3/8	12	3/8"
60000-12-1/2	12	1/2"

Tech Sheet 1378



Male Thread, Metric & BSPP

0006	OD mm	Thread
60020-4-M5	4	M5
60020-4-1/8	4	1/8"
60020-4-1/4	4	1/4"
60020-6-M5	6	M5
60020-6-1/8	6	1/8"
60020-6-1/4	6	1/4"
60020-8-1/8	8	1/8"
60020-8-1/4	8	1/4"
60020-10-1/4	10	1/4"
60020-10-3/8	10	3/8"
60020-10-1/2	10	1/2"
60020-12-3/8	12	3/8"
60020-12-1/2	12	1/2"
60020-14-1/2	14	1/2"

Tech Sheet 1378

Male Stud Swivel Elbows



Male Thread, BSPT

0006	OD mm	Thread
60110X-4-18	4	1/8"
60110X-4-14	4	1/4"
60110X-6-18	6	1/8"
60110X-6-14	6	1/4"
60110X-8-18	8	1/8"
60110X-8-14	8	1/4"
60110X-10-14	10	1/4"
60110X-10-38	10	3/8"
60110X-10-12	10	1/2"
60110X-12-38	12	3/8"
60110X-12-12	12	1/2"

Tech Sheet 1378



Male Thread, Metric & BSPP

0006	OD mm	Thread
60115X-4-M5	4	M5
60115X-4-18	4	1/8"
60115X-4-14	4	1/4"
60115X-6-M5	6	M5
60115X-6-18	6	1/8"
60115X-6-14	6	1/4"
60115X-6-38	6	3/8"
60115X-8-18	8	1/8"
60115X-8-14	8	1/4"
60115X-8-38	8	3/8"
60115X-10-14	10	1/4"
60115X-10-38	10	3/8"
60115X-10-12	10	1/2"
60115X-12-38	12	3/8"
60115X-12-12	12	1/2"
60115X-14-12	14	1/2"

Tech Sheet 1378

Male Stud Swivel Tees



Branch Male Thread, BSPT

0006	OD mm	Thread
60210X-4-18	4	1/8"
60210X-4-14	4	1/4"
60210X-6-18	6	1/8"
60210X-6-14	6	1/4"
60210X-8-18	8	1/8"
60210X-8-14	8	1/4"
60210X-10-14	10	1/4"
60210X-10-38	10	3/8"
60210X-10-12	10	1/2"
60210X-12-38	12	3/8"
60210X-12-12	12	1/2"

Tech Sheet 1378





Branch Male Thread, BSPP

0006	OD mm	Thread
60215X-4-M5	4	M5
60215X-4-18	4	1/8"
60215X-4-14	4	1/4"
60215X-6-M5	6	M5
60215X-6-18	6	1/8"
60215X-6-14	6	1/4"
60215X-8-18	8	1/8"
60215X-8-14	8	1/4"
60215X-10-14	10	1/4"
60215X-10-38	10	3/8"
60215X-10-12	10	1/2"
60215X-12-38	12	3/8"
60215X-12-12	12	1/2"
60215X-14-12	14	1/2"

Tech Sheet 1378

316 STAINLESS STEEL PUSH-IN FITTINGS

 **Working Temperature:**
-15°C to +190°C

 **Maximum Working Pressure:**
-0.99 bar to 20 bar



stainless
steel

 AIGNEP

This series is fully made of stainless steel AISI 316L and developed to be used with aggressive fluids and food applications. Also ideal for use in salty environments and in machines that need frequent washing with aggressive detergents. Certified NSF 169 and conformed to NSF 61 & NSF 372 standards. All parallel threads have a Food FKM seal as standard.

Tube x Tube Connectors



Equal Straights

0006	OD mm
60040-4	4
60040-6	6
60040-8	8
60040-10	10
60040-12	12
60040-14	14
Tech Sheet 1378	



Unequal Straights

0006	OD mm	OD mm
60040-4-6	4	6
60040-6-8	6	8
60040-8-10	8	10
60040-10-12	10	12
Tech Sheet 1378		



Equal Bulkheads

0006	OD mm	Thread
60050-4	4	M12 x 1
60050-6	6	M14 x 1
60050-8	8	M16 x 1
60050-10	10	M20 x 1
60050-12	12	M22 x 1
Tech Sheet 1378		



Equal Ys

0006	OD mm
60310X-4	4
60310X-6	6
60310X-8	8
Tech Sheet 1378	



Equal Elbows

0006	OD mm
60130X-4	4
60130X-6	6
60130X-8	8
60130X-10	10
60130X-12	12
60130X-14	14
Tech Sheet 1378	



Equal Tees

0006	OD mm
60230X-4	4
60230X-6	6
60230X-8	8
60230X-10	10
60230X-12	12
60230X-14	14
Tech Sheet 1378	

Stem Adaptors



Male Thread, BSPP

0006	OD mm	Thread
60600-6-18	6	1/8"
60600-8-14	8	1/4"
60600-10-14	10	1/4"
60600-10-38	10	3/8"
60600-12-38	12	3/8"
60600-12-12	12	1/2"
Tech Sheet 1378		

SERIES 25 QUICK COUPLING EUROPEAN PROFILE STAINLESS STEEL

stainless
steel



Working Temperature:
-15°C to +200°C
Standard seal FKM

Maximum Static Working Pressure:
PB 35 bar (500 PSI)



Interchangeability:
Rectus 26

Material:
Stainless steel coupling and plug
Application:
General purpose pneumatic coupling, stainless steel.



Profil

Couplings



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25KAAW13RVX	1/4"	19	59
25KAAW17RVX	3/8"	19	57.5

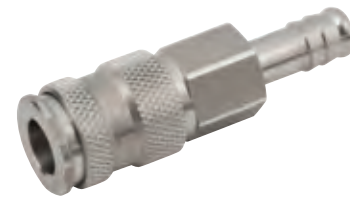
Tech Sheet 518



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25KAIW13RVX	1/4"	19	56
25KAIW17RVX	3/8"	19	55
25KAIW21RVX	1/2"	24	56

Tech Sheet 518



Hose Tail

2510	To Suit Hose ID	Hex Size mm	Length mm
25KATF10RVX	10mm (3/8")	19	74
25KATF13RVX	13mm (1/2")	19	74

Tech Sheet 518

Plugs



Male Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SFAW13RXX	1/4"	17	33.5
25SFAW17RXX	3/8"	19	33
25SFAW21RXX	1/2"	24	38

Tech Sheet 518



Female Thread, BSPP

2510	Thread	Hex Size mm	Length mm
25SFIW13RXX	1/4"	17	38.5
25SFIW17RXX	3/8"	19	39.5
25SFIW21RXX	1/2"	24	44

Tech Sheet 518



Hose Tail

2510	To Suit Hose ID	Length mm
25SFTF06RXX	6mm (1/4")	48
25SFTF08RXX	8mm (5/16")	48
25SFTF10RXX	10mm (3/8")	48
25SFTF13RXX	13mm (1/2")	48

Tech Sheet 518

Other materials, seals and finishes available on request, please contact our technical department for further details

SOLENOID VALVES

Stainless Steel 2/2 N/C, Direct Operated/ Pilot Operated Solenoid Valves

Materials in contact with fluids

Body: Stainless steel AISI 316

Sealing: FPM

Internal Components: Stainless steel

Seat: Stainless steel AISI 316

Core Tube: Stainless steel

Shading Coil: Copper

Supplied with DIN plugs



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M3/HR	Max Pressure Bar	Replacement Coil
G256C145S-23050	1/8"	230/50	4.5 VA	1.6	0.08	0-30	533534-003
G256C145S-11050	1/8"	110/50	4.5 VA	1.6	0.08	0-30	533534-024
G256C145S-2450	1/8"	24/50	4.5 VA	1.6	0.08	0-30	533534-011
G256C145S-24VDC	1/8"	24V DC	3.5 W	1.6	0.08	0-12	533534-001
G256C129S-23050	1/4"	230/50	14 VA	2.4	0.18	0-20	533593-003
G256C129S-11050	1/4"	110/50	14 VA	2.4	0.18	0-20	533593-020
G256C129S-2450	1/4"	24/50	14 VA	2.4	0.18	0-20	533593-011
G256C113S-24VDC	1/4"	24V DC	9 W	2.4	0.18	0-20	533593-002
L182V09-38-23050	3/8"	230/50	12VA	13.5	2.5	0.35 - 16	B12AA
L182V09-38-11050	3/8"	110/50	12VA	13.5	2.5	0.35 - 16	B12AC
L182V09-38-2450	3/8"	24/50	12VA	13.5	2.5	0.35 - 16	B12AE
L182V09-38-24	3/8"	24V DC	5.5W	13.5	2.5	0.35 - 16	B12AL
L182V09-12-23050	1/2"	230/50	12VA	13.5	3.8	0.35 - 16	B12AA
L182V09-12-11050	1/2"	110/50	12VA	13.5	3.8	0.35 - 16	B12AC
L182V09-12-2450	1/2"	24/50	12VA	13.5	3.8	0.35 - 16	B12AE
L182V09-12-24	1/2"	24V DC	5.5W	13.5	3.8	0.35 - 16	B12AL
L182V09-34-23050	3/4"	230/50	12VA	18	5	0.3 - 12	B12AA
L182V09-34-11050	3/4"	110/50	12VA	18	5	0.3 - 12	B12AC
L182V09-34-2450	3/4"	24/50	12VA	18	5	0.3 - 12	B12AE
L182V09-34-24	3/4"	24V DC	5.5W	18	5	0.3 - 12	B12AL
L182V09-1-23050	1"	230/50	12VA	24	12	0.3 - 12	B12AA
L182V09-1-11050	1"	110/50	12VA	24	12	0.3 - 12	B12AC
L182V09-1-2450	1"	24/50	12VA	24	12	0.3 - 12	B12AE
L182V09-1-24	1"	24V DC	5.5W	24	12	0.3 - 12	B12AL

Tech Sheets 2121, 2122 & 2123

stainless
steel



Stainless Steel 2/2 N/O, Pilot Operated Solenoid Valves

Materials in contact with fluids

Body: Stainless steel AISI 316

Sealing: FPM

Internal Components: Stainless steel

Seat: Stainless steel AISI 316

Core Tube: Stainless steel

Shading Coil: Copper

Supplied with DIN plugs



BSPP

0030	Thread	Voltage	Coil Consumption	DN Size	KV M3/HR	Max Pressure Bar	Replacement Coil
L282V09-38-23050	3/8"	230/50	12VA	13.5	2.5	0.3 - 12	B12AA
L282V09-38-11050	3/8"	110/50	12VA	13.5	2.5	0.3 - 12	B12AC
L282V09-38-2450	3/8"	24/50	12VA	13.5	2.5	0.3 - 12	B12AE
L282V09-38-24	3/8"	24V DC	5.5W	13.5	2.5	0.3 - 12	B12AL
L282V09-12-23050	1/2"	230/50	12VA	13.5	3.8	0.3 - 12	B12AA
L282V09-12-11050	1/2"	110/50	12VA	13.5	3.8	0.3 - 12	B12AC
L282V09-12-2450	1/2"	24/50	12VA	13.5	3.8	0.3 - 12	B12AE
L282V09-12-24	1/2"	24V DC	5.5W	13.5	3.8	0.3 - 12	B12AL
L282V09-34-23050	3/4"	230/50	12VA	18	5	0.3 - 10	B12AA
L282V09-34-11050	3/4"	110/50	12VA	18	5	0.3 - 10	B12AC
L282V09-34-2450	3/4"	24/50	12VA	18	5	0.3 - 10	B12AE
L282V09-34-24	3/4"	24V DC	5.5W	18	5	0.3 - 10	B12AL
L282V09-1-23050	1"	230/50	12VA	24	12	0.3 - 10	B12AA
L282V09-1-11050	1"	110/50	12VA	24	12	0.3 - 10	B12AC
L282V09-1-2450	1"	24/50	12VA	24	12	0.3 - 10	B12AE
L282V09-1-24	1"	24V DC	5.5W	24	12	0.3 - 10	B12AL

Tech Sheet 2154

Coil reference for G256 series



BSPP

0030	Voltage
533534-003	230/50
533534-024	110/50
533534-011	24/50
533534-001	24V DC
533593-003	230/50
533593-020	110/50
533593-011	24/50
533534-002	24V DC

Tech Sheet 2154

Stainless Steel Case, Bottom Connection



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001BG	1/4"	63	0-15	0-1
G63-002BG	1/4"	63	0-30	0-2
G63-004BG	1/4"	63	0-60	0-4
G63-006BG	1/4"	63	0-100	0-6
G63-012BG	1/4"	63	0-200	0-12
G63-020BG	1/4"	63	0-300	0-20
G63-025BG	1/4"	63	0-400	0-25
G63-040BG	1/4"	63	0-600	0-40
G63-060BG	1/4"	63	0-1000	0-60
G63-120BG	1/4"	63	0-2000	0-120
G63-200BG	1/4"	63	0-3000	0-200
G63-250BG	1/4"	63	0-4000	0-250
G63-400BG	1/4"	63	0-6000	0-400
G63-600BG	1/4"	63	0-9000	0-600
VG63-01BG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20593



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001BG	1/4"	63	0-15	0-1
PG63-002BG	1/4"	63	0-30	0-2
PG63-004BG	1/4"	63	0-60	0-4
PG63-006BG	1/4"	63	0-100	0-6
PG63-012BG	1/4"	63	0-200	0-12
PG63-014BG	1/4"	63	0-200	0-14
PG63-020BG	1/4"	63	0-300	0-20
PG63-025BG	1/4"	63	0-400	0-25
PG63-040BG	1/4"	63	0-600	0-40
PG63-060BG	1/4"	63	0-1000	0-60
PG63-120BG	1/4"	63	0-2000	0-120
PG63-200BG	1/4"	63	0-3000	0-200
PG63-250BG	1/4"	63	0-4000	0-250
PG63-400BG	1/4"	63	0-6000	0-400
PG63-600BG	1/4"	63	0-9000	0-600

Tech Sheet 20594

Stainless Steel Case, Centre Back Connection

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
G63-001RG	1/4"	63	0-15	0-1
G63-002RG	1/4"	63	0-30	0-2
G63-004RG	1/4"	63	0-60	0-4
G63-006RG	1/4"	63	0-100	0-6
G63-010RG	1/4"	63	0-160	0-10
G63-012RG	1/4"	63	0-200	0-12
G63-020RG	1/4"	63	0-300	0-20
G63-025RG	1/4"	63	0-400	0-25
G63-040RG	1/4"	63	0-600	0-40
G63-060RG	1/4"	63	0-1000	0-60
G63-120RG	1/4"	63	0-2000	0-120
G63-200RG	1/4"	63	0-3000	0-200
G63-250RG	1/4"	63	0-4000	0-250
G63-400RG	1/4"	63	0-6000	0-400
G63-600RG	1/4"	63	0-9000	0-600
VG63-01RG	1/4"	63	-30" Hg	-1 bar

Tech Sheet 20595

See Panel Mount Bracket Options:
G63-PM & G63-PM-RHOMB



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
PG63-001RG	1/4"	63	0-15	0-1
PG63-002RG	1/4"	63	0-30	0-2
PG63-004RG	1/4"	63	0-60	0-4
PG63-006RG	1/4"	63	0-100	0-6
PG63-012RG	1/4"	63	0-200	0-12
PG63-012RG	1/4"	63	0-200	0-12
PG63-020RG	1/4"	63	0-300	0-20
PG63-025RG	1/4"	63	0-400	0-25
PG63-040RG	1/4"	63	0-600	0-40
PG63-060RG	1/4"	63	0-1000	0-60
PG63-120RG	1/4"	63	0-2000	0-120
PG63-200RG	1/4"	63	0-3000	0-200
PG63-250RG	1/4"	63	0-4000	0-250
PG63-400RG	1/4"	63	0-6000	0-400
PG63-600RG	1/4"	63	0-9000	0-600

Tech Sheet 20596

Panel Mounting Brackets



For G63 & PG63 Centre Back Connection below 100 bar

0021

G63-PM



For G63 & PG63 Centre Back Connection above 100 bar

0021

G63-PM-RHOMB

GLYCERINE GAUGES

stainless steel



All Stainless Steel Gauges, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SSG63-001BG	1/4"	63	0-15	0-1
SSG63-004BG	1/4"	63	0-60	0-4
SSG63-012BG	1/4"	63	0-200	0-12
SSG63-025BG	1/4"	63	0-400	0-25
SSG63-060BG	1/4"	63	0-1000	0-60
SSG63-200BG	1/4"	63	0-3000	0-200
SSG63-250BG	1/4"	63	0-4000	0-250
SSG63-400BG	1/4"	63	0-6000	0-400

Tech Sheet 20598



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
SHG100-002BG	1/2"	100	0-30	0-2
SHG100-006BG	1/2"	100	0-100	0-6
SHG100-016BG	1/2"	100	0-250	0-16
SHG100-040BG	1/2"	100	0-600	0-40
SHG100-100BG	1/2"	100	0-1500	0-100
SHG100-250BG	1/2"	100	0-4000	0-250
SHG100-600BG	1/2"	100	0-9000	0-600

Tech Sheet 20599

Vacuum Gauges, Centre Back Connection



Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GCV63/04	1/4" BSPP	63	-1
GCV100/06	3/8" BSPP	100	-1

All Stainless Steel Gauges, Centre Back Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2020-0340	1/4"	50	0-200	0-12
2020-0341	1/4"	50	0-300	0-20
2020-0342	1/4"	50	0-600	0-40
2020-0343	1/4"	50	0-900	0-60
2020-0344	1/4"	50	0-4000	0-250
2038-8534	1/4"	63	0-200	0-12
2038-8567	1/4"	63	0-900	0-60
2038-8575	1/4"	63	0-4000	0-250

Tech Sheet 20600



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
2038-8435	1/2"	100	0-200	0-12
2038-8443	1/2"	100	0-300	0-20
2038-8450	1/2"	100	0-600	0-40
2038-8476	1/2"	100	0-4000	0-250

Tech Sheet 20601

Vacuum Gauges, Bottom Connection



Stainless Steel

0236	Thread	Gauge Diameter mm	Max Pressure Bar
GBV63/04	1/4" BSPP	63	-1
GBV100/06	3/8" BSPP	100	-1

Stainless Steel Case, Heavy-duty, Bottom Connection



BSPP

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002G	1/2"	100	0-36	0-2.5
HG100-004G	1/2"	100	0-58	0-4
HG100-006G	1/2"	100	0-87	0-6
HG100-010G	1/2"	100	0-145	0-10
HG100-016G	1/2"	100	0-232	0-16
HG100-040G	1/2"	100	0-580	0-40
HG100-100G	1/2"	100	0-1450	0-100
HG100-160G	1/2"	100	0-2320	0-160
HG100-250G	1/2"	100	0-3625	0-250
HG100-400G	1/2"	100	0-5800	0-400



BSPT

0021	Thread	Gauge Diameter mm	Pressure Range PSI	Pressure Range Bar
HG100-002B	1/2"	100	0-36	0-2.5
HG100-004B	1/2"	100	0-58	0-4
HG100-006B	1/2"	100	0-87	0-6
HG100-010B	1/2"	100	0-145	0-10
HG100-016B	1/2"	100	0-232	0-16
HG100-040B	1/2"	100	0-580	0-40
HG100-100B	1/2"	100	0-1450	0-100
HG100-160B	1/2"	100	0-2320	0-160
HG100-250B	1/2"	100	0-3625	0-250
HG100-400B	1/2"	100	0-5800	0-400

Tech Sheet 20597

TEST POINT COUPLINGS

stainless steel



Piston Valve Type, M16 x 2

Media Application:

Hydraulic and other oils on mineral oil basis.
Metal Cap -30°C to +100°C Sealings Buna N
Metal Cap -20°C to +200°C Sealings Viton

stainless steel



316 Stainless Steel, BSPP

0330	OD mm	Max Pressure Bar
1-912-28-12-660	1/8"	400
1-912-29-12-660	1/4"	630

Tech Sheet 10292

Gauge Adaptors

stainless steel



316 Stainless Steel, BSPP

0330	Thread	Max Pressure Bar
1-940-31-22-080	1/2"	630

Tech Sheet 10292

316 Stainless Steel Test Points

Sealing by an elastomer captive profiled ring - Viton
Test connection: M16 x 2

Maximum Working Pressure:
630 bar

stainless steel



Form C, BSPP

0330	Thread
MAS-G1/8-WD	1/8"
MAS-G1/4-WD	1/4"
MAS-G3/8-WD	3/8"
MAS-G1/2-WD	1/2"

SILENCERS

stainless steel



Stainless Steel Silencers



BSPP

0423	Thread
S70-18	1/8"
S70-14	1/4"
S70-38	3/8"
S70-12	1/2"
S70-34	3/4"
S70-1	1"



Stainless Steel Pad Silencers

Body: 304 stainless steel
Pad: 316 stainless steel

Metric & BSPP

0423	Thread
12020507	M5
12021007	1/8"
12021307	1/4"
12021707	3/8"
12022107	1/2"
12022707	3/4"
12023207	1"



Tech Sheet 20455

FLOAT LEVEL SWITCHES

stainless steel

Stainless Steel Normally Closed IP65

Working Temperature: -10°C to +80°C
Maximum Working Pressure: 10 bar

- Fluid specific gravity: ° 0.7
- Maximum fluid viscosity 150 cSt
- Cable length: 500mm



Side Entry, BSPP Male

9025	Thread
LEM7A	1/8"

Working Temperature: -10°C to +80°C
Maximum Working Pressure: 10 bar

- Fluid specific gravity: ° 0.7
- Maximum fluid viscosity 150 cSt
- Cable length: 500mm



Top Entry, BSPT Male

9025	Thread
LEM7NC	1/8"

Stainless Steel Normally Closed IP65

- Normally open/normally closed contacts.
- Specific Gravity > 0.8
- PG09 DIN 43650 connection



Side Entry, BSPT Male

9025	Thread
RFS-12P-2-SUS304	1/2"

Tech Sheet 111



High Pressure Hydraulic Adaptors

Over 25 years of proven high performance with a comprehensive history of product approvals and 3rd party accreditations.

- Superior quality range of Hydraulic Adaptors
- High grade materials manufactured to extremely high tolerance
- 1/8"-3/4" up to 680 bar
- 1"-2" up to 500 bar

High quality Hydraulic Adaptors for high pressure applications completing the integrity of any hose assembly.



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 11

Malleable Iron

11.01 Malleable Iron Fittings **1333-1376**

11.02 Barrel Nipples, Tube & Accessories **1377-1391**

11.03 Forged & Butt Weld Fittings **1392**

11.04 Handrail System **1393-1398**

SECTION 11

Malleable Iron

11.01 Malleable Iron Fittings

- Malleable Iron Fittings



K-LINE CONNECT



1333-1376



11.02 Barrel Nipples, Tube & Accessories

- Malleable Iron Fittings
- EN10255, EN10217-1 & BS1387 Steel Tube
- Flange Bolt Kits
- Malleable Iron Accessories
- Forged Steel Flanges
- Carbon Steel Flanges
- Flexible Rubber Bellows
- Flange Gaskets
- None Asbestos Flange Gaskets
- Jointing Compounds & Sealants



K-LINE CONNECT

1377-1391



11.03 Forged & Butt Weld Fittings

- Butt Weld Fittings BS1640/ASTM A234WPB



1392



11.04 Handrail System

- Pipeclamps Handrail Systems
- The Swivel Range
- Disability Access



1393-1398





For the Engineers

FT Pro products are designed using advanced engineering techniques and the latest manufacturing technology to ensure that your applications benefit from the highest level of quality and performance.

Our products are engineered to be reliable and long-lasting, ensuring that your equipment operates smoothly and reliably throughout its lifespan. With FT Pro products, you can be confident that your applications will run efficiently and productive, no matter how demanding the conditions.

Trust FT Pro Product for the engineers from the engineers.

MASTERS OF MALLEABLE IRON

Malleable iron fittings are the most commonly used fittings in the world, renowned for its durability and mechanical strength.

The fittings are used in a variety of systems including compressed air, water supply, central heating, sprinkler systems and air conditioning, as well as gas and steam systems. They are also used to convey non-aggressive liquids and gases.

Malleable iron fittings provide ring main solutions across various industries including construction, agriculture, mining, automotive and industrial.

All fittings are specially coated to provide an anti-corrosive property as standard.



Pages 1338-1348



+GF+

Pages 1356-1369



K-LINE CONNECT

Pages 1349-1355



CRANE

Pages 1370-1376



Available in a black finish (usually for oil and gas applications) and a galvanise finish (usually for water, air and steam installations).

All galvanise fittings are hot-dip zinc coated prior to machining to provide an electrochemical protection and increases resistance to corrosion.

The most extensive choice of **MALLEABLE IRON** to suit any application & any budget

The choice of fittings is very much dependent on the application, the engineer's preference and budget. With over 100 different brands, large stocks and speedy delivery, there's no need to look any further.

Brand	Duty	Fitting Variations*	Beaded	Banded	Thread	BSI Kitemark®	Up to 4"	Up to 5"	Up to 6"	WRAS approved	Max Temp	Max Working Pressure	Casting: ISO9222	Threads: ISO 7-1	Manufactured: according to EN 10142 and ISO 49	Design: ISO49, BS EN 10242w	Testing: BS 143 & 1256	Material: ASTM A-197, ASTM A47
K-Line Connect	Heavy	19		Y	Male Taper, Female Taper	Y	Y			Y	300**	25**	Y	Y	Y	Y	Y	Y
Crane	Heavy	36		Y	Male Taper, Female Taper	Y	Y			Y	300**	25**	Y	Y	Y	Y	Y	Y
EE	Heavy	26	Y		Male Taper, Female Parallel		Y				300**	25**	Y	Y	Y	Y		
GF	Heavy	42	Y		Male Taper, Female Parallel		Y	Y	Y		300**	25**	Y	Y	Y	Y	Y	

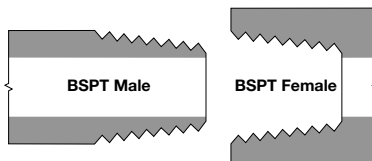
* For full technical specification, please contact the manufacturer.

** Includes brackets, elbows, tees, flanges, plates and rings.

** Maximum temperature +120°C at maximum working pressure of 20 bar.

Banded Range

- BSPT Male, BSPT Female – EN10226-2
- British Kitemark
- Available in black or galvanise finish
- Choice of two heavy-duty brands: Crane or K-Line Connect



Tapered Pipe Thread to EN10226-2 Standard

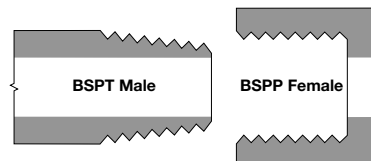
- 55° thread angle • Taper angle 1° 47'

Medium & Heavy-duty Barrel Nipples from FT Pro

- From 1/8" to 4" thread
- Lengths up to 300mm

Beaded Range

- Male Taper, Female Parallel – EN10226-1
- Available in black or galvanise finish
- Choice of two heavy-duty brands: GF and EE
- Heavy-duty ranges manufactured in accordance with EN 10142



Parallel Pipe Thread to EN10226-1 Standard

- 55° thread angle

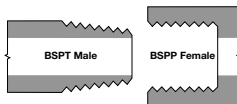
BS EN 10241 from K-Line Connect

- From 1/8" to 4" thread
- Lengths up to 300mm

MALLEABLE IRON FITTINGS


Maximum Working Pressure:

25 bar @ -20°C to +120°C
20 bar @ +300°C



Threads: Threads are in accordance to ISO7-1. All male threads are BSPT and female threads are BSPP.

Materials: Whiteheart malleable EN-GJMW-400-5 cast iron, grade W40-05 according to ISO5922/DIN-1692, and tested in accordance to EN 10242

Media: Suitable for the flow of water, steam, gas or other non aggressive media.

Surface Finishing:

Black: With an anti-corrosive varnish to protect against rust after installation prior to plant conditioning.

Galvanised: According to EN 10242, zinc coating weight relative to surface exceeds 500 g/m² (average layer thickness 70 micron).

Male Equal Hexagon Nipple (280)


Black, BSPT

1095	Thread
EE-MI280-14N	1/4"
EE-MI280-38N	3/8"
EE-MI280-12N	1/2"
EE-MI280-34N	3/4"
EE-MI280-1N	1"
EE-MI280-114N	1.1/4"
EE-MI280-112N	1.1/2"
EE-MI280-2N	2"
EE-MI280-212N	2.1/2"
EE-MI280-3N	3"
EE-MI280-4N	4"

Tech Sheet 20535

Galvanised, BSPT

1095	Thread
EE-MI280-14	1/4"
EE-MI280-38	3/8"
EE-MI280-12	1/2"
EE-MI280-34	3/4"
EE-MI280-1	1"
EE-MI280-114	1.1/4"
EE-MI280-112	1.1/2"
EE-MI280-2	2"
EE-MI280-212	2.1/2"
EE-MI280-3	3"
EE-MI280-4	4"

Tech Sheet 20535

Male Reducing Hexagon Nipple (245)


Black, BSPT

1095	Thread	Thread
EE-MI245-38-14N	3/8"	1/4"
EE-MI245-12-14N	1/2"	1/4"
EE-MI245-12-38N	1/2"	3/8"
EE-MI245-34-38N	3/4"	3/8"
EE-MI245-34-12N	3/4"	1/2"
EE-MI245-1-12N	1"	1/2"
EE-MI245-1-34N	1"	3/4"
EE-MI245-114-12N	1.1/4"	1/2"
EE-MI245-114-34N	1.1/4"	3/4"
EE-MI245-114-1N	1.1/4"	1"
EE-MI245-112-12N	1.1/2"	1/2"
EE-MI245-112-34N	1.1/2"	3/4"
EE-MI245-112-1N	1.1/2"	1"
EE-MI245-112114N	1.1/2"	1.1/4"
EE-MI245-2-1N	2"	1"
EE-MI245-2-114N	2"	1.1/4"
EE-MI245-2-112N	2"	1.1/2"
EE-MI245-212114N	2.1/2"	1.1/4"
EE-MI245-212112N	2.1/2"	1.1/2"
EE-MI245-212-2N	2.1/2"	2"
EE-MI245-3-2N	3"	2"
EE-MI245-3-212N	3"	2.1/2"

Tech Sheet 20535

Galvanised, BSPT

1095	Thread	Thread
EE-MI245-14-18	1/4"	1/8"
EE-MI245-38-14	3/8"	1/4"
EE-MI245-12-14	1/2"	1/4"
EE-MI245-12-38	1/2"	3/8"
EE-MI245-34-38	3/4"	3/8"
EE-MI245-34-12	3/4"	1/2"
EE-MI245-1-12	1"	1/2"
EE-MI245-1-34	1"	3/4"
EE-MI245-114-12	1.1/4"	1/2"
EE-MI245-114-34	1.1/4"	3/4"
EE-MI245-114-1	1.1/4"	1"
EE-MI245-112-34	1.1/2"	3/4"
EE-MI245-112-1	1.1/2"	1"
EE-MI245-112-114	1.1/2"	1.1/4"
EE-MI245-2-1	2"	1"
EE-MI245-2-114	2"	1.1/4"
EE-MI245-2-112	2"	1.1/2"
EE-MI245-212-112	2.1/2"	1.1/2"
EE-MI245-212-2	2.1/2"	2"
EE-MI245-3-2	3"	2"
EE-MI245-3-212	3"	2.1/2"

Tech Sheet 20535

MALLEABLE IRON FITTINGS



Male x Female Equal Union, Taper Seat (341)



Black, BSPP Female x BSPT Male

1095	Thread
EE-MI341-38N	3/8"
EE-MI341-12N	1/2"
EE-MI341-34N	3/4"
EE-MI341-1N	1"
EE-MI341-114N	1.1/4"
EE-MI341-112N	1.1/2"
EE-MI341-2N	2"
EE-MI341-212N	2.1/2"
EE-MI341-3N	3"

Tech Sheet 20539

Galvanised, BSPP Female x BSPT Male

1095	Thread
EE-MI341-38	3/8"
EE-MI341-12	1/2"
EE-MI341-34	3/4"
EE-MI341-1	1"
EE-MI341-114	1.1/4"
EE-MI341-112	1.1/2"
EE-MI341-2	2"
EE-MI341-212	2.1/2"
EE-MI341-3	3"
EE-MI341-4	4"

Tech Sheet 20539

Male x Female Reducing Bush (241)

Black, BSPP Female x BSPT Male

1095	Male Thread	Female Thread
EE-MI241-38-14N	3/8"	1/4"
EE-MI241-12-14N	1/2"	1/4"
EE-MI241-12-38N	1/2"	3/8"
EE-MI241-34-14N	3/4"	1/4"
EE-MI241-34-38N	3/4"	3/8"
EE-MI241-34-12N	3/4"	1/2"
EE-MI241-1-38N	1"	3/8"
EE-MI241-1-12N	1"	1/2"
EE-MI241-1-34N	1"	3/4"
EE-MI241-114-12N	1.1/4"	1/2"
EE-MI241-114-34N	1.1/4"	3/4"
EE-MI241-114-1N	1.1/4"	1"
EE-MI241-112-12N	1.1/2"	1/2"
EE-MI241-112-34N	1.1/2"	3/4"
EE-MI241-112-1N	1.1/2"	1"
EE-MI241-112114N	1.1/2"	1.1/4"
EE-MI241-2-12N	2"	1/2"
EE-MI241-2-34N	2"	3/4"
EE-MI241-2-1N	2"	1"
EE-MI241-2-114N	2"	1.1/4"
EE-MI241-2-112N	2"	1.1/2"
EE-MI241-212-1N	2.1/2"	1"
EE-MI241-212112N	2.1/2"	1.1/2"
EE-MI241-212-2N	2.1/2"	2"
EE-MI241-3-114N	3"	1.1/4"
EE-MI241-3-112N	3"	1.1/2"
EE-MI241-3-2N	3"	2"
EE-MI241-3-212N	3"	2.1/2"
EE-MI241-4-2N	4"	2"

Tech Sheet 20534



Galvanised, BSPP Female x BSPT Male

1095	Male Thread	Female Thread
EE-MI241-38-14	3/8"	1/4"
EE-MI241-12-14	1/2"	1/4"
EE-MI241-12-38	1/2"	3/8"
EE-MI241-34-14	3/4"	1/4"
EE-MI241-34-38	3/4"	3/8"
EE-MI241-34-12	3/4"	1/2"
EE-MI241-1-38	1"	3/8"
EE-MI241-1-12	1"	1/2"
EE-MI241-1-34	1"	3/4"
EE-MI241-114-38	1.1/4"	3/8"
EE-MI241-114-12	1.1/4"	1/2"
EE-MI241-114-34	1.1/4"	3/4"
EE-MI241-114-1	1.1/4"	1"
EE-MI241-112-12	1.1/2"	1/2"
EE-MI241-112-34	1.1/2"	3/4"
EE-MI241-112-1	1.1/2"	1"
EE-MI241-112-114	1.1/2"	1.1/4"
EE-MI241-2-12	2"	1/2"
EE-MI241-2-34	2"	3/4"
EE-MI241-2-1	2"	1"
EE-MI241-2-114	2"	1.1/4"
EE-MI241-2-112	2"	1.1/2"
EE-MI241-212-1	2.1/2"	1"
EE-MI241-212-114	2.1/2"	1.1/4"
EE-MI241-212-112	2.1/2"	1.1/2"
EE-MI241-212-2	2.1/2"	2"
EE-MI241-3-1	3"	1"
EE-MI241-3-112	3"	1.1/2"
EE-MI241-3-2	3"	2"
EE-MI241-3-212	3"	2.1/2"
EE-MI241-4-2	4"	2"
EE-MI241-4-212	4"	2.1/2"
EE-MI241-4-3	4"	3"

Tech Sheet 20534

Male x Female Reducing Socket (246)



Black, BSPP Female x BSPT Male

1095	Female Thread	Male Thread
EE-MI246-38-14N	3/8"	1/4"
EE-MI246-12-14N	1/2"	1/4"
EE-MI246-12-38N	1/2"	3/8"
EE-MI246-34-38N	3/4"	3/8"
EE-MI246-34-12N	3/4"	1/2"
EE-MI246-1-12N	1"	1/2"
EE-MI246-1-34N	1"	3/4"
EE-MI246-114-34N	1.1/4"	3/4"
EE-MI246-114-1N	1.1/4"	1"
EE-MI246-112-1N	1.1/2"	1"
EE-MI246-112114N	1.1/2"	1.1/4"
EE-MI246-2-114N	2"	1.1/4"
EE-MI246-2-112N	2"	1.1/2"

Tech Sheet 20536

Galvanised, BSPP Female x BSPT Male

1095	Female Thread	Male Thread
EE-MI246-38-14	3/8"	1/4"
EE-MI246-12-14	1/2"	1/4"
EE-MI246-12-38	1/2"	3/8"
EE-MI246-34-38	3/4"	3/8"
EE-MI246-34-12	3/4"	1/2"
EE-MI246-1-12	1"	1/2"
EE-MI246-1-34	1"	3/4"
EE-MI246-114-34	1.1/4"	3/4"
EE-MI246-114-1	1.1/4"	1"
EE-MI246-112-1	1.1/2"	1"
EE-MI246-112-114	1.1/2"	1.1/4"
EE-MI246-2-114	2"	1.1/4"
EE-MI246-2-112	2"	1.1/2"

Tech Sheet 20536

Male x Female Socket (529A)



Galvanised, BSPT Male x BSPP Female

1095	Thread
EE-MI529A-12	1/2"
EE-MI529A-34	3/4"
EE-MI529A-1	1"

MALLEABLE IRON FITTINGS



Female Equal Socket (270)



Black, BSPP

1095	Thread
EE-MI270-14N	1/4"
EE-MI270-38N	3/8"
EE-MI270-12N	1/2"
EE-MI270-34N	3/4"
EE-MI270-1N	1"
EE-MI270-114N	1.1/4"
EE-MI270-112N	1.1/2"
EE-MI270-2N	2"
EE-MI270-212N	2.1/2"
EE-MI270-3N	3"
EE-MI270-4N	4"

Tech Sheet 20537

Galvanised, BSPP

1095	Thread
EE-MI270-14	1/4"
EE-MI270-38	3/8"
EE-MI270-12	1/2"
EE-MI270-34	3/4"
EE-MI270-1	1"
EE-MI270-114	1.1/4"
EE-MI270-112	1.1/2"
EE-MI270-2	2"
EE-MI270-212	2.1/2"
EE-MI270-3	3"
EE-MI270-4	4"

Tech Sheet 20537

Female Reducing Socket (240)



Black, BSPP

1095	Thread	Thread
EE-MI240-38-14N	3/8"	1/4"
EE-MI240-12-14N	1/2"	1/4"
EE-MI240-12-38N	1/2"	3/8"
EE-MI240-34-38N	3/4"	3/8"
EE-MI240-34-12N	3/4"	1/2"
EE-MI240-1-38N	1"	3/8"
EE-MI240-1-12N	1"	1/2"
EE-MI240-1-34N	1"	3/4"
EE-MI240-114-38N	1.1/4"	3/8"
EE-MI240-114-12N	1.1/4"	1/2"
EE-MI240-114-34N	1.1/4"	3/4"
EE-MI240-114-1N	1.1/4"	1"
EE-MI240-112-12N	1.1/2"	1/2"
EE-MI240-112-34N	1.1/2"	3/4"
EE-MI240-112-1N	1.1/2"	1"
EE-MI240-112114N	1.1/2"	1.1/4"
EE-MI240-2-12N	2"	1/2"
EE-MI240-2-34N	2"	3/4"
EE-MI240-2-1N	2"	1"
EE-MI240-2-114N	2"	1.1/4"
EE-MI240-2-112N	2"	1.1/2"
EE-MI240-212114N	2.1/2"	1.1/4"
EE-MI240-212112N	2.1/2"	1.1/2"
EE-MI240-212-2N	2.1/2"	2"
EE-MI240-3-112N	3"	1.1/2"
EE-MI240-3-2N	3"	2"
EE-MI240-3-212N	3"	2.1/2"

Tech Sheet 20533

Galvanised, BSPP

1095	Thread	Thread
EE-MI240-38-14	3/8"	1/4"
EE-MI240-12-14	1/2"	1/4"
EE-MI240-12-38	1/2"	3/8"
EE-MI240-34-38	3/4"	3/8"
EE-MI240-34-12	3/4"	1/2"
EE-MI240-1-38	1"	3/8"
EE-MI240-1-12	1"	1/2"
EE-MI240-1-34	1"	3/4"
EE-MI240-114-38	1.1/4"	3/8"
EE-MI240-114-12	1.1/4"	1/2"
EE-MI240-114-34	1.1/4"	3/4"
EE-MI240-114-1	1.1/4"	1"
EE-MI240-112-12	1.1/2"	1/2"
EE-MI240-112-34	1.1/2"	3/4"
EE-MI240-112-1	1.1/2"	1"
EE-MI240-112-114	1.1/2"	1.1/4"
EE-MI240-2-12	2"	1/2"
EE-MI240-2-34	2"	3/4"
EE-MI240-2-1	2"	1"
EE-MI240-2-114	2"	1.1/4"
EE-MI240-2-112	2"	1.1/2"
EE-MI240-212-1	2.1/2"	1"
EE-MI240-212-2	2.1/2"	2"
EE-MI240-3-2	3"	2"
EE-MI240-3-212	3"	2.1/2"
EE-MI240-4-2	4"	2"
EE-MI240-4-3	4"	3"

Tech Sheet 20533



For Screwed & Socketed Steel Tubing
see page 1383

MALLEABLE IRON FITTINGS



Female Equal Union, Taper Seat (340)



Black, BSPP

1095	Thread
EE-MI340-38N	3/8"
EE-MI340-12N	1/2"
EE-MI340-34N	3/4"
EE-MI340-1N	1"
EE-MI340-114N	1.1/4"
EE-MI340-112N	1.1/2"
EE-MI340-2N	2"
EE-MI340-212N	2.1/2"
EE-MI340-3N	3"

Tech Sheet 20538

Galvanised, BSPP

1095	Thread
EE-MI340-38	3/8"
EE-MI340-12	1/2"
EE-MI340-34	3/4"
EE-MI340-1	1"
EE-MI340-114	1.1/4"
EE-MI340-112	1.1/2"
EE-MI340-2	2"
EE-MI340-212	2.1/2"
EE-MI340-3	3"
EE-MI340-4	4"

Tech Sheet 20538

Plug, Hollow Beaded (290)



Black, BSPT

1095	Thread
EE-MI290-14N	1/4"
EE-MI290-38N	3/8"
EE-MI290-12N	1/2"
EE-MI290-34N	3/4"
EE-MI290-1N	1"
EE-MI290-114N	1.1/4"
EE-MI290-112N	1.1/2"
EE-MI290-2N	2"
EE-MI290-212N	2.1/2"
EE-MI290-3N	3"
EE-MI290-4N	4"

Tech Sheet 20538

Galvanised, BSPT

1095	Thread
EE-MI290-14	1/4"
EE-MI290-38	3/8"
EE-MI290-12	1/2"
EE-MI290-34	3/4"
EE-MI290-1	1"
EE-MI290-114	1.1/4"
EE-MI290-112	1.1/2"
EE-MI290-2	2"
EE-MI290-212	2.1/2"
EE-MI290-3	3"
EE-MI290-4	4"

Tech Sheet 20538

Cap, Hexagonal (300)



Black, BSPP

1095	Thread
EE-MI300-14N	1/4"
EE-MI300-38N	3/8"
EE-MI300-12N	1/2"
EE-MI300-34N	3/4"
EE-MI300-1N	1"
EE-MI300-114N	1.1/4"
EE-MI300-112N	1.1/2"
EE-MI300-2N	2"
EE-MI300-212N	2.1/2"
EE-MI300-3N	3"
EE-MI300-4N	4"

Tech Sheet 20538

Galvanised, BSPP

1095	Thread
EE-MI300-14	1/4"
EE-MI300-38	3/8"
EE-MI300-12	1/2"
EE-MI300-34	3/4"
EE-MI300-1	1"
EE-MI300-114	1.1/4"
EE-MI300-112	1.1/2"
EE-MI300-2	2"
EE-MI300-212	2.1/2"
EE-MI300-3	3"
EE-MI300-4	4"

Tech Sheet 20538

Cap, Rounded (301)



Black, BSPP

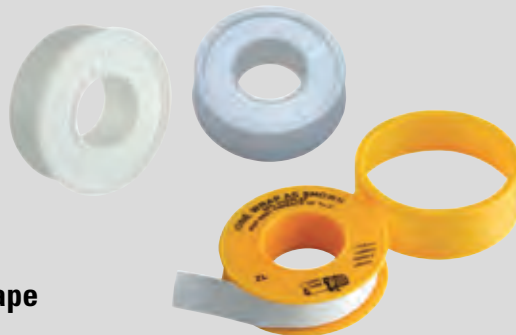
1095	Thread
EE-MI301-38N	3/8"
EE-MI301-12N	1/2"
EE-MI301-34N	3/4"
EE-MI301-1N	1"
EE-MI301-112N	1.1/2"
EE-MI301-2N	2"

Tech Sheet 20538

Galvanised, BSPP

1095	Thread
EE-MI301-38	3/8"
EE-MI301-12	1/2"
EE-MI301-34	3/4"
EE-MI301-1	1"
EE-MI301-112	1.1/2"
EE-MI301-2	2"

Tech Sheet 20538

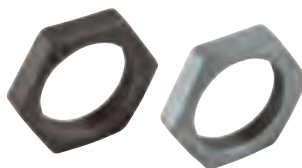


For PTFE Sealing Tape see page 1391

MALLEABLE IRON FITTINGS



Backnut (310)



Black, BSPP

1095	Thread
EE-MI310-14N	1/4"
EE-MI310-38N	3/8"
EE-MI310-12N	1/2"
EE-MI310-34N	3/4"
EE-MI310-1N	1"
EE-MI310-114N	1.1/4"
EE-MI310-112N	1.1/2"
EE-MI310-2N	2"
EE-MI310-212N	2.1/2"
EE-MI310-3N	3"

Tech Sheet 20539

Galvanised, BSPP

1095	Thread
EE-MI310-14	1/4"
EE-MI310-38	3/8"
EE-MI310-12	1/2"
EE-MI310-34	3/4"
EE-MI310-1	1"
EE-MI310-114	1.1/4"
EE-MI310-112	1.1/2"
EE-MI310-2	2"
EE-MI310-212	2.1/2"
EE-MI310-3	3"

Tech Sheet 20539

Male x Female Equal Elbow 90° (92)



Black, BSPP Female x BSPT Male

1095	Thread
EE-MI92-14N	1/4"
EE-MI92-38N	3/8"
EE-MI92-12N	1/2"
EE-MI92-34N	3/4"
EE-MI92-1N	1"
EE-MI92-114N	1.1/4"
EE-MI92-112N	1.1/2"
EE-MI92-2N	2"
EE-MI92-212N	2.1/2"
EE-MI92-3N	3"
EE-MI92-4N	4"

Tech Sheet 20529

Galvanised, BSPP Female x BSPT Male

1095	Thread
EE-MI92-14	1/4"
EE-MI92-38	3/8"
EE-MI92-12	1/2"
EE-MI92-34	3/4"
EE-MI92-1	1"
EE-MI92-114	1.1/4"
EE-MI92-112	1.1/2"
EE-MI92-2	2"
EE-MI92-212	2.1/2"
EE-MI92-3	3"
EE-MI92-4	4"

Tech Sheet 20529

Female Equal Elbow 90° (90)



Black, BSPP

1095	Thread
EE-MI90-14N	1/4"
EE-MI90-38N	3/8"
EE-MI90-12N	1/2"
EE-MI90-34N	3/4"
EE-MI90-1N	1"
EE-MI90-114N	1.1/4"
EE-MI90-112N	1.1/2"
EE-MI90-2N	2"
EE-MI90-212N	2.1/2"
EE-MI90-3N	3"
EE-MI90-4N	4"

Tech Sheet 20529

Galvanised, BSPP

1095	Thread
EE-MI90-14	1/4"
EE-MI90-38	3/8"
EE-MI90-12	1/2"
EE-MI90-34	3/4"
EE-MI90-1	1"
EE-MI90-114	1.1/4"
EE-MI90-112	1.1/2"
EE-MI90-2	2"
EE-MI90-212	2.1/2"
EE-MI90-3	3"
EE-MI90-4	4"

Tech Sheet 20529

Male Equal Elbow 90°



Black, BSPT

1095	Thread
EE-MI94-12N	1/2"
EE-MI94-34N	3/4"
EE-MI94-1N	1"

Galvanised, BSPT

1095	Thread
EE-MI94-12	1/2"
EE-MI94-34	3/4"
EE-MI94-1	1"

Male x Female Union Elbow 90°, Taper Seat (98)



Black, BSPP Female x BSPT Male

1095	Thread
EE-MI98-38N	3/8"
EE-MI98-12N	1/2"
EE-MI98-34N	3/4"
EE-MI98-1N	1"
EE-MI98-114N	1.1/4"
EE-MI98-112N	1.1/2"
EE-MI98-2N	2"

Tech Sheet 20529

Galvanised, BSPP Female x BSPT Male

1095	Thread
EE-MI98-38	3/8"
EE-MI98-12	1/2"
EE-MI98-34	3/4"
EE-MI98-1	1"
EE-MI98-114	1.1/4"
EE-MI98-112	1.1/2"
EE-MI98-2	2"

Tech Sheet 20529

MALLEABLE IRON FITTINGS



Female Equal Union Elbow 90°, Taper Seat (96)



Black, BSPP

1095	Thread
EE-MI96-38N	3/8"
EE-MI96-12N	1/2"
EE-MI96-34N	3/4"
EE-MI96-1N	1"
EE-MI96-114N	1.1/4"
EE-MI96-112N	1.1/2"
EE-MI96-2N	2"

Tech Sheet 20529

Galvanised, BSPP

1095	Thread
EE-MI96-38	3/8"
EE-MI96-12	1/2"
EE-MI96-34	3/4"
EE-MI96-1	1"
EE-MI96-114	1.1/4"
EE-MI96-112	1.1/2"
EE-MI96-2	2"

Tech Sheet 20529

Female Equal Elbow 45° (120)



Black, BSPP

1095	Thread
EE-MI120-12N	1/2"
EE-MI120-34N	3/4"
EE-MI120-1N	1"

Galvanised, BSPP

1095	Thread
EE-MI120-12	1/2"
EE-MI120-34	3/4"
EE-MI120-1	1"

Female Reducing Elbow 90° (90R)



Black, BSPP

1095	Thread	Thread
EE-MI90-12-38N	1/2"	3/8"
EE-MI90-34-12N	3/4"	1/2"
EE-MI90-1-12N	1"	1/2"
EE-MI90-1-34N	1"	3/4"
EE-MI90-114-1N	1.1/4"	1"
EE-MI90-112-1N	1.1/2"	1"
EE-MI90-112-114N	1.1/2"	1.1/4"
EE-MI90-2-114N	2"	1.1/4"
EE-MI90-2-112N	2"	1.1/2"

Tech Sheet 20529

Galvanised, BSPP

1095	Thread	Thread
EE-MI90-12-38	1/2"	3/8"
EE-MI90-34-38	3/4"	3/8"
EE-MI90-34-12	3/4"	1/2"
EE-MI90-1-12	1"	1/2"
EE-MI90-1-34	1"	3/4"
EE-MI90-114-1	1.1/4"	1"
EE-MI90-112-34	1.1/2"	3/4"
EE-MI90-112-1	1.1/2"	1"
EE-MI90-112-114	1.1/2"	1.1/4"
EE-MI90-2-1	2"	1"
EE-MI90-2-114	2"	1.1/4"
EE-MI90-2-112	2"	1.1/2"

Tech Sheet 20529

Male x Female Reducing Elbow 90° (92R)



Galvanised, BSPP Female x BSPT Male

1095	Female Thread	Male Thread
EE-MI92-12-38	1/2"	3/8"
EE-MI92-34-12	3/4"	1/2"
EE-MI92-1-34	1"	3/4"

Black, BSPP Female x BSPT Male

1095	Female Thread	Male Thread
EE-MI92-12-38N	1/2"	3/8"
EE-MI92-34-12N	3/4"	1/2"
EE-MI92-1-34N	1"	3/4"

Female Equal Side Outlet Elbow (221)



Black, BSPP

1095	Thread
EE-MI221-38N	3/8"
EE-MI221-12N	1/2"
EE-MI221-34N	3/4"
EE-MI221-1N	1"
EE-MI221-114N	1.1/4"
EE-MI221-112N	1.1/2"
EE-MI221-2N	2"

Tech Sheet 20532

Galvanised, BSPP

1095	Thread
EE-MI221-38	3/8"
EE-MI221-12	1/2"
EE-MI221-34	3/4"
EE-MI221-1	1"
EE-MI221-114	1.1/4"
EE-MI221-112	1.1/2"
EE-MI221-2	2"

Tech Sheet 20532

Female Equal Bracket Elbow (471)



Galvanised, BSPP

1095	Thread
EE-MI471-12	1/2"
EE-MI471-34	3/4"

Black, BSPP

1095	Thread
EE-MI471-12N	1/2"
EE-MI471-34N	3/4"

MALLEABLE IRON FITTINGS



Male Equal Bend 90° (3)



Black, BSPT

1095	Thread
EE-MI3-12N	1/2"
EE-MI3-34N	3/4"
EE-MI3-1N	1"

Tech Sheet 20528

Galvanised, BSPT

1095	Thread
EE-MI3-12	1/2"
EE-MI3-34	3/4"
EE-MI3-1	1"

Tech Sheet 20528

Male x Female Equal Bend 90° (1)



Black, BSPP Female x BSPT Male

1095	Thread
EE-MI1-14N	1/4"
EE-MI1-38N	3/8"
EE-MI1-12N	1/2"
EE-MI1-34N	3/4"
EE-MI1-1N	1"
EE-MI1-114N	1.1/4"
EE-MI1-112N	1.1/2"
EE-MI1-2N	2"
EE-MI1-212N	2.1/2"
EE-MI1-3N	3"

Tech Sheet 20528

Galvanised, BSPP Female x BSPT Male

1095	Thread
EE-MI1-14	1/4"
EE-MI1-38	3/8"
EE-MI1-12	1/2"
EE-MI1-34	3/4"
EE-MI1-1	1"
EE-MI1-114	1.1/4"
EE-MI1-112	1.1/2"
EE-MI1-2	2"
EE-MI1-212	2.1/2"
EE-MI1-3	3"
EE-MI1-4	4"

Tech Sheet 20528

Female Equal Bend 90° (2)



Black, BSPP

1095	Thread
EE-MI2-14N	1/4"
EE-MI2-38N	3/8"
EE-MI2-12N	1/2"
EE-MI2-34N	3/4"
EE-MI2-1N	1"
EE-MI2-114N	1.1/4"
EE-MI2-112N	1.1/2"
EE-MI2-2N	2"
EE-MI2-3N	3"

Tech Sheet 20528

Galvanised, BSPP

1095	Thread
EE-MI2-14	1/4"
EE-MI2-38	3/8"
EE-MI2-12	1/2"
EE-MI2-34	3/4"
EE-MI2-1	1"
EE-MI2-114	1.1/4"
EE-MI2-112	1.1/2"
EE-MI2-2	2"
EE-MI2-212	2.1/2"
EE-MI2-3	3"
EE-MI2-4	4"

Tech Sheet 20528

Female Equal Short Bend 90° (2A)



Black, BSPP

1095	Thread
EE-MI2A-38N	3/8"
EE-MI2A-12N	1/2"
EE-MI2A-34N	3/4"
EE-MI2A-1N	1"
EE-MI2A-114N	1.1/4"
EE-MI2A-112N	1.1/2"
EE-MI2A-2N	2"

Galvanised, BSPP

1095	Thread
EE-MI2A-12	1/2"
EE-MI2A-34	3/4"
EE-MI2A-1	1"
EE-MI2A-114	1.1/4"
EE-MI2A-112	1.1/2"
EE-MI2A-2	2"

Male x Female Equal Short Bend 90° (1A)



Black, BSPT Male x BSPP Female

1095	Thread
EE-MI1A-38N	3/8"
EE-MI1A-12N	1/2"
EE-MI1A-34N	3/4"
EE-MI1A-1N	1"
EE-MI1A-114N	1.1/4"
EE-MI1A-112N	1.1/2"
EE-MI1A-2N	2"

Galvanised, BSPT Male x BSPP Female

1095	Thread
EE-MI1A-38	3/8"
EE-MI1A-12	1/2"
EE-MI1A-34	3/4"
EE-MI1A-1	1"
EE-MI1A-114	1.1/4"
EE-MI1A-112	1.1/2"
EE-MI1A-2	2"

MALLEABLE IRON FITTINGS



Male x Female Equal Bend 45° (40)



Black, BSPP Female x BSPT Male

1095	Thread
EE-MI40-14N	1/4"
EE-MI40-38N	3/8"
EE-MI40-12N	1/2"
EE-MI40-34N	3/4"
EE-MI40-1N	1"
EE-MI40-114N	1.1/4"
EE-MI40-112N	1.1/2"
EE-MI40-2N	2"

Tech Sheet 20528

Galvanised, BSPP Female x BSPT Male

1095	Thread
EE-MI40-14	1/4"
EE-MI40-38	3/8"
EE-MI40-12	1/2"
EE-MI40-34	3/4"
EE-MI40-1	1"
EE-MI40-114	1.1/4"
EE-MI40-112	1.1/2"
EE-MI40-2	2"
EE-MI40-212	2.1/2"
EE-MI40-3	3"
EE-MI40-4	4"

Tech Sheet 20528

Female Equal Bend 45° (41)



Black, BSPP

1095	Thread
EE-MI41-38N	3/8"
EE-MI41-12N	1/2"
EE-MI41-34N	3/4"
EE-MI41-1N	1"
EE-MI41-114N	1.1/4"
EE-MI41-112N	1.1/2"
EE-MI41-2N	2"
EE-MI41-212N	2.1/2"

Tech Sheet 20528

Galvanised, BSPP

1095	Thread
EE-MI41-38	3/8"
EE-MI41-12	1/2"
EE-MI41-34	3/4"
EE-MI41-1	1"
EE-MI41-114	1.1/4"
EE-MI41-112	1.1/2"
EE-MI41-2	2"
EE-MI41-212	2.1/2"
EE-MI41-3	3"

Tech Sheet 20528

Female Equal Tee (130)



Black, BSPP

1095	Thread
EE-MI130-14N	1/4"
EE-MI130-38N	3/8"
EE-MI130-12N	1/2"
EE-MI130-34N	3/4"
EE-MI130-1N	1"
EE-MI130-114N	1.1/4"
EE-MI130-112N	1.1/2"
EE-MI130-2N	2"
EE-MI130-3N	3"
EE-MI130-4N	4"

Tech Sheet 20530

Galvanised, BSPP

1095	Thread
EE-MI130-14	1/4"
EE-MI130-38	3/8"
EE-MI130-12	1/2"
EE-MI130-34	3/4"
EE-MI130-1	1"
EE-MI130-114	1.1/4"
EE-MI130-112	1.1/2"
EE-MI130-2	2"
EE-MI130-212	2.1/2"
EE-MI130-3	3"
EE-MI130-4	4"

Tech Sheet 20530

Female Equal Pitcher Tee (131)



Black, BSPP

1095	Thread
EE-MI131-12N	1/2"
EE-MI131-34N	3/4"
EE-MI131-1N	1"
EE-MI131-114N	1.1/4"
EE-MI131-112N	1.1/2"
EE-MI131-2N	2"

Tech Sheet 20530

Galvanised, BSPP

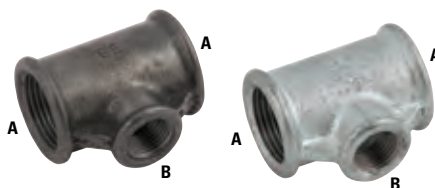
1095	Thread
EE-MI131-12	1/2"
EE-MI131-34	3/4"
EE-MI131-1	1"
EE-MI131-114	1.1/4"
EE-MI131-112	1.1/2"
EE-MI131-2	2"

Tech Sheet 20530

MALLEABLE IRON FITTINGS



Female Unequal Reducing Branch Tee (130)



Black, BSPP

1095	Thread A	Thread B
EE-MI130-38-14N	3/8"	1/4"
EE-MI130-12-14N	1/2"	1/4"
EE-MI130-12-38N	1/2"	3/8"
EE-MI130-34-14N	3/4"	1/4"
EE-MI130-34-38N	3/4"	3/8"
EE-MI130-34-12N	3/4"	1/2"
EE-MI130-1-38N	1"	3/8"
EE-MI130-1-12N	1"	1/2"
EE-MI130-1-34N	1"	3/4"
EE-MI130-114-12N	1.1/4"	1/2"
EE-MI130-114-34N	1.1/4"	3/4"
EE-MI130-114-1N	1.1/4"	1"
EE-MI130-112-12N	1.1/2"	1/2"
EE-MI130-112-34N	1.1/2"	3/4"
EE-MI130-112-1N	1.1/2"	1"
EE-MI130-112114N	1.1/2"	1.1/4"
EE-MI130-2-12N	2"	1/2"
EE-MI130-2-34N	2"	3/4"
EE-MI130-2-1N	2"	1"
EE-MI130-2-114N	2"	1.1/4"
EE-MI130-2-112N	2"	1.1/2"
EE-MI130-212-1N	2.1/2"	1"
EE-MI130-212114N	2.1/2"	1.1/4"
EE-MI130-212112N	2.1/2"	1.1/2"
EE-MI130-212-2N	2.1/2"	2"
EE-MI130-3-112N	3"	1.1/2"
EE-MI130-3-2N	3"	2"
EE-MI130-3-212N	3"	2.1/2"
EE-MI130-4-2N	4"	2"
EE-MI130-4-3N	4"	3"

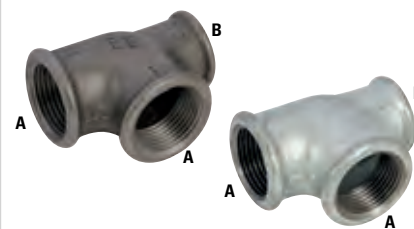
Tech Sheet 20530

Galvanised, BSPP

1095	Thread A	Thread B
EE-MI130-38-14	3/8"	1/4"
EE-MI130-12-14	1/2"	1/4"
EE-MI130-12-38	1/2"	3/8"
EE-MI130-34-14	3/4"	1/4"
EE-MI130-34-38	3/4"	3/8"
EE-MI130-34-12	3/4"	1/2"
EE-MI130-1-38	1"	3/8"
EE-MI130-1-12	1"	1/2"
EE-MI130-1-34	1"	3/4"
EE-MI130-114-12	1.1/4"	1/2"
EE-MI130-114-34	1.1/4"	3/4"
EE-MI130-114-1	1.1/4"	1"
EE-MI130-112-12	1.1/2"	1/2"
EE-MI130-112-34	1.1/2"	3/4"
EE-MI130-112-1	1.1/2"	1"
EE-MI130-112-114	1.1/2"	1.1/4"
EE-MI130-2-12	2"	1/2"
EE-MI130-2-34	2"	3/4"
EE-MI130-2-1	2"	1"
EE-MI130-2-114	2"	1.1/4"
EE-MI130-2-112	2"	1.1/2"
EE-MI130-212-34	2.1/2"	3/4"
EE-MI130-212-1	2.1/2"	1"
EE-MI130-212-112	2.1/2"	1.1/2"
EE-MI130-212-2	2.1/2"	2"
EE-MI130-3-112	3"	1.1/2"
EE-MI130-3-2	3"	2"
EE-MI130-3-212	3"	2.1/2"
EE-MI130-4-2	4"	2"
EE-MI130-4-3	4"	3"

Tech Sheet 20530

Female Unequal Reducing Run Tee (130B)



Black, BSPP

1095	Thread A	Thread B
EEMI30-12-38-12N	1/2"	3/8"
EEMI30-34-12-34N	3/4"	1/2"
EEMI30-1-12-1N	1"	1/2"
EEMI30-1-34-1N	1"	3/4"
EEMI3011434114N	1.1/4"	3/4"
EEMI301141114N	1.1/4"	1"
EEMI30112114112N	1.1/2"	1.1/4"

Galvanised, BSPP

1095	Thread A	Thread B
EEMI30-12-38-12	1/2"	3/8"
EEMI30-34-12-34	3/4"	1/2"
EEMI30-1-12-1	1"	1/2"
EEMI30-1-34-1	1"	3/4"
EEMI3011434114	1.1/4"	3/4"
EEMI301141114	1.1/4"	1"
EEMI30112114112	1.1/2"	1.1/4"

Female Unequal Increasing Branch Tee (130)



Black, BSPP

1095	Thread A	Thread B
EE-MI130-38-12N	3/8"	1/2"
EE-MI130-12-34N	1/2"	3/4"
EE-MI130-12-1N	1/2"	1"
EE-MI130-34-1N	3/4"	1"
EE-MI130-1-114N	1"	1.1/4"
EE-MI130-1-112N	1"	1.1/2"
EE-MI130-114112N	1.1/4"	1.1/2"
EE-MI130-114-2N	1.1/4"	2"
EE-MI130-112-2N	1.1/2"	2"
EE-MI130-2-212N	2"	2.1/2"
EE-MI130-2-3N	2"	3"

Tech Sheet 20530

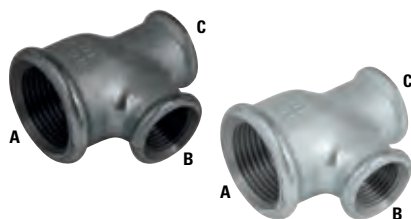
Galvanised, BSPP

1095	Thread A	Thread B
EE-MI130-38-12	3/8"	1/2"
EE-MI130-12-34	1/2"	3/4"
EE-MI130-12-1	1/2"	1"
EE-MI130-34-1	3/4"	1"
EE-MI130-1-114	1"	1.1/4"
EE-MI130-1-112	1"	1.1/2"
EE-MI130-114-112	1.1/4"	1.1/2"
EE-MI130-114-2	1.1/4"	2"
EE-MI130-112-2	1.1/2"	2"
EE-MI130-2-212	2"	2.1/2"
EE-MI130-2-3	2"	3"

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MALLEABLE IRON FITTINGS

Female Unequal Reducing Run & Branch Tee



Black, BSPP

1095	Thread A	Thread B	Thread C
EEMI30C123838N	1/2"	3/8"	3/8"
EEMI30C343812N	3/4"	3/8"	1/2"
EEMI30C341212N	3/4"	1/2"	1/2"
EEMI30C11212N	1"	1/2"	1/2"
EEMI30C11234N	1"	1/2"	3/4"
EEMI30C13434N	1"	3/4"	3/4"
EEMI30C114121N	1.1/4"	1/2"	1"
EEMI30C1143434N	1.1/4"	3/4"	3/4"
EEMI30C114341N	1.1/4"	3/4"	1"
EEMI30C11411N	1.1/4"	1"	1"
EEMI30C1121234N	1.1/2"	1/2"	3/4"
EEMI30C112134N	1.1/2"	1"	3/4"
EEMI30C11211N	1.1/2"	1"	1"
EEMI30C1121114N	1.1/2"	1"	1.1/4"
EEMI30C112114114N	1.1/2"	1.1/4"	1.1/4"
EEMI30C2112112N	2"	1.1/2"	1.1/2"

Galvanised, BSPP

1095	Thread A	Thread B	Thread C
EEMI30C123838	1/2"	3/8"	3/8"
EEMI30C343812	3/4"	3/8"	1/2"
EEMI30C341212	3/4"	1/2"	1/2"
EEMI30C11212	1"	1/2"	1/2"
EEMI30C11234	1"	1/2"	3/4"
EEMI30C13412	1"	3/4"	1/2"
EEMI30C13434	1"	3/4"	3/4"
EEMI30C114121	1.1/4"	1/2"	1"
EEMI30C1143434	1.1/4"	3/4"	3/4"
EEMI30C114341	1.1/4"	3/4"	1"
EEMI30C11411	1.1/4"	1"	1"
EEMI30C112134	1.1/2"	1"	3/4"
EEMI30C11211	1.1/2"	1"	1"
EEMI30C1121114	1.1/2"	1"	1.1/4"
EEMI30C112114114	1.1/2"	1.1/4"	1.1/4"
EEMI30C2112112	2"	1.1/2"	1.1/2"

Male Equal Tee



Black, BSPT

1095	Thread
EEMI135-1N	1"

Galvanised, BSPT

1095	Thread
EEMI135-1	1"

Female Equal Tee 45° (165)



Black, BSPP

1095	Thread
EE-MI165-12N	1/2"
EE-MI165-34N	3/4"
EE-MI165-1N	1"
EE-MI165-114N	1.1/4"
EE-MI165-112N	1.1/2"
EE-MI165-2N	2"

Tech Sheet 20530

Galvanised, BSPP

1095	Thread
EE-MI165-12	1/2"
EE-MI165-34	3/4"
EE-MI165-1	1"
EE-MI165-114	1.1/4"
EE-MI165-112	1.1/2"

Tech Sheet 20530

Equal Ys



Black, BSPP

1095	Thread
EE-MI220-12N	1/2"
EE-MI220-34N	3/4"
EE-MI220-1N	1"

Galvanised, BSPP

1095	Thread
EE-MI220-12	1/2"
EE-MI220-34	3/4"
EE-MI220-1	1"

MALLEABLE IRON FITTINGS



Female Equal Cross (180)



Black, BSPP

1095	Thread
EE-MI180-38N	3/8"
EE-MI180-12N	1/2"
EE-MI180-34N	3/4"
EE-MI180-11N	1"
EE-MI180-114N	1.1/4"
EE-MI180-112N	1.1/2"
EE-MI180-2N	2"

Tech Sheet 20531

Galvanised, BSPP

1095	Thread
EE-MI180-38	3/8"
EE-MI180-12	1/2"
EE-MI180-34	3/4"
EE-MI180-1	1"
EE-MI180-114	1.1/4"
EE-MI180-112	1.1/2"
EE-MI180-2	2"
EE-MI180-3	3"

Tech Sheet 20531

Female Unequal Cross (180)



Black, BSPP

1095	Thread A	Thread B
EE-MI180-12-38N	1/2"	3/8"
EE-MI180-34-38N	3/4"	3/8"
EE-MI180-34-12N	3/4"	1/2"
EE-MI180-1-12N	1"	1/2"
EE-MI180-1-34N	1"	3/4"
EE-MI180-114-12N	1.1/4"	1/2"
EE-MI180-2-34N	2"	3/4"

Galvanised, BSPP

1095	Thread A	Thread B
EE-MI180-12-38	1/2"	3/8"
EE-MI180-34-38	3/4"	3/8"
EE-MI180-34-12	3/4"	1/2"
EE-MI180-1-12	1"	1/2"
EE-MI180-1-34	1"	3/4"
EE-MI180-114-12	1.1/4"	1/2"
EE-MI180-2-34	2"	3/4"

Female Crossover



Black, BSPP

1095	Thread
EE-MI85-12N	1/2"
EE-MI85-34N	3/4"

Galvanised, BSPP

1095	Thread
EE-MI85-12	1/2"
EE-MI85-34	3/4"

Screwed Flange



Black, BSPP

1095	Thread
EE-MI326-34-N	3/4"
EE-MI326-1-N	1"
EE-MI326-114-N	1.1/4"
EE-MI326-112-N	1.1/2"

Galvanised, BSPP

1095	Thread
EE-MI326-34	3/4"
EE-MI326-1	1"
EE-MI326-114	1.1/4"
EE-MI326-112	1.1/2"

Flange



Black, BSPP

1095	Thread
EE-MI321-38-N	3/8"
EE-MI321-12-N	1/2"
EE-MI321-34-N	3/4"
EE-MI321-1-N	1"
EE-MI321-114-N	1.1/4"
EE-MI321-112-N	1.1/2"
EE-MI321-2-N	2"
EE-MI321-212-N	2.1/2"
EE-MI321-3-N	3"
EE-MI321-4-N	4"

Galvanised, BSPP

1095	Thread
EE-MI321-38	3/8"
EE-MI321-12	1/2"
EE-MI321-34	3/4"
EE-MI321-1	1"
EE-MI321-114	1.1/4"
EE-MI321-112	1.1/2"
EE-MI321-2	2"
EE-MI321-212	2.1/2"
EE-MI321-3	3"
EE-MI321-4	4"

MALLEABLE IRON FITTINGS



K-LINE CONNECT

Hexagon Reducing Nipple (145)



Black, BSPT

1094	Thread	Thread
K-MI245-38-14N	3/8"	1/4"
K-MI245-12-14N	1/2"	1/4"
K-MI245-12-38N	1/2"	3/8"
K-MI245-34-14N	3/4"	1/4"
K-MI245-34-38N	3/4"	3/8"
K-MI245-34-12N	3/4"	1/2"
K-MI245-1-12N	1"	1/2"
K-MI245-1-34N	1"	3/4"
K-MI245-114-12N	1.1/4"	1/2"
K-MI245-114-34N	1.1/4"	3/4"
K-MI245-114-1N	1.1/4"	1"
K-MI245-112-12N	1.1/2"	1/2"
K-MI245-112-34N	1.1/2"	3/4"
K-MI245-112-1N	1.1/2"	1"
K-MI245-112-114N	1.1/2"	1.1/4"
K-MI245-2-12N	2"	1/2"
K-MI245-2-34N	2"	3/4"
K-MI245-2-1N	2"	1"
K-MI245-2-114N	2"	1.1/4"
K-MI245-2-112N	2"	1.1/2"
K-MI245-212-112N	2.1/2"	1.1/2"
K-MI245-212-2N	2.1/2"	2"
K-MI245-3-2N	3"	2"
K-MI245-3-212N	3"	2.1/2"
K-MI245-4-3N	4"	3"

Tech Sheet 20449



Galvanised, BSPT

1094	Thread	Thread
K-MI245-38-14	3/8"	1/4"
K-MI245-12-14	1/2"	1/4"
K-MI245-12-38	1/2"	3/8"
K-MI245-34-14	3/4"	1/4"
K-MI245-34-38	3/4"	3/8"
K-MI245-34-12	3/4"	1/2"
K-MI245-1-38	1"	3/8"
K-MI245-1-12	1"	1/2"
K-MI245-1-34	1"	3/4"
K-MI245-114-12	1.1/4"	1/2"
K-MI245-114-34	1.1/4"	3/4"
K-MI245-114-1	1.1/4"	1"
K-MI245-112-12	1.1/2"	1/2"
K-MI245-112-34	1.1/2"	3/4"
K-MI245-112-1	1.1/2"	1"
K-MI245-112-114	1.1/2"	1.1/4"
K-MI245-2-12	2"	1/2"
K-MI245-2-34	2"	3/4"
K-MI245-2-1	2"	1"
K-MI245-2-114	2"	1.1/4"
K-MI245-2-112	2"	1.1/2"
K-MI245-212-112	2.1/2"	1.1/2"
K-MI245-212-2	2.1/2"	2"
K-MI245-3-2	3"	2"
K-MI245-3-212	3"	2.1/2"
K-MI245-4-3	4"	3"

Tech Sheet 20449

Equal Hexagon Nipple (144)



Black, BSPT

1094	Thread
K-MI280-14N	1/4"
K-MI280-38N	3/8"
K-MI280-12N	1/2"
K-MI280-34N	3/4"
K-MI280-1N	1"
K-MI280-114N	1.1/4"
K-MI280-112N	1.1/2"
K-MI280-2N	2"
K-MI280-212N	2.1/2"
K-MI280-3N	3"
K-MI280-4N	4"

Tech Sheet 20449

Galvanised, BSPT

1094	Thread
K-MI280-14	1/4"
K-MI280-38	3/8"
K-MI280-12	1/2"
K-MI280-34	3/4"
K-MI280-1	1"
K-MI280-114	1.1/4"
K-MI280-112	1.1/2"
K-MI280-2	2"
K-MI280-212	2.1/2"
K-MI280-3	3"
K-MI280-4	4"

Tech Sheet 20449

RIDGID



For **Ridgid Wrenches**
see page **1742**

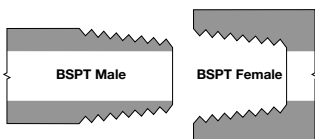
MALLEABLE IRON FITTINGS



K-LINE CONNECT

**Maximum Working Pressure:**

25 bar @ -20°C to +120°C
20 bar @ +300°C

**Threads:**

British standard taper, BSPT to ISO7-1 and EN10226-2.

Materials:

Suitable for fire protection, automatic sprinkler systems NFPA 13/24 and fittings for above ground

Fittings tested in accordance to BS EN10241:2000, BS EN1562 and dimensions to BS EN10242.

Media:

Suitable for the flow of water, steam, gas or other non aggressive media.

Surface Finishing:

Two types are available:

Black:

With an anti-corrosive varnish to protect against rust after installation prior to plant conditioning.

Galvanised:

Hot-dip zinc coated to give additional resistance to corrosion, meeting the requirements of ASTM A153



K-LINE CONNECT

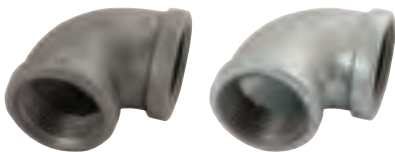
Malleable iron fittings suitable for use with drinking water



WRAS APPROVED PRODUCT

K-Line Connect kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

Female Equal Elbow 90° (151)

**Black, BSPT**

1094	Thread
K-MI90-14N	1/4"
K-MI90-38N	3/8"
K-MI90-12N	1/2"
K-MI90-34N	3/4"
K-MI90-1N	1"
K-MI90-114N	1.1/4"
K-MI90-112N	1.1/2"
K-MI90-2N	2"
K-MI90-212N	2.1/2"
K-MI90-3N	3"
K-MI90-4N	4"

Tech Sheet 20445

Galvanised, BSPT

1094	Thread
K-MI90-14	1/4"
K-MI90-38	3/8"
K-MI90-12	1/2"
K-MI90-34	3/4"
K-MI90-1	1"
K-MI90-114	1.1/4"
K-MI90-112	1.1/2"
K-MI90-2	2"
K-MI90-212	2.1/2"
K-MI90-3	3"
K-MI90-4	4"

Tech Sheet 20445

Male x Female Equal Elbow 90° (152)

**Black, BSPT**

1094	Thread
K-MI92-14N	1/4"
K-MI92-38N	3/8"
K-MI92-12N	1/2"
K-MI92-34N	3/4"
K-MI92-1N	1"
K-MI92-114N	1.1/4"
K-MI92-112N	1.1/2"
K-MI92-2N	2"
K-MI92-212N	2.1/2"
K-MI92-3N	3"
K-MI92-4N	4"

Tech Sheet 20445

Galvanised, BSPT

1094	Thread
K-MI92-14	1/4"
K-MI92-38	3/8"
K-MI92-12	1/2"
K-MI92-34	3/4"
K-MI92-1	1"
K-MI92-114	1.1/4"
K-MI92-112	1.1/2"
K-MI92-2	2"
K-MI92-212	2.1/2"
K-MI92-3	3"
K-MI92-4	4"

Tech Sheet 20445

Female Equal Elbow 45° (155)

**Black, BSPT**

1094	Thread
K-MI120-38N	3/8"
K-MI120-12N	1/2"
K-MI120-34N	3/4"
K-MI120-1N	1"
K-MI120-114N	1.1/4"
K-MI120-112N	1.1/2"
K-MI120-2N	2"

Tech Sheet 20445

Galvanised, BSPT

1094	Thread
K-MI120-38	3/8"
K-MI120-12	1/2"
K-MI120-34	3/4"
K-MI120-1	1"
K-MI120-114	1.1/4"
K-MI120-112	1.1/2"
K-MI120-2	2"

Tech Sheet 20445

Male x Female Equal Elbow 45° (156)

**Black, BSPT**

1094	Thread
K-MI121-38N	3/8"
K-MI121-12N	1/2"
K-MI121-34N	3/4"
K-MI121-1N	1"
K-MI121-114N	1.1/4"
K-MI121-112N	1.1/2"
K-MI121-2N	2"

Tech Sheet 20445

Galvanised, BSPT

1094	Thread
K-MI121-38	3/8"
K-MI121-12	1/2"
K-MI121-34	3/4"
K-MI121-1	1"
K-MI121-114	1.1/4"
K-MI121-112	1.1/2"
K-MI121-2	2"

Tech Sheet 20445

MALLEABLE IRON FITTINGS



K-LINE CONNECT

Female Reducing Elbow 90°



Black, BSPT

1094	Thread	Thread
K-MI90-38-14N	3/8"	1/4"
K-MI90-12-38N	1/2"	3/8"
K-MI90-12-14N	1/2"	1/4"
K-MI90-34-38N	3/4"	3/8"
K-MI90-34-12N	3/4"	1/2"
K-MI90-34-14N	3/4"	1/4"
K-MI90-1-14N	1"	1/4"
K-MI90-1-38N	1"	3/8"
K-MI90-1-12N	1"	1/2"
K-MI90-1-34N	1"	3/4"
K-MI90-114-38N	1.1/4"	3/8"
K-MI90-114-12N	1.1/4"	1/2"
K-MI90-114-34N	1.1/4"	3/4"
K-MI90-114-1N	1.1/4"	1"
K-MI90-112-12N	1.1/2"	1/2"
K-MI90-112-34N	1.1/2"	3/4"
K-MI90-112-1N	1.1/2"	1"
K-MI90-112-114N	1.1/2"	1.1/4"
K-MI90-2-12N	2"	1/2"
K-MI90-2-34N	2"	3/4"
K-MI90-2-1N	2"	1"
K-MI90-2-114N	2"	1.1/4"
K-MI90-2-112N	2"	1.1/2"
K-MI90-212-12N	2.1/2"	1/2"
K-MI90-212-34N	2.1/2"	3/4"
K-MI90-212-1N	2.1/2"	1"
K-MI90-212-114N	2.1/2"	1.1/4"
K-MI90-212-112N	2.1/2"	1.1/2"
K-MI90-212-2N	2.1/2"	2"
K-MI90-3-34N	3"	3/4"
K-MI90-3-1N	3"	1"
K-MI90-3-114N	3"	1.1/4"
K-MI90-3-112N	3"	1.1/2"
K-MI90-3-2N	3"	2"
K-MI90-3-212N	3"	2.1/2"
K-MI90-4-114N	4"	1.1/4"
K-MI90-4-112N	4"	1.1/2"
K-MI90-4-2N	4"	2"
K-MI90-4-212N	4"	2.1/2"
K-MI90-4-3N	4"	3"



Galvanised, BSPT

1094	Thread	Thread
K-MI90-38-14	3/8"	1/4"
K-MI90-12-38	1/2"	3/8"
K-MI90-12-14	1/2"	1/4"
K-MI90-34-38	3/4"	3/8"
K-MI90-34-12	3/4"	1/2"
K-MI90-34-14	3/4"	1/4"
K-MI90-1-14	1"	1/4"
K-MI90-1-38	1"	3/8"
K-MI90-1-12	1"	1/2"
K-MI90-114-38	1.1/4"	3/8"
K-MI90-114-12	1.1/4"	1/2"
K-MI90-114-34	1.1/4"	3/4"
K-MI90-114-1	1.1/4"	1"
K-MI90-112-12	1.1/2"	1/2"
K-MI90-112-34	1.1/2"	3/4"
K-MI90-112-1	1.1/2"	1"
K-MI90-2-12	2"	1/2"
K-MI90-2-34	2"	3/4"
K-MI90-2-1	2"	1"
K-MI90-2-114	2"	1.1/4"
K-MI90-2-112	2"	1.1/2"
K-MI90-212-12	2.1/2"	1/2"
K-MI90-212-34	2.1/2"	3/4"
K-MI90-212-1	2.1/2"	1"
K-MI90-212-114	2.1/2"	1.1/4"
K-MI90-212-112	2.1/2"	1.1/2"
K-MI90-212-2	2.1/2"	2"
K-MI90-3-34	3"	3/4"
K-MI90-3-1	3"	1"
K-MI90-3-114	3"	1.1/4"
K-MI90-3-112	3"	1.1/2"
K-MI90-3-2	3"	2"
K-MI90-3-212	3"	2.1/2"
K-MI90-4-114	4"	1.1/4"
K-MI90-4-112	4"	1.1/2"
K-MI90-4-2	4"	2"
K-MI90-4-212	4"	2.1/2"
K-MI90-4-3	4"	3"

Female Equal Tee (161)



Black, BSPT

1094	Thread
K-MI130-14N	1/4"
K-MI130-38N	3/8"
K-MI130-12N	1/2"
K-MI130-34N	3/4"
K-MI130-1N	1"
K-MI130-114N	1.1/4"
K-MI130-112N	1.1/2"
K-MI130-2N	2"
K-MI130-212N	2.1/2"
K-MI130-3N	3"
K-MI130-4N	4"

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Galvanised, BSPT

1094	Thread
K-MI130-14	1/4"
K-MI130-38	3/8"
K-MI130-12	1/2"
K-MI130-34	3/4"
K-MI130-1	1"
K-MI130-114	1.1/4"
K-MI130-112	1.1/2"
K-MI130-2	2"
K-MI130-212	2.1/2"
K-MI130-3	3"
K-MI130-4	4"

Tech Sheet 20446



K-LINE CONNECT

Malleable iron fittings suitable for use with drinking water



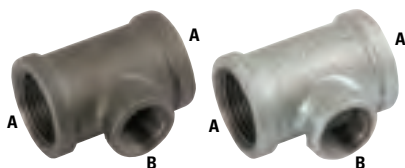
K-Line Connect kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

MALLEABLE IRON FITTINGS



K-LINE CONNECT

Female Unequal Branch Tee (161)



Black, BSPT

1094	Thread A	Thread B
K-MI130-38-14N	3/8"	1/2"
K-MI130-12-14N	1/2"	1/4"
K-MI130-12-38N	1/2"	3/8"
K-MI130-12-34N	1/2"	3/4"
K-MI130-34-14N	3/4"	1/4"
K-MI130-34-12N	3/4"	1/2"
K-MI130-1-38N	1"	3/8"
K-MI130-1-12N	1"	1/2"
K-MI130-1-34N	1"	3/4"
K-MI130-114-12N	1.1/4"	1/2"
K-MI130-114-34N	1.1/4"	3/4"
K-MI130-114-1N	1.1/4"	1"
K-MI130-112-12N	1.1/2"	1/2"
K-MI130-112-34N	1.1/2"	3/4"
K-MI130-112-1N	1.1/2"	1"
K-MI130-112-114N	1.1/2"	1.1/4"
K-MI130-2-12N	2"	1/2"
K-MI130-2-34N	2"	3/4"
K-MI130-2-1N	2"	1"
K-MI130-2-114N	2"	1.1/4"
K-MI130-2-112N	2"	1.1/2"

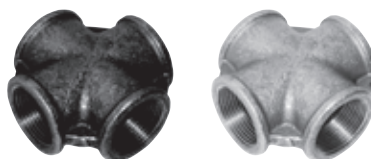
Tech Sheet 20446

Galvanised, BSPT

1094	Thread A	Thread B
K-MI130-38-14	3/8"	1/4"
K-MI130-12-14	1/2"	1/4"
K-MI130-12-38	1/2"	3/8"
K-MI130-12-34	1/2"	3/4"
K-MI130-34-38	3/4"	3/8"
K-MI130-34-12	3/4"	1/2"
K-MI130-1-38	1"	3/8"
K-MI130-1-12	1"	1/2"
K-MI130-1-34	1"	3/4"
K-MI130-114-12	1.1/4"	1/2"
K-MI130-114-34	1.1/4"	3/4"
K-MI130-114-1	1.1/4"	1"
K-MI130-112-12	1.1/2"	1/2"
K-MI130-112-34	1.1/2"	3/4"
K-MI130-112-1	1.1/2"	1"
K-MI130-112-114	1.1/2"	1.1/4"
K-MI130-2-12	2"	1/2"
K-MI130-2-34	2"	3/4"
K-MI130-2-1	2"	1"
K-MI130-2-114	2"	1.1/4"
K-MI130-2-112	2"	1.1/2"

Tech Sheet 20446

Female Equal Cross



Black, BSPT

1094	Thread
K-MI180-14N	1/4"
K-MI180-38N	3/8"
K-MI180-12N	1/2"
K-MI180-34N	3/4"
K-MI180-1N	1"
K-MI180-114N	1.1/4"
K-MI180-112N	1.1/2"
K-MI180-2N	2"
K-MI180-212N	2.1/2"
K-MI180-3N	3"
K-MI180-4N	4"

Galvanised, BSPT

1094	Thread
K-MI180-14	1/4"
K-MI180-38	3/8"
K-MI180-12	1/2"
K-MI180-34	3/4"
K-MI180-1	1"
K-MI180-114	1.1/4"
K-MI180-112	1.1/2"
K-MI180-2	2"
K-MI180-212	2.1/2"
K-MI180-3	3"
K-MI180-4	4"

Female Equal Socket (177)



Black, BSPT

1094	Thread
K-MI220-38N	3/8"
K-MI220-12N	1/2"
K-MI220-34N	3/4"
K-MI220-1N	1"
K-MI220-114N	1.1/4"
K-MI220-112N	1.1/2"
K-MI220-2N	2"
K-MI220-212N	2.1/2"
K-MI220-3N	3"
K-MI220-4N	4"

Tech Sheet 20447

Galvanised, BSPT

1094	Thread
K-MI220-38	3/8"
K-MI220-12	1/2"
K-MI220-34	3/4"
K-MI220-1	1"
K-MI220-114	1.1/4"
K-MI220-112	1.1/2"
K-MI220-2	2"
K-MI220-212	2.1/2"
K-MI220-3	3"
K-MI220-4	4"

Tech Sheet 20447

For Malleable Iron Foot Valves
see page 1436



MALLEABLE IRON FITTINGS



K-LINE CONNECT

Female Reducing Socket (179)



Black, BSPT

1094	Thread	Thread
K-MI240-38-14N	3/8"	1/4"
K-MI240-12-14N	1/2"	1/4"
K-MI240-12-38N	1/2"	3/8"
K-MI240-34-38N	3/4"	3/8"
K-MI240-34-12N	3/4"	1/2"
K-MI240-1-38N	1"	3/8"
K-MI240-1-12N	1"	1/2"
K-MI240-1-34N	1"	3/4"
K-MI240-114-38N	1.1/4"	3/8"
K-MI240-114-12N	1.1/4"	1/2"
K-MI240-114-34N	1.1/4"	3/4"
K-MI240-114-1N	1.1/4"	1"
K-MI240-112-12N	1.1/2"	1/2"
K-MI240-112-34N	1.1/2"	3/4"
K-MI240-112-1N	1.1/2"	1"
K-MI240-112-114N	1.1/2"	1.1/4"
K-MI240-2-12N	2"	1/2"
K-MI240-2-34N	2"	3/4"
K-MI240-2-1N	2"	1"
K-MI240-2-114N	2"	1.1/4"
K-MI240-2-112N	2"	1.1/2"

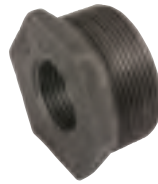
Tech Sheet 20447

Galvanized, BSPT

1094	Thread	Thread
K-MI240-38-14	3/8"	1/4"
K-MI240-12-14	1/2"	1/4"
K-MI240-12-38	1/2"	3/8"
K-MI240-34-38	3/4"	3/8"
K-MI240-34-12	3/4"	1/2"
K-MI240-1-38	1"	3/8"
K-MI240-1-12	1"	1/2"
K-MI240-1-34	1"	3/4"
K-MI240-114-38	1.1/4"	3/8"
K-MI240-114-12	1.1/4"	1/2"
K-MI240-114-34	1.1/4"	3/4"
K-MI240-114-1	1.1/4"	1"
K-MI240-112-12	1.1/2"	1/2"
K-MI240-112-34	1.1/2"	3/4"
K-MI240-112-1	1.1/2"	1"
K-MI240-112-114	1.1/2"	1.1/4"
K-MI240-2-12	2"	1/2"
K-MI240-2-34	2"	3/4"
K-MI240-2-1	2"	1"
K-MI240-2-114	2"	1.1/4"
K-MI240-2-112	2"	1.1/2"

Tech Sheet 20447

Male x Female Reducing Bush (140)



Black, BSPT

1094	Thread	Thread
K-MI241-38-14N	3/8"	1/4"
K-MI241-12-14N	1/2"	1/4"
K-MI241-12-38N	1/2"	3/8"
K-MI241-34-14N	3/4"	1/4"
K-MI241-34-38N	3/4"	3/8"
K-MI241-34-12N	3/4"	1/2"
K-MI241-1-14N	1"	1/4"
K-MI241-1-38N	1"	3/8"
K-MI241-1-12N	1"	1/2"
K-MI241-1-34N	1"	3/4"
K-MI241-114-12N	1.1/4"	1/2"
K-MI241-114-34N	1.1/4"	3/4"
K-MI241-114-1N	1.1/4"	1"
K-MI241-112-12N	1.1/2"	1/2"
K-MI241-112-34N	1.1/2"	3/4"
K-MI241-112-1N	1.1/2"	1"
K-MI241-112-114N	1.1/2"	1.1/4"
K-MI241-2-12N	2"	1/2"
K-MI241-2-34N	2"	3/4"
K-MI241-2-1N	2"	1"
K-MI241-2-114N	2"	1.1/4"
K-MI241-2-112N	2"	1.1/2"
K-MI241-212-12N	2.1/2"	1/2"
K-MI241-212-34N	2.1/2"	3/4"
K-MI241-212-1N	2.1/2"	1"
K-MI241-212-114N	2.1/2"	1.1/4"
K-MI241-212-112N	2.1/2"	1.1/2"
K-MI241-212-2N	2.1/2"	2"
K-MI241-3-1N	3"	1"
K-MI241-3-112N	3"	1.1/2"
K-MI241-3-2N	3"	2"
K-MI241-3-212N	3"	2.1/2"
K-MI241-4-34N	4"	3/4"
K-MI241-4-1N	4"	1"
K-MI241-4-114N	4"	1.1/4"
K-MI241-4-112N	4"	1.1/2"
K-MI241-4-2N	4"	2"
K-MI241-4-212N	4"	2.1/2"
K-MI241-4-3N	4"	3"

Tech Sheet 20448

Galvanized, BSPT

1094	Thread	Thread
K-MI241-38-14	3/8"	1/4"
K-MI241-12-14	1/2"	1/4"
K-MI241-12-38	1/2"	3/8"
K-MI241-34-14	3/4"	1/4"
K-MI241-34-38	3/4"	3/8"
K-MI241-34-12	3/4"	1/2"
K-MI241-1-14	1"	1/4"
K-MI241-1-38	1"	3/8"
K-MI241-1-12	1"	1/2"
K-MI241-1-34	1"	3/4"
K-MI241-114-38	1.1/4"	3/8"
K-MI241-114-12	1.1/4"	1/2"
K-MI241-114-34	1.1/4"	3/4"
K-MI241-114-1	1.1/4"	1"
K-MI241-112-12	1.1/2"	1/2"
K-MI241-112-34	1.1/2"	3/4"
K-MI241-112-1	1.1/2"	1"
K-MI241-112-114	1.1/2"	1.1/4"
K-MI241-2-12	2"	1/2"
K-MI241-2-34	2"	3/4"
K-MI241-2-1	2"	1"
K-MI241-2-114	2"	1.1/4"
K-MI241-2-112	2"	1.1/2"
K-MI241-212-12	2.1/2"	1/2"
K-MI241-212-34	2.1/2"	3/4"
K-MI241-212-1	2.1/2"	1"
K-MI241-212-114	2.1/2"	1.1/4"
K-MI241-212-112	2.1/2"	1.1/2"
K-MI241-212-2	2.1/2"	2"
K-MI241-3-1	3"	1"
K-MI241-3-112	3"	1.1/2"
K-MI241-3-2	3"	2"
K-MI241-3-212	3"	2.1/2"
K-MI241-4-34	4"	3/4"
K-MI241-4-1	4"	1"
K-MI241-4-114	4"	1.1/4"
K-MI241-4-112	4"	1.1/2"
K-MI241-4-2	4"	2"
K-MI241-4-212	4"	2.1/2"
K-MI241-4-3	4"	3"

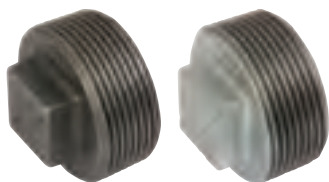
Tech Sheet 20448

MALLEABLE IRON FITTINGS



K-LINE CONNECT

Plain Plug Hollow (147)



Black, BSPT

1094	Thread
K-MI291-14N	1/4"
K-MI291-38N	3/8"
K-MI291-12N	1/2"
K-MI291-34N	3/4"
K-MI291-1N	1"
K-MI291-114N	1.1/4"
K-MI291-112N	1.1/2"
K-MI291-2N	2"
K-MI291-212N	2.1/2"
K-MI291-3N	3"
K-MI291-4N	4"

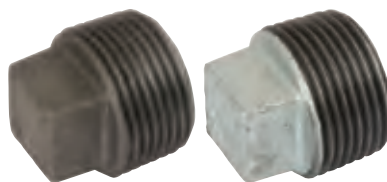
Tech Sheet 20450

Galvanised, BSPT

1094	Thread
K-MI291-14	1/4"
K-MI291-38	3/8"
K-MI291-12	1/2"
K-MI291-34	3/4"
K-MI291-1	1"
K-MI291-114	1.1/4"
K-MI291-112	1.1/2"
K-MI291-2	2"
K-MI291-212	2.1/2"
K-MI291-3	3"
K-MI291-4	4"

Tech Sheet 20450

Plain Plug Solid (148)



Black, BSPT

1094	Thread
K-MI291S-14N	1/4"
K-MI291S-38N	3/8"
K-MI291S-12N	1/2"
K-MI291S-34N	3/4"
K-MI291S-1N	1"
K-MI291S-114N	1.1/4"
K-MI291S-112N	1.1/2"
K-MI291S-2N	2"
K-MI291S-212N	2.1/2"
K-MI291S-3N	3"
K-MI291S-4N	4"

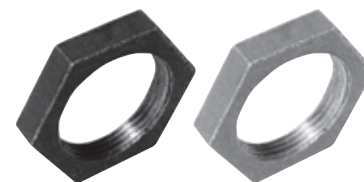
Tech Sheet 20450

Galvanised, BSPT

1094	Thread
K-MI291S-14	1/4"
K-MI291S-38	3/8"
K-MI291S-12	1/2"
K-MI291S-34	3/4"
K-MI291S-1	1"
K-MI291S-114	1.1/4"
K-MI291S-112	1.1/2"
K-MI291S-2	2"
K-MI291S-212	2.1/2"
K-MI291S-3	3"
K-MI291S-4	4"

Tech Sheet 20450

Backnut



Black, BSPT

1094	Thread
K-MI310-14N	1/4"
K-MI310-38N	3/8"
K-MI310-12N	1/2"
K-MI310-34N	3/4"
K-MI310-114N	1.1/4"
K-MI310-112N	1.1/2"
K-MI310-2N	2"
K-MI310-212N	2.1/2"
K-MI310-3N	3"
K-MI310-4N	4"

Tech Sheet 68727

Galvanised, BSPT

1094	Thread
K-MI310-38	3/8"
K-MI310-12	1/2"
K-MI310-34	3/4"
K-MI310-1	1"
K-MI310-114	1.1/4"
K-MI310-2	2"
K-MI310-212	2.1/2"
K-MI310-3	3"
K-MI310-4	4"

Tech Sheet 68727



For Forged Steel Flanges
see page 1386



MALLEABLE IRON FITTINGS



K-LINE CONNECT

Cap Rounded (185)



Black, BSPT

1094	Thread
K-MI300-38N	3/8"
K-MI300-12N	1/2"
K-MI300-34N	3/4"
K-MI300-1N	1"
K-MI300-114N	1.1/4"
K-MI300-112N	1.1/2"
K-MI300-2N	2"

Tech Sheet 20451

Galvanised, BSPT

1094	Thread
K-MI300-14	1/4"
K-MI300-38	3/8"
K-MI300-12	1/2"
K-MI300-34	3/4"
K-MI300-1	1"
K-MI300-114	1.1/4"
K-MI300-112	1.1/2"
K-MI300-2	2"

Tech Sheet 20451

Female Union Flat Seat (290)



Galvanised, BSPT

1094	Thread
K-MI330-38	3/8"
K-MI330-12	1/2"
K-MI330-34	3/4"
K-MI330-1	1"
K-MI330-114	1.1/4"
K-MI330-112	1.1/2"
K-MI330-2	2"
K-MI330-212	2.1/2"
K-MI330-3	3"
K-MI330-4	4"

Tech Sheet 20452

Black, BSPT

1094	Thread
K-MI330-38N	3/8"
K-MI330-12N	1/2"
K-MI330-34N	3/4"
K-MI330-1N	1"
K-MI330-114N	1.1/4"
K-MI330-112N	1.1/2"
K-MI330-2N	2"
K-MI330-212N	2.1/2"
K-MI330-3N	3"
K-MI330-4N	4"

Tech Sheet 20452

Female x Male Union Flat Seat (257)



Black, BSPT

1094	Thread
K-MI331-12N	1/2"
K-MI331-34N	3/4"
K-MI331-1N	1"
K-MI331-114N	1.1/4"
K-MI331-112N	1.1/2"
K-MI331-2N	2"

Tech Sheet 20452

Galvanised, BSPT

1094	Thread
K-MI331-12	1/2"
K-MI331-34	3/4"
K-MI331-1	1"
K-MI331-114	1.1/4"
K-MI331-112	1.1/2"
K-MI331-2	2"

Tech Sheet 20452

Female Union, Navy, Double Bronze Seat (289)



Black, BSPT

1094	Thread
K-MI342A-12N	1/2"
K-MI342A-34N	3/4"
K-MI342A-1N	1"
K-MI342A-114N	1.1/4"
K-MI342A-112N	1.1/2"
K-MI342A-2N	2"

Tech Sheet 20452

Galvanised, BSPT

1094	Thread
K-MI342A-12	1/2"
K-MI342A-34	3/4"
K-MI342A-1	1"
K-MI342A-114	1.1/4"
K-MI342A-112	1.1/2"
K-MI342A-2	2"

Tech Sheet 20452

TOTAL



For **G Clamp**
see page **1740**

MALLEABLE IRON FITTINGS



Threads:

Threads are British Standard taper to IS07 and BS21. All male threads are BSPT and female threads are BSPP to EN 10226-1 and EN ISO 228-1

Materials:

Whiteheart malleable cast iron EN-GJMW-400-5 to EN 1562

Media:

Suitable for the flow of water, steam, gas or other non aggressive media.

Surface Finishing:

Two types are available:

Black:

With an anti-corrosive varnish to protect against rust after installation prior to plant conditioning.

Galvanised:

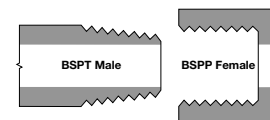
Hot-dip zinc coated to give additional resistance to corrosion



Maximum Working Pressure:

25 bar @ -20°C to +120°C

20 bar @ -50°C (intermittent) to +300°C



Female x Male Equal Bend, Long (1)



Black, BSPP Female x BSPT Male

0217	Thread
GF1-14N	1/4"
GF1-38N	3/8"
GF1-12N	1/2"
GF1-34N	3/4"
GF1-1N	1"
GF1-114N	1.1/4"
GF1-112N	1.1/2"
GF1-2N	2"
GF1-212N	2.1/2"
GF1-3N	3"
GF1-4N	4"

Tech Sheet 1764

Female x Male Equal Bend, Short (1a)



Black, BSPP Female x BSPT Male

0217	Thread
GF1A-14N	1/4"
GF1A-38N	3/8"
GF1A-12N	1/2"
GF1A-34N	3/4"
GF1A-1N	1"
GF1A-114N	1.1/4"
GF1A-112N	1.1/2"
GF1A-2N	2"
GF1A-212N	2.1/2"
GF1A-3N	3"
GF1A-4N	4"

Tech Sheet 1764

Female Equal Bend, Long (2)



Black, BSPP Female

0217	Thread
GF2-14N	1/4"
GF2-38N	3/8"
GF2-12N	1/2"
GF2-34N	3/4"
GF2-1N	1"
GF2-114N	1.1/4"
GF2-112N	1.1/2"
GF2-2N	2"
GF2-212N	2.1/2"
GF2-3N	3"
GF2-4N	4"

Tech Sheet 1765

Galvanised, BSPP Female x BSPT Male

0217	Thread
GF1-14	1/4"
GF1-38	3/8"
GF1-12	1/2"
GF1-34	3/4"
GF1-1	1"
GF1-114	1.1/4"
GF1-112	1.1/2"
GF1-2	2"
GF1-212	2.1/2"
GF1-3	3"

Tech Sheet 1764

Galvanised, BSPP Female x BSPT Male

0217	Thread
GF1A-14	1/4"
GF1A-38	3/8"
GF1A-12	1/2"
GF1A-34	3/4"
GF1A-1	1"
GF1A-114	1.1/4"
GF1A-112	1.1/2"
GF1A-2	2"
GF1A-3	3"
GF1A-4	4"

Tech Sheet 1764

Galvanised, BSPP Female

0217	Thread
GF2-14	1/4"
GF2-38	3/8"
GF2-12	1/2"
GF2-34	3/4"
GF2-1	1"
GF2-114	1.1/4"
GF2-112	1.1/2"
GF2-2	2"
GF2-212	2.1/2"
GF2-3	3"

Tech Sheet 1765

MALLEABLE IRON FITTINGS



Female Equal Bend, Short (2a)



Black, BSPP Female

0217	Thread
GF2A-14N	1/4"
GF2A-38N	3/8"
GF2A-12N	1/2"
GF2A-34N	3/4"
GF2A-1N	1"
GF2A-114N	1.1/4"
GF2A-112N	1.1/2"
GF2A-2N	2"
GF2A-212N	2.1/2"
GF2A-3N	3"
GF2A-4N	4"

Tech Sheet 1765

Galvanized, BSPP Female

0217	Thread
GF2A-14	1/4"
GF2A-38	3/8"
GF2A-12	1/2"
GF2A-34	3/4"
GF2A-1	1"
GF2A-114	1.1/4"
GF2A-112	1.1/2"
GF2A-2	2"
GF2A-212	2.1/2"
GF2A-3	3"
GF2A-4	4"

Tech Sheet 1765

Male Equal Bend, Long (3)



Black, BSPT Male

0217	Thread
GF3-12N	1/2"
GF3-34N	3/4"
GF3-1N	1"
GF3-114N	1.1/4"
GF3-112N	1.1/2"
GF3-2N	2"

Tech Sheet 1766

Galvanized, BSPT Male

0217	Thread
GF3-12	1/2"
GF3-34	3/4"
GF3-1	1"
GF3-114	1.1/4"
GF3-112	1.1/2"
GF3-2	2"

Tech Sheet 1766

Male x Female Equal Bend, Long (40)



Black, BSPT Male x BSPP Female

0217	Thread
GF40-12N	1/2"
GF40-34N	3/4"
GF40-1N	1"
GF40-114N	1.1/4"
GF40-112N	1.1/2"
GF40-2N	2"

Tech Sheet 1766

Galvanized, BSPT Male x BSPP Female

0217	Thread
GF40-12	1/2"
GF40-34	3/4"
GF40-1	1"
GF40-114	1.1/4"
GF40-112	1.1/2"
GF40-2	2"

Tech Sheet 1766

Female Equal Return Bend (60)



Black, BSPP Female

0217	Thread
GF60-12N	1/2"
GF60-34N	3/4"
GF60-1N	1"
GF60-112N	1.1/2"
GF60-2N	2"

Tech Sheet 1767

Galvanized, BSPP Female

0217	Thread
GF60-12	1/2"
GF60-34	3/4"
GF60-1	1"
GF60-114	1.1/4"
GF60-112	1.1/2"
GF60-2	2"

Tech Sheet 1767



Customers who bought from this page also purchased...

Hose Reels
see pages 1448-1453



MALLEABLE IRON FITTINGS



Female Equal Elbow (90)



Black, BSPP Female

0217	Thread
GF90-18N	1/8"
GF90-14N	1/4"
GF90-38N	3/8"
GF90-12N	1/2"
GF90-34N	3/4"
GF90-1N	1"
GF90-114N	1.1/4"
GF90-112N	1.1/2"
GF90-2N	2"
GF90-212N	2.1/2"
GF90-3N	3"
GF90-4N	4"
GF90-5N	5"

Tech Sheet 1769

Galvanised, BSPP Female

0217	Thread
GF90-18	1/8"
GF90-14	1/4"
GF90-38	3/8"
GF90-12	1/2"
GF90-34	3/4"
GF90-1	1"
GF90-114	1.1/4"
GF90-112	1.1/2"
GF90-2	2"
GF90-212	2.1/2"
GF90-3	3"
GF90-4	4"
GF90-5	5"

Tech Sheet 1769

Female Reducing Elbow (90)



Black, BSPP Female x BSPP Female

0217	Thread	Thread
GF90-38-14N	3/8"	1/4"
GF90-12-14N	1/2"	1/4"
GF90-12-38N	1/2"	3/8"
GF90-34-12N	3/4"	1/2"
GF90-10-12N	1"	1/2"
GF90-1-34N	1"	3/4"
GF90-114-1N	1.1/4"	1"

Tech Sheet 1769

Galvanised, BSPP Female x BSPP Female

0217	Thread	Thread
GF90-12-14	1/2"	1/4"
GF90-12-38	1/2"	3/8"
GF90-34-12	3/4"	1/2"
GF90-10-12	1"	1/2"
GF90-1-34	1"	3/4"
GF90-114-1	1.1/4"	1"

Tech Sheet 1769

Male x Female Equal Elbow (92)



Black, BSPT Male x BSPP Female

0217	Thread
GF92-18N	1/8"
GF92-14N	1/4"
GF92-38N	3/8"
GF92-12N	1/2"
GF92-34N	3/4"
GF92-1N	1"
GF92-114N	1.1/4"
GF92-112N	1.1/2"
GF92-2N	2"
GF92-212N	2.1/2"
GF92-3N	3"
GF92-4N	4"

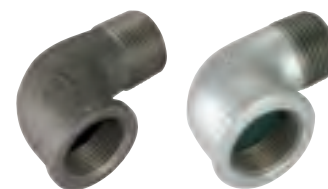
Tech Sheet 1768

Galvanised, BSPT Male x BSPP Female

0217	Thread
GF92-18	1/8"
GF92-14	1/4"
GF92-38	3/8"
GF92-12	1/2"
GF92-34	3/4"
GF92-1	1"
GF92-114	1.1/4"
GF92-112	1.1/2"
GF92-2	2"
GF92-212	2.1/2"
GF92-3	3"

Tech Sheet 1768

Male x Female Reducing Elbow (92)



Black, BSPT Male x BSPP Female

0217	Female Thread	Male Thread
GF92-34-12N	3/4"	1/2"
GF92-1-34N	1"	3/4"

Galvanised, BSPT Male x BSPP Female

0217	Female Thread	Male Thread
GF92-34-12	3/4"	1/2"
GF92-1-34	1"	3/4"

MALLEABLE IRON FITTINGS



Male Equal Elbow (94)



Black, BSPT Male

0217	Thread
GF94-34N	3/4"
GF94-1N	1"

Tech Sheet 1770

Galvanised, BSPT Male

0217	Thread
GF94-34	3/4"
GF94-1	1"

Tech Sheet 1770

Female Equal Union Elbow, Taper Seat (96)



Black, BSPP Female

0217	Thread
GF96-12N	1/2"
GF96-34N	3/4"
GF96-1N	1"
GF96-114N	1.1/4"
GF96-112N	1.1/2"
GF96-2N	2"

Tech Sheet 1771

Galvanised, BSPP Female

0217	Thread
GF96-12	1/2"
GF96-34	3/4"
GF96-1	1"
GF96-114	1.1/4"
GF96-112	1.1/2"
GF96-2	2"

Tech Sheet 1771

Male x Female Equal Union Elbow, Taper Seat (98)



Black, BSPT Male x BSPP Female

0217	Thread
GF98-12N	1/2"
GF98-34N	3/4"
GF98-1N	1"
GF98-114N	1.1/4"
GF98-112N	1.1/2"
GF98-2N	2"

Tech Sheet 1772

Galvanised, BSPT Male x BSPP Female

0217	Thread
GF98-12	1/2"
GF98-1	1"
GF98-114	1.1/4"
GF98-112	1.1/2"
GF98-2	2"

Tech Sheet 1772

Female Equal Elbow 45° (120)



Black, BSPP Female

0217	Thread
GF120-12N	1/2"
GF120-34N	3/4"
GF120-1N	1"
GF120-114N	1.1/4"
GF120-112N	1.1/2"
GF120-2N	2"
GF120-212N	2.1/2"
GF120-3N	3"

Tech Sheet 1773

Galvanised, BSPP Female

0217	Thread
GF120-12	1/2"
GF120-34	3/4"
GF120-1	1"
GF120-114	1.1/4"
GF120-112	1.1/2"
GF120-2	2"
GF120-3	3"

Tech Sheet 1773

Male x Female Equal Elbow 45° (121)



Black, BSPT Male x BSPP Female

0217	Thread
GF121-38N	3/8"
GF121-12N	1/2"
GF121-34N	3/4"
GF121-1N	1"
GF121-114N	1.1/4"
GF121-112N	1.1/2"
GF121-2N	2"

Tech Sheet 1774

Galvanised, BSPT Male x BSPP Female

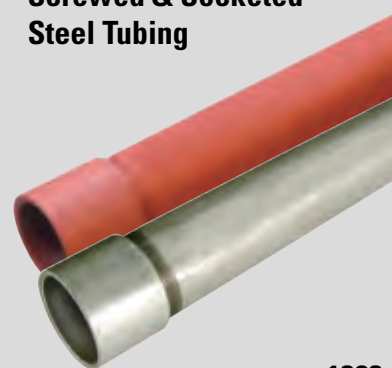
0217	Thread
GF121-38	3/8"
GF121-12	1/2"
GF121-34	3/4"
GF121-1	1"
GF121-114	1.1/4"
GF121-112	1.1/2"
GF121-2	2"
GF121-212	2.1/2"
GF121-3	3"

Tech Sheet 1774



You might also need...

Screwed & Socketed Steel Tubing



...see page 1383

MALLEABLE IRON FITTINGS



Female Equal Tee (130)



Black, BSPP Female

0217	Thread
GF130-14N	1/4"
GF130-38N	3/8"
GF130-12N	1/2"
GF130-34N	3/4"
GF130-1N	1"
GF130-114N	1.1/4"
GF130-112N	1.1/2"
GF130-2N	2"
GF130-212N	2.1/2"
GF130-3N	3"
GF130-4N	4"
GF130-5N	5"
GF130-6N	6"

Tech Sheet 1774

Galvanized, BSPP Female

0217	Thread
GF130-14	1/4"
GF130-38	3/8"
GF130-12	1/2"
GF130-34	3/4"
GF130-1	1"
GF130-114	1.1/4"
GF130-112	1.1/2"
GF130-2	2"
GF130-212	2.1/2"
GF130-3	3"
GF130-5	5"

Tech Sheet 1774

Unequal Tee, Reducing on Branch (130)



Black, BSPP

0217	Thread A	Thread B
GF130-38-14N	3/8"	1/4"
GF130-12-14N	1/2"	1/4"
GF130-12-38N	1/2"	3/8"
GF130-12-34N	1/2"	3/4"
GF130-34-14N	3/4"	1/4"
GF130-34-38N	3/4"	3/8"
GF130-34-12N	3/4"	1/2"
GF130-34-1N	3/4"	1"
GF130-1-38N	1"	3/8"
GF130-1-12N	1"	1/2"
GF130-1-34N	1"	3/4"
GF130-1-114N	1"	1.1/4"
GF130-1-112N	1"	1.1/2"
GF130-114-12N	1.1/4"	1/2"
GF130-114-34N	1.1/4"	3/4"
GF130-114-1N	1.1/4"	1"
GF130-112-12N	1.1/2"	1/2"
GF130-112-34N	1.1/2"	3/4"
GF130-112-1N	1.1/2"	1"
GF130-112-114N	1.1/2"	1.1/4"
GF130-112-2N	1.1/2"	2"
GF130-2-12N	2"	1/2"
GF130-2-34N	2"	3/4"
GF130-2-1N	2"	1"
GF130-2-114N	2"	1.1/4"
GF130-2-112N	2"	1.1/2"
GF130-2-212N	2"	2.1/2"
GF130-212-12N	2.1/2"	1/2"
GF130-212-34N	2.1/2"	3/4"
GF130-212-1N	2.1/2"	1"
GF130-212-114N	2.1/2"	1.1/4"
GF130-212-112N	2.1/2"	1.1/2"
GF130-212-2N	2.1/2"	2"
GF130-3-34N	3"	3/4"
GF130-3-1N	3"	1"
GF130-3-114N	3"	1.1/4"
GF130-3-112N	3"	1.1/2"
GF130-3-2N	3"	2"
GF130-3-212N	3"	2.1/2"
GF130-4-1N	4"	1"
GF130-4-112N	4"	1.1/2"
GF130-4-2N	4"	2"
GF130-4-212N	4"	2.1/2"
GF130-4-3N	4"	3"

Tech Sheet 1775



Galvanized, BSPP

0217	Thread A	Thread B
GF130-38-14	3/8"	1/4"
GF130-12-14	1/2"	1/4"
GF130-12-38	1/2"	3/8"
GF130-12-34	1/2"	3/4"
GF130-34-14	3/4"	1/4"
GF130-34-38	3/4"	3/8"
GF130-34-12	3/4"	1/2"
GF130-34-1	3/4"	1"
GF130-1-38	1"	3/8"
GF130-1-12	1"	1/2"
GF130-1-34	1"	3/4"
GF130-1-114	1"	1.1/4"
GF130-1-112	1"	1.1/2"
GF130-114-12	1.1/4"	1/2"
GF130-114-34	1.1/4"	3/4"
GF130-114-1	1.1/4"	1"
GF130-112-12	1.1/2"	1/2"
GF130-112-34	1.1/2"	3/4"
GF130-112-1	1.1/2"	1"
GF130-112-114	1.1/2"	1.1/4"
GF130-112-2	1.1/2"	2"
GF130-2-12	2"	1/2"
GF130-2-34	2"	3/4"
GF130-2-1	2"	1"
GF130-2-114	2"	1.1/4"
GF130-2-112	2"	1.1/2"
GF130-2-212	2"	2.1/2"
GF130-212-12	2.1/2"	1/2"
GF130-212-34	2.1/2"	3/4"
GF130-212-1	2.1/2"	1"
GF130-212-114	2.1/2"	1.1/4"
GF130-212-112	2.1/2"	1.1/2"
GF130-212-2	2.1/2"	2"
GF130-3-34	3"	3/4"
GF130-3-1	3"	1"
GF130-3-114	3"	1.1/4"
GF130-3-112	3"	1.1/2"
GF130-3-2	3"	2"
GF130-3-212	3"	2.1/2"
GF130-4-1	4"	1"
GF130-4-112	4"	1.1/2"
GF130-4-2	4"	2"
GF130-4-3	4"	3"

Tech Sheet 1775

MALLEABLE IRON FITTINGS



Unequal Tee, Reducing on Run/Branch (130)



Black, BSPP

0217	Thread A	Thread B	Thread C
GF130-12-38-38N	1/2"	3/8"	3/8"
GF130-34-12-12N	3/4"	1/2"	1/2"
GF130-34-12-34N	3/4"	1/2"	3/4"
GF130-1-12-1N	1"	1/2"	1"
GF130-1-34-12N	1"	3/4"	1/2"
GF130-1-34-34N	1"	3/4"	3/4"
GF130-1-34-1N	1"	3/4"	1"
GF130-114-12114N	1.1/4"	1/2"	1.1/4"
GF130-114-1-12N	1.1/4"	1"	1/2"
GF130-114-1-34N	1.1/4"	1"	3/4"
GF130-114-1-1N	1.1/4"	1"	1"
GF130-114-1-114N	1.1/4"	1"	1.1/4"
GF130-112-12112N	1.1/2"	1/2"	1.1/2"
GF130-112-1-1N	1.1/2"	1"	1"
GF130-112-1-112N	1.1/2"	1"	1.1/2"
GF130-112-11412N	1.1/2"	1.1/4"	1/2"
GF130-112-114-1N	1.1/2"	1.1/4"	1"
GF130-112114114N	1.1/2"	1.1/4"	1.1/4"
GF130-2-12-2N	2"	1/2"	2"
GF130-2-34-2N	2"	3/4"	2"
GF130-2-1-2N	2"	1"	2"
GF130-2-112-1N	2"	1.1/2"	1"
GF130-2-112-114N	2"	1.1/2"	1.1/4"
GF130-2-112-112N	2"	1.1/2"	1.1/2"
GF130-2-112-2N	2"	1.1/2"	2"
GF130-212112212N	2.1/2"	1.1/2"	2.1/2"
GF130-212-2-2N	2.1/2"	2"	2"

Tech Sheet 1776



Galvanised, BSPP

0217	Thread A	Thread B	Thread C
GF130-12-38-38	1/2"	3/8"	3/8"
GF130-34-12-12	3/4"	1/2"	1/2"
GF130-34-12-34	3/4"	1/2"	3/4"
GF130-1-12-1	1"	1/2"	1"
GF130-1-34-12	1"	3/4"	1/2"
GF130-1-34-34	1"	3/4"	3/4"
GF130-1-34-1	1"	3/4"	1"
GF130-114-12-114	1.1/4"	1/2"	1.1/4"
GF130-114-1-12	1.1/4"	1"	1/2"
GF130-114-1-34	1.1/4"	1"	3/4"
GF130-114-1-1	1.1/4"	1"	1"
GF130-114-1-114	1.1/4"	1"	1.1/4"
GF130-112-12-112	1.1/2"	1/2"	1.1/2"
GF130-112-1-1	1.1/2"	1"	1"
GF130-112-1-112	1.1/2"	1"	1.1/2"
GF130-112-11412	1.1/2"	1.1/4"	1/2"
GF130-112-114-1	1.1/2"	1.1/4"	1"
GF130-112-114114	1.1/2"	1.1/4"	1.1/4"
GF130-2-12-2	2"	1/2"	2"
GF130-2-34-2	2"	3/4"	2"
GF130-2-1-2	2"	1"	2"
GF130-2-112-1	2"	1.1/2"	1"
GF130-2-112-114	2"	1.1/2"	1.1/4"
GF130-2-112-2	2"	1.1/2"	2"
GF130-212-112212	2.1/2"	1.1/2"	2.1/2"
GF130-212-2-2	2.1/2"	2"	2"
GF130-3-2-2	3"	2"	2"

Tech Sheet 1776

Female Equal Pitcher Tee (131)



Black, BSPP Female

0217	Thread
GF131-12N	1/2"
GF131-34N	3/4"
GF131-1N	1"
GF131-114N	1.1/4"
GF131-112N	1.1/2"
GF131-2N	2"
GF131-212N	2.1/2"
GF131-3N	3"
GF131-4N	4"

Tech Sheet 1776

Galvanised, BSPP Female

0217	Thread
GF131-12	1/2"
GF131-34	3/4"
GF131-1	1"
GF131-114	1.1/4"
GF131-112	1.1/2"
GF131-2	2"
GF131-212	2.1/2"
GF131-3	3"

Tech Sheet 1776



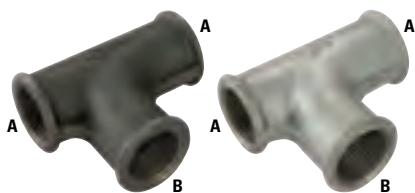
For **Flexible Rubber Bellows**
see page **1388**



MALLEABLE IRON FITTINGS



Female Pitcher Tee, Reducing on Branch (131)



Black, BSPP

0217	Thread A	Thread B
GF131-34-12N	3/4"	1/2"
GF131-1-12N	1"	1/2"
GF131-1-34N	1"	3/4"
GF131-114-12N	1.1/4"	1/2"
GF131-114-34N	1.1/4"	3/4"
GF131-114-1N	1.1/4"	1"
GF131-112-34N	1.1/2"	3/4"
GF131-112-1N	1.1/2"	1"
GF131-112-114N	1.1/2"	1.1/4"
GF131-2-34N	2"	3/4"
GF131-2-1N	2"	1"
GF131-2-114N	2"	1.1/4"
GF131-2-112N	2"	1.1/2"
GF131-3-2N	3"	2"

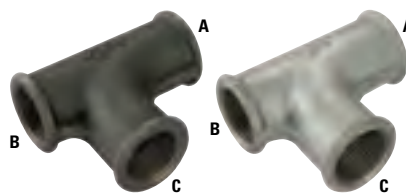
Tech Sheet 1777

Galvanised, BSPP

0217	Thread A	Thread B
GF131-34-12	3/4"	1/2"
GF131-1-12	1"	1/2"
GF131-1-34	1"	3/4"
GF131-114-12	1.1/4"	1/2"
GF131-114-34	1.1/4"	3/4"
GF131-114-1	1.1/4"	1"
GF131-112-34	1.1/2"	3/4"
GF131-112-1	1.1/2"	1"
GF131-112-114	1.1/2"	1.1/4"
GF131-2-34	2"	3/4"
GF131-2-1	2"	1"
GF131-2-114	2"	1.1/4"
GF131-2-112	2"	1.1/2"
GF131-212-114	2.1/2"	1.1/4"
GF131-3-2	3"	2"

Tech Sheet 1777

Female Pitcher Tee, Reducing on Run/Branch (131)



Black, BSPP

0217	Thread A	Thread B	Thread C
GF131-34-12-12N	3/4"	1/2"	1/2"
GF131-1-34-34N	1"	3/4"	3/4"

Tech Sheet 1777

Galvanised, BSPP

0217	Thread A	Thread B	Thread C
GF131-34-12-12	3/4"	1/2"	1/2"
GF131-1-34-34	1"	3/4"	3/4"

Tech Sheet 1777

Female Equal Twin Elbow (132)



Black, BSPP Female

0217	Thread
GF132-12N	1/2"
GF132-34N	3/4"
GF132-1N	1"
GF132-114N	1.1/4"
GF132-112N	1.1/2"
GF132-2N	2"

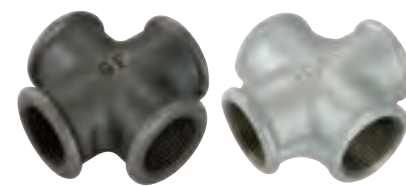
Tech Sheet 1778

Galvanised, BSPP Female

0217	Thread
GF132-12	1/2"
GF132-34	3/4"
GF132-1	1"
GF132-114	1.1/4"
GF132-112	1.1/2"

Tech Sheet 1778

Female Equal Cross (180)



Black, BSPP Female

0217	Thread
GF180-12N	1/2"
GF180-34N	3/4"
GF180-1N	1"
GF180-114N	1.1/4"
GF180-112N	1.1/2"
GF180-2N	2"
GF180-212N	2.1/2"
GF180-3N	3"
GF180-4N	4"

Tech Sheet 1779

Galvanised, BSPP Female

0217	Thread
GF180-12	1/2"
GF180-34	3/4"
GF180-1	1"
GF180-114	1.1/4"
GF180-112	1.1/2"
GF180-2	2"
GF180-212	2.1/2"
GF180-3	3"
GF180-4	4"

Tech Sheet 1779

MALLEABLE IRON FITTINGS



Female Reducing Socket (240)



Black, BSPP Female

0217	Thread	Thread
GF240-14-18N *	1/4"	1/8"
GF240-38-14N *	3/8"	1/4"
GF240-12-14N	1/2"	1/4"
GF240-12-38N	1/2"	3/8"
GF240-34-38N	3/4"	3/8"
GF240-34-12N	3/4"	1/2"
GF240-1-12N	1"	1/2"
GF240-1-34N	1"	3/4"
GF240-114-12N	1.1/4"	1/2"
GF240-114-34N	1.1/4"	3/4"
GF240-114-1N	1.1/4"	1"
GF240-112-12N	1.1/2"	1/2"
GF240-112-34N	1.1/2"	3/4"
GF240-112-1N	1.1/2"	1"
GF240-112-114N	1.1/2"	1.1/4"
GF240-2-34N	2"	3/4"
GF240-2-1N	2"	1"
GF240-2-114N	2"	1.1/4"
GF240-2-112N	2"	1.1/2"
GF240-212-112N	2.1/2"	1.1/2"
GF240-212-2N	2.1/2"	2"
GF240-3-112N	3"	1.1/2"
GF240-3-2N	3"	2"
GF240-3-212N	3"	2.1/2"
GF240-4-2N	4"	2"
GF240-4-212N	4"	2.1/2"
GF240-4-3N	4"	3"

Tech Sheet 1780



Galvanised, BSPP Female

0217	Thread	Thread
GF240-14-18 *	1/4"	1/8"
GF240-38-14 *	3/8"	1/4"
GF240-12-14	1/2"	1/4"
GF240-34-38	3/4"	3/8"
GF240-34-12	3/4"	1/2"
GF240-1-12	1"	1/2"
GF240-1-34	1"	3/4"
GF240-114-12	1.1/4"	1/2"
GF240-114-34	1.1/4"	3/4"
GF240-114-1	1.1/4"	1"
GF240-112-12	1.1/2"	1/2"
GF240-112-34	1.1/2"	3/4"
GF240-112-1	1.1/2"	1"
GF240-112-114	1.1/2"	1.1/4"
GF240-2-34	2"	3/4"
GF240-2-1	2"	1"
GF240-2-114	2"	1.1/4"
GF240-2-112	2"	1.1/2"
GF240-212-112	2.1/2"	1.1/2"
GF240-212-2	2.1/2"	2"
GF240-3-112	3"	1.1/2"
GF240-3-2	3"	2"
GF240-3-212	3"	2.1/2"
GF240-4-2	4"	2"
GF240-4-212	4"	2.1/2"
GF240-4-3	4"	3"

Tech Sheet 1780

*These types of fittings are made of steel (galvanised finish – electro plated) and therefore unsuitable for potable water installations.



For Pipeclamps Handrail Systems
see page 1393



MALLEABLE IRON FITTINGS



Male x Female Reducing Bush (241)



Black, BSPT Male x BSPP Female

0217	Thread	Thread
GF241-14-18N*	1/4"	1/8"
GF241-38-18N*	3/8"	1/8"
GF241-38-14N*	3/8"	1/4"
GF241-12-18N	1/2"	1/8"
GF241-12-14N	1/2"	1/4"
GF241-12-38N	1/2"	3/8"
GF241-34-14N	3/4"	1/4"
GF241-34-38N	3/4"	3/8"
GF241-34-12N	3/4"	1/2"
GF241-1-14N	1"	1/4"
GF241-1-38N	1"	3/8"
GF241-1-12N	1"	1/2"
GF241-1-34N	1"	3/4"
GF241-114-38N	1.1/4"	3/8"
GF241-114-12N	1.1/4"	1/2"
GF241-114-34N	1.1/4"	3/4"
GF241-114-1N	1.1/4"	1"
GF241-112-38N	1.1/2"	3/8"
GF241-112-12N	1.1/2"	1/2"
GF241-112-34N	1.1/2"	3/4"
GF241-112-1N	1.1/2"	1"
GF241-112-114N	1.1/2"	1.1/4"
GF241-2-12N	2"	1/2"
GF241-2-34N	2"	3/4"
GF241-2-1N	2"	1"
GF241-2-114N	2"	1.1/4"
GF241-2-112N	2"	1.1/2"
GF241-212-1N	2.1/2"	1"
GF241-212-114N	2.1/2"	1.1/4"
GF241-212-112N	2.1/2"	1.1/2"
GF241-212-2N	2.1/2"	2"
GF241-3-1N	3"	1"
GF241-3-114N	3"	1.1/4"
GF241-3-112N	3"	1.1/2"
GF241-3-2N	3"	2"
GF241-3-212N	3"	2.1/2"
GF241-4-2N	4"	2"
GF241-4-212N	4"	2.1/2"
GF241-4-3N	4"	3"
GF241-6-4N	6"	4"

Tech Sheet 1781



Galvanised, BSPT Male x BSPP Female

0217	Thread	Thread
GF241-14-18*	1/4"	1/8"
GF241-38-18*	3/8"	1/8"
GF241-38-14*	3/8"	1/4"
GF241-12-18	1/2"	1/8"
GF241-12-14	1/2"	1/4"
GF241-12-38	1/2"	3/8"
GF241-34-14	3/4"	1/4"
GF241-34-38	3/4"	3/8"
GF241-34-12	3/4"	1/2"
GF241-1-14	1"	1/4"
GF241-1-38	1"	3/8"
GF241-1-12	1"	1/2"
GF241-1-34	1"	3/4"
GF241-114-38	1.1/4"	3/8"
GF241-114-12	1.1/4"	1/2"
GF241-114-34	1.1/4"	3/4"
GF241-114-1	1.1/4"	1"
GF241-112-38	1.1/2"	3/8"
GF241-112-12	1.1/2"	1/2"
GF241-112-34	1.1/2"	3/4"
GF241-112-1	1.1/2"	1"
GF241-112-114	1.1/2"	1.1/4"
GF241-2-12	2"	1/2"
GF241-2-34	2"	3/4"
GF241-2-1	2"	1"
GF241-2-114	2"	1.1/4"
GF241-2-112	2"	1.1/2"
GF241-212-1	2.1/2"	1"
GF241-212-114	2.1/2"	1.1/4"
GF241-212-2	2.1/2"	2"
GF241-3-1	3"	1"
GF241-3-114	3"	1.1/4"
GF241-3-112	3"	1.1/2"
GF241-3-2	3"	2"
GF241-3-212	3"	2.1/2"
GF241-4-2	4"	2"
GF241-4-212	4"	2.1/2"
GF241-4-3	4"	3"

Tech Sheet 1781

Male Reducing Hexagon Nipple (245)



Black, BSPT Male x BSPT Male

0217	Thread	Thread
GF245-14-18N*	1/4"	1/8"
GF245-38-14N*	3/8"	1/4"
GF245-12-14N	1/2"	1/4"
GF245-12-38N	1/2"	3/8"
GF245-34-38N	3/4"	3/8"
GF245-34-12N	3/4"	1/2"
GF245-1-12N	1"	1/2"
GF245-1-34N	1"	3/4"
GF245-114-34N	1.1/4"	3/4"
GF245-114-1N	1.1/4"	1"
GF245-112-1N	1.1/2"	1"
GF245-112-114N	1.1/2"	1.1/4"
GF245-2-1N	2"	1"
GF245-2-114N	2"	1.1/4"
GF245-2-112N	2"	1.1/2"
GF245-3-2N	3"	2"

Tech Sheet 1782

Galvanised, BSPT Male x BSPT Male

0217	Thread	Thread
GF245-14-18*	1/4"	1/8"
GF245-38-14*	3/8"	1/4"
GF245-12-14	1/2"	1/4"
GF245-12-38	1/2"	3/8"
GF245-34-38	3/4"	3/8"
GF245-34-12	3/4"	1/2"
GF245-1-12	1"	1/2"
GF245-1-34	1"	3/4"
GF245-114-34	1.1/4"	3/4"
GF245-114-1	1.1/4"	1"
GF245-112-1	1.1/2"	1"
GF245-112-114	1.1/2"	1.1/4"
GF245-2-1	2"	1"
GF245-2-114	2"	1.1/4"
GF245-2-112	2"	1.1/2"

Tech Sheet 1782

*These types of fittings are made of steel (galvanised finish – electro plated) and therefore unsuitable for potable water installations.

MALLEABLE IRON FITTINGS



Male x Female Reducing Socket (246)



Black, BSPT Male x BSPP Female

0217	Female Thread	Male Thread
GF246-34-12N	3/4"	1/2"
GF246-1-34N	1"	3/4"
GF246-114-1N	1.1/4"	1"

Tech Sheet 1783

Galvanised, BSPT Male x BSPP Female

0217	Female Thread	Male Thread
GF246-1-34	1"	3/4"
GF246-114-1	1.1/4"	1"

Tech Sheet 1783

Female Reducing Socket, Eccentric (260)



Black, BSPP Female x BSPP Female

0217	Thread	Thread
GF260-34-12N	3/4"	1/2"
GF260-1-12N	1"	1/2"
GF260-1-34N	1"	3/4"
GF260-114-12N	1.1/4"	1/2"
GF260-114-34N	1.1/4"	3/4"
GF260-114-1N	1.1/4"	1"
GF260-112-1N	1.1/2"	1"
GF260-112-114N	1.1/2"	1.1/4"
GF260-2-12N	2"	1/2"
GF260-2-1N	2"	1"
GF260-2-114N	2"	1.1/4"
GF260-2-112N	2"	1.1/2"

Tech Sheet 1784

Galvanised, BSPP Female x BSPP Female

0217	Thread	Thread
GF260-34-12	3/4"	1/2"
GF260-1-12	1"	1/2"
GF260-1-34	1"	3/4"
GF260-114-12	1.1/4"	1/2"
GF260-114-34	1.1/4"	3/4"
GF260-114-1	1.1/4"	1"
GF260-112-1	1.1/2"	1"
GF260-112-114	1.1/2"	1.1/4"
GF260-2-12	2"	1/2"
GF260-2-1	2"	1"
GF260-2-114	2"	1.1/4"
GF260-2-112	2"	1.1/2"

Tech Sheet 1784

Female Equal Socket (270)



Black, BSPP Female

0217	Thread
GF270-18N*	1/8"
GF270-14N*	1/4"
GF270-38N	3/8"
GF270-12N	1/2"
GF270-34N	3/4"
GF270-1N	1"
GF270-114N	1.1/4"
GF270-112N	1.1/2"
GF270-2N	2"
GF270-212N	2.1/2"
GF270-3N	3"
GF270-4N	4"

Tech Sheet 1785

Galvanised, BSPP Female

0217	Thread
GF270-18*	1/8"
GF270-14*	1/4"
GF270-38	3/8"
GF270-12	1/2"
GF270-34	3/4"
GF270-1	1"
GF270-114	1.1/4"
GF270-112	1.1/2"
GF270-2	2"
GF270-212	2.1/2"
GF270-3	3"
GF270-4	4"

Tech Sheet 1785

*These types of fittings are made of steel (galvanised finish – electro plated) and therefore unsuitable for potable water installations.



For **Disability Access**
see page 1398

MALLEABLE IRON FITTINGS



Male Equal Hexagon Nipple (280)



Black, BSPT Male

0217	Thread
GF280-18N*	1/8"
GF280-14N*	1/4"
GF280-38N	3/8"
GF280-12N	1/2"
GF280-34N	3/4"
GF280-1N	1"
GF280-114N	1.1/4"
GF280-112N	1.1/2"
GF280-2N	2"
GF280-212N	2.1/2"
GF280-3N	3"
GF280-4N	4"

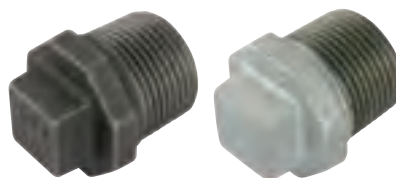
Tech Sheet 1786

Galvanised, BSPT Male

0217	Thread
GF280-18*	1/8"
GF280-14*	1/4"
GF280-38	3/8"
GF280-12	1/2"
GF280-34	3/4"
GF280-1	1"
GF280-114	1.1/4"
GF280-112	1.1/2"
GF280-2	2"
GF280-212	2.1/2"
GF280-3	3"
GF280-4	4"

Tech Sheet 1786

Plug, Beaded Hollow (290)



Black

0217	Thread
GF290-14N	1/4"
GF290-38N	3/8"
GF290-12N	1/2"
GF290-34N	3/4"
GF290-1N	1"
GF290-114N	1.1/4"
GF290-112N	1.1/2"
GF290-2N	2"

Tech Sheet 1787

Galvanised

0217	Thread
GF290-14	1/4"
GF290-38	3/8"
GF290-12	1/2"
GF290-34	3/4"
GF290-1	1"
GF290-114	1.1/4"
GF290-112	1.1/2"
GF290-2	2"

Tech Sheet 1787

Plug, Plain Hollow (291)



Black, BSPT

0217	Thread
GF291-12N	1/2"
GF291-34N	3/4"
GF291-1N	1"
GF291-114N	1.1/4"
GF291-112N	1.1/2"
GF291-2N	2"
GF291-212N	2.1/2"
GF291-3N	3"
GF291-4N	4"

Tech Sheet 1788

Galvanised, BSPT

0217	Thread
GF291-12	1/2"
GF291-34	3/4"
GF291-1	1"
GF291-114	1.1/4"
GF291-112	1.1/2"
GF291-2	2"
GF291-212	2.1/2"
GF291-3	3"
GF291-4	4"

Tech Sheet 1788

These fittings are made of malleable iron (grey cast iron) and are therefore unsuitable for potable water installations.

NORMA

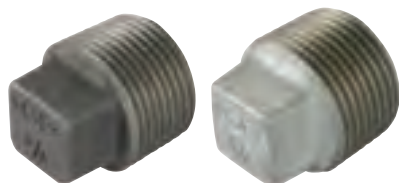
For **Pipe Repair Couplings**
see page 1557



MALLEABLE IRON FITTINGS



Plug, Plain Solid (291S)



Black, BSPT

0217	Thread
GF291S-18N*	1/8"
GF291S-14N*	1/4"
GF291S-12N	1/2"
GF291S-34N	3/4"
GF291S-1N	1"
GF291S-114N	1.1/4"
GF291S-112N	1.1/2"
GF291S-2N	2"

Tech Sheet 1788

Galvanised, BSPT

0217	Thread
GF291S-14	1/4"
GF291S-38	3/8"
GF291S-12	1/2"
GF291S-34	3/4"
GF291S-1	1"
GF291S-114	1.1/4"
GF291S-112	1.1/2"
GF291S-2	2"

Tech Sheet 1788

Cap (300)



Black, BSPP

0217	Thread
GF300-14N	1/4"
GF300-38N	3/8"
GF300-12N	1/2"
GF300-34N	3/4"
GF300-1N	1"
GF300-114N	1.1/4"
GF300-112N	1.1/2"
GF300-2N	2"
GF300-212N	2.1/2"
GF300-3N	3"
GF300-4N	4"

Tech Sheet 1789

Galvanised, BSPP

0217	Thread
GF300-14	1/4"
GF300-12	1/2"
GF300-34	3/4"
GF300-1	1"
GF300-114	1.1/4"
GF300-112	1.1/2"
GF300-2	2"
GF300-212	2.1/2"
GF300-3	3"
GF300-4	4"

Tech Sheet 1789

Backnut, Recessed (312)



Black

0217	Thread
GF312-14N*	1/4"
GF312-12N	1/2"
GF312-34N	3/4"
GF312-1N	1"
GF312-114N	1.1/4"
GF312-112N	1.1/2"
GF312-2N	2"

Tech Sheet 1790

Galvanised

0217	Thread
GF312-38*	3/8"
GF312-12	1/2"
GF312-34	3/4"
GF312-1	1"
GF312-114	1.1/4"
GF312-112	1.1/2"
GF312-2	2"

Tech Sheet 1790

Flange, Undrilled (321)



Black

0217	Thread
GF321-12N	1/2"
GF321-1N	1"
GF321-114N	1.1/4"
GF321-112N	1.1/2"
GF321-2N	2"

Tech Sheet 1790

Galvanised

0217	Thread
GF321-34	3/4"
GF321-1	1"
GF321-114	1.1/4"
GF321-112	1.1/2"

Tech Sheet 1790

These fittings are not suitable for potable water installations and therefore unsuitable for potable water installations.

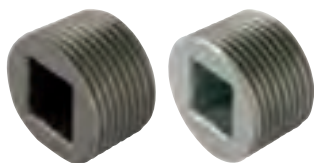


For **Stainless Steel Press Fit Piping System**
see pages 1118-1126

MALLEABLE IRON FITTINGS



Plug, Recessed (596)



Black, BSPT

0217	Thread
GF596-14N	1/4"
GF596-38N	3/8"
GF596-12N	1/2"
GF596-34N	3/4"
GF596-1N	1"
GF596-114N	1.1/4"
GF596-112N	1.1/2"
GF596-2N	2"

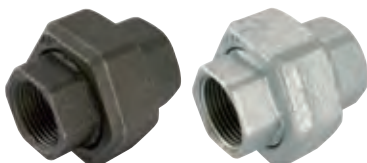
Tech Sheet 20758

Galvanised, BSPT

0217	Thread
GF596-14	1/4"
GF596-38	3/8"
GF596-12	1/2"
GF596-34	3/4"
GF596-1	1"
GF596-114	1.1/4"
GF596-112	1.1/2"

Tech Sheet 20758

Female Equal Union, Flat Seat (330)



Black, BSPP Female

0217	Thread
GF330-12N	1/2"
GF330-34N	3/4"
GF330-1N	1"
GF330-114N	1.1/4"
GF330-112N	1.1/2"
GF330-2N	2"

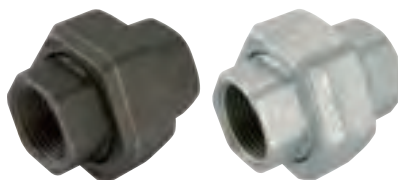
Tech Sheet 1791

Galvanised, BSPP Female

0217	Thread
GF330-12	1/2"
GF330-34	3/4"
GF330-1	1"
GF330-114	1.1/4"
GF330-112	1.1/2"
GF330-2	2"

Tech Sheet 1791

Female Equal Union, Iron to Iron, Taper Seat (340)



Black, BSPP Female

0217	Thread
GF340-14N	1/4"
GF340-38N	3/8"
GF340-12N	1/2"
GF340-34N	3/4"
GF340-1N	1"
GF340-114N	1.1/4"
GF340-112N	1.1/2"
GF340-2N	2"
GF340-212N	2.1/2"
GF340-4N	4"

Tech Sheet 1792

Galvanised, BSPP Female

0217	Thread
GF340-14	1/4"
GF340-38	3/8"
GF340-12	1/2"
GF340-34	3/4"
GF340-1	1"
GF340-114	1.1/4"
GF340-112	1.1/2"
GF340-2	2"
GF340-212	2.1/2"
GF340-3	3"
GF340-4	4"

Tech Sheet 1792

Male x Female Equal Union, Iron to Iron, Taper Seat (341)



Black, BSPT Male x BSPP Female

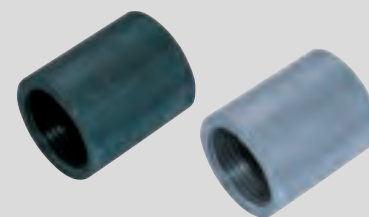
0217	Thread
GF341-14N	1/4"
GF341-38N	3/8"
GF341-12N	1/2"
GF341-34N	3/4"
GF341-1N	1"
GF341-114N	1.1/4"
GF341-112N	1.1/2"
GF341-2N	2"
GF341-3N	3"

Tech Sheet 1792

Galvanised, BSPT Male x BSPP Female

0217	Thread
GF341-14	1/4"
GF341-38	3/8"
GF341-12	1/2"
GF341-34	3/4"
GF341-1	1"
GF341-114	1.1/4"
GF341-112	1.1/2"
GF341-2	2"
GF341-212	2.1/2"
GF341-3	3"

Tech Sheet 1792



For Wrought Iron Sockets
see page 1385

MALLEABLE IRON FITTINGS



Female Equal Union, Bronze to Iron, Spherical Seat (342)



Black, BSPP Female

0217	Thread
GF342-12N	1/2"
GF342-34N	3/4"
GF342-1N	1"
GF342-114N	1.1/4"
GF342-112N	1.1/2"
GF342-2N	2"

Tech Sheet 1793

Galvanised, BSPP Female

0217	Thread
GF342-12	1/2"
GF342-34	3/4"
GF342-1	1"
GF342-114	1.1/4"
GF342-112	1.1/2"
GF342-2	2"

Tech Sheet 1793

Female Equal Mac Union, 2 Spherical Seats (346)



Black, BSPP Female

0217	Thread
GF346-12N	1/2"
GF346-34N	3/4"
GF346-1N	1"
GF346-114N	1.1/4"
GF346-112N	1.1/2"
GF346-2N	2"

Tech Sheet 1794

Galvanised, BSPP Female

0217	Thread
GF346-12	1/2"
GF346-34	3/4"
GF346-1	1"
GF346-114	1.1/4"
GF346-112	1.1/2"
GF346-2	2"

Tech Sheet 1794

Female Equal Union, Navy Pattern, Bronze to Bronze, Spherical Seat (342a)



Black, BSPP Female

0217	Thread
GF342A-12N	1/2"
GF342A-34N	3/4"
GF342A-1N	1"
GF342A-114N	1.1/4"
GF342A-112N	1.1/2"
GF342A-2N	2"

Tech Sheet 1793

Galvanised, BSPP Female

0217	Thread
GF342A-12	1/2"
GF342A-34	3/4"
GF342A-1	1"
GF342A-114	1.1/4"
GF342A-112	1.1/2"
GF342A-2	2"

Tech Sheet 1793



For **X1 Maintenance Sprays**
see page **1568**

MALLEABLE IRON FITTINGS

CRANE
Material:

Crane malleable iron is of the Blackheart type ideally suited to pipe fitting and manufacture and conforms to BSEN1562 Designation EN-GJMB-300-6, ASTM A197 and ISO 5922.

Galvanised Finish:

Hot dip zinc coated (galvanised) prior to machining. Coating conforms to BSEN ISO1461 1998 and ASTM 153.

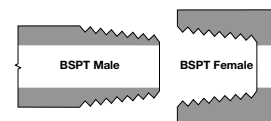
Thread:

Taper threads to BS21 (ISO 7)

Media:

Suitable for transfer or flow of water, steam, gas and other non aggressive media.

- BSI Kitemark approved
- PN25



Hexagon Nipple (Fig 144)


Black, BSPT

1091	Thread
C144-12N	1/2"
C144-34N	3/4"
C144-1N	1"
C144-114N	1.1/4"
C144-112N	1.1/2"
C144-2N	2"
C144-212N	2.1/2"
C144-3N	3"
C144-4N	4"

Tech Sheet 10655

Galvanised, BSPT

1091	Thread
C144-14	1/4"
C144-38	3/8"
C144-12	1/2"
C144-34	3/4"
C144-1	1"
C144-114	1.1/4"
C144-112	1.1/2"
C144-2	2"
C144-212	2.1/2"
C144-3	3"
C144-4	4"

Tech Sheet 10655

Hexagon Reducing Nipple (Fig 145)


Black, BSPT

1091	Thread	Thread
C145-34-12N	3/4"	1/2"
C145-1-12N	1"	1/2"
C145-1-34N	1"	3/4"
C145-114-1N	1.1/4"	1"
C145-2-114N	2"	1.1/4"
C145-2-112N	2"	1.1/2"

Tech Sheet 10655

Galvanised, BSPT

1091	Thread	Thread
C145-34-12	3/4"	1/2"
C145-1-12	1"	1/2"
C145-1-34	1"	3/4"
C145-114-1	1.1/4"	1"
C145-112-114	1.1/2"	1.1/4"
C145-2-1	2"	1"
C145-2-112	2"	1.1/2"

Tech Sheet 10655

Male x Female Equal Union (Fig 257)


Black, BSPT

1091	Thread
C257-12N	1/2"
C257-34N	3/4"
C257-1N	1"
C257-114N	1.1/4"
C257-112N	1.1/2"
C257-2N	2"

Tech Sheet 20764

Galvanised, BSPT

1091	Thread
C257-12	1/2"
C257-34	3/4"
C257-1	1"
C257-114	1.1/4"
C257-112	1.1/2"
C257-2	2"

Tech Sheet 20764

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.



Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

MALLEABLE IRON FITTINGS

CRANE

Hexagon Bush (Fig 140)



Black, BSPT

1091	Male Thread	Female Thread
C140-12-18N	1/2"	1/8"
C140-12-14N	1/2"	1/4"
C140-12-38N	1/2"	3/8"
C140-34-18N	3/4"	1/8"
C140-34-14N	3/4"	1/4"
C140-34-38N	3/4"	3/8"
C140-34-12N	3/4"	1/2"
C140-1-14N	1"	1/4"
C140-1-38N	1"	3/8"
C140-1-12N	1"	1/2"
C140-1-34N	1"	3/4"
C140-114-34N	1.1/4"	3/4"
C140-114-1N	1.1/4"	1"
C140-112-12N	1.1/2"	1/2"
C140-112-34N	1.1/2"	3/4"
C140-112-1N	1.1/2"	1"
C140-112-114N	1.1/2"	1.1/4"
C140-2-12N	2"	1/2"
C140-2-34N	2"	3/4"
C140-2-1N	2"	1"
C140-2-114N	2"	1.1/4"
C140-2-112N	2"	1.1/2"
C140-212-12N	2.1/2"	1/2"
C140-212-1N	2.1/2"	1"
C140-212-114N	2.1/2"	1.1/4"
C140-212-112N	2.1/2"	1.1/2"
C140-212-2N	2.1/2"	2"
C140-3-114N	3"	1.1/4"
C140-3-112N	3"	1.1/2"
C140-3-2N	3"	2"
C140-3-212N	3"	2.1/2"
C140-4-2N	4"	2"
C140-4-212N	4"	2.1/2"
C140-4-3N	4"	3"

Tech Sheet 10671



Galvanised, BSPT

1091	Male Thread	Female Thread
C140-14-18	1/4"	1/8"
C140-38-18	3/8"	1/8"
C140-12-18	1/2"	1/8"
C140-12-14	1/2"	1/4"
C140-12-38	1/2"	3/8"
C140-34-18	3/4"	1/8"
C140-34-14	3/4"	1/4"
C140-34-38	3/4"	3/8"
C140-34-12	3/4"	1/2"
C140-1-14	1"	1/4"
C140-1-38	1"	3/8"
C140-1-12	1"	1/2"
C140-1-34	1"	3/4"
C140-114-12	1.1/4"	1/2"
C140-114-34	1.1/4"	3/4"
C140-114-1	1.1/4"	1"
C140-112-12	1.1/2"	1/2"
C140-112-34	1.1/2"	3/4"
C140-112-1	1.1/2"	1"
C140-112-114	1.1/2"	1.1/4"
C140-2-12	2"	1/2"
C140-2-34	2"	3/4"
C140-2-1	2"	1"
C140-2-114	2"	1.1/4"
C140-2-112	2"	1.1/2"
C140-212-12	2.1/2"	1/2"
C140-212-114	2.1/2"	1.1/4"
C140-212-112	2.1/2"	1.1/2"
C140-212-2	2.1/2"	2"
C140-3-1	3"	1"
C140-3-112	3"	1.1/2"
C140-3-2	3"	2"
C140-3-212	3"	2.1/2"
C140-4-2	4"	2"
C140-4-3	4"	3"

Tech Sheet 10671

Female Equal Socket (Fig 176)



Black, BSPP

1091	Thread
C176-12N	1/2"
C176-34N	3/4"
C176-1N	1"
C176-114N	1.1/4"
C176-112N	1.1/2"
C176-2N	2"

Tech Sheet 10670

Galvanised, BSPP

1091	Thread
C176-12	1/2"
C176-34	3/4"
C176-1	1"
C176-114	1.1/4"
C176-112	1.1/2"
C176-2	2"

Tech Sheet 10670

Female Equal Socket (Fig 177)



Black, BSPT

1091	Thread
C177-12N	1/2"
C177-34N	3/4"
C177-1N	1"
C177-114N	1.1/4"
C177-112N	1.1/2"
C177-2N	2"
C177-212N	2.1/2"
C177-3N	3"

Tech Sheet 10670

Galvanised, BSPT

1091	Thread
C177-12	1/2"
C177-34	3/4"
C177-1	1"
C177-114	1.1/4"
C177-112	1.1/2"
C177-2	2"

Tech Sheet 10670

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.

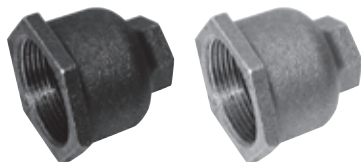


Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

MALLEABLE IRON FITTINGS

CRANE

Reducing Socket (Fig 179)



Black, BSPT

1091	Thread	Thread
C179-34-12N	3/4"	1/2"
C179-1-12N	1"	1/2"
C179-1-34N	1"	3/4"
C179-114-12N	1.1/4"	1/2"
C179-114-1N	1.1/4"	1"
C179-112-1N	1.1/2"	1"
C179-112-114N	1.1/2"	1.1/4"
C179-2-1N	2"	1"
C179-2-114N	2"	1.1/4"
C179-2-112N	2"	1.1/2"

Tech Sheet 20774

Galvanised, BSPT

1091	Thread	Thread
C179-12-38	1/2"	3/8"
C179-34-12	3/4"	1/2"
C179-1-12	1"	1/2"
C179-1-34	1"	3/4"
C179-114-34	1.1/4"	3/4"
C179-114-1	1.1/4"	1"
C179-112-1	1.1/2"	1"
C179-112-114	1.1/2"	1.1/4"
C179-2-1	2"	1"
C179-2-114	2"	1.1/4"
C179-2-112	2"	1.1/2"

Tech Sheet 20774

Female Equal Union, Spherical Seat Iron to Iron (Fig 256)



Black, BSPT

1091	Thread
C256-12N	1/2"
C256-34N	3/4"
C256-1N	1"
C256-114N	1.1/4"
C256-112N	1.1/2"
C256-2N	2"
C256-212N	2.1/2"
C256-3N	3"

Tech Sheet 20765

Galvanised, BSPT

1091	Thread
C256-12	1/2"
C256-34	3/4"
C256-1	1"
C256-114	1.1/4"
C256-112	1.1/2"
C256-2	2"
C256-212	2.1/2"
C256-3	3"

Tech Sheet 20765

Female Equal Union, Spherical Seat Bronze to Bronze (Fig 289)



Black, BSPT

1091	Thread
C289-12N	1/2"
C289-34N	3/4"
C289-1N	1"
C289-114N	1.1/4"
C289-112N	1.1/2"
C289-2N	2"
C289-212N	2.1/2"

Tech Sheet 20768

Galvanised, BSPT

1091	Thread
C289-12	1/2"
C289-34	3/4"
C289-1	1"
C289-112	1.1/2"
C289-2	2"

Tech Sheet 20768

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.



Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

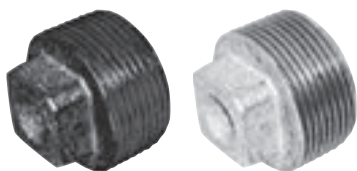
FT PRO

 For **Ball Valves**
 see pages **922-926**


MALLEABLE IRON FITTINGS

CRANE

Plain Plug, Hollow (Fig 147)



Black, BSPT

1091	Thread
C147-12N	1/2"
C147-34N	3/4"
C147-1N	1"
C147-114N	1.1/4"
C147-112N	1.1/2"
C147-2N	2"
C147-212N	2.1/2"
C147-3N	3"
C147-4N	4"

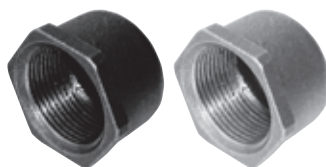
Tech Sheet 10672

Galvanised, BSPT

1091	Thread
C147-12	1/2"
C147-34	3/4"
C147-1	1"
C147-114	1.1/4"
C147-112	1.1/2"
C147-2	2"
C147-212	2.1/2"
C147-3	3"
C147-4	4"

Tech Sheet 10672

Cap (Fig 185)



Black, BSPT

1091	Thread
C185-12N	1/2"
C185-34N	3/4"
C185-1N	1"
C185-114N	1.1/4"
C185-112N	1.1/2"
C185-2N	2"
C185-212N	2.1/2"

Tech Sheet 10646

Galvanised, BSPT

1091	Thread
C185-12	1/2"
C185-34	3/4"
C185-1	1"
C185-112	1.1/2"
C185-2	2"

Tech Sheet 10646

Male x Female Equal Elbow (Fig 152)



Black, BSPT

1091	Thread
C152-14N	1/4"
C152-12N	1/2"
C152-34N	3/4"
C152-1N	1"
C152-114N	1.1/4"
C152-112N	1.1/2"
C152-2N	2"
C152-212N	2.1/2"
C152-3N	3"

Tech Sheet 10673

Galvanised, BSPT

1091	Thread
C152-12	1/2"
C152-34	3/4"
C152-1	1"
C152-114	1.1/4"
C152-112	1.1/2"
C152-2	2"

Tech Sheet 10673

Male x Female Reducing Elbow (Fig 152)



Black, BSPT

1091	Male Thread	Female Thread
C152-34-12N	3/4"	1/2"

Tech Sheet 20759

Galvanised, BSPT

1091	Male Thread	Female Thread
C152-34-12	3/4"	1/2"

Tech Sheet 20759

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.



Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

MALLEABLE IRON FITTINGS

CRANE

Female Equal Elbow (Fig 151)



Black, BSPT

1091	Thread
C151-12N	1/2"
C151-34N	3/4"
C151-1N	1"
C151-114N	1.1/4"
C151-112N	1.1/2"
C151-2N	2"
C151-212N	2.1/2"
C151-3N	3"
C151-4N	4"

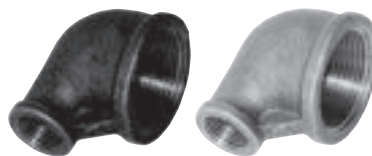
Tech Sheet 10675

Galvanised, BSPT

1091	Thread
C151-12	1/2"
C151-34	3/4"
C151-1	1"
C151-114	1.1/4"
C151-112	1.1/2"
C151-2	2"
C151-212	2.1/2"
C151-3	3"

Tech Sheet 10675

Female Reducing Elbow (Fig 151)



Black, BSPT

1091	Thread	Thread
C151-1-12N	1"	1/2"

Tech Sheet 20760

Galvanised, BSPT

1091	Thread	Thread
C151-1-12	1"	1/2"
C151-114-1	1.1/4"	1"

Tech Sheet 20760

Male x Female Equal Bend (Fig 192)



Black, BSPT

1091	Thread
C192-12N	1/2"
C192-34N	3/4"
C192-1N	1"
C192-114N	1.1/4"
C192-112N	1.1/2"
C192-2N	2"

Tech Sheet 10643

Galvanised, BSPT

1091	Thread
C192-14	1/4"

Tech Sheet 10643

Female Equal Bend (Fig 193)



Black, BSPT

1091	Thread
C193-12N	1/2"
C193-34N	3/4"
C193-1N	1"
C193-112N	1.1/2"
C193-2N	2"
C193-212N	2.1/2"

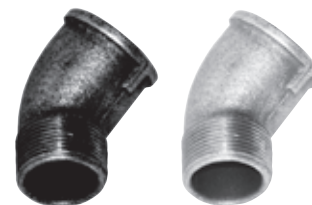
Tech Sheet 10643

Galvanised, BSPT

1091	Thread
C193-12	1/2"
C193-34	3/4"
C193-1	1"
C193-114	1.1/4"
C193-112	1.1/2"
C193-2	2"
C193-212	2.1/2"
C193-3	3"

Tech Sheet 10643

Male x Female Equal 45° (Fig 156)



Black, BSPT

1091	Thread
C156-12N	1/2"
C156-34N	3/4"
C156-1N	1"
C156-114N	1.1/4"
C156-112N	1.1/2"
C156-2N	2"

Tech Sheet 10644

Galvanised, BSPT

1091	Thread
C156-12	1/2"
C156-34	3/4"
C156-1	1"
C156-114	1.1/4"
C156-112	1.1/2"
C156-2	2"

Tech Sheet 10644

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.

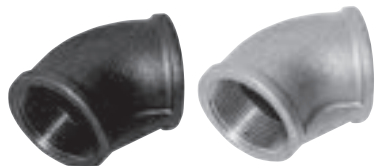


Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

MALLEABLE IRON FITTINGS

CRANE

Female Equal 45° (Fig 155)



Black, BSPT

1091	Thread
C155-12N	1/2"
C155-34N	3/4"
C155-1N	1"
C155-114N	1.1/4"
C155-112N	1.1/2"
C155-2N	2"
C155-3N	3"

Tech Sheet 10674

Galvanised, BSPT

1091	Thread
C155-12	1/2"
C155-34	3/4"
C155-1	1"
C155-114	1.1/4"
C155-112	1.1/2"
C155-2	2"

Tech Sheet 10674

Female Equal Tee (Fig 161)



Black, BSPT

1091	Thread
C161-14N	1/4"
C161-38N	3/8"
C161-12N	1/2"
C161-34N	3/4"
C161-1N	1"
C161-114N	1.1/4"
C161-112N	1.1/2"
C161-212N	2.1/2"
C161-3N	3"
C161-4N	4"

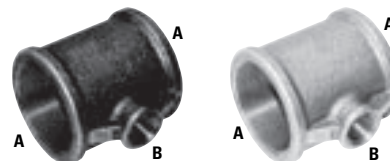
Tech Sheet 10650

Galvanised, BSPT

1091	Thread
C161-12	1/2"
C161-34	3/4"
C161-1	1"
C161-114	1.1/4"
C161-112	1.1/2"
C161-2	2"
C161-212	2.1/2"
C161-3	3"
C161-4	4"

Tech Sheet 10650

Unequal Reducing Branch Tee (Fig 161)



Black, BSPT

1091	Thread A	Thread B
C161-12-14N	1/2"	1/4"
C161-1-12N	1"	1/2"
C161-1-34N	1"	3/4"
C161-114-12N	1.1/4"	1/2"
C161-114-1N	1.1/4"	1"
C161-112-12N	1.1/2"	1/2"
C161-112-34N	1.1/2"	3/4"
C161-112-1N	1.1/2"	1"
C161-112-114N	1.1/2"	1.1/4"
C161-2-1N	2"	1"
C161-2-114N	2"	1.1/4"

Tech Sheet 10650

Galvanised, BSPT

1091	Thread A	Thread B
C161-34-12	3/4"	1/2"
C161-1-12	1"	1/2"
C161-1-34	1"	3/4"
C161-114-12	1.1/4"	1/2"
C161-114-34	1.1/4"	3/4"
C161-114-1	1.1/4"	1"
C161-112-12	1.1/2"	1/2"
C161-112-34	1.1/2"	3/4"
C161-112-1	1.1/2"	1"
C161-2-12	2"	1/2"
C161-2-1	2"	1"
C161-2-114	2"	1.1/4"
C161-2-112	2"	1.1/2"
C161-3-2	3"	2"

Tech Sheet 10650

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.



Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

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For **Fire Hose Reels & Accessories**
see page 1466



MALLEABLE IRON FITTINGS

CRANE

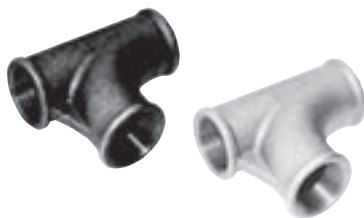
Twin Elbow (Fig 197)


Black, BSPT

1091	Thread
C197-12N	1/2"
C197-34N	3/4"
C197-1N	1"
C197-112N	1.1/2"
C197-2N	2"

Tech Sheet 10643

Female Equal Pitcher Tee (Fig 199) BS EN 10242


Black, BSPT

1091	Thread
C199-12N	1/2"
C199-34N	3/4"
C199-1N	1"
C199-112N	1.1/2"
C199-2N	2"

Tech Sheet 10649

Galvanised, BSPT

1091	Thread
C199-12	1/2"
C199-34	3/4"
C199-1	1"
C199-114	1.1/4"
C199-112	1.1/2"
C199-2	2"

Tech Sheet 10649

School Board Pipe Bracket (Fig 501)


Black

1091	Tube Nominal
CSB14N	1/4"
CSB12N	1/2"
CSB34N	3/4"
CSB1N	1"
CSB112N	1.1/2"
CSB2N	2"
CSB212N	2.1/2"
CSB3N	3"
CSB4N	4"

Galvanised

1091	Tube Nominal
CSB14	1/4"
CSB38	3/8"
CSB12	1/2"
CSB34	3/4"
CSB1	1"
CSB114	1.1/4"
CSB112	1.1/2"
CSB2	2"
CSB3	3"
CSB4	4"

Single Metric Tapping Pipe Ring (Fig 529M)


Black, BS3643

1091	Tube Nominal	Thread
C529M-38N	3/8"	M10
C529M-12N	1/2"	M10
C529M-34N	3/4"	M10
C529M-1N	1"	M10
C529M-114N	1.1/4"	M10
C529M-112N	1.1/2"	M10
C529M-2N	2"	M10
C529M-212N	2.1/2"	M12
C529M-3N	3"	M12
C529M-4N	4"	M12

Galvanised, BS3643

1091	Tube Nominal	Thread
C529M-38	3/8"	M10
C529M-12	1/2"	M10
C529M-1	1"	M10
C529M-114	1.1/4"	M10
C529M-112	1.1/2"	M10
C529M-2	2"	M10
C529M-212	2.1/2"	M12
C529M-3	3"	M12
C529M-4	4"	M12

Double Metric Tapping Pipe Ring (Fig 530M)


Black, BS3643

1091	Tube Nominal	Thread
C530M-34N	3/4"	M10
C530M-1N	1"	M10
C530M-114N	1.1/4"	M10

Galvanised, BS3643

1091	Tube Nominal	Thread
C530M-1	1"	M10
C530M-114	1.1/4"	M10
C530M-112	1.1/2"	M10

CRANE

Malleable Iron Fittings Suitable for Use with Drinking Water.



Crane kitemarked fittings are deemed to satisfy the requirements of the United Kingdom Water Regulations (Byelaws).

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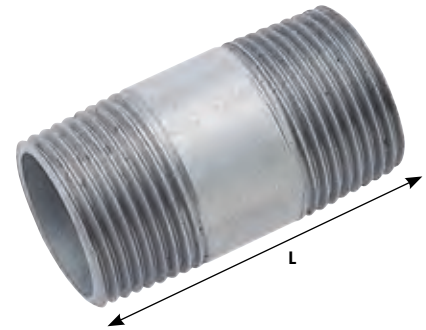


See pages 1742-1746

MALLEABLE IRON FITTINGS



Medium-duty Malleable Iron Barrel Nipples



Galvanised, BSPT

0305	Thread	Length mm
MIB-18X60	1/8"	60
MIB-18X80	1/8"	80
MIB-14X40	1/4"	40
MIB-14X60	1/4"	60
MIB-14X80	1/4"	80
MIB-14X100	1/4"	100
MIB-14X120	1/4"	120
MIB-14X150	1/4"	150
MIB-14X180	1/4"	180
MIB-14X200	1/4"	200
MIB-14X250	1/4"	250
MIB-14X300	1/4"	300
MIB-38X40	3/8"	40
MIB-38X50	3/8"	50
MIB-38X60	3/8"	60
MIB-38X80	3/8"	80
MIB-38X100	3/8"	100
MIB-38X120	3/8"	120
MIB-38X150	3/8"	150
MIB-38X180	3/8"	180
MIB-38X200	3/8"	200
MIB-38X250	3/8"	250
MIB-38X300	3/8"	300
MIB-12X30	1/2"	30
MIB-12X40	1/2"	40
MIB-12X50	1/2"	50
MIB-12X60	1/2"	60
MIB-12X80	1/2"	80
MIB-12X100	1/2"	100

0305	Thread	Length mm
MIB-12X120	1/2"	120
MIB-12X150	1/2"	150
MIB-12X180	1/2"	180
MIB-12X200	1/2"	200
MIB-12X250	1/2"	250
MIB-12X300	1/2"	300
MIB-34X30	3/4"	30
MIB-34X40	3/4"	40
MIB-34X60	3/4"	60
MIB-34X70	3/4"	70
MIB-34X80	3/4"	80
MIB-34X100	3/4"	100
MIB-34X120	3/4"	120
MIB-34X150	3/4"	150
MIB-34X180	3/4"	180
MIB-34X200	3/4"	200
MIB-34X250	3/4"	250
MIB-34X300	3/4"	300
MIB-34X1000	3/4"	1000
MIB-34X1500	3/4"	1500
MIB-1X30	1"	30
MIB-1X40	1"	40
MIB-1X50	1"	50
MIB-1X60	1"	60
MIB-1X70	1"	70
MIB-1X80	1"	80
MIB-1X100	1"	100
MIB-1X120	1"	120
MIB-1X150	1"	150

0305	Thread	Length mm
MIB-1X180	1"	180
MIB-1X200	1"	200
MIB-1X250	1"	250
MIB-1X300	1"	300
MIB-114X80	1.1/4"	80
MIB-114X100	1.1/4"	100
MIB-114X120	1.1/4"	120
MIB-114X125	1.1/4"	125
MIB-114X150	1.1/4"	150
MIB-114X180	1.1/4"	180
MIB-114X200	1.1/4"	200
MIB-114X250	1.1/4"	250
MIB-114X300	1.1/4"	300
MIB-112X80	1.1/2"	80
MIB-112X100	1.1/2"	100
MIB-112X120	1.1/2"	120
MIB-112X150	1.1/2"	150
MIB-112X180	1.1/2"	180
MIB-112X200	1.1/2"	200
MIB-112X250	1.1/2"	250
MIB-112X300	1.1/2"	300
MIB-2X80	2"	80
MIB-2X100	2"	100
MIB-2X120	2"	120
MIB-2X150	2"	150
MIB-2X180	2"	180
MIB-2X200	2"	200
MIB-2X250	2"	250
MIB-2X300	2"	300

You might also need...

 **PORTWEST**

For Portwest PPE
see pages 1752-1760



Medium-duty Malleable Iron Barrel Nipples



Black, BSPT

Q305	Thread	Length mm
MIB-14X40N	1/4"	40
MIB-14X60N	1/4"	60
MIB-14X80N	1/4"	80
MIB-14X100N	1/4"	100
MIB-14X120N	1/4"	120
MIB-14X150N	1/4"	150
MIB-14X180N	1/4"	180
MIB-14X200N	1/4"	200
MIB-14X250N	1/4"	250
MIB-14X300N	1/4"	300
MIB-38X30N	3/8"	30
MIB-38X40N	3/8"	40
MIB-38X60N	3/8"	60
MIB-38X80N	3/8"	80
MIB-38X100N	3/8"	100
MIB-38X120N	3/8"	120
MIB-38X150N	3/8"	150
MIB-38X180N	3/8"	180
MIB-38X200N	3/8"	200
MIB-38X250N	3/8"	250
MIB-38X300N	3/8"	300
MIB-12X30N	1/2"	30
MIB-12X40N	1/2"	40
MIB-12X60N	1/2"	60
MIB-12X80N	1/2"	80
MIB-12X100N	1/2"	100
MIB-12X120N	1/2"	120
MIB-12X150N	1/2"	150
MIB-12X180N	1/2"	180
MIB-12X200N	1/2"	200
MIB-12X250N	1/2"	250
MIB-12X300N	1/2"	300
MIB-34X40N	3/4"	40

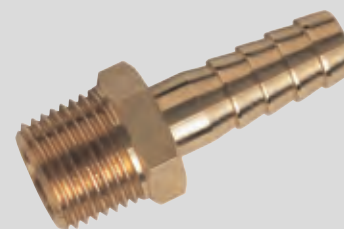
Q305	Thread	Length mm
MIB-34X60N	3/4"	60
MIB-34X80N	3/4"	80
MIB-34X100N	3/4"	100
MIB-34X120N	3/4"	120
MIB-34X150N	3/4"	150
MIB-34X180N	3/4"	180
MIB-34X200N	3/4"	200
MIB-34X250N	3/4"	250
MIB-34X300N	3/4"	300
MIB-1X40N	1"	40
MIB-1X60N	1"	60
MIB-1X80N	1"	80
MIB-1X100N	1"	100
MIB-1X120N	1"	120
MIB-1X150N	1"	150
MIB-1X180N	1"	180
MIB-1X200N	1"	200
MIB-1X250N	1"	250
MIB-1X300N	1"	300
MIB-114X60N	1.1/4"	60
MIB-114X80N	1.1/4"	80
MIB-114X100N	1.1/4"	100
MIB-114X120N	1.1/4"	120
MIB-114X150N	1.1/4"	150
MIB-114X180N	1.1/4"	180
MIB-114X200N	1.1/4"	200
MIB-114X250N	1.1/4"	250
MIB-114X300N	1.1/4"	300
MIB-112X60N	1.1/2"	60
MIB-112X80N	1.1/2"	80
MIB-112X100N	1.1/2"	100
MIB-112X120N	1.1/2"	120
MIB-112X150N	1.1/2"	150

Q305	Thread	Length mm
MIB-112X180N	1.1/2"	180
MIB-112X200N	1.1/2"	200
MIB-112X250N	1.1/2"	250
MIB-112X300N	1.1/2"	300
MIB-2X80N	2"	80
MIB-2X100N	2"	100
MIB-2X120N	2"	120
MIB-2X150N	2"	150
MIB-2X180N	2"	180
MIB-2X200N	2"	200
MIB-2X250N	2"	250
MIB-2X300N	2"	300
MIB-212X100N	2.1/2"	100
MIB-212X120N	2.1/2"	120
MIB-212X150N	2.1/2"	150
MIB-212X180N	2.1/2"	180
MIB-212X200N	2.1/2"	200
MIB-212X250N	2.1/2"	250
MIB-212X300N	2.1/2"	300
MIB-3X100N	3"	100
MIB-3X120N	3"	120
MIB-3X150N	3"	150
MIB-3X180N	3"	180
MIB-3X200N	3"	200
MIB-3X250N	3"	250
MIB-3X300N	3"	300
MIB-4X100N	4"	100
MIB-4X120N	4"	120
MIB-4X150N	4"	150
MIB-4X180N	4"	180
MIB-4X200N	4"	200
MIB-4X250N	4"	250
MIB-4X300N	4"	300

Customers who bought from this page also purchased...



Brass Hose Tails see page 1141



Heavy-duty Malleable Iron Nipples



Galvanised, BSPT

0305	Thread	Length mm
HBN18-40	1/8"	40
HBN18-60	1/8"	60
HBN18-80	1/8"	80
HBN18-100	1/8"	100
HBN14-40	1/4"	40
HBN14-60	1/4"	60
HBN14-80	1/4"	80
HBN14-100	1/4"	100
HBN14-120	1/4"	120
HBN14-150	1/4"	150
HBN14-180	1/4"	180
HBN14-200	1/4"	200
HBN14-250	1/4"	250
HBN14-300	1/4"	300
HBN38-40	3/8"	40
HBN38-50	3/8"	50
HBN38-60	3/8"	60
HBN38-70	3/8"	70
HBN38-80	3/8"	80
HBN38-100	3/8"	100
HBN38-120	3/8"	120
HBN38-150	3/8"	150
HBN38-180	3/8"	180
HBN38-200	3/8"	200
HBN12-30	1/2"	30
HBN12-40	1/2"	40
HBN12-50	1/2"	50
HBN12-60	1/2"	60
HBN12-80	1/2"	80
HBN12-100	1/2"	100
HBN12-120	1/2"	120
HBN12-150	1/2"	150
HBN12-180	1/2"	180
HBN12-200	1/2"	200
HBN12-250	1/2"	250
HBN12-300	1/2"	300
HBN34-40	3/4"	40
HBN34-60	3/4"	60
HBN34-70	3/4"	70
HBN34-80	3/4"	80
HBN34-100	3/4"	100
HBN34-120	3/4"	120
HBN34-150	3/4"	150

0305	Thread	Length mm
HBN34-180	3/4"	180
HBN34-200	3/4"	200
HBN34-250	3/4"	250
HBN34-300	3/4"	300
HBN1-50	1"	50
HBN1-60	1"	60
HBN1-70	1"	70
HBN1-80	1"	80
HBN1-100	1"	100
HBN1-120	1"	120
HBN1-150	1"	150
HBN1-180	1"	180
HBN1-200	1"	200
HBN1-300	1"	300
HBN114-80	1.1/4"	80
HBN114-100	1.1/4"	100
HBN114-120	1.1/4"	120
HBN114-150	1.1/4"	150
HBN114-200	1.1/4"	200
HBN114-250	1.1/4"	250
HBN114-300	1.1/4"	300
HBN112-80	1.1/2"	80
HBN112-100	1.1/2"	100
HBN112-120	1.1/2"	120
HBN112-150	1.1/2"	150
HBN112-180	1.1/2"	180
HBN112-200	1.1/2"	200
HBN112-300	1.1/2"	300
HBN2-80	2"	80
HBN2-120	2"	120
HBN2-150	2"	150
HBN2-180	2"	180
HBN2-250	2"	250
HBN2-300	2"	300
HBN212-100	2.1/2"	100
HBN212-200	2.1/2"	200
HBN212-300	2.1/2"	300
HBN3-100	3"	100
HBN3-200	3"	200
HBN3-300	3"	300
HBN4-100	4"	100
HBN4-200	4"	200
HBN4-300	4"	300



For Jointing Paste
see page 1391

MALLEABLE IRON FITTINGS



K-LINE CONNECT

Barrel Nipples to BS EN 10241

Material: BS EN 10241
Dimensions: BS EN 10241
Threads: ISO 7/1
Schedule: Medium/Heavy-duty



Galvanised, BSPT

0357	Thread	Length mm
ENBN-18X40	1/8"	40
ENBN-18X60	1/8"	60
ENBN-14X40	1/4"	40
ENBN-14X60	1/4"	60
ENBN-14X80	1/4"	80
ENBN-14X100	1/4"	100
ENBN-14X200	1/4"	200
ENBN-14X250	1/4"	250
ENBN-38X40	3/8"	40
ENBN-38X50	3/8"	50
ENBN-38X60	3/8"	60
ENBN-38X80	3/8"	80
ENBN-38X100	3/8"	100
ENBN-38X150	3/8"	150
ENBN-38X200	3/8"	200
ENBN-12X30	1/2"	30
ENBN-12X40	1/2"	40
ENBN-12X50	1/2"	50
ENBN-12X60	1/2"	60
ENBN-12X80	1/2"	80
ENBN-12X100	1/2"	100
ENBN-12X150	1/2"	150
ENBN-12X200	1/2"	200
ENBN-12X250	1/2"	250
ENBN-12X300	1/2"	300
ENBN-34X40	3/4"	40
ENBN-34X60	3/4"	60
ENBN-34X80	3/4"	80
ENBN-34X100	3/4"	100
ENBN-34X150	3/4"	150
ENBN-34X200	3/4"	200
ENBN-34X300	3/4"	300
ENBN-1X40	1"	40
ENBN-1X50	1"	50

0357	Thread	Length mm
ENBN-1X60	1"	60
ENBN-1X80	1"	80
ENBN-1X100	1"	100
ENBN-1X150	1"	150
ENBN-1X200	1"	200
ENBN-1X300	1"	300
ENBN-114X80	1.1/4"	80
ENBN-114X100	1.1/4"	100
ENBN-114X150	1.1/4"	150
ENBN-114X200	1.1/4"	200
ENBN-114X300	1.1/4"	300
ENBN-112X80	1.1/2"	80
ENBN-112X100	1.1/2"	100
ENBN-112X150	1.1/2"	150
ENBN-112X200	1.1/2"	200
ENBN-112X300	1.1/2"	300
ENBN-2X80	2"	80
ENBN-2X100	2"	100
ENBN-2X150	2"	150
ENBN-2X200	2"	200
ENBN-2X300	2"	300
ENBN-212X100	2.1/2"	100
ENBN-212X150	2.1/2"	150
ENBN-212X200	2.1/2"	200
ENBN-212X300	2.1/2"	300
ENBN-3X100	3"	100
ENBN-3X150	3"	150
ENBN-3X200	3"	200
ENBN-3X300	3"	300
ENBN-4X100	4"	100
ENBN-4X150	4"	150
ENBN-4X200	4"	200
ENBN-4X300	4"	300

Page Tech Sheet 20569

Carbon Steel Pipe Nipple Medium/Heavy, Welded/Seamless

Pipe Size mm	Pipe O.D. mm	Length Close mm	Pipe Nipple Lengths (mm)																
			30	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
6	10.3	19	30	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
8	13.7	27	30	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
10	17.1	28	30	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
15	21.3	37	X	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
20	26.7	39	X	40	50	60	80	100	150	180	200	250	300	350	400	450	500		
25	33.4	46	X	X	50	60	80	100	150	180	200	250	300	350	400	450	500		
32	42.2	51	X	X	50	60	80	100	150	180	200	250	300	350	400	450	500		
40	48.3	51	X	X	50	60	80	100	150	180	200	250	300	350	400	450	500		
50	60.3	60	X	X	X	60	80	100	150	180	200	250	300	350	400	450	500		
65	76.1	69	X	X	X	X	80	100	150	180	200	250	300	350	400	450	500		
80	88.9	75	X	X	X	X	80	100	150	180	200	250	300	350	400	450	500		
100	114.3	87	X	X	X	X	X	100	150	180	200	250	300	350	400	450	500		
125	141.3	96	X	X	X	X	X	X	150	180	200	250	300	350	400	450	500		
150	168.3	96	X	X	X	X	X	X	150	180	200	250	300	350	400	450	500		

MALLEABLE IRON FITTINGS



Barrel Nipples to BS EN 10241

Material: BS EN 10241
Dimensions: BS EN 10241
Threads: ISO 7/1
Schedule: Medium/Heavy-duty



Black, BSPT

0357	Thread	Length mm
ENBN-18X40N	1/8"	40
ENBN-18X60N	1/8"	60
ENBN-14X40N	1/4"	40
ENBN-14X60N	1/4"	60
ENBN-14X80N	1/4"	80
ENBN-14X100N	1/4"	100
ENBN-14X200N	1/4"	200
ENBN-14X250N	1/4"	250
ENBN-38X40N	3/8"	40
ENBN-38X50N	3/8"	50
ENBN-38X60N	3/8"	60
ENBN-38X80N	3/8"	80
ENBN-38X100N	3/8"	100
ENBN-38X150N	3/8"	150
ENBN-38X200N	3/8"	200
ENBN-12X30N	1/2"	30
ENBN-12X40N	1/2"	40
ENBN-12X50N	1/2"	50
ENBN-12X60N	1/2"	60
ENBN-12X80N	1/2"	80
ENBN-12X100N	1/2"	100
ENBN-12X150N	1/2"	150
ENBN-12X200N	1/2"	200
ENBN-12X250N	1/2"	250
ENBN-12X300N	1/2"	300
ENBN-34X40N	3/4"	40
ENBN-34X60N	3/4"	60
ENBN-34X80N	3/4"	80
ENBN-34X100N	3/4"	100
ENBN-34X150N	3/4"	150
ENBN-34X200N	3/4"	200
ENBN-34X300N	3/4"	300
ENBN-1X40N	1"	40
ENBN-1X50N	1"	50

0357	Thread	Length mm
ENBN-1X60N	1"	60
ENBN-1X80N	1"	80
ENBN-1X100N	1"	100
ENBN-1X150N	1"	150
ENBN-1X200N	1"	200
ENBN-1X300N	1"	300
ENBN-114X80N	1.1/4"	80
ENBN-114X100N	1.1/4"	100
ENBN-114X150N	1.1/4"	150
ENBN-114X200N	1.1/4"	200
ENBN-114X300N	1.1/4"	300
ENBN-112X80N	1.1/2"	80
ENBN-112X100N	1.1/2"	100
ENBN-112X150N	1.1/2"	150
ENBN-112X200N	1.1/2"	200
ENBN-112X300N	1.1/2"	300
ENBN-2X80N	2"	80
ENBN-2X100N	2"	100
ENBN-2X150N	2"	150
ENBN-2X200N	2"	200
ENBN-2X300N	2"	300
ENBN-212X100N	2.1/2"	100
ENBN-212X150N	2.1/2"	150
ENBN-212X200N	2.1/2"	200
ENBN-212X300N	2.1/2"	300
ENBN-3X100N	3"	100
ENBN-3X150N	3"	150
ENBN-3X200N	3"	200
ENBN-3X300N	3"	300
ENBN-4X100N	4"	100
ENBN-4X150N	4"	150
ENBN-4X200N	4"	200
ENBN-4X300N	4"	300

Page Tech Sheet 20569

Carbon Steel Pipe Nipple Medium/Heavy, Welded/Seamless

Pipe Size mm	Pipe O.D. mm	Length Close mm	Pipe Nipple Lengths (mm)															
			30	40	50	60	80	100	150	180	200	250	300	350	400	450	500	
6	10.3	19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8	13.7	27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10	17.1	28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15	21.3	37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
20	26.7	39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
25	33.4	46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
32	42.2	51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
40	48.3	51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
50	60.3	60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
65	76.1	69	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
80	88.9	75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
100	114.3	87	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
125	141.3	96	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
150	168.3	96	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Screwed & Socketed Steel Tubing



EN10255, EN10217-1 & BS1387 - Medium Grade, Red Oxide Primed, 3.2m Lengths,

0193	Thread
NC-TUBE12N	1/2" (15mm)
NC-TUBE34N	3/4" (20mm)
NC-TUBE1N	1" (25mm)
NC-TUBE114N	1.1/4" (32mm)
NC-TUBE112N	1.1/2" (40mm)
NC-TUBE2N	2" (50mm)
NC-TUBE212N	2.1/2" (65mm)
NC-TUBE3N	3" (80mm)
NC-TUBE4N	4" (100mm)

Tech Sheet 10639

6.4m Lengths, BSPP

0193	Thread
NC-TUBE12N-6.5	1/2" (15mm)
NC-TUBE34N-6.5	3/4" (20mm)
NC-TUBE1N-6.5	1" (25mm)
NC-TUBE114N-6.5	1.1/4" (32mm)
NC-TUBE112N-6.5	1.1/2" (40mm)
NC-TUBE2N-6.5	2" (50mm)
NC-TUBE212N-6.5	2.1/2" (65mm)
NC-TUBE3N-6.5	3" (80mm)
NC-TUBE4N-6.5	4" (100mm)

Tech Sheet 10639

EN10255, EN10217-1 & BS1387 - Heavy Grade, Red Oxide Primed, 3.2m Lengths, BSPP

0193	Thread
NC-HTUBE12N	1/2" (15mm)
NC-HTUBE34N	3/4" (20mm)
NC-HTUBE1N	1" (25mm)
NC-HTUBE114N	1.1/4" (32mm)
NC-HTUBE2N	2" (50mm)

Tech Sheet 10639

6.4m Lengths, BSPP

0193	Thread
NC-HTUBE12N-6.5	1/2" (15mm)
NC-HTUBE34N-6.5	3/4" (20mm)
NC-HTUBE1N-6.5	1" (25mm)
NC-HTUBE114N-6.5	1.1/4" (32mm)
NC-HTUBE112N-6.5	1.1/2" (40mm)
NC-HTUBE2N-6.5	2" (50mm)

Tech Sheet 10639



EN10255, EN10217-1 & BS1387 - Medium Grade, Galvanised, 3.2m Lengths, BSPP

0193	Thread
NC-TUBE12	1/2" (15mm)
NC-TUBE34	3/4" (20mm)
NC-TUBE1	1" (25mm)
NC-TUBE114	1.1/4" (32mm)
NC-TUBE112	1.1/2" (40mm)
NC-TUBE2	2" (50mm)
NC-TUBE212	2.1/2" (65mm)
NC-TUBE3	3" (80mm)
NC-TUBE4	4" (100mm)

Tech Sheet 10639

6.4m Lengths, BSPP

0193	Thread
NC-TUBE12-6.5	1/2" (15mm)
NC-TUBE34-6.5	3/4" (20mm)
NC-TUBE1-6.5	1" (25mm)
NC-TUBE114-6.5	1.1/4" (32mm)
NC-TUBE112-6.5	1.1/2" (40mm)
NC-TUBE2-6.5	2" (50mm)
NC-TUBE212-6.5	2.1/2" (65mm)
NC-TUBE3-6.5	3" (80mm)
NC-TUBE4-6.5	4" (100mm)

Tech Sheet 10639

EN10255, EN10217-1 & BS1387 - Heavy Grade, Galvanised, 3.2m Lengths, BSPP

0193	Thread
NC-HTUBE12	1/2" (15mm)
NC-HTUBE34	3/4" (20mm)
NC-HTUBE1	1" (25mm)
NC-HTUBE114	1.1/4" (32mm)
NC-HTUBE112	1.1/2" (40mm)
NC-HTUBE2	2" (50mm)

Tech Sheet 10639

6.4m Lengths, BSPP

0193	Thread
NC-HTUBE12-6.5	1/2" (15mm)
NC-HTUBE34-6.5	3/4" (20mm)
NC-HTUBE1-6.5	1" (25mm)
NC-HTUBE114-6.5	1.1/4" (32mm)
NC-HTUBE112-6.5	1.1/2" (40mm)
NC-HTUBE2-6.5	2" (50mm)

Tech Sheet 10639

Dual Certified Tubes EN10255 and 10217-1

Universal Steel Mill based in UAE is a major producer of steel tubes across the world. As a major supplier to the world market Universal strives to ensure the products it produces meet the stringent standards of today's markets. To that end they have produced a dual certified tube that can be supplied into the HVAC, Mechanical and Fire Protection industries within the UK.

Verification - all tubes can be supplied with MTC (mill test certificates), certifying that the tubes comply to the relevant standard.

Tubes are available from an extensive stock range:

- Standard full lengths or half randoms
- Threaded and plain ended
- Medium or heavy weight
- Galvanised finishes

Technical Specification

- Leak Tightness Test
- Online NDT machines
- Hydro static pressure testing to 50 bar

Chemical Testing

- Complete chemical laboratory at the mill
- Elco meters
- Hydrometers

Galvanising

- Hot dipped galvanising/zinc coating to EN10240 quality A.1
- Quality checked hourly with Elco meters to ensure a 55-70 micron thickness across tube length

Material

- Fully killed steel
- Tensile tested
- Internal weld seam shall not have a height exceeding 60% of the wall thickness



6.4 metre lengths are available on 2-5 working day delivery service. Specified delivery dates and times cannot be guaranteed. Additional carriage charges may apply, based on weight and location. Please speak to our Business Development Team for full details.

FLANGE BOLT KITS



Bright Zinc Plated Bolt Kits

4 x Bolts
4 x Nuts
4 x Washers
Steel Zinc Plated



M10 Thread

1096	Thread	Length mm
2034-8942	M10	40
2034-8959	M10	45

M12 Thread

1096	Thread	Length mm
2034-9007	M12	25
2034-9015	M12	30
2034-9098	M12	70
2034-9122	M12	90

M16 Thread

1096	Thread	Length mm
2034-9148	M16	50
2034-9155	M16	55
2034-9163	M16	60
2034-9171	M16	65
2034-9189	M16	70
2034-9197	M16	75
2034-9205	M16	80
2034-9221	M16	100
2034-9239	M16	110

M20 Thread

1096	Thread	Length mm
2034-9254	M20	55
2034-9262	M20	60
2034-9270	M20	65
2034-9288	M20	70
2034-9296	M20	75
2034-9312	M20	80
2034-9320	M20	90
2034-9361	M20	120

MALLEABLE IRON ACCESSORIES



School Board Pipe Brackets



Black

1092	Nominal Bore OD
MISB14N	1/4"
MISB38N	3/8"
MISB12N	1/2"
MISB34N	3/4"
MISB1N	1"
BSB20	1.1/4"
MISB112N	1.1/2"
MISB2N	2"
BSB48	3"
BSB64	4"



Galvanized

1092	Nominal Bore OD
MISB14	1/4"
MISB38	3/8"
MISB12	1/2"
MISB34	3/4"
MISB1	1"
MISB114	1.1/4"
MISB112	1.1/2"
MISB2	2"
MISB212	2.1/2"
MISB4	4"

Girder Clamp



Metric Thread

1092	Thread
MIGCM8	M8
MIGCM10	M10
MIGCM12	M12

Single M10 Tapping Pipe Ring



Black

1092	Nominal Bore OD
MISTP14N	1/4"
MISTP38N	3/8"
MISTP12N	1/2"
MISTP34N	3/4"
MISTP1N	1"
MISTP114N	1.1/4"
MISTP2N	2"

Tech Sheet 10641

Galvanised

1092	Nominal Bore OD
MISTP38	3/8"
MISTP12	1/2"
MISTP34	3/4"
MISTP1	1"
MISTP114	1.1/4"
MISTP112	1.1/2"
MISTP2	2"

Tech Sheet 10641

Double M10 Tapping Pipe Ring



Black

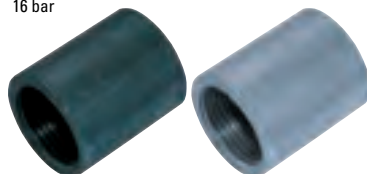
1092	Nominal Bore OD	Nominal Bore mm
MIDTP14N	1/4"	8
MIDTP38N	3/8"	18
MIDTP12N	1/2"	15
MIDTP1N	1"	25
MIDTP114N	1.1/4"	32

Galvanised

1092	Nominal Bore OD	Nominal Bore mm
MIDTP14	1/4"	8
MIDTP12	1/2"	15
MIDTP34	3/4"	20
MIDTP1	1"	25
MIDTP114	1.1/4"	32
MIDTP112	1.1/2"	51
MIDTP2	2"	50

Wrought Iron Sockets

Maximum Working Pressure:
16 bar



Black, BSPP

1099	Thread
MIWRSB-18N	1/8"
MIWRSB-14N	1/4"
MIWRSB-38N	3/8"
MIWRSB-12N	1/2"
MIWRSB-34N	3/4"
MIWRSB-1N	1"
MIWRSB-114N	1.1/4"
MIWRSB-112N	1.1/2"
MIWRSB-2N	2"
MIWRSB-212N	2.1/2"
MIWRSB-3N	3"
MIWRSB-4N	4"
MIWRSB-6N	6"

Galvanised, BSPP

1099	Thread
MIWRSG-18	1/8"
MIWRSG-14	1/4"
MIWRSG-38	3/8"
MIWRSG-12	1/2"
MIWRSG-34	3/4"
MIWRSG-1	1"
MIWRSG-114	1.1/4"
MIWRSG-112	1.1/2"
MIWRSG-2	2"
MIWRSG-212	2.1/2"
MIWRSG-3	3"
MIWRSG-4	4"

M10 Tapping Back Plate



Black

1092	Thread
MIBPM10N	M10
MIBPM12N	M12

Galvanised

1092	Thread
MIBPM10	M10
MIBPM12	M12

Studding



1092	Thread	Length Metres
MISDM8	M8 x 1.25	1
MISDM10	M10 x 1.5	1
MISDM10X1.0/3M	M10 x 1	3
MISDM12X1.0	M12 x 1	1

Repair Coupling

Working Temperature:
-10°C to +60°C

Maximum Working Pressure: 10 bar



BSPP

1092	Thread	Length mm
MIRC-12	1/2"	76
MIRC-34	3/4"	76
MIRC-1	1"	88
MIRC-112	1.1/2"	102
MIRC-2	2"	102

Supports



Cantilever Arms

1092	Length mm
CA150HDG	150
CA300HDG	300
CA450HDG	450
CA600HDG	600
CA750HDG	750

FORGED STEEL FLANGES



Weld Neck



PN16/111, BS4504: 1989, Table 16

1098	ID
FSFWB-1	1"
FSFWB-114	1.1/4"
FSFWB-112	1.1/2"
FSFWB-2	2"
FSFWB-212	2.1/2"
FSFWB-3	3"
FSFWB-4	4"

Tech Sheet 1500

PN40/111, BS4505: 1989, Table 40

1098	ID
FSFWB-1-300	1"
FSFWB-112-300	1.1/2"
FSFWB-2-300	2"
FSFWB-212-300	2.1/2"
FSFWB-4-300	4"

Tech Sheet 1500

150lb, ANSI B16.5a/1992, ASA 150

1098	ID
FSFWA-1	1"
FSFWA-114	1.1/4"
FSFWA-112	1.1/2"
FSFWA-2	2"
FSFWA-212	2.1/2"
FSFWA-3	3"
FSFWA-4	4"

Tech Sheet 1500

300lb, ANSI B16.5a/1992, ASA 300

1098	ID
FSFWA-212-300	2.1/2"
FSFWA-3-300	3"
FSFWA-4-300	4"

Tech Sheet 1500

Slip-on



PN16/112, BS4504: 1989, Table 16

1098	ID
FSFSOB-12	1/2"
FSFSOB-34	3/4"
FSFSOB-1	1"
FSFSOB-114	1.1/4"
FSFSOB-112	1.1/2"
FSFSOB-2	2"
FSFSOB-212	2.1/2"
FSFSOB-3	3"
FSFSOB-4	4"

Tech Sheet 1500

PN40/112, BS4504: 1989, Table 40

1098	ID
FSFSOB-12-300	1/2"
FSFSOB-112-300	1.1/2"
FSFSOB-2-300	2"
FSFSOB-212-300	2.1/2"
FSFSOB-3-300	3"
FSFSOB-4-300	4"

Tech Sheet 1500

150lb, ANSI B16.5a/1992, ASA 150

1098	ID
FSFSOA-12	1/2"
FSFSOA-34	3/4"
FSFSOA-1	1"
FSFSOA-112	1.1/2"
FSFSOA-2	2"
FSFSOA-3	3"
FSFSOA-4	4"

Tech Sheet 1500

300lb, ANSI B16.5a/1992, ASA 300

1098	ID
FSFSOA-34-300	3/4"
FSFSOA-114-300	1.1/4"
FSFSOA-2-300	2"
FSFSOA-4-300	4"

Tech Sheet 1500

Screwed



PN16/113, BS4504: 1989, Table 16, BSPP

1098	Thread
FSFSB-12	1/2"
FSFSB-34	3/4"
FSFSB-1	1"
FSFSB-114	1.1/4"
FSFSB-112	1.1/2"
FSFSB-2	2"
FSFSB-212	2.1/2"
FSFSB-3	3"
FSFSB-4	4"

Tech Sheet 1500

PN40/113, BS4504: 1989, Table 40, BSPP

1098	Thread
FSFSB-12-300	1/2"
FSFSB-34-300	3/4"
FSFSB-1-300	1"
FSFSB-114-300	1.1/4"
FSFSB-112-300	1.1/2"
FSFSB-2-300	2"
FSFSB-212-300	2.1/2"
FSFSB-3-300	3"
FSFSB-4-300	4"

Tech Sheet 1500

150lb, ANSI B16.5a/1992, ASA 150, BSPP

1098	Thread
FSFSA-112	1.1/2"
FSFSA-2	2"
FSFSA-212	2.1/2"
FSFSA-3	3"

Tech Sheet 1500

300lb, ANSI B16.5a/1992, ASA 300, BSPP

1098	Thread
FSFSA-12-300	1/2"
FSFSA-34-300	3/4"
FSFSA-1-300	1"
FSFSA-112-300	1.1/2"
FSFSA-2-300	2"

Tech Sheet 1500

Carbon Steel Flanges



Slip-On Plate Flanges, Table D

0264	ID mm
FPSOTD-32	32
FPSOTD-50	50
FPSOTD-65	65
FPSOTD-80	80
FPSOTD-100	100
FPSOTD-125	125
FPSOTD-150	150
FPSOTD-200	200
FPSOTD-250	250
FPSOTD-300	300

Tech Sheet 1500

Note: I.D. = Nominal bore of tube



Blank Flanges, Table D

0264	To Suit mm
FPBLTD-15	15
FPBLTD-20	20
FPBLTD-25	25
FPBLTD-32	32
FPBLTD-50	50
FPBLTD-65	65
FPBLTD-80	80
FPBLTD-100	100
FPBLTD-150	150
FPBLTD-200	200
FPBLTD-250	250
FPBLTD-300	300

Tech Sheet 1500



Screwed Boss Flanges, Table D, BSPP

0264	Thread
FBSTD-12	1/2"
FBSTD-34	3/4"
FBSTD-1	1"
FBSTD-114	1.1/4"
FBSTD-2	2"
FBSTD-212	2.1/2"
FBSTD-3	3"
FBSTD-4	4"
FBSTD-6	6" (6.1/2")

Tech Sheet 1500



Slip-On Boss Flanges, Table D

0264	ID mm
FBSOTD-2	50
FBSOTD-3	80
FBSOTD-4	100
FBSOTD-612	150 (6.1/2")
FBSOTD-658	150 (6.5/8")
FBSOTD-8	200
FBSOTD-10	250
FBSOTD-300	300

Tech Sheet 1500



Slip-On Plate Flanges, Table E

0264	ID mm
FPSOTE-15	15
FPSOTE-20	20
FPSOTE-25	25
FPSOTE-32	32
FPSOTE-40	40
FPSOTE-50	50
FPSOTE-65	65
FPSOTE-80	80
FPSOTE-100	100
FPSOTE-125	125
FPSOTE-150	150
FPSOTE-200	200
FPSOTE-250	250
FPSOTE-300	300

Tech Sheet 1500



Blank Flanges, Table E

0264	To Suit mm
FPBLTE-15	15
FPBLTE-25	25
FPBLTE-32	32
FPBLTE-40	40
FPBLTE-50	50
FPBLTE-65	65
FPBLTE-80	80
FPBLTE-100	100
FPBLTE-125	125
FPBLTE-150	150
FPBLTE-200	200
FPBLTE-250	250
FPBLTE-300	300

Tech Sheet 1500



Screwed Boss Flanges, Table E, BSPP

0264	Thread
FBSTE-12	1/2"
FBSTE-34	3/4"
FBSTE-1	1"
FBSTE-114	1.1/4"
FBSTE-112	1.1/2"
FBSTE-2	2"
FBSTE-212	2.1/2"
FBSTE-3	3"
FBSTE-4	4"
FBSTE-5	5"
FBSTE-6	6" (6.1/2")

Tech Sheet 1500



Slip-On Boss Flanges, Table E

0264	ID mm
FBSOTE-12	15
FBSOTE-34	20
FBSOTE-1	25
FBSOTE-114	32
FBSOTE-112	40
FBSOTE-2	50
FBSOTE-212	65
FBSOTE-3	80
FBSOTE-4	100
FBSOTE-5	125
FBSOTE-612	150 (6.1/2")
FBSOTE-658	150 (6.5/8")
FBSOTE-8	200
FBSOTE-10	250

Tech Sheet 1500



For Stainless Steel Flanges
see page 1195

FLEXIBLE RUBBER BELLOWS



Moulded Rubber Bellows are designed to compensate for misalignment, neutralise movement and reduce noise through vibration in pipelines. They effectively dampen the transmission of sound and vibration and can be used in many applications with various medias including water, oils, chemicals and gases when the correct body material is specified.

Other body materials available on request:

- Butyl
- Nitrile
- Hypalon

Working Temperature:
-30°C to +110°C

Maximum Working Pressure: 16 bar

Other flange drillings are also available on request.

PN16 Flanged Connector, BS4504



Nitrile

0388	Flange Size	ID mm	Length mm
FRB-PN16-114NBR	1.1/4"	32	130
FRB-PN16-112NBR	1.1/2"	40	130
FRB-PN16-2NBR	2"	50	130
FRB-PN16-212NBR	2.1/2"	65	130
FRB-PN16-3NBR	3"	80	130
FRB-PN16-4NBR	4"	100	130
FRB-PN16-5NBR	5"	125	130
FRB-PN16-6NBR	6"	150	130
FRB-PN16-8NBR	8"	200	130
FRB-PN16-10NBR	10"	250	130
FRB-PN16-12NBR	12"	300	130

Tech Sheet 10305



EPDM

0388	Flange Size	ID mm	Length mm
FRB-PN16-114EPDM	1.1/4"	32	130
FRB-PN16-112EPDM	1.1/2"	40	130
FRB-PN16-2EPDM	2"	50	130
FRB-PN16-212EPDM	2.1/2"	65	130
FRB-PN16-3EPDM	3"	80	130
FRB-PN16-4EPDM	4"	100	130
FRB-PN16-5EPDM	5"	125	130
FRB-PN16-6EPDM	6"	150	130
FRB-PN16-8EPDM	8"	200	130
FRB-PN16-10EPDM	10"	250	130
FRB-PN16-12EPDM	12"	300	130

Tech Sheet 10305



Nitrile, Tied

0388	Flange Size	ID mm	Length mm
RBT-PN16-114NBR	1.1/4"	32	130
RBT-PN16-112NBR	1.1/2"	40	130
RBT-PN16-2NBR	2"	50	130
RBT-PN16-212NBR	2.1/2"	65	130
RBT-PN16-3NBR	3"	80	130
RBT-PN16-4NBR	4"	100	130
RBT-PN16-5NBR	5"	125	130
RBT-PN16-6NBR	6"	150	130
RBT-PN16-8NBR	8"	200	130
RBT-PN16-10NBR	10"	250	130
RBT-PN16-12NBR	12"	300	130

Tech Sheet 10305



EPDM, Tied

0388	Flange Size	ID mm	Length mm
RBT-PN16-114EPDM	1.1/4"	32	130
RBT-PN16-112EPDM	1.1/2"	40	130
RBT-PN16-2EPDM	2"	50	130
RBT-PN16-212EPDM	2.1/2"	65	130
RBT-PN16-3EPDM	3"	80	130
RBT-PN16-4EPDM	4"	100	130
RBT-PN16-5EPDM	5"	125	130
RBT-PN16-6EPDM	6"	150	130
RBT-PN16-8EPDM	8"	200	130
RBT-PN16-10EPDM	10"	250	130
RBT-PN16-12EPDM	12"	300	130

Tech Sheet 10305

BSPB Threaded Connector, Double Sphere



Nitrile

0388	Thread	ID mm	Length mm
FRB-BSP-1/2NBR	1/2"	15	203
FRB-BSP-3/4NBR	3/4"	20	203
FRB-BSP-1NBR	1"	25	203
FRB-BSP-11/4NBR	1.1/4"	32	203
FRB-BSP-11/2NBR	1.1/2"	40	203
FRB-BSP-2NBR	2"	50	203
FRB-BSP-21/2NBR	2.1/2"	65	240
FRB-BSP-3NBR	3"	80	240

Tech Sheet 10306



EPDM

0388	Thread	ID mm	Length mm
FRB-BSP-1/2EPDM	1/2"	15	203
FRB-BSP-3/4EPDM	3/4"	20	203
FRB-BSP-1EPDM	1"	25	203
FRB-BSP-11/4EPDM	1.1/4"	32	203
FRB-BSP-11/2EPDM	1.1/2"	40	203
FRB-BSP-2EPDM	2"	50	203
FRB-BSP-21/2EPDM	2.1/2"	65	240
FRB-BSP-3EPDM	3"	80	240

Tech Sheet 10306

Mild Steel Flanged Hose Tails

Table E, Mild Steel

0297	To Suit Hose ID
FEHT2	2"
FEHT3	3"
FEHT4	4"

Tech Sheet 20469

NP16, Mild Steel

0297	To Suit Hose ID
FNP16HT112	1.1/2"
FNP16HT2	2"
FNP16HT212	2.1/2"
FNP16HT3	3"
FNP16HT4	4"
FNP16HT6	6"
FNP16HT8	8"

Tech Sheet 20469



Flanged Hose Tail Table D, Mild Steel

0297	To Suit Hose ID
FDHT2	2"
FDHT3	3"
FDHT4	4"
FDHT5	5"
FDHT6	6"

Tech Sheet 20469

ASA150, Mild Steel

0297	To Suit Hose ID
FASA150HT2	2"

Tech Sheet 20469

Stainless Steel Flanged Hose Tails

stainless steel

Table E, Stainless Steel

0297	To Suit Hose ID
FHSESS2	2"

Tech Sheet 20469

NP16, Stainless Steel

0297	To Suit Hose ID
FHSNP16SS2	2"
FHSNP16SS3	3"

Tech Sheet 20469

ASA 150, Stainless Steel

0297	To Suit Hose ID
FHSASASS2	2"

Tech Sheet 20469

Rubber Gaskets



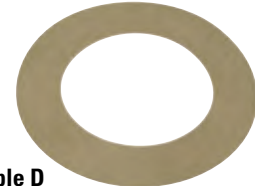
Table D, Full Face

0296	ID
GRD2	2"
GRD3	3"
GRD4	4"
GRD6	6"
GRD8	8"



IBC PN16

0296	ID
GRIBCNP162	2"
GRIBCNP163	3"
GRIBCNP164	4"
GRIBCNP166	6"
GRIBCNP168	8"



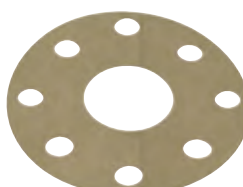
IBC PN16 & Table D

0296	ID
GKIBCNP162	2"
GKIBCNP163	3"
GKIBCNP164	4"
GKIBCNP166	6"



PN16, Full Face

0296	ID
GRNP162	2"
GRNP163	3"
GRNP164	4"
GRNP166	6"
GRNP168	8"



PN16, Full Face (Klinger)

0296	ID
GKNP163	3"
GKNP166	6"

Fibre Gaskets

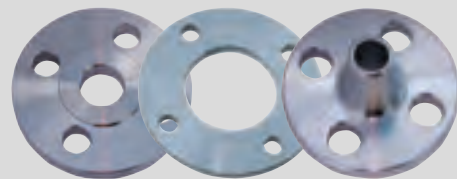


Table D, Full Face, (Top Graph Araflex)

0296	ID
GKD2	2"
GKD3	3"



For **Stainless Steel Flanges**
see page 1195



NONE ASBESTOS FLANGE GASKETS



IBC Gaskets

Maximum temperature/pressure can't be used simultaneously and are dependant on thickness.



N34 150lb, ASME B16.5/B16.21

0296	ID
GS12-150	1/2"
GS34-150	3/4"
GS1-150	1"
GS114-150	1.1/4"
GS112-150	1.1/2"
GS2-150	2"
GS212-150	2.1/2"
GS3-150	3"
GS4-150	4"

Tech Sheet 2023

N34 300lb, ASME B16.5/B16.21

0296	ID
GS12-300	1/2"
GS1-300	1"
GS112-300	1.1/2"
GS3-300	3"

Tech Sheet 2023

N34 PN16, DIN Standard DIN-DVGW 96.01 e-845

0296	ID
GSPN16-34	3/4"
GSPN16-1	1"
GSPN16-114	1.1/4"
GSPN16-112	1.1/2"
GSPN16-2	2"
GSPN16-212	2.1/2"
GSPN16-3	3"
GSPN16-4	4"

Tech Sheet 2023

N34 PN40, DIN Standard DIN-DVGW 96.01 e-845

0296	ID
GSPN40-2	2"
GSPN40-3	3"

Tech Sheet 2023

Full Face Gaskets

Maximum temperature/pressure can't be used simultaneously and are dependant on thickness.



N34 150lb, ASME B16.5/B16.21

0296	ID
GSFF12-150	1/2"
GSFF1-150	1"
GSFF114-150	1.1/4"
GSFF112-150	1.1/2"
GSFF2-150	2"
GSFF212-150	2.1/2"
GSFF3-150	3"

Tech Sheet 2023

N34 300lb, ASME B16.5/B16.21

0296	ID
GSFF1-300	1"
GSFF2-300	2"

Tech Sheet 2023

N34 PN16, DIN Standard DIN-DVGW 96.01 e-845

0296	ID
GSFF16-12	1/2"
GSFF16-1	1"
GSFF16-114	1.1/4"
GSFF16-112	1.1/2"
GSFF16-2	2"
GSFF16-212	2.1/2"
GSFF16-3	3"
GSFF16-4	4"

Tech Sheet 2023

N34 PN40, DIN Standard DIN-DVGW 96.01 e-845

0296	ID
GSFF40-1	1"
GSFF40-112	1.1/2"
GSFF40-2	2"
GSFF40-4	4"

Tech Sheet 2023

Customers who bought from this page also purchased...

TOTAL

Pipe Wrenches...see page 1734



JOINTING COMPOUNDS & SEALANTS

PTFE Thread Sealing Tape



To BS4375

1000	Size
PTFE	0.075mm x 1/2" x 10 Metres x 0.24g/cm
PTF-40	0.100mm x 1/2" x 10 Metres x 0.40g/cm
PTF-80	0.100mm x 19mm x 10 Metres x 0.80g/cm

Non flammable thread sealant. Resistant to all acids, alkalis and solvents. Suitable for use with oxygen and potable water.



WRAS, 0.075mm Gauge, 12 Metres, Pack of 10

0241	Colour	Width mm
M700WHI1212	White	12

For use with gas & potable water



Gas Approved, 5 Metres

0241	Colour	Width mm
PTFE-GAS	White	12

PTFE Thread Seal Tape



1000	Description	Width mm	Roll Length Metres
TAPE	Tape White	12	12
PTFE25MM	Tape White	25	12

Jointing Paste

Resistant to gas, steam, water, petrol, oil and mineral acids

- Easy break
- Lead free
- Complies to BS6956 Part 5 1992

Temperature Resistance:
A: -40°C to 400°C
B: -40°C to 650°C



Stag A

1092	Volume Grams
STAGA	400

Tech Sheet 10798



Stag B

1092	Volume Grams
STAGB	500

Tech Sheet 10798

Plate Tapes

Gas board approved to PRS10 high temperature gas flue closure plate sealing tape.



PRS10 Closure Plate Tape, 25 Metres

0241	Colour	Width mm
M293GAS5025	Grey	50

Boss White

BOSS White Pipe Jointing Compound: For steam, air, natural gas and non-potable water applications. Conforms to BS6956 Part 5: 1992.



White

1092	Volume Grams
MIBOSSW400	400

Cloth Tapes

High tack adhesive for polythene sheet joining, lagging, heating, ventilation and packaging.



Standard Duct Cloth Tape, 50 Metres

0241	Colour	Width mm
M24SSIL4850	Silver	48
M24SBLA4850	Black	48
M24SWHI4850	White	48
M24SSIL7250	Silver	72
M24SSIL9650	Silver	96

Hank Dressed Hemp



To be used with suitable Jointing Paste.

1092	Weight
2046-1687	1/2lb

55 Thread Sealing Cord

Particularly suitable for metal and plastic threaded fittings.

Potable water: WRC listed for use with potable water up to 85°C.

Meets BS 6920.KTW recommendation for hot and cold water.

Gas and water: Carries the German DVGW approval (No.DV-5142 AUO 166), together with DIN 30660.

- Tested in accordance with EN751-2 Class Arp.
- Replaces hemp/tapes and pastes
- Disassembly can be achieved easily with normal tools



0753	Length Metres
LOC-483283	50
LOC-270153	160

Tech Sheet 80

Thread Sealant



For B85-E85 & Diesel

1092	Volume Millilitres
GASOILA2	280

BUTT WELD FITTINGS BS1640/ASTM A234WPB



45° Long Radius Bend



1097	ID	OD mm	Wall Thickness mm
BWF1-34	3/4"	26.7	2.87
BWF1-1	1"	33.4	3.38
BWF1-114	1.1/4"	42.2	3.56
BWF1-112	1.1/2"	48.3	3.68
BWF1-2	2"	60.3	3.91
BWF1-212	2.1/2"	73	5.16
BWF1-3	3"	88.9	5.49
BWF1-4	4"	114.3	6.02

Tech Sheet 543

90° Long Radius Elbow



1097	ID	OD mm	Wall Thickness mm
BWF2-34	3/4"	26.7	2.87
BWF2-1	1"	33.4	3.38
BWF2-114	1.1/4"	42.2	3.56
BWF2-112	1.1/2"	48.3	3.68
BWF2-2	2"	60.3	3.91
BWF2-212	2.1/2"	73	5.16
BWF2-3	3"	88.9	5.49
BWF2-4	4"	114.3	6.02

Tech Sheet 543

180° Long Radius Return Bend



1097	ID	OD mm	Wall Thickness mm
BWF3-1	1"	33.4	3.38
BWF3-114	1.1/4"	42.2	3.56
BWF3-112	1.1/2"	48.3	3.68
BWF3-2	2"	60.3	3.91
BWF3-3	3"	88.9	5.49
BWF3-4	4"	114.3	6.02

Tech Sheet 543

Equal Tee



1097	ID	OD mm	Wall Thickness mm
BWF4-1	1"	33.4	3.38
BWF4-112	1.1/2"	48.3	3.68
BWF4-2	2"	60.3	3.91
BWF4-212	2.1/2"	73	5.16
BWF4-3	3"	88.9	5.49
BWF4-4	4"	114.3	6.02

Tech Sheet 543

Reducing Branch Tee



1097	ID A	ID B
BWF5-12-34	1/2"	3/4"
BWF5-112-114	1.1/2"	1.1/4"
BWF5-2-12	2"	1/2"
BWF5-2-114	2"	1.1/4"
BWF5-212-114	2.1/2"	1.1/4"
BWF5-212-112	2.1/2"	1.1/2"
BWF5-3-112	3"	1.1/2"
BWF5-3-2	3"	2"
BWF5-4-212	4"	2.1/2"

Tech Sheet 543

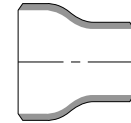
Caps



1097	ID
BWF8-12	1/2"
BWF8-1	1"
BWF8-114	1.1/4"
BWF8-112	1.1/2"
BWF8-4	4"

Tech Sheet 543

Concentric Reducers



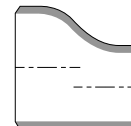
Concentric Reducer



1097	ID	ID
BWF6-34-12	3/4"	1/2"
BWF6-114-34	1.1/4"	3/4"
BWF6-112-12	1.1/2"	1/2"
BWF6-112-1	1.1/2"	1"
BWF6-112-114	1.1/2"	1.1/4"
BWF6-2-1	2"	1"
BWF6-2-114	2"	1.1/4"
BWF6-2-112	2"	1.1/2"
BWF6-212-114	2.1/2"	1.1/4"
BWF6-212-112	2.1/2"	1.1/2"
BWF6-212-2	2.1/2"	2"
BWF6-3-114	3"	1.1/4"
BWF6-3-112	3"	1.1/2"
BWF6-3-2	3"	2"
BWF6-3-212	3"	2.1/2"
BWF6-4-2	4"	2"
BWF6-4-212	4"	2.1/2"
BWF6-4-3	4"	3"

Tech Sheet 543

Eccentric Reducers



Eccentric Reducer



1097	ID	ID
BWF7-112-12	1.1/2"	1/2"
BWF7-112-34	1.1/2"	3/4"
BWF7-112-1	1.1/2"	1"
BWF7-112-114	1.1/2"	1.1/4"
BWF7-2-114	2"	1.1/4"
BWF7-212-112	2.1/2"	1.1/2"
BWF7-3-2	3"	2"
BWF7-3-212	3"	2.1/2"
BWF7-4-212	4"	2.1/2"
BWF7-4-3	4"	3"

Tech Sheet 543

Using standard tube and pipeclamp fittings, imagination is your only limitation to what can be built. From industry to retail from safety to play all can use the pipeclamp system.

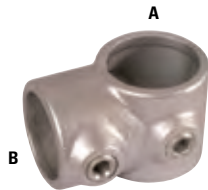
Manufactured to BS EN 1562 1997
Galvanised to BS EN 1461 1999

Applications:

- Safety railings
- Storage bays
- Handrails
- Support framework
- Racking
- Compounds
- Cycle racks
- Hanging rails
- Access and invalid ramps
- Door access and entry guarding

Pipeclamp Size	Tube OD mm	Tube OD inch	Nom Bore mm	Nom Bore inch
1	26.9	1.1/16	20	3/4"
2	33.7	1.1/32	25	1"
3	42.4	1.11/16	32	1.1/4"
4	48.3	1.29/32	40	1.1/2"
5	60.3	2.3/8	50	2"

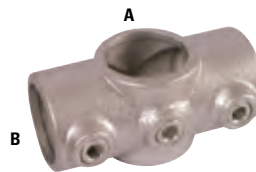
Short Tee (101)



1089	Pipeclamp Size A	Pipeclamp Size B
PCLAMPS-101-1	1	1
PCLAMPS-101-2	2	2
PCLAMPS-101-3	3	3
PCLAMPS-101-4	4	4
PCLAMPS-101-4/3	4	3
PCLAMPS-101-5	5	5
PCLAMPS-101-5/4	5	4

Tech Sheet 1

2 Socket Cross (119)



1089	Pipeclamp Size A	Pipeclamp Size B
PCLAMPS-119-1	1	1
PCLAMPS-119-2	2	2
PCLAMPS-119-3	3	3
PCLAMPS-119-4	4	4
PCLAMPS-119-5	5	5

Tech Sheet 1

90° 3 Way Elbow (128)



1089	Pipeclamp Size
PCLAMPS-128-1	1
PCLAMPS-128-2	2
PCLAMPS-128-3	3
PCLAMPS-128-4	4

Tech Sheet 1

Long Tee (104)



1089	Pipeclamp Size
PCLAMPS-104-1	1
PCLAMPS-104-2	2
PCLAMPS-104-3	3
PCLAMPS-104-4	4
PCLAMPS-104-5	5

Tech Sheet 1

90° 2 Way Elbow (125)



1089	Pipeclamp Size
PCLAMPS-125-1	1
PCLAMPS-125-2	2
PCLAMPS-125-3	3
PCLAMPS-125-4	4
PCLAMPS-125-5	5

Tech Sheet 1

Adjustable Tee (129)



1089	Pipeclamp Size
PCLAMPS-129-2	2
PCLAMPS-129-3	3
PCLAMPS-129-4	4

Tech Sheet 1

3 Way Through (116)



1089	Pipeclamp Size
PCLAMPS-116-1	1
PCLAMPS-116-2	2
PCLAMPS-116-3	3
PCLAMPS-116-4	4
PCLAMPS-116-5	5

Tech Sheet 1

90° 2 Way Swivel Elbow (125H)



1089	Pipeclamp Size
PCLAMPS-125H-3	3
PCLAMPS-125H-4	4

Adjustable Cross (130)



1089	Pipeclamp Size
PCLAMPS-130-2	2
PCLAMPS-130-3	3

Tech Sheet 1

Wall Plate (131)



1089	Pipeclamp Size
PCLAMPS-131-1	1
PCLAMPS-131-2	2
PCLAMPS-131-3	3
PCLAMPS-131-4	4
PCLAMPS-131-5	5

Tech Sheet 1

Base Plate (132)



1089	Pipeclamp Size
PCLAMPS-132-1	1
PCLAMPS-132-2	2
PCLAMPS-132-3	3
PCLAMPS-132-4	4
PCLAMPS-132-5	5

Tech Sheet 1

Plastic Plug (133)



1089	Pipeclamp Size
PCLAMPS-133-1	1
PCLAMPS-133-2	2
PCLAMPS-133-3	3
PCLAMPS-133-4	4
PCLAMPS-133-5	5

Tech Sheet 1

Ground Socket (134)



1089	Pipeclamp Size
PCLAMPS-134-2	2
PCLAMPS-134-3	3
PCLAMPS-134-4	4

Tech Sheet 1

Retro Fit Clamp (135)



1089	Pipeclamp Size
PCLAMPS-135-2	2
PCLAMPS-135-3	3
PCLAMPS-135-4	4

Tech Sheet 1

Gate Eye (138)



1089	Pipeclamp Size
PCLAMPS-138-1	1
PCLAMPS-138-2	2
PCLAMPS-138-3	3
PCLAMPS-138-4	4

Tech Sheet 1

Gate Hinge (140)



1089	Pipeclamp Size
PCLAMPS-140-1	1
PCLAMPS-140-2	2
PCLAMPS-140-3	3

Tech Sheet 1

Wall Mounted Handrail Bracket (143)



1089	Pipeclamp Size
PCLAMPS-143-1	1
PCLAMPS-143-2	2
PCLAMPS-143-3	3
PCLAMPS-143-4	4

Tech Sheet 1

Structural Offset Side Palm Fixing (144)



1089	Pipeclamp Size
PCLAMPS-144-2	2
PCLAMPS-144-3	3
PCLAMPS-144-4	4

Tech Sheet 1

Non Structural Offset Side Palm Fixing (145)



1089	Pipeclamp Size
PCLAMPS-145-2	2
PCLAMPS-145-3	3
PCLAMPS-145-4	4

Tech Sheet 1

Structural Flush Side Palm Fixing (146)



1089	Pipeclamp Size
PCLAMPS-146-2	2
PCLAMPS-146-3	3
PCLAMPS-146-4	4

Tech Sheet 1

Offset Swivel Tee (147)



1089	Pipeclamp Size
PCLAMPS-147-2	2
PCLAMPS-147-3	3
PCLAMPS-147-4	4

Tech Sheet 1

Short Swivel In-line Tee (148)



1089	Pipeclamp Size
PCLAMPS-148-1	1
PCLAMPS-148-2	2
PCLAMPS-148-3	3
PCLAMPS-148-4	4

Tech Sheet 1

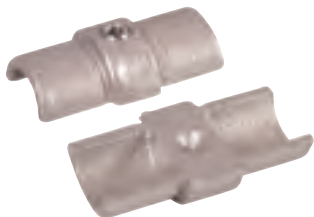
In-line External Tube Connector (149)



1089	Pipeclamp Size
PCLAMPS-149-1	1
PCLAMPS-149-2	2
PCLAMPS-149-3	3
PCLAMPS-149-4	4
PCLAMPS-149-5	5

Tech Sheet 1

In-line Internal Tube Connector (150)



1089	Pipeclamp Size
PCLAMPS-150-2	2
PCLAMPS-150-3	3
PCLAMPS-150-4	4

Tech Sheet 1

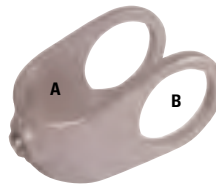
4 Way Cross (158)



1089	Pipeclamp Size
PCLAMPS-158-2	2
PCLAMPS-158-3	3
PCLAMPS-158-4	4

Tech Sheet 1

Retro Fit Clamp on Tee (160)



1089	Pipeclamp Size A	Pipeclamp Size B
PCLAMPS-160-2	2	2
PCLAMPS-160-3	3	3
PCLAMPS-160-4	4	4
PCLAMPS-160-5	5	5

Tech Sheet 1

Offset 90° Crossover (161)



1089	Pipeclamp Size A	Pipeclamp Size B
PCLAMPS-161-1	1	1
PCLAMPS-161-2	2	2
PCLAMPS-161-3	3	3
PCLAMPS-161-3/2	3	2
PCLAMPS-161-4	4	4
PCLAMPS-161-4/2	4	2

Tech Sheet 1

Combination Socket (165)

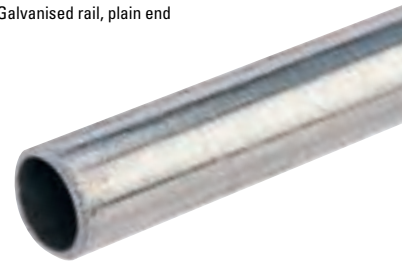


1089	Pipeclamp Size
PCLAMPS-165-1	1
PCLAMPS-165-3	3
PCLAMPS-165-5	5

Tech Sheet 1

Pipeclamp Rails

Galvanised rail, plain end



Pipeclamp Size	Tube OD mm	Tube OD inch	Nom Bore mm	Nom Bore inch
1	26.9	1.1/16	20	3/4"
2	33.7	1.11/32	25	1"
3	42.4	1.11/16	32	1.1/4"
4	48.3	1.29/32	40	1.1/2"
5	60.3	2.3/8	50	2"

6.4 Metre Lengths

1089	Pipeclamp Size
PCLAMP-TUBE1-6.5	1
PCLAMP-TUBE2-6.5	2
PCLAMP-TUBE3-6.5	3
PCLAMP-TUBE4-6.5	4
PCLAMP-TUBE5-6.5	5

Tech Sheet 1

3.2 Metre Lengths

1089	Pipeclamp Size
PCLAMP-TUBE1-3.25	1
PCLAMP-TUBE2-3.25	2
PCLAMP-TUBE3-3.25	3
PCLAMP-TUBE4-3.25	4
PCLAMP-TUBE5-3.25	5

Tech Sheet 1



Additional carriage charges may apply, based on weight and location. Please speak to our Business Development Team for full details.

THE SWIVEL RANGE



The swivel range is constructed using female and male parts. 173F is common to all combinations. Lugs on fittings sizes 1 to 5 have the same dimensions, and sizes can be mixed if required, ie: 173F-1 with 173M-4. In addition to being used with 173F to make the combination, all 'M' fittings can also be used to secure various types of infill in place.

WARNING: An entire structure should not be built just using swivel fittings.

Manufactured to BS EN 1562 1997
Galvanised to BS EN 1461 1999

Pipe- clamp Size	Tube OD mm	Tube OD inch	Nom Bore mm	Nom Bore inch
1	26.9	1.1/16	20	3/4"
2	33.7	1.11/32	25	1"
3	42.4	1.11/16	32	1.1/4"
4	48.3	1.29/32	40	1.1/2"
5	60.3	2.3/8	50	2"

Double In-line Swivel Combination (167)



1089	Pipeclamp Size
PCLAMPS-167-1	1
PCLAMPS-167-2	2
PCLAMPS-167-3	3
PCLAMPS-167-4	4
PCLAMPS-167-5	5

Tech Sheet 1

Double Male In-line Swivel (167M)



1089	Pipeclamp Size
PCLAMPS-167M-3	3
PCLAMPS-167M-4	4

90° Corner Swivel (168)



1089	Pipeclamp Size
PCLAMPS-168-2	2
PCLAMPS-168-3	3
PCLAMPS-168-4	4

Tech Sheet 1

90° Male Corner Swivel (168M)



1089	Pipeclamp Size
PCLAMPS-168M-4	2

Swivel Locating Flange (169)



1089	Pipeclamp Size
PCLAMPS-169-1	1
PCLAMPS-169-2	2
PCLAMPS-169-3	3
PCLAMPS-169-4	4

Tech Sheet 1

Male Swivel Locating Flange (169M)



1089	Pipeclamp Size
PCLAMPS-169M	

Tech Sheet 1

Single Sided Mesh Panel Clip (170)



1089	Pipeclamp Size
PCLAMPS-170-1	1
PCLAMPS-170-2	2
PCLAMPS-170-3	3
PCLAMPS-170-4	4
PCLAMPS-170-5	5

Tech Sheet 1

Double Sided Mesh Panel Clip (171)



1089	Pipeclamp Size
PCLAMPS-171-1	1
PCLAMPS-171-2	2
PCLAMPS-171-3	3
PCLAMPS-171-4	4
PCLAMPS-171-5	5

Tech Sheet 1

Single Swivel (173)



1089	Pipeclamp Size
PCLAMPS-173-2	2
PCLAMPS-173-3	3
PCLAMPS-173-4	4

Female Swivel (173F)



1089	Pipeclamp Size
PCLAMPS-173F-1	1
PCLAMPS-173F-2	2
PCLAMPS-173F-3	3
PCLAMPS-173F-5	5

Tech Sheet 1

Single Male Swivel (173M)



1089	Pipeclamp Size
PCLAMPS-173M-2	2
PCLAMPS-173M-3	3
PCLAMPS-173M-4	4
PCLAMPS-173M-5	5

Tech Sheet 1

3 Way Outlet Tee (176)



1089	Pipeclamp Size
PCLAMPS-176-2	2
PCLAMPS-176-3	3
PCLAMPS-176-4	4
PCLAMPS-176-5	5

Tech Sheet 1

Locking Collar (179)



1089	Pipeclamp Size
PCLAMPS-179-1	1
PCLAMPS-179-2	2
PCLAMPS-179-3	3
PCLAMPS-179-4	4

Tech Sheet 1

Hook (182)



1089	Pipeclamp Size
PCLAMPS-182-2	2
PCLAMPS-182-3	3
PCLAMPS-182-4	4

Tech Sheet 1

Cover (184)



1089	Pipeclamp Size
PCLAMPS-184-2	2
PCLAMPS-184-4	4

Saddle Clamp (198)



1089	Pipeclamp Size
PCLAMPS-198-2	2
PCLAMPS-198-3	3
PCLAMPS-198-4	4

Single Pipe Clamp (199)



1089	Pipeclamp Size
PCLAMPS-199-3	3
PCLAMPS-199-4	4

Slope Range Short Tee (201)



1089	Pipeclamp Size
PCLAMPS-201-2	2
PCLAMPS-201-4	4

Slope Range Long Tee (204)



1089	Pipeclamp Size
PCLAMPS-204-2	2
PCLAMPS-204-4	4

Slope Range Socket Cross (219)



1089	Pipeclamp Size
PCLAMPS-219-2	2
PCLAMPS-219-4	4

Variable Angle In-line Connector (224)



1089	Pipeclamp Size
PCLAMPS-224-2	2
PCLAMPS-224-3	3
PCLAMPS-224-4	4

Slope Range Elbow (225)



1089	Pipeclamp Size
PCLAMPS-225-2	2
PCLAMPS-225-4	4

Tech Sheet 1

THE SWIVEL RANGE



Spare Grubscrews (GS)



1089	Pipeclamp Size
PCLAMPS-GS3-1-2	1-2
PCLAMPS-GS3-4-5	3-4-5
Tech Sheet 1	

Dual Ratchet (233)



1089	Pipeclamp Size
PCLAMPS-233	1-5
Tech Sheet 1	

Allen Keys (235)



1089	Pipeclamp Size	Hex Size
PCLAMPS-235-1-2	1-2	1/4"
PCLAMPS-2353-4-5	3-4-5	3/8"
Tech Sheet 1		

DISABILITY ACCESS



Elbow (DDA1)



1089	Pipeclamp Size
DDA1	3

Post Connector (DDA3)



1089	Pipeclamp Size
DDA3	3

Variable Elbow (DDA5)



1089	Pipeclamp Size
DDA5	3

End Plate (DDA2)



1089	Pipeclamp Size
DDA2	3

Post End Connector (DDA4)



1089	Pipeclamp Size
DDA4	3

Wall Plate (DDA6)



1089	Pipeclamp Size
DDA6	3

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 12

Hose, Couplings, Ducting & Hose Reels

12.01	Hose	1399-1422
12.02	Suction, Delivery Hose & Accessories	1423-1436
12.03	Ducting	1437-1447
12.04	Hose Reels	1448-1466
12.05	Cam & Groove Quick Couplings	1467-1472
12.06	Claw Couplings	1473-1479
12.07	Clamps & Stem Couplings	1480-1482
12.08	Shot Blast & Unicone Fittings	1483-1484
12.09	Storz DIN Couplings	1485-1486
12.10	Trench Pump & Tanker Couplings	1487-1490
12.11	IBC Mortar & Instantaneous Fire Couplings	1491-1496
12.12	Combination Nipples	1497
12.13	Modular Coolant Systems	1498-1502
12.14	Lever Lock Water Couplings	1503-1510

SECTION 12

12.01 Hose

- Braided PVC Hose
- Reinforced PVC Hose
- Hi-Vis Air & Water RPVC Hose
- Superior Rubber Alloy Air Hose & Assemblies
- Safety Compressed Air Hose Assemblies
- Compressed Air Hose
- Specialist Hose & Tubing
- Automotive Tubing & Hose
- Gas Hose
- Welding Hose Sets
- Oxy/Acetylene Equipment
- Water Hoses



1399-1422

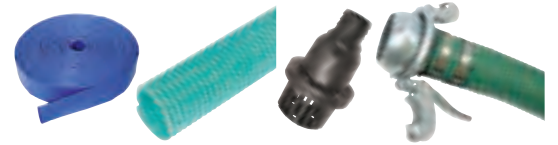


12.02 Suction, Delivery Hose & Accessories

- Layflat Delivery Hoses & Assemblies
- Suction Hose
- Oil Resistant Suction Hose
- Water Suction Hose
- Water Delivery Hose
- Wire Reinforced Suction Hose
- Hozelock Tricoflex
- Contractors Hose
- Industrial Hose
- XLPE Chemical Suction & Delivery Hose
- Anti-static Hose
- Foot Valves & Strainers



1423-1436



12.03 Ducting

- Abrasion-resistant, Anti-static Industrial PUR Ducting
- Antistatic PUR Medium & Heavy-duty Ducting
- Food Grade PUR Ducting
- Suction & Delivery Hoses
- Neoprene & Silicone Ducting
- Industrial Vacuum Hoses & Accessories
- Specialist Clamping Equipment



1437-1447



12.04 Hose Reels

- Air & Water Hose Reels
- Hi-Vis Hose Reels
- Mountable Hose Reels
- Reelworks Hose Reels
- Heavy-duty Hose Reels
- Spring Rewind Cable Reels
- Self-retracting Hose Reels
- Fire Hose Reels & Accessories



1448-1466



12.05 Cam & Groove Quick Couplings

- Aluminium Couplings
- 316 Stainless Steel Couplings
- Polypropylene Couplings
- Brass Couplings
- Cam & Groove Seals & Spares



1467-1472



12.06 Claw Couplings

- Quick Release Pneumatic Hose Couplings
- Quick Release Water Hose Couplings
- Clamps, Hose Clamps & Fasteners



1473-1479



12.07 Clamps and Stem Couplings

- Clamps, Nuts & Bolts
- Steel Air & Steam Couplings & Clamps
- Steam Couplings
- Steam Hose & Assemblies



1480-1482



Hose, Couplings, Ducting & Hose Reels

12.08 Shot Blast and Unicone Fittings



1483-1484

- Shot Blast Couplings, Hose & Nozzle Holders
- Genuine Unicone Fittings



12.09 Storz DIN Couplings



1485-1486

- Storz Din Suction Couplings



12.10 Trench Pump & Tanker Couplings



1487-1490

- Trench Pump Hose Couplings - Lug Type
- Tanker Couplings & Adaptors



12.11 IBC Motar and Instantaneous Fire Couplings



1491-1496

- IBC Off Load System
- Mortar Hose Couplings & Plugs
- Flanges
- Fire Hose & Instantaneous Fire Hose Couplings
- Standpipes, Manhole & Drain Keys



12.12 Combination Nipples



1497

- Combination Steel Nipples & Hose Joiners
- Hexagon Nuts & Tails



12.13 Modular Coolant Systems



1498-1502

- Modular Coolant Hose System



12.14 Lever Lock Water Couplings



1503-1510

- Lever Lock Water Pump Couplings



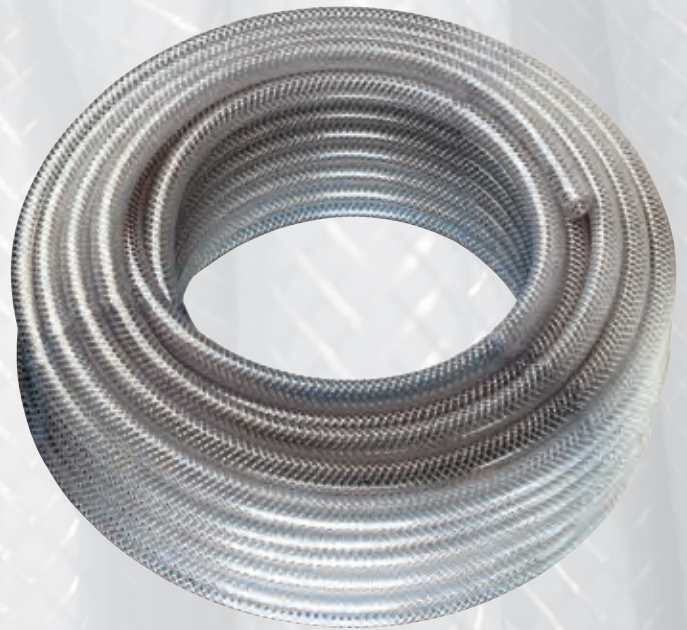


BRAIDED PVC HOSE

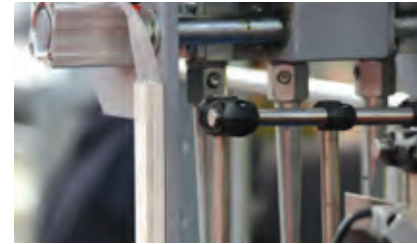
Reinforced PVC Braided Hose, Type RPVC & HDPVC (to BS6066)

Manufactured from top quality crystal clear 'virgin' PVC compound, and ideal for factory airlines, fluid systems and many industrial applications. Reinforced with a high tensile quality polyester yarn, it offers high working pressures and extreme flexibility.

The hose is resistant to a wide range of chemicals (please consult our Business Development Team for further details).



Reinforced PVC Braided Hose, Type RPVC & HDPVC (to BS6066)



Characteristics:

- Excellent abrasion resistance
- High resistance to alkalis and acids
- Silicone free
- Cadmium free
- Low toxicity
- Excellent transparency
- Manufactured to comply with BS6066 and ISO5774
- Produced from FDA approved materials
- Durable, anti-cold proof, non-inflated
- Highly flexible, lightweight and easy to handle
- No fissure phenomenon by ultraviolet rays and direct rays of the sun
- Little expansion or contraction

Applications:

- Water supply and draining
- Transfer of various fluids and powder
- Supplying water, gas, oil, etc. in agriculture and industry
- Compressed air
- Other special purposes

Length*	15 metres	30 metres	100 metres
Size	From 3/16" ID to 2" ID		
Temperature	Min -20°C		Max +65°C

*Other lengths available on request.

Reinforced PVC Braided Hose, Type RPVC (to BS6066)



Medium-duty, 30 Metre Coils

5000	ID mm	ID	OD mm	Colour	Max Pressure Bar
RPVC316	5	3/16"	10	Transparent	13
RPVC316N	5	3/16"	10	Black	13
RPVC14	6	1/4"	11	Transparent	15
RPVC14N	6	1/4"	11	Black	15
RPVC14R	6	1/4"	11	Red	15
RPVC14B	6	1/4"	11	Blue	15
RPVC14G	6	1/4"	11	Green	15
RPVC14Y	6	1/4"	11	Yellow	15
RPVC516	8	5/16"	13	Transparent	15
RPVC516N	8	5/16"	13	Black	15
RPVC516R	8	5/16"	13	Red	15
RPVC516B	8	5/16"	13	Blue	15
RPVC516G	8	5/16"	13	Green	15
RPVC38	10	3/8"	15	Transparent	12
RPVC38N	10	3/8"	15	Black	12
RPVC38R	10	3/8"	15	Red	12
RPVC38B	10	3/8"	15	Blue	12
RPVC38G	10	3/8"	15	Green	12
RPVC38Y	10	3/8"	15	Yellow	12
RPVC12	13	1/2"	18	Transparent	12
RPVC12N	13	1/2"	18	Black	12
RPVC12R	13	1/2"	18	Red	12
RPVC12B	13	1/2"	18	Blue	12
RPVC12G	13	1/2"	18	Green	12
RPVC12Y	13	1/2"	18	Yellow	12
RPVC58	16	5/8"	21	Transparent	10
RPVC58N	16	5/8"	21	Black	10
RPVC34	19	3/4"	25	Transparent	10
RPVC34N	19	3/4"	25	Black	10
RPVC34R	19	3/4"	25	Red	10
RPVC34B	19	3/4"	25	Blue	10
RPVC1	25	1"	31	Transparent	9
RPVC1N	25	1"	31	Black	9
RPVC114	32	1.1/4"	40	Transparent	6
RPVC112	38	1.1/2"	42	Transparent	6
RPVC2	50	2"	60	Transparent	3

Tech Sheet 1884

Medium-duty, 15 Metre Coils

5000	ID mm	ID	OD mm	Colour	Max Pressure Bar
RPVC12-15	13	1/2"	18	Transparent	12
RPVC34-15	19	3/4"	25	Transparent	10
RPVC114-15	32	1.1/4"	40	Transparent	6
RPVC112-15	38	1.1/2"	42	Transparent	6
RPVC2-15	50	2"	60	Transparent	3

Tech Sheet 1884





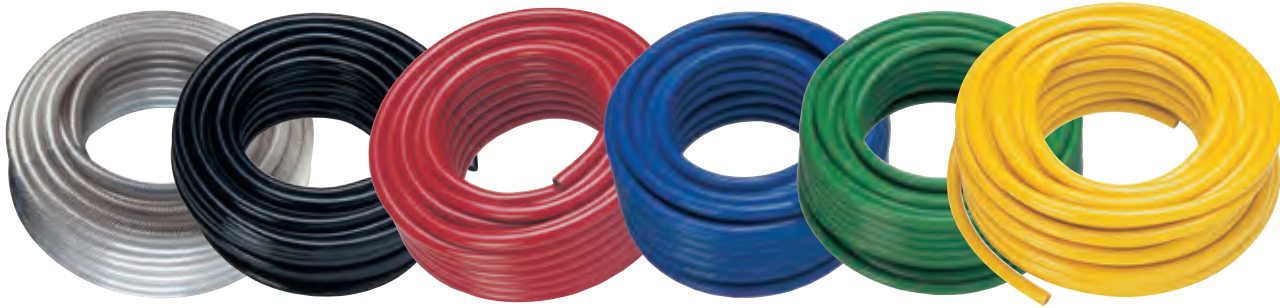
You might also need **Brass Hose Tails**
see page 1141

Clips & Clamps



...see pages 1513-1558

Reinforced PVC Braided Hose, Type RPVC (to BS6066)



Medium-duty, 100 Metre Coils

5000	ID mm	ID	OD mm	Colour	Max Pressure Bar
RPVC14-100	6	1/4"	11	Transparent	15
RPVC14N-100	6	1/4"	11	Black	15
RPVC14R-100	6	1/4"	11	Red	15
RPVC14B-100	6	1/4"	11	Blue	15
RPVC14G-100	6	1/4"	11	Green	15
RPVC14Y-100	6	1/4"	11	Yellow	15
RPVC516-100	8	5/16"	13	Transparent	15
RPVC516N-100	8	5/16"	13	Black	15
RPVC516R-100	8	5/16"	13	Red	15
RPVC516B-100	8	5/16"	13	Blue	15
RPVC38-100	10	3/8"	15	Transparent	12
RPVC38N-100	10	3/8"	15	Black	12
RPVC38R-100	10	3/8"	15	Red	12
RPVC38B-100	10	3/8"	15	Blue	12
RPVC38Y-100	10	3/8"	15	Yellow	12
RPVC12-100	13	1/2"	18	Transparent	12
RPVC12N-100	13	1/2"	18	Black	12
RPVC12R-100	13	1/2"	18	Red	12
RPVC12B-100	13	1/2"	18	Blue	12
RPVC12Y-100	13	1/2"	18	Yellow	12
RPVC34-100	19	3/4"	25	Transparent	10
RPVC1-100	25	1"	31	Transparent	9

Tech Sheet 1884

Heavy-duty, 30 Metre Coils

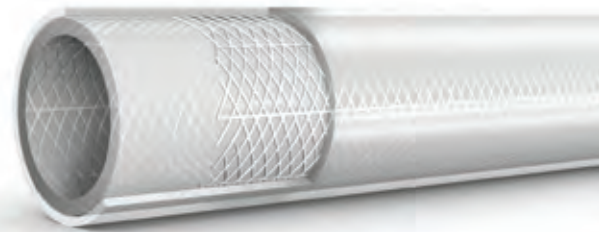
5000	ID mm	ID	OD mm	Colour	Max Pressure Bar
HDPVC14	6.5	1/4"	11.5	Transparent	16
HDPVC14B	6.5	1/4"	11.5	Blue	16
HDPVC14N	6.5	1/4"	11.5	Black	16
HDPVC14R	6.5	1/4"	11.5	Red	16
HDPVC516	8	5/16"	13.5	Transparent	16
HDPVC516B	8	5/16"	13.5	Blue	16
HDPVC516N	8	5/16"	13.5	Black	16
HDPVC516Y	8	5/16"	13.5	Yellow	16
HDPVC38	10	3/8"	16	Transparent	15
HDPVC38B	10	3/8"	16	Blue	15
HDPVC38N	10	3/8"	16	Black	15
HDPVC38R	10	3/8"	16	Red	15
HDPVC38Y	10	3/8"	16	Yellow	15
HDPVC12	12.5	1/2"	18.5	Transparent	12
HDPVC12B	12.5	1/2"	18.5	Blue	12
HDPVC12N	12.5	1/2"	18.5	Black	12
HDPVC12R	12.5	1/2"	18.5	Red	12
HDPVC12Y	12.5	1/2"	18.5	Yellow	12
HDPVC58	16	5/8"	23	Transparent	10
HDPVC34	20	3/4"	26	Transparent	10
HDPVC34B	20	3/4"	26	Blue	10
HDPVC34N	20	3/4"	26	Black	10
HDPVC1	25	1"	33	Transparent	10
HDPVC114	32	1.1/4"	41	Transparent	6
HDPVC112	40	1.1/2"	49	Transparent	6
HDPVC2	50	2"	62	Transparent	3

Tech Sheet 1884



For Wash Down Equipment
see pages 1666-1678





FOOD GRADE BRAIDED PVC HOSE BS6066 & ISO5774



Food Certified Reinforced PVC Braided Hose

This flexible, smooth, corrosion resistant, non-aging, and non-oxidising food grade vinyl plastic tubing is produced from raw materials meeting the FDA approved material requirement.

This braided PVC hose offers the same basic performance as clear PVC hose with more strength and flexibility making it ideal for tight installations where hose flattening and kinking may occur.

Hose is fully tested, certified and carries the food safe logos.

Applications:

- Food stuffs
- Beers
- Cool fluids
- Oils and gases
- Dry powders and granules

Available Lengths:

30 and 100 metres

Sizes from: 1/4" to 2"

Characteristics:

- Excellent abrasion resistance
- Good flexibility
- High resistance to alkalis/acids
- Silicone free
- Cadmium free
- Non toxic
- Excellent transparency
- Manufactured to comply with BS6066 and ISO5774
- Produced with FDA approved materials
- Durable, non-inflated
- High-flexibility, lightweight and easy to handle
- Non fissure phenomenon by ultraviolet rays and direct rays of the sun
- Little expansion or contraction
- Phthalate free

Hose compliant with European regulation (EU) No. 10/2011



° Working Temperature:
-20°C to +65°C



Heavy-duty, 30 Metre Coils

5004	ID mm	ID	OD mm	Max Pressure Bar
FHDPVC14	6.5	1/4"	11.5	16
FHDPVC516	8	5/16"	13.5	16
FHDPVC38	10	3/8"	16	15
FHDPVC12	12.5	1/2"	18.5	12
FHDPVC34	20	3/4"	26	10
FHDPVC1	25	1"	33	10
FHDPVC114	32	1.1/4"	41	6
FHDPVC112	40	1.1/2"	49	6
FHDPVC2	50	2"	62	3

Tech Sheet 10168

Heavy-duty, 100 Metre Coils

5004	ID mm	ID	OD mm	Max Pressure Bar
FHDPVC14-100	6.5	1/4"	11.5	16
FHDPVC516-100	8	5/16"	13.5	16
FHDPVC38-100	10	3/8"	16	15
FHDPVC12-100	12.5	1/2"	18.5	12
FHDPVC34-100	20	3/4"	26	10
FHDPVC1-100	25	1"	33	10

Tech Sheet 10168

Lightweight Flexible Reinforced PVC Hose



- Lightweight – 30% lighter than standard PVC
- Superior kink resistance compared to standard PVC and rubber
- Extremely flexible, making it ideal for use with air tools

Working Temperature:
-15°C to +60°C

Flexible Lightweight PVC Hose

30 Metre Coils

5080	ID mm	OD mm	Colour	Max Pressure Bar	Max Pressure PSI
FLP-06B	6	10.5	Blue	18	260
FLP-08B	8	12.5	Blue	15	220
FLP-10B	10	14	Blue	13	190
FLP-12B	12	17	Blue	11	160

Tech Sheet 20203

BRAIDED PVC HOSE



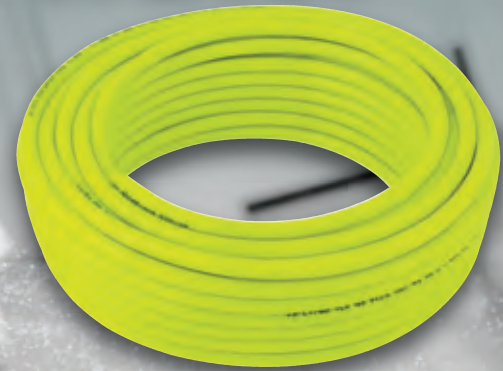
Reinforced PVC Braided Hose

Reinforced PVC Braided Hose, Natural, 30 Metre Coils

5081	ID mm	ID	OD
PVC03	3	1/8"	8
PVC05	5	3/16"	10
PVC06	6.3	1/4"	10.5
PVC08	8	5/16"	12
PVC10	10	3/8"	14
PVC12	12.5	1/2"	17.5
PVC12HD	12	1/2"	18
PVC16	16	5/8"	20.25
PVC19	19	3/4"	24
PVC25	25	1"	31
PVC32	32	1.1/4"	42
PVC38	38	1.1/2"	48
PVC50	50	2"	60



Hi-Vis Air & Water RPVC Hose



The Hi-Vis properties of this hose are fully compliant with Health & Safety (Chromaticity Luminance) BS EN ISO 5774 and EN471:2003. A must for all professional facilities and applications.

Features:

- 20 bar rated
- -20°C to +80°C
- Suitable for potable drinking water
- Self-extinguishing
- High visibility
- Flexible PVC
- UV stable
- Multi-use
- White inner, yellow fluorescent outer
- Material softness BSS50/BSS65

Applications:

- Industrial
- Food
- Wash down
- Garage forecourt
- Workshops
- Vending
- Window cleaning/ high rise
- Festivals and outdoor public events



The components used in production of this hose are compliant with EC and FDA requirements

Applicable Standards BS EN ISO 5774 (plastic hoses, textile-reinforced types for compressed air applications.) Tested in accordance with EN471 : 2003 : Section 5.1,5.1.1 and Table 2 for both chromaticity and luminance.

Hi-Vis Medium-duty, 30 Metre Coils

0349	ID mm	OD mm	Bend Radius mm	Max Pressure Bar
HVIS06-30	6.3	11.5	28	20
HVIS08-30	8	13.5	34	20
HVIS10-30	10	16	40	20
HVIS12-30	12.5	18.5	55	20

Tech Sheet 10091

Hi-Vis Medium-duty, 50 Metre Coils

0349	ID mm	OD mm	Bend Radius mm	Max Pressure Bar
HVIS06-50	6.3	11.5	28	20
HVIS08-50	8	13.5	34	20
HVIS10-50	10	16	40	20
HVIS12-50	12.5	18.5	55	20

Tech Sheet 10091

Hi-Vis Medium-duty, 100 Metre Coils

0349	ID mm	OD mm	Bend Radius mm	Max Pressure Bar
HVIS06-100	6.3	11.5	28	20
HVIS08-100	8	13.5	34	20
HVIS10-100	10	16	40	20
HVIS12-100	12.5	18.5	55	20

Tech Sheet 10091

PVC HOSE & ASSEMBLIES

Reinforced PVC Hose Assemblies

Schrader Standard Series Interchange.



Rectus 17 Series Hose Assemblies

1710	Length Metres	ID
HOSE17/06MM/3M	3	1/4"
HOSE17/06MM/5M	5	1/4"
HOSE17/06MM/10M	10	1/4"
HOSE17/10MM/3M	3	3/8"
HOSE17/10MM/5M	5	3/8"
HOSE17/10MM/10M	10	3/8"
HOSE17/12MM/3M	3	1/2"
HOSE17/12MM/5M	5	1/2"
HOSE17/12MM/10M	10	1/2"

- Twist release type coupling.

Schrader Standard Series Interchange.



AP97 Series Hose Assemblies

0097	Length Metres	ID
HOSE97/06MM/3M	3	1/4"
HOSE97/06MM/5M	5	1/4"
HOSE97/06MM/10M	10	1/4"
HOSE97/10MM/3M	3	3/8"
HOSE97/10MM/5M	5	3/8"
HOSE97/10MM/10M	10	3/8"
HOSE97/12MM/3M	3	1/2"
HOSE97/12MM/5M	5	1/2"
HOSE97/12MM/10M	10	1/2"

PCL Standard Series Interchange.



Rectus 19 Series Hose Assemblies

1910	Length Metres	ID
HOSE19/06MM/3M	3	1/4"
HOSE19/06MM/5M	5	1/4"
HOSE19/06MM/10M	10	1/4"
HOSE19/10MM/3M	3	3/8"
HOSE19/10MM/5M	5	3/8"
HOSE19/10MM/10M	10	3/8"
HOSE19/12MM/3M	3	1/2"
HOSE19/12MM/5M	5	1/2"
HOSE19/12MM/10M	10	1/2"



Rectus 25 Series Hose Assemblies

2510	Length Metres	ID
HOSE25/06MM/3M	3	1/4"
HOSE25/06MM/5M	5	1/4"
HOSE25/06MM/10M	10	1/4"
HOSE25/10MM/3M	3	3/8"
HOSE25/10MM/5M	5	3/8"
HOSE25/10MM/10M	10	3/8"
HOSE25/12MM/3M	3	1/2"
HOSE25/12MM/5M	5	1/2"
HOSE25/12MM/10M	10	1/2"

Clear Un-reinforced PVC Hose, Type CPVC



° Temperature Range:
-15°C to +60°C



Standard Coil Length: 30 Metres

Manufactured from top quality crystal clear "virgin" PVC compound, this hose is ideal for conveying fluids, gases, powders and granules at low pressure. Full chemical resistance information is available from our Business Development Team.

All the hoses are made from NSF and DA approved material, suitable for food and drink.

All materials used have FDA and BGA, UK S.I. No.1523 and EEC Directive 78/142/EEC Approval for use in food contact applications.

Please note: No recommended burst pressures/working pressures due to hose being un-reinforced.

Light-duty, 30 Metre Coils

5000	ID mm	ID	OD mm
CPVC18/15	3	1/8"	5
CPVC532/10	4	5/32"	6
CPVC316/15	5	3/16"	7
CPVC14/15	6	1/4"	8
CPVC516/15	8	5/16"	11
CPVC38/15	10	3/8"	12
CPVC12/15	12	1/2"	15
CPVC58/15	15	5/8"	19
CPVC34/15	19	3/4"	22.5

Tech Sheet 20204

Medium-duty, 30 Metre Coils

5000	ID mm	ID	OD mm
CPVC5/11	5	3/16"	11
CPVC6/12	6	1/4"	12
CPVC8/14	8	5/16"	14
CPVC10/16	10	3/8"	16
CPVC12/18	12	1/2"	18
CPVC16/22	16	5/8"	22
CPVC19/25	19	3/4"	25
CPVC25/31	25	1"	31

Tech Sheet 20205



For Water Guns
see pages 1657-1658




Superior Rubber Alloy Air Hose & Assemblies

The **superior** rubber alloy hose is the result of years of research and development to find the optimum compound used to manufacture a hose with the total feel and capabilities of a rubber hose but without the associated disadvantages.



Hose can be ordered in various lengths.
Please contact Sales with your application requirements.

- **Braided reinforcement:** high tensile polyester braid
- **Highly flexible:** excellent bend radius with anti-kink capabilities
- **Durable:** excellent abrasion resistance, plus oil and fuel resistant outer cover
- **Silicone free**
- **Safe:** highly visible green stripe for safety against becoming a trip hazard
- **Ideal for outside:** excellent ozone resistance, making it a number one choice for outdoor applications
- **Smooth bore:** consistent internal and external dimensions, with a smooth bore for optimum flow

 **Working Temperature:**
-20°C to +60°C

 **Maximum Working Pressure:**
20 bar

Rubber Alloy Air Hose

30 Metre Coils

0410	ID	ID mm	OD mm
SRAH06X	1/4"	6.3	14
SRAH08X	5/16"	8	17
SRAH10X	3/8"	10	19
SRAH13X	1/2"	12.5	23
SRAH19X	3/4"	19	30
SRAH25X	1"	25	37

Tech Sheet 20738

100 Metre Coils

0410	ID	ID mm	OD mm
SRAH06X-100	1/4"	6.3	14
SRAH08X-100	5/16"	8	17
SRAH10X-100	3/8"	10	19
SRAH13X-100	1/2"	12.5	23
SRAH19X-100	3/4"	19	30
SRAH25X-100	1"	25	37

Tech Sheet 20738

Rubber Alloy Hose Assemblies

The new superior rubber alloy hose comes from years of research and development to find the optimum compound used to manufacture a hose with the total feel and capabilities of a rubber hose but without the associated negative aspects.

- High tensile polyester braid for reinforcement
- Excellent bend radius with anti kink capabilities
- Excellent abrasion resistance
- Oil resistant outer cover
- Fuel resistant outer cover

- Silicone free
- Highly visible green stripe for safety against becoming a trip hazard
- Excellent ozone resistance, making it a number one choice for outdoor applications
- Consistent on both internal and external dimensions, with a smooth bore for optimum flow

Each end fitting is brass BSPP female with a 60° sealing cone fixed to the hose via a brass ferrule, giving a full mechanical seal.

Working Temperature:
-20°C to +60°C

Maximum Working Pressure:
20 bar



Female Thread, BSPP

0410	ID	Thread	Length Metres
SRAH06-5	1/4"	1/4"	5
SRAH06-10	1/4"	1/4"	10
SRAH06-15	1/4"	1/4"	15
SRAH06-20	1/4"	1/4"	20
SRAH08-5	5/16"	1/4"	5
SRAH08-10	5/16"	1/4"	10
SRAH08-15	5/16"	1/4"	15
SRAH08-20	5/16"	1/4"	20
SRAH10-5	3/8"	3/8"	5
SRAH10-10	3/8"	3/8"	10
SRAH10-15	3/8"	3/8"	15
SRAH10-20	3/8"	3/8"	20
SRAH13-5	1/2"	1/2"	5
SRAH13-10	1/2"	1/2"	10
SRAH13-15	1/2"	1/2"	15
SRAH13-20	1/2"	1/2"	20



Rectus Series 100

0410	ID	Length Metres
SRAH100/13-10	1/2"	10
SRAH100/13-15	1/2"	15
SRAH100/13-20	1/2"	20
SRAH100/13-30	1/2"	30



Rectus Series 25

0410	ID	Length Metres
SRAH25/10-5	3/8"	5
SRAH25/10-10	3/8"	10
SRAH25/10-15	3/8"	15
SRAH25/10-20	3/8"	20



Rectus Series 100 Plug x 1/2" Male Thread, BSPT

0410	ID	Length Metres
SRAH1/2X100-10	1/2"	10
SRAH1/2X100-20	1/2"	20



Leader Hose, Plug x Male Thread, BSPT, 0.6 Metre Length

0410	ID	Thread	To Suit
LDSRAH06X0.6	1/4"	1/4"	Rectus Series 19
LDSRAH10X0.6	3/8"	3/8"	Rectus Series 19
LDSRAH10X0.6-19	1/2"	1/2"	Rectus Series 19
LDSRAH13X0.6	3/8"	1/4"	Rectus Series 100
LDSRAH10X0.6-XF	3/8"	1/4"	Rectus Series 25



Rectus Series 19

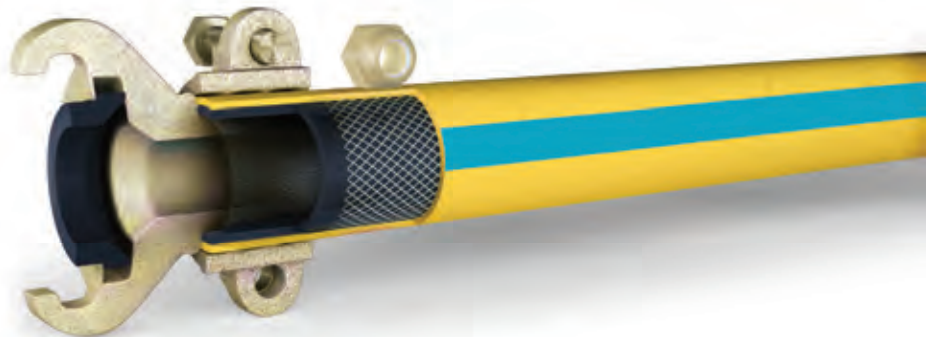
0410	ID	Length Metres
SRAH19/8-5	5/16"	5
SRAH19/10-5	3/8"	5
SRAH19/8-10	5/16"	10
SRAH19/10-10	3/8"	10
SRAH19/8-15	5/16"	15
SRAH19/10-15	3/8"	15
SRAH19/8-20	5/16"	20
SRAH19/10-20	3/8"	20



Rectus Series 19 Plug x 1/4" Male Thread, BSPT

0410	ID	Length Metres
SRAH08X1/4X19-10	5/16"	10
SRAH08X1/4X19-20	5/16"	20
SRAH10X1/4X19-10	3/8"	10
SRAH10X1/4X19-20	3/8"	20

Superior Safety Compressed Air Hose Assemblies




DCH hose is manufactured with a special formula which will outperform PVC and rubber in all application requirements.

- Greater temperature range for all weather and environment applications
- Improved abrasion compared to both PVC and rubber
- Tensile strength 10% better than rubber up to 150kg
- Coupling retention tried and tested up to 200kg
- Excellent flexibility, even in sub zero temperatures
- Full hose traceability

All assemblies are supplied complete with FT Pro safety clasp couplings, rubber sealing ring and anti-vibration nuts.

 **Working Temperature:**
-30°C to +60°C

 **Maximum Working Pressure:**
20 bar
3:1 ratio

15 Metre

5995	ID mm	OD mm	Bend Radius mm
DCH-3/4-15SAFETY	19	29	60

Tech Sheet 20541

SAFETY Compressed Air Hose Assembly, 300psi

- Supplied complete with Jaymac safety claw couplings and clamps, which have fitted as standard anti-vibration nyloc style nuts
- High quality mandrel built rubber hose (RTH only)



Rubber, 15 Metre Coils

5995	ID mm	OD mm
RTH-3/4-15SAFETY	19	29

Tech Sheet 20207



PVC, 15 Metre Coils

5995	ID mm	OD mm
PTH-3/4-15SAFE	19	29

Tech Sheet 20207

Compressed Air Hose

HOSE ONLY



Hose Only Rubber, 15 Metre Coils

5995	ID mm	OD mm
RTH-3/4-15M	19	29

Safety Valves

The HoseGuard® is a simple, but efficient protection of a broken compressed-air hose. The air supply is shut off immediately by the HoseGuard®, should the volume of air exceed a set value. This "value" is preset by the manufacturer and is of course, set in a way that allows normal air consumption when using air tools. The HoseGuard® is made so that it ensures a constant bleeding through a tiny nozzle, making the hoseguard return to zero position, once the broken hose has been repaired. The HoseGuard® remains closed until the connection to the mains pipe has been disconnected.

Protection of personnel, machinery and equipment EU 983 and ISO 4414 standard conformity

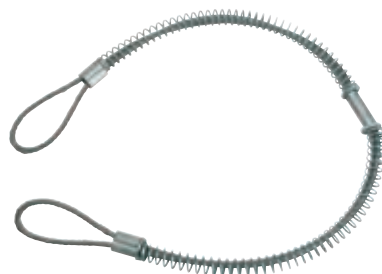


Air Fuses, BSPP

0093	Thread	Inlet	Outlet	LPM
281A0211	1/4"	Female	Female	0-740
281A0221	1/4"	Male	Female	0-740
281A0311	3/8"	Female	Female	0-2400
281A0321	3/8"	Male	Female	0-2400
281A0411	1/2"	Female	Female	0-4000
281A0421	1/2"	Male	Female	0-4000
281A0511	3/4"	Female	Female	0-5300
281A0611	1"	Female	Female	0-11000
281A0911	2"	Female	Female	0-37000

Tech Sheet 1350

Whip Check Hose Safety Device



We recommend the use of whip checks on all compressor hose assemblies.

Whip Check Hose Safety Device

0019	OD	Kg
WCSD-1332	1/2" to 1.1/4"	560
WCSD-3876	1.1/2" to 3"	2300

Tech Sheet 10247

Compressed Air Plant Hose 300psi



PVC Hose

5995	ID	OD mm	Length Metres
PTH-1/2-100	1/2"	22	100
PTH-3/4-90	3/4"	29	90
PTH-1-60	1"	35	60

Tech Sheet 20206

Rubber Air Hose Assemblies



1/4" Male Thread, BSPT

6000	ID	Length Feet	Length Metres
RUB14-25	1/4"	25	7.6
RUB14-50	1/4"	50	15.2
RUB38-25	3/8"	25	7.6
RUB38-50	3/8"	50	15.2



1/4" Male Thread BSPT x Blow Gun

6000	ID	Length Feet	Length Metres	Blow Gun Type
RUB14-25ASG	1/4"	25	7.6	ASG-1
RUB14-50ASG	1/4"	50	15.2	ASG-1
RUB38-25ASG	3/8"	25	7.6	ASG-1
RUB14-25BG5	1/4"	25	7.6	BG5
RUB38-25BG5	3/8"	25	7.6	BG5
RUB38-50BG5	3/8"	50	15.2	BG5
RUB38-25BG718	3/8"	25	7.6	BG718
RUB38-50BG718	3/8"	50	15.2	BG718

Compressed Air Hoses

Black smooth abrasion resistant rubber cover with black oil mist resistant rubber tube.

Single braid of synthetic cord reinforcement conforming to BS5118/1 (300psi W.P.) and to the physical requirements of BS ISO 2398 Type 3 Class A 1995.



Maximum Working Pressure:
20 bar



300psi Compressed Air Plant Hose, 100 Metre Coils

6013	ID	ID mm	OD mm
PTL-3/16-100	3/16"	5	13
PTL-1/4-100	1/4"	6	14
PTL-5/16-100	5/16"	8	16
PTL-3/8-100	3/8"	10	18
PTL-1/2-100	1/2"	13	22
PTL-3/4-100	3/4"	19	29

175psi Rubber Compressed Air Hose

Manufactured to BS5119/1,
BS ISO 2398 Type 3, Class A 1995



Maximum Working Pressure:
12 bar



25 Metre Coils

6000	ID	ID mm	OD mm
2020-8294	1/4"	6.3	12.5
2020-8369	5/16"	8	16
2020-8377	3/8"	10	17
2020-8385	1/2"	13	22
2044-1028	5/8"	16	27
2044-1036	3/4"	19	30
2044-1044	1"	25	38

Tech Sheet 20180

Aqua Vend - Water Vending Hose

Reinforced PVC hose. Ideal for the conveyance of potable cold and hot water. Mirror smooth inner layers for improved flow rates. WRC approved material, will not support microbiological growth. Manufactured to BS EN ISO 9002.



10 Metre Coils

6010	ID mm	OD mm	Max Pressure PSI	Max Pressure Bar
AQV-12-10	6.3	12	300	20.5
AQV-16-10	10	16	221	15
AQV-19-10	12.5	19	216	15
AQV-26-10	19	26	191	13
AQV-33-10	25	33	147	10

Tech Sheet 10266

30 Metre Coils

6010	ID mm	OD mm	Max Pressure PSI	Max Pressure Bar
AQV-12-30	6.3	12	300	20.5
AQV-16-30	10	16	221	15
AQV-19-30	12.5	19	216	15
AQV-26-30	19	26	191	13

Tech Sheet 10266

150 psi Non Marking Wash Down Hose

White smooth rubber cover and white rubber tube with single braid of synthetic cord reinforcement suitable for use with hot water up to 100°C and a maximum operating pressure of 150psi. The non marking cover is animal fat resistant.



50 Metre Coils

5998	ID	OD mm
WDH-1/2-50	1/2"	21

Dairy Steam Hose, FDA Approved

Tube: White EPDM food quality, taste and odour free

Reinforcement: High tensile textile cord

Cover: EPDM blue smooth with cloth impression

Application: Dairy washdown hose, resistant against alcohol and bacteria, FDA approved material

Working Temperature:
-35°C to +170°C

Maximum Working Pressure:
7 bar



40 Metre Coils

0429	ID	ID mm	OD mm	Bend Radius mm
DWH-12	1/2"	13	23	91
DWH-34	3/4"	19	31	133
DWH-1	1"	25	37	175

Tech Sheet 10545

Tiger Tail Effluent Hose

Working Temperature:
-40°C to +60°C



With Cuffs, 15 Metre Coils

0437	ID	ID mm
TIGERTAIL-51-15	2"	51

Corrugated Radiator Hose

Lining: Black heat resistant EPDM rubber.

Reinforcement: Synthetic textile fabric, with steel wire helix, embedded between the layers.

Cover: Black, heat, weather, ozone resistant EPDM rubber.

Temperature Range:
-40°C to +120°C

Maximum Working Pressure: 2 bar



1 Metre Lengths

6014	ID	ID mm	OD mm	Max Pressure PSI
CRH-78	7/8"	22	30	30
CRH-1	1"	25	34	30
CRH-118	1.1/8"	28	36	30
CRH-114	1.1/4"	32	41	30
CRH-138	1.3/8"	35	45	30
CRH-112	1.1/2"	38	47	30
CRH-134	1.3/4"	44.5	55	30
CRH-2	2"	51	61	30

Radiator Hose

Tube: Black SBR (anti-freeze) resistant rubber.

Reinforcement: Polyester type cord 2 ply.

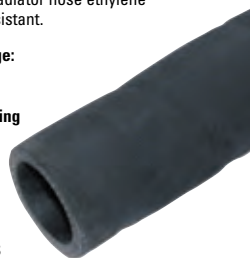
Safety Factor: 3:1

Cover: Black SBR heat abrasion and weather resistant.

Application: Vehicle radiator hose ethylene glycol (anti-freeze) resistant.

Temperature Range:
-30°C to +100°C

Maximum Working Pressure: 3 bar



1 Metre Lengths

6000	ID	ID mm	OD mm	Max Pressure PSI
RH-78	7/8"	22	30	45
RH-1	1"	25	34	45
RH-118	1.1/8"	28	36	45
RH-1316	1.3/16"	30	38	45
RH-114	1.1/4"	32	41	45
RH-138	1.3/8"	35	45	45
RH-112	1.1/2"	38	47	45
RH-1916	1.9/16"	40	49	45
RH-158	1.5/8"	42	52	45
RH-134	1.3/4"	45	55	45
RH-178	1.7/8"	48	58	45
RH-2	2"	51	61	45
RH-214	2.1/4"	57	67	45
RH-238	2.3/8"	60	70	45
RH-212	2.1/2"	63	73	45
RH-3	3"	76	86	45
RH-4	4"	102	112	45

Car Heater Hose SAEJ20R3

Tube: Black coolant and heat resistant rubber.

Reinforcement: High Strength Polyester yarn 2 Ply.

Cover: Abrasion ozone and heat resistant rubber.

Application: Automotive O.E.M. and replacement market for under bonnet use.

Temperature Range:
-35°C to +100°C

Maximum Working Pressure: 9 bar



20 Metre Coils

6012	ID	ID mm	OD mm	Max Pressure PSI
2020-9276	3/8"	9.53	19	132
2020-9284	1/2"	12.5	21	132
2020-9292	5/8"	16	23	132
2020-9300	3/4"	19	27	132
2035-3637	1"	25	36	132

Cotton Overbraid Fuel Hose DIN 73379 Type B 1983

Tube: Black fuel and oil resistant rubber.

Cover: Cotton

Application: Fuel hose for automotive use (including unleaded)

Safety Factor: 3:1

Temperature Range:
-40°C to +85°C Max Peak

Maximum Working Pressure:
145 psi (10 bar)



20 Metre Coils

6015	ID mm	OD mm
COF-3.2	3.2	7
COF-3.5	3.5	7.5
COF-4.0	4	9
COF-4.5	4.5	9.5
COF-5.0	5	10
COF-5.5	5.5	10.5
COF-6.0	6	11
COF-7.0	7	12
COF-7.5	7.5	12.5
COF-8.0	8	13
COF-9.0	9	14
COF-10	10	15
COF-12	12	18

Tech Sheet 10267

Petrol Hose, SAEJ30R6

Tube: Black fuel and oil resistant rubber.

Reinforcement: Polyester yarn 2 ply.

Cover: Black abrasion oil and ozone weather resistant.

Application: Delivery of petrol/diesel and petroleum based product. For the replacement automotive market.

Safety Factor: 3:1 minimum

Working Temperature:
-30°C to +100°C



10 Metre Coils

6021	ID	ID mm	OD mm	Max Pressure PSI
2020-9318	3/16"	5	11	290
2020-9326	1/4"	6	12	290
2020-9334	5/16"	8	14	290
2020-9359	3/8"	10	18	290
2035-3645	1/2"	13	23	290

Diesel Drop Hose

Application: Diesel, air and water delivery up to 20 bar

Tube: Oil resistant rubber alloy

Reinforcement: Synthetic textile braid

Cover: Black weather and ozone resistant with purple stripe

Safety Factor: 3-1

50 Metre Coils

6016	ID	OD mm
P6320/019	3/4"	28
P6320/025	1"	34

Tech Sheet 10801



Bio Diesel Hose ISO 1307

Tube: Fuel and oil Resistant, smooth NBR rubber.

Reinforcement: High tensile synthetic textile.

Cover: Abrasion, ozone, weather and oil resistant special synthetic rubber.

Application: Delivery of fuels in internal combustion engines for lubrication and greasing services.

Working Temperature:
-35°C to +70°C

Maximum Working Pressure: 10 bar

Cut to Length, Per Metre

6000	ID mm	OD mm
OTR445-10NL-08	8	14
OTR445-10NL-10	10	16



Radiator Hose

Tube: Heat resistant EPDM rubber

Reinforcement: High tensile synthetic textile

Cover: Heat, aging and weather resistant EPDM based rubber

Application: Cooling systems of automotive and stationary engines.

Working Temperature:
-40°C to +125°C

Maximum Working Pressure: 4 bar



90° Bend, 8" Legs

0276	ID mm
RAD-90-10	10
RAD-90-13	13
RAD-90-16	16
RAD-90-19	19
RAD-90-22	22
RAD-90-25	25
RAD-90-28	28
RAD-90-32	32
RAD-90-35	35
RAD-90-38	38
RAD-90-51	51
RAD-90-63	63
RAD-90-76	76

Bio Diesel Delivery Hose

Tube: Flexible smooth oil resistant PVC/NBR compound

Reinforcement: Synthetic textile

Cover: Black weather and ozone resistant

Application: For the transfer of diesel, fuels, water and air in more demanding service environments.

Working Temperature:
-10°C to +60°C

Maximum Working Pressure: 20 bar



50 Metre

0277	ID	ID mm	OD mm
BIODDH-34	3/4"	19	28
BIODDH-1	1"	25	34

Coolant & Heater Hose (SAE J20 Class A)

Working Temperature:
-50°C to +170°C

Maximum Working Pressure:
5 bar

- 3 ply polyester reinforced silicone; colour blue.
- Wall thickness 4.5mm ± 0.5mm.
- Smooth finish inner and outer.
- 1 metre long.



Straight

0276	ID mm
CHS8	8
CHS95	9.5
CHS11	11
CHS13	13
CHS16	16
CHS19	19
CHS22	22
CHS25	25
CHS28	28
CHS32	32
CHS35	35
CHS38	38
CHS41	41
CHS45	45
CHS48	48
CHS51	51
CHS54	54
CHS57	57
CHS60	60
CHS63	63
CHS70	70
CHS76	76
CHS89	89
CHS102	102

- 3 ply polyester reinforced silicone; colour blue.
- Both leg lengths 102mm unless otherwise stated.
- Wall thickness 4.5mm ± 0.5mm.
- Finish smooth inside, fabric wrapped rubber finish on the outside.



45° Angled Elbows

0276	ID mm
CH4513	13
CH4516	16
CH4519	19
CH4522	22
CH4525	25
CH4528	28
CH4532	32
CH4535	35
CH4538	38
CH4541	41
CH4545	45
CH4548	48
CH4551	51
CH4554	54
CH4557	57
CH4560	60
CH4563	63
CH4570	70
CH4576	76

- 3 ply polyester reinforced silicone for 9.5 to 70 bore, 4 ply for 76 bore and above; colour blue.
- Leg length 102mm.
- Wall thickness 3 ply 4.5mm ± 0.5mm. 4 ply 6mm ± 0.5mm.
- Smooth finish inner and outer.



90° Elbows Bus & Truck

0276	ID mm
CH9013	13
CH9016	16
CH9019	19
CH9022	22
CH9025	25
CH9028	28
CH9032	32
CH9035	35
CH9038	38
CH9041	41
CH9045	45
CH9048	48
CH9051	51
CH9054	54
CH9057	57
CH9060	60
CH9063	63
CH9070	70
CH9076	76
CH9089	89
CH90102	102



135° Elbows

0276	ID mm
CH13513	13
CH13522	22
CH13535	35
CH13538	38
CH13541	41
CH13551	51
CH13554	54
CH13557	57

Orange Propane Hose

Orange smooth pin pricked rubber cover and black rubber tube with a single braid of synthetic cord reinforcement. Conforms to EN5591995.

Please note:

For assemblies please contact Technical Sales.

Working Temperature:
-40°C to +90°C

Maximum Working Pressure: 20 bar



25 Metre Coils

6000	ID	OD mm
GWH-1/4-250	1/4"	14
GWH-5/16-250	5/16"	16
GWH-3/8-250	3/8"	18

15 Metre Coils

6000	ID	OD mm
GWH-1/4-15	1/4"	14
GWH-5/16-15	5/16"	16
GWH-3/8-15	3/8"	18

10 Metre Coils

6000	ID	OD mm
GWH-1/4-10	1/4"	14
GWH-5/16-10	5/16"	16
GWH-3/8-10	3/8"	18

Galvanised Overbraid Propane Hose

Working Temperature:
-30°C to +70°C

Maximum Working Pressure: 20 bar



Propane 25 Metre Coils

6000	ID	OD mm
GGWH-1/4-25	1/4"	13.3
GGWH-3/8-25	3/8"	17

Blue Oxygen/Red Acetylene Twin Hose

Working Temperature:
-35°C to +90°C

Maximum Working Pressure: 20 bar



50 Metre Coils

6000	ID	OD mm
GWH-1/4-50-TWIN	1/4"	13
GWH-5/16-50-TWIN	5/16"	15
GWH-3/8-50-TWIN	3/8"	17

Tech Sheet 10046

Gas Welding Hose

Single line oxy-acetylene hose with red or blue smooth rubber cover with black rubber tube. Single braid of synthetic cord reinforcement. Conforms to EN 559 1995.

Please note:

For assemblies please contact Technical Sales.

Working Temperature:
-35°C to +90°C

Maximum Working Pressure: 20 bar



Blue Oxygen, 25 Metre Coils

6000	ID	OD mm
GWH-1/4-25B	1/4"	13
GWH-5/16-25B	5/16"	15
GWH-3/8-25B	3/8"	17

Blue Oxygen, 100 Metre Coils

6000	ID	OD mm
GWH-1/4-100B	1/4"	13
GWH-5/16-100B	5/16"	15
GWH-3/8-100B	3/8"	17

Working Temperature:
-35°C to +90°C

Maximum Working Pressure: 20 bar



Red Acetylene, 25 Metre Coils

6000	ID	OD mm
GWH-1/4-25R	1/4"	13
GWH-5/16-25R	5/16"	15
GWH-3/8-25R	3/8"	17

Red Acetylene, 100 Metre Coils

6000	ID	OD mm
GWH-1/4-100R	1/4"	13
GWH-5/16-100R	5/16"	15
GWH-3/8-100R	3/8"	17

For **Welding Gauges**



...see page 412

Oxygen Hose Sets

Swaged hose sets conforming to EN559 Hose and BS6158 check valves. All hoses tested.

Sets consists of two lengths of hose oxygen and acetylene complete with double safety check valve, nuts and tails.



Acetylene

0085	ID	Length Metres	Check Valve
2050-2217	1/4"	5	1/4" BSPP
2050-2225	1/4"	10	1/4" BSPP
2050-2233	1/4"	15	1/4" BSPP
2050-2241	1/4"	20	1/4" BSPP
2050-2258	1/4"	5	3/8" BSPP
2050-2266	1/4"	10	3/8" BSPP
2050-2274	1/4"	15	3/8" BSPP
2050-2282	1/4"	20	3/8" BSPP
2050-2290	5/16"	5	3/8" BSPP
2050-2308	5/16"	10	3/8" BSPP
2050-2316	5/16"	15	3/8" BSPP
2050-2324	5/16"	20	3/8" BSPP
2050-2332	3/8"	5	3/8" BSPP
2050-2340	3/8"	10	3/8" BSPP
2050-2357	3/8"	15	3/8" BSPP
2050-2365	3/8"	20	3/8" BSPP

Swaged hose sets conforming to EN559 Hose and BS6158 check valve. All hoses tested.

Sets consists of two lengths of hose oxygen and propane complete with double safety check valve, nuts and tails.



Propane

0085	ID	Length Metres	Check Valve
2050-2373	1/4"	5	1/4" BSPP
2050-2381	1/4"	10	1/4" BSPP
2050-2415	1/4"	5	3/8" BSPP
2050-2506	3/8"	10	3/8" BSPP
2050-2522	3/8"	20	3/8" BSPP

OXY/ACETYLENE EQUIPMENT

Oxy/Acetylene Couplings

Hex Nipples

0121	Description
OEMC14	1/4" BSPP Right Hand
AEMC14	1/4" BSPP Left Hand
OEMC38	3/8" BSPP Right Hand
AEMC38	3/8" BSPP Left Hand
OEMC3814	3/8" x 1/4" BSPP Right Hand
AEMC3814	3/8" x 1/4" BSPP Left Hand



Tails

0121	Description
OT1414	1/4" Tail for 1/4" Nuts
OT1438	1/4" Tail for 3/8" Nuts
OT516	5/16" Tails
OT38	3/8" Tails



Double Check Safety Valve

0121	Description
ODSCV3838	3/8" Tail with 3/8" Oxy Nut Right Hand
ADSCV3838	3/8" Tail with 3/8" Acet Nut Left Hand
ODSCV51638	5/16" Tail with 3/8" Oxy Nut Right Hand
ADSCV51638	5/16" Tail with 3/8" Acet Nut Left Hand
ODSCV1438	1/4" Tail with 3/8" Oxy Nut Right Hand
ADSCV1438	1/4" Tail with 3/8" Acet Nut Left Hand
ODSCV1414	1/4" Tail with 1/4" Oxy Nut Right Hand
ADSCV1414	1/4" Tail with 1/4" Acet Nut Left Hand



Nuts, BSPP

0121	Description
ON14	1/4" Right Hand
AN14	1/4" Left Hand
ON38	3/8" Right Hand
AN38	3/8" Left Hand



OVER BRAIDED HOSE & FITTINGS



Due to changed regulations, the supplied fittings may differ from the images shown, brass nickel-plated versions will be phased out and replaced by brass

EPDM Rubber Hose, 304 Stainless Steel Overbraid

Working Temperature:
-20°C to +100°C

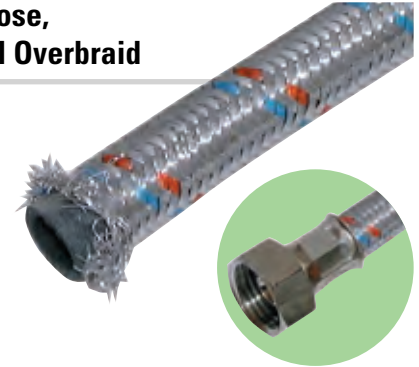


30 Metres

5003	ID mm	OD mm	Max Pressure Bar
BX-8	8	12	15
BX-10	10	14	15
BX-13	13	18	15
BX-19	19	27	10

Nitrile Rubber Hose, Galvanised Steel Overbraid

Working Temperature:
-20°C to +80°C



50 Metres

5003	ID mm	OD mm	Max Pressure Bar
BR-6	6	10	15
BR-8	8	13	15
BR-10	10	15	15
BR-13	13	19	10

Straight Hose Tail Fittings, Brass



Male Thread, BSPT

5003	To Suit Hose ID	Thread
MC1/8-6	6mm (1/4")	1/8"
MC1/4-6	6mm (1/4")	1/4"
MC1/4-8	8mm (5/16")	1/4"
MC3/8-8	8mm (5/16")	3/8"
MC3/8-10	10mm (3/8")	3/8"
MC1/2-10	10mm (3/8")	1/2"
MC3/8-13	13mm (1/2")	3/8"
MC1/2-13	13mm (1/2")	1/2"
MC3/4-13	13mm (1/2")	3/4"
MC1/2-16	16mm (5/8")	1/2"
MC3/4-19	19mm (3/4")	3/4"
MC1-25	25mm (1")	1"
MC11/4-32	32mm (1.1/4")	1.1/4"

Not supplied with washers.
For washers see page 1421



Female Thread, Flat Faced Seat, BSPP

5003	To Suit Hose ID	Thread
FP3/8-10BX	10mm (3/8")	3/8"
FP1/2-10BX	10mm (3/8")	1/2"
FP3/4-10BX	10mm (3/8")	3/4"
FP3/8-13BX	13mm (1/2")	3/8"
FP1/2-13BX	13mm (1/2")	1/2"
FP3/4-13BX	13mm (1/2")	3/4"
FP3/4-16BX	16mm (5/8")	3/4"
FP3/4-19BX	19mm (3/4")	3/4"
FP1-19BX	19mm (3/4")	1"
FP1-25BX	25mm (1")	1"
FP11/2-40BX	40mm (1.1/2")	1.1/2"



Female Thread, Coned Seat, BSPP

5003	To Suit Hose ID	Thread
F01/8-6	6mm (1/4")	1/8"
F01/4-6	6mm (1/4")	1/4"
F03/8-6	6mm (1/4")	3/8"
F01/4-8	8mm (5/16")	1/4"
F03/8-10	10mm (3/8")	3/8"
F03/8-13	13mm (1/2")	3/8"
F01/2-13	13mm (1/2")	1/2"
F03/4-16	16mm (5/8")	3/4"
F03/4-19	19mm (3/4")	3/4"
F011/4-32	32mm (1.1/4")	1.1/4"



Metric Compression, Brass/Nickel Plated

5003	To Suit Hose ID	OD mm
MB15-10BX	10mm (3/8")	15
MB15-13BX	13mm (1/2")	15
MB22-13BX	13mm (1/2")	22
MB22-19BX	19mm (3/4")	22

90° Elbow Hose Tail Fittings, Brass

Not supplied with washers.



Female Thread, Flat Face, BSPP

5003	To Suit Hose ID	Thread
FPN1/2-8	8mm (5/16")	1/2"
FPN3/8-10	10mm (3/8")	3/8"
FPN1/2-10	10mm (3/8")	1/2"
FPN3/4-10	10mm (3/8")	3/4"
FPN1/2-13	13mm (1/2")	1/2"
FPN3/4-13	13mm (1/2")	3/4"
FPN3/4-16	16mm (5/8")	3/4"
FPN3/4-19	19mm (3/4")	3/4"



Female Thread, Coned Seat, BSPP

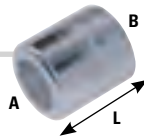
5003	Material	To Suit Hose ID	Thread
FON1/4-6	Steel	6mm (1/4")	1/4"
FON1/4-8	Steel	8mm (5/16")	1/4"
FON3/8-10	Brass	10mm (3/8")	3/8"
FON1/2-13	Brass	13mm (1/2")	1/2"
FON3/4-16	Brass	16mm (5/8")	3/4"
FON3/4-19	Brass	19mm (3/4")	3/4"
FON1-25	Brass	25mm (1")	1"

Metric Standpipe, Brass/Nickel Plated



5003	To Suit Hose ID	OD mm
HCL8-6	6mm (1/4")	8
HCL10-10	10mm (3/8")	10
HCL12-10	10mm (3/8")	12
HCL15-13	13mm (1/2")	15
HCL22-19	19mm (3/4")	22

Aluminium Crimping Ferrules



5003	ID mm A	ID mm B	OD mm	Length mm
B12X14	9	12	14	17
B13X15	9	13	15	17
B14X16	9.5	14	16	20
B16X18	12	16	18	20
B18X20	13	18	20	23
B20X22	15	20	22	25
B21X23	15	21	23	26
B23X25	17	23	25	26
B26X28	20	26	28	30
B28X30	19	28	30	30
B33X35	26	33	35	33
B36X38	26	36	38	35
B46X50	37	46.5	50	53
B67X70	52	67	70	56

Imperial Standpipe, Brass



5003	To Suit Hose ID	OD
E5/16-20	8mm (5/16")	5/16"
E3/8-20	10mm (3/8")	3/8"

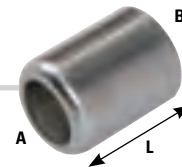
EDPM Rubber & Fibre Washers



5003	Material	Thread
15-8-2MM	EPDM	3/8"
19-10-2MM	EPDM	1/2"
24-14-2MM	EPDM	3/4"
G12	FIBRE	1/2"
G1	FIBRE	1"
G112	FIBRE	1.1/2"
G2	FIBRE	2"

Stainless Steel Crimping Ferrules

stainless steel



5003	ID mm A	ID mm B	OD mm	Length mm
B11X12SS	8	11	12	18
B13X14SS	9.3	13	14	18
B18.5X19.5SS	14	18.5	19.5	23
B15X16SS	11	15	16	20
B23X25SS	17	23	25	29
B29X30SS	21	29	30.5	31
B36X38SS	26	36	37.6	36

Hose Crimper, Manual



5003	OD mm
UPS1	10-22

Tech Sheet 10647

WATER FLEX

Flexible PVC Water Hose

Applications:

- Market gardens
- Truck cleaning
- Glass houses
- Water spraying/sprinklers

Features:

- Durable PVC cover
- Abrasion resistant
- Polyester high tensile fibre reinforcement
- Outstanding kink resistance
- Thick layer structure



Working Temperature:
-15°C to +60°C



25 Metre Coils

5080	ID mm	OD mm	Max Pressure Bar
GH12	12.5	17.5	11
GH19	19	25.5	7
GH25	25	32.5	6

Tech Sheet 20215

50 Metre Coils

5080	ID mm	OD mm	Max Pressure Bar
GH12-50	12.5	17.5	11
GH19-50	19	25.5	7
GH25-50	25	32.5	6

Tech Sheet 20215

100 Metre Coils

5080	ID mm	OD mm	Max Pressure Bar
GH12-100	12.5	17.5	11
GH19-100	19	25.5	7
GH25-100	25	32.5	6

Tech Sheet 20215

Heavy-duty 4 Layer Agricultural Water Hose

A high quality 4 layer agricultural hose with excellent flexibility and abrasive qualities enables this hose to be used in various applications:

- Agricultural
- Industrial
- Domestic

Working Temperature:
-10°C to +80°C

50 Metre Coils

5000	ID	ID mm	OD mm	Pressure Bar	Max Pressure Bar
HDAWH12	1/2"	12.5	17.5	9	50
HDAWH34	3/4"	19	25	8	45

Tech Sheet 20215



TRICOFLEX

Tricoflex Watering Hose

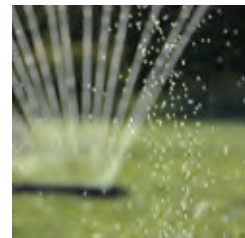
Applications:

- Market gardens
- Truck cleaning
- Glass houses
- Water spraying/sprinklers

Features:

- Durable PVC cover
- Abrasion resistant
- Polyester high tensile fibre reinforcement
- Outstanding kink resistance
- Thick layer structure

Working Temperature:
-15°C to +60°C



25 Metre Coils

5082	ID mm	Max Pressure Bar
TRICO12	12.5	30
TRICO19	19	23
TRICO25	25	22

Tech Sheet 20215

100 Metre Coils

5082	ID mm	Max Pressure Bar
TRICO12-100M	12.5	30
TRICO19-100	19	23
TRICO25-100	25	22

Tech Sheet 20215



Essential for Engineers

FT Pro understands how critical it is having the right components for fluid power applications. That's why we offer an extensive range of products that are meticulously chosen to suit the unique requirements of all industries.

Our experienced team carefully evaluates each product to ensure that it meets our stringent quality standards and can withstand the requirements of daily use in demanding industrial environments.

Our product ranges continuously evolve to keep up with technological advancements and industry changes. We strive to exceed our customers expectations by offering the range of components for your needs. Whether you're looking for compressed air hoses, hydraulic hoses, couplings, valves, or other fluid power components, we have the products you need when you need them.

At **FT Pro**, our customers can quickly source the essential products they need for their projects and be confident that they are of the highest quality.

We take pride in offering exceptional customer service and technical support to ensure our customers receive the best possible experience when selecting our products.

LAYFLAT HOSE

Layflat Delivery Hos

Applications: Conveyance and discharge of water etc. Particularly suitable for irrigation and water supply applications. However, can also be used in general industries, civil and construction engineering.

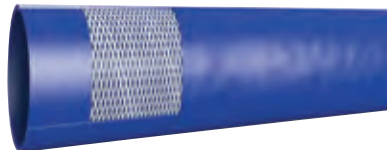
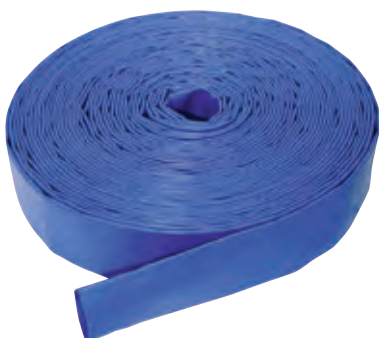
Pressures: Values given are based on the short term burst pressure of the hose at 20°C based on a 3:1 safety factor.

This product is only suitable for open ended discharge applications. Pressure ratings are based on discharge pressure from the pump unit.

Note: Any increase in temperature above 20°C will result in a decline in working pressure values.

Chemical Resistance: Resistant to the oils and greases as above. These hoses are not suitable for use with benzene, petrol, spirits, xylo, toluol or solvents containing aromatics. For more detailed information please contact technical sales.

Temperature Range:
-15°C to +55°C



Blue, 10 Metre Coils

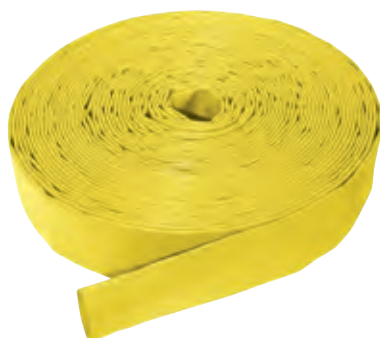
5993	ID	ID mm	Max Pressure Bar
LFH1-10	1"	25	4.5
LFH114-10	1.1/4"	32	4.5
LFH112-10	1.1/2"	38	4.5
LFH2-10	2"	51	4.5
LFH212-10	2.1/2"	64	4.5
LFH3-10	3"	76	4.5
LFH4-10	4"	102	4.5
LFH6-10	6"	150	4.5
LFH8-10	8"	200	4.5

Tech Sheet 20208

Blue, 100 Metre Coils

5993	ID	ID mm	Max Pressure Bar
LFH1-100	1"	25	4.5
LFH114-100	1.1/4"	32	4.5
LFH112-100	1.1/2"	38	4.5
LFH2-100	2"	51	4.5
LFH212-100	2.1/2"	64	4.5
LFH3-100	3"	76	4.5
LFH4-100	4"	102	4.5
LFH6-100	6"	150	4.5
LFH8-100	8"	200	4.5

Tech Sheet 20208



Yellow, 10 Metre Coils

5993	ID	ID mm	Max Pressure Bar
YLH-1-10	1"	25	6
YLH-114-10	1.1/4"	32	6
YLH-112-10	1.1/2"	38	6
YLH-2-10	2"	51	6
YLH-3-10	3"	76	6
YLH-4-10	4"	102	6
YLH-5-10	5"	127	6
YLH-6-10	6"	152	6
YLH-8-10	8"	203	6

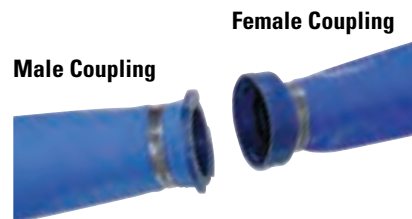
Tech Sheet 20212

Yellow, 100 Metre Coils

5993	ID	ID mm	Max Pressure Bar
YLH-1	1"	25	6
YLH-114	1.1/4"	32	6
YLH-112	1.1/2"	38	6
YLH-2	2"	51	6
YLH-3	3"	76	6
YLH-4	4"	102	6
YLH-5	5"	127	6
YLH-6	6"	152	6
YLH-8	8"	203	6

Tech Sheet 20212

Layflat Hose Coupling



Please note:
two items are needed to make a coupling set.



Male

6000	To Suit Hose ID
LMC-1	1"
LMC-114	1.1/4"
LMC-112	1.1/2"
LMC-2	2"
LMC-212	2.1/2"
LMC-3	3"
LMC-4	4"
LMC-5	5"

Tech Sheet 20209

Female

6000	To Suit Hose ID
LFC-1	1"
LFC-114	1.1/4"
LFC-112	1.1/2"
LFC-2	2"
LFC-212	2.1/2"
LFC-3	3"
LFC-4	4"

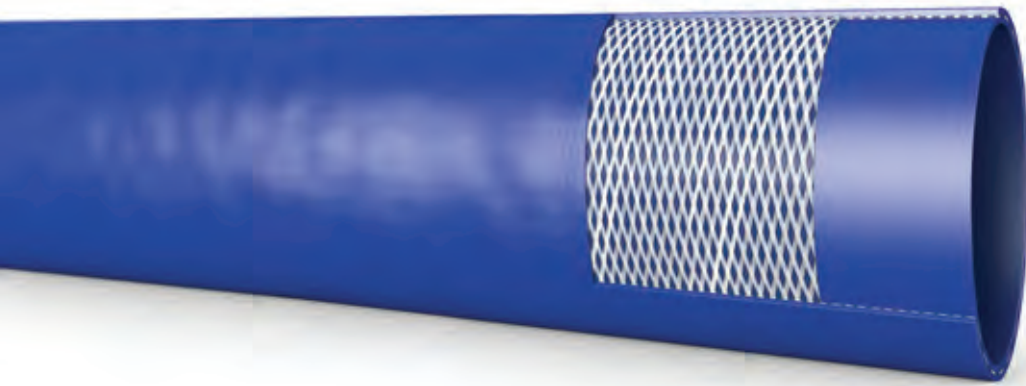
Tech Sheet 20209

You might also need...

Individual Couplings



see page 1505



LAYFLAT HOSE

High Pressure Layflat Delivery Hose

Application:

Conveyance and discharge of fluids under pressure. Particularly suitable for irrigation and water supply applications in general industries, civil and construction engineering, agricultural and ship building.

Pressures:

Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

This product is only suitable for open-ended discharge applications. Pressure ratings are based on discharge pressure from the pump unit.

Note:

Any increase in temperature above +20°C will result in a decline in working pressure values.

Chemical Resistance:

Resistant to oils and greases. These hoses are not suitable for use with benzene, petrol, spirits, xylol, or solvents containing aromatics. For more detailed information please contact Technical Sales.

Benefits:

Layflat hoses provide high performance whilst being lightweight compared with the same size of spiral PVC delivery hoses and rubber discharge hoses. Additionally they are easier to store, handle and transport.

Cut down lengths are available upon request.

Blue, 10 Metre Coils

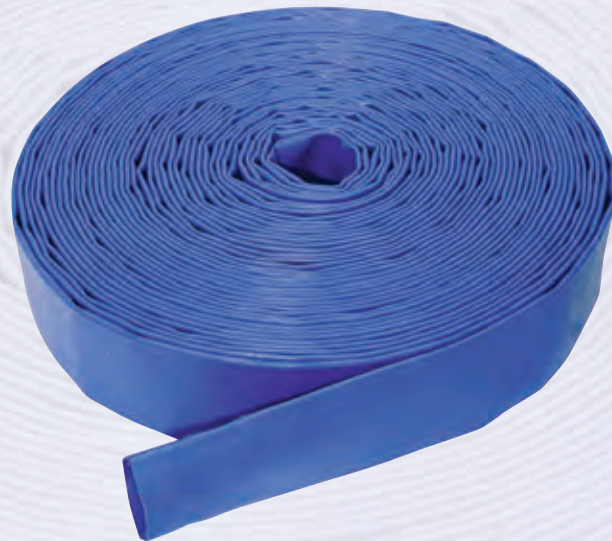
5993	ID	ID mm	Max Pressure Bar
HPLFH1-10	1"	25	10
HPLFH114-10	1.1/4"	32	10
HPLFH112-10	1.1/2"	38	10
HPLFH2-10	2"	51	10
HPLFH212-10	2.1/2"	64	8
HPLFH3-10	3"	76	8
HPLFH4-10	4"	102	8

Tech Sheet 20210


Blue, 100 Metre Coils

5993	ID	ID mm	Max Pressure Bar
HPLFH1-100	1"	25	10
HPLFH114-100	1.1/4"	32	10
HPLFH112-100	1.1/2"	38	10
HPLFH2-100	2"	51	10
HPLFH212-100	2.1/2"	64	8
HPLFH3-100	3"	76	8
HPLFH4-100	4"	102	8

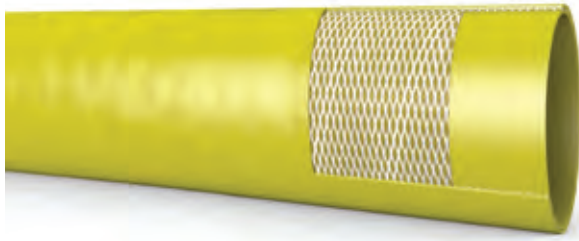
Tech Sheet 20210



 **Working Temperature:**
-5°C to +65°C

 **Maximum Working Pressure:** 10 bar

YELLOW PVC LAYFLAT ASSEMBLIES



Yellow PVC Layfla is manufactured with a smooth and seamless inner surface and smooth PVC cover. A very high adhesion between inner and outer layers assembled with Band-It clamps male/female lever lock couplings.

This product is only suitable for open ended discharge applications. Pressure ratings are based on discharge pressure from the pump unit.



 **Maximum Working Pressure:** 6 bar
Bursting Pressure: 18 bar

Assemblies

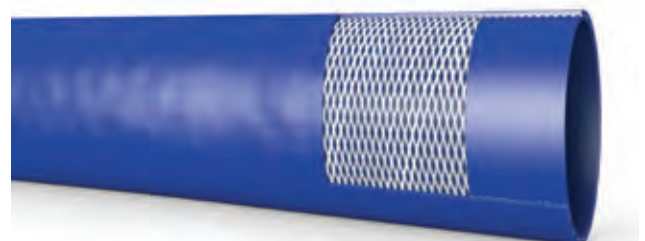
0180	Coupling Size	ID mm	Weight Kg	Length Metres
YLH2-25M-ASSY	2"	51	10	25
YLH2-50M-ASSY	2"	51	19	50
YLH2-100M-ASSY	2"	51	37	100
YLH3-25M-ASSY	3.1/2"	76	15	25
YLH3-50M-ASSY	3.1/2"	76	29	50
YLH3-100M-ASSY	3.1/2"	76	57	100
YLH4-25M-ASSY	4"	102	22	25
YLH4-50M-ASSY	4"	102	41	50
YLH4-100M-ASSY	4"	102	78	100
YLH6-25M-ASSY	6"	152	47	25
YLH6-50M-ASSY	6"	152	87	50
YLH6-100M-ASSY	6"	152	167	100
YLH8-25M-ASSY	8"	203	62	25
YLH8-50M-ASSY	8"	203	112	50

Non-returnable

Bespoke lengths are available upon request

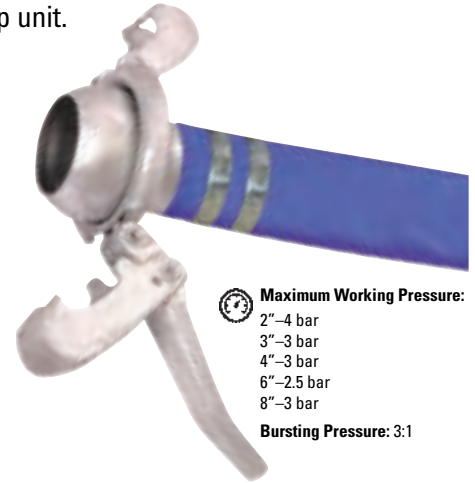
Please note: Due to transportation difficulties and the nature of this product, additional carriage charges may apply, based on weight, dimensions and location of delivery. Please speak to our Business Development Team for full details of carriage costs.


BLUE PVC LAYFLAT ASSEMBLIES



Blue PVC Layfla is manufactured with a smooth and seamless inner surface and smooth PVC cover. A very high adhesion between inner and outer layers assembled with Band-It clamps male/female lever lock couplings.

This product is only suitable for open ended discharge applications. Pressure ratings are based on discharge pressure from the pump unit.



 **Maximum Working Pressure:**
2"–4 bar
3"–3 bar
4"–3 bar
6"–2.5 bar
8"–3 bar
Bursting Pressure: 3:1

Assemblies

0180	Coupling Size	ID mm	Weight Kg	Length Metres
BLH2-25M-ASSY	2"	51	7	25
BLH2-50M-ASSY	2"	51	14	50
BLH3-25M-ASSY	3.1/2"	76	10	25
BLH3-50M-ASSY	3.1/2"	76	17	50
BLH3-100M-ASSY	3.1/2"	76	33	100
BLH4-25M-ASSY	4"	102	17	25
BLH4-50M-ASSY	4"	102	31	50
BLH4-100M-ASSY	4"	102	59	100
BLH6-25M-ASSY	6"	152	32	25
BLH6-50M-ASSY	6"	152	57	50
BLH6-100M-ASSY	6"	152	107	100

Non-returnable

Bespoke lengths are available upon request

Please note: Due to transportation difficulties and the nature of this product, additional carriage charges may apply, based on weight, dimensions and location of delivery. Please speak to our Business Development Team for full details of carriage costs.

SUCTION HOSE



Medium-duty Suction Hose

Cold Bend: -45°C

Vacuum: 680mm Hg = 90% at +20°C

Approximately 15% lighter than heavy-duty suction hose.

Applications: General pumping and suction applications in agricultural and construction industries.

Conveyance of water, sludge, slurry, chemicals and other waste matter.

Pressures: Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

Working Temperature:
-5°C to +65°C

Note: Any increase in temperature above +20°C will result in a decline in working pressure values.

Chemical Resistance:
Resistant to most oxidising and reducing agents and diluted acids and alkalis.

For more detailed information please contact Technical Sales.



Olive Green, 6 Metre Coil, Straight Length

5996	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
MDS6-6	6"	7.5	3	800

Tech Sheet 20211

Olive Green, 10 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
MDS1-10	1"	3.8	7	125
MDS114-10	1.1/4"	4	7	160
MDS112-10	1.1/2"	4.4	6	190
MDS2-10	2"	4.8	5	250
MDS212-10	2.1/2"	5.2	4.5	315
MDS3-10	3"	5.2	5	300
MDS312-10	3.1/2"	5.5	4	375
MDS4-10	4"	6.3	4	400
MDS6-10	6"	7.5	3	800

Tech Sheet 20211

Olive Green, 30 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
MDS34-30	3/4"	3.6	7	100
MDS1-30	1"	3.8	7	125
MDS114-30	1.1/4"	4	7	160
MDS112-30	1.1/2"	4.4	6	190
MDS2-30	2"	4.8	5	250
MDS212-30	2.1/2"	5.2	4.5	315
MDS3-30	3"	5.2	5	300
MDS312-30	3.1/2"	5.5	4	375
MDS4-30	4"	6.3	4	400
MDS6-30	6"	7.5	3	800

Tech Sheet 20211

Larger sizes available upon request

GREEN SUCTION HOSE ASSEMBLIES



Green PVC Suction Hose Assemblies

are manufactured in an opaque green flexible PVC containing a white spiral helix. All assemblies are fitted with male/female lever lock couplings, attached with Band-It clamps.



Working Temperature:
-10°C to +60°C

Cold Bend: -45°C

Vacuum:
680mm Hg = 90% at 20°C

Maximum Working Pressure:
2", 3", 4" – 3 bar

6" and 8" – 2 bar

Bursting Pressure: 3:1

Assemblies

0180	Coupling Size	ID mm	Weight Kg	Length Metres
GMSLLC2-6M	2"	51	5	6
GMSLLC3312-6M	3.1/2"	76	10	6
GMSLLC4-6M	4"	102	16	6
GMSLLC6-6M	6"	152	32	6
GMSLLC8-6M	8"	203	48	6

Tech Sheet 2089

Non-returnable

Bespoke lengths are available upon request

Please note: Due to transportation difficulties and the nature of this product, additional carriage charges may apply, based on weight, dimensions and location of delivery. Please speak to our Business Development Team for full details of carriage costs.

SUCTION HOSE



Superflexible Medium-duty Suction Hos

Superflexible medium-duty suction hose is a robust general purpose hose. It has excellent weathering and crush resistance and is extremely easy to handle due to its extra flexibility. It has a white helix spiral encased in a superflexible green PVC.

Industries: Suitable for general pumping and suction applications within the agricultural, construction and water treatment industries.

Applications: Conveyance of water, sludge, slurry, and other waste matter. Can also be used to convey small particles like animal feed and plastic pellets.

Working Temperature:
-5°C to +60°C

Vacuum: 680mm Hg = 90% at +20°C

Pressure: Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

Chemical Resistance: Resistant to most oxidising and reducing agents and diluted acids and alkalis

For more details please contact Technical Sales.

Note: Any increase in temperature above +20°C will result in a decline in working pressure values.



Dark Olive Green, 10 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
SFMS34-10	3/4"	3.3	8	100
SFMS1-10	1"	3.5	8	110
SFMS114-10	1.1/4"	3.7	7	135
SFMS112-10	1.1/2"	4	7	150
SFMS2-10	2"	4.3	6.5	200
SFMS212-10	2.1/2"	5.2	7	250
SFMS3-10	3"	5	4.5	300
SFMS312-10	3.1/2"	5.5	5	350
SFMS4-10	4"	6	5	400
SFMS6-10	6"	7.5	2	600

Tech Sheet 10222

Dark Olive Green, 30 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
SFMS34-30	3/4"	3.3	8	100
SFMS1-30	1"	3.5	8	110
SFMS114-30	1.1/4"	3.7	7	135
SFMS112-30	1.1/2"	4	7	150
SFMS2-30	2"	4.3	6.5	200
SFMS212-30	2.1/2"	5.2	7	250
SFMS3-30	3"	5	4.5	300
SFMS312-30	3.1/2"	5.5	5	350
SFMS4-30	4"	6	5	400
SFMS6-30	6"	7.5	2	600

Tech Sheet 10222

SUCTION HOSE



Heavy-duty Suction Hose

Smooth inside and outside non-restricting tube. The ridged PVC spiral resists crushing impact. High abrasion resistance makes it ideal to transfer powder.

Industries: Suitable for construction, civil engineering, agriculture and ships.

Applications: Suction discharge for sand, gravel, cement and iron fittings, suction and press-transfer of various grains.

Pressure: Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

Chemical Resistance: Resistant to most oxidising and reducing agents and diluted acids and alkalis. For more details please contact Technical Sales.

Note: Any increase in temperature above +20°C will result in a decline in working pressure values.

Working Temperature:
-5°C to +65°C



10 Metres

5996	ID	Max Pressure Bar	Bend Radius mm
HDSH2-10	2"	7	300
HDSH3-10	3"	5	450
HDSH4-10	4"	5	630
HDSH6-10	6"	4	1100

Tech Sheet 60441

30 Metres

5996	ID	Max Pressure Bar	Bend Radius mm
HDSH2-30	2"	7	300
HDSH3-30	3"	5	450
HDSH4-30	4"	5	630
HDSH6-30	6"	4	1100

Tech Sheet 60441

OIL RESISTANT SUCTION HOSE



Oil resistant medium-duty suction hose is a robust general purpose oil hose. It has a smooth bore for minimum flow resistance. Excellent weathering and crush resistance. It has a white helix spiral encased in an oil resistant blue pvc.

Applications: Designed for the use of transporting fuel/oils, and is suitable for many industrial areas.

Vacuum: 680mm Hg = 90% at +20°C

Pressure: Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

Chemical Resistance: Suitable for low aromatic content including oil, diesel, paraffin, hydraulic oils, mineral based oils, lubricating oils and greases.

° Working Temperature:
-15°C to +60°C

For more details please contact our Technical Sales.

Note: Any increase in temperature above +20°C will result in a decline in working pressure values.

Blue, 10 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar
BORS34-10	3/4"	3.5	8
BORS1-10	1"	4	8
BORS114-10	1.1/4"	4	7
BORS112-10	1.1/2"	4.5	7
BORS2-10	2"	4.5	6.5
BORS212-10	2.1/2"	4.5	5
BORS3-10	3"	5	4.5

Tech Sheet 10223

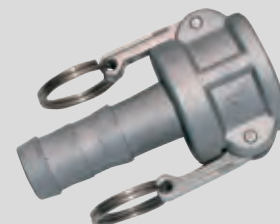
Blue, 30 Metre Coils

5996	ID	Wall Thickness mm	Max Pressure Bar
BORS34-30	3/4"	3.5	8
BORS1-30	1"	4	8
BORS114-30	1.1/4"	4	7
BORS112-30	1.1/2"	4.5	7
BORS2-30	2"	4.5	6.5
BORS212-30	2.1/2"	4.5	5
BORS3-30	3"	5	4.5

Tech Sheet 10223



For **Cam & Groove Quick Couplings**
see pages **1467-1472**




10 BAR WATER SUCTION HOSE

Hose Assemblies & Hose

- Hose assemblies are manufactured with black SBR tubes and ozone-resistant SBR covers.
- The reinforcement is manufactured from high tensile textile cords embedded with steel helix wires for vacuum resistance.
- All assemblies are fitted with male/female lever lock couplings.
- Assemblies are available with any combination of fittings including flange, cam and groove.



Please contact our Business Development Team for a quote.
Material and test certification can be supplied.

 Working Temperature:
-30°C to +70°C

 Maximum Working Pressure:
150 psi



Hose Assemblies (Ultra-lok Bands)

0180	Coupling Size	ID mm	OD mm	Length Metres	Assembly Max Working Pressure
WALLC2-3M	2"	51	62	3	10
WALLC2-6M	2"	51	62	6	10
WALLC3312-3M	3.1/2"	76	89	3	10
WALLC3312-6M	3.1/2"	76	89	6	10
WALLC4-3M	4"	102	115	3	10
WALLC4-6M	4"	102	115	6	10
WALLC6-3M	6"	152	168	3	7
WALLC6-6M	6"	152	168	6	7

Hose Only

0180	ID mm	OD mm	Length Metres
WA2-6M	51	62	6
WA3-6M	76	89	6
WA4-6M	102	115	6
WA6-3M	152	168	3
WA8-3M	203	222	3

WATER DELIVERY HOSE



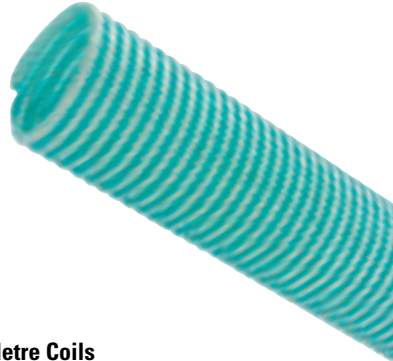
Cold Bend: -45°C

Vacuum: 570mm Hg = 75% at +20°C

Applications: Delivery and light suction of water, slurry, chemicals, some granules, sewage and other waste matter. Particularly suitable for the horticultural and marine industries.

Pressures: Values given are based on the short term burst pressure of the hose at +20°C based on a 3:1 safety factor.

Working Temperature:
-15°C to +65°C



Chemical Resistance: Resistant to most oxidising and reducing agents and diluted acids and alkalis.

For more detailed information please contact Technical Sales.

Note: Any increase in temperature above +20°C will result in a decline in working pressure values.

Translucent Green, 10 Metre Coils

5994	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
WDH34-10	3/4"	2.4	8	110
WDH1-10	1"	2.4	8	140
WDH114-10	1.1/4"	2.6	8	180
WDH112-10	1.1/2"	3	8	210
WDH2-10	2"	3.6	7	270
WDH212-10	2.1/2"	3.7	6	350
WDH3-10	3"	4.1	5	500
WDH4-10	4"	5.6	5	330

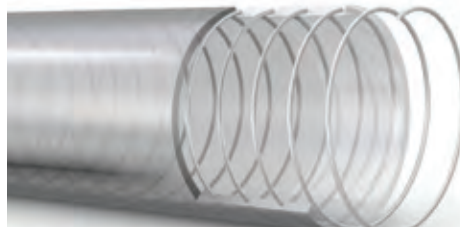
Tech Sheet 20213

Translucent Green, 30 Metre Coils

5994	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
WDH34-30	3/4"	2.4	8	110
WDH1-30	1"	2.4	8	140
WDH114-30	1.1/4"	2.6	8	180
WDH112-30	1.1/2"	3	8	210
WDH2-30	2"	3.6	7	270
WDH212-30	2.1/2"	3.7	6	350
WDH3-30	3"	4.1	5	500
WDH4-30	4"	5.6	5	330

Tech Sheet 20213

WIRE REINFORCED SUCTION HOSE



Wire Reinforced Suction Hose

Clear PVC reinforced with a tensile steel helix

Applications: Suitable for the suction and discharge of water, slurry, chemicals, sewage, granules and other waste materials; can also be used for suction and discharge of foodstuffs.

Pressures: Values given are based on the short term burst pressure of the hose at 20°C based on a 3:1 safety factor.

Note: Any increase in temperature above 20°C will result in a decline in working pressure values.

Working Temperature:
-5°C to +65°C



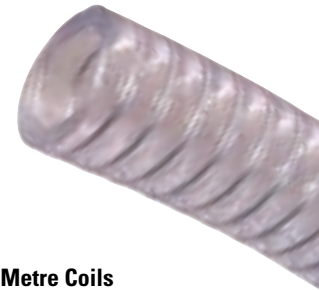
Chemical Resistance: Resistant to most oxidising and reducing agents and diluted acids and alkalis.

For more detailed information please contact technical sales.

Approvals: Hose complies fully to EU No.10/201 on plastic materials and articles intended to come into contact with food.

Cold bend: -45°C

Vacuum: 711mm Hg = 94% at 20°C



Clear with Blue Wire Spiral, 10 Metre Coils

5997	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
FX075-10	3/4"	3.4	6	80
FX100-10	1"	3.5	6	100
FX125-10	1.1/4"	3.5	5	130
FX150-10	1.1/2"	4.0	5	155
FX200-10	2"	4.5	5	200
FX250-10	2.1/2"	5.5	4	260
FX300-10	3"	7.5	4	320
FX400-10	4"	8	4	430

Tech Sheet 20214

Clear with Blue Wire Spiral, 30 Metre Coils

5997	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
FX050-30	1/2"	3	6	50
FX075-30	3/4"	3.5	6	80
FX100-30	1"	3.5	6	100
FX125-30	1.1/4"	4.0	5	130
FX150-30	1.1/2"	4.5	5	155
FX200-30	2"	5.5	5	200
FX250-30	2.1/2"	7	4	260
FX300-30	3"	7.5	4	320
FX400-30	4"	8	4	430

Tech Sheet 20214

HOZELOCK TRICOFLEX



Thermoclean 100, 15 bar

Bursting Pressure: at 23°C = 30 bar

Application:
Food quality industrial cleaning
Grease and cleaning agent resistant

Working Temperature:
-15°C up to +100°C max

Maximum Working Pressure:
100°C 15 bar



Blue, 20 Metre Coils

5082	ID mm	OD mm	Wall Thickness mm
TRI-145571	13	22	4.5
TRI-145655	16	25	4.5
TRI-145671	19	28	4.5
TRI-145597	25	34	4.5

Tech Sheet 890

Thermoclean AL20, 20 bar

Bursting Pressure: at 23°C = 100 bar

Application:
Food quality industrial cleaning
Grease and cleaning agent resistant

Working Temperature:
-15°C up to +70°C max

Maximum Working Pressure:
70°C 20 bar



Blue, 25 Metre Coils

5082	ID mm	OD mm	Wall Thickness mm
TRI-100236	12	20	4
TRI-100284	19	28	5

Tech Sheet 889

Reinforced Breathing Hose

- Breathing air hose with reinforcement
- Complies with EN 139
- Heat resistant, with an oil resistant cover
- Anti-static resistance 10-6 in accordance with NF EN ISO8031

50 metre coils available upon request.



Nobelair AS EN139, Blue, 25 Metre Coils

5082	ID mm	Max Pressure Bar	Burst Pressure Bar	Wall Thickness mm
TRI-092856	8	15	60	3
TRI-092872	10	15	60	3

Tech Sheet 884

CONTRACTORS HOSE



Un-reinforced PVC Hose

Standard Coil Lengths: 75 Metres

For delivering water at tap pressure.

- Low cost alternative
- Used extensively on construction sites
- Bespoke lengths available

Colour: Black

Not recommended working or burst pressures due to the hose being un-reinforced.

Working Temperature:
-10°C to +60°C

Black, 75 Metre Coils

0384	ID mm	OD mm
CH-13/19-75	13	19
CH-19/25-75	19	25
CH-25/34-75	25	34

Tech Sheet 10260

Manufactured from a high quality PVC compound this un-reinforced hose is an excellent hose solution with great flexibility, ideal for conveying fluids, gases, granules and powders at low pressure.

- Excellent abrasion resistance
- Durable
- Resistant to a wide range of chemicals
- Flexible
- Excellent UV resistance



Marine Fuel Hose

Type A1 Specification: ISO 7840 A1.

Type A2 Specification: ISO 7840 A2.

Application: Fuel hose for marine craft.

Tube: Black, fuel resistant NBR rubber.

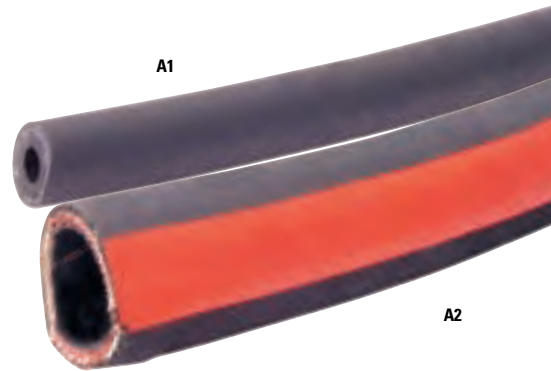
Type A1 Reinforcement: Synthetic textile.

Working Temperature:
-35°C to +100°C

Type A2 Reinforcement: Synthetic textile fabric, twin steel wire helix.

Cover: Black, abrasion, ozone, weather, heat and oil resistant neoprene rubber.

Safety Factor: 3-1.



Type A1, 10 Metre Coils, 10 bar

6018	ID mm	OD mm
L633.4/005X10	5	12
L633.4/006X10	6	13
L633.4/008X10	8	16
L633.4/010X10	10	18
L633.4/013X10	13	22
L633.4/016X10	16	25
L633.4/019X10	19	29

Type A2, 10 Metre Coils, 5 bar

6018	ID mm	OD mm
T633.4/025X10	25	35
T633.4/038X10	38	48

Type A1, 40 Metre Coils, 10 bar

6018	ID mm	OD mm
L633.4/005X40	5	12
L633.4/006X40	6	13
L633.4/008X40	8	16
L633.4/010X40	10	18
L633.4/013X40	13	22
L633.4/016X40	16	25
L633.4/019X40	19	29

Type A2, 40 Metre Coils, 5 bar

6018	ID mm	OD mm
T633.4/025X40	25	35
T633.4/032X40	32	42
T633.4/038X40	38	48

XLPE CHEMICAL SUCTION & DELIVERY HOSE

DESCRIPTION:

Chemical suction and delivery hose with XLPE tube for tank trucks and storage tanks. Suitable for handling a wide range of chemical products.

INNER TUBE:

XLPE clear, smooth and resistant to a wide range of chemicals, with black rubber backing.

REINFORCEMENT:

High tensile textile cord, steel wire helix, anti-static wire.

COVER:

Green, smooth with cloth impression. Abrasion, weather and ozone resistant.

Working Temperature: -30°C to +90°C **Maximum Working Pressure:** 16 bar



40 Metre Coils

0464	ID	ID mm	OD mm	Bend Radius mm
XLPECSDH-13-40	1/2"	13	25	65
XLPECSDH-19-40	3/4"	19	32	95
XLPECSDH-25-40	1"	25	39	125
XLPECSDH-32-40	1.1/4"	32	47	160
XLPECSDH-38-40	1.1/2"	38	53	190
XLPECSDH-51-40	2"	51	67	255

Tech Sheet 60132

10 Metre Coils

0464	ID	ID mm	OD mm	Bend Radius mm
XLPECSDH-13-10	1/2"	13	25	65
XLPECSDH-19-10	3/4"	19	32	95
XLPECSDH-25-10	1"	25	39	125
XLPECSDH-32-10	1.1/4"	32	47	160
XLPECSDH-38-10	1.1/2"	38	53	190
XLPECSDH-51-10	2"	51	67	255

Tech Sheet 60132

Marine Exhaust Hose

Lloyds Approved

Specification: SAEJ2006R1


Application: Wet exhaust hose for marine craft.

Tube: Black, exhaust gas, salt water resistant EPDM rubber.

Reinforcement: Synthetic textile fabrics, steel wire helix.

Cover: Black, corrugated, resistant to heat, salt water, ozone and abrasion EPDM rubber.

Safety Factor: 3-1

 **Working Temperature:**
-30°C to +100°C



10 Metre Coils

6017	ID mm	OD mm
SAJ2006R1/032X10	32	41
SAJ2006R1/038X10	38	47
SAJ2006R1/045X10	45	54

40 Metre Coils

6017	ID mm	OD mm
SAJ2006R1/051X40	51	60

Diesel Drop Hose

Application: For diesel, air, water delivery up to 20 Bar

Reinforcement: Synthetic textile braid

Cover: Black weather and ozone resistant with purple stripe

Safety Factor: 3-1



50 Metre Coils

5999	ID mm	OD mm	Max Pressure Bar
DDRH19X-50	3/4"	28	20
DDRH25X-50	1"	34	20

Non-toxic Suction Discharge Hose

Cold Bend: -45°C

Vacuum: 570mm Hg = 75% at 20°C

Raw materials used have FDA approval for use with foodstuffs.


Applications: Suction and discharge applications of liquids and solids.

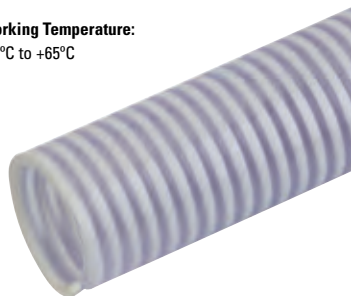
Pressures: Values given are based on the short term burst pressure of the hose at 20°C based on a 3:1 safety factor.

Note: Any increase in temperature above 20°C will result in a decline in working pressure values.

Chemical Resistance: Resistant to most oxidising and reducing agents and diluted acids and alkalis.

For more detailed information please contact technical sales.

 **Working Temperature:**
-15°C to +65°C



Clear with White Spiral, 5 Metre Coils

6020	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
FQSD1-5	1"	2.8	5	130
FQSD114-5	1.1/4"	3	5	155
FQSD112-5	1.1/2"	3.4	5	182
FQSD2-5	2"	4.1	5	235
FQSD212-5	2.1/2"	4.2	5	290
FQSD3-5	3"	4.7	5	340
FQSD4-5	4"	6	4	470

Clear with White Spiral, 10 Metre Coils


6020	ID	Wall Thickness mm	Max Pressure Bar	Bend Radius mm
FQSD1-10	1"	2.8	5	130
FQSD114-10	1.1/4"	3	5	155
FQSD112-10	1.1/2"	3.4	5	182
FQSD2-10	2"	4.1	5	235
FQSD212-10	2.1/2"	4.2	5	290
FQSD3-10	3"	4.7	5	340
FQSD4-10	4"	6	4	470

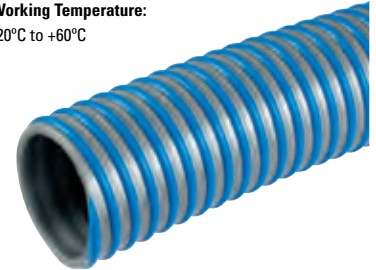
Medusa Super Elastic Hose

Strong, flexible and smooth, shock and crush resistant PVC spiral. Good in cold climates.

Applications: Medium-duty suction and delivery of water, salt water, light chemicals, liquids, sewer purging, sludge, sand and gravel.

Reinforcement: Blue nylon spiral.

 **Working Temperature:**
-20°C to +60°C



Medium-duty Suction & Delivery, 10 Metre Coils

6019	ID mm	Burst Pressure Bar	Bend Radius mm
GSE-51-10	2"	15	200
GSE-63-10	2.1/2"	14	275
GSE-76-10	3"	12	310
GSE-102-10	4"	10	410
GSE-152-10	6"	9	610

Medium-duty Suction & Delivery, 30 Metre Coils

6019	ID mm	Burst Pressure Bar	Bend Radius mm
GSE-51	2"	15	200
GSE-63	2.1/2"	14	275
GSE-76	3"	12	310
GSE-102	4"	10	410
GSE-152	6"	9	610

Multipurpose Hose

This blue multipurpose fuel and oil hose is manufactured with a smooth NBR/PVC cover and a smooth NBR/SBR liner, and is reinforced with high tensile polyester yarn.

Key Features:

- Good resistance to abrasion, weather and oil
- Resistant to petroleum products and certain solvents

Application:

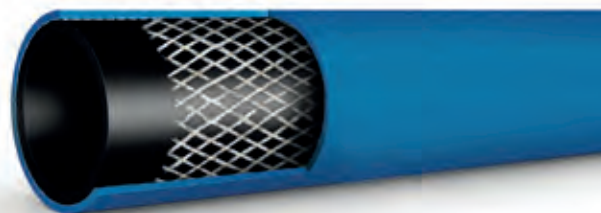
- Low pressure applications, for air, oil and water

Working Temperature:
-20°C to +70°C

Working Pressure:
20 bar

Construction:

- Inner tube: oil resistant NBR
- Reinforcement: polyester yarn
- Cover: smooth blue, oil and weather resistant NBR/PVC blended
- Safety factor 3-1



100 Metre Coils

0525	ID	OD mm
MPAOW-04-100	1/4"	13
MPAOW-05-100	5/16"	15
MPAOW-06-100	3/8"	17
MPAOW-08-100	1/2"	21
MPAOW-12-100	3/4"	29
MPAOW-16-100	1"	35.5

Tech Sheet 68079

50 Metre Coils

0525	ID	OD mm
MPAOW-10-50	5/8"	25

Tech Sheet 68079

Buhar Steam Hose

Applications: For saturated steam service where non-marking is required. BS5122/A2.

Reinforcement: High tensile synthetic textile.

Cover: Abrasion, heat, steam ozone and weather resistant, pin-pricked special synthetic rubber.

Tube: EPM rubber, resistant to steam up to 170°C.

Working Temperature:
-40°C to +170°C



White Steam Non-marking, 10 Metres

0429	ID	Bend Radius mm
SHW-13-10	1/2"	80
SHW-19-10	3/4"	135
SHW-25-10	1"	170

White Steam Non-marking, 40 Metres

0429	ID	Bend Radius mm
SHW-13	1/2"	80
SHW-19	3/4"	135
SHW-25	1"	170

Brewflex 10

Applications: For delivery of beverages such as mineral water, beer, fruit juices, wine and liqueurs.

Reinforcement: High tensile synthetic textile.

Cover: Weather, ozone, and abrasion resistant coloured synthetic rubber.

Tube: White non-toxic, taste and odour free synthetic EPDM rubber.

Working Temperature:
-40°C to +80°C



Brewers Delivery, 10 Metres

6011	ID	Bend Radius mm
BDH-19-10	3/4"	190
BDH-25-10	1"	254
BDH-32-10	1.1/4"	320
BDH-32-10	1.1/4"	320

Brewers Delivery, 40 Metres

6011	ID	Bend Radius mm
BDH-19	3/4"	190
BDH-25	1"	254
BDH-32	1.1/4"	320
BDH-38	1.1/2"	380

ANTI-STATIC HOSE


Air & Water


Durable all rubber constructed hose, fully complying with the requirement of BS 2050 specification for 20 bar working pressure.

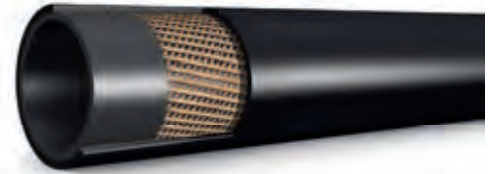
- Suitable for all compressed air application
- Suitable for use where anti-static properties are preferred e.g. refineries, offshore oil and gas applications

Electrical Resistance Ω :
Min 3×10^3 per m - max 10^6

Construction:
Lining: Electrically conductive SBR rubber.
Cover: Smooth black SBR rubber.

 **Working Temperature:**
-20°C to +80°C

 **Maximum Working Pressure:** 20 bar



BS2050, 20 Metre Coils

0387	ID	OD mm	Max Pressure Bar	Burst Pressure Bar
ASAH-1/4-20	1/4"	14	20	60
ASAH-5/16-20	5/16"	16	20	60
ASAH-3/8-20	3/8"	18	20	60
ASAH-1/2-20	1/2"	22	20	60
ASAH-5/8-20	5/8"	26	20	60
ASAH-3/4-20	3/4"	30	20	60
ASAH-1-20	1"	36	20	60

Tech Sheet 10304

FOOT VALVES & STRAINERS



Foot Valves



Foot Valves, Hose Tail

0019	To Suit Hose ID
NFV-2	2"
NFV-3	3"
NFV-4	4"
NFV-6	6"



Malleable Iron Foot Valves, BSPP

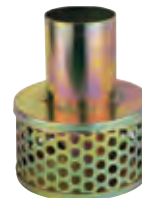
0019	Thread
FOOT150	1.1/2"
FOOT200	2"
FOOT250	2.1/2"
FOOT300	3"
FOOT400	4"
FOOT600	6"

Strainers



Foot Valve Strainer, Hose Tail

0019	To Suit Hose ID
FVS-112	1.1/2"
FVS-3	3"
FVS-4	4"



Strainer - Hose Tail, Zinc Plated Steel

0121	To Suit Hose ID
TCSHT1	1"
TCSHT114	1.1/4"
TCSHT112	1.1/2"
TCSHT2	2"
TCSHT212	2.1/2"
TCSHT3	3"
TCSHT4	4"
TCSHT6	6"
TCSHT8	8"



Strainer - Screwed Female BSPP, Zinc Plated Steel

0121	Thread
TCSBSP112	1.1/2"
TCSBSP2	2"
TCSBSP3	3"
TCSBSP4	4"



INDUSTRIAL PUR DUCTING

This high performance ducting range is produced in Europe and is made from premium-grade ester polyurethane compound, reinforced with a copper-coated spring steel helix.

Applications:

Transport hose for abrasive solids including: dust, powder & fibres, etc. Also suitable for extracting gaseous media such as oil vapours and welding fume.

- Excellent abrasion resistance
- Wire spiral reinforcement can be earthed
- Super flexible, low weight
- Small bend radius
- Good resistance to oil, petrol and chemicals
- High tensile strength and tear resistance

Advanced Features:

- Anti-static wall – electrical and surface resistance, $<10^9 \Omega$
- Flame retardant
- Microbe resistant



Working Temperature:

-40°C to +90°C

Intermittent to:

+125°C



Lightweight High Performance Polyurethane

Wall Thickness: 0.4mm approx.
Supplied in compressed form (4:1) to save space and cost
Use clamp type 212/212EC (refer to page 1447).



0.4mm Wall Thickness, 10 Metres

0391	ID mm	OD mm
PURLW-38	38	46
PURLW-50	50	58
PURLW-60	60	68
PURLW-65	65	73
PURLW-75	75	83
PURLW-80	80	88
PURLW-90	90	98
PURLW-100	100	108
PURLW-115	115	123
PURLW-120	120	128
PURLW-125	125	133
PURLW-130	130	138
PURLW-140	140	148
PURLW-150	150	158
PURLW-160	160	168
PURLW-180	180	188
PURLW-200	200	208
PURLW-225	225	234
PURLW-250	250	259

Tech Sheet 110820

Medium Weight High Performance Polyurethane

Wall Thickness: 0.6mm approx.
Supplied in compressed form (3:1) to save space and cost
Use clamp type 212/212EC (refer to page 1447).



0.6mm Wall Thickness, 10 Metres

0391	ID mm	OD mm
PURMW-38	38	45
PURMW-50	50	58
PURMW-60	60	68
PURMW-65	65	73
PURMW-75	75	83
PURMW-80	80	88
PURMW-90	90	98
PURMW-100	100	108
PURMW-115	115	123
PURMW-120	120	128
PURMW-125	125	133
PURMW-130	130	138
PURMW-140	140	148
PURMW-150	150	158
PURMW-160	160	168
PURMW-180	180	188
PURMW-200	200	208
PURMW-225	225	233
PURMW-250	250	258
PURMW-300	300	309
PURMW-350	350	359
PURMW-400	400	409

Tech Sheet 68801

Smooth Bore PU Ducting

Colour: Clear with grey spiral
Working Temperature: -20°C to +80°C

- Construction:**
- Ester based PU
 - Shock resistant PVC spiral, crushing, chemical agents, abrasion and weather resistant, corrugated outside
 - Smooth bore for optimal flow

- Applications:**
- Suction and transportation of abrasive media such as polystyrene pellets, granules, fibres, industrial ventilation and airflow systems. Also dust, gases, liquids and powders.
- Food grade according to (EU) No 10/2011



20 Metre Coils

6023	ID mm	Bend Radius mm
PUSB-25-20	25	60
PUSB-38-20	38	78
PUSB-51-20	51	100
PUSB76-20	76	145
PUSB-102-20	102	200
PUSB-127-20	127	250

Tech Sheet 20559

10 Metre Coils

6023	ID mm	Bend Radius mm
PUSB-25-10	25	60
PUSB-38-10	38	78
PUSB-51-10	51	100
PUSB76-10	76	145
PUSB-102-10	102	200
PUSB-127-10	127	250
PUSB-152-10	152	305
PUSB-203-10	203	410

Tech Sheet 20559

Medium-duty Smooth Bore PVC Ducting

- Highly flexible plasticised PVC.
- Shock resistant PVC spiral.
- Abrasion, crushing, chemical agents and weather resistant corrugated outside.

- Industrial ventilation and airflow systems, suction of dust, air, gases, powders, liquids etc.

Working Temperature: -10°C to +60°C



General Purpose, 10 Metre Coils

6023	ID mm	Bend Radius mm
URU-25-10	25	30
URU-32-10	32	35
URU-38-10	38	45
URU-51-10	51	60
URU-76-10	76	100
URU-102-10	102	140
URU-152-10	152	180
URU-203-10	203	400

Tech Sheet 10509

Available per metre, contact sales for more information.

ABRASION-RESISTANT, ANTI-STATIC INDUSTRIAL PUR DUCTING



PROTAPE PUR 301 AS

Made from premium-grade ester Pre-PUR polyurethane, reinforced with a copper-coated spring steel wire helix.

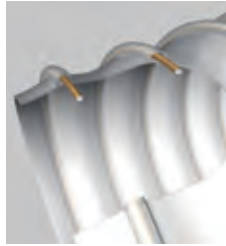
Wall Thickness: 0.4mm approx.

Applications: Suction and transport hose for abrasive materials, e.g. dust, chippings, powder, granules, fibres, etc

Also suitable for fume extraction, e.g. oil mist, welding fumes and chemical vapours.

- Permanently anti-static wall, $10^9\Omega$
- Super lightweight, highly flexibl
- Flame retardant to DIN 4102-B1 and UL94-HB
- Microbe resistant
- Supplied poly-sleeved in compressed form
- Excellent abrasion resistance
- High tensile strength and tear resistance
- Optimised flow (observe direction of flow arro
- Small bend radius
- Good resistance to oil, petrol and chemicals
- Wire spiral reinforcement can be earthed

Use clamp type 212/212EC (refer to page 1447).



Working Temperature:
-40°C to +90°C
Intermittent to:
+125°C approx



**Lightweight, 0.4mm Wall,
Flame Retardant, Anti-static, 10 Metres**

0392	ID mm	OD mm
301-0038-0000	38	46
301-0050-0000	50	58
301-0065-0000	65	73
301-0075-0000	75	83
301-0100-0000	100	108
301-0125-0000	125	133
301-0150-0000	150	158
301-0160-0000	160	168
301-0200-0000	200	208
301-0225-0000	225	234
301-0250-0000	250	259
301-0300-0000	300	309

Tech Sheet 20017

PROTAPE PUR 330 AS

Made from premium-grade ester Pre-PUR polyurethane reinforced with a copper-coated spring steel wire helix.

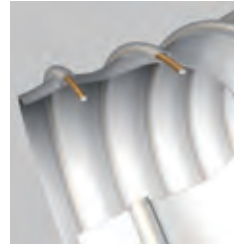
Wall Thickness: 0.6mm approx.

Applications: Suction and transport hose for abrasive material, e.g. dust, chippings, powder, granules, fibres, etc

Also suitable for fume extraction, e.g. oil mist, welding fumes and chemical vapours.

- Permanently anti-static wall, $10^9\Omega$
- Super lightweight, highly flexibl
- High tensile strength and tear resistance
- Flame retardant to DIN 4102-B1 and UL94-HB
- Optimised flow (observe direction of flow arro
- Microbe resistant
- Supplied poly-sleeved in compressed form
- Small bend radius
- Good resistance to oil, petrol and chemicals
- Wire spiral reinforcement can be earthed

Use clamp type 212/212EC (refer to page 1447).



Working Temperature:
-40°C to +90°C
Intermittent to:
+125°C



**Light/Medium Weight, 0.6mm Wall,
Flame Retardant, Anti-static, 10 Metres**

0392	ID mm	OD mm
330-0038-1002	38	45
330-0050-1002	50	58
330-0065-1002	65	73
330-0075-1002	75	83
330-0100-1002	100	108
330-0125-1002	125	133
330-0150-1002	150	158
330-0160-1002	160	168
330-0200-1002	200	208
330-0225-1002	225	233
330-0250-1002	250	258
330-0300-1002	300	309
330-0350-1002	350	359
330-0400-1002	400	409

Tech Sheet 60192

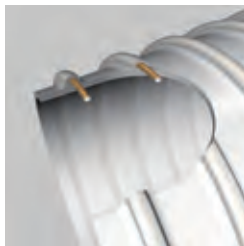
AIRDUC PUR 350 AS

Made from premium-grade ester Pre-PUR polyurethane, reinforced with a thicker gauge spring steel wire helix.

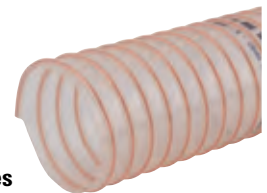
Wall Thickness: 0.7mm approx.

Applications: Suction and transport hose for highly abrasive materials, e.g. dust, powder, granules, chippings, pellets, fibres, shavings, recovery, etc. Also suitable for fumes or gaseous media.

- Permanently anti-static wall, $10^9\Omega$
- Flame retardant to DIN 4102-B1 and UL94-V2
- Microbe resistant
- Excellent abrasion resistance
- High tensile strength and tear resistance
- Smooth bore, optimised flow (observe direction of flow arrow
- Small bend radius
- Good resistance to oil, petrol and chemicals
- Wire spiral reinforcement can be earthed



Working Temperature:
-40°C to +90°C
Intermittent to: +125°C



**Medium Weight, 0.7mm Wall,
Flame Retardant, Anti-static, 10 Metres**

0392	ID mm	OD mm
350-0038-1002	38	45
350-0050-1002	50	57
350-0065-1002	65	70
350-0075-1002	75	82
350-0100-1002	100	107
350-0125-1002	125	132
350-0150-1002	150	157
350-0160-1002	160	167
350-0175-1002	175	182
350-0200-1002	200	207
350-0225-1002	225	232
350-0250-1002	250	257
350-0300-1002	300	307

Tech Sheet 60188

Other size and length options are available for all hoses shown here - please enquire.

ANTISTATIC PUR MEDIUM & HEAVY DUTY DUCTING



PROTAPE®

Wall Thickness: 0.9mm approx.

Applications: Flexible hose/ducting for high throughput of abrasive powder, bulk material, granulate and for gases, extraction unit, dedusting system, filter system, oil mist extraction, compressor, side channel blower, vacuum pump, pressure pump.

Municipal vehicle: sweeper, sweeping machine, lawn mower, slope mower, leaf blower/ eaf collector.

- Medium/heavy-duty
- Highly abrasion resistant
- Increased pressure and vacuum resistance
- Microbe resistant
- Good resistance to oil, gasoline and chemicals
- Very good low temperature flexibility
- Permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance approx. $10^9\Omega$
- Conforms to RoHS guideline

Working Temperature:
-40°C to +90°C



Medium/Heavy-duty, 0.9mm Wall, Flame Retardant, Anti-static, 10 Metres

0392	ID mm	OD mm
333-0050-0007	50	59.5
333-0065-0007	65	73.5
333-0075-0007	75	84.5
333-0080-0007	80	89
333-0100-0007	100	113.5
333-0125-0007	125	138.5
333-0150-0007	150	163.5
333-0160-0007	160	172
333-0180-0007	180	192
333-0200-0007	200	214.5
333-0250-0007	250	263

Tech Sheet 71699

AIRDUC PUR 355 AS

Made from premium-grade ester Pre-PUR polyurethane, reinforced with a heavy-duty spring steel wire helix.

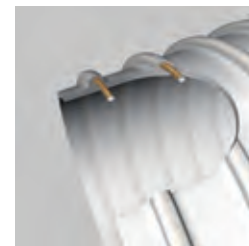
Wall Thickness: 1.5mm approx.

Applications: Suction and transport hose for highly abrasive materials using high flow rates, e.g. powder, granules, chippings, etc.

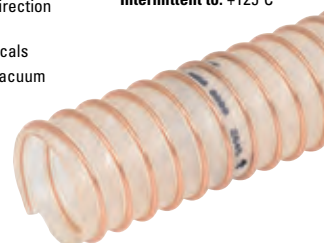
Also suitable for fumes or gaseous media.

- Permanently anti-static wall, $<10^9\Omega$
- Excellent abrasion resistance
- Flame retardant to DIN 4102-B1 and UL94-V2
- Microbe resistant
- Wire spiral reinforcement can be earthed
- High tensile strength and tear resistance
- Smooth bore, optimised flow (observe direction of flow arrow)
- Good resistance to oil, petrol and chemicals
- Heavyweight, increased pressure and vacuum

Use clamp type 212/212EC, 216 (refer to page 1447).



Working Temperature:
-40°C to +90°C
Intermittent to: +125°C



Heavyweight, 1.5mm Wall, Flame Retardant, Anti-static, 10 Metres

0392	ID mm	OD mm
355-0050-0000	50	60
355-0065-0000	65	75
355-0075-0000	75	86
355-0100-0000	100	111
355-0125-0000	125	136
355-0150-0000	150	161
355-0160-0000	160	171
355-0200-0000	200	213
355-0250-0000	250	263
355-0300-0000	300	313

Tech Sheet 10395

AIRDUC® PUR 356 AS

Applications:

- Super/heavy-duty
- Extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- Good resistance to oil, gasoline and chemicals
- Very good low temperature flexibility
- Permanently antistatic wall: according to ISO 8031 electrical and surface resistance.
- According to DIN 26057 Type 4
- In accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside),
- In accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- Conforms to RoHS guideline

Working Temperature:
-40°C to +90°C

Wall Thickness:
• 2 to 2.5 mm approx.



Super/Heavy-duty, 2mm-2.5mm Wall, Anti-static, 10 Metres

0392	ID mm	OD mm
356-0050-0000	50	61
356-0065-0000	65	76
356-0075-0000	75	87
356-0080-0000	80	92
356-0100-0000	100	113
356-0125-0000	125	138
356-0150-0000	150	163
356-0160-0000	160	173
356-0180-0000	180	193
356-0200-0000	200	214

Tech Sheet 71700



Other size and length options are available for all hoses shown here - please enquire.

FOOD GRADE PUR DUCTING



PROTAPE PUR 330 FOOD

Made from premium food grade ether Pre-PUR polyurethane, reinforced with a spring steel wire helix.

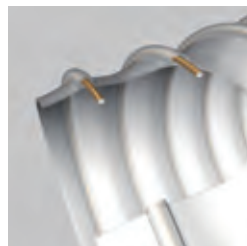
Wall Thickness: 0.6mm approx.

Applications: Suction and transport hose for abrasive materials including food products e.g. powders, granulates etc.

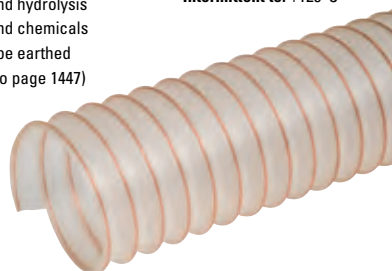
Also suitable for gaseous media and liquids.

- Food grade wall (refer to Tech Sheet for food approvals information)
- Lightweight, high abrasion resistance
- High tensile strength and tear resistance
- Optimised flow (observe direction of flow arrow)
- Small bend radius
- Good resistance to microbes and hydrolysis
- Good resistance to oil, petrol and chemicals
- Wire spiral reinforcement can be earthed

Use clamp type 212/212EC (refer to page 1447)



Working Temperature:
-40°C to +90°C
Intermittent to: +125°C



Light/Medium Weight, 0.6mm Wall, Food Grade, 10 Metres

0392	ID mm	OD mm
330-0038-0000	38	45
330-0050-0000	50	58
330-0065-0000	65	73
330-0075-0000	75	83
330-0100-0000	100	108
330-0125-0000	125	133
330-0150-0000	150	158
330-0200-0000	200	208

Tech Sheet 60193

AIRDUC PUR 350 FOOD AS

Made from premium food grade ether Pre-PUR polyurethane, reinforced with a spring steel wire helix.

Wall Thickness: 0.7mm approx.

Applications: Suction and transport hose for abrasive materials including food products, e.g. powders, granulates, seeds, grain, etc.

Also suitable for liquid media.

- Food grade wall (refer to Tech Sheet for food approvals information)
- Permanently anti-static wall, $10^9\Omega$
- Good resistance to microbes and hydrolysis
- Wire spiral reinforcement can be earthed
- Good resistance to oil, petrol and chemicals
- High tensile strength and tear resistance
- Smooth bore, optimised flow (observe direction of flow arrow)
- Small bend radius
- Excellent low temperature flexibility

Use clamp type 212/212EC/216 (refer to page 1447).



Working Temperature:
-40°C to +90°C
Intermittent to: +125°C



Medium Weight, 0.7mm Wall, Anti-static, Food Grade, 10 Metres

0392	ID mm	OD mm
350-0038-0000	38	45
350-0050-0000	50	57
350-0065-0000	65	70
350-0075-0000	75	82
350-0100-0000	100	107
350-0125-0000	125	132
350-0150-0000	150	157
350-0160-0000	160	167
350-0175-0000	175	182
350-0200-0000	200	207
350-0225-0000	225	232
350-0250-0000	250	257
350-0300-0000	300	307

Tech Sheet 10394

AIRDUC PUR 351 FOOD

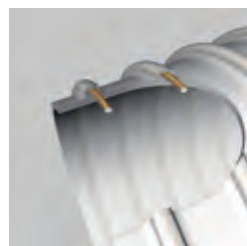
Made from premium food grade ether Pre-PUR polyurethane, reinforced with a spring steel wire helix.

Wall Thickness: 1.0mm approx.

Applications: Suction and transport hose for abrasive materials including food products, e.g. powders, granulates, seeds, grain, etc. Also suitable for liquid media.

- Food grade wall (refer to Tech Sheet for food approvals information)
- Good resistance to microbes and hydrolysis
- Wire spiral reinforcement can be earthed
- Good resistance to oil, petrol and chemicals
- High tensile strength and tear resistance
- Smooth bore, optimised flow (observe direction of flow arrow)
- Small bend radius
- Excellent low temperature flexibility
- Flame retardant to UL94-HB

Use clamp type 212/212EC (refer to page 1447).



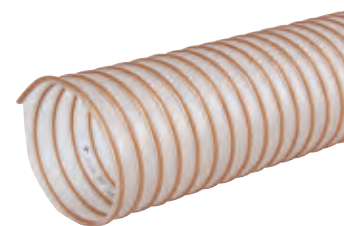
Working Temperature:
-40°C to +90°C
Intermittent to: +125°C



Medium/Heavy Weight, 1.0mm Wall, Food Grade, 10 Metres

0392	ID mm	OD mm
351-0038-0000	38	46
351-0050-0000	50	58
351-0065-0000	65	73
351-0075-0000	75	84
351-0100-0000	100	109
351-0125-0000	125	134
351-0150-0000	150	159
351-0175-0000	175	184
351-0200-0000	200	209
351-0250-0000	250	259
351-0300-0000	300	309

Tech Sheet 10405



FOOD GRADE HOSE & DUCTING



BARDUC PVC 381 FOOD

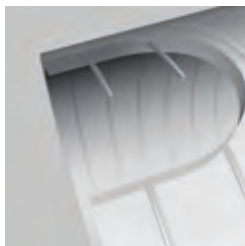
Made from high-grade PVC with smooth exterior and bore, and spring steel wire reinforcement embedded into wall. For use when very high pressure, vacuum or compression resistance is required.

Applications: conveying powders, chips and pellets, also gaseous and liquid media, e.g. industrial, agricultural and food.

- Phthalates free
- Wire spiral reinforcement can be earthed
- Smooth bore and exterior
- High axial strength
- Good resistance to chemicals, acids and alkalis
- Food grade wall – refer to Tech Sheet for Food Approvals information

Use clamp type 211 (please enquire).

° Working Temperature:
-20°C to +70°C
Intermittent to: +80°C



Super Heavy, Vacuum Proof, Clear PVC, Suction & Delivery, 30 Metres

0392	ID mm	OD mm
381-0012-0000	12	18
381-0016-0000	16	22
381-0018-0000	18	24
381-0020-0000	20	27
381-0025-0000	25	32
381-0032-0000	32	40
381-0038-0000	38	46
381-0050-0000	50	59
381-0065-0000	65	76
381-0076-0000	76	88

Tech Sheet 10421

Super Heavy, Vacuum Proof, Clear PVC, Suction & Delivery, 20 Metres

0392	ID mm	OD mm
381-0102-0000	102	115

Tech Sheet 10421

4483 Armoflex®/PU/FOOD

Applications: clarified transparent food suction/discharge hose for liquid and dry food such as fruit juices, milk, sugar and milk powder up to 40°C. The hose is also suitable for transport of other wear resistant materials such as PVC granulate, grit, lime powder and other granulates. Hose can be used for transport of extremely wear resistant materials.

° Working Temperature:
-25°C to 85°C



Polyurethane, 4.5mm-5mm Wall (approx.), Food Grade, 30 Metres

0392	ID mm	OD mm
448-3038-000	38	47
448-3040-000	40	49
448-3050-000	51	61

Tech Sheet 71701

AIRDUC PUR 355 FOOD

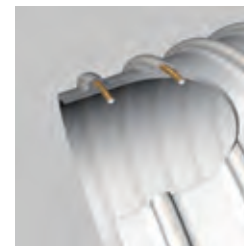
Made from premium-grade ether Pre-PUR polyurethane, reinforced with a spring steel wire helix.

Wall thickness: 1.5mm approx.

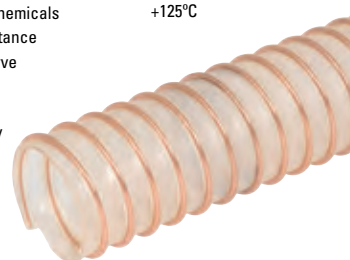
Applications: heavy-duty suction and transport hose for highly abrasive materials including food products such as high flowrates, particularly in food and pharmaceutical sectors, e.g. powders, granulates, grains, seeds, fibres etc.

- Also suitable for liquid media, as well as fume extraction
- Heavy-duty, reinforced food grade wall (refer to Tech Sheet for food approvals information)
- Flame retardant to UL94-V2
- Good resistance to microbe and hydrolysis
- Wire spiral reinforcement can be earthed
- Good resistance to oil, petrol and chemicals
- High tensile strength and tear resistance
- **Do not bore or pipe in low** (observe direction of flow arrow)
- Small bend radius
- Excellent overall performance flexibility

Use clamp type 212/212EC/216 (refer to page 1447).



° Working Temperature:
-40°C to +90°C
Intermittent to:
+125°C



Heavyweight, 1.5mm Wall, Food Grade, 10 Metres

0392	ID mm	OD mm
355-0038-1001	38	48
355-0050-1001	50	60
355-0065-1001	65	75
355-0075-1001	75	86
355-0100-1001	100	111
355-0125-1001	125	136
355-0150-1001	150	161
355-0180-1001	180	191
355-0200-1001	200	213
355-0250-1001	250	263
355-0300-1001	300	313

Tech Sheet 68735

HIGH PERFORMANCE ANTI-STATIC SUCTION & DELIVERY HOSES



NORPLAST PUR 385 AS

Made from premium-grade anti-static Pre-PUR polyurethane reinforced with a tough flexible PVC helix.

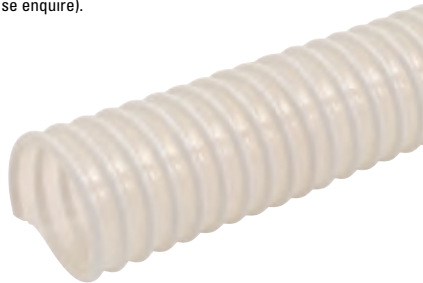
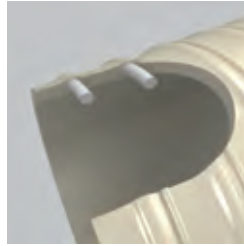
Applications: multipurpose suction and delivery hose. For abrasive materials, e.g. dust, powders, granules, fibres and pellets.

Suitable for plastics industries, abrasive recovery, blown insulation, woodworking, etc.

- Gas and liquid tight
- Permanently anti-static wall, $10^9\Omega$
- Phthalates free
- Highly flexible, smooth bore
- Excellent abrasion resistance
- High tensile strength and tear resistance
- Small bend radius
- Good resistance to chemicals
- Flame retardant to DIN 4102-B1

Use clamp type 208/211 (please enquire).

Working Temperature:
-20°C to +70°C
Intermittent to:
+80°C

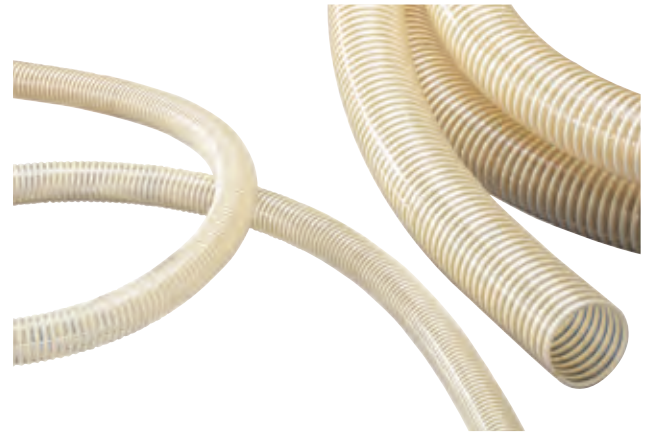


NORPLAST® PVC 384 SCIROPPO® AS

Applications:

- For foodstuff liquids and grain shaped mediums, like granulates and wooden pellets
- PVC inner/outer layer
- Slightly corrugated construction cover
- Rigid PVC spiral
- With copper stranded wire
- Smooth interior

Working Temperature:
-15°C to +60°C



Polyurethane, Flame Retardant, Anti-static Suction & Delivery Hose, 10 Metres

0392	ID mm	OD mm
385-0025-0000	25	31
385-0032-0000	32	38
385-0038-0000	38	45
385-0040-0000	40	47
385-0050-0000	50	58
385-0060-0000	60	68
385-0075-0000	75	84
385-0100-0000	100	110

Tech Sheet 20020

PVC, Alimentary Suction/Discharge Hose, Anti-static, 50 Metres

0392	ID mm	OD mm
4411-025-000	25	31
4411-032-000	32	37
4411-038-000	38	45
4411-040-000	40	47
4411-050-000	50	59
4411-060-000	60	69
4411-065-000	65	74
4411-080-000	80	92

Tech Sheet 71702

Other size and length options are available for all hoses shown here - please enquire.



Permanently Anti-static

In the past, hoses with an anti-static wall were generally manufactured using an additive that migrated out over time, so that the material's anti-static performance was gradually lost. Thanks to a unique, innovative material developed by **NORRES**, we are able to offer hoses and ductings which are genuinely **permanently anti-static**. These are indicated by **AS** as a suffix in our product name.

HIGH TEMPERATURE NEOPRENE & SILICONE DUCTING




A premium quality neoprene-coated fabric ducting with cord reinforcement and spring steel helix.

Applications: for air movement and fume extraction where extremes of temperature are involved, e.g. plastic granulate dryers and printing machinery.

- High/low temperature range
- Lightweight and highly flexible
- Leak proof and kink proof

Use clamp type 208/211 (please enquire).

 **Working Temperature:**
-35°C to +135°C

Intermittent to: +150°C



NEO 1

Single Ply Neoprene-coated Glass Fabric, 4 Metres

0392	ID mm	OD mm
390-0038-0000	38	42
390-0051-0000	51	55
390-0063-0000	63	67
390-0076-0000	76	80
390-0102-0000	102	106
390-0127-0000	127	132
390-0152-0000	152	157
390-0203-0000	203	208

Tech Sheet 10424

NEO 2

- Double ply construction to give a higher working pressure



Double Ply, Neoprene-coated Glass Fabric, 4 Metres

0392	ID mm	OD mm
390-0038-2005	38	43
390-0051-2005	51	56
390-0063-2005	63	68
390-0076-2005	76	81
390-0102-2005	102	107
390-0127-2005	127	133
390-0152-2005	152	158
390-0203-2005	203	209


Tech Sheet 71703

A premium quality silicone-coated fabric ducting with cord reinforcement and spring steel helix.

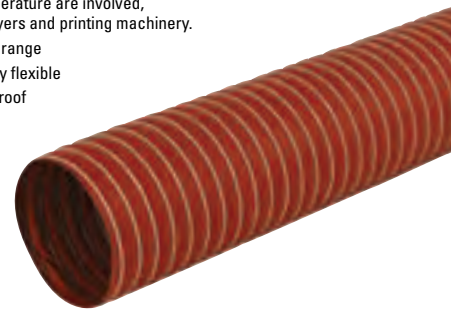
Applications: for air movement and fume extraction where extremes of temperature are involved, e.g. plastic granulate dryers and printing machinery.

- Extreme temperature range
- Lightweight and highly flexible
- Leak proof and kink proof
- Smooth bore

Use clamp type 208/211 (please enquire).

 **Working Temperature:**
-70°C to +260°C

Intermittent to: +280°C



SIL 1

Single Ply, Silicone-coated Glass Fabric, 4 Metres

0392	ID mm	OD mm
391-0038-0000	38	42
391-0051-0000	51	55
391-0063-0000	63	67
391-0076-0000	76	80
391-0102-0000	102	106
391-0127-0000	127	132
391-0152-0000	152	157
391-0203-0000	203	208

Tech Sheet 71704

SIL 2

- Double ply construction to give a higher working pressure



Double Ply Silicone-coated Glass Fabric, Smooth Bore, 4 Metres

0392	ID mm	OD mm
391-0038-2005	38	43
391-0051-2005	51	56
391-0063-2005	63	68
391-0076-2005	76	81
391-0102-2005	102	107
391-0127-2005	127	133
391-0152-2005	152	158
391-0203-2005	203	209

Tech Sheet 10427

Other ID sizes are available in NEO & SIL - please enquire.

INDUSTRIAL VACUUM HOSES & ACCESSORIES



SUPERFLEX PVC 372

Lightweight suction and blast hose made from high-grade, yarn-reinforced PVC with PVC-coated spring steel wire helix.

Applications: Industrial/domestic vacuum cleaners, air movement, drier and weld fume extraction. Suitable for dust, powders, gases and liquids.

- Good resistance to chemicals, alkalis and acids
- Wire helix can be earthed
- Highly flexible

Use clamp type 208 (please enquire).



Working Temperature:
0°C to +85°C

Lightweight, Yarn-reinforced PVC, Suction & Blower Hose, 15 Metres

0392	ID mm	OD mm
372-0025-0000	25	31
372-0032-0000	32	38
372-0038-0000	38	44
372-0051-0000	51	57
372-0063-0000	63	69
372-0076-0000	76	82

Tech Sheet 10418

EVA 373 AS, BLACK

High quality, durable black suction hose made from anti-static EVA.

Applications: Industrial/domestic vacuum cleaners and blowing machines for cavity wall insulation.

- Good resistance to alkalis and acids
- Floatable
- Crush-proof
- Permanently anti-static wall, 10^{11} $\Omega</math>$

Use clamp type 208 (please enquire).



Working Temperature:
-45°C to +65°C

Anti-static Black EVA, Crush-proof Suction Hose, 30 Metres

0392	ID mm	OD mm
373-0032-1002	32	40.4
373-0038-1002	38	47.2
373-0050-1002	50	60.4

Tech Sheet 10417

EVA 373

Applications:

- Flexible hose/ducting for gases and for dust, powder, fibre
- Industrial vacuum cleaners, vacuum cleaners
- Swimming pool cleaning
- Scrubber, floor cleaning machine
- Light weight
- Highly flexible
- Crush resistant
- Floatable
- Good resistance to alkalis and acids
- Conforms to RoHS guideline



Working Temperature:
-45°C to +65°C

Crush-proof EVA Vacuum Cleaner Hose, Grey, 30 Metres

0392	ID mm	OD mm
373-0032-0000	32	40
373-0038-0000	38	47
373-0050-0000	50	60

Tech Sheet 71707

CONNECT 226

- Easily and quickly fitted
- Re-usable (threaded version)
- Good resistance to alkalis and acids
- Good resistance to chemicals
- Conforms to RoHS guideline
- Suitable for Hose SuperFlex: 372

Working Temperature:
-20°C to 70°C
Intermittent to: +80°C



Soft Sleeve for SuperFlex Hoses, High Grade Soft PVC,

0392	To Suit Hose ID mm
226-0025-0000	25
226-0032-0000	32
226-0038-0000	38
226-0051-0000	51
226-0063-0000	63
226-0076-0000	76

Tech Sheet 71705

CONNECT 227

- Easily and quickly fitted
- Re-usable (threaded version)
- Good resistance to alkalis and acids
- Good resistance to chemicals
- Conforms to RoHS guideline

Working Temperature:
-20°C to 70°C



- Suitable for Hose EVA: 373; 373 (AS/EC)

Grey Soft Sleeve for EVA Hoses, High Grade Soft PVC

0392	To Suit Hose ID mm	Color
227-0032-0000	32	Grey
227-0038-0000	38	Grey
227-0050-0000	50	Grey

Tech Sheet 71706

- Suitable for Hose EVA: 373; 373 (AS/EC), Electrically Conductive <math><106</math>

Black Soft Sleeve for EVA Hoses, High Grade Soft PVC

0392	To Suit Hose ID mm	Color
227-0032-1003	32	Black
227-0038-1003	38	Black
227-0050-1003	50	Black

Tech Sheet 71706

SPECIALIST CLAMPING EQUIPMENT FOR INDUSTRIAL HOSE & DUCTING



Worm Drive Bridge Clamp 212

- Stainless Steel Band
- Zinc Plated Worm Drive



Offset Bridge Clamp for Wire Helix Ductings

0392	To Suit Hose ID mm
212-0035-0000	38-44
212-0045-0000	50-55
212-0055-0000	60-65
212-0065-0000	70-75
212-0075-0000	80-85
212-0085-0000	90-95
212-0095-0000	100-105
212-0105-0000	110-115
212-0115-0000	120-127
212-0125-0000	130-135
212-0135-0000	140-145
212-0145-0000	150-155
212-0155-0000	160-165
212-0165-0000	170-175
212-0175-0000	180-185
212-0195-0000	200-205
212-0215-0000	220-225
212-0245-0000	250-255
212-0295-0000	300-305
212-0315-0000	320-325
212-0345-0000	350-355
212-0395-0000	400-405

Tech Sheet 10430

The upgraded 212EC is available on request.

CLAMP 216

- Watertight and tensile connection at very low overpressure due to special spiral geometry
- Easily and quickly fitted
- Re-usable
- Conforms to RoHS guideline



- For AIRDUC® 345, 355, 356 Hoses with ID of >=50mm

Stainless Steel Sealing Clamp

0392	To Suit Hose ID mm
216-0050-0000	50
216-0055-0000	55
216-0060-0000	60
216-0065-0000	65
216-0070-0000	70
216-0075-0000	75
216-0080-0000	80
216-0090-0000	90
216-0100-0000	100
216-0102-0000	102
216-0110-0000	110
216-0115-0000	115
216-0120-0000	120
216-0125-0000	125
216-0127-0000	127
216-0130-0000	130
216-0140-0000	140
216-0150-0000	150
216-0152-0000	152
216-0160-0000	160
216-0175-0000	175
216-0180-0000	180
216-0200-0000	200

Tech Sheet 71708

- For AIRDUC® 345, 355 Hoses with ID of <50mm

Stainless Steel Sealing Clamp

0392	To Suit Hose ID mm
216-0032-2872	32
216-0038-2872	38
216-0040-2872	40

Tech Sheet 71708



For Industrial Grade Hand Tools & Accessories
see pages 1730-1741



Further sizes are available for all clamps shown here - please enquire.



HOSE REELS

Reduced wear and damage
Increased efficiency
Ease of handling and storage
Safety first - avoids slips and trips
Compact units for applications with restricted space
Build a Reel - bespoke reels built to your specification

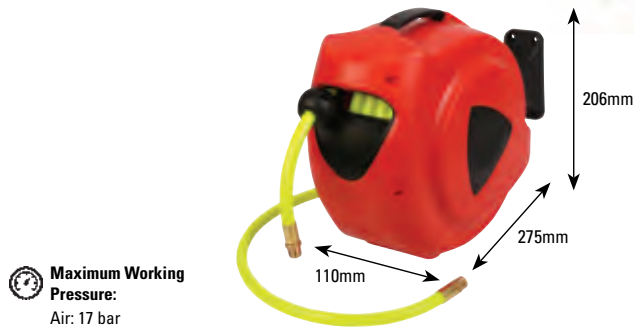
Features:

- Plastic, metal and stainless steel hose reels
- To suit low, medium and high pressure applications, from 12 bar to 270 bar
- All high pressure hose reels are assembled by BFPFA trained technicians
- Hose assemblies made to order
- Floor, wall or ceiling mounting options
- Plastic and metal hose reels come complete with anti-locking mechanism



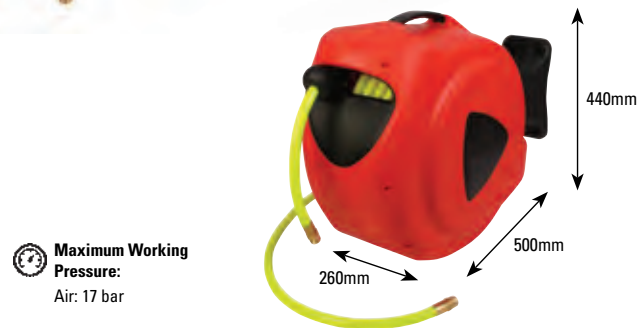
Air & Water Hi-Vis Hose, Hose Reels

- Hi-Vis reinforced PVC hose
- Tough impact resistant polypropylene construction
- 180° swivel
- Self-layering hose guide for perfectly even hose rewinding
- Speed-controlled return spring
- Auto-locking mechanism allows easy use of hose at any length
- Carry handle
- Lightweight



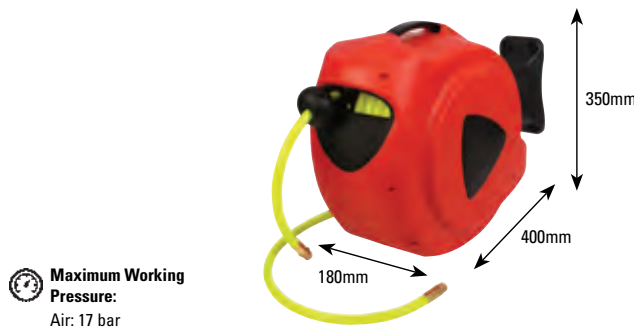
10 Metre Hi-Vis Hose Length

0800	Length Metres	ID	Inlet Thread	Outlet Thread
ZA04-10B-HIVIS	10	3/8"	1/4" BSPT	1/4" BSPT



20 Metre Hi-Vis Hose Length

0800	Length Metres	ID	Inlet Thread	Outlet Thread
ZA05-20B-HIVIS	20	1/2"	3/8" BSPT	3/8" BSPT
ZA05-20B12-HIVIS	20	1/2"	1/2" BSPT	1/2" BSPT



15 Metre Hi-Vis Hose Length

0800	Length Metres	ID	Inlet Thread	Outlet Thread
ZA05-15-HIVIS	15	3/8"	1/4" BSPT	1/4" BSPT
ZA05-15-38-HIVIS	15	3/8"	3/8" BSPT	3/8" BSPT

Air Hose Reel

- Reinforced PU hose
- Tough impact-resistant polypropylene construction
- 180° swivel
- Self-layering hose guide for perfectly even hose rewinding
- Speed-controlled return spring
- Auto-locking mechanism allows easy use of hose at any length
- Lightweight



9 Metre Hose Length

0800	Length Metres	ID	Inlet Thread	Outlet Thread
ZA02-9	9	5/16"	1/4" BSPT	1/4" BSPT

Tech Sheet 10179

The connection termination on all FT Pro hose reels can be adapted to suit specific requirements. For further details, contact our business development team.

Mountable Steel Air Hose Reel

- Heavy ribbed steel plate to ensure strong support
- Spring located in the middle to ensure stability
- Four direction non-sag rollers to reduce hose wear abrasion
- Adjustable guide arm for multi position mounting
- Special swivel joint for easy maintenance and repair
- Ball bearing swivel joint structure, largely reducing friction

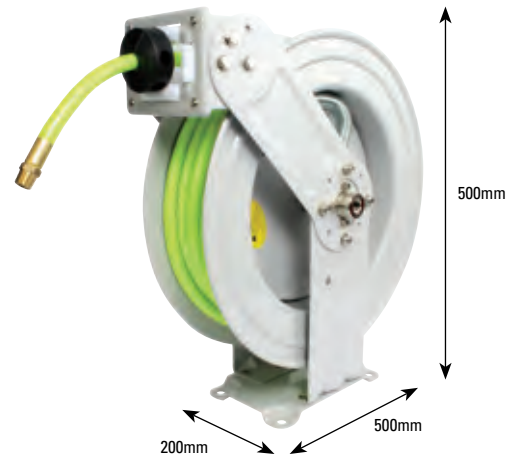
Maximum Working Pressure:
20 bar



Rubber Air Hose, Spring Rewind, 3/8"

0840	Male Thread	Length Metres	To Suit	Capacity Metres
SAHR-15-38	3/8" BSPT	15	-	-
SAHR-15N-38	-	No Hose	3/8" 1 Wire	15

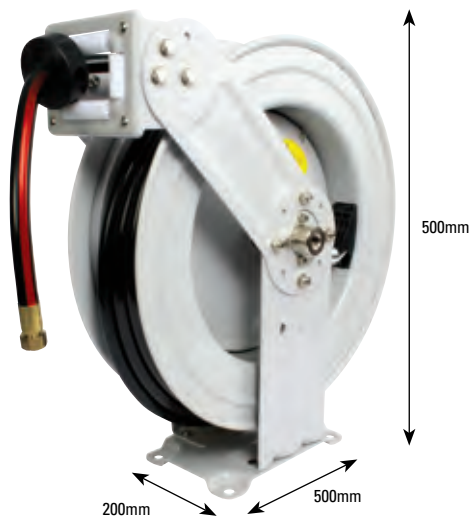
Tech Sheet 10183



Hi-Vis, Spring Rewind, 3/8"

0840	Male Thread	Length Metres
SAHR-15-38SHV06T	3/8" BSPT	15

Tech Sheet 10184



Rubber Tech, Spring Rewind, 1/2"

0840	Female Thread	Length Metres
SAHR-15-38SRT06F	3/8" BSPP	15

Tech Sheet 10188



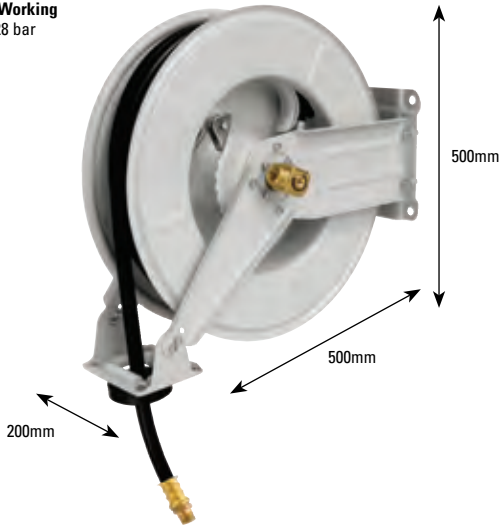
Swivel Bracket

0840	To Suit
SAHR-15-12-SB	SAHR-15-12

Mountable Steel Air Hose Reel

- Heavy ribbed steel plate to ensure strong support
- Spring located in the middle to ensure stability
- Four direction non-sag rollers to reduce hose wear abrasion
- Adjustable guide arm for multi position mounting
- Special swivel joint for easy maintenance and repair
- Ball bearing swivel joint structure, largely reducing friction

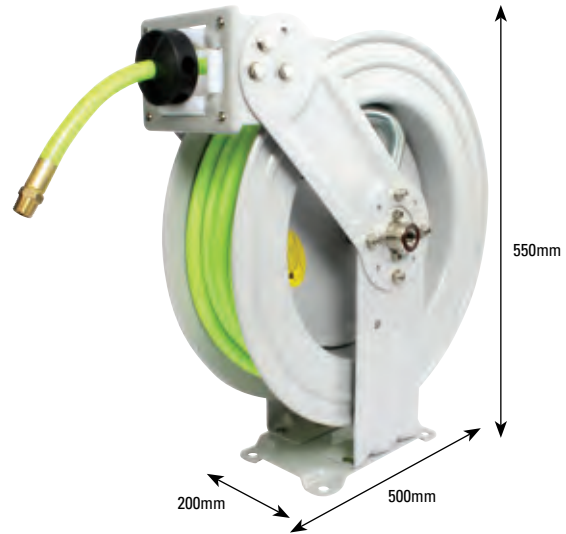
Maximum Working Pressure: 28 bar



Rubber Air Hose, Spring Rewind, 1/2"

0840	Male Thread	Length Metres	To Suit	Capacity Metres
SAHR-15-12	1/2" BSPT	15	-	-
SAHR-15N-12	-	No Hose	1/2'	15

Tech Sheet 10185



Hi-Vis, Spring Rewind, 1/2"

0840	Male Thread	Length Metres
SAHR-20-12SHV06T	3/8" BSPT	20

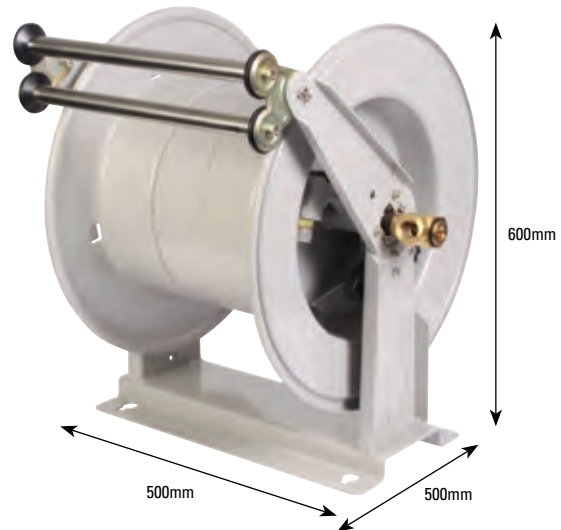
Tech Sheet 10186



R6, Spring Rewind, 1/2"

0840	Female Thread	Length Metres
SAHR-15-12SR608F	1/2" BSPP	15

Tech Sheet 10187



Spring Rewind Without Hose, 3/4"

0840	To Suit	Capacity Metres
SAHR-40N-34	3/4" Rubber Hose	40

Tech Sheet 10195

Mountable High Pressure Water Steel Hose Reels

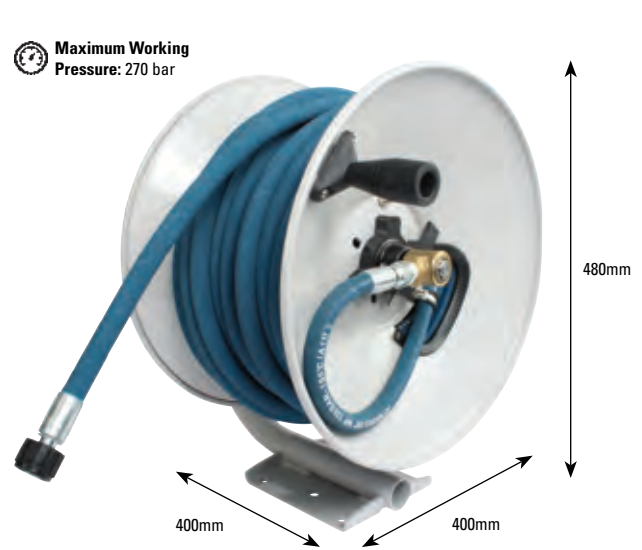
- Compact for applications with critical space requirement
- Heavy-duty steel construction with corrosion resistant powder coating
- Four direction non-snag rollers to reduce hose wear abrasion
- Multi position ratchet lock and easy tension adjustment
- Spring fully closed and lubricated
- Full 360° swivel
- Adjustable guide arm for multi positional mounting



Black 1 Wire Pressure Wash, Spring Rewind, 3/8"

0840	Inlet Thread	Outlet Thread	Length Metres	To Suit	Capacity Metres
SWHR-15-38	3/8" BSP	M22 X 1.5	15	-	-
SWHR-15N-38	-	-	No Hose	3/8" 1 wire	15

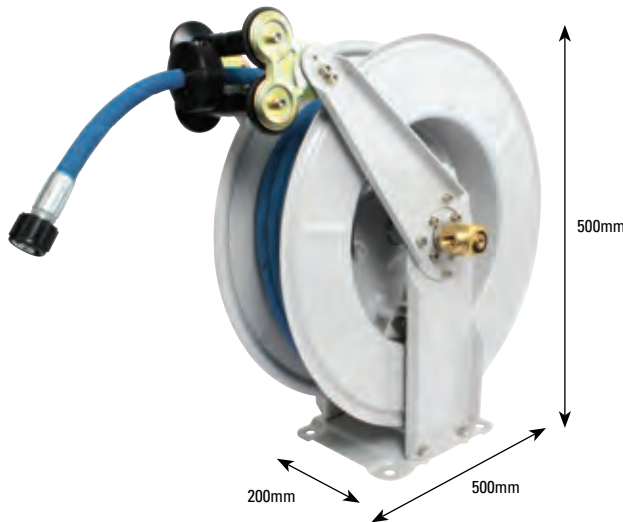
Tech Sheet 10189



Blue 2 Wire Pressure Wash, Manual Rewind, 3/8"

0840	Female Thread	Length Metres
SWHR-30-38MB222K	M22 x 1.5	30

Tech Sheet 10191



Blue 1 Wire Pressure Wash, Spring Rewind, 3/8"

0840	Female Thread	Length Metres
SWHR-15-38SB122K	M22 x 1.5	15

Tech Sheet 10190



Black 2 Wire Pressure Wash, Manual Rewind, 3/8"

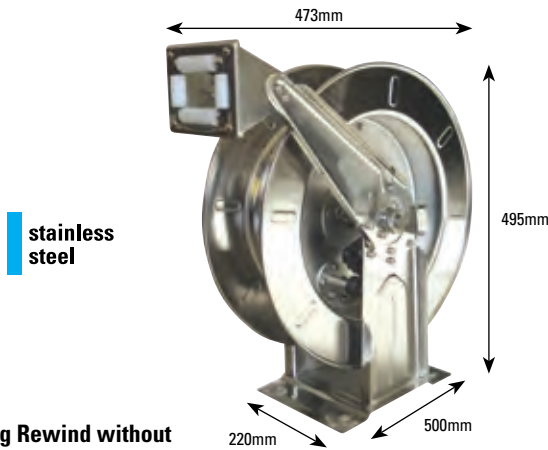
0840	Female Thread	Length Metres	To Suit	Capacity Metres
SWHR-30-38	M22 x 1.5	30	-	-
SWHR-30N-38	-	No Hose	3/8" 2 Wire	30

Tech Sheet 10192

Mountable Stainless Steel Hose Reels

- All stainless steel 304 spring rewind hose reels are designed for harsh, corrosive environments or where hygiene is of primary importance
- Ideally suited for wash down applications in food processing, also for marine and offshore application
- All stainless steel swivel assemblies with PTFE washer and viton O-ring for high pressure and high temperature
- Spring fully enclosed and lubricated
- Guide arm adjustable for handling up to 6 positions
- Multi-position ratchet lock keeps hose at desired length

Other configurations available on request.

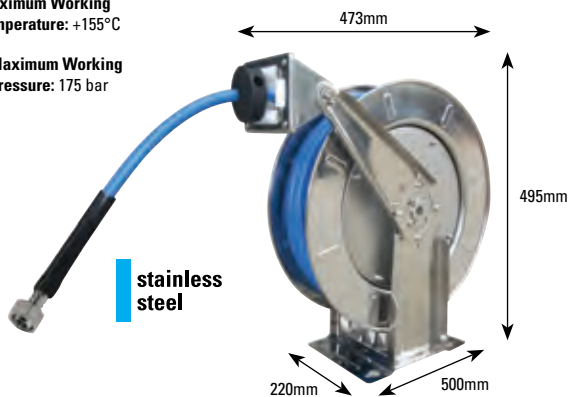


Spring Rewind without Hose, 1/2" BSPP Inlet

0890	Capacity Metres
SSHR-15N-12	15
Tech Sheet 71762	

Maximum Working Temperature: +155°C

Maximum Working Pressure: 175 bar

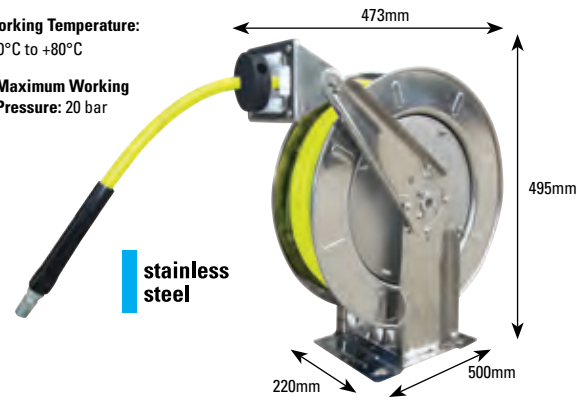


Blue 3/8", 1 Wire Pressure Wash, Spring Rewind

0890	Female Thread	Length Metres
SSHR-15-12SB106F	3/8" BSP	15
Tech Sheet 71763		

Working Temperature: -20°C to +80°C

Maximum Working Pressure: 20 bar

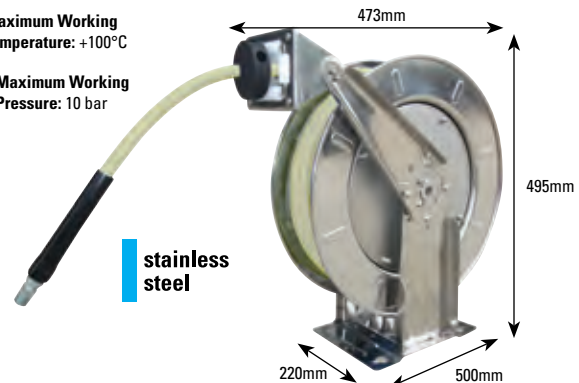


Hi-Vis 3/8", Air & Water, Spring Rewind

0890	Female Thread	Length Metres
SSHR-15-12SHV06T	3/8" BSPT	15
SSHR-15-12SHV08T	1/2" BSPT	15
Tech Sheet 71764		

Maximum Working Temperature: +100°C

Maximum Working Pressure: 10 bar



Non Marking 1/2" Wash Down Hose, Spring Rewind

0890	Male Thread	Length Metres
SSHR-15-12SWD08T	1/2"	15
Tech Sheet 71765		

stainless steel



Swivel Bracket

0890	To Suit
SSHR-12-SB	SSHR-15
Tech Sheet 71766	

HOSE REELS

Air/Water Hose Reels

Controlled retraction speed mechanism



20 Metre Heavy-duty Retractable 3/8" Air & Water Hose Reel

1470	Hose ID	Length Metres	Inlet	Outlet
HR5-320B	3/8" (9.2mm)	20	1/4" BSP Male	1/4" BSP Swivel Male

Controlled retraction speed mechanism



20 Metre Heavy-duty 10 bar 1/2" Water Hose Reel

1470	Hose ID	Length Metres	Inlet	Outlet
58.10450S	11.5mm (1/2")	20	3/8" BSP Male	Water Gun

Controlled retraction speed mechanism



30 Metre Heavy-duty Retractable 3/8" Air & Water Hose Reel

1470	Hose ID	Length Metres	Inlet	Outlet
58.30230S	9.2mm (3/8")	30	1/4"	1/4" Swivel

Controlled retraction speed mechanism



30 Metre Heavy-duty Retractable 1/2" Water Hose Reel

1470	Hose ID	Length Metres	Inlet	Outlet
58.30450S	11.5mm (1/2")	30	1/4" BSP Male	1/4" Swivel Check Unit

Controlled retraction speed mechanism



15 Metre Heavy-duty Retractable 1/2" Air & Water Hose Reel

1470	Hose ID	Length Metres	Inlet	Outlet
HR8-315B	1/2" (12.5mm)	15	3/8" BSP Male	3/8" BSP Swivel Male



Redashe

Stainless Steel Hose Reels

Heavy Duty Stainless Steel Retractable Hose Reel c/w 15 Mtrs Food Quality Hose

- Heavy gauge 304 stainless steel.
- Designed for harsh corrosive environments.
- Ideal for use in food processing, chemical, offshore and marine applications.

CRWM-SS Series Stainless Steel Manual Rewind Hose Reel Range

- 304 grade st/steel
- Ideally suited for food industry, chemical processing, offshore and marine applications.
- Hose lengths: 20m - 40m.
- Hose Sizes: 1/2" - 1".
- Pressures: up to 700psi.

CCRHA-SS Series Stainless Steel Spring Rewind Hose Reel Range

- 304 grade st/steel
- Ideally suited for food industry washdown, offshore & marine applications.
- Hose lengths: 20m - 30m.
- Hose Sizes: 1/2" - 1".
- Pressures: up to 2500psi

HOSE REELS

Reelworks Hose Reels

This compact, spring rewind hose reel is constructed in durable impact-resistant polypropylene. Supplied complete with 15m super flexible hybrid polymer hose, 1.5m inlet hose and integral pivoting wall bracket. The compact size makes this reel ideal for use in smaller workshops where space is limited.

Features:

- Supplied with 15m flexible, premium hybrid polymer hose
- Hose has no memory and lays flat when in use
- Integral pivoting wall bracket, swivels through 180°
- Latching of hose at any length
- Latching system can be set to free run if required

Maximum Working Temperature: +60°C



Automatic Spring Rewind Hose Reels, suitable for Air & Water

0122	ID	Length Metres	Max Pressure Bar
C2753	1/2"	15	20
C2752	3/8"	15	20

Tech Sheet 68740

This multifunctional, hi-vis, safety, spring rewind air hose reel has an automatic rewind system which prevents the hose from bunching when retracting the hose back; the system layers the hose back onto the reel from side to side, neat and tidy every time. The reel is supplied complete with a hybrid polymer hose which lays flat when in use with no recoil effect, and stays flexible even in extremely cold conditions. Manufactured from high impact UV-stabilised polypropylene which makes this reel tough, lightweight, and corrosion free. Two-year limited warranty.

Features:

- Automatic guide system – no bunching of hose. Layers hose from side to side, neat and tidy every time
- Slow retraction system – prevents hose from speeding back to the reel if the hose is let go – safe operation
- Low tension spring
- Latching of hose at any length



Hi-Vis, Automatic Spring Rewind Hose Reels, suitable for Air

0122	ID	Length Metres	Max Pressure Bar
C2783	1/2"	15	20
C2782	3/8"	15	20

Tech Sheet 68739

The compact spring rewind reel operates with a normal retraction system but should the operator lose grip on the hose, then the system senses the over-speed reaction and slows the hose to a safe speed by means of a centrifugal brake.

Features:

- Constructed in high impact UV stabilised polypropylene
- Powder coated, integral wall/ceiling bracket
- Latching of cable at any length or free run option
- Fully automatic spring rewind
- Low effort easy to use rewind tension
- Lightweight design
- Supplied with fitted hos
- Virtually maintenance free
- 12 month manufacturer's warranty



RA Series Compact Reel for Air

0122	Hose ID mm	Length Metres	Inlet/Outlet BSP
RA100	6	10	1/4"
RA200	8	9	1/4"



For **JWL AirBoy Tyre Inflation Equipment**
see page 1723



A Brand New Concept in Hose Reel Technology

FEATURES & BENEFITS OF THE CONCEPT:

- Eliminates the use of a fixed guide arm in wall/ceiling mount position
- Easy to install with no need for post installation adjustments
- Unique, automatic, 90° vertical rotational span
- Covers various mounting positions
- Balanced clock spring produces enough torque to displace the weight of the guide arm
- Allowing the guide arm to move vertically up and down in a smooth, effortless and fully automatic manner
- The roller guide and arm/s will always be directly facing the user, giving total control on payout and retrieval
- Allows the units to be mounted at an increased height
- Removes the possibility of harm to the operator, passing personnel or damage to machinery compared to low-level units
- Roller guide arm returns to its rest position after use
- Sets the reel ready for the next operator

STANDARD FEATURES:

- Constructed in heavy gauge powder coated steel
- Finished in a durable, white powder coated gloss finish
- Latching of hose at any length
- Fully automatic hose rewind for neat, tidy storage
- Extended roller guide aperture to ease hose stacking
- Externally mounted swivel assemblies
- Viton seals and nylon backup rings as standard
- Low, medium and high pressure applications
- Double supported 1", solid steel axle
- Pathfinde[®] self-adjusting roller guide arm
- All working parts fully accessible for servicing
- Floor, wall or ceiling mounting options
- Suitable for air, water, oil, diesel and grease delivery
- 2-year manufacturer's warranty
- Swivels 180° through the X axis and 90° through the Y axis
- Supplied as a bare reel, hose to suit application at extra cost



Low Pressure, Hose Reel Only

0122	ID	Length Metres	Max Pressure Bar
PFS-915L	3/8"	15	20
PFS-920L	3/8"	20	20
PFS-1315L	1/2"	15	20
PFS-1320L	1/2"	20	20



Medium Pressure, Hose Reel Only

0122	ID	Length Metres	Max Pressure Bar
PFS-915M	3/8"	15	155
PFS-920M	3/8"	20	155
PFS-1315M	1/2"	15	137
PFS-1320M	1/2"	20	137



High Pressure, Hose Reel Only

0122	ID	Length Metres	Max Pressure Bar
PFS-615H	1/4"	15	344
PFS-915H	3/8"	15	275

HOSE REELS

E-Zy Reels

Features:

- Lightweight and durable, just 12.5kg
- Constructed in high-impact UV-stabilised polypropylene
- Supplied with correct type of hose for specific application
- Fully assembled, includes 3 connecting hose
- Suitable for air or water depending on model



E-Zy Reel 701/705, Air/Water, BSPT

0122	Length Metres	ID	Thread	Max Pressure Bar
C705-100	10	1/4"	1/4"	12
C705-200	8	5/16"	1/4"	12

808 Series Open Frame Reel & Hose for Air/Water



0122	Hose ID	Length Feet/Metres	Inlet/Outlet BSPP
C808-466L	1/2"	66/20	1/2"



0122	Hose ID	Length Feet/Metres	Inlet/Outlet BSPP
C809-325L	3/8"	25/8	3/8"

Redashe

Retracta Standard Hose Reels

Redashe Retracta spring rewind hose reels offer performance, reliability and versatility for all popular hose applications. Constructed in high impact UV stabilised polypropylene for all-purpose corrosion free, durability. Retracta reels can be installed indoors or out. They are particularly suited to washdown applications in food processing as an alternative to conventional stainless steel reels. Suitable for wall, floor, bench or overhead installations.

Features:

- Superior positive latching mechanism allows the reel to be mounted in any position, with latching of the hose at any length
- Tough, corrosion free polypropylene construction
- Lightweight-average just 12kg, easy to install
- Fully automatic hose rewind for neat and tidy storage
- Low rewind tension allows for easy hose "pull out"
- Virtually maintenance free
- Completely serviceable-all parts readily available
- 5 year warranty (conditions apply)
- Safe storage system that keeps hoses off the floor



Excluding Hose

Note: Available for many other applications, with or without hose.



Cold Wash 40°C, Reinforced PVC Hose

0122	Length Metres	ID mm	Inlet BSPP	Outlet Bare Hose	Max Pressure Bar	Colour
CW100	15	12.5	3/8" Female	Bare End	10	Blue

Hot Wash 90°C, Reinforced Rubber Hose

0122	Length Metres	ID mm	Inlet BSPP	Outlet BSPP	Max Pressure Bar	Colour
HW100	12	12.5	3/8" Female	3/8" Male	10	Red

Food Quality Water 95°C, Reinforced Rubber Hose

0122	Length Metres	ID mm	Inlet BSPP	Outlet BSPP	Max Pressure Bar	Colour
FQ100	12	12.5	3/8" Female	1/2" Male	20	Red

Garden Reel, PVC Hose

0122	Length Metres	ID mm	Inlet BSPP	Outlet	Max Pressure Bar	Colour
DR100	18	12.5	3/4" Male	Blank/Nozzle	7	Green

Breathing Air (EN139), Reinforced NBR/PVC Hose

0122	Length Metres	ID mm	Inlet BSPP	Outlet BSPP	Max Pressure Bar	Colour
BH100	15	10	3/8" Female	3/8" Male	12	Red

Compressed Air (16 bar)

0122	Length Metres	ID mm	Outlet BSPP	Working Pressure (bar)
AR100	20	10	1/4"	16
AR200	15	12.5	3/8"	16

HOSE REELS

Heavy-duty Hose Reel

Features:

- Supplied with 15 metres of food quality hose.
- Heavy gauge 304 stainless steel.
- Designed for harsh corrosive environments.
- Ideal for use in food processing, chemical, offshore & marine applications.



15 Metres

0122	Description
CTWA-1315SSH	1/2" x 15m Hose Reel (including 15m Food Quality Hose)

820 Series Jet Washer Reel with Hose



0122	Hose ID mm	Length Metres
C820-358	10	15

Retracta Welding Reels with Hoses



0122	Application	Hose ID mm	Length Metres
HOP200	Oxy-Propane	10	10
HOA200	Oxy-Acetylene	10	10

808 Series Welding Reels with Hoses



0122	Application	Hose ID mm	Length Metres
C808-WELD-OP	Oxy-Propane	10	15
C808-WELD-OA	Oxy-Acetylene	10	15

Safety Cable Reel

Features:

- Slow retraction system - prevents hose from speeding back to the reel if the hose is let go - Safe Operation.
- Supplied with 15m of 3 core, 1.5mm² cable.
- Integral wall mounting swivel bracket.
- Latching of cable at any length.
- Fitted circuit breaker
- Electricity indicator LED light.
- 1.5m Fitted inlet cable.
- Supplied with fitted UK plug & sockets.
- For indoor use only.



15 Metre 230V

0122	Voltage	Cable Length Metres	Amps In/Out
C2681	230V	15	3/10

E-Zy Reels

Features:

- Compact, lightweight design
- Fully automatic spring rewind
- Supplied with 15m of 3 core, 1.5mm cable
- Low effort, easy to use rewind tension
- Fitted inlet cable for connection to supply
- Virtually maintenance free
- Integral wall mounting swivel bracket
- 240V
- Latching of cable at any length



Electrical Cable Reel

0122
C605-100

Redashe

RC25/50 Series



Compact Electrical Cable Reels 240V

0122	Cable Length Metres	Cores	Amps In/Out
YRC25	5 + 1	3 x 1.5mm	3/10
YRC50	7 + 1	2 x 1mm	3/10

Heavy-duty Static Safety Grounding Reel

Features:

- Heavy-duty steel compact design
- Slow retraction system – prevents cable from speeding back to the reel if the cable is let go - safe operation
- Latching of cable at any length
- Fitted with Alligator static grounding clamp
- High visibility cable with orange vinyl cover
- Operating temperature: -65°F to 125°F (-54°C to 52°C)
- RoHS and REACH compliant
- ATEX II 2G Ex h IIC T6 Gb / 11 2D Ex h IIC T85°C Db
- Applications: refuelling stations, fuel tanks, fuel trucks, airplane static grounding and any hazardous areas with potentially dangerous static electricity.



Max Resistance: 10 Ohm

SR101 Series, Static Safety Grounding Reel

0122	Hose Capacity Metres	Max Resistance Ohm	Cable OD mm
SR101-01	23	10	4

Tech Sheet 71686

HOSE REELS

Spring Rewind Cable Reels



110V

0122	Cable Length Metres	Voltage	Amps In/Out
YZ6185/IP65	15	110V Max	8/16
YZ7325	15	110V Max	8/16

Hose Reel for Oil



0122	Length Metres
HR015.12C	15

Hose Reel for Diesel




0122	Length Metres
HR08.25	8

Redashe

E-Zy Reel 208 Series Manual Rewind Hose Reels

Features:

- Excellent design, constructed from tubular and formed steel, which delivers superior strength and durability
- Corrosion resistant powder coated finish, black as standard
- Full flow, brass swivel assembly, ensures maximum product delivery
- Suitable for all floor or workbench mounting, ideal for mobile vehicle applications and pressure washers
- Spring loaded locking pin prevents the hose from de-reeling
- Only 9.5kg (bare reel)

 **Maximum Working Pressure for Reel:**
206 bar (3000 psi)




Hose Reel Only

0122	To Suit	Thread
C208-3-100H	30 Metres x 10mm	3/8"
C208-4-65H	20 Metres x 12.5mm	1/2"

E-Zy Reel 460 Series Manual Rewind Hose Reels

Features:

- Designed for industrial applications here longer length of hose are required
- Open hose slot drum design, Oillite self-lubricating bearings
- Spring loaded lock pin prevents hose from de-reeling
- Constructed in heavy gauge powder coated steel
- Full flow swivel joint

 **Maximum Working Pressure for Reel:**
206 (3,000 psi)



Hose Reel Only

0122	To Suit	Thread
C460-3-350H	105 Metres x 10mm	3/8"
C460-4-270H	80 Metres x 12.5mm	1/2"

Warning Tape Barrier Reels

Features:

- Constructed in high impact UV stabilised polypropylene
- Ideal for preventing people entering an unsafe or restricted area
- The tape is manufactured from a strong durable woven textile (width 48mm)
- Equipped with a slow retraction system preventing the tape from speeding back to the reel if the tape is let go (safe operation)

new product



1 YEAR WARRANTY

SR100 Tape Barrier Reels

0122	Tape Capacity Metres	Colour
SR100-05	16	Yellow/Black
SR100-06	16	Red/White

HOSE REELS

Compact Stainless Steel Hose Reels

Features:

- Heavy gauge 304 grade stainless steel
- Rolled and ribbed side discs for strength and rigidity
- Large four-way roller guide to reduce hose wear
- Floor and wall mounting options
- Smooth and positive crank design
- Supplied as bare reel, hose available at extra cost

stainless steel



CRWM-SS Stainless Steel, Manual Rewind Series, High Capacity, Hose Reel Only

0122	Length Metres	ID	OD	Max Pressure Bar
CRWM-1920SS	20	3/4"	1.1/8"	48
CRWM-2520SS	20	1"	1.1/2"	48

Steel Spring Rewind Reels

Features:

- Corrosion-resistant powder coating
- Guide arm adjustable handling up to nine positions
- Multi-position ratchet lock
- Spring fully enclosed and lubricated
- Wall, ceiling or floor mounte



808 Series, Spring Rewind Hose Reels

0122	Length Metres	ID	Thread	Max Pressure Bar
C808-350L	15	3/8"	3/8"	20
C808-450L	15	1/2"	1/2"	20
C808-350M	15	3/8"	3/8"	155
C808-450M	15	1/2"	1/2"	138

Features:

- 304-grade stainless steel construction
- Large four-way roller guide to reduce hose wear
- Supplied as bare reel
- Externally mounted, fully lubricated spring canister
- Externally mounted swivel assembly for easy maintenance
- 2-year manufacturers warranty



CCRHA-SS Series, Spring Rewind Hose Reels

0122	Length Metres	ID	OD	Max Pressure psi
CCRHA-1320SS	20	1/2"	7/8"	2500
CCRHA-1330SS	30	1/2"	7/8"	2500
CCRHA-1920SS	20	3/4"	1.1/8"	1500
CCRHA-1930SS	30	3/4"	1.1/8"	1500
CCRHA-2520SS	20	1"	1.1/2"	1200

Redashe

High Capacity, High Visibility Rewind Hose Reels

Features:

- Constructed in heavy gauge mild steel
- Highly visible yellow powder coated finis
- Rolled and ribbed side discs for strength and rigidity
- Large four-way roller guide to reduce hose wear
- Externally mounted spring canister and swivel assembly for easy maintenance
- Floor and wall mounting options
- Capacities up to 30m
- Two-year manufacturer's warranty
- Supplied as bare reel, hose available at extra cost



Maximum Working Pressure for Reel:
Up to 2700 psi (186 bar)



CRHA Spring Rewind, Air, Oil, Water & Diesel

0122	Length Metres	ID	OD	Max Pressure Bar
CRHA-920	20	3/8"	5/8"	186
CRHA-930	30	3/8"	5/8"	186
CRHA-1320	20	1/2"	7/8"	172
CRHA-1920	20	3/4"	1.1/8"	103
CRHA-1930	30	3/4"	1.1/8"	103
CRHA-2520	20	1"	1.1/2"	82

Features:

- Constructed in heavy gauge mild steel
- Highly visible yellow powder-coated finis
- Rolled and ribbed side discs for strength and rigidity
- Large four-way roller guide to reduce hose wear
- Floor or wall mounting options
- Smooth and positive direct crank design
- Capacities up to 40m
- Two-year manufacturer's warranty
- Supplied as bare reel, hose available at extra cost



Maximum Working Pressure for Reel:
700 psi (48 bar)



CRWM Manual Rewind, Air, Oil, Water & Diesel

0122	Length Metres	ID	OD	Max Pressure Bar
CRWM-1320	20	1/2"	7/8"	48
CRWM-1340	40	1/2"	7/8"	48
CRWM-1920	20	3/4"	1.1/8"	48
CRWM-1940	40	3/4"	1.1/8"	48
CRWM-2520	20	1"	1.1/2"	48
CRWM-2530	30	1"	1.1/2"	48

HOSE REELS

Heavy-duty Safety Spring Rewind Reel

Features:

- Constructed in heavy gauge powder coated carbon steel
- Double arm structure for stability and versatile adjustments
- Slow retraction system - prevents hose from speeding back to the reel if the hose is let go - safe operation.
- Latching hose at any length.
- Supplied as bare reel, hose available at extra cost (application required)



Maximum Working Pressure:
300 psi (20 bar)



HR826 Series, Hose Reel Only

0122	Hose Capacity Metres	Max Pressure psi/Bar	Hose ID	Inlet/Outlet BSP
CHR826-12-366L	20	300/20	3/8"	3/8" Female
CHR826-14-466L	20	300/20	1/2"	1/2" Female
Tech Sheet 71681				

Heavy-duty Spring Rewind ATEX Approved Reel

Features:

- Constructed in heavy gauge powder coated carbon steel
- Double arm structure for stability and versatile adjustments
- RoHS and REACH compliant
- Ex h IIB T4 Gb. Ta = -20°C to +60°C
- Latching of hose at any length
- Supplied as bare reel, hose available at extra cost (application required)



Maximum Working Pressure:
150 psi (10 bar)



HR213 Series, Hose Reel Only

0122	Hose Capacity Metres	Max Pressure psi/Bar	Hose ID	Inlet/Outlet BSP
C213-2520EX	20	150/10	1/2"	1" Female
Tech Sheet 71682				

Heavy-duty Stainless Steel Spring Rewind ATEX Approved Reel

Features:

- Constructed in heavy-duty 304 stainless steel
- Double arm structure for stability and versatile adjustments
- RoHS and REACH compliant
- Ex h IIB T4 Gb. Ta = -20°C to +60°C
- Latching of hose at any length
- Supplied as bare reel, hose available at extra cost (application required)



Maximum Working Pressure:
150 psi (10 bar)



HR223 Series, Hose Reel Only

0122	Hose Capacity Metres	Max Pressure psi/Bar	Hose ID	Inlet/Outlet BSP
C223-2530SSEX	30	150/10	1/2"	1" Female
Tech Sheet 71683				

Redashe

new product

Spring Rewind Reel

Features:

- Corrosion resistant powder coating
- Compact design for easy installation
- Spring fully enclosed and lubricated
- Latching of hose at any length
- High quality stress free swivel assembly
- Supplied with 1.5m feeder hose
- Optional swivelling bracket CP-2910



Maximum Working Pressure:
2320 psi (160 bar)



2919 Series, Reel with Hose

0122	Hose Capacity Metres	Max Pressure psi/Bar	Hose ID	Inlet/Outlet BSP
C2910-7153	10	300/20	3/8"	3/8" Female
C2910-8104	10	2320/160	1/2"	1/2" Female
Tech Sheet 71684				

C2910 Series Reel Wall Bracket



110° Pivoting Wall Bracket, Powder Coated Steel

0122	To Suit
CP-2910	C2910 Series

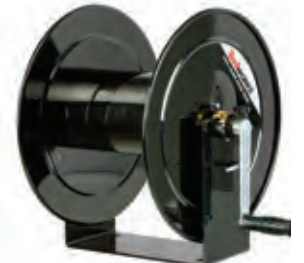
Heavy-duty Hand Crank Reel

Features:

- Designed for industrial applications where longer lengths of hose are required
- Constructed in heavy gauge powder coated carbon steel
- Wider drum opening (5"/125mm) making for easier hose installation
- New handle and swivel design for less labour intensive use
- Spring loaded lock pin prevents hose from de-reeling
- Supplied as bare reel, hose available at extra cost (application required)



Maximum Working Pressure:
4000 psi (276 bar)



HR116 Series, Hose Reel Only

0122	Hose Capacity Metres	Max Pressure psi/Bar	Hose ID	Inlet/Outlet BSP
CHR11602	30	4000/276	3/4"	3/4" Female
Tech Sheet 71685				

Nederman

SAFE AND REALLY EASY...

NEDERMAN REELS.

DISCOVER THE BENEFITS OF KEEPING AIR, WATER, ELECTRICAL POWER, LUBRICANTS OR VACUUM CLOSE AT HAND WITH NEDERMAN'S PROVEN RANGE OF SELF-RETRACTING REELS.



WHY REELS?

- ✓ Reduce wear and damage
- ✓ Ease handling and storage
- ✓ Ensure a clean environment
- ✓ Increase efficiency
- ✓ Safer first – avoids “slips and trips”

FEATURES:

- Ball bearings for easy operation
- High quality seals
- Optimised to retract evenly
- Factory pre-tensioned
- Easy to mount – wall or ceiling
- Manufactured to meet ISO 9001 and ISO 14001
- Stainless and EX approved options


COMPREHENSIVE RANGE - OPEN, CLOSED, STAINLESS AND EX

SELF-RETRACTING HOSE REELS

Nederman

Hose Reel, Series H20 & H30


- Safe and functional cable reels for industrial use, professional tradesmen or do-it-yourself workshops
- Snap-on wall bracket
- Unique safety latch
- Drum with ball bearings on both sides
- Degree of protection code, IP55
- Rubber power cable
- Cable easily replaced
- Hose Type A

 **Maximum Working Pressure:**
1.2MPa (12 bar)



Air

0290	ID	Length Metres	Type
30800230	5/16"	12	With Hose
30800430	3/8"	10	With Hose
Tech Sheet 20365			

 **Maximum Working Pressure:**
1.5MPa (15 bar)


Air/Water

- Hose Type A

0290	ID	Length Metres	Type
30800220	1/4"	12	With Hose
30800420	5/16"	8	With Hose


Hose Reel, Series 883

- A fully enclosed and robust, medium sized hose reel. Highly suitable for applications in vehicle repair and maintenance workshops
- Spring tension easily adjustable from the outside
- Fast and easy to service
- Simple hose replacement without dismantling the reel
- Connection hoses are 1 metre long
- Hose Type B

 **Maximum Working Pressure:**
1.5MPa (15 bar)

Air & Water

0290	ID	Length Metres	Type
30800783	3/8"	15	Without Hose
30800883	3/8"	15	With Hose
30800983	1/2"	10	Without Hose
30801083	1/2"	10	With Hose
Tech Sheet 20366			


 **Maximum Working Pressure:**
7.5MPa (75 bar)


Oil

- Hose Type I

0290	ID	Length Metres	Type
30801183	1/2"	10	Without Hose
30801283	1/2"	10	With Hose
Tech Sheet 20366			




 **Maximum Working Pressure:**
25MPa (205 bar)

 **Maximum Working Temperature:** 150°C

High Pressure Water

- Hose Type G

0290	ID	Length Metres	Type
30802183	3/8"	13	Without Hose
30802283	3/8"	13	With Hose
Tech Sheet 20366			

 **Maximum Working Pressure:**
35MPa (350 bar)

Grease

- Hose Type J

0290	ID	Length Metres	Type
30801383	1/4"	15	Without Hose
30801883	1/4"	15	With Hose
Tech Sheet 20366			


Hose Type	Hose Specification	Temp. Range Min °C	Temp. Range Max °C
A	Cover in PVC & inner tube in PUR. Synthetic textile braid.	-10	+60
B	Cover in NBR / PVC & inner tube in NBR. Synthetic textile braid.	-30	+100
D	Cover in NBR / PVC & inner tube in NBR. Synthetic textile braid.	-30	+100
E	Cover in NBR / PVC & inner tube in food grade quality NBR. Synthetic textile braid.	-20	+100
F	Cover in NBR / PVC & inner tube in food grade quality NBR. Synthetic textile braid.	-20	+100
G	Cover & inner tube in synthetic rubber. Single steel braid.	-40	+155
H	Cover & inner tube in synthetic rubber. Single steel braid.	-40	+155
I	Cover & inner tube in SBR based rubber. Single steel braid.	-40	+100
J	Cover & inner tube in synthetic, oil resistant rubber. Double steel braid.	-40	+100
K	Cover & inner tube in rubber. Synthetic textile braid (acc. to EN-559).	-20	+80
L	Corrugated ethyl-vinyl-acetate (EVA). Electrically conductive.	-40	+70
M	Cover in CR & inner tube in NBR. Synthetic textile braid. Electrically conductive.	-30	+80

SELF-RETRACTING HOSE REELS

Nederman

Hose Reel, Series 884

- Heavy-duty hose reel for long and heavy hoses. Made of epoxy-coated die-cast aluminium. Ball bearings in drum and swivel. Fully protected inner mechanisms
- Strong, durable and highly corrosion resistant
- Smooth hose operation
- Adjustable outlet arm minimises friction
- Connection hoses are 1 metre long
- Hose Type D

 **Maximum Working Pressure:**
1.5MPa (15 bar)




Air & Water

0290	ID	Length Metres	Type
30810284	1/2"	20	With Hose
30817384	1/2"	30	Without Hose
30817484	1/2"	30	With Hose
30810384	3/4"	15	Without Hose
30810484	3/4"	15	With Hose
30810584	1"	10	Without Hose
30810684	1"	10	With Hose

Tech Sheet 20367

- Hose Type E.

 **Maximum Working Pressure:**
2.5MPa (25 bar)




Water - Food Grade

0290	ID	Length Metres	Type
30810884	1/2"	20	With Hose
30811284	3/4"	15	With Hose
30811484	1"	10	With Hose

Tech Sheet 20367

- Hose Type I

 **Maximum Working Pressure:**
20m and 30m hose reels 7.5MPa (75 bar)
10m and 15m hose reels 5.0MPa (50 bar)

Oil

0290	ID	Length Metres	Type
30811784	1/2"	20	Without Hose
30811884	1/2"	20	With Hose
30813584	1/2"	30	Without Hose
30813684	1/2"	30	With Hose
30812284	3/4"	15	With Hose
30813484	1"	10	With Hose

Tech Sheet 20367


- Hose Type E for water-food grade
- Hose Type I for oil



Water - Food Grade & Oil

0290	ID	Length Metres	Type
30812184	3/4"	15	Without Hose
30813384	1"	10	Without Hose

Tech Sheet 20367


 **Maximum Working Pressure:**
5MPa (50 bar)

Diesel

0290	ID	Length Metres	Type
30814584	3/4"	15	Without Hose

Tech Sheet 20367

- Hose Type G

 **Maximum Working Pressure:**
25MPa (250 bar)


 **Maximum Working Temperature:** 150°C

High Pressure Water

0290	ID	Length Metres	Type
30811584	3/8"	25	Without Hose
30811684	3/8"	25	With Hose

Tech Sheet 20367

- Hose Type J.

 **Maximum Working Pressure:**
35MPa (350 bar)

Grease

0290	ID	Length Metres	Type
30813284	1/4"	25	With Hose

Tech Sheet 20367

Hose Reel, Series 881

- The vacuum hose reel facilitates the handling of long and heavy vacuum hoses, and provides tidy and safe storage when they are not in use. Keeps hoses out of the way of forklifts and mobile workshop equipment. Separate suspension brackets make mounting of the reel simple and safe
- Antistatic reel and vacuum hose
- Supplied with automatic damper
- Integrated micro-switch
- Delivered without connection hose
- Maximum suction: 45kPa (psi)
- Hose Type L




Vacuum Cleaning

0290	ID	Length Metres	Type
30804981	-	10	Without Hose
30805081	1.1/2"	10	With Hose
30804881	2"	10	With Hose

Tech Sheet 20368

Hose Reel, Series 886 Ex Approved

- Series 886 Ex is a hose reel with large hose capacity for heavy-duty industrial use. It is constructed for environments where high hygiene and corrosion resistance is required. All components are made of stainless steel and conductive composite material. Approved for use in zones 1, 2 and 22 in accordance with ATEX 94/9/EC, equipment group II, category 2G D
- Connection hoses are 1 metre long
- Hose Type M

 **Maximum Working Pressure:**
2.0MPa (20 bar)

stainless steel



Ex Approved

0290	ID	Length Metres	Type
30804886	3/4"	15	With Hose
30804686	1/2"	25	With Hose

Tech Sheet 20369

FIRE HOSE REELS & ACCESSORIES

These reels are designed to provide a controlled water supply to suppress any possible fire risk involving Class A combustible solids.

Other fire alarm systems can be utilised to provide the pressurised supply required.

Hose Reel Flow Rates:

- 3/4" – 27 lpm
- 1" – 35 lpm

Fire Hose Reel



Manual Fixed, Reel Only

0463	To Suit Hose ID mm
FHROMF19	19
FHROMF25	25
Tech Sheet 60138	

Automatic Fixed, Reel Only

0463	To Suit Hose ID mm
FHROAF19	19
FHROAF25	25
Tech Sheet 60138	

Manual Swivel, Reel Only

0463	To Suit Hose ID mm
FHROMS19	19
FHROMS25	25
Tech Sheet 60138	

Automatic Swivel, Reel Only

0463	To Suit Hose ID mm
FHROAS19	19
FHROAS25	25
Tech Sheet 60138	

Manufactured to comply with the stringent requirements set out under BS EN 671-1, the hose reels are extremely durable and offer superb performance to the operative.

The side plates are protected with a polyester powder coating that complies with the 240 hour salt spray test requirements specified by ISO 9227

ALL REELS COME COMPLETE WITH WALL MOUNTING BRACKETS

Fire Hose Reel Assembly



Manual Fixed, with Hose

0463	ID mm	Length Metres
FHRAMF19	19	30
FHRAMF25	25	30
Tech Sheet 60138		

Automatic Fixed, with Hose

0463	ID mm	Length Metres
FHRAAF19	19	30
FHRAAF25	25	30
Tech Sheet 60138		

Manual Swivel, with Hose

0463	ID mm	Length Metres
FHRAMS19	19	30
FHRAMS25	25	30
Tech Sheet 60138		

Automatic Swivel, with Hose

0463	ID mm	Length Metres
FHRAAS19	19	30
FHRAAS25	25	30
Tech Sheet 60138		

Accessories

Standards: EN 694.

Cover: Red, ozone and UV resistant, elastomeric rubber/PVC blended.

Reinforcement: textile braids.

Liner: seamless rubber/PVC.

Working Temperature:
-20°C to +60°C

Maximum Working Pressure: 12 bar



Fire Hose

0463	ID mm	Length Metres
FH01930	19	30
FH02530	25	30
Tech Sheet 60138		



Reel Nozzles

0463	To Suit Hose ID mm
FHN1900	19
FHN2500	25
Tech Sheet 60138	





Cam & Groove Quick Couplings

Aluminium



Stainless Steel



Brass



Polypropylene



Aluminium Couplings

See page 1472 for spare seals.

A

Female Threaded Plug, BSPP



0281	Thread
A12-AU	1/2"
A34-AU	3/4"
A1-AU	1"
A114-AU	1.1/4"
A112-AU	1.1/2"
A2-AU	2"
A212-AU	2.1/2"
A3-AU	3"
A4-AU	4"
A6-AU	6"

Tech Sheet 532

Female Threaded Plug, NPT

0282	Thread
A12-AU-NPT	1/2"
A34-AU-NPT	3/4"
A1-AU-NPT	1"
A114-AU-NPT	1.1/4"
A112-AU-NPT	1.1/2"
A2-AU-NPT	2"
A212-AU-NPT	2.1/2"
A3-AU-NPT	3"
A4-AU-NPT	4"

Tech Sheet 532

B

Male Threaded Lever Coupling, BSPT



0281	Thread
B12-AU	1/2"
B34-AU	3/4"
B1-AU	1"
B114-AU	1.1/4"
B112-AU	1.1/2"
B2-AU	2"
B212-AU	2.1/2"
B3-AU	3"
B4-AU	4"

Tech Sheet 532

Male Threaded Lever Coupling, NPT

0282	Thread
B34-AU-NPT	3/4"
B1-AU-NPT	1"
B114-AU-NPT	1.1/4"
B112-AU-NPT	1.1/2"
B2-AU-NPT	2"
B212-AU-NPT	2.1/2"
B3-AU-NPT	3"
B4-AU-NPT	4"

Tech Sheet 532

C

Hose Tail Lever Coupling



0281	Body
C12-AU	1/2"
C34-AU	3/4"
C1-AU	1"
C114-AU	1.1/4"
C112-AU	1.1/2"
C2-AU	2"
C212-AU	2.1/2"
C3-AU	3"
C4-AU	4"
C6-AU	6"

Tech Sheet 532

D

Female Lever Coupling, BSPP



0281	Thread
D12-AU	1/2"
D34-AU	3/4"
D1-AU	1"
D114-AU	1.1/4"
D112-AU	1.1/2"
D2-AU	2"
D212-AU	2.1/2"
D3-AU	3"
D4-AU	4"
D6-AU	6"

Tech Sheet 532

Female Lever Coupling, NPT

0282	Thread
D12-AU-NPT	1/2"
D34-AU-NPT	3/4"
D1-AU-NPT	1"
D114-AU-NPT	1.1/4"
D112-AU-NPT	1.1/2"
D2-AU-NPT	2"
D212-AU-NPT	2.1/2"
D3-AU-NPT	3"
D4-AU-NPT	4"
D6-AU-NPT	6"

Tech Sheet 532

Dust Plug



0281	Body
DP12-AU	1/2"
DP34-AU	3/4"
DP1-AU	1"
DP114-AU	1.1/4"
DP112-AU	1.1/2"
DP2-AU	2"
DP212-AU	2.1/2"
DP3-AU	3"
DP4-AU	4"
DP6-AU	6"

Tech Sheet 532

Lever Stop



0281	Body
DC12-AU	1/2"
DC34-AU	3/4"
DC1-AU	1"
DC114-AU	1.1/4"
DC112-AU	1.1/2"
DC2-AU	2"
DC212-AU	2.1/2"
DC3-AU	3"
DC4-AU	4"
DC6-AU	6"

Tech Sheet 532

E

Hose Tail



0281	Body
E12-AU	1/2"
E34-AU	3/4"
E1-AU	1"
E114-AU	1.1/4"
E112-AU	1.1/2"
E2-AU	2"
E212-AU	2.1/2"
E3-AU	3"
E4-AU	4"
E6-AU	6"

Tech Sheet 532

F

Male Threaded Plug, BSPT



0281	Thread
F12-AU	1/2"
F34-AU	3/4"
F1-AU	1"
F114-AU	1.1/4"
F112-AU	1.1/2"
F2-AU	2"
F212-AU	2.1/2"
F3-AU	3"
F4-AU	4"
F6-AU	6"

Tech Sheet 532

Male Threaded Plug, NPT

0282	Thread
F12-AU-NPT	1/2"
F34-AU-NPT	3/4"
F1-AU-NPT	1"
F114-AU-NPT	1.1/4"
F112-AU-NPT	1.1/2"
F2-AU-NPT	2"
F212-AU-NPT	2.1/2"
F3-AU-NPT	3"
F4-AU-NPT	4"
F6-AU-NPT	6"

Tech Sheet 532

Please note: 1/2" sizes are only supplied with one locking arm.

316 Stainless Steel Couplings

See page 1472 for spare seals.

A



Female Threaded Plug, BSPP

0285	Thread
A12-SS	1/2"
A34-SS	3/4"
A1-SS	1"
A114-SS	1.1/4"
A112-SS	1.1/2"
A2-SS	2"
A212-SS	2.1/2"
A3-SS	3"
A4-SS	4"
A6-SS	6"

Tech Sheet 532

Female Threaded Plug, NPT

0286	Thread
A12-SS-NPT	1/2"
A34-SS-NPT	3/4"
A1-SS-NPT	1"
A114-SS-NPT	1.1/4"
A112-SS-NPT	1.1/2"
A2-SS-NPT	2"
A212-SS-NPT	2.1/2"
A3-SS-NPT	3"
A4-SS-NPT	4"

Tech Sheet 532

B



Male Threaded Lever Coupling, BSPT

0285	Thread
B12-SS	1/2"
B34-SS	3/4"
B1-SS	1"
B114-SS	1.1/4"
B112-SS	1.1/2"
B2-SS	2"
B212-SS	2.1/2"
B3-SS	3"
B4-SS	4"

Tech Sheet 532

Male Threaded Lever Coupling, NPT

0286	Thread
B12-SS-NPT	1/2"
B34-SS-NPT	3/4"
B1-SS-NPT	1"
B114-SS-NPT	1.1/4"
B112-SS-NPT	1.1/2"
B2-SS-NPT	2"
B3-SS-NPT	3"
B4-SS-NPT	4"

Tech Sheet 532

C



Hose Tail Lever Coupling

0285	Body
C12-SS	1/2"
C34-SS	3/4"
C1-SS	1"
C114-SS	1.1/4"
C112-SS	1.1/2"
C2-SS	2"
C212-SS	2.1/2"
C3-SS	3"
C4-SS	4"

Tech Sheet 532

D



Female Lever Coupling, BSPP

0285	Thread
D12-SS	1/2"
D34-SS	3/4"
D1-SS	1"
D114-SS	1.1/4"
D112-SS	1.1/2"
D2-SS	2"
D212-SS	2.1/2"
D3-SS	3"
D4-SS	4"

Tech Sheet 532

Female Lever Coupling, NPT

0286	Thread
D12-SS-NPT	1/2"
D34-SS-NPT	3/4"
D1-SS-NPT	1"
D114-SS-NPT	1.1/4"
D112-SS-NPT	1.1/2"
D2-SS-NPT	2"
D212-SS-NPT	2.1/2"
D3-SS-NPT	3"
D4-SS-NPT	4"

Tech Sheet 532

Dust Plug



0285	Body
DP12-SS	1/2"
DP34-SS	3/4"
DP1-SS	1"
DP112-SS	1.1/2"
DP2-SS	2"
DP212-SS	2.1/2"
DP3-SS	3"

Tech Sheet 532

Lever Stop



0285	Body
DC34-SS	3/4"
DC1-SS	1"
DC114-SS	1.1/4"
DC112-SS	1.1/2"
DC2-SS	2"
DC3-SS	3"
DC4-SS	4"

Tech Sheet 532

E



Hose Tail

0285	Thread
E12-SS	1/2"
E34-SS	3/4"
E1-SS	1"
E114-SS	1.1/4"
E112-SS	1.1/2"
E2-SS	2"
E212-SS	2.1/2"
E3-SS	3"
E4-SS	4"

Tech Sheet 532

F



Male Threaded Plug, BSPT

0285	Thread
F12-SS	1/2"
F34-SS	3/4"
F1-SS	1"
F114-SS	1.1/4"
F112-SS	1.1/2"
F2-SS	2"
F212-SS	2.1/2"
F3-SS	3"
F4-SS	4"

Tech Sheet 532

Male Threaded Plug, NPT

0286	Body
F12-SS-NPT	1/2"
F34-SS-NPT	3/4"
F1-SS-NPT	1"
F114-SS-NPT	1.1/4"
F112-SS-NPT	1.1/2"
F2-SS-NPT	2"
F212-SS-NPT	2.1/2"
F3-SS-NPT	3"
F4-SS-NPT	4"

Tech Sheet 532

Please note: 1/2" sizes are only supplied with one locking arm.

Polypropylene Couplings

See page 1472 for spare seals.

A



Female Threaded Plug, BSPP

0287	Thread
A12-PP	1/2"
A34-PP	3/4"
A1-PP	1"
A114-PP	1.1/4"
A112-PP	1.1/2"
A2-PP	2"
A3-PP	3"
A4-PP	4"

Tech Sheet 532

Female Threaded Plug, NPT

0288	Thread
A12/34-PP-NPT	1/2"
A34-PP-NPT	3/4"
A1-PP-NPT	1"
A114-PP-NPT	1.1/4"
A112-PP-NPT	1.1/2"
A2-PP-NPT	2"
A3-PP-NPT	3"
A4-PP-NPT	4"

Tech Sheet 532

B



Male Threaded Lever Coupling, BSPT

0287	Thread
B12-PP	1/2"
B34-PP	3/4"
B1-PP	1"
B114-PP	1.1/4"
B112-PP	1.1/2"
B2-PP	2"
B3-PP	3"

Tech Sheet 532

Male Threaded Lever Coupling, NPT

0288	Thread
B12/34-PP-NPT	1/2"
B34-PP-NPT	3/4"
B1-PP-NPT	1"
B114-PP-NPT	1.1/4"
B112-PP-NPT	1.1/2"
B2-PP-NPT	2"
B3-PP-NPT	3"
B4-PP-NPT	4"

Tech Sheet 532

C



Hose Tail Lever Coupling

0287	Body
C12-PP	1/2"
C34-PP	3/4"
C1-PP	1"
C114-PP	1.1/4"
C112-PP	1.1/2"
C2-PP	2"
C3-PP	3"
C4-PP	4"

Tech Sheet 532

D



Female Lever Coupling, BSPP

0287	Thread
D12-PP	1/2"
D34-PP	3/4"
D1-PP	1"
D114-PP	1.1/4"
D112-PP	1.1/2"
D2-PP	2"
D3-PP	3"
D4-PP	4"

Tech Sheet 532

Female Lever Coupling, NPT

0288	Thread
D12/34-PP-NPT	1/2"
D34-PP-NPT	3/4"
D1-PP-NPT	1"
D114-PP-NPT	1.1/4"
D112-PP-NPT	1.1/2"
D2-PP-NPT	2"
D3-PP-NPT	3"
D4-PP-NPT	4"

Tech Sheet 532

Dust Plug



0287	Body
DP34-PP	3/4"
DP1-PP	1"
DP114-PP	1.1/4"
DP112-PP	1.1/2"
DP2-PP	2"
DP3-PP	3"

Tech Sheet 532

Lever Stop



0287	Body
DC34-PP	3/4"
DC1-PP	1"
DC114-PP	1.1/4"
DC112-PP	1.1/2"
DC2-PP	2"
DC3-PP	3"

Tech Sheet 532

E



Hose Tail

0287	Body
E12-PP	1/2"
E34-PP	3/4"
E1-PP	1"
E114-PP	1.1/4"
E112-PP	1.1/2"
E2-PP	2"
E3-PP	3"
E4-PP	4"

Tech Sheet 532

F



Male Threaded Plug, BSPT

0287	Thread
F12-PP	1/2"
F34-PP	3/4"
F1-PP	1"
F114-PP	1.1/4"
F112-PP	1.1/2"
F2-PP	2"
F3-PP	3"
F4-PP	4"

Tech Sheet 532

Male Threaded Plug, NPT

0288	Thread
F12/34-PP-NPT	1/2"
F34-PP-NPT	3/4"
F1-PP-NPT	1"
F112-PP-NPT	1.1/2"
F2-PP-NPT	2"
F3-PP-NPT	3"
F4-PP-NPT	4"

Tech Sheet 532

Please note: 1/2" sizes are only supplied with one locking arm.

Brass Couplings

See page 1472 for spare seals.

A



Female Threaded Plug, BSPP

0283	Thread
A12-BR	1/2"
A34-BR	3/4"
A1-BR	1"
A114-BR	1.1/4"
A112-BR	1.1/2"
A2-BR	2"
A212-BR	2.1/2"
A3-BR	3"
A4-BR	4"

Tech Sheet 532

Female Threaded Plug, NPT

0284	Thread
A12-BR-NPT	1/2"
A34-BR-NPT	3/4"
A1-BR-NPT	1"
A112-BR-NPT	1.1/2"
A2-BR-NPT	2"
A212-BR-NPT	2.1/2"
A3-BR-NPT	3"
A4-BR-NPT	4"
A5-BR-NPT	5"
A6-BR-NPT	6"

Tech Sheet 532

B



Male Threaded Lever Coupling, BSPT

0283	Thread
B12-BR	1/2"
B34-BR	3/4"
B1-BR	1"
B114-BR	1.1/4"
B112-BR	1.1/2"
B2-BR	2"
B212-BR	2.1/2"
B3-BR	3"
B4-BR	4"

Tech Sheet 532

Male Threaded Lever Coupling, NPT

0284	Thread
B12-BR-NPT	1/2"
B34-BR-NPT	3/4"
B1-BR-NPT	1"
B114-BR-NPT	1.1/4"
B112-BR-NPT	1.1/2"
B2-BR-NPT	2"
B212-BR-NPT	2.1/2"
B3-BR-NPT	3"
B4-BR-NPT	4"
B6-BR-NPT	6"

Tech Sheet 532

C



Hose Tail Lever Coupling

0283	Body
C12-BR	1/2"
C34-BR	3/4"
C1-BR	1"
C114-BR	1.1/4"
C112-BR	1.1/2"
C2-BR	2"
C212-BR	2.1/2"
C3-BR	3"
C4-BR	4"

Tech Sheet 532

D



Female Lever Coupling, BSPP

0283	Thread
D12-BR	1/2"
D34-BR	3/4"
D1-BR	1"
D114-BR	1.1/4"
D112-BR	1.1/2"
D2-BR	2"
D212-BR	2.1/2"
D3-BR	3"
D4-BR	4"

Tech Sheet 532

Female Lever Coupling, NPT

0284	Thread
D12-BR-NPT	1/2"
D34-BR-NPT	3/4"
D1-BR-NPT	1"
D114-BR-NPT	1.1/4"
D112-BR-NPT	1.1/2"
D2-BR-NPT	2"
D212-BR-NPT	2.1/2"
D3-BR-NPT	3"
D4-BR-NPT	4"
D5-BR-NPT	5"
D6-BR-NPT	6"

Tech Sheet 532

Dust Plug



0283	Body
DP12-BR	1/2"
DP1-BR	1"
DP114-BR	1.1/4"
DP112-BR	1.1/2"
DP2-BR	2"
DP212-BR	2.1/2"
DP3-BR	3"
DP4-BR	4"
DP6-BR	6"

Tech Sheet 532

Lever Stop



0283	Body
DC12-BR	1/2"
DC1-BR	1"
DC112-BR	1.1/2"
DC2-BR	2"
DC212-BR	2.1/2"
DC3-BR	3"
DC6-BR	6"

Tech Sheet 532

E



Hose Tail

0283	Body
E12-BR	1/2"
E34-BR	3/4"
E1-BR	1"
E114-BR	1.1/4"
E112-BR	1.1/2"
E2-BR	2"
E212-BR	2.1/2"
E3-BR	3"
E4-BR	4"

Tech Sheet 532

F



Male Threaded Plug, BSPT

0283	Thread
F12-BR	1/2"
F34-BR	3/4"
F1-BR	1"
F114-BR	1.1/4"
F112-BR	1.1/2"
F2-BR	2"
F212-BR	2.1/2"
F3-BR	3"
F4-BR	4"
F6-BR	6"

Tech Sheet 532

Male Threaded Plug, NPT

0284	Thread
F12-BR-NPT	1/2"
F1-BR-NPT	1"
F114-BR-NPT	1.1/4"
F112-BR-NPT	1.1/2"
F2-BR-NPT	2"
F212-BR-NPT	2.1/2"
F3-BR-NPT	3"
F4-BR-NPT	4"

Tech Sheet 532

Please note: 1/2" sizes are only supplied with one locking arm.

Cam & Groove Seals

Seals suitable for cam and groove quick couplings.



Viton Seals

0060	To Suit Coupling Size
VITON-12	1/2"
VITON-34	3/4"
VITON-1	1"
VITON-114	1.1/4"
VITON-112	1.1/2"
VITON-2	2"
VITON-212	2.1/2"
VITON-3	3"

EPDM Seals

0060	To Suit Coupling Size
EPDM-12	1/2"
EPDM-34	3/4"
EPDM-1	1"
EPDM-114	1.1/4"
EPDM-112	1.1/2"
EPDM-2	2"
EPDM-212	2.1/2"
EPDM-3	3"
EPDM-4	4"

Buna Seals

0060	To Suit Coupling Size
BUNA-12	1/2"
BUNA-34	3/4"
BUNA-1	1"
BUNA-114	1.1/4"
BUNA-112	1.1/2"
BUNA-2	2"
BUNA-212	2.1/2"
BUNA-3	3"
BUNA-4	4"
BUNA-6	6"

Tech Sheet 20356

PTFE Seals



0060	To Suit Coupling Size
PTFE-12	1/2"
PTFE-34	3/4"
PTFE-1	1"
PTFE-114	1.1/4"
PTFE-112	1.1/2"
PTFE-2	2"
PTFE-212	2.1/2"
PTFE-3	3"

Stainless Arm, Pin & Ring



Spare Arm, Pin & Ring for Cam & Groove Couplings

0060	To Suit Coupling Size
CGS-12-34	1/2" & 3/4"
CGS-1	1"
CGS-114-212	1.1/4" & 2.1/2"
CGS-3-4	3" & 4"

Chain & Ring for Cam Lock Caps



0060	Description
BRC6	6" Brass
SSC6	6" Stainless Steel
BRC12	12" Brass
SSC12	12" Stainless Steel

You might also need...



10 bar Water Suction Hose
see page 1430



European Execution Double Lock Claw Couplings

Maximum Working Pressure: 10 bar



Q1 Hose Tails, Plated

0108	To Suit Hose ID
Q1DLP14	1/4"
Q1DLP38	3/8"
Q1DLP12	1/2"
Q1DLP58	5/8"
Q19SDLP34	3/4" (Q19S)
Q1DLP1	1"
Q1DLP114	1.1/4"

Tech Sheet 20303

Maximum Working Pressure: 7 bar



Q2 Female Thread, Plated, BSPP

0108	Thread
Q2DLP14	1/4"
Q2DLP38	3/8"
Q2DLP12	1/2"
Q2DLP34	3/4"
Q2DLP1	1"
Q2DLP114	1.1/4"

Tech Sheet 20304

Q4 Blanking Off End

0108
Q4

Tech Sheet 20306



Maximum Working Pressure: 7 bar



Q3 Male Thread, Plated, BSPP

0108	Thread
Q3DLP14	1/4"
Q3DLP38	3/8"
Q3DLP12	1/2"
Q3DLP34	3/4"
Q3DLP1	1"
Q3DLP114	1.1/4"

Tech Sheet 20305

Q Rubbers

0108	Material
QRNIT	Nitrile
QR	Neoprene

Tech Sheet 20307



Double Lock QC Claw Couplings

Maximum Working Pressure: 7 bar



QC1 Hose Tails, Plated

0108	To Suit Hose ID
QC112	1/2"
QC134	3/4"
QC11	1"

QC3 Male Thread, Plated, BSPP

0108	Thread
QC312	1/2"
QC334	3/4"
QC31	1"



QC Rubber

0108
QCR



QC2 Female Thread, Plated, BSPP

0108	Thread
QC212	1/2"
QC234	3/4"
QC21	1"



QC2 Female Thread, Gunmetal, BSPP

0108	Thread
QC2GM34	3/4"



QAY US Execution Claw Couplings

- US execution with bore for safety clip



Maximum Working Pressure:
12 bar



QAY 1 Hose Tails

0108	To Suit Hose ID
QAY138	3/8"
QAY112	1/2"
QAY134	3/4"
QAY11	1"



QAY 2 Female Thread, NPT

0108	Thread
QAY238	3/8"
QAY212	1/2"
QAY234	3/4"
QAY21	1"



QAY 3 Male Thread, NPT

0108	Thread
QAY338	3/8"
QAY312	1/2"
QAY334	3/4"
QAY31	1"



QAY 4, Hose Tail with Ferrule

0108	To Suit Hose ID
QAY412	1/2"
QAY434	3/4"
QAY41	1"



QAY Blank End

0108
QAYBE



Safety Locking Pins

0108
PINS

Tech Sheet 20179



QAY Spare Rubber

0108
QAYR

QAC Claw Couplings



Maximum Working Pressure:
9.5 bar



QAC 1 Hose Tail, Forged Steel

0108	To Suit Hose ID
QAC138	3/8"
QAC112	1/2"
QAC134	3/4"
QAC11	1"

Tech Sheet 20308



QAC 2 Female Thread, Forged Steel, BSPP

0108	Thread
QAC212	1/2"
QAC234	3/4"
QAC21	1"

Tech Sheet 20309



QAC 3 Male Thread, Forged Steel, BSPP

0108	Thread
QAC312	1/2"
QAC334	3/4"
QAC31	1"

Tech Sheet 20310



QAC 4 Hose Tail, Forged Steel

0108	To Suit Hose ID
QAC412	1/2"
QAC434	3/4"

Tech Sheet 20311

SS Claw Couplings



Maximum Working Pressure:
9.5 bar



SS1 Hose Tail

0108	To Suit Hose ID
SS112	1/2"
SS134	3/4"
SS11	1"

Tech Sheet 20316



SS2 Female Thread, BSPP

0108	Thread
SS212	1/2"
SS234	3/4"
SS21	1"

Tech Sheet 20317



SS3 Male Thread, BSPP

0108	Thread
SS312	1/2"
SS334	3/4"
SS31	1"

Tech Sheet 20318

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Series GK, Brass Water Couplings



Hose Tail

0278	To Suit Hose ID
GT38	3/8"
GT58	5/8"
GK-TF13	1/2"
GK-TF19	3/4"
GK-TF25	1"
GK-TF31	1.1/4"
GK-TF38	1.1/2"

Tech Sheet 20333



Female Thread, BSPP

0101	Thread
GK-IW21	1/2"
GK-IW26	3/4"
GK-IW33	1"
GK-IW42	1.1/4"
GK-IW50	1.1/2"



Male Thread, BSPP

0278	Thread
GM38	3/8"
GK-AW21	1/2"
GK-AW26	3/4"
GK-AW33	1"
GK-AW42	1.1/4"
GK-AW50	1.1/2"

Safety Couplings



0278	To Suit Hose ID
GTLC12	1/2"
GTLC34	3/4"
GTLC1	1"

Spray Nozzles



0101	Thread
GK-SP34	3/4"

Blanking Cap



0101
GK-BC

Triple Outlet Connector



0101
GK-3Y

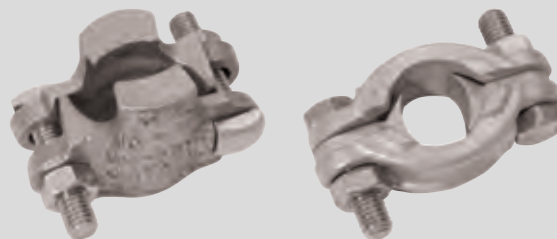


Replacement Seal

0101	Description
GK-GASKET	Suits All Sizes



For FT Pro Clamps
see page 1480



CLAW COUPLINGS

LÜDECKE


US Execution Claw Couplings



Female, NPT

6295	Thread
KIA 38	3/8"
KIA 12	1/2"
KIA 34	3/4"
KIA 10	1"

Female, BSP

6295	Thread
KIA 38 BSP	3/8"
KIA 12 BSP	1/2"
KIA 34 BSP	3/4"
KIA 10 BSP	1"



Male, NPT

6295	Thread
KAA 38	3/8"
KAA 12	1/2"
KAA 34	3/4"
KAA 10	1"

Male, BSP

6295	Thread
KAA 38 BSP	3/8"
KAA 12 BSP	1/2"
KAA 34 BSP	3/4"
KAA 10 BSP	1"



Hose Tail

6295	Thread mm
SKA 11	10
SKA 13	13
SKA 19	19
SKA 25	25



Blank End Cap

6295	UDM



Original Rubber Ring

6295	GOOR

CLAMPS, HOSE CLAMPS & FASTENERS

LÜDECKE


US Execution Hose



Hose Clamp

6295	To Suit Hose OD Range mm
LB-4	21-27
SKA 34	30-35
LBU-9	30-33
LB-9	33-38
LB 10	38-43
SKA 10	34-45
LBU 29	63-70



Hose Clamp, DIN 20039

6295	To Suit Hose OD Range mm
S 22	17-22
SL 29	22-29
SL 34	28-34
SL 49	39-49
SL 72	56-72
SL 94	77-94
SL 400	89-101
SL 115	94-115
SL 525	113-127
SL 145	115-145
SL 550	127-140
SL 600	135-155
SL 675	155-175
SL 769	175-195
SL 875	210-225
SL 988	227-250

stainless steel



Hose Clamp, Stainless Steel

6295	To Suit Hose OD Range mm
SLE 13	17-22
SLE 19	22-29
SLE 25	28-34

CLAW COUPLINGS

LÜDECKE

Claw Couplings DIN 3489

Working Temperature:
-40°C to +95°C

Maximum Working Pressure: 10 bar

Universal system for compressed air in construction and industry.

Material: Malleable iron/steel
Seal: Nitrile

Media: Compressed air
Claw Distance: 42 mm

Hose Tail (formerly DIN 3483)



6295	To Suit Hose ID mm
SKG6	6
SKG10	10
SKG13	13
SKG15	15
SKG19	19
SKG25	25
SKG32	32

Female Thread, BSPP (formerly DIN 3482)



6295	Thread
KIG14	1/4"
KIG38	3/8"
KIG12	1/2"
KIG34	3/4"
KIG10	1"
KIG54	1.1/4"

Blank End (formerly DIN 3483)



6295	Description
VKO	Blank End
VKM	Blank End with Chain
VKM-K	Spare Chain 200mm

Hose Tail with Safety Collar



6295	To Suit Hose ID mm
SKB13	13
SKB19	19
SKB25	25

Male Thread, BSPP (formerly DIN 3481)



6295	Thread
KAG14	1/4"
KAG38	3/8"
KAG12	1/2"
KAG34	3/4"
KAG1	1"
KAG54	1.1/4"

Original DIN 3489 Seals



6295	Medium	Colour	Material	Max Temp °C
GOER	Compressed Air	Black	Nitrile	95°C
GPOR	Food	Natural	EPDM	130°C
GVOR	Chemicals	Green	FKM	200°C
GDOR	Steam	Red	TFEP	200°C

MODY Safety-Screwing Claw Couplings DIN 3238

Working Temperature:
-40°C to +95°C

Maximum Working Pressure: 16 bar

Secured by locking nut to prevent unintentional opening, for safe air lines in construction and industry.

Material: Malleable iron/steel, brass locking nut
Seal: Nitrile

Media: Compressed air
Claw Distance: 42 mm

Hose Tail



6295	To Suit Hose ID mm
SSG10	10
SSG13	13
SSG15	15
SSG19	19
SSG25	25
SSG32	32

Hose Tail, Hydraulic Crimping



6295	To Suit Hose ID mm
SSG19PH	19

Male Thread, BSPP with LÜDSY Sealing



6295	Thread
SSGA38	3/8"
SSGA12	1/2"
SSGA34	3/4"
SSGA10	1"

Hose Tail with Safety Collar



6295	To Suit Hose ID mm
SSG10S	10
SSG13S	13
SSG15S	15
SSG19S	19
SSG25S	25

Female Thread, BSPP



6295	Thread
SSG138	3/8"
SSG112	1/2"
SSG134	3/4"
SSG110	1"

Original MODY Seal



6295	Medium	Colour	Material	Max Temp °C
SGOR-N	Compressed Air	Black	Nitrile	95°C

CLAW COUPLINGS



Safety Claw Couplings with Bore

Working Temperature:
-40°C to +95°C

Maximum Working Pressure: 10 bar

Universal system, mainly used in mining and tunneling. Additional security by using the safety-clips DIN 11024 to prevent unintentional opening.

Material: Malleable iron/steel
Seal: Nitrile

Media: Compressed air
Claw Distance: 42 mm



Hose Clamps DIN 20039 B, to suit Couplings with Hose Tail & Safety Collar

6295	To Suit Hose ID mm	Hose OD Range mm
SK29-CLAMP	13	22-29
SK34-CLAMP	19	28-32
SK60	42	55-60

Universal Safety Clip DIN 11024

6295
USC-1

ACK Claw Couplings, Forged Steel

Working Temperature:
-40°C to +95°C

Maximum Working Pressure: 16 bar

High quality coupling for compressed air in construction and industry, equivalent to Atlas Copco.

Material: Forged steel, hardened
Seal: Nitrile

Media: Compressed air
Claw Distance: 42 mm



Hose Tail

6295	To Suit Hose ID mm
ACK38T	10
ACK12T	12.5
ACK34T	20
ACK10T	25

Female Thread, BSPP

6295	Thread
ACK38I	3/8"
ACK12I	1/2"
ACK34I	3/4"
ACK10I	1"

Male Thread, BSPP

6295	Thread
ACK38A	3/8"
ACK12A	1/2"
ACK34A	3/4"
ACK10A	1"



For Pumps & Pump Kits
see pages 1632-1636



CLAW COUPLINGS

LÜDECKE

Claw Couplings DIN 3489, Stainless Steel

Working Temperature:
-30°C to +200°C

Maximum Working Pressure: 16 bar

Universal system for aggressive fluids in chemical or petrochemical industry, as well as food or drinking water applications. Use original DIN 3489 Seal GPOR (EPDM) food or drinking water applications.

Material: Stainless steel 1.4401/1.4404
Seal: FKM
Media: Chemical substances
Claw Distance: 42 mm



stainless steel



Hose Tail

6295	To Suit Hose ID mm
EKT10V	10
EKT13V	13
EKT19V	19
EKT25V	25

stainless steel



Female Thread, BSPP

6295	Thread
EKI38V	3/8"
EKI12V	1/2"
EKI34V	3/4"
EKI10V	1"

stainless steel



Male Thread, BSPP

6295	Thread
EKA12V	1/2"
EKA34V	3/4"
EKA10V	1"

stainless steel



Blank End

6295	Description
EKOV	Blank End
EKMV	Blank End with Chain
EKMV-K	Spare Chain 200mm

WaterProfi Claw Coupling

Working Temperature:
+95°C

Maximum Working Pressure: 25 bar

Universal coupling of forged brass for water lines in industry, construction, agriculture or civil installations.

Material: Forged brass CW617N
Seal: EPDM

Media: Water
Claw Distance: 40 mm



Hose Tail

6295	To Suit Hose ID mm
GSK10	10
GSK13	13
GSK16	16
GSK19	19
GSK25	25
GSK32	32
GSK38	38



Male Thread, BSPP

6295	Thread
GKA14	1/4"
GKA38	3/8"
GKA12	1/2"
GKA34	3/4"
GKA10	1"
GKA54	1.1/4"
GKA15	1.1/2"



Original WaterProfi Sea

6295	Medium	Colour	Material	Max Temp °C
GKOR	Water	Black	EPDM	95°C

Female Thread, BSPP with O-Ring

6295	Thread
GKI14	1/4"
GKI38	3/8"
GKI12	1/2"
GKI34	3/4"
GKI10	1"
GKI54	1.1/4"
GKI15	1.1/2"



Blank End

6295
GKO



Clamps

Note: All sizes are for guidance only. Nuts and bolts included.



Golden Range Clamps, Zinc & Gold Passivated

0108	Min Size mm	Max Size mm
HD.000	17	22
HD.001	20	29
HD.002	28	35
HD.003	32	40
HD.004	39	49
HD.005	48	60
HD.006	60	76
HD.007	77	94
HD.1	89	101
HD.2	101	113
HD.3	113	127
HD.5	140	154
HD.6	154	175
HD.7	175	194
HD.9	210	225



SK Clamps, Zinc & Gold Passivated

0108	ID	Min Size mm	Max Size mm
SK34	3/4"	29	34
SK39	1"	33	40
SK44	1.1/4"	41	49
SK51	1.1/2"	47	60
SK73	2"	60	77



IL Clamps, Zinc & Gold Passivated

0108	ID	Min Size mm	Max Size mm
CILP12	1/2"	17	22
CILP34	3/4"	27	32

Tech Sheet 20393

Note: To suit Staysafe couplings



Staysafe Clamps, Zinc & Gold Passivated

0108	ID	Min Size mm	Max Size mm
JA2	1/2"	21	25
JA3	3/4"	29	33
JA4	3/4"	31	35

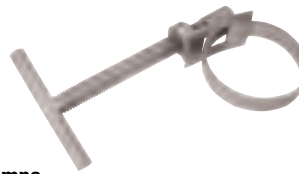
Tech Sheet 20395



Clamps - Type A /Q19S/SWC, Unplated

0108	ID	OD mm	To Suit Hose OD
CA12	1/2"	19	-
CA34	3/4"	28	-
CA34Q19S/DL	3/4"	29-33	3/4" Q19S DL Coupling
CA1	1"	35	-
CA112	1.1/2"	49-56	1.1/2" A Nut & Tail
CSWC112	1.1/2"	52-55	1.1/2" SWC Nut & Tail
CSWC2	2"	64-71	2" SWC Nut & Tail
CA234	2.3/4"	65-70	2" Nut & Tail

Tech Sheet 20392



T-Bar Clamps

0108	ID
TBAR2	2"
TBAR3	3"
TBAR4	4"

Tech Sheet 2155



Plain Type Clamps, Zinc & Gold Passivated

0108	ID	OD mm
CP78	7/8"	-
CP112	1.1/2"	-
CP218	2.1/8"	51
CP234	2.3/4"	70

Tech Sheet 20394

Nuts & Bolts



0108	Description
NBM840	M8 x 40mm Long
NBM1050	M10 x 50mm Long
NBM1060	M10 x 60mm Long

Malleable Iron Air & Steam Clamp



0108	ID	OD mm	Bolts
SA1	1/4"	14-17	2 Bolt
SA2	3/8"	17-21	2 Bolt
SA4	1/2"	24-27	2 Bolt
SA5	1/2"	27-30	2 Bolt
SA6	3/4"	30-33	2 Bolt
SA7	3/4"	33-38	2 Bolt
SA8	3/4"	38-43	2 Bolt
SA9	1"	38-43	2 Bolt
SA10	1"	39-44	4 Bolt
SA14	1.1/4"	52-57	4 Bolt
SA15	1.1/2"	52-57	4 Bolt
SA18	1.1/2"	63-69	4 Bolt
SA19	2"	63-69	4 Bolt
SA20	2"	64-71	4 Bolt

Male Stem Only



0019	Thread	To Suit Hose ID
GMS-12	1/2"	1/2"
GMS-34	3/4"	3/4"
GMS-1	1"	1"
GMS-114	1.1/4"	1.1/4"
GMS-112	1.1/2"	1.1/2"
GMS-2	2"	2"

Ground Joint Couplings Complete



0019	Thread	To Suit Hose ID
GJS-12	1/2"	1/2"
GJS-34	3/4"	3/4"
GJS-1	1"	1"
GJS-114	1.1/4"	1.1/4"
GJS-112	1.1/2"	1.1/2"
GJS-2	2"	2"

Female Spud Only



0019	Thread
GSP-34	3/4"
GSP-1	1"
GSP-114	1.1/4"
GSP-112	1.1/2"
GSP-2	2"

Heavy-duty, 2 & 4 Bolt Clamps



0019	Bolts	To Suit Hose OD mm
SBC-12	2 Bolt	24-27
2052-9228	2 Bolt	27-30
SBC-34	2 Bolt	30-33
2052-9236	2 Bolt	33-38
2052-9244	2 Bolt	38-43
SBC-1	4 Bolt	39-43.5
2052-9251	4 Bolt	41-47
2052-9269	4 Bolt	48-52
2052-9277	4 Bolt	52-57
2052-9285	4 Bolt	53-58
SBC-2	4 Bolt	63.5-71
2052-9293	4 Bolt	89-100

Tech Sheet 20396

STEAM COUPLINGS

Steam Couplings

Heavy robust female and male thread screwings of zinc plated or brass, including forged safety clamps of brass for steam hoses. Female thread screwing two parts, swivelling. Connecting nut flat sealing with thread sealing ring.

Working Temperature: up to 210°C

Maximum Working Pressure: 18 bar

Male Steel Zinc Plated



0428	Thread	To Suit Hose ID mm	Wall Thickness mm
DAK12-13ST	1/2"	13	6
DAK34-19ST	3/4"	19	7
DAK10-25ST	1"	25	7.5
DAK15-38ST	1.1/2"	38	8

Female Steel Zinc Plated



0428	Thread	To Suit Hose ID mm	Wall Thickness mm
DIK12-13ST	1/2"	13	6
DIK34-19ST	3/4"	19	7
DIK10-25ST	1"	25	7.5
DIK15-38ST	1.1/2"	38	8

Male Brass



0428	Thread	To Suit Hose ID mm	Wall Thickness mm
DAK12-13MS	1/2"	13	6
DAK34-19MS	3/4"	19	7
DAK10-25MS	1"	25	7.5

Female Brass



0428	Thread	To Suit Hose ID mm	Wall Thickness mm
DIK12-13MS	1/2"	13	6
DIK34-19MS	3/4"	19	7
DIK15-38MS	1.1/2"	38	8

Female Sealing Ring



0428	Size
DGI12	1/2"
DGI34	3/4"
DGI10	1"
DGI15	1.1/2"
DGI20	2"

Black Nylon Ply Steam Hose & Assemblies

- Manufactured to BS5122 Type A2 and ISO 6134

° Maximum Working Temperature with Steam: +170°C



7 bar Hose, 20 Metre Coils

1370	ID mm	OD mm
BSH-3/4	19	31
BSH-1	25	39



7 bar Assemblies, 20 Metre Coils

1370	ID mm	OD mm
BSHA-3/4	19	31

Red Steel Reinforced Steam Hose & Assemblies

- Manufactured to BS5342 Type 2A

° Maximum Working Temperature with Steam: +232°C



17 bar Hose, 20 Metre Coils

1370	ID mm	OD mm
RSH-3/4	19	32
RSH-1	25	38



Low Pressure Fluid Handling Solutions



ENGINEERING YOUR SUCCESS.

Shot Blast Couplings



Malleable Iron

0355	To Suit Hose OD mm
SHOT3101	39
SHOT3102	48
SHOT3103	56
SHOT3104	60

These couplings are designed for use on sandblast and cement placing hose.
Supplied with screws.

Maximum Working Pressure: 150 psi



Brass

6000	ID	OD mm
SBQ-34	3/4"	39



Nylon

0355	OD mm
SHOTCQP1	39
SHOTCQP2	48
SHOTCQP4	60

Threaded Couplings



Female Thread, Malleable Iron, BSPP

0355	Thread
SHOT3111	1.1/4"
SHOT3110	1.1/2"



Female Thread, Nylon, BSPP

0355	Thread
SHOTCFP	1.1/4"

Nozzle Holders



Alloy

0355	Thread
SD50-32A	48mm Coarse Thread
SD32-32A	48mm x 1.1/4" BSPP



Nylon

0355	Thread
NHP-34	33mm Coarse Thread
NHP-1	39mm Coarse Thread
HEP-1	39mm x 1.1/4" BSPP

Shot Blast Screws



0355
SHOTS

Safety Clips



0019	Description
LUE-USC-1	3mm Wire Clip

Rubber Rings



0355	Size
SHOTRSDKD	SKD Standard Seals
SHOTRSDR2	SDR2 for CQP-1
SHOTRSDR3	SDR-3 for CQP-2/3/4, CFP/CFP-50

Spare Rubber Seal



Suits All Sizes

0019
LUE-SKD-SEAL

SHOT BLAST COUPLINGS, HOSE & NOZZLE HOLDERS



Thread Stem Adaptors

Thread stem adaptors – to adapt your standard threaded stainless steel camlocks to plain stem types, for use with KSA range of clamps.



Part Code	Clamp Size
LUE-GTI 20-50 SS	KSA-63-67
LUE-GTI 30-75 SS	KSA-89-93

Female

0019	To Suit Hose ID	Thread
LUE-GTI 20-50 SS	50 x 8 (2")	2"
LUE-GTI 30-75 SS	75 x 8 (3")	3"

KSA Safety Clamps

Forged aluminium safety clamps, high quality and robust, easy to install and re-usable.



0019	To Suit Hose OD mm
LUE-KSA 36-39	36-39
LUE-KSA 63-67	63-67

Shot Blast Hose

Reinforcement: Textile wrapped.

Tube: NR/SBR/BR, Black smooth, antistatic abrasion resistant.

Cover: SBR, black, smooth, anti-static cloth impression.

Suitable for blasting sand and other media such as quartz sand, steel shot, corundum, glass, etc. The hose has added security against electrical shocks by electrically-conductive lining.

Working Temperature:
-35°C to +80°C
(ambient temperature)



40 Metre Coils, 12 bar Hose

0101	ID mm	OD mm
SBH12-39	25	39
SBH12-48	32	48

GENUINE UNICONE FITTINGS



Genuine Unicorn Fittings



Instantaneous Joints with Drab Rubbers

0439	ID mm
UIJ3	80
UIJ4	100
UIJ6	150

Tech Sheet 1936



Serrated Hose Adaptors

0439	ID mm
USHT3	80
USHT4	100

Tech Sheet 1936



Neoprene Rings

0439	ID mm
UNR3	80
UNR4	100

Tech Sheet 1936



Plain Hose Tails

0439	ID mm
UPT3	80
UPT4	100
UPT6	150

Tech Sheet 1936

Flange Adaptors D/E NP10/16

0439	ID mm
UFA4	100

Tech Sheet 1936



Blank Ends

0439	ID mm
UBE3	80
UBE4	100

Tech Sheet 1936

Drab Rubber Rings

0439	ID mm
UDR4	100
UDR5	125
UDR6	150

Tech Sheet 1936

Weld On Pieces

0439	ID mm
UW4	100

Tech Sheet 1936

Screwed Male Adaptors x 3 Long

0439	ID mm
USMT4	100

Tech Sheet 1936

Adaptors



Female, BSPP, Aluminium

0148	Storz Size	Thread	Ka
SZ-21-031050-10	25-D	1/2"	31
SZ-21-031075-10	25-D	3/4"	31
SZ-21-031100-10	25-D	1"	31
SZ-21-044100-10	32	1"	44
SZ-21-044125-10	32	1.1/4"	44
SZ-21-051150-10	38	1.1/2"	51
SZ-21-051200-10	38	2"	51
SZ-21-066100-15	52-C	1"	66
SZ-21-066150-15	52-C	1.1/2"	66
SZ-21-066200-15	52-C DIN 14 307	2"	66
SZ-21-066250-15	52-C	2.1/2"	66
SZ-21-081200-10	65	2"	81
SZ-21-081250-10	65	2.1/2"	81
SZ-21-089200-15	75-B	2"	89
SZ-21-089250-15	75-B DIN 14 308	2.1/2"	89
SZ-21-089300-15	75-B	3"	89
SZ-21-105300-10	90	3"	105
SZ-21-115400-10	100	4"	115
SZ-21-133400-10	110-A	4"	133
SZ-21-133450-10	110-A DIN 14 309	4.1/2"	133
SZ-21-220800-10	205	8"	220

Tech Sheet 60474



Female, BSPP, Copper Alloy (Brass)

0148	Storz Size	Thread	Ka
SZ-21-031100-30	25-D	1"	31
SZ-21-051200-30	38	2"	51
SZ-21-066200-35	52-C DIN 86 204	2"	66
SZ-21-066250-30	52-C	2.1/2"	66
SZ-21-081200-30	65	2"	81

Tech Sheet 60474



Female with Safety Latch, Aluminium

0148	Storz Size	Thread	Ka
SZ-27-066200-10	52-C	2"	66
SZ-27-089300-10	75-B	3"	89
SZ-27-133400-10	110-A	4"	133
SZ-27-148500-10	125	5"	148
SZ-27-160600-10	150	6"	160

Tech Sheet 60474



Male, BSPP, Copper Alloy (Brass)

0148	Storz Size	Thread	Ka
SZ-22-066200-30	52-C	2"	66

Tech Sheet 60475

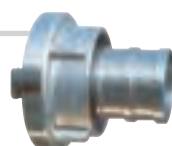


Male, BSPP, Aluminium

0148	Storz Size	Thread	Ka
SZ-22-031100-10	25-D	1"	31
SZ-22-044100-10	32	1"	44
SZ-22-051150-10	38	1.1/2"	51
SZ-22-066125-15	52-C	1.1/4"	66
SZ-22-066150-15	52-C	1.1/2"	66
SZ-22-066200-15	52-C	2"	66
SZ-22-081250-10	65	2.1/2"	81
SZ-22-089250-15	75-B	2.1/2"	89
SZ-22-089300-15	75-B	3"	89
SZ-22-133400-10	110-A	4"	133

Tech Sheet 60475

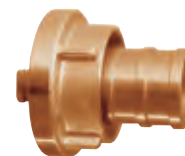
Hose Tails



Aluminium

0148	Storz Size	To Suit Hose ID	Ka	Length mm
SZ-12-031025-10	25-D	25	31	53
SZ-12-044019-10	32	19	44	70
SZ-12-044025-10	32	25	44	70
SZ-12-044032-10	32	32	44	70
SZ-12-051038-10	38	38	51	90
SZ-12-066025-10	52-C	25	66	90
SZ-12-066032-10	52-C	32	66	90
SZ-12-066045-10	52-C	45	66	90
SZ-12-066052-10	52-C	52	66	90
SZ-12-066060-10	52-C	60	66	90
SZ-12-081065-10	65	65	81	95
SZ-12-089065-10	75-B	65	89	125
SZ-12-089070-10	75-B	70	89	125
SZ-12-089075-10	75-B	75	89	125
SZ-12-089080-10	75-B	80	89	125
SZ-12-105090-10	90	90	105	160
SZ-12-115100-10	100	100	115	150
SZ-12-133100-10	110-A	100	133	170
SZ-12-133110-10	110-A	110	133	170
SZ-12-160150-10	150	150	160	180
SZ-12-220205-10	205	205	220	375

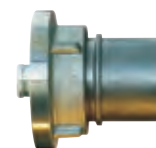
Tech Sheet 60465



Copper Alloy (Brass)

0148	Storz Size	To Suit Hose ID mm	Ka	Length mm
SZ-12-031025-30	25-D	25	31	25
SZ-12-066025-30	52-C	25	66	90
SZ-12-066045-30	52-C	45	66	90
SZ-12-066052-30	52-C	52	66	90

Tech Sheet 60473

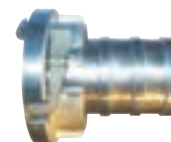


Aluminium, Smooth, DIN 2817

0148	Storz Size	To Suit Hose ID mm	Ka	Length mm
SZ-13-166050-10	52-C	50	66	95
SZ-13-089075-10	75-B	75	89	105

Tech Sheet 60473

Couplings with Safety Latch



Aluminium

0148	Storz Size	To Suit Hose ID mm	Ka	Length mm
SZ-12-066045-19	52-C	45	66	90
SZ-12-066052-19	52-C DIN 14 321	52	66	90
SZ-12-081065-19	65	65	81	95
SZ-12-089065-19	75-B	65	89	125
SZ-12-089075-19	75-B DIN 14 322	75	89	125
SZ-12-115100-19	100	100	115	150
SZ-12-160150-19	150	150	160	180

Tech Sheet 60466

STORZ DIN SUCTION COUPLINGS



Safety Clamps DIN 2817



Aluminium

0148	Size
SZ-13-800050-10	50 x 8
SZ-13-800075-10	75 x 8
SZ-13-800100-10	100 x 8

Tech Sheet 60467

Reducers



Aluminium

0148	Storz Size	Ka	Ka
SZ-35-066044-10	52-C/32	66	44
SZ-35-081066-10	65/52-C	81	66
SZ-35-115089-10	100/75-B	115	89
SZ-35-160133-10	150/110-A	160	133

Tech Sheet 60468

Blank Caps



With Chains, Aluminium

0148	Storz Size	Ka
SZ-31-031000-10	25-D DIN 14 310	31
SZ-31-044000-10	32	44
SZ-31-051000-10	38	51
SZ-31-066000-10	52-C DIN 14 311	66
SZ-31-081000-10	65	81
SZ-31-089000-10	75-B DIN 14 312	89
SZ-31-105000-10	90	105
SZ-31-115000-10	100	115
SZ-31-133000-10	110-A DIN 14 313	133
SZ-31-148000-10	125	148
SZ-31-160000-10	150	160

Tech Sheet 60469

With Chains, Copper Alloy (Brass)

0148	Storz Size	Ka
SZ-31-031000-30	25-D	31
SZ-31-066000-30	52-C	66

Tech Sheet 60469



With Lock, Aluminium

0148	Storz Size	Ka
SZ-31-500089-10	75-B	89
SZ-31-500133-10	110-A	133

Tech Sheet 60470

Seals



Nitrile, Silicone & Viton

0148	Storz Size	Ka	Material
SZ-91-002031-00	25-D	31	Nitrile
SZ-91-002044-00	32	44	Nitrile
SZ-91-002051-00	38	51	Nitrile
SZ-91-002066-00	52-C	66	Nitrile
SZ-91-002081-00	65	81	Nitrile
SZ-91-002089-00	75-B	89	Nitrile
SZ-91-002133-00	110-A	133	Nitrile
SZ-91-002148-00	125	148	Nitrile
SZ-91-002160-00	150	160	Nitrile
SZ-91-002220-00	205	220	Nitrile
SZ-91-002031-02	25-D	31	Silicone
SZ-91-002044-02	32	44	Silicone
SZ-91-002051-02	38	51	Silicone
SZ-91-002066-02	52-C	66	Silicone
SZ-91-002081-02	65	81	Silicone
SZ-91-002089-02	75-B	89	Silicone
SZ-91-002115-02	100	115	Silicone
SZ-91-002133-02	110-A	133	Silicone
SZ-91-002066-03	52-C	66	Viton

Tech Sheet 60471

Storz Coupling Spanners

- Size D shown



0148	Description
SZ-71-031031-50	Steel Spanner Size D
SZ-71-081051-50	Steel Spanner Size 65/38
SZ-71-089066-20	Cast Iron Spanner Size B C
SZ-71-133066-20	Cast Iron Spanner Size A B C

Tech Sheet 60472

For Hand Protection
see pages 1756-1758



Male BSPP



Malleable Iron, BSPP

0438	Thread
MIMT112	1.1/2"
MIMT2	2"
MIMT212	2.1/2"
MIMT3	3"
MIMT4	4"

Tech Sheet 20399



Alloy, BSPP

0438	Thread
AMT112	1.1/2"
AMT2	2"
AMT212	2.1/2"
AMT3BSP	3"
AMT4BSP	4"



Polypropylene, BSPP

0438	Thread
PMT112	1.1/2"
PMT2	2"
PMT212	2.1/2"
PMT3BSP	3"
PMT4BSP	4"

Male URT



Alloy, URT

0438	Thread
AMT3URT	3"
AMT4URT	4"

Tech Sheet 20397

Female BSPP

- Leather washer included



Malleable Iron, BSPP

0438	Thread	To Suit Hose ID
MICT112	1.1/2"	1.1/2"
MICT2	2"	2"
MICT212	2.1/2"	2.1/2"
MICT3	3"	3"
MICT4	4"	4"

Tech Sheet 20398



Polypropylene, BSPP

0438	Thread	To Suit Hose ID
PCT112	1.1/2"	1.1/2"
PCT2	2"	2"
PCT212	2.1/2"	2.1/2"
PCT3BSP	3"	3"
PCT4BSP	4"	4"

Polypropylene, URT

0438	Thread
PMT3URT	3"
PMT4URT	4"



stainless steel

Stainless Steel, BSPP

0438	Thread	To Suit Hose ID
SSCT1	1"	1"
SSCT114	1.1/4"	1.1/4"
SSCT112	1.1/2"	1.1/2"
SSCT2	2"	2"
SSCT212	2.1/2"	2.1/2"



Alloy, BSPP

0438	Thread	To Suit Hose ID
ACT112	1.1/2"	1.1/2"
ACT2	2"	2"
ACT212	2.1/2"	2.1/2"
ACT3BSP	3"	3"
ACT4BSP	4"	4"

TRENCH PUMP HOSE COUPLINGS - LUG TYPE



Female URT

- Poly washer included



Alloy, URT

0438	Thread	To Suit Hose ID
ACT3URT	3"	3"
ACT4URT	4"	4"

Tech Sheet 20400

- Poly washer included



Polypropylene, URT

0438	Thread	To Suit Hose ID
PCT3URT	3"	3"
PCT4URT	4"	4"

- Poly washer included



stainless steel

Stainless Steel, URT

0438	Thread	To Suit Hose ID
SSCT3URT	3"	3"

- Poly washer included



Gunmetal, URT

0438	Thread	To Suit Hose ID
GMCT3URT	3"	3"
GMCT4URT	4"	4"

Key Spanners



Aluminium

0438	To Suit	Description
KEY2	2"	Double Ended Spanner
KEY3	3"	Single Ended Spanner
KEY4	4"	Single Ended Spanner

Brass, Lugged, Screw-together Couplings



Brass Cap & Tail

0019	Thread	To Suit Hose ID
STCAS-12	1/2"	1/2"
STCAS-34	3/4"	3/4"
STCAS-1-12	1"	1/2"
STCAS-1-34	1"	3/4"
STCAS-1	1"	1"
STCAS-114-1	1.1/4"	1"
STCAS-114	1.1/4"	1.1/4"
STCAS-112-114	1.1/2"	1.1/4"
STCAS-112	1.1/2"	1.1/2"
STCAS-2	2"	2"
STCAS-3	3"	3"
STCAS-4	4"	4"



Female Linings

0019	To Suit Hose ID	To Suit Collar
STCL-12	1/2"	1/2"
STCL-1-12	1/2"	1"
STCL-34	3/4"	3/4"
STCL-1-34	3/4"	1"
STCL-1	1"	1"
STCL-114-1	1"	1.1/4"
STCL-114	1.1/4"	1.1/4"
STCL-112-114	1.1/4"	1.1/2"
STCL-112	1.1/2"	1.1/2"
STCL-2	2"	2"
STCL-3	3"	3"
STCL-4	4"	4"

Tech Sheet 20334

Male Threaded Half, BSPP

0019	Thread	To Suit Hose ID
STCM-12	1/2"	1/2"
STCM-34	3/4"	3/4"
STCM-1	1"	1"
STCM-114	1.1/4"	1.1/4"
STCM-112	1.1/2"	1.1/2"
STCM-2	2"	2"
STCM-3	3"	3"
STCM-4	4"	4"



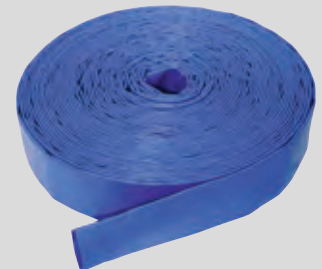
Collar

0019	Thread
STCC-12	1/2"
STCC-34	3/4"
STCC-1	1"
STCC-114	1.1/4"
STCC-112	1.1/2"
STCC-2	2"
STCC-3	3"
STCC-4	4"

Customers who bought from this page also purchased...



Layflat Hose
see page 1424



Blanking Caps

Alloy, BSPP/URT with Chain



0438	Thread
ABCC112	1.1/2" BSPP
ABCC2	2" BSPP
ABCC212	2.1/2" BSPP
ABCCBSP3	3" BSPP
ABCCURT3	3" URT
ABCCBSP4	4" BSPP
ABCCURT4	4" URT

Polypropylene, BSPP/URT without Chain



0438	Thread
PBCWOC112	1.1/2" BSPP
PBCWOC2	2" BSPP
PBCWOC212	2.1/2" BSPP
PBCWOCBSP3	3" BSPP
PBCWOCURT3	3" URT
PBCWOCBSP4	4" BSPP
PBCWOCURT4	4" URT

Polypropylene, URT with Chain



0438	Thread
PBCCURT3	3"
PBCCURT4	4"

Gunmetal, BSPP/URT with Chain



0438	Thread
GMBCC112	1.1/2" BSPP
GMBCC2	2" BSPP
GMBCC212	2.1/2" BSPP
GMBCCBSP3	3" BSPP
GMBCCURT3	3" URT
GMBCCBSP4	4" BSPP

Blanking Plugs



Alloy, BSPP/URT with Chain

0438	Thread
ABPC2	2" BSPP
ABPC212	2.1/2" BSPP
ABPCBSP3	3" BSPP
ABPCURT3	3" URT



Polypropylene, BSPP/URT without Chain

0438	Thread
PBPWOC112	1.1/2" BSPP
PBPWOC2	2" BSPP
PBPWOC212	2.1/2" BSPP
PBPWOCBSP3	3" BSPP
PBPWOCURT3	3" URT
PBPWOCURT4	4" URT

Spare Chains



0438
CHAIN

Washers

Note: To suit malleable iron, brass and poly trench pump couplings, steel flat face nuts and tail



Leather

0438	Size
WL14	1/4"
WL38	3/8"
WL12	1/2"
WL34	3/4"
WL1	1"
WL114	1.1/4"
WL112	1.1/2"
WL2	2"
WL212	2.1/2"
WL3	3"
WL4	4"

Note: To suit malleable iron, brass and poly trench pump couplings, steel flat face nuts and tail



Rubber

0438	Size
WR114	1.1/4"
WR112	1.1/2"
WR2	2"
WR212	2.1/2"
WR3	3"
WR4	4"



Rubber URT

0438	Size
WR3URT	3"
WR4URT	4"

Note: To suit malleable iron, brass and poly trench pump couplings, steel flat face nuts and tail



Poly URT

0438	Size
WP3URT	3"
WP4URT	4"

TANKER COUPLINGS & ADAPTORS



Tanker Coupling Adaptors



Alloy

0436	Size
AAMF112112	1.1/2" M x 1.1/2" F
AAMF1122	1.1/2" M x 2" F
AAMF1123	1.1/2" M x 3" F
AAMM22	2" M x 2" M
AAMF22	2" M x 2" F
AAMF2212	2" M x 2.1/2" F
AAMF23	2" M x 3" F
AAMF2122	2.1/2" M x 2" F
AAMF212212	2.1/2" M x 2.1/2" F
AAMF2123	2.1/2" M x 3" F
AAMF32	3" M x 2" F
AAMF3212	3" M x 2.1/2" F
AAMM33	3" M x 3" M
AAMF33	3" M x 3" F
AAMF34	3" M x 4" F
AAMF43	4" M x 3" F
AAMM43	4" M x 3" M



Gunmetal

0436	Size
GMAMF1122	1.1/2" M x 2" F
GMAMF112212	1.1/2" M x 2.1/2" F
GMAMF1123	1.1/2" M x 3" F
GMAMF2112	2" M x 1.1/2" F
GMAMM22	2" M x 2" M
GMAMF2212	2" M x 2.1/2" F
GMAMF23	2" M x 3" F
GMAMF2122	2.1/2" M x 2" F
GMAMM212212	2.1/2" M x 2.1/2" M
GMAMF212212	2.1/2" M x 2.1/2" F
GMAMF2123	2.1/2" M x 3" F
GMAMF32	3" M x 2" F
GMAMF3212	3" M x 2.1/2" F
GMAMM33	3" M x 3" M
GMAMF33	3" M x 3" F
GMAMF34	3" M x 4" F
GMAMF43	4" M x 3" F

Thread Adaptors



Alloy, URT

0436	Size
AAMFURT34	3" URT M x 4" URT F (Lug)
AAMMBSPURT33	3" BSPP M x 3" URT M (Hex)



Gunmetal, URT

0436	Size
GMAMFURT34	3" URT M x 4" URT F (Lug)
GMAMMBSPURT33	3" BSPP M x 3" URT M (Hex)



Polypropylene, URT

0436	Size
PAMFURT34	3" URT M x 4" URT F (Lug)

Threaded Alloy Flanged Adaptors



Table D, URT

0436	Thread
AAFDURT3	3"
AAFDURT4	4"

NP16, URT

0436	Thread
AAFN16URT3	3"



For Tank Gauges
see page 1654



IBC Off Load System



**Cam Male Adaptor x Female Thread
- Part A**

0501	Size	Thread
IBCAS6062	2"	S60 x 6
IBCAS606112	1.1/2"	S60 x 6
IBCAS6061	1"	S60 x 6
IBCA2NPS	2"	NPSM
IBCAS10083	3"	S100 x 8



**Fixed Male Thread x Female Thread
- Part HA**

0501	Male Thread	Female Thread
IBCHAS6062BSP	2" BSPP	S60 x 6
IBCHAS606112BSP	1.1/2" BSPP	S60 x 6
IBCHAS6061BSP	1" BSPP	S60 x 6
IBCHAS60X34BSP	3/4" BSPP	S60 x 6
IBCHAS6062NPS	2" NPSM	S60 x 6
IBCHAS10083	3" BSPP	S100 x 8
IBCHAS606S1008	S60 x 6	S100 x 8
IBCHAS606NPSM2	S60 x 6	2" NPSM
IBCHAS6062BSPCWS	S60 x 6	2" BSPP with Seal



**Cam Female Coupler x Hose Tail
- Part C**

0501	Size	To Suit Hose ID
IBCC21	2"	1" (25mm)
IBCC2114	2"	1.1/4" (32mm)
IBCC2112	2"	1.1/2" (38mm)
IBCC22	2"	2" (50mm)
IBCC33	3"	3" (75mm)



**Female Coupler x Female Thread
- Part D**

0501	Size	Thread
IBCD112112BSP	1.1/2"	1.1/2" BSPP
IBCD22BSP	2"	2" BSPP
IBCD56062	2"	S60 x 6



**Swivel Hose Tail x Female Thread
- Part HC**

0501	To Suit Hose ID	Thread
IBCHCS6061	1" (25mm)	S60 x 6
IBCHCS606114	1.1/4" (32mm)	S60 x 6
IBCHCS606112	1.1/2" (38mm)	S60 x 6
IBCHCS6062	2" (50mm)	S60 x 6



**Female Thread x Female Thread
- Part HD**

0501	Size
IBCHDS6062BSP	2" BSPP x S60 x 6
IBCHDS606112BSP	1.1/2" BSPP x S60 x 6
IBCHDS6062NPS	2" NPSM x S60 x 6



Dust Plug

0501	Size
IBCDP112	1.1/2"
IBCDP2	2"



Dust Cap

0501	Size
IBCDC112	1.1/2"
IBCDC2	2"
IBCDC3	3"



EPDM, Seal to suit S60 x 6 Thread

0501
IBC-SEAL

MORTAR HOSE COUPLINGS & PLUGS



Lever Couplings



Male Threaded, BSPP

0353	Size	Thread
MAG 10/25	25	1"
MAG 20/50	50	2"

Tech Sheet 20469



Female Threaded, BSPP

0353	Size	Thread
MIG 10/25	25	1"
MIG 15/35	35	1.1/2"
MIG 20/50	50	2"

Tech Sheet 20469



Hose Tail, BSPP

0353	Size	To Suit Hose ID mm
MST 38/35	35	38
MST 50	50	50

Tech Sheet 20469

Plugs



Male Threaded, BSPP

0353	Size	Thread
VAG 10/25	25	1"
VAG 20/50	50	2"

Tech Sheet 20469



Female Threaded, BSPP

0353	Size	Thread
VIG 10/25	25	1"
VIG 15/35	35	1.1/2"
VIG 20/50	50	2"

Tech Sheet 20469



Hose Tail

0353	Size	To Suit Hose ID mm
VST 38/35	35	38
VST 50	50	50

Tech Sheet 20469

FLANGES



Mild Steel Flanged Hose Tails

Table E, Mild Steel

0297	To Suit Hose ID
FEHT2	2"
FEHT3	3"
FEHT4	4"

Tech Sheet 20469

NP16, Mild Steel

0297	To Suit Hose ID
FNP16HT112	1.1/2"
FNP16HT2	2"
FNP16HT212	2.1/2"
FNP16HT3	3"
FNP16HT4	4"
FNP16HT6	6"
FNP16HT8	8"

Tech Sheet 20469



Flanged Hose Tail Table D, Mild Steel

0297	To Suit Hose ID
FDHT2	2"
FDHT3	3"
FDHT4	4"
FDHT5	5"
FDHT6	6"

Tech Sheet 20469

ASA150, Mild Steel

0297	To Suit Hose ID
FASA150HT2	2"

Tech Sheet 20469

Stainless Steel Flanged Hose Tails

stainless steel

Table E, Stainless Steel

0297	To Suit Hose ID
FHSESS2	2"

Tech Sheet 20469

NP16, Stainless Steel

0297	To Suit Hose ID
FHSNP16SS2	2"
FHSNP16SS3	3"

Tech Sheet 20469

ASA 150, Stainless Steel

0297	To Suit Hose ID
FHSASASS2	2"

Tech Sheet 20469

Adaptors



Aluminium Unpolished

0279	ID
FHAMIM212212	2.1/2" M.I. x 2.1/2" M.I.
FHAFI212212	2.1/2" F.I. x 2.1/2" F.I.
FHAMIFBSP2122	2.1/2" M.I. x 2" FBSPP
FHAMIFBSP212212	2.1/2" M.I. x 2.1/2" FBSPP
FHAFIMBSP2122	2.1/2" F.I. x 2" M.BSPP
FHAFIMBSP212212	2.1/2" F.I. x 2.1/2" M.BSPP
FHAMIMBSP2122	2.1/2" M.I. x 2" M.BSPP
FHAMIMBSP212212	2.1/2" M.I. x 2.1/2" M.BSPP
FHAFIFBSP2122	2.1/2" F.I. x 2" FBSPP
FHAFIFBSP212212	2.1/2" F.I. x 2.1/2" FBSPP

Tech Sheet 20196

Rubber Gasket



0279	Size
FHCG	2.1/2"

Instantaneous Couplings



Aluminium Unpolished

0279	Size
FHCC212112	2.1/2" inst x 1.1/2" DR Hose Tail
FHCC212134	2.1/2" inst x 1.3/4" DR Hose Tail
FHCC2122	2.1/2" inst x 2" DR Hose Tail
FHCC212212	2.1/2" inst x 2.1/2" DR Hose Tail
FHCC2123	2.1/2" inst x 3" MS Hose Tail

Tech Sheet 20197



Male Half Instantaneous Couplings - Aluminium Unpolished

0279	Size
FHCC112MALE	2.1/2" inst x 1.1/2" DR Hose Tail
FHCC134MALE	2.1/2" inst x 1.3/4" DR Hose Tail
FHCC2MALE	2.1/2" inst x 2" DR Hose Tail
FHCC212MALE	2.1/2" inst x 2.1/2" DR Hose Tail
FHCC3MALE	2.1/2" inst x 3" MS Hose Tail

Tech Sheet 20201



Female Half Instantaneous Couplings - Aluminium Unpolished

0279	Size
FHCC112FEMALE	2.1/2" inst x 1.1/2" DR Hose Tail
FHCC134FEMALE	2.1/2" inst x 1.3/4" DR Hose Tail
FHCC2FEMALE	2.1/2" inst x 2" DR Hose Tail
FHCC212FEMALE	2.1/2" inst x 2.1/2" DR Hose Tail
FHCC234FEMALE	2.1/2" inst x 2.3/4" DR Hose Tail
FHCC3FEMALE	2.1/2" inst x 3" MS Hose Tail

Tech Sheet 20199

Blank Caps & Plugs



Aluminium Unpolished Blank Cap complete with Chain

0279	Size
FHCC212	2.1/2" F.I.

Tech Sheet 20198



Aluminium Unpolished Blank Plug complete with Chain

0279	Size
FHPC212	2.1/2" M.I.

Tech Sheet 20198

Standard Collecting Breeching



Unpolished

0279	Size
FHSCBMMF212	2.1/2" inst M x M x F

Tech Sheet 20202

Standard Dividing Breeching



Unpolished

0279	Size
FHSDBFFM212	2.1/2" inst F x F x M

Tech Sheet 20202

FIRE HOSE & INSTANTANEOUS FIRE HOSE COUPLINGS



Ribblelite Plain Fire Hose

- Uncoated hose to BS6391
- Type 1

Maximum Working Pressure: 10 bar



White Uncoated Hose supplied without Couplings

0279	ID mm	Length Metres
FIRE-FHR4518	45	18
FIRE-FHR4523	45	23
FIRE-FHR4530	45	30
FIRE-FHR6418	64	18
FIRE-FHR6423	64	23
FIRE-FHR6430	64	30

Tech Sheet 20323

White Uncoated Hose fitted with Light Alloy Instantaneous Couplings, Wired On

0279	ID mm	Length Metres
FIRE-FHR4518LA	45	18
FIRE-FHR4523LA	45	23
FIRE-FHR4530LA	45	30
FIRE-FHR6418LA	64	18
FIRE-FHR6423LA	64	23
FIRE-FHR6430LA	64	30

Tech Sheet 20324

Ribblelite Coated Fire Hose

- Coated hose to BS6391
- Type 2

Maximum Working Pressure: 10 bar



Red Coated Hose supplied without Couplings

0279	ID mm	Length Metres
FIRE-FHC4518	45	18
FIRE-FHC4523	45	23
FIRE-FHC6418	64	18
FIRE-FHC6423	64	23
FIRE-FHC6430	64	30

Tech Sheet 20321

Red Coated Hose fitted with Light Alloy Instantaneous Couplings, Wired On

0279	ID mm	Length Metres
FIRE-FHC4518LA	45	18
FIRE-FHC4523LA	45	23
FIRE-FHC4530LA	45	30
FIRE-FHC6418LA	64	18
FIRE-FHC6423LA	64	23
FIRE-FHC6430LA	64	30

Tech Sheet 20322

Brigadier Heavy-duty Fire Hose

- Red to BS6391
- Type 3

Maximum Working Pressure: 15 bar



Red supplied without Couplings

0279	ID mm	Length Metres
FIRE-FHB4518	45	18
FIRE-FHB4523	45	23
FIRE-FHB4530	45	30
FIRE-FHB6418	64	18
FIRE-FHB6423	64	23
FIRE-FHB6430	64	30

Tech Sheet 20319

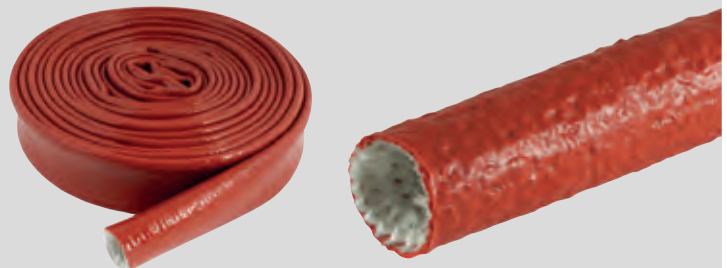
Red fitted with Light Alloy Instantaneous Couplings, Wired On

0279	ID mm	Length Metres
FIRE-FHB4518LA	45	18
FIRE-FHB4523LA	45	23
FIRE-FHB6418LA	64	18
FIRE-FHB6423LA	64	23
FIRE-FHB6430LA	64	30

Tech Sheet 20320



For Fire Sleeve see pages 44-45



FIRE HOSE & INSTANTANEOUS FIRE HOSE COUPLINGS

Aquaflex Potable/Drinking Water Hose



Blue Rubber Covered supplied without Couplings

0279	ID mm	Length Metres
FIRE-FHQ4518	45	18
FIRE-FHQ4523	45	23
FIRE-FHQ6423	64	23
FIRE-FHQ6430	64	30

Tech Sheet 20330

Blue Rubber Covered fitted with Light Alloy Instantaneous Couplings, Wired On

0279	ID mm	Length Metres
FIRE-FHQ4518LA	45	18
FIRE-FHQ4523LA	45	23
FIRE-FHQ4530LA	45	30
FIRE-FHQ6418LA	64	18
FIRE-FHQ6423LA	64	23
FIRE-FHQ6430LA	64	30

Tech Sheet 20331

Fire Hose



Type 1, Uncoated Plain White Canvas B.P.40 bar, Cut to Length, per Metre

0279	ID
FHT12	2"
FHT1212	2.1/2"

Tech Sheet 20326

Type 2, Lightweight Coated Red B.P.40 bar, Cut to Length, per Metre

0279	ID
FHT22	2"
FHT2212	2.1/2"

Tech Sheet 20327

Type 3, Rubber Covered Red B.P.50 bar, Cut to Length, per Metre

0279	ID
FHT32	2"

Tech Sheet 20328

Fire Hose Wire Whipped



Type 2, complete with Male/Female Couplings - 2.1/2"

0279	Length Metres
FHWT22125	5
FHWT221210	10
FHWT221215	15
FHWT221220	20

Tech Sheet 20329

Red Fire Hose Nozzles Adjustable

Maximum Working Pressure: 10 bar



Plastic

0279	To Suit Hose ID
FHN34	3/4"
FHN1	1"

Branchpipes Lever Operated



Light Alloy

0279	Description
BPLDIN9	DIN Pattern Jet/Spray 9mm
BPLOBP113	British Pattern No.1 Jet/Spray 13mm
BPLOBP219	British Pattern No.2 Jet/Spray 19mm
BPLOWC13	Jet Spray Nozzle c/w Water Curtain 13mm
BPLOWC19	Jet Spray Nozzle c/w Water Curtain 19mm

Tech Sheet 20325

Instantaneous Branchpipe & Nozzles



Aluminium Unpolished

0279	Description
BPS212	Standard Branchpipe (2.1/2" inst)
SN012JET	(1/2" Jet) Nozzle Adaptor
SN058JET	(5/8" Jet) Nozzle Adaptor
SN034JET	(3/4" Jet) Nozzle Adaptor
BD212	Diffuser Branchpipe (2.1/2" inst)

Tech Sheet 20200

STANDPIPES, MANHOLE & DRAIN KEYS



Standpipes



Unpolished

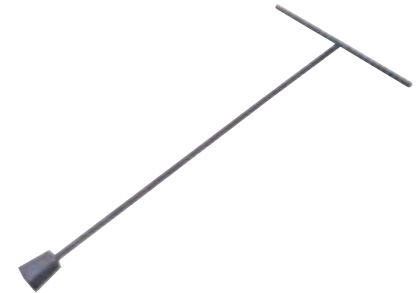
0427	Description
STANDW	Anti Siphon Double Check Valve (Water Board)
STANDB	Single Swivel Head with HRT Base (Brigade)
STANDC	Contractors Standpipe 3/4"
STANDDS	Double Swivel Head with HRT Base
STANDSP	Single Plug-in Head with HRT Base
STANDS	Contractors Standpipe 3/4" Steel Tap BS10 c/w Double Check Valve to BS6282
STANDBG	Spare Standpipe Bottom Gasket

Manhole Lifting Keys



0427	Size
MAN6	6"
MAN12	12"
MAN20	20"
MAN24	24"

Drain Key & Bar T Handle



Unpolished

0427	DKBT
------	------

Hydrant Keys & Bars



Unpolished

0427	Description
HYDKB	Aluminium Key & Aluminium Bar
HYDK	Key Only
HYDB	Bar Only

Customers who bought from this page also purchased...



Water Flex Flexible PVC Water Hose
see page 1422



Combination Swaged Hose Nipples

NPT Plated Steel



0121	Thread	To Suit Hose ID mm
NCSNPT12	1/2"	12
NCSNPT34	3/4"	19
NCSNPT1	1"	25
NCSNPT114	1.1/4"	32
NCSNPT112	1.1/2"	38
NCSNPT2	2"	50
NCSNPT212	2.1/2"	63
NCSNPT3	3"	75
NCSNPT4	4"	100
NCSNPT6	6"	150

NPT Plated Steel, Long Tail



0121	Thread	To Suit Hose ID mm
NCLNPT6	6"	150

Steel Hose Menders, Long Length

Zinc Plated Steel



0289	To Suit Hose ID	Length mm
SV10R	3/8" (10mm)	75
SV13R	1/2" (13mm)	80
SV15R	5/8" (15mm)	105
SV19R	3/4" (19mm)	105
SV25R	1" (25mm)	160
SV32R	1.1/4" (32mm)	175
SV38R	1.1/2" (38mm)	215
SV50R	2" (50mm)	225

BSPT Plated Steel



1011	Thread
CNS-12	1/2"
CNS-34	3/4"
CNS-1	1"
CNS-114	1.1/4"
CNS-112	1.1/2"
CNS-2	2"
CNS-212	2.1/2"
CNS-3	3"
CNS-4	4"
CNS-5	5"
CNS-6	6"

stainless steel

BSPT Stainless Steel



1011	Thread
SCN-12	1/2"
SCN-34	3/4"
SCN-1	1"
SCN-114	1.1/4"
SCN-112	1.1/2"
SCN-2	2"
SCN-3	2"

Safety Steel Hose Menders, Long Length

Zinc Plated Steel with Safety Collar



0289	To Suit Hose ID	Length mm
SV13R/S	1/2" (13mm)	80
SV15R/S	5/8" (15mm)	105
SV19R/S	3/4" (19mm)	105
SV25R/S	1" (25mm)	160
SV32R/S	1.1/4" (32mm)	175
SV38R/S	1.1/2" (38mm)	215
SV50R/S	2" (50mm)	225
SV75R/S	3" (75mm)	250

Hose Joiners



Alloy

0289	To Suit Hose ID
JALL114	1.1/4"
JALL112	1.1/2"
JALL2	2"
JALL212	2.1/2"
JALL3	3"
JALL4	4"

stainless steel

Stainless Steel



0289	To Suit Hose ID
JSS34	3/4"
JSS1	1"
JSS114	1.1/4"
JSS112	1.1/2"
JSS2	2"
JSS3	3"
JSS4	4"

Plated Steel



1011	To Suit Hose ID
SHM-38	3/8"
SHM-12	1/2"
SHM-34	3/4"
SHM-1	1"
SHM-114	1.1/4"
SHM-112	1.1/2"
SHM-2	2"
SHM-212	2.1/2"
SHM-3	3"
SHM-4	4"
SHM-5	5"
SHM-6	6"
SHM-8	8"
SHM-10	10"

HEXAGON NUTS & TAILS

Hexagon Nuts & Tails

'A' Hex Nuts & Tails, BSPP Mild Steel



0298	Thread	To Suit Hose ID	Max Pressure PSI
NTA1	1"	1"	250
NTA114	1.1/4"	1.1/4"	150
NTA112	1.1/2"	1.1/2"	150
NTA2	2"	2"	150

'C' Plain Hex Nuts & Tails, BSPP Mild Steel



0298	Thread	To Suit Hose ID	Max Pressure PSI
NTC12	1/2"	1/2"	150
NTC34	3/4"	3/4"	150
NTC1	1"	1"	150
NTC114	1.1/4"	1.1/4"	150
NTC112	1.1/2"	1.1/2"	150
NTC2	2"	2"	150

SWC Nuts & Tails, BSPP Mild Steel



0298	Thread	To Suit Hose ID	Max Pressure PSI
NTSWC112	1.1/2"	1.1/2"	150
NTSWC2	2"	2"	150

MODULAR COOLANT HOSE SYSTEMS



Compatibility:

Suitable for use with acetone, alcohol, ethyl, greases, oils, commercial dish detergents, gasoline, lacquer solvents and sodium hydroxide. Not for use with chlorine, acids, ammonium hydroxide, bases (strong), hypochlorite ion solutions or sodium hypochlorite.

Material: Polyoxymethylene (POM).

Recommended Maximum Line Pressure: 20-30 psi.

Recommended Maximum Flow Rate: 1,800 litres per hour.

Interchangeable with: Loc-Line.

Maximum Operating Temperature: +76°C

Repeated exposure to this temperature will cause fatigue.

Features:

- Unique ball and socket design, fully hand-adjustable in both position and length
- Will not kink or fatigue; bending does not decrease the inside diameter
- Will not damage machine tool cutters if contact occurs, unlike metal hoses
- Electrically non-conductive; ideal for EDM flushing
- No internal positioning rod that can break or restrict fluid flow
- Stays in position; repeated positioning is easy
- Creep due to machine vibration is eliminated

1/4" Series



Round Nozzles

0518	Nozzle Hole Size
28015	1/16"
28016	1/8"
28017	1/4"

Tech Sheet 68071



Flat Nozzle

0518	Nozzle Hole Size
28027	Size 60

Tech Sheet 68071



Swivel Nozzle

0518	Nozzle Hole Size
28029	Size 40

Tech Sheet 68071



90° Round Nozzles

0518	Nozzle Hole Size
28019	1/16"
28020	1/8"
28021	1/4"

Tech Sheet 68071



Flare Nozzle

0518	Nozzle Hole Size
28028	1"

Tech Sheet 68071



Male Connectors, NPT

0518	Thread
28032	1/8"
28033	1/4"

Tech Sheet 68071



90° Spray Bar Nozzle

0518	Nozzle Hole Size
28022	Size 60

Tech Sheet 68071



For Tufcut Metal Cutting Lubricant see page 1575

Compatibility:

Suitable for use with acetone, alcohol, ethyl, greases, oils, commercial dish detergents, gasoline, lacquer solvents and sodium hydroxide. Not for use with chlorine, acids, ammonium hydroxide, bases (strong), hypochlorite ion solutions or sodium hypochlorite.

Material: Polyoxymethylene (POM).

Recommended Maximum Line Pressure: 20-30 psi.

Recommended Maximum Flow Rate: 1,800 litres per hour.

Interchangeable with: Loc-Line.

Maximum Operating Temperature: +76°C
Repeated exposure to this temperature will cause fatigue.

1/4" Series



Y Connector

0518
28034

Tech Sheet 68071



90° Elbow Connector

0518
28035

Tech Sheet 68071



Valve, In-line

0518
28043

Tech Sheet 68071



T Connector

0518
28036

Tech Sheet 68071



Valve, Tube x Male, NPT

0518 Thread
28049 1/4"

Tech Sheet 68071



Check Valve, In-line

0518
28051

Tech Sheet 68071



End Cap

0518
28038

Tech Sheet 68071



Valve, Tube x Female, NPT

0518 Thread
28050 1/4"

Tech Sheet 68071



You might also need...
**RIDGID PC 116 Powered
Tubing Cutter**
...see page 1743

MODULAR COOLANT HOSE SYSTEMS



Compatibility:

Suitable for use with acetone, alcohol, ethyl, greases, oils, commercial dish detergents, gasoline, lacquer solvents and sodium hydroxide.
 Not for use with chlorine, acids, ammonium hydroxide, bases (strong), hypochlorite ion solutions or sodium hypochlorite.

Material: Polyoxymethylene (POM).

Recommended Maximum Line Pressure:
20-30 psi.

Recommended Maximum Flow Rate:
1,800 litres per hour.

Interchangeable with: Loc-Line.

Maximum Operating Temperature: +76°C

Repeated exposure to this temperature will cause fatigue.

1/4" Series



Extended Element

0518	Length mm
28011	90
Tech Sheet 68071	



Hose Only Kit

0518	Quantity	Length mm
XS2001	4	150
Tech Sheet 68071		



Hose Assembly Pliers

0518
28008
Tech Sheet 68071

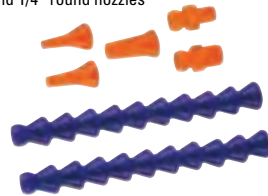


Extended Element Clamp

0518
28042
Tech Sheet 68071

Contents:

- 1 x 1/8" NPT male connector
- 1 x 1/4" NPT female connector
- 1 x 1/16", 1/8" and 1/4" round nozzles
- 280mm hose



Hose Kit

0518
28003
Tech Sheet 68071



Circle Flow Nozzle Kit

0518	ID mm	Length mm
28013	92	446
Tech Sheet 68071		

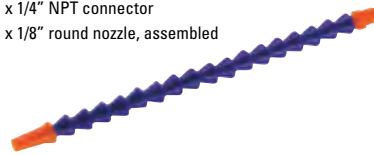


Hose Coil

0518	Length Metres
28012	15.24
Tech Sheet 68071	

Contents:

- 1 x 1/4" NPT connector
- 1 x 1/8" round nozzle, assembled



Hose Kit Assembly

0518	Length mm
28002	300
Tech Sheet 68071	

You might also need...



PPE
see pages 1752-1760



Compatibility:

Suitable for use with acetone, alcohol, ethyl, greases, oils, commercial dish detergents, gasoline, lacquer solvents and sodium hydroxide.

Not for use with chlorine, acids, ammonium hydroxide, bases (strong), hypochlorite ion solutions or sodium hypochlorite.

Material: Polyoxymethylene (POM).

Recommended Maximum Line Pressure:
30 psi

Recommended Maximum Flow Rate:
2,150 litres per hour.

Interchangeable with: Loc-Line.

Maximum Operating Temperature:
+76°C

Repeated exposure to this temperature will cause fatigue.

1/2" Series



Round Nozzles

0518	Nozzle Hole Size
48013	1/4"
48014	3/8"
48015	1/2"
Tech Sheet 68071	



Flare Nozzles

0518	Nozzle Hole Size
48026	1.1/4"
48027	2.1/2"
Tech Sheet 68071	



Male Connectors, NPT

0518	Thread
48030	3/8"
48031	1/2"
Tech Sheet 68071	



Flat Nozzle

0518	Nozzle Hole Size
48024	Size 80
Tech Sheet 68071	



Flat Holed Nozzles

0518	Nozzle
48022	5 Holes
48023	7 Holes
Tech Sheet 68071	



Y Connector

0518	
48032	
Tech Sheet 68071	



For **Reinforced PVC Braided Hose**
see pages **1404-1405**



90° Elbow Connector

0518	
48034	
Tech Sheet 68071	

MODULAR COOLANT HOSE SYSTEMS



Compatibility:

Suitable for use with acetone, alcohol, ethyl, greases, oils, commercial dish detergents, gasoline, lacquer solvents and sodium hydroxide.
 Not for use with chlorine, acids, ammonium hydroxide, bases (strong), hypochlorite ion solutions or sodium hypochlorite.

Material: Polyoxymethylene (POM).

Recommended Maximum Line Pressure:
30 psi

Recommended Maximum Flow Rate:
2,150 litres per hour.

Interchangeable with: Loc-Line.

Maximum Operating Temperature:
+76°C

Repeated exposure to this temperature will cause fatigue.

1/2" Series



Valve, Tube x Male, NPT

0518	Thread
48041	1/2"
Tech Sheet 68071	

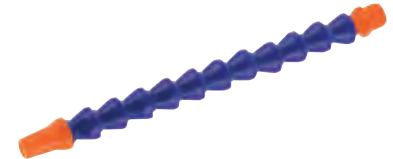


Hose Only Kit

0518	Quantity	Length mm
XS4001	4	150
Tech Sheet 68071		

Contents:

- 1 x 1/2" NPT connector
- 1 x 3/8" round nozzle, assembled



Hose Kit Assembly

0518	Length mm
48002	300
Tech Sheet 68071	



Valve, Tube x Female, NPT

0518	Thread
48042	1/2"
Tech Sheet 68071	



Hose Coil

0518	Length Metres
48010	15.24
Tech Sheet 68071	



Hose Assembly Pliers

0518	
48006	
Tech Sheet 68071	

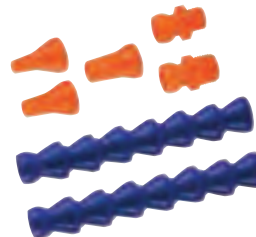


Valve, In-line

0518	
48043	
Tech Sheet 68071	

Contents:

- 1 x 3/8" NPT male connector
- 1 x 1/2" NPT female connector
- 1 x 1/4", 3/8" and 1/2" round nozzles
- 280mm hose



Hose Kit

0518	
48003	
Tech Sheet 68071	



Extended Element Kit

0518	
48008	
Tech Sheet 68071	

LEVER LOCK WATER PUMP COUPLINGS



FT Pro couplings provide a quick and easy way to join many lengths of hose together. They are commonly used for the pumping and transfer of water in the construction, road maintenance and general irrigation industries. They can also be used for loading and unloading road tankers.

Interchangeable with: BAUER

Maximum Working Temperature:
+80°C

Maximum Working Pressure:
2" to 3.1/2" 20 bar
4" to 8" 12 bar



Galvanized with Standard Rubber Sealing Ring

0372	Coupling Size mm	To Suit Hose ID
LLZDUTY-LLC2	50	2"
LLZDUTY-LLC3	76	3"
LLZDUTY-LLC3312	89	3" Tail x 3.1/2"
LLZDUTY-LLC4	108	4"
LLZDUTY-LLC6	159	6"
LLZDUTY-LLC8	194	8"

Tech Sheet 20540

FT Pro four bolt hole MZ flange couplings are commonly used on a wide range of agricultural slurry tankers and spreaders.

FT Pro couplings provide a quick and easy way to join many lengths of hose together.

They are commonly used for the pumping and transfer of water in the construction, road maintenance and general irrigation industries. They can also be used for loading and unloading road tankers.

Male Square MZ Flange



With Closure Ring, Galvanised

0372	Coupling Size mm
LLZD-MZLLM89	89
LLZD-MZLLM108	108
LLZD-MZLLM133	133
LLZD-MZLLM159	159
LLZD-MZLLM194	194

Tech Sheet 68126

Female Square MZ Flange



With Sealing Ring

0372	Coupling Size mm
LLZD-MZFF89	89
LLZD-MZFF108	108
LLZD-MZFF133	133
LLZD-MZFF159	159
LLZD-MZFF194	194

Tech Sheet 68127

Lever Closure Ring



Galvanised

0372	Coupling Size mm
LLZD-LLCR2	50
LLZD-LLCR33	76
LLZD-LLCR3312	89
LLZD-LLC4	108
LLZD-LLCR5	133
LLZD-LLCR6	159
LLZD-LLCR8	194

Interchangeable with: BAUER.

Maximum Working Temperature: +80°C

Maximum Working Pressure:
2" to 3.1/2" 20 bar
4" to 8" 12 bar

Male x Male BSPT Pipe Thread



With Closure Ring, Galvanised

0372	Coupling Size mm	Thread
LLZD-LLMBSP2	50	2"
LLZD-LLMBSP212	76	2.5"
LLZD-LLMBSP33	76	3"
LLZD-LLMBSP4	108	4"
LLZD-LLMBSP5	133	5"
LLZD-LLMBSP6	159	6"
LLZD-LLMBSP8	194	8"

Female x Male BSPT Pipe Thread



Galvanised

0372	Coupling Size mm	Thread
LLZD-LLFBSP2	50	2"
LLZD-LLFBSP212	76	2.5"
LLZD-LLFBSP33	76	3"
LLZD-LLFBSP4	108	4"
LLZD-LLFBSP5	133	5"
LLZD-LLFBSP6	159	6"
LLZD-LLFBSP8	194	8"

Male Weld End



Ungalvanised

0372	Coupling Size mm
LLZD-LLMWE33	76
LLZD-LLMWE3312	89
LLZD-LLMWE4	108
LLZD-LLMWE5	133
LLZD-LLMWE6	159
LLZD-LLMWE8	194



For Hydraulic Hand Pumps
see pages 229-230

LEVER LOCK WATER PUMP COUPLINGS



FT Pro four bolt hole MZ flange couplings are commonly used on a wide range of agricultural slurry tankers and spreaders.

FT Pro couplings provide a quick and easy way to join many lengths of hose together.

They are commonly used for the pumping and transfer of water in the construction, road maintenance and general irrigation industries. They can also be used for loading and unloading road tankers.

Interchangeable with: BAUER.

° Maximum Working Temperature: +80°C

Maximum Working Pressure:
2" to 3.1/2": 20 bar
4" to 8": 12 bar

Female Weld End



Ungalvanised

0372	Coupling Size mm
LLZD-LLFWE2	50
LLZD-LLFWE33	76
LLZD-LLFWE3312	89
LLZD-LLFWE4	108
LLZD-LLFWE5	133
LLZD-LLFWE6	159
LLZD-LLFWE8	194

Female End Caps



Galvanised

0372	Coupling Size mm
LLZD-LLFEC2	50
LLZD-LLFEC33	76
LLZD-LLFEC3312	89
LLZD-LLFEC4	108
LLZD-LLFEC5	133
LLZD-LLFEC6	159
LLZD-LLFEC8	194

Strainers



G.P. Strainers, Steel Galvanised

0372	Coupling Size mm
LLZD-LLGP2	50
LLZD-LLGP3312	89
LLZD-LLGP4	108
LLZD-LLGP5	133
LLZD-LLGP6	159
LLZD-LLGP8	194

Male End Cap



Galvanised

0372	Coupling Size mm
LLZD-LLMEC2	50
LLZD-LLMEC33	76
LLZD-LLMEC3312	89
LLZD-LLMEC4	108
LLZD-LLMEC5	133
LLZD-LLMEC6	159
LLZD-LLMEC8	194

90° Bends



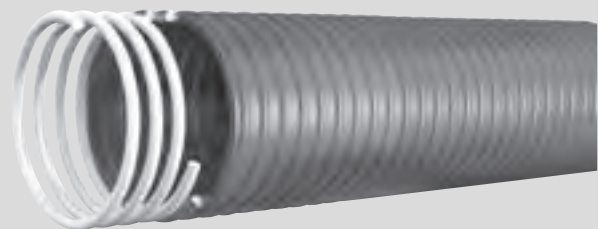
Galvanised

0372	Coupling Size mm
LLZD-LL90B2	50
LLZD-LL90B33	76
LLZD-LL90B3312	89
LLZD-LL90B4	108
LLZD-LL90B5	133
LLZD-LL90B6	159
LLZD-LL90B8	194

Customers who bought from this page also purchased...




Heavy-duty Suction Hose
see page 1428

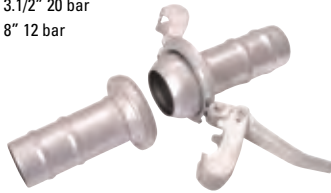


STAINLESS STEEL LEVER LOCK WATER PUMP COUPLINGS



Complete Connection Set

 **Maximum Working Pressure:**
2" to 3.1/2" 20 bar
4" to 8" 12 bar



Galvanised with Standard Rubber Sealing Ring

0120	Coupling Size mm	To Suit Hose ID
LLC2	50	2"
LLC33	76	3 Tail x 3"
LLC3312	89	3 Tail x 3.1/2"
LLC4	108	4"
LLC5	133	5"
LLC6	159	6"
LLC8	194	8"

Galvanised with Oil Resistant Rubber Sealing Ring

0120	Coupling Size mm	To Suit Hose ID
LLC2OROR	50	2"
LLC33OROR	76	3 Tail x 3"
LLC4OROR	108	4"
LLC8OROR	194	8"

Male x Hose Connector

stainless steel



0120	Coupling Size mm	To Suit Hose ID
LLSMT2	50	2"
LLSMT33	76	3"
LLSMT3312	89	3" Tail x 3.1/2"
LLSMT4	108	4"
LLSMT6	159	6"
LLSMT8	194	8"

Female x Hose Connector

stainless steel



0120	Coupling Size mm	To Suit Hose ID
LLSFT2	50	2"
LLSFT3312	89	3" Tail x 3.1/2"
LLSFT4	108	4"
LLSFT6	159	6"
LLSFT8	194	8"

Male Weld End

Other sizes available on request.
Minimum quantity order may apply.

stainless steel



0120	Coupling Size mm
LLSSMWE2	50
LLSSMWE3312	89
LLSSMWE4	108
LLSSMWE6	159

Female Weld End

stainless steel



0120	Coupling Size mm
LLSSFWE2	50
LLSSFWE33	76
LLSSFWE3312	89
LLSSFWE4	108
LLSSFWE6	159

Male x Male BSPP Pipe Thread

Other sizes available on request.
Minimum quantity order may apply.

stainless steel



With Lever Closure Ring, BSPP

0120	Coupling Size mm	To Suit Hose ID
LLSSMBSP2	50	2"
LLSSMBSP33	76	3"
LLSSMBSP3312	89	3" BSPP x 3.1/2"
LLSSMBSP4	108	4"

Female complete with BSPP Male Pipe Thread

Other sizes available on request.
Minimum quantity order may apply.

stainless steel



0120	Coupling Size mm	Thread
LLSSFBSPP2	50	2"
LLSSFBSPP33	76	3"
LLSSFBSPP3312	89	3" BSPP x 3.1/2"
LLSSFBSPP4	108	4"
LLSSFBSPP5	133	5"
LLSSFBSPP6	159	6"

Male End Cap

stainless steel



0120	Coupling Size mm
LLSSMEC2	50
LLSSMEC33	76
LLSSMEC3312	89
LLSSMEC4	108
LLSSMEC5	133
LLSSMEC6	159

Female End Cap

Other sizes available on request.
Minimum quantity order may apply.

stainless steel



0120	Coupling Size mm
LLSSFEC3312	89
LLSSFEC4	108
LLSSFEC6	159

LEVER LOCK WATER PUMP COUPLINGS



Male x Hose Connector



Galvanised

0120	Coupling Size mm	To Suit Hose ID
LLMT2	50	2"
LLMT33	76	3" Tail x 3"
LLMT3312	89	3" Tail x 3.1/2"
LLMT4	108	4"
LLMT5	133	5"
LLMT6	159	6"
LLMT8	194	8"

Female x Hose Connector



Galvanised

0120	Coupling Size mm	To Suit Hose ID
LLFT2	50	2"
LLFT33	76	3" Tail x 3"
LLFT3312	89	3" Tail x 3.1/2"
LLFT4	108	4"
LLFT5	133	5"
LLFT6	159	6"
LLFT8	194	8"

Lever Closure Ring



Galvanised

0120	Coupling Size mm	To Suit Hose ID
LLCR2	50	2"
LLCR33	76	3" Tail x 3"
LLCR3312	89	3" Tail x 3.1/2"
LLCR4	108	4"
LLCR5	133	5"
LLCR6	159	6"
LLCR8	194	8"

Rubber Sealing Ring

Natural Rubber (NR)



0120	Coupling Size mm
LLOR2	50
LLOR33	76
LLOR3312	89
LLOR4	108
LLOR5	133
LLOR6	159
LLOR8	194

Oil Resistant Rubber Sealing Ring

Nitrile Rubber (NBR)



0120	Coupling Size mm
LLOROR2	50
LLOROR33	76
LLOROR3312	89
LLOROR4	108
LLOROR5	133
LLOROR6	159
LLOROR8	194

Male x Male BSPT Pipe Thread



With Lever Closure Ring, Galvanised

0120	Coupling Size mm	Thread	To Suit Hose ID
LLMBSP112	50	-	1.1/2"
LLMBSP2	50	-	2"
LLMBSP212	76	-	2.1/2"
LLMBSP33	76	3" BSPP	3"
LLMBSP3312	89	3" BSPP	3.1/2"
LLMBSP4	108	-	4"
LLMBSP5	133	-	5"
LLMBSP6	159	-	6"
LLMBSP8	194	-	8"

Male complete with URT Male/Female Thread



With Lever Closure Ring, Ungalvanised, URT

0120	Coupling Size mm	Thread
LLM44URTM	4" Male	4" Male
LLM44URTF	4" Male	4" Female

Female complete with BSPP Male Pipe Thread



Galvanised

0120	Coupling Size mm	Thread	To Suit Hose ID
LLFBSP112	50	-	1.1/2"
LLFBSP2	50	-	2"
LLFBSP212	76	-	2.1/2"
LLFBSP33	76	3" BSPP	3"
LLFBSP3312	89	3" BSPP	3.1/2"
LLFBSP4	108	-	4"
LLFBSP5	133	-	5"
LLFBSP6	159	-	6"
LLFBSP8	194	-	8"

Female complete with URT Male/Female Thread



Ungalvanised

0120	Coupling Size mm	Thread
LLF333URTF	3" Female	3" Female
LLF33123URTF	3.1/2" Female	3" Female
LLF44URTM	4" Female	4" Male
LLF44URTF	4" Female	4" Female

LEVER LOCK WATER PUMP COUPLINGS



Male Weld End



Ungalvanised

0120	Coupling Size mm
LLMWE2	50
LLMWE33	76
LLMWE3312	89
LLMWE4	108
LLMWE5	133
LLMWE6	159
LLMWE8	194

Female Weld End



Ungalvanised

0120	Coupling Size mm
LLFWE2	50
LLFWE33	76
LLFWE3312	89
LLFWE4	108
LLFWE5	133
LLFWE6	159
LLFWE8	194

Flanged Male, Table D



Galvanised

0120	Coupling Size mm
LLMFD2	50
LLMFD33	76
LLMFD3312	89
LLMFD4	108
LLMFD46	108 x 6"
LLMFD5	133
LLMFD6	159
LLMFD8	194

Flanged Female, Table D



Galvanised

0120	Coupling Size mm
LLFFD2	50
LLFFD33	76
LLFFD3312	89
LLFFD4	108
LLFFD6	159
LLFFD8	194

Flanged Male, Table E



Galvanised

0120	Coupling Size mm
LLMFE162	50
LLMFE1633	76
LLMFE163312	89
LLMFE164	108
LLMFE1646	108 x 6"
LLMFE165	133
LLMFE166	159
LLMFE168	194

Flanged Female, Table E



Galvanised

0120	Coupling Size mm
LLFFE162	50
LLFFE1633	76
LLFFE163312	89
LLFFE164	108
LLFFE1646	108 x 6"
LLFFE165	133
LLFFE166	159
LLFFE168	194

Lever Closure Ring



Ungalvanised

0120	Coupling Size mm
LCRB2	50
LCRB33	76
LCRB3312	89
LCRB4	108
LCRB5	133
LCRB6	159
LCRB8	194

Y Unions



Y Union with Female Outlet, Galvanised

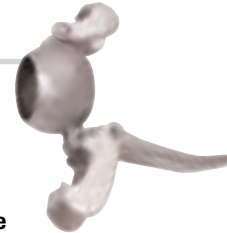
0120	Coupling Size mm
LLYMMF2	50
LLYMMF33	76
LLYMMF3312	89
LLYMMF4	108
LLYMMF6	159



Y Union with Male Outlet, Galvanised

0120	Coupling Size mm
LLYFFM2	50
LLYFFM33	76
LLYFFM3312	89
LLYFFM4	108
LLYFFM6	159

Male End Cap



With Lever Closure

0120	Coupling Size mm
LLMEC2	50
LLMEC33	76
LLMEC3312	89
LLMEC4	108
LLMEC5	133
LLMEC6	159
LLMEC8	194

Female End Caps



Galvanised

0120	Coupling Size mm
LLFEC2	50
LLFEC33	76
LLFEC3312	89
LLFEC4	108
LLFEC5	133
LLFEC6	159
LLFEC8	194

LEVER LOCK WATER PUMP COUPLINGS



Female x Male Reducer



Galvanised

0120	Description
LLFM332	76 Female x 50 Male
LLFM33122	89 Female x 50 Male
LLFM331233	89 Female x 76 Male
LLFM433	108 Female x 76 Male
LLFM43312	108 Female x 89 Male
LLFM54	133 Female x 108 Male
LLFM64	159 Female x 108 Male
LLFM65	159 Female x 133 Male
LLFM86	194 Female x 159 Male

T Unions



T Union with Female Outlet, Galvanised

0120	Coupling Size mm
LLTMFF2	50
LLTMFF4	108
LLTMFF6	159



T Union with Male Outlet, Galvanised

0120	Coupling Size mm
LLTMMF2	50
LLTMMF3	76
LLTMMF3312	89
LLTMMF4	108
LLTMMF5	133
LLTMMF6	159
LLTMMF8	194

Male x Female Riser



Galvanised

0120	Description
LLFM233	50 Female x 76 Male
LLFM23312	50 Female x 89 Male
LLFM33312	76 Female x 89 Male
LLFM334	76 Female x 108 Male
LLFM33124	89 Female x 108 Male
LLFM45	108 Female x 133 Male
LLFM46	108 Female x 159 Male
LLFM56	133 Female x 159 Male
LLFM68	159 Female x 194 Male

Safety Pins



Galvanised Steel

0120	To Suit Coupling Size mm
LLMSSPIN50	50
LLMSSPIN76	76
LLMSSPIN89108	89 - 108
LLMSSPIN133	133
LLMSSPIN159194	159 - 194

30° Bends



30° Bend, Galvanised

0120	Coupling Size mm
LL30B2	50
LL30B3	76
LL30B33	89
LL30B4	108
LL30B5	133
LL30B6	159
LL30B8	194

45° Bends



45° Bend, Galvanised

0120	Coupling Size mm
LL45B2	50
LL45B33	76
LL45B3312	89
LL45B4	108
LL45B5	133
LL45B6	159
LL45B8	194



Male Flanged 45° Bend - NP16, Galvanised

0120	Coupling Size mm
LL45MF4	108
LL45MF6	159



Female Flanged 45° Bend - NP16, Galvanised

0120	Coupling Size mm
LL45FF4	108
LL45FF6	159

LEVER LOCK WATER PUMP COUPLINGS



90° Bends



90° Bend, Galvanised

0120	Coupling Size mm
LL90B2	50
LL90B33	76
LL90B3312	89
LL90B4	108
LL90B5	133
LL90B6	159
LL90B8	194



Male Flanged 90° Bend - NP16, Galvanised

0120	Coupling Size mm
LL90MF33	76
LL90MF3312	89
LL90MF4	108
LL90MF6	159
LL90MF8	194



Female Flanged 90° Bend - NP16, Galvanised

0120	Coupling Size mm
LL90FF33	76
LL90FF3312	89
LL90FF4	108
LL90FF6	159
LL90FF8	194



Male Flanged 90° Bend - Table D, Galvanised

0120	Coupling Size mm
LL90MF3312TD	89
LL90MF4TD	108
LL90MF6TD	159



Female Flanged 90° Bend - Table D, Galvanised

0120	Coupling Size mm
LL90FF2TD	50
LL90FF4TD	108

Customers who bought from this page also purchased...



Carbon Steel Flanges
see page 1387

Strainers



G.P. Strainers, Steel Galvanised

0120	Coupling Size mm
LLGP2	50
LLGP3312	89
LLGP4	108
LLGP6	159
LLGP8	194



Sewage Strainers, Steel Galvanised

0120	Coupling Size mm
LLSS4	108
LLSS6	159



Male Foot Valve Strainer, Galvanised

0120	Coupling Size mm
LLFVSM2	50
LLFVSM33	76
LLFVSM3312	89
LLFVSM4	108
LLFVSM5	133
LLFVSM6	159
LLFVSM8	194



Hose Tail Foot Valve Strainer, Galvanised

0120	To Suit Hose ID
LLFVSHT2	2"
LLFVSHT3	3"
LLFVSHT4	4"
LLFVSHT5	5"
LLFVSHT6	6"
LLFVSHT8	8"
LLFVSHT12	12"

LEVER LOCK WATER PUMP COUPLINGS

Large Bore Dallai Couplings



Male Hose Tail

0120	Coupling Size mm
LLMT10	10"
LLMT12	12"



Flanged Female

0120	Coupling Size mm
LLFF10	10"
LLFF12	12"



Male Blank Ends

0120	Coupling Size mm
LLMEC10	10"
LLMEC12	12"



Female Hose Tail

0120	Coupling Size mm
LLFT10	10"
LLFT12	12"



Male x Female 90° Bend

0120	Coupling Size mm
LL90B10	10"
LL90B12	12"



Male Weld Ends

0120	Coupling Size mm
LLMWE12	12"



Flanged Male

0120	Coupling Size mm
LLMF10	10"
LLMF12	12"



Male x Female 45° Bend

0120	Coupling Size mm
LL45B10	10"
LL45B12	12"

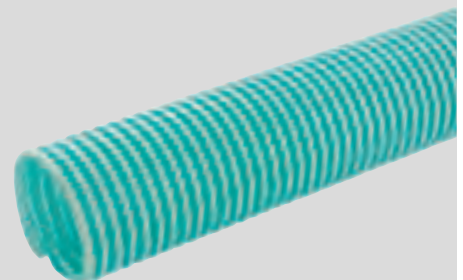


Female Weld Ends

0120	Coupling Size mm
LLFWE10	10"
LLFWE12	12"



For **Water Delivery Hose**
see page 1431



1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 13

Clips & Clamps

13.01 Worm Drive Clamps & Clips **1511-1535**

13.02 O Clips & Pliers **1536-1539**

13.03 P Clips **1536-1539**

13.04 Pipe Clips & Fixing Systems **1545-1551**

13.05 Banding Systems & Cable Ties **1552-1555**

13.06 Ferrules & Pipe Repair Couplings **1556-1558**

SECTION 13

13.01 Worm Drive Clamps & Clips

- Worm Drive Hose Clamps & U Bolts
- Pipe Clamps
- Clamps & Clips Kits
- Clamps & Hose Clips
- Hose Clips
- Clip Packs
- Counter Dispensers
- Worm Drive Hose Clamps
- Clamps & Hose Clips
- Clamps, Clips & Fasteners



1511-1535

13.02 O Clips & Pliers

- O Clips & Pliers
- Hose Clamps
- Hose & Pipe Cleaning Kits
- Service Plugs



1536-1539

13.03 P Clips

- Pipe Clips & Tool Clips
- Clamps & Hose Clips
- Clips
- Clip Packs
- Clamps & Hose Clips



1540-1544

13.04 Pipe Clips & Fixing Systems

- Metric Pipe Clips & Back Plates
- BSP Pipe Clips & Back Plates
- Pipe Saddle Clips
- Pipe Fixings
- Pipe Clips & Fixing Systems



1545-1551

13.05 Banding Systems & Cable Ties

- Quick Release Band Straps & Banding
- Banding System & Tie Wraps
- Steel Strapping & Accessories



1552-1555

13.06 Ferrules & Pipe Repair Couplings

- Ferrules
- Pipe Repair Couplings
- Circlips Kits
- Tool Clips, Pen & Tool Holders
- Hose Crimper



1556-1558

Hi-grip Mini Clamps

For fuel pipes and small hoses.

stainless steel



Mild Steel

5559	Min Size mm	Max Size mm
505-9	7	9
505-10	8	10
505-11	9	11
505-12	10	12
505-13	11	13
505-14	12	14
505-15	13	15
505-16	14	16
505-17	15	17
505-18	16	18

Tech Sheet 20459

Stainless Steel

5559	Min Size mm	Max Size mm
505-9SS	7	9
505-10SS	8	10
505-11SS	9	11
505-12SS	10	12
505-13SS	11	13
505-14SS	12	14
505-15SS	13	15
505-16SS	14	16
505-17SS	15	17
505-18SS	16	18

Tech Sheet 20459

All Stainless Steel Worm Drive Hose Clamps

stainless steel

304 stainless steel.



All Stainless Steel Worm Drive Hose Clamps

5555	Band Width	Min Size mm	Max Size mm
HCS12	9	8	12
HCS16	9	10	16
HCS20	9	12	20
HCS25	9	16	25
HCS32	9	20	32
HCS40	9	25	40
HCS50	9	32	50
HCS60	9	40	60
HCS70	9	50	70

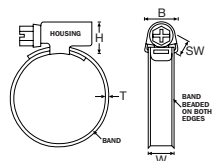
Tech Sheet 20402

Hose Clamps

Material: Band and Housing: AISI 430 stainless steel.
Screw: V6 free plated carbon steel.

Dimensions:

	9mm Band Width	12mm Band Width
Band Width (W):	9mm	12mm
Band Thickness (T):	0.6mm	0.7mm
Housing Width (B):	12mm	15mm
Housing Height (H):	11mm	11mm
Width across flats (SW):	7mm	7mm



9mm Band Width

5555	Min Size mm	Max Size mm	Size Ref
HC8-12	8	12	000
HC10-16	10	16	M00
HC12-20	12	20	00
HC16-25	16	25	0X
HC20-32	20	32	1A
HC25-40	25	40	1
HC32-50	32	50	2A
HC35-45	35	45	-
HC40-60	40	60	2

Tech Sheet 20401

12mm Band Width

5555	Min Size mm	Max Size mm	Size Ref
HC50-70	50	70	3
HC60-80	60	80	3X
HC70-90	70	90	4
HC80-100	80	100	4X
HC90-110	90	110	-
HC100-120	100	120	5
HC110-130	110	130	-
HC120-140	120	140	6 and 6X
HC130-150	130	150	-
HC140-160	140	160	7

Tech Sheet 20401

Tri-torque Heavy-duty Clamps, 16mm Band

stainless steel



Stainless Steel

5559	Min Size mm	Max Size mm
T850-175	25	44
T850-200	32	54
T850-250	44	67
T850-300	57	80
T850-350	70	92
T850-400	83	105
T850-500	108	130
T850-550	121	143
T850-600	133	156
T850-650	146	168
T850-800	184	206
T850-850	197	219

Tech Sheet 20462

Quick Release Hose Clamps, 12.7mm Band

stainless steel



Stainless Steel

5559	Min Size mm	Max Size mm
G76028	25	57
G76048	38	89
G76056	25	101
G76072	51	127
G76088	52	152
G76104	45	177
G76128	45	217
G76152	50	254
G76188	52	312
G76216	258	355
G76248	45	406
G76280	361	457
G76344	45	559

Tech Sheet 20460

WORM DRIVE HOSE CLAMPS & U BOLTS



Spiral Wrap Hose Clamps

Designed for spiral ducting hose, this clamp is unique to the market. It always has two points of contact, making it an ideal clamp for this style of hose.



Right Hand (Clockwise) Wound

5559	ID mm
SWCRT-2	50
SWCRT-3	75
SWCRT-4	100
SWCRT-5	125
SWCRT-6	150
Tech Sheet 67958	

Left Hand (Anticlockwise) Wound

5559	ID mm
SWCLT-2	50
SWCLT-3	75
SWCLT-4	100
SWCLT-5	125
SWCLT-6	150
Tech Sheet 67958	

Spiral Clamps



Right Hand (Clockwise) Wound

5555	ID
SCR-112	1.1/2"
SCR-2	2"
SCR-212	2.1/2"
SCR-3	3"
SCR-4	4"
SCR-5	5"
SCR-6	6"
SCR-12	12"

Left Hand (Anticlockwise) Wound

5555	ID
SCL-212	2.1/2"
SCL-3	3"
SCL-5	5"
SCL-8	8"

U Bolt Clamps



Complete with Saddle, Mild Steel

5559	To Suit Tube OD mm
U780280	28
U780320	32
U780350	35
U780380	38
U780410	41
U780430	43
U780450	45
U780480	48
U780510	51
U780540	54
U780580	58
U780600	60
U780640	64
U780670	67
U780700	70
U780750	75
U780770	77
U780790	79
U780800	80
U780890	89
U780920	92
U780950	95
U781000	100
U781020	102
U781100	110
U781200	120
U781250	125
Tech Sheet 20463	

Easy Grip Hose Clamp



Steel, 9mm Band Width

5555	Min Size mm	Max Size mm
EGHC8-12	8	12
EGHC10-16	10	16
EGHC12-20	12	20
EGHC16-25	16	25
EGHC20-32	20	32
EGHC25-40	25	40
EGHC32-50	32	50
EGHC35-45	35	45
EGHC40-60	40	60
EGHC50-70	50	70
EGHC60-80	60	80
EGHC70-90	70	90
EGHC80-100	80	100
Tech Sheet 20410		



For Braided PVC Hose
see page 1403



Heavy-duty Steel Hose Clamps



Zinc Yellow Plated

5555	Min Size mm	Max Size mm
HDSHS-1719	17	19
HDSHS-2022	20	22
HDSHS-2325	23	25
HDSHS-2628	26	28
HDSHS-2931	29	31
HDSHS-3235	32	35
HDSHS-3639	36	39
HDSHS-4043	40	43
HDSHS-4447	44	47
HDSHS-4851	48	51
HDSHS-5255	52	55
HDSHS-5659	56	59
HDSHS-6063	60	63
HDSHS-6467	64	67
HDSHS-6873	68	73
HDSHS-7479	74	79
HDSHS-8085	80	85
HDSHS-8691	86	91
HDSHS-9297	92	97
HDSHS-98103	98	103
HDSHS-104112	104	112
HDSHS-113121	113	121
HDSHS-122130	122	130
HDSHS-131139	131	139
HDSHS-140148	140	148
HDSHS-149161	149	161
HDSHS-162174	162	174
HDSHS-175187	175	187
HDSHS-188200	188	200
HDSHS-201213	201	213
HDSHS-214226	214	226
HDSHS-227239	227	239
HDSHS-240252	240	252

Tech Sheet 20403

Stainless Steel Superior Clamps



Grade 304 Stainless Steel Band, Housing & Screw

5555	Min Size mm	Max Size mm
SHC17-19	17	19
SHC20-22	20	22
SHC23-25	23	25
SHC26-28	26	28
SHC29-31	29	31
SHC32-35	32	35
SHC36-39	36	39
SHC40-43	40	43
SHC44-47	44	47
SHC48-51	48	51
SHC52-55	52	55
SHC56-59	56	59
SHC60-63	60	63
SHC64-67	64	67
SHC68-73	68	73
SHC74-79	74	79
SHC80-85	80	85
SHC86-91	86	91
SHC92-97	92	97
SHC98-103	98	103
SHC104-112	104	112
SHC113-121	113	121
SHC122-130	122	130
SHC131-139	131	139
SHC140-148	140	148
SHC149-161	149	161
SHC162-174	162	174
SHC175-187	175	187
SHC188-200	188	200
SHC201-213	201	213
SHC214-226	214	226
SHC227-239	227	239
SHC240-252	240	252

Tech Sheet 20405

Constant Tension Clamps



304 Stainless Steel, 15.8mm Band Width

5555	Min Size mm	Max Size mm
CTC25-45	25	45
CTC32-54	32	54
CTC45-67	45	67
CTC57-79	57	79
CTC70-92	70	92
CTC83-105	83	105
CTC95-117	95	117
CTC108-130	108	130
CTC121-143	121	143
CTC133-155	133	155
CTC146-168	146	168
CTC184-206	184	206

Tech Sheet 20409



For **Black Nylon Ply Steam Hose**
see page **1482**



CLAMPS & CLIPS KITS



Assorted Kits

Contents:

Size	Quantity
8-12mm	14
10-16mm	10
12-22mm	10
16-27mm	8
20-32mm	7
25-40mm	6



Hose Clamps

5559	Material
HC-KIT-MS	Mild Steel
HC-KIT-SS	Stainless Steel
Tech Sheet 20468	

Contents:

Size	Quantity
7-9mm	21
8-10mm	20
9-11mm	15
10-12mm	15
11-13mm	14
12-14mm	8
13-15mm	10
15-17mm	7
16-18mm	6



Mini Hose Clamps

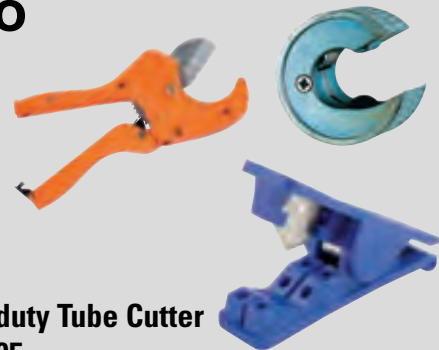
5559	Material
HCMINI-KIT-MS	Mild Steel
HCMINI-KIT-SS	Stainless Steel
Tech Sheet 20468	

Screwdriver



5555
HC1

FT PRO®



For Heavy-duty Tube Cutter
see page 905

CLAMPS & HOSE CLIPS



INDUSTRY RECOMMENDED SYMBOLS



Agricultural



Food



Ventilation



Electrical



Oil/Gas



Industrial



Marine



Hardware/DIY



Automotive

Jubilee® Hose Clips

- Precision engineered for quality, Jubilee clips are Kitemark approved to BS 5315:1991 and manufactured under the BS EN ISO 9002 quality system accepted by the British Standards Institution
- The mild steel range is zinc plated for corrosion resistance and the stainless steel range is all 304 (A2) material



stainless steel

Mild Steel, Zinc Plated

6666	Size No	Min Size mm	Max Size mm
000-MS	000	9.5	12
M00-MS	M00	11	16
00-MS	00	13	20
0-MS	0	16	22
0X-MS	0X	18	25
1A-MS	1A	22	30
1-MS	1	25	35
1X-MS	1X	30	40
1M-MS	1M	32	45
2A-MS	2A	35	50
2-MS	2	40	55
2X-MS	2X	45	60
3-MS	3	55	70
3X-MS	3X	60	80
4-MS	4	70	90
4X-MS	4X	85	100
5-MS	5	90	120
6-MS	6	110	140
6X-MS	6X	120	150
7-MS	7	135	165
7 1/2-MS	7.1/2	158	190
8 1/2-MS	8.1/2	184	216
9 1/2-MS	9.1/2	210	242
10 1/2-MS	10.1/2	235	267
11 1/2-MS	11.1/2	260	292
12 1/2-MS	12.1/2	286	318

Tech Sheet 591

304 Stainless Steel

6666	Size No	Min Size mm	Max Size mm
000-SS	000	9.5	12
M00-SS	M00	11	16
00-SS	00	13	20
0-SS	0	16	22
0X-SS	0X	18	25
1A-SS	1A	22	30
1-SS	1	25	35
1X-SS	1X	30	40
1M-SS	1M	32	45
2A-SS	2A	35	50
2-SS	2	40	55
2X-SS	2X	45	60
3-SS	3	55	70
3X-SS	3X	60	80
4-SS	4	70	90
4X-SS	4X	85	100
5-SS	5	90	120
6-SS	6	110	140
6X-SS	6X	120	150
7-SS	7	135	165
7 1/2-SS	7.1/2	158	190
8 1/2-SS	8.1/2	184	216
9 1/2-SS	9.1/2	210	242
10 1/2-SS	10.1/2	235	267
11 1/2-SS	11.1/2	260	292
12 1/2-SS	12.1/2	286	318

Tech Sheet 591

Boxed Mild Steel, 10 Clips per Box

6666	Size No	Min Size mm	Max Size mm
000-MS-BOX	000	9.5	12
M00-MS-BOX	M00	11	16
00-MS-BOX	00	13	20
0-MS-BOX	0	16	22
0X-MS-BOX	0X	18	25
1A-MS-BOX	1A	22	30
1-MS-BOX	1	25	35
1X-MS-BOX	1X	30	40
1M-MS-BOX	1M	32	45
2A-MS-BOX	2A	35	50
2-MS-BOX	2	40	55
2X-MS-BOX	2X	45	60
3-MS-BOX	3	55	70

Tech Sheet 591

Jubilee® Clipdrivers



6666 Length mm

2025-3753 95

Tech Sheet 1940



CLAMPS & HOSE CLIPS



Jubilee® Light Range Clips

With a narrower band than the original Jubilee® clip, this lightweight clip is designed to offer an excellent seal at slightly lower torques.

The Jubilee® Light Range is manufactured to DIN 3017 and, like the original Jubilee® clip, they are continuously threaded to enable extra flexibility when adjusting to the required size.

This clip is most suited to applications where space or weight is restricted and is often used in car and light commercial vehicle applications.



Mild Steel, Zinc Plated, W1

6666	Min Size mm	Max Size mm
LR022MS	12	22
LR032MS	22	32
LR040MS	25	40
LR050MS	32	50
LR060MS	40	60
LR070MS	50	70
LR080MS	60	80
LR090MS	70	90
LR100MS	80	100
LR110MS	90	110
LR120MS	100	120
LR130MS	110	130
LR140MS	120	140
LR150MS	130	150
LR160MS	140	160

Tech Sheet 60246



stainless steel



304 Stainless Steel, W4

6666	Min Size mm	Max Size mm
LR022SS	12	22
LR032SS	22	32
LR040SS	25	40
LR045SS	30	45
LR050SS	32	50
LR060SS	40	60
LR070SS	50	70
LR080SS	60	80
LR090SS	70	90
LR100SS	80	100
LR110SS	90	110
LR120SS	100	120
LR140SS	120	140
LR150SS	130	150
LR160SS	140	160

Tech Sheet 60246

Jubilee® Stainless Steel High Torque Hose Clips

Jubilee® high torque clips for applications that require additional high levels of tightening torque; twice the tightening torque of standard worm drive clips.

- Recommended tightening torque: 17Nm (150in-lb)
- All stainless steel construction



stainless steel

Jubilee® 304 Stainless Steel, High Torque Hose Clips

6666	Min Size mm	Max Size mm
JHT35	20	35
JHT40	25	40
JHT45	25	45
JHT50	30	50
JHT70	40	70
JHT80	60	80
JHT95	70	95
JHT100	80	100
JHT120	90	120
JHT140	110	140
JHT160	130	160
JHT180	150	180
JHT200	170	200
JHT220	190	220
JHT240	210	240
JHT260	230	260
JHT280	250	280
JHT300	270	300
JHT320	290	320
JHT340	310	340
JHT360	330	360
JHT380	350	380
JHT400	370	400
JHT420	390	420
JHT440	410	440
JHT480	450	480
JHT500	470	500

Tech Sheet 1941

Jubilee® Stainless Steel High Torque Hose Clips

Jubilee® High Torque clips are made of all 304 or 316 stainless steel, with a two-part housing and cut-through and keeping the band straight at the point of engagement and fully engaging the screw thread, giving a superior tightening torque.

Although not suitable for use on soft hoses, where the high forces and the perforated band may cut into the hose; they are ideal where a high clamping force is required, and with a flexible band material, they can achieve a high level of friction even against smooth surfaces.



Jubilee® 316 Stainless Steel, High Torque Hose Clips

6666	Min Size mm	Max Size mm
HT035SS316	20	35
HT040SS316	25	40
HT045SS316	25	45
HT050SS316	30	50
HT055SS316	35	55
HT060SS316	40	60
HT065SS316	45	65
HT070SS316	40	70
HT080SS316	60	80
HT095SS316	70	95
HT100SS316	80	100
HT120SS316	90	120
HT140SS316	110	140
HT160SS316	130	160
HT180SS316	150	180
HT200SS316	170	200
HT220SS316	190	220
HT240SS316	210	240
HT260SS316	230	260
HT280SS316	250	280
HT300SS316	270	300
HT320SS316	290	320
HT340SS316	310	340
HT360SS316	330	360
HT380SS316	350	380
HT400SS316	370	400
HT420SS316	390	420
HT440SS316	410	440
HT460SS316	430	460
HT480SS316	450	480
HT500SS316	470	500
HT520SS316	490	520



CLAMPS & HOSE CLIPS



Jubilee® Flexiband

Tool used to apply Jubilee® Flexiband bands and buckles.



Flexiband Tool

6666

FBT

Tech Sheet 68252

304 stainless steel banding and buckles, used for applications such as sign fixing where the tamper-proof nature of the product is of paramount importance.

stainless steel



Flexiband Banding, 304 Stainless Steel, 30 Metre Lengths

6666	Band Width mm	Band Thickness mm
FB09B	9	0.65
FB13B	13	0.75
FB16B	16	0.75
FB19B	19	0.75

Tech Sheet 68252

stainless steel



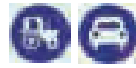
Flexiband Buckles, 304 Stainless Steel, Pack of 25

6666	Band Width mm
FB13H	13
FB19H	19

Tech Sheet 68252

Jubilee® Juniors Nut & Bolt Clips

To suit petrol pipe, heaters and small bore hoses.



Mild Steel, Zinc Plated

6666	Min Size mm	Max Size mm
NB0709	7	9
NB0810	8	10
NB0911	9	11
NB1012	10	12
NB1113	11	13
NB1214	12	14
NB1315	13	15
NB1416	14	16
NB1517	15	17
NB1618	16	18

Tech Sheet 10310

Jubilee® Handy Packs

The most popular sizes of premium brand Jubilee® hose clips, individually boxed and handily packed in their own outer display carton.

Pack consists of ten of each size: 000, M00, 00, 0, OX, 1A, 1, 1X, 1M and 2A.



Mild Steel, Zinc Plated

6666
HP100MS

Tech Sheet 10584



304 Stainless Steel

6666
HP100SS

stainless steel

Jubilee® Pocket Packs

Never again be caught out without that essential Jubilee® clip to complete the job. The compact container holds a useful selection of clips for all those necessary hose jointing applications as well as holding nuts and bolt clips for joining small bore hoses and petrol pipes.

Pack consists of four each of 00, 0, OX, NB0709 and NB1113, and two of each of 1 and 1X.



Mild Steel, Zinc Plated

6666

PPAUTO

Working Temperature: -50°C to +150°C See data sheet for pack contents



Pocket Pack, 32 Pieces

6666	Material
PP-MS	Mild Steel
PP-SS	304 Stainless Steel

Tech Sheet 60241



CLAMPS & HOSE CLIPS



Jubilee® Clip Dispensers

These essential dispensers are easily re-stockable and also carries the extremely useful Flexidriver tool for easy adjustment of Jubilee clips. This can be wall mounted or left free standing.

Contents:

Size	Quantity
000	10
M00	10
00	10
0	10
OX	10
1A	10
1	10
1X	10
1M	10
2A	10
Jubilee	3
Flexidriver®	



Mild Steel, Zinc Plated

6666
CD-100MS



304 Stainless Steel

6666
CD-100SS

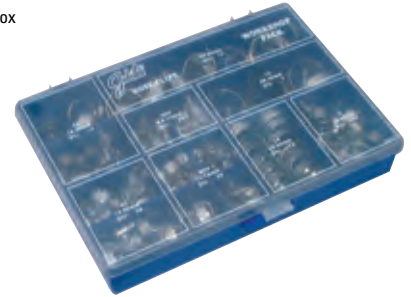
stainless steel

Jubilee® Workshop Pack

- Assorted Jubilee mild steel clips in a plastic re-usable box

Contents:

Size	Quantity
000	24
M00	32
00	28
0	13
OX	14
1A	12
1	13
1X	7



Mild Steel

6666
HCP143

Tech Sheet 1938

stainless steel

304 Stainless Steel

6666
HCP143SS

Tech Sheet 1938

stainless steel

316 Stainless Steel

6666
HCP143SS316

Tech Sheet 1938

Jubilee® Junior Assortment Pack

- 165 Assorted nut and bolt clips (for use on small bore hoses) in a plastic re-usable box

Contents:

Size	Quantity
07-09mm	25
08-10mm	25
09-11mm	25
10-12mm	30
11-13mm	30
12-14mm	30



Mild Steel

6666
JA165

Tech Sheet 1938

stainless steel

304 Stainless Steel

6666
JA165SS

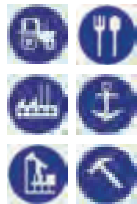
Tech Sheet 1938

CLAMPS & HOSE CLIPS



Jubilee® Superclamps

Jubilee® Superclamps are manufactured in mild steel zinc plated, all 304 stainless and all 316 stainless steel and the later are predominantly suitable for applications where high corrosion resistance is required. These powerful clamps are ideal for marine and offshore oil and gas applications, as well as the food and chemical industries.



Mild Steel, Zinc Plated

6666	Min Size mm	Max Size mm
JSC19	17	19
JSC22	20	22
JSC25	23	25
JSC28	26	28
JSC31	29	31
JSC35	32	35
JSC39	36	39
JSC43	40	43
JSC47	44	47
JSC51	48	51
JSC55	52	55
JSC59	56	59
JSC63	60	63
JSC67	64	67
JSC73	68	73
JSC79	74	79
JSC85	80	85
JSC91	86	91
JSC97	92	97
JSC103	98	103
JSC112	104	112
JSC121	113	121
JSC130	122	130
JSC139	131	139
JSC148	140	148
JSC161	149	161
JSC174	162	174
JSC187	175	187
JSC200	188	200
JSC226	214	226
JSC239	227	239

Tech Sheet 590

These clamps can also be used in place of SAE J1508 type TB or T-Bolt style clamps.

Superclamps are particularly suitable for delivery and suction hoses requiring a very tight seal and agricultural applications, waste water extraction, mining, quarrying or in other sectors where a heavy-duty clamp is required.



stainless steel

304 Stainless Steel

6666	Min Size mm	Max Size mm
JSC19SS304	17	19
JSC22SS304	20	22
JSC25SS304	23	25
JSC28SS304	26	28
JSC31SS304	29	31
JSC35SS304	32	35
JSC39SS304	36	39
JSC43SS304	40	43
JSC47SS304	44	47
JSC51SS304	48	51
JSC55SS304	52	55
JSC59SS304	56	59
JSC63SS304	60	63
JSC67SS304	64	67
JSC73SS304	68	73
JSC79SS304	74	79
JSC85SS304	80	85
JSC91SS304	86	91
JSC97SS304	92	97
JSC103SS304	98	103
JSC112SS304	104	112
JSC121SS304	113	121
JSC130SS304	122	130
JSC139SS304	131	139
JSC148SS304	140	148
JSC161SS304	149	161
JSC174SS304	162	174
JSC187SS304	175	187
JSC200SS304	188	200
JSC213SS304	201	213
JSC226SS304	214	226
JSC239SS304	227	239

Tech Sheet 590

- Single nut adjustment
- Smooth band protects hose
- Bridge piece ensures 360° seal
- Solid trunion maximises torque
- Assembly by manual or automatic tools
- Chromium VI free finish on all materials



stainless steel

316 Stainless Steel

6666	Min Size mm	Max Size mm
JSC19SS316	17	19
JSC22SS316	20	22
JSC25SS316	23	25
JSC28SS316	26	28
JSC31SS316	29	31
JSC35SS316	32	35
JSC39SS316	36	39
JSC43SS316	40	43
JSC47SS316	44	47
JSC51SS316	48	51
JSC55SS316	52	55
JSC59SS316	56	59
JSC63SS316	60	63
JSC67SS316	64	67
JSC73SS316	68	73
JSC79SS316	74	79
JSC85SS316	80	85
JSC91SS316	86	91
JSC97SS316	92	97
JSC103SS316	98	103
JSC112SS316	104	112
JSC121SS316	113	121
JSC130SS316	122	130
JSC139SS316	131	139
JSC148SS316	140	148
JSC161SS316	149	161
JSC174SS316	162	174
JSC187SS316	175	187
JSC213SS316	201	213
JSC226SS316	214	226

Tech Sheet 590



For Suction Hose
see page 1427



MIKALOR



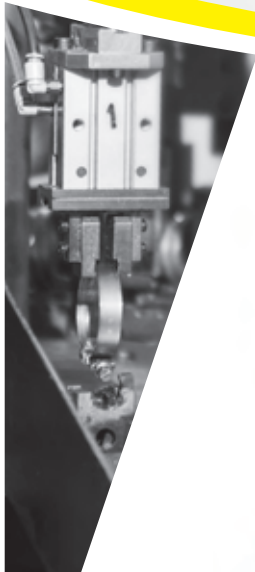
ASFA HIGH TORQUE 16 mm bandwidth



No
PERFORATIONS

Available
in W3 / W4

Top
PERFORMANCE



SUPRA
heavy duty clamp



EAR CLIPS



**LEADERS
IN
INNOVATION
AND
QUALITY**



Mikalor Hose Clamps & Clips

Mikalor is a leading European manufacturer of hose clamps and clips based in Barcelona, Spain. Famous for the market-leading Supra clamp, Mikalor manufactures an extensive range of DIN 3017 clamps which are IATF 16949 approved for automotive use, DIN 3016 P-clips as well as a growing range of constant tension clamps, spring clips, O-clips etc.

Mikalor was the first company to design and produce heavy-duty hose clamp, and since then the **Super clamp** has gone from strength to strength.

The high strength 8.8 grade steel nut and T-bolt mean that Super can be tightened up hard using many different kinds of tools, while the bevelled edges protect the hose from harm.

The Super clamp is in its element in agricultural applications, waste water extraction, mining, quarrying or in other sectors where a rugged yet competitively priced heavy-duty clamp is required.

Material:

Band and bridge: Stainless Steel X6Cr17 AISI-430

Screw: Qst 34-3 Steel (DIN 1.0213) 8.8 Grade Steel

Finish: Stainless Steel



Super Heavy-duty Clamp

5556	Min Size mm	Max Size mm
SBC1719	17	19
SBC2022	20	22
SBC2325	23	25
SBC2628	26	28
SBC2931	29	31
SBC3235	32	35
SBC3639	36	39
SBC4043	40	43
SBC4447	44	47
SBC4851	48	51
SBC5255	52	55
SBC5659	56	59
SBC6063	60	63
SBC6467	64	67
SBC6873	68	73
SBC7479	74	79
SBC8085	80	85
SBC8691	86	91
SBC9297	92	97
SBC98103	98	103
SBC104112	104	112
SBC113121	113	121
SBC122130	122	130
SBC131139	131	139
SBC140148	140	148
SBC149161	149	161
SBC162174	162	174
SBC175187	175	187
SBC188200	188	200
SBC201213	201	213
SBC214226	214	226
SBC227239	227	239
SBC240252	240	252

Tech Sheet 1739

Due to its revolutionary swivelling bridge, the **Supra Clamp** can be mounted in the most awkward applications without having to remove the hose. It can be opened and fastened again when in place without dislodging any other parts of the clamp, making assembly much easier.

The high-strength bolt, designed and manufactured by Mikalor specifically for this clamp, together with the captive nut and spacer system allow you to clamp the most demanding of hose assemblies. This is the clamp of choice for professionals in the industrial hose, automotive and agricultural machinery sectors as well as in all industrial applications where an outstanding and above all reliable heavy-duty clamp is required.

Material:

Band and bridge: Stainless Steel X6Cr17 AISI-430

Screw: Qst 34-3 Steel (DIN 1.0213) 8.8 Grade Steel

Finish: Stainless Steel



Supra Heavy-duty Clamp W2

5556	Min Size mm	Max Size mm
MS1901	17	19
MS1902	19	21
MS1903	21	23
MS1904	23	25
MS1905	25	27
MS1906	27	29
MS1907	29	31
MS1908	31	34
MS1909	34	37
MS1910	37	40
MS1911	40	43
MS1912	43	47
MS1913	47	51
MS1914	51	55
MS1915	55	59
MS1916	59	63
MS1917	63	68
MS1918	68	73
MS1919	73	79
MS1920	79	85
MS1921	85	91
MS1922	91	97
MS1923	97	104
MS1924	104	112

5556	Min Size mm	Max Size mm
MS1925	112	121
MS1926	121	130
MS1927	130	140
MS1928	140	150
MS1929	150	162
MS1930	162	174
MS1931	174	187
MS1932	187	200
MS1933	200	213
MS1934	213	226
MS1935	226	239
MS1936	239	252
MS1937	252	265
MS1938	265	278
MS1939	278	291
MS1940	291	304
MS1941	304	317
MS1942	317	330
MS1943	330	343
MS1944	343	356
MS1945	356	369
MS1946	369	382
MS1947	382	395
MS1948	395	408

Tech Sheet 1740

Available in the following material qualities:



AISI 430
STAINLESS STEEL



AISI 304
STAINLESS STEEL



AISI 316
STAINLESS STEEL

HOSE CLAMPS

This top of the range heavy-duty clamp is ideal for marine applications, foodstuff manufacture, pharmaceutical and petrochemical industries and other applications where AISI 316 stainless steel fittings are required

Supra Heavy-duty Clamp W4

Material:
Band and bridge: Stainless Steel X5CrNi 18010 AISI-304

Screw: AISI-304 Stainless Steel

Finish: Stainless Steel

stainless steel

5556	Min Size mm	Max Size mm
SS1301	17	19
SS1302	19	21
SS1303	21	23
SS1304	23	25
SS1305	25	27
SS1306	27	29
SS1307	29	31
SS1308	31	34
SS1309	34	37
SS1310	37	40
SS1311	40	43
SS1312	43	47
SS1313	47	51
SS1314	51	55
SS1315	55	59
SS1316	59	63
SS1317	63	68
SS1318	68	73
SS1319	73	79
SS1320	79	85
SS1321	85	91
SS1322	91	97
SS1323	97	104
SS1324	104	112

5556	Min Size mm	Max Size mm
SS1325	112	121
SS1326	121	130
SS1327	130	140
SS1328	140	150
SS1329	150	162
SS1330	162	174
SS1331	174	187
SS1332	187	200
SS1333	200	213
SS1334	213	226
SS1335	226	239
SS1336	239	252
SS1337	252	265
SS1338	265	278
SS1339	278	291
SS1340	291	304
SS1341	304	317
SS1342	317	330
SS1343	330	343
SS1344	343	356
SS1345	356	369
SS1346	369	382
SS1347	382	395
SS1348	395	408

Tech Sheet 1741

Supra Heavy-duty Clamp W5

Material:
Band and bridge: Stainless Steel X5CrNi

MO 1712 AISI-316

Screw:

Stainless Steel

AISI-316 Cu

Finish: Stainless Steel

5556	Min Size mm	Max Size mm
03013614	17	19
03013622	19	21
03013630	21	23
03013649	23	25
03013657	25	27
03013665	27	29
03013673	29	31
03013681	31	34
03013690	34	37
03013702	37	40
03013710	40	43
03013729	43	47
03013737	47	51
03013745	47	51
03013753	55	59
03013761	59	63
03013770	63	68
03013788	68	73
03013796	73	79
03013809	79	85
03013817	85	91
03013825	91	97
03013833	97	104
03013841	104	112
03013850	112	121
03013868	121	130
03013876	130	140
03013884	140	150
03013892	150	162
03013905	162	174
03013913	174	187
03013921	187	200
03013930	200	213
03013948	213	226
03013956	226	239
03013964	239	252
03013971	252	265
03013981	265	278
03013982	278	291
03013983	291	304
03013984	304	317
03013985	317	330
03013986	330	343
03013991	343	356
03013992	356	369
03013993	369	382
03013994	382	395
03013995	395	408

For Automotive Tubing
see page 910


Available in the following material qualities:

AISI 430
STAINLESS STEEL

AISI 304
STAINLESS STEEL

AISI 316
STAINLESS STEEL

Supra Constant Tension Heavy-duty Clamp



The hose clamp that adapts itself to variations of pressure and temperature.



The Supra CT clamp incorporates a bespoke bolt and a series of conical washers to the already outstanding Supra clamp. This specialized version of the Supra clamp is used in applications subject to vibration and/or great variations in temperature which can cause the spring washer system, the Supra CT maintains constant pressure around the hose despite variations in temperature or vibration.

This clamp is generally fitted in combustion engines in construction machinery, trucks, tractors, buses, marine engines, military vehicles and diesel-powered generators. The bevelled edges protect the hose from damage.

Supra CT

Material:

Band and bridge:

Stainless Steel X8Cr17 AISI-430

Screw: 8.8 Grade Steel

Washers and Trunnions:

Stainless Steel AISI-304

Finish: Stainless Steel

Supra Constant Tension Heavy-duty Clamp W2

5556	Min Size mm	Max Size mm
CT0302021-4	43	47
CT0302023-0	51	55
CT0302025-7	59	63
CT0302029-0	79	85
CT0302030-2	85	91
CT0302031-0	91	97
CT0302034-5	112	121
Tech Sheet 1742		

Other sizes available on request

Available in the following material qualities:



AISI 430
STAINLESS STEEL



AISI 304
STAINLESS STEEL



AISI 316
STAINLESS STEEL

HOSE CLIPS

Supra 2-Bolt Range

The **SUPRA 2-bolt** heavy-duty clamp is an ideal solution for applications where increased performance and improved distribution of radial forces around the circumference of the band are required.

To ensure maximum clamping force, our bolts are manufactured in-house by **Mikalor** with an exclusively designed the outer hexagonal head, which guarantees the highest clamping force on the market.

The bevelled band edges avoid damage to the hose, making Supra safe and reliable to use.

This 2-bolt version of the Supra clamp is recommended for applications with an outer diameter (OD) over 270mm for use in sectors such as oil and gas, marine, agriculture, foodstuffs, hydraulics and chemicals, amongst others.



2 Bolt Supra Heavy-duty Hose Clamps W2

5556	Min Size mm	Max Size mm
03170001	270	280
03170003	280	290
03170005	285	295
03170007	315	325
03170009	345	355
03170011	370	385
03170013	395	410
03170015	420	435
03170017	445	460
03170019	470	485
03170021	495	510
03170023	520	535
03170025	545	560
03170027	570	585
03170029	595	610
03170031	620	635
03170033	650	665
03170035	680	695
03170037	715	730
03170039	740	755
03170041	765	780
03170043	790	805
03170045	820	835

Tech Sheet 17125

Available in the following material qualities:



MIKALOR

new
product

Supra, W4



2 Bolt Supra Heavy-duty Hose Clamps W4

5556	Min Size mm	Max Size mm
03180001	270	280
03180003	280	290
03180005	285	295
03180007	315	325
03180009	345	355
03180011	370	385
03180013	395	410
03180015	420	435
03180017	445	460
03180019	470	485
03180021	495	510
03180023	520	535
03180025	545	560
03180027	570	585
03180029	595	610
03180031	620	635
03180033	650	665
03180035	680	695
03180037	715	730
03180039	740	755
03180041	765	780
03180043	790	805
03180045	820	835

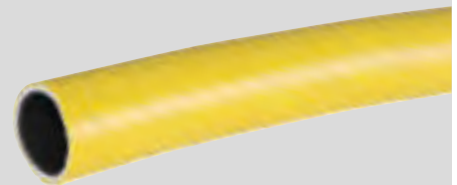
Supra, W5



2 Bolt Supra Heavy-duty Hose Clamps W5

5556	Min Size mm	Max Size mm
03190001	270	280
03190003	280	290
03190005	285	295
03190007	315	325
03190009	345	355
03190011	370	385
03190013	395	410
03190015	420	435
03190017	445	460
03190019	470	485
03190021	495	510
03190023	520	535
03190025	545	560
03190027	570	585
03190029	595	610
03190031	620	635
03190033	650	665
03190035	680	695
03190037	715	730
03190039	740	755
03190041	765	780
03190043	790	805
03190045	820	835

FT PRO®



For **Heavy-duty Agricultural Water Hose**
see page 1422

The Mikalor ASFA Worm-drive Clip Range

The **Mikalor DIN 3017 ASFA worm-drive clip range** is manufactured in material qualities ranging from W1 (zinc-plated mild steel) up to W5 (AISI 316 stainless steel) and in band widths ranging from 7mm up to 16mm. The range includes ASFA-CT constant tension clips with a spring insert and a also a black version with a Delta-Seal surface treatment. For extreme applications ASFA is also available in titanium with a PTFE surface treatment. The entire ASFA range is manufactured according to IATF 16949 and is fully compliant with the requirements of the automotive sector.

ASFA LW2 Worm-drive Clip

Material:

Band and Housing: Stainless Steel (AISI 430)

Screw: Steel Qst 36-3 (DIN 1.0214)

Finish:

Band and Housing: Stainless Steel

Screw: Grey-White Cr3 Zinc-Plated



430 Stainless Steel, 9mm Band Width

5556	Min Size mm	Max Size mm
0301650-8	8	12
0301651-6	8	16
0301652-4	12	22
0301653-2	16	27
0301654-0	20	32
0301655-9	25	40
0301656-7	30	45
0301657-5	32	50
0301658-3	40	60
0301659-1	50	70
0301660-4	60	80
0301661-2	70	90
0301662-0	80	100
0301663-9	90	110
0301667-1	130	150
0301668-0	140	160

Tech Sheet 68770

ASFA LW4 Worm-drive Clip

Material:

Band and Housing: Stainless Steel X5Cr Ni1810 (AISI 304)

Screw: Stainless Steel (AISI 304)

Finish: Stainless Steel

stainless steel



Stainless Steel, 9mm Band Width

5556	Min Size mm	Max Size mm
0301401-9	8	16
0301402-7	12	22
0301403-5	16	27
0301404-3	20	32
0301405-1	25	40
0301406-0	30	45
0301407-8	32	50
0301408-6	40	60
0301409-4	50	70
0301410-7	60	80
0301411-5	70	90
0301412-3	80	100
0301414-0	90	110
0301415-8	100	120
0301416-6	110	130
0301417-4	120	140
0301418-2	130	150
0301419-0	140	160

Tech Sheet 68184

ASFA W5 Worm-drive Clip

Material: Stainless Steel AISI 316

Finish: Stainless Steel

stainless steel



316 Stainless Steel, 9mm/12mm Band Width

5556	Min Size mm	Max Size mm
0301575-9	8	16
0301576-7	12	22
0301772-0	16	27
0301750-0	20	32
0301751-9	25	40
0301773-8	30	45
0301752-7	32	50
0301753-5	40	60
0301754-3	50	70
0301755-1	60	80
0301756-0	70	90
0301757-8	80	100
0301758-6	90	110
0301759-4	100	120
0301760-7	110	130
0301761-5	120	140
0301762-3	130	150
0301763-1	140	160
0301764-0	150	170
0301765-8	160	180
0301766-6	170	190
0301767-4	180	200
0301768-2	190	210
0301769-0	200	220
0301770-3	210	230
0301771-1	220	240

Tech Sheet 68185

Available in W1, W2, W3, W4 and W5

HOSE CLIPS

ASFA SW1 Worm-drive Clip

Material:
Band and housing: Galvanized Steel (DIN 1.0935)

Screw: Steel Qst 36-3 (DIN 1.0214)

Finish:
Band and housing: Galvanized Steel

Screw: Grey-White Cr3 Zinc-Plated


Galvanised Steel, 12mm Band Width

5556	Min Size mm	Max Size mm
0300900-1	16	27
0300900-2	20	32
0300900-3	25	40
0300900-4	30	45
0300900-5	32	50
0300900-6	40	60
0300900-7	50	70
0300900-8	60	80
0300900-9	70	90
0300901-0	80	100
0300901-1	90	110
0300901-2	100	120
0300901-3	110	130
0300901-4	120	140
0300901-5	130	150
0300901-6	140	160
0300901-7	150	170
0300901-8	160	180
0300901-9	170	190
0300902-0	180	200
0300902-1	190	210
0300902-3	210	230
0300902-4	220	240

Tech Sheet 68183

ASFA SW4 Worm-drive Clip

Material:
Band and Housing: Stainless Steel X5Cr Ni1810 (AISI 304)

Screw: Stainless Steel (AISI 304)

Finish: Stainless Steel


304 Stainless Steel, 12mm Band Width

5556	Min Size mm	Max Size mm
0301473-0	16	27
0301451-0	20	32
0301452-9	25	40
0301474-8	30	45
0301453-7	32	50
0301454-5	40	60
0301455-3	50	70
0301456-1	60	80
0301457-0	70	90
0301458-8	80	100
0301459-6	90	110
0301460-9	100	120
0301461-7	110	130
0301462-5	120	140
0301463-3	130	150
0301464-1	140	160
0301465-0	150	170
0301466-8	160	180
0301467-6	170	190
0301468-4	180	200
0301469-2	190	210
0301471-3	210	230
0301472-1	220	240

Tech Sheet 68186

ASFA LW3 Worm-drive Clip (Black Finish)

This clamp is manufactured in AISI 430 with an additional matt-black surface treatment which increases its corrosion resistance. Thanks to the surface treatment, this clamp can be mounted discreetly in any application, making it a favourite in automotive or motorcycle applications.

Screw: AISI 430 stainless steel

Band and Housing: Stainless steel X6Cr-17 (DIN 1.4016) (AISI-430)

Finish: Black

stainless steel


430 Stainless Steel, 9mm Band Width

5556	Min Size mm	Max Size mm
73016011	8	16
73016020	12	22
73016038	16	27
73016046	20	32
73016062	25	40
73016070	30	45
73016089	32	50
73016095	40	60
73016100	50	70
73016118	60	80

Tech Sheet 20467

For **Automotive Hose & Tube**
see page **1417**



Available in W1, W2, W3, W4 and W5

HOSE CLIPS

ASFA SW3 Constant Tension Worm-drive Clips

12mm band width **Constant Tension worm-drive clips** are designed to be used primarily in the automotive sector. The main advantage of this clip over the standard Mikalor worm drive is to be found in the spring-loaded insert, fitted on a semi-circular support to the inside of the band.

The use of this spring-loaded insert guarantees constant pressure around the hose and the optimum performance of the clamp in case of variations in temperature, pressure or vibration. For this reason, constant tension worm-drive clips are used mainly with tubes or hoses carrying hot air or on engine refrigeration systems, as clamps used in these applications are subject to expansion and contraction due to frequent changes in temperature. ASFA CT worm-drive clips are manufactured entirely from stainless steel, thereby ensuring good corrosion resistance.

W3 S-Band Constant Tension Worm-drive Clips

Material: AISI-430 Stainless Steel
Spring-loaded insert: AISI-410 Stainless Steel
Finish: Stainless Steel

stainless steel



5556	Min Size mm	Max Size mm
03017800	16	27
03017818	20	32
03017834	30	45
03017842	32	50
03017850	40	60
03017869	50	70
03017877	60	80
03017885	70	90
03017893	80	100
03017906	90	110
03017914	100	120
03017922	110	130

Tech Sheet 20096

ASFA High-Torque (16 mm) Hose Clamp

Mikalor High-Torque Clamps were designed to guarantee maximum performance in the most demanding applications. Thanks to the use of an M8 screw and the choice of 16mm bandwidth, torque values can be applied which are far higher than those used with the standard ASFA range, thereby ensuring perfect performance in high-pressure applications.

The High-Torque clamp is particularly popular in industrial and automotive applications due to its outstanding performance. The perfectly rounded bevelled band edges avoid the clamp cutting into or damaging the hose.

Material:
Band and Housing: Stainless Steel X6Cr17 (AISI 430)
Screw: Stainless Steel (AISI 304 CU)
Finish: Stainless Steel



ASFA High-Torque W3 Worm-drive Hose Clip

5556	Min Size mm	Max Size mm
03066001	25	45
03066002	32	54
03066003	45	67
03066004	57	79
03066005	70	92
03066006	83	105
03066007	95	118
03066008	108	130
03066009	121	143
03066010	133	156
03066011	146	168
03066012	159	181
03066013	172	194
03066014	184	206
03066015	197	219
03066016	210	232

High Torque Worm-drive Clips



High Torque Worm-drive Hose Clip W4

5556	Min Size mm	Max Size mm
03067001	25	45
03067002	32	54
03067003	45	67
03067004	57	79
03067005	70	92
03067006	83	105
03067007	95	118
03067008	108	130
03067009	121	143
03067010	133	156
03067011	146	168
03067012	159	181
03067013	172	194
03067014	184	206
03067015	197	219
03067016	210	232

Worm-drive Accessories



Safety Collars

5556	Colour
02170371	Red
02170380	Blue

Safety Cap

5556	Size mm	Colour
02170401	9mm	Red
02170411	9mm	Blue
02170441	12mm	Red
02170451	12mm	Blue

Available in W1, W2, W3, W4 and W5

HOSE CLIPS

MIKALOR
**new
product**

Assortment Box

- Includes No.7 flexible screwdriver.

Contents (ASFA-L):

Size	Quantity
8-16mm	20
12-22mm	20
16-27mm	20
20-32mm	20
25-40mm	15
32-50mm	10
40-60mm	5

Contents (ASFA-S):

Size	Quantity
16-27mm	20
20-32mm	15
25-40mm	15
30-45mm	10
32-50mm	8
40-60mm	5



ASFA Worm-drive Assortment Boxes

5556	Description	Kit Quantity
03503201	ASFA-L W1	110
03503211	ASFA-L W2	110
03503221	ASFA-L W4	110
03503231	ASFA-S W1	73
03503241	ASFA-S W2	73
03503251	ASFA-S W4	73
03503261	ASFA-S W5	73

- Includes clamping pliers.

Contents:

Size	Quantity	Size	Quantity
5-7mm	50	15-18mm	50
7-9mm	50	17-20mm	30
9-11mm	50	20-23mm	25
11-13mm	50	22-25mm	20
13-15mm	50		



Ear Clips

5556	Description
03503116	Assortment 2-Ear Clip W1
03503124	Assortment 2-Ear Clip W4

Contents (W1):

Size	Quantity
6/15	12
8/15	10
10/15	10
12/15	8
14/15	6
15/15	6
16/15	6
20/15	4

Contents (W4):

Size	Quantity
6/15	12
8/15	10
10/15	10
12/15	8
14/15	8
15/15	6
16/15	6
18/15	4



P Clips

5556	Description
03503271	Assortment DIN 3016 P-Clip W1 (62 Pieces)
03503281	Assortment DIN 3016 P-Clip W4 (64 Pieces)

Available in W1 and W4

Tools



Pliers

5556	Description
03011096	Side-Closing Ear Clip Pliers
03011088	Front-Closing Ear Clip Pliers

The 7mm hex-socket flexidriver is ideal for tightening Mikalor ASFA Clamps.



7mm Hex-Socket Flexidriver

5556	Description
03091036	

CLIP PACKS



Hi-Grip Mild Steel Assorted Pack

- Size ranging from 12mm up to 50mm



135 Assorted, Mild Steel Zinc Plated Clips

5557
HGZAB1

Hi-Grip Stainless Steel Assorted Pack

- Size ranging from 12mm up to 50mm

stainless steel



135 Assorted, 18/8 Marine, Quality BS304 Stainless Steel Clips

5557
HGSAB1

Zinc Plated Mini Clips Assorted Pack

- Diameter Ranges: 7mm-9mm, 8mm-10mm, 9mm-11mm, 10mm-12mm, 11mm-13mm, 12mm-14mm, 13mm-15mm, 14mm-16mm, 15mm-17mm, 16-18mm



157 Assorted, Zinc Plated Mini Clips

5557
MCZAB1

Flexible Driver

Purpose made for all HI-GRIP hose clips with stainless steel shaft and socket.



5557
DHG2BG

T-Bar Driver

Suitable for all HI-TORQUE fittings



5557
DHT3BG

COUNTER DISPENSERS



These new counter dispensers are an ideal point of sale unit for the Automotive, Food, Pharmaceutical and Industrial markets.

Hi-Grip, Zinc Plated

100 Clips sizes:
12mm - 50mm x 10
1 x Flexible Driver



100 Clip Dispenser

5557
DISPKZ1

160 Clips sizes:
12mm - 100mm x 10
1 x Flexible Driver



160 Clip Dispenser

5557
DISPKZ2

Hi-Grip, Stainless Steel

100 Clips sizes:
12mm - 50mm x 10
1 x Flexible Driver

stainless
steel



100 Clip Dispenser

5557
DISPKS1

160 Clips sizes:
12mm - 100mm x 10
1 x Flexible Driver

stainless
steel



160 Clip Dispenser

5557
DISPKS2

WORM DRIVE HOSE CLAMPS



Hi-Torque Heavy-duty

Material:

Band and Housing BS304, Screw Hardened to BS410.

Hi-Torque 18/8 Marine available upon request.

stainless steel



5557	Min Size mm	Max Size mm
HT27	20	27
HT30	20	30
HT35	20	35
HT40	25	40
HT45	25	45
HT50	30	50
HT60	40	60
HT65	45	65
HT70	50	70
HT80	60	80
HT90	70	90
HT95	75	95
HT100	80	100
HT120	90	120
HT140	110	140
HT160	130	160
HT180	150	180
HT200	170	200
HT220	190	220
HT240	210	240
HT260	230	260
HT280	250	280
HT320	290	320
HT340	310	340
HT360	330	360
HT380	350	380
HT400	370	400
HT420	390	420
HT440	410	440
HT460	430	460
HT480	450	480
HT500	470	500

Hi-Grip Worm-drive Hose Clip

Material:

Mild Steel, Zinc Plated.



Wing Screw to BS5315

5557	Min Size mm	Max Size mm
510-12	9.5	12
510-16	11	16
510-20	13	20
510-22	14	22
510-25	17	25
510-30	22	30
510-35	25	35
510-40	30	40
510-45	35	45
510-50	35	50
510-55	40	55
510-60	45	60
510-80	60	80

Hi-Grip WDHC



Hi-Grip Mild Steel

5557	Min Size mm	Max Size mm
WDHC000	9.5	12
WDHCM00	11	16
WDHC00	13	20
WDHC0	14	22
WDHC0X	17	25
WDHC1A	22	30
WDHC1	25	35
WDHC1X	30	40
WDHC45	35	45
WDHC2A	35	50
WDHC2	40	55
WDHC2X	45	60
WDHC3	50	70
WDHC3X	60	80
WDHC4	70	90
WDHC4X	80	100
WDHC5	90	120
WDHC6	110	140
WDHC7	130	160
WDHC8	150	180
WDHC200	170	200
WDHC220	190	220
WDHC240	210	240
WDHC260	230	260
WDHC280	250	280
WDHC300	270	300

stainless steel

Hi-Grip Stainless Steel

5557	Min Size mm	Max Size mm
WDHC000-SS	9.5	12
WDHCM00-SS	11	16
WDHC00-SS	13	20
WDHC0-SS	14	22
WDHC0X-SS	17	25
WDHC1A-SS	22	30
WDHC1-SS	25	35
WDHC1X-SS	30	40
WDHC45-SS	35	45
WDHC2A-SS	35	50
WDHC2-SS	40	55
WDHC2X-SS	45	60
WDHC3-SS	50	70
WDHC3X-SS	60	80
WDHC4-SS	70	90
WDHC4X-SS	80	100
WDHC5-SS	90	120
WDHC6-SS	110	140
WDHC7-SS	130	160
WDHC180-SS	150	180
WDHC200-SS	170	200
WDHC220-SS	190	220
WDHC240-SS	210	240
WDHC260-SS	230	260



For Hi-Vis Air & Water RPVC Hose
see page 1408



CLAMPS & HOSE CLIPS



A World Leader in the design & supply of sealing, connecting & clamping solutions.

High performance products specified by the world's leading manufacturers for all their hose, tube and pipe applications.

- Specially designed for the perfect seal
- Quality Assured engineering and manufacture to ISO 9002, QS 9000 and ISO 14001.
- Over 3 million parts produced EVERY day allows us to give the customer exceptional value.

NORMA® Hose Clips

- Top Sealing Performance through its Unique Design



Mild Steel Alu-Zinc Plated

7777	Min Size mm	Max Size mm	Band Width mm
NOR-000	8	12	9
NOR-M00	10	16	9
NOR-00	12	22	9
NOR-0	16	27	12
NOR-1A	20	32	12
NOR-1	25	40	12
NOR-2A	35	50	12
NOR-2	40	60	12
NOR-2X	40	60	12
NOR-3	50	70	12
NOR-3X	60	80	12
NOR-4	70	90	12
NOR-4X	80	100	12
NOR-5	90	110	12

- Top Sealing Performance through its Unique Design

stainless steel



All Stainless Steel

7777	Min Size mm	Max Size mm	Band Width mm
NOR-SS-75-12	8	12	7.5
NOR-SS-75-16	10	16	7.5
NOR-SS-75-18	12	18	7.5
NOR-SS-000	8	16	9
NOR-SS-M00	8	16	9
NOR-SS-00	12	22	9
NOR-SS-0	16	27	12
NOR-SS-1A	20	32	12
NOR-SS-1	25	40	12
NOR-SS-1X	25	40	12
NOR-SS-2A	32	50	12
NOR-SS-2	40	60	12
NOR-SS-2X	40	60	12
NOR-SS-3	50	70	12
NOR-SS-3X	60	80	12
NOR-SS-4	70	90	12
NOR-SS-4X	80	100	12
NOR-SS-5	90	110	12

NORMA® High Torque Hose Clips

- Recommended Tightening Torque 17 Nm (150lb in)

stainless steel



All Stainless Steel, 16mm Band Width

7777	Min Size mm	Max Size mm
NOR-HD45	25	45
NOR-HD54	32	54
NOR-HD67	45	67
NOR-HD79	57	79
NOR-HD92	70	92
NOR-HD118	95	118
NOR-HD130	108	130
NOR-HD143	121	143
NOR-HD168	146	168
NOR-HD181	159	181
NOR-HD194	172	194

NORMA® Clamp GBS M Heavy-duty Clamp

- Up to 70% higher band tension than leading competitor
- Wide clamping range 17mm to 252mm
- Environmentally friendly - Chrome VI Free
- Mechanically locked so no spot weld weakness
- Rounded band edges for hose protection
- DIN 3017 Accredited



Clamps Supplied in W2 Material

7777	Min Size mm	Max Size mm
NOR-05917182018	17	19
NOR-05917182020	19	21
NOR-05917182022	21	23
NOR-05917182024	23	25
NOR-05917182026	25	27
NOR-05917182028	27	29
NOR-05917182030	29	31
NOR-05917182033	31	34
NOR-05917182036	34	37
NOR-05917182039	37	40
NOR-05917182042	40	43
NOR-05917202045	43	47
NOR-05917202049	47	51
NOR-05917202053	51	55
NOR-05917202057	55	59
NOR-05917202061	59	63
NOR-05917202066	63	68
NOR-05917252071	68	73
NOR-05917252076	73	79
NOR-05917252082	79	85
NOR-05917252088	85	91
NOR-05917252094	91	97
NOR-05917252101	97	104
NOR-05917252108	104	112
NOR-05917252117	112	121
NOR-05917252126	121	130
NOR-05917302135	130	140
NOR-05917302145	140	150
NOR-05917302156	150	162
NOR-05917302168	162	174
NOR-05917302181	174	187
NOR-05917302194	187	200
NOR-05917302207	200	213
NOR-05917302220	213	226
NOR-05917302233	226	239
NOR-05917302246	239	252



For Polyethylene
Pipe Insulation
see page 1215

CLAMPS, CLIPS & FASTENERS



NORMA® Hose Clamps & Clips



Normaclamp Worm-drive Quick Lock W2B

7777	Clamp Range mm
8156120050	32-50
8156120060	40-60
8156120145	60-145
8156120170	60-170
8156120270	60-270
8156120325	60-325
8156120380	60-380
8156130135	60-135

NORMA® Quick Assembly 1 Piece Cobra Hose Clips

- Low Profile, Easy Fit Hose Clip

stainless steel



Stainless Steel

7777	To Suit Hose OD mm	Band Width mm
NOR-COBRA75	7.5	7
NOR-COBRA8	8	7
NOR-COBRA9	9	7
NOR-COBRA10	10	7
NOR-COBRA105	10.5	7
NOR-COBRA11	11	7
NOR-COBRA115	11.5	7
NOR-COBRA12	12	8
NOR-COBRA13	13	8
NOR-COBRA14	14	8
NOR-COBRA15	15	8
NOR-COBRA16	16	8
NOR-COBRA17	17	8
NOR-COBRA18	18	8
NOR-COBRA19	19	8
NOR-COBRA20	20	8
NOR-COBRA21	21	8
NOR-COBRA24	24	8
NOR-COBRA26	26	8
NOR-COBRA27	27	8
NOR-COBRA28	28	8
NOR-COBRA29	29	8

Cobra Clip Hand Tool



7777
1108420000



For **Jointing Compounds & Sealants**
see page **1391**

O CLIPS



O Clips



Mild Steel

5559	Nominal Size	Min Size mm	Max Size mm
NO5-7	1/4"	5	7
NO7-9	5/16"	7	9
NO9-11	7/16"	9	11
NO9-12	7/16"	9	12
NO11-13	1/2"	11	13
NO13-15	9/16"	13	15
NO14-17	19/32"	14	17
NO15-18	5/8"	15	18
NO17-20	3/4"	17	20
NO19-22	13/16"	19	21
NO20-23	7/8"	20	23
NO22-25	15/16"	22	25
NO23-27	1"	23	27
NO25-28	1.1/16"	25	28
NO28-31	1.3/16"	28	31
NO31-34	1.5/16"	31	34
NO34-37	1.7/16"	34	37
NO37-40	1.1/2"	37	40
NO40-43	1.5/8"	40	43

Tech Sheet 588

Assorted Kits

Contents:

Size	Quantity
9-11mm	34
11-13mm	26
13-15mm	18
14-17mm	14
15-18mm	24
17-20mm	20
18-21mm	20
22-25mm	12
Pincers	1



O Clips

5559	Material
OC-KIT-MS	Mild Steel

Tech Sheet 20468

Single Ear O Clips



Mild Steel

5559	Min Size mm	Max Size mm
2019-1080	7	9
2019-1084	8	10
2019-1093	11	13
2019-1094	12	14
2019-1096	14	16
2019-1098	16	18

Snap Clip, Acetal



0497	Min Size mm	Max Size mm
PC8-10	8	10
PC10-12	10	12
PC11-13	11	13
PC13-15	13	15
PC14-16	14	16
PC15-17	15	17
PC16-18	16	18
PC17-19	17	19
PC18-20	18	20
PC21-23	21	23
PC23-25	23	25
PC26-28	26	28
PC30-32	30	32

O Clip Pliers



5555
OP1



Clip Tools

6666	Function
P1099	Side Closing

Single Ear Hose Clamp

stainless steel



Stainless Steel, 5mm Band Width

5555	Min Size mm	Max Size mm
SEHC6.5	5	6.5
SEHC7	5.8	7
SEHC8	6.8	8
SEHC8.7	7	8.7
SEHC9.5	7.8	9.5
SEHC10.5	8.8	10.5

Tech Sheet 20411



Stainless Steel, 7mm Band Width

5555	Min Size mm	Max Size mm
SEHC11.3	9.6	11.3
SEHC11.9	10.2	11.9
SEHC12.3	10.6	12.3
SEHC13.3	10.8	13.3
SEHC14	11.5	14
SEHC14.5	12	14.5
SEHC15.3	12.8	15.3
SEHC16.2	13.7	16.2
SEHC17.5	15	17.5
SEHC18.5	15.3	18.5
SEHC19.2	16	19.2
SEHC22.6	19.4	22.6
SEHC23.5	20.4	23.6
SEHC24.1	20.9	24.1
SEHC27.1	23.9	27.1
SEHC32.1	28.9	32.1
SEHC34.6	31.4	34.6
SEHC41	37.8	41
SEHC42.5	39.3	42.5
SEHC44	40.8	44
SEHC51.5	48.3	51.5
SEHC63.5	60.3	63.5

Tech Sheet 20412

HOSE CLAMPS

MIKALOR

Mikalor O Clips

The use of one ear clips is an economical solution for many simple hose assemblies carrying air or fluids. They are ideal for use with simple hose assemblies which do not require high clamping force. The practical design of ear clips means that they are easy, fast and safe to mount. They are also tamper-proof once mounted. The edges are rounded to avoid damage to the hose.



Steel, Zinc Plated, 1 Ear

5556	Min Size mm	Max Size mm
03012072	8	10
03012013	9	11
03012021	10	12
03012030	11	12
03012048	12	14
03012056	14	16
03012064	16	18.5
Tech Sheet 1743		

Stainless Steel, 1 Ear

stainless steel

5556	Min Size mm	Max Size mm
23012440	7	9
23012087	8	10
23012010	9	11
23012028	10	12
23012036	11	13
23012044	12	14
23012079	12	15
23012052	14	16
23012458	15	17
23012060	16	18
23012423	17	19
23012431	18	20
Tech Sheet 1744		

The use of two ear clips is an economical solution for leaktight, simple hose assemblies on hoses transporting air, gas or other fluids

The two ears give the clip extra grip and help to maintain constant pressure around the hose. The edges are rounded to avoid damage to the hose and the assembly of this clamp is fast, safe and easy. The clamping range is greater than the one ear clip, meaning that the two-ear clip can be used on larger bore hoses. The practical design of two ear clips means that they clamp firmly onto the assembly and are tamper proof once mounted.



Steel, Zinc Plated, 2 Ear

5556	Min Size mm	Max Size mm
03012101	5	7
03012110	7	9
03012128	9	11
03012136	11	12
03012144	13	15
03012152	14	17
03012160	15	18
03012179	17	20
03012187	18	21
03012195	20	23
03012208	22	25
03012216	23	27
03012224	25	28
03012232	28	31
03012240	31	34
03012259	34	37
03012267	37	40
03012275	40	43
03012283	43	46
Tech Sheet 1743		

Stainless Steel, 2 Ear

stainless steel

5556	Min Size mm	Max Size mm
23012108	5	7
23012116	7	9
23012124	9	11
23012132	11	13
23012140	12	15
23012159	14	17
23012167	15	18
23012175	17	20
23012183	18	21
23012191	20	23
23012204	22	25
Tech Sheet 1744		

Mikalor O Clips with Stainless Steel Inner Ring

The fact that these clamps are used on very small-bore hoses means that the material of the tube or hose can sometimes be very flexible, making it more difficult to ensure a leaktight assembly due to the possible deformation of the hose. In these cases, the inner-ring is key in helping to guarantee leaktightness as well as protecting the hose from being pinched during assembly.



Steel, Zinc Plated, 1 Ear

5556	Min Size mm	Max Size mm
03011010	7.5	9.5
03011029	8.5	10.5
03011037	9.5	11.5
03011045	10.4	12.4
03011053	11.4	13.4
03011061	13.4	15.4
03011070	15.4	17.4
Tech Sheet 1745		

Stainless Steel, 1 Ear

stainless steel

5556	Min Size mm	Max Size mm
23012300	6.5	8.5
23012319	8.2	9.5
23012327	8.5	10.4
23012335	9.5	11.4
23012343	10.4	12.4
23012351	11.4	13.4
23012360	12.4	14.4
23012378	13.4	15.4
23012386	14.4	16.4
23012394	15.4	17.4
23012407	16.4	18.4
23012415	17.4	19.4
Tech Sheet 1745		

Available in W1 and W4

O CLIPS



2 Ear Clamp



Steel Zinc Plated DIN 1.0338

5562	Min Size mm	Max Size mm
OET0041	3.1	4.1
OET0045	3.5	4.5
OET0305	3	5
OET0507	5	7
OET0709	7	9
OET0811	8	11
OET0911	9	11
OET1113	11	13
OET1315	13	15
OET1517	15	17
OET1518	15	18
OET1619	16	19
OET1720	17	20
OET1922	19	22
OET2023	20	23
OET2225	22	25
OET2327	23	27
OET2528	25	28
OET2731	27	31
OET2831	28	31
OET3134	31	34
OET3437	34	37
OET3740	37	40
OET4043	40	43

Tech Sheet 10445



Stainless Steel DIN 1.4301

5562	Min Size mm	Max Size mm
0045R	3.5	4.5
0305R	3	5
0507R	5	7
0709R	7	9
0811R	8	11
0911R	9	11
1113R	11	13
1315R	13	15
1517R	15	17
1518R	15	18
1720R	17	20
1922R	19	22
2023R	20	23
2225R	22	25
2327R	23	27
2528R	25	28
2731R	27	31
2831R	28	31
3134R	31	34
3437R	34	37
3740R	37	40
4043R	40	43
4346R	43	46

Tech Sheet 10445

1 Ear Clamp



308 Stainless Steel DIN 1.4301

5562	Min Size mm	Max Size mm
061R	5.1	6.1
087R	7.5	8.7
090R	7.5	9
095R	8.1	9.5
105R	9.1	10.5
110R	9.3	11
113R	9.6	11.3
120R	10.1	12
128R	10.8	12.8
133R	11.3	13.3
138R	11.8	13.8
140R	12	14
145R	12.5	14.5
150R	13	15
168R	14.6	16.8
175R	15.3	17.5
185R	16.3	18.5
195R	17.2	19.5
200R	17.7	20
207R	17.9	20.7
210R	18.7	21
225R	19.9	22.5
245R	21.7	24.5
307R	27.2	30.7

Tech Sheet 10445

Oetiker 1-Ear Adjustable Clamps Stainless Steel



8mm Band

5562	Size Range mm
15900007	40.0 - 110.0



For Thermoplastic SAE 100R7 Hose
see page 13

O CLIPS



1 Ear Stepless® Clamps, Stainless Steel 1.4301/UNS S30400

Narrow band - Concentrates transmission of clamping force, less weight.

Stepless over 360° - Uniform compression or uniform surface pressure.

Clamp ear - Compensates for component tolerances, adjustable surface pressure

Dimple - Increases clamping force, spring-effect compensates for changes in diameter due to thermal expansion

Burr-free strip edges - Reduced risk of damage to parts being clamped



Band Width 5mm, Thickness 0.5mm

5562	Min Size mm	Max Size mm
16702488	5.3	6.5
16700001	5.8	7
16700002	6.8	8
16700003	7	8.7
16702491	7.3	9
16700004	7.8	9.5
16700005	8.3	10
16700006	8.8	10.5
16702492	9.2	10.9
16700007	9.6	11.3
16700008	10	11.8
Tech Sheet 10445		

Band Width 7mm, Thickness 0.6mm

5562	Min Size mm	Max Size mm
16702951	9.4	11.9
16700009	9.8	12.3
16702493	10.3	12.8
16700010	10.8	13.3
16700011	11.3	13.8
16700012	11.5	14
16702864	11.7	14.2
16700013	12	14.5
16700014	12.3	14.8
16700015	12.8	15.3
16700016	13.2	15.7
16702998	13.5	16
16702494	13.7	16.2
16702495	14.1	16.6
16702496	14.3	16.8
16700017	14.5	17
16702497	15	17.5
16700018	14.6	17.8
16700019	14.8	18
16700020	15.3	18.5
16700110	16	19.2
16702498	16.6	19.8
16700024	17.8	21
16700026	19.4	22.6
16700028	20.3	23.5
16700029	20.9	24.1
16702148	22.4	25.6
16700033	23.9	27.1
16700055	40.8	44
16700037	26.9	30.1
16702993	27.6	30.8
16700040	28.4	31.6

5562	Min Size mm	Max Size mm
16700042	29.9	33.1
16700044	31.4	34.6
16700046	32.9	36.1
16700048	34.4	37.6
16700050	34.9	38.1
16700052	36.4	39.6
16700053	37.8	41
16700054	39.3	42.5
16704055	25.4	28.6
16700055	40.8	44
16700056	42.3	45.5
16700057	43.8	47
16700058	45.3	48.5
16700059	46.8	50
16700061	49.8	53
16700063	52.8	56
16700065	55.8	59
16700067	58.8	62
16700069	61.8	65
16700071	64.8	68
16700073	67.8	71
16700075	70.8	74
16700077	73.8	77
16700079	76.8	80
16700081	79.8	83
16700086	87.3	90.5
16700092	96.3	99.5
16700094	96.3	102.5
Tech Sheet 10445		



For **Hose Tails**
see pages **1140-1148**

PIPE CLIPS & TOOL CLIPS



P Clips, 12.7mm Band, M6 Fixing Hole



Mild Steel, EPDM Liner

5559	Min Size mm
A980045	4
A980060	6
A980080	8
A980090	9
A980100	10
A980110	11
A980120	12
A980130	13
A980140	14
A980150	15
A980160	16
A980180	18
A980190	19
A980200	20
A980210	21
A980220	22
A980230	23
A980240	24
A980250	25
A980270	27
A980280	28
A980290	29
A980300	30
A980320	32
A980330	33
A980350	35
A980380	38
A980400	40
A980420	42
A980440	44
A980470	47
A980480	48
A980500	50
A980540	54
A980550	55
A980560	56
A980600	60
A980640	64
A980700	70

Tech Sheet 20458

stainless steel



Stainless Steel, EPDM Liner

5559	Min Size mm
D980050	5
D980060	6
D980080	8
D980090	9
D980100	10
D980120	12
D980130	13
D980140	14
D980160	16
D980180	18
D980200	20
D980210	21
D980220	22
D980250	25
D980280	28
D980300	30
D980320	32
D980340	34
D980380	38
D980400	40
D980440	44
D980480	48
D980500	50
D980520	52
D980550	55
D980560	56
D980570	57
D980600	60
D980660	66
D980700	70
D980800	80
D981000	100
D981100	110

Tech Sheet 20458

Tool Clips



Narrow Base

5559	Diameter mm
A270060	6
A270120	12
A270160	16
A270200	20
A270250	25
A270280	28
A270320	32
A270380	38
A270450	45
A270500	50
A270630	63

Tech Sheet 20461



Wide Base

5559	Diameter mm
A280060	6
A280100	10
A280120	12
A280160	16
A280200	20
A280250	25
A280280	28
A280320	32
A280380	38
A280500	50

Tech Sheet 20461



For **Hand Tools**
see pages **1729-1739**

CLAMPS & HOSE CLIPS



Jubilee® P Clips

Jubilee® P Clips are suitable for retaining pipes, cables and hoses. Jubilee® P Clips are manufactured from a flexible steel or stainless steel one-piece band with an ethylene-propylene-diene monomer (EPDM) rubber liner.

Working Temperature:
-50°C to +150°C



stainless steel

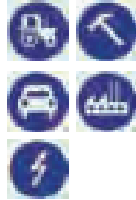


316 Stainless Steel (W5) EPDM Liner, M6.

6666	OD mm
JPC005SS316	5
JPC006SS316	6
JPC008SS316	8
JPC009SS316	9
JPC010SS316	10
JPC012SS316	12
JPC013SS316	13
JPC014SS316	14
JPC015SS316	15
JPC016SS316	16
JPC017SS316	17
JPC018SS316	18
JPC019SS316	19
JPC020SS316	20
JPC021SS316	21
JPC022SS316	22
JPC025SS316	25
JPC027SS316	27
JPC028SS316	28
JPC029SS316	29
JPC030SS316	30
JPC032SS316	32
JPC035SS316	35
JPC040SS316	40
JPC044SS316	44
JPC048SS316	48
JPC052SS316	52

- The band features a stepped design allowing the clip to sit flush with the rubber line. The single-piece construction means there are no joins, which makes the clip very strong.
- The upper hole has an elongated design allowing easy fitting of the clip.

Quality assurance: DIN3016
Corrosion resistance: 72-hour NSS test
Material: mild steel zinc-plated



Mild Steel Zinc Plated (W1), EPDM Liner, M5

6666	Min Size mm
JPC005MS	5
JPC006MS	6
JPC008MS	8
JPC010MS	10
JPC012MS	12
JPC013MS	13
JPC014MS	14
JPC015MS	15
JPC016MS	16
JPC017MS	17
JPC018MS	18
JPC019MS	19
JPC020MS	20
JPC021MS	21
JPC022MS	22
JPC025MS	25
JPC027MS	27
JPC028MS	28
JPC029MS	29
JPC030MS	30
JPC035MS	35
JPC040MS	40
JPC044MS	44

Tech Sheet 60241

- The rubber liner is manufactured in a corresponding profile to be secure in its position on the clip and ensures a tight fit as well as vibration damping and sound insulation. EPDM rubber offers several advantages over alternatives, such as a wide operating temperature range, resistance to UV (ultraviolet) weathering and resistance to creep.

Quality assurance: DIN3016
Corrosion resistance: 1,000-hour NSS test
Material: 304 stainless steel



stainless steel



304 Stainless Steel (W4), EPDM Liner, M6

6666	Min Size mm
JPC005SS	5
JPC006SS	6
JPC008SS	8
JPC009SS	9
JPC010SS	10
JPC012SS	12
JPC013SS	13
JPC014SS	14
JPC015SS	15
JPC016SS	16
JPC017SS	17
JPC018SS	18
JPC019SS	19
JPC020SS	20
JPC021SS	21
JPC022SS	22
JPC025SS	25
JPC028SS	28
JPC030SS	30
JPC035SS	35
JPC040SS	40
JPC044SS	44

Tech Sheet 60241

Jubilee® P Clip Kits

Contains 110 x P Clips of the most accepted sizes in a versatile, re-usable plastic container suitable for any challenging environment.

Jubilee® P Clips are manufactured from one piece of steel band with an EPDM rubber liner.

P Clip Kits

6666	Material
JPCK110MS	Mild Steel
JPCK110SS	304 Stainless Steel

Tech Sheet 60243



CLIPS

M6 P Clips, 12mm Band

Material:

Mild Steel, Zinc Plated.
EPDM Rubber lined.



Mild Steel, Standard Liner

5557	Min size mm
500-05	5
500-06	6
500-08	8
500-09	9
500-10	10
500-12	12
500-13	13
500-16	16
500-19	19
500-21	21
500-22	22
500-25	25
500-28	28
500-29	29
500-32	32
500-35	35
500-40	40
500-44	44
500-48	48
500-52	52
500-56	56
500-60	60

Tech Sheet 589

Material: Mild Steel,
Zinc Plated.

Standard Liner:

TPE -30°C to +60°C High
temperature rubber liner.
TPE 160: -50°C to +160°C.



Mild Steel, High Temperature Liner

5557	Min Size mm
501-5	5
501-6	6
501-8	8
501-9	9
501-10	10
501-12	12
501-13	13
501-16	16
501-19	19
501-21	21
501-22	22
501-25	25
501-28	28
501-29	29
501-32	32
501-35	35
501-40	40
501-48	48
501-52	52
501-56	56
501-60	60

Tech Sheet 589

304 Stainless Steel, P Clips, 12mm Band

stainless
steel



Stainless Steel, Standard Liner

5557	Min Size mm
500-5SS	5
500-6SS	6
500-8SS	8
500-10SS	10
500-13SS	13
500-16SS	16
500-19SS	19
500-21SS	21
500-22SS	22
500-25SS	25
500-28SS	28
500-29SS	29
500-32SS	32
500-35SS	35
500-40SS	40
500-44SS	44
500-48SS	48
500-52SS	52
500-56SS	56
500-60SS	60

Tech Sheet 589

Material: 304 (A2) Stainless
Steel. High temperature
rubber liner.

TPE 160:
-50°C to +160°C.



stainless
steel

Stainless Steel, High Temperature Liner

5557	Min Size mm
501-6SS	6
501-8SS	8
501-9SS	9
501-10SS	10
501-12SS	12
501-13SS	13
501-16SS	16
501-19SS	19
501-28SS	28
501-32SS	32
501-35SS	35
501-40SS	40
501-60SS	60

Tech Sheet 589

M10 P Clips, 20mm Band

Material: Mild Steel Zinc Plated.

High temperature rubber liner.

TPE 160: -50°C to +160°C.



Mild Steel Zinc Plated, High Temperature Liner

5557	Min Size mm
601-6	6
601-8	8
601-10	10
601-13	13
601-16	16
601-19	19
601-22	22
601-25	25
601-28	28
601-32	32
601-36	36
601-40	40
601-44	44
601-48	48
601-52	52

Tech Sheet 589

Material: Stainless Steel (BS304).

High temperature rubber liner.

TPE 160:
-50°C to +160°C.



stainless
steel

Stainless Steel, High Temperature Liner

5557	Min Size mm
601-6SS	6
601-8SS	8
601-10SS	10
601-13SS	13
601-16SS	16
601-19SS	19
601-22SS	22
601-25SS	25
601-28SS	28
601-32SS	32
601-36SS	36
601-40SS	40
601-44SS	44
601-48SS	48
601-52SS	52

Tech Sheet 589

CLIP PACKS



P Clips Mild Steel Assorted Pack

- **Diameters:** 5mm, 6mm, 8mm, 10mm, 13mm, 16mm, 19mm, 21mm, 25mm, 29mm and 35mm

Standard Liner: TPE -30°C to +60°C



104 Assorted, Mild Steel Zinc Plated Clips

5557
PCZRAB1

P Clips Stainless Steel Assorted Pack

- **Diameters:** 5mm, 6mm, 8mm, 10mm, 13mm, 16mm, 19mm, 21mm, 25mm, 29mm and 35mm

Standard Liner: TPE -30°C to +60°C

stainless
steel



104 Assorted, 18/8 Marine, Quality BS304 Stainless Steel Clips

5557
PCSRAB1

Assorted Kits

Contents:

Mild Steel

Size	Quantity
4-5mm	10
6mm	10
8mm	7
9mm	7
10mm	6
12mm	3
14mm	3
16mm	3
18mm	2
20mm	2



Stainless Steel

Size	Quantity
5mm	10
6mm	9
8mm	7
9mm	6
10mm	6
12mm	3
14mm	3
16mm	3
18mm	2
20mm	2



P Clips

5559	Material
PCLIP-KIT-MS	Mild Steel
PCLIP-KIT-SS	Stainless Steel

Tech Sheet 20468

NORMA



For Pipe Repair Couplings
see page 1557

CLAMPS & HOSE CLIPS



NORMA® P Type Pipe Clip

- EPDM Rubber Sleeve
- Vibration Damping
- Fixing Hole For M6 Bolt



Mild Steel Alu-Zinc Plated,
12mm Band Width

7777	To Suit Hose OD mm
NOR-RLGUP-5	5
NOR-RLGUP-6	6
NOR-RLGUP-8	8
NOR-RLGUP-9	9
NOR-RLGUP-10	10
NOR-RLGUP-12	12
NOR-RLGUP-13	13
NOR-RLGUP-16	16
NOR-RLGUP-19	19
NOR-RLGUP-22	22
NOR-RLGUP-25	25
NOR-RLGUP-28	28
NOR-RLGUP-29	29
NOR-RLGUP-32	32
NOR-RLGUP-35	35
NOR-RLGUP-40	40
NOR-RLGUP-44	44

NORMA® P Type HD Pipe Clip



Mild Steel Zinc Plated,
15mm Band Width

7777	To Suit Hose OD mm
NOR-RSGUP-6	6
NOR-RSGUP-8	8
NOR-RSGUP-10	10
NOR-RSGUP-12	12
NOR-RSGUP-13	13
NOR-RSGUP-16	16
NOR-RSGUP-19	19
NOR-RSGUP-21	21
NOR-RSGUP-22	22
NOR-RSGUP-25	25
NOR-RSGUP-28	28
NOR-RSGUP-30	30
NOR-RSGUP-32	32
NOR-RSGUP-35	35

NORMA® U Type HD Pipe Clip



Mild Steel Zinc Plated,
15mm Band Width

7777	To Suit Hose OD mm
NOR-RSGUU-6	6
NOR-RSGUU-12	12
NOR-RSGUU-13	13
NOR-RSGUU-16	16
NOR-RSGUU-19	19
NOR-RSGUU-21	21
NOR-RSGUU-22	22
NOR-RSGUU-25	25
NOR-RSGUU-28	28
NOR-RSGUU-30	30
NOR-RSGUU-35	35

Box Set Clips

Part No.	Min Size	Max Size	Band Width mm	Qty
NOR-000	8	12	9	24
NOR-M00	10	16	9	22
NOR-00	12	22	9	24
NOR-0X	16	27	12	24
NOR-1A	20	32	12	10
NOR-1	25	40	12	16

Wall Mounted Display Dispenser

Part No.	Min Size	Max Size	Band Width mm	Qty
NOR-000	8	12	9	10
NOR-M00	10	16	9	10
NOR-00	12	22	9	10
NOR-0	16	27	12	8
NOR-1A	20	32	12	8
NOR-1	25	40	12	8
NOR-2A	35	50	12	8
NOR-2	40	60	12	8
NOR-3	50	70	12	8



With 78 Clips

7777
NOR-888000080



With 120 Clips

7777
NOR-888000003

Pipe Clips

Die Cast.



Screw to Wall, Brass

0245	OD mm
EPS-S015-S	15
EPS-S022-S	22
EPS-S028-S	28
EPS-S035-S	35
EPS-S042-S	42
EPS-S054-S	54

Die Cast.



Screw to Wall, Chrome Plated, Brass

0245	OD mm
EPS-S015CP-S	15
EPS-S022CP-S	22
EPS-S028CP-S	28
EPS-S035CP-S	35
EPS-S042CP-S	42
EPS-S054CP-S	54

Pressed Screw-On, Brass



0245	OD mm
EPS-SOPB12-S	12
EPS-SOPB15-S	15
EPS-SOPB22-S	22
EPS-SOPB28-S	28
EPS-SOPB35-S	35

Pressed Screw-On, Chrome Plated



0245	OD mm
EPS-SOPB15CP-S	15
EPS-SOPB22CP-S	22
EPS-SOPB28CP-S	28
EPS-SOPB35CP-S	35

M10 Threads.



Hospital, Brass

0245	OD mm
EPS-HB15-S	15
EPS-HB22-S	22
EPS-HB28-S	28
EPS-HB35-S	35
EPS-HB42-S	42
EPS-HB54-S	54

M10 Threads.



Hospital, Chrome Plated

0245	OD mm
EPS-HB15CP-S	15
EPS-HB22CP-S	22
EPS-HB28CP-S	28
EPS-HB42CP-S	42

Die Cast

M10 Threads.



Single Munsen Ring, Brass

0245	OD mm
EPS-MR15-S	15
EPS-MR22-S	22
EPS-MR28-S	28
EPS-MR35-S	35
EPS-MR42-S	42
EPS-MR54-S	54
EPS-MR67-S	67
EPS-MR76-S	76

Die Cast

M10 Threads.



Single Munsen Ring, Chrome Plated

0245	OD mm
EPS-MR15CP-S	15
EPS-MR22CP-S	22
EPS-MR28CP-S	28
EPS-MR35CP-S	35
EPS-MR42CP-S	42
EPS-MR54CP-S	54

Die Cast

M10 Threads.



Double Munsen Ring, Brass

0245	OD mm
EPS-MR15D-S	15
EPS-MR22D-S	22
EPS-MR35D-S	35
EPS-MR54D-S	54

Back Plates



M10, Male

0245	Finish
EPS-MP10-S	Brass
EPS-MP10CP-S	Chrome Plated



M10, Female

0245	Finish
EPS-FP10-S	Brass
EPS-FP10CP-S	Chrome Plated

BSP PIPE CLIPS & BACK PLATES



Pipe Clips



1/4" BSPP, Dual Purpose, Brass

0245	OD mm
EPS-DPBSP15-S	15
EPS-DPBSP22-S	22
EPS-DPBSP28-S	28
EPS-DPBSP35-S	35
EPS-DPBSP42-S	42
EPS-DPBSP54-S	54



1/4" BSPP, Dual Purpose, Chrome Plated

0245	OD mm
EPS-DPBSP15CP-S	15
EPS-DPBSP28CP-S	28
EPS-DPBSP35CP-S	35



Single Munsen Ring, Brass, BSPP

0245	OD mm	Thread
EPS-MRBSP15-S	15	1/4"
EPS-MRBSP22-S	22	1/4"
EPS-MRBSP28-S	28	1/4"
EPS-MRBSP35-S	35	1/4"
EPS-MRBSP67-S	67	3/8"
EPS-MRBSP76-S	76	1/2"



1/4" BSPP, Single Munsen Ring, Chrome Plated

0245	OD mm
EPS-MRBSP35CP-S	35



Double Munsen Ring, Brass, BSPP

0245	OD mm	Thread
EPS-MRBSP35D-S	35	1/4"
EPS-MRBSP54D-S	54	3/4"

Copper Saddle Clips



0245	OD mm	Description
EPS-CS10-S	10	-
EPS-CS15-S	15	-
EPS-CS215-S	15	2 Piece
EPS-CS22-S	22	-
EPS-CS28-S	28	-
EPS-CS35-S	35	-
EPS-CS42-S	42	-
EPS-CS54-S	54	-

Chrome Plated Saddle Clips



1 Piece

0245	OD mm
CS15CP-S	15
CS22CP-S	22



2 Piece

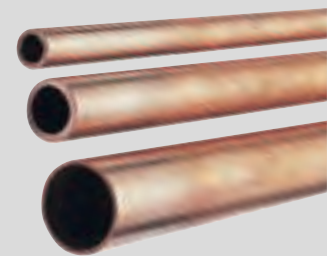
0245	OD mm
CS215CP-S	15

Steel Saddle Clips



0245	Nominal Bore OD
SSB12-S	1/2"
SSB34-S	3/4"
SSB1-S	1"
SSB114-S	1.1/4"
SSB112-S	1.1/2"
SSB2-S	2"

For **Copper Tube**
see page 1213



Mild Steel Saddle Clips

- Bag of 100
- Mild steel zinc plated
- Sizes up to 12mm have 9.0mm fixing hole



Half Saddles – Light, Bag of 100

5559	OD mm	No of Tubes
A940040-1	4	1
A940050-1	5	1
A940060-1	6	1
A940070-1	7	1
A940080-1	8	1
A940100-1	10	1
A940120-1	12	1
A940160-1	16	1
A940040-2	4	2
A940050-2	5	2
A940060-2	6	2
A940080-2	8	2
A940100-2	10	2
A940120-2	12	2

Tech Sheet 20456

- Sizes up to 12mm have 9.0mm fixing hole
- DIN 72571 or 72573



Full Saddles – Light, Bag of 100

5559	OD mm	No of Tubes
C940040-1	4	1
C940050-1	5	1
C940060-1	6	1
C940070-1	7	1
C940080-1	8	1
C940100-1	10	1
C940120-1	12	1
C940040-2	4	2
C940050-2	5	2
C940080-2	8	2
C940100-2	10	2

Tech Sheet 20456

- Mild steel zinc plated
- Sizes up to 33mm have 9.0mm fixing hole
- Sizes 23mm to 33mm have 9.0mm fixing hole
- DIN 1596



Half Saddles – Heavy

5559	OD mm	No of Tubes	Quantity
H940070-1	7	1	50
H940090-1	9	1	50
H940130-1	13	1	50
H940155-1	15.5	1	50
H940190-1	19	1	50
H940230-1	23	1	25
H940260-1	26	1	25
H940285-1	28.5	1	25
H940310-1	31	1	25

Tech Sheet 20456

PIPE FIXINGS

Pipe Clips



Snap-in Open, Single, Pack of 100

5559	Bore Size mm
OPS-15	15
OPS-22	22
OPS-28	28

Tube Clips



Nylon, 10 per Strip

0224	To Suit Plastic Pipe OD mm
1824431001	8

Nail Clips



Universal, White, Pack of 100

5559	Bore Size mm	Nail Size mm
NCW-15	15	Ø2.5 x 45
NCW-22	22	Ø2.5 x 50
NCW-28	28	Ø2.5 x 55



Universal, Grey, Pack of 100

5559	Bore Size mm	Nail Size mm
NCG-22	22	Ø2.5 x 50

Pipe Clamps



Unlined, M8/M10/M12

5555	Bore Size mm	Thread
APPC20	20-25	M10
APPC31	31-38	M10
APPC40	40-46	M10
APPC52	52-56	M8
APPC57	57-62	M10
APPC63	63-66	M10
APPC67	67-71	M10
APPC72	72-75	M10
APPC76	76-81	M10
APPC89	89-94	M10
APPC95	95-102	M10
APPC108	108-117	M10
APPC176	176-182	M12

Unlined Duel M8/M10 Thread

5555	Bore Size mm	Thread
ULC38/43	38-43	M8/M10
ULC47/51	47-51	M8/M10
ULC159/166	159-166	M8/M10

Fire resistance- Class B2
Insulating Lining According to DIN4109
Max Recommended Load- 200Kg

° Working Temperature:
-40°C to +100°C



EPDM Rubber Lined, M8/M10

5559	Bore Size mm	Thread
APIPC14	15-19	M10
APIPC20	20-24	M8
APIPC26	23-28	M10
APIPC32	31-36	M10
APIPC40	38-44	M10
APIPC48	44-50	M10
APIPC54	54-58	M10
APIPC58	59-65	M8
APIPC68	62-67	M10
APIPC72	74-80	M10
APIPC88	83-93	M10
APIPC112	108-118	M10
APIPC137	133-143	M10
APIPC159	159-169	M10

Tech Sheet 20406

EPDM Rubber Lined Duel M8/M10 Thread

5555	Bore Size mm	Thread
RLC125/130	125-130	M8/M10
RLC148/152	148-152	M8/M10

Tech Sheet 20406

Fire resistance- Class B2
Insulating Lining According to DIN4109



Rapid EPDM Rubber Lined, M8/M10

5559	Bore Size mm
APRC13	12-16
APRC20	20-23
APRC25	26-30

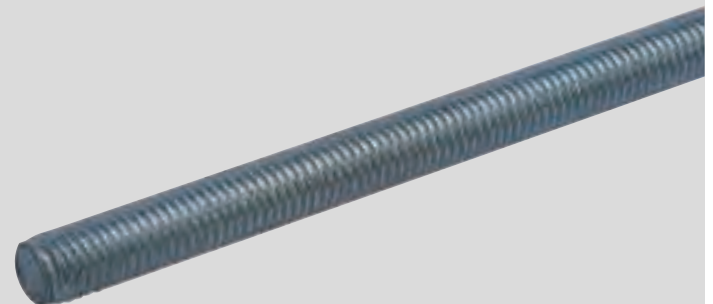
stainless steel



Swivel Hanger

5555	Thread
APSHM10	M10

Tech Sheet 20751



For **Studding**
see page **1385**

Wall or Ceiling Mounted Pipe Clips

Advantages

- With retaining ring
- Close fitting possible
- Suitable for high loads and temperatures
- Electrolytically zinc plated
- BSU clips are designed for mounting steel pipes to the wall or ceiling



BSF Clip

0713	Thread	Bore Size mm
38671	M8-M10	13-17.5
38672	M8-M10	21-25.5
38673	M8-M10	26.5-30.5
38674	M8-M10	33.5-38.5
38675	M8-M10	41.5-47
38676	M8-M10	48-54
38677	M8-M10	56-62.5
38678	M8-M10	62.5-69.5
38679	M8-M10	69.5-76.5
38680	M8-M10	77.5-84
38681	M8-M10	85-92.5
38682	M8-M10	93-100.5
38683	M8-M10	101.5-110
38684	M8-M10	110-117.5
38685	M8-M10	119.5-127.5
38686	M8-M10	127.5-133.5

- BSI clips are rubber lined universal clips for mounting pipes to the wall or ceiling

Working Temperature:
-40°C to +120°C

Advantages:

- Fitted with two bolts with anti-loss ring
- Bolt with slot and cross head
- Reinforcement grooves ensure that BSI clips maintain their shape
- Noise suppression up to 17dB(A)
- Electrolytically zinc plated



BSI, EPDM Rubber Lined

0713	Thread	Bore Size mm
39000	M8-M10	12-14
39001	M8-M10	15-19
39002	M8-M10	20-25
39003	M8-M10	26-30
39004	M8-M10	32-36
39005	M8-M10	38-43
39006	M8-M10	44-49
39007	M8-M10	50-55
39008	M8-M10	56-61
39009	M8-M10	62-67
39010	M8-M10	68-73
39011	M8-M10	75-80
39012	M8-M10	82-86
39013	M8-M10	87-92
39014	M8-M10	95-102
39015	M8-M10	108-116
39016	M8-M10	121-127
39017	M8-M10	131-141
39018	M8-M10	159-163
39019	M8-M10	165-168
39020	M8-M10	192-202
39022	M8-M10	210-220

Tech Sheet 68173

Advantages:

- With retaining ring
- Close fitting possible
- Bolt with slot and cross head
- Suitable for high loads and temperatures
- Electrolytically zinc plated



BSU, Unlined

0713	Thread	Bore Size mm
38270	M8-M10	15-18
38271	M8-M10	20-25
38272	M8-M10	26-30
38273	M8-M10	32-36
38274	M8-M10	38-43
38275	M8-M10	44-49
38276	M8-M10	56-61
38277	M8-M10	75-80
38278	M8-M10	87-92
38279	M8-M10	108-116
38282	M10-M12	108-116
38283	M10-M12	131-141
38284	M10-M12	165-169

Tech Sheet 68177

- Stainless steel universal clips with rubber strips for mounting pipes to the wall or ceiling
- For use in situations where stainless steel mounting material is desired or required, such as food processing facilities, laboratories, the chemical industry, etc.

Working Temperature:
-40°C to +120°C

Advantages:

- Suitable for short-distance mounting
- Noise suppression up to 17dB(A)
- Electrolytically zinc plated

stainless steel



BRS-A, EPDM Rubber Lined, Stainless Steel

0713	Thread	Bore Size mm
38451	M8-M10	12-14
38452	M8-M10	15-19
38453	M8-M10	20-25
38454	M8-M10	26-30
38455	M8-M10	32-36
38456	M8-M10	38-43
38457	M8-M10	44-49
38458	M8-M10	50-55
38459	M8-M10	56-61
38460	M8-M10	62-67
38461	M8-M10	68-73
38462	M8-M10	75-80
38463	M8-M10	82-86
38464	M8-M10	87-92
38465	M8-M10	95-102
38467	M8-M10	121-127
38468	M8-M10	131-141
38469	M8-M10	159-163
38470	M8-M10	165-169
38471	M8-M10	192-202
38473	M8-M10	210-220

Tech Sheet 68175

PIPE CLIPS & FIXING SYSTEMS

Wall or Ceiling Mounted Pipe Clips

- Stainless steel universal clips for mounting stainless steel pipes to the wall or ceiling
- For use in situations where stainless steel mounting material is desired or required, such as food processing facilities, laboratories, the chemical industry, etc.

Advantages:

- Suitable for short-distance mounting

stainless steel



BRS, Unlined, Stainless Steel

0713	Thread	Bore Size mm
38475	M8-M10	8-10
38476	M8-M10	12-14
38477	M8-M10	15-19
38478	M8-M10	20-25
38479	M8-M10	26-30
38480	M8-M10	32-36
38481	M8-M10	38-42
38482	M8-M10	44-49
38483	M8-M10	50-55
38484	M8-M10	56-61
38485	M8-M10	62-67
38486	M8-M10	68-73
38487	M8-M10	75-80
38488	M8-M10	82-86
38489	M8-M10	87-92
38490	M8-M10	95-102
38491	M8-M10	108-116
38492	M8-M10	121-127
38493	M8-M10	131-141
38494	M8-M10	159-163
38495	M8-M10	165-169
38496	M8-M10	192-202
38497	M8-M10	210-220

Tech Sheet 68176

BSK-I clips are designed for plastic pipes with special TPE (thermoplastic elastomer) lining.

The BSK-I clip has easily removable plastic spacers between the two clip halves and can be transformed into a clenching clip without the need for tools.

Advantages:

- Special TPE lining with excellent low friction properties
- Transformable from sliding to clamping with easily removable spacer
- Fast assembly thanks to the patented click-spring locking system
- Noise reduction: 20 dB(A) with spacer, 18 dB(A) without spacer
- UV resistant
- Electronically zinc plated

 **Working Temperature:**
-20°C to +100°C




BSK-I Clip Range

0713	Thread	Bore Size mm
37307	M8	63
37359	M10	75
37368	M10	250

Tech Sheet 68756

- BSI-HDI clips are rubber lined, hot dip galvanized universal clips for mounting pipes to the wall or ceiling

 **Working Temperature:**
-40°C to +120°C

Advantages:

- The clip has one or more strengthening ribs to achieve a strong working load
- Loose fitting possible
- Noise suppression up to 17dB(A)



BSI-HDI, Hot Dipped Galvanized

0713	Thread	Bore Size mm
38571	M8-M10	12-14
38572	M8-M10	15-19
38573	M8-M10	20-25
38574	M8-M10	26-30
38575	M8-M10	32-36
38576	M8-M10	38-43
38579	M8-M10	56-61
38580	M8-M10	62-67
38581	M8-M10	68-73
38582	M8-M10	75-80
38584	M8-M10	87-92
38586	M8-M10	108-116
38587	M8-M10	121-127
38588	M8-M10	131-141
38590	M8-M10	165-168
38592	M8-M10	210-220

Tech Sheet 68174

FT PRO



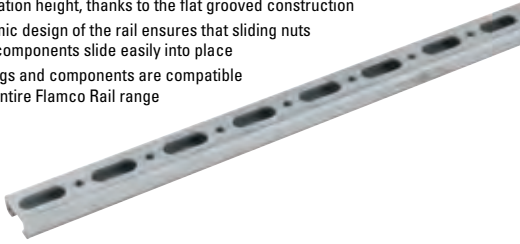
For Hydraulic Tubing
see page 183

PIPE CLIPS & FIXING SYSTEMS

Mounting

Advantages of Flamco Rail:

- Short installation height, thanks to the flat grooved construction
- The ergonomic design of the rail ensures that sliding nuts and similar components slide easily into place
- Flamco fittings and components are compatible across the entire Flamco Rail range



R1 Mounting Rail

0713	Length mm
50010	2000
Tech Sheet 68180	

- Easily finishes off the ends of all types of Flamco Rail
- Quick and easy to push into position



RD1 Mounting Rail End Cap

0713	To Suit
50501	50010

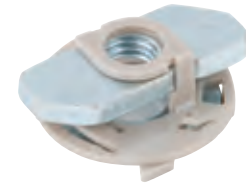
Product Features:

- Easy mounting by pushing and turning the unit in the rail 45° clockwise
- No-return stop
- Reduced installation time
- Electrolytically zinc plated
- No loose parts such as studs, washers and nuts



Wall Mounting Rail Connection

0713	Breaking Strain
71806	1000 Newton
Tech Sheet 68179	



ClickEasy Sliding Nut

0713	Thread
80360	M6
80361	M8
80362	M10



ClickEasy HBS

0713	Thread	Length mm
80381	M10	50

For mounting Flamco rail to steel without welding or drilling



RB1 Rail Girder Clip

0713	Thread	Max Extended mm
80601	M8 x 55	15

For **Ridgid Strut Slayer**
see page **1744**



QUICK RELEASE BAND STRAPS & BANDING



Jubilee® Quick Release Band Straps

Jubilee® quick release straps are used in a wide range of applications where a closed installation requires the clamp to be opened fully for positioning.

Examples include sign fixing, cable retention, repairs and heating, ventilation and air conditioning.



Mild Steel, Zinc Plated, 11mm Wide

6666	Min Size mm	Max Size mm
CAS050MS	35	50
CAS075MS	45	75
CAS100MS	50	100
CAS120MS	50	120
CAS150MS	50	150
CAS200MS	50	200
CAS225MS	50	225
CAS250MS	50	250
CAS275MS	50	275
CAS300MS	50	300
CAS330MS	50	330
CAS355MS	50	355
CAS380MS	50	380
CAS405MS	50	405
CAS455MS	50	455
CAS505MS	50	505
CAS555MS	50	555
CAS605MS	50	605
CAS710MS	50	710
CAS910MS	50	910
CAS965MS	50	965



stainless steel



304 Stainless Steel, 7mm Wide

6666	Min Size mm	Max Size mm
FLS050SS	35	50
FLS075SS	45	75
FLS100SS	50	100
FLS120SS	50	120
FLS150SS	50	150
FLS225SS	50	225
FLS250SS	50	250
FLS275SS	50	275
FLS300SS	50	300
FLS330SS	50	330
FLS380SS	50	380
FLS405SS	50	405



stainless steel



304 Stainless Steel, 11mm Wide, W4

6666	Min Size mm	Max Size mm
CAS050SS	35	50
CAS075SS	45	75
CAS100SS	50	100
CAS120SS	50	120
CAS150SS	50	150
CAS175SS	50	175
CAS225SS	50	225
CAS250SS	50	250
CAS275SS	50	275
CAS300SS	50	300
CAS330SS	50	330
CAS355SS	50	355
CAS380SS	50	380
CAS405SS	50	405
CAS555SS	50	555
CAS605SS	50	605
CAS710SS	50	710
CAS810SS	50	810
CAS910SS	50	910
CAS965SS	50	965

Tech Sheet 60247

Jubilee® Multiband

Construct your own fastener – cut to size and choose from a choice of standard slotted screw or captive screw. Banding available in 11mm mild steel zinc-plated or 11mm stainless steel (304).

10 Metre Lengths

6666	Band Width mm
2025-3720	11

Tech Sheet 1942



30 Metre Lengths

6666	Band Width mm
2025-3738	11

Tech Sheet 1942



Housing & Screws, 25 Sets, 11mm

6666
2025-3746



7mm Stainless Steel 304

6666	Description	Length m/Sets
MB1601	7mm Multiband	25
MB1603	Flip Lock Housing/Screws	25 Sets

11mm Mild Steel Zinc Plated

6666	Description	Length m/Sets
MB1705	Housing/Allen Socket Screws	25 Sets
MB1708	11mm Handy Pack	10m + 25 x Housings/ Screws

11mm Stainless Steel

6666	Description	Length m/Sets
MB1802	11mm Multiband	30 (m)
MB1803	Housing/Screws	25 Sets
MB1804	Housing/Allen Socket Screws	25 Sets
MB1806	11mm Handy Pack	10m + 25 x Housings/ Screws

BANDING SYSTEM & TIE WRAPS

304 Stainless Steel Banding System

To use, take one end of the cut banding and bend back 1/2". Take a self locking head and slide it the entire length of the band until it reaches the bend. Bend the tail flat against the bottom of the banding head to complete assembly.



0040	Type	Length Metres	Width mm	Box Quantity
SBS-76L	Band	76	4.6	1
SBS-76H	Band	76	7.9	1
SBH-L	Locking Head	-	4.6	100
SBH-H	Locking Head	-	7.9	100

304 Stainless Steel Cable Ties



0040	Length mm	Width mm
STW-201L	201	4.6
STW-362L	362	4.6
STW-838H	838	7.9

Polyamide 6/6 Nylon, Cable Ties

Resistant to UV, oils, grease, salt (DNV Marine approved) and light acids. UL approved (E97527).



Natural, Pack of 100

0040	Width mm	Length mm
GP-025-0100N	2.5	100
GP-025-0200N	2.5	200
GP-036-0140N	3.6	140
GP-036-0200N	3.6	200
GP-036-0300N	3.6	300
GP-048-0120N	4.8	120
GP-048-0160N	4.8	160
GP-048-0200N	4.8	200
GP-048-0300N	4.8	300
GP-048-0368N	4.8	368
GP-076-0200N	7.6	200
GP-076-0240N	7.6	240
GP-076-0300N	7.6	300
GP-076-0368N	7.6	368
GP-090-0430N	9	430
GP-090-0530N	9	530

Tech Sheet 20413



Black, Pack of 100

0040	Width mm	Length mm
GP-025-0100B	2.5	100
GP-025-0200B	2.5	200
GP-036-0140B	3.6	140
GP-036-0200B	3.6	200
GP-036-0300B	3.6	300
GP-048-0120B	4.8	120
GP-048-0160B	4.8	160
GP-048-0200B	4.8	200
GP-048-0300B	4.8	300
GP-048-0368B	4.8	368
GP-076-0200B	7.6	200
GP-076-0240B	7.6	240
GP-076-0300B	7.6	300
GP-076-0368B	7.6	368
GP-090-0430B	9	430
GP-090-0530B	9	530

Tech Sheet 20413



For ISO 15552 Cylinders
see pages 478-486

STEEL STRAPPING & ACCESSORIES



Band-It patented easy scale makes the **Band-It** clamping system the industry's favourite for over 60 years. All **Band-It** sizes feature fully rounded smooth edges for safety and easy installation.

Band-It Clamping Tool

Used to apply Band-It Band, Tote and Buckles.



Built-in Cutter

5561
C001

Junior Preformed Clamp Tool

For use with Band-It Junior smooth ID preformed clamps.



Built-in Cutter

5561
C00269

201 Band-It Band Stainless Steel Strapping

stainless steel



30.5 Metres

5561	Band Width mm	Band Thickness mm
C202	6.35	0.51
C203	9.53	0.63
C204	12.70	0.76
C205	15.88	0.76
C206	19.05	0.76

201 Band-It Band Buckles

Designed to accommodate both single and double wrap clamps.

stainless steel



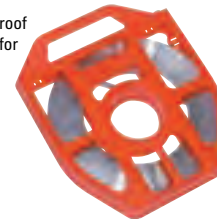
Stainless Steel, Standard, Pack of 100

5561	Band Width mm
C252	6.35
C253	9.53
C254	12.70
C255	15.88
C256	19.05

201 Band-It Tote Stainless Steel Strapping

Supplied in handy waterproof packaging. Colour coded for easy identification

stainless steel



30.5 Metres

5561	Band Width mm	Band Thickness mm
C203Y	9.53	0.63
C204B	12.70	0.76
C205G	15.88	0.76
C206R	19.05	0.76

Band-It Valustrap

Non-magnetic stainless steel strapping used with Valuclips for securing signs, cable-bundling, pipe insulation and a variety of other lightweight applications.

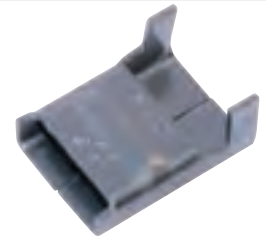
stainless steel



30.5 Metres

5561	Band Width mm	Band Thickness mm
C133	9.60	0.38
C134	12.70	0.38
C135	15.90	0.38
C136	19.10	0.38

Valuclips



Pack of 100

5561	Band Width mm
C153	9.53
C154	12.70
C156	19.05

STEEL STRAPPING & ACCESSORIES



Junior Preformed Clamps

Band-It patented easy scale makes the Band-It clamping system the industry's favourite for over 60 years.

All Band-It sizes feature fully rounded smooth edges for safety and easy installation.

stainless steel



201 Stainless Steel

5561	ID	Band Width mm	Band Thickness mm
JS240	3/4"	6.4	0.51
JS242	1"	6.4	0.51
JS241	1.3/8"	6.4	0.51
JS252	1.1/2"	6.4	0.51
JS253	2"	6.4	0.51
JS256	2.3/4"	6.4	0.51
JS244	3"	6.4	0.51
JS257	3.1/2"	6.4	0.51
JS259	4.1/2"	6.4	0.51
JS201	13/16"	9.5	0.64
JS243	1"	9.5	0.64
JS202	1.3/8"	9.5	0.64
JS245	2"	9.5	0.64
JS246	3"	9.5	0.64
JS255	3.1/4"	9.5	0.64
JS203	1"	12.7	0.76
JS204	1.1/4"	12.7	0.76
JS236	1.3/4"	12.7	0.76
JS230	2.3/4"	12.7	0.76
JS205	1.1/2"	15.9	0.76
JS206	1.3/4"	15.9	0.76
JS207	2"	15.9	0.76
JS208	2.1/4"	15.9	0.76
JS209	2.1/2"	15.9	0.76
JS227	2"	19.1	0.76
JS210	2.3/4"	19.1	0.76
JS211	3"	19.1	0.76
JS212	3.1/2"	19.1	0.76
JS213	4"	19.1	0.76
JS214	4.1/2"	19.1	0.76
JS215	5"	19.1	0.76
JS216	6"	19.1	0.76

All Purpose Band

Band-It All Purpose Band offers versatility within varying temperatures and applications. All Purpose Band is ideal for bending and forming around virtually any section or shape. Resistant to physical abrasion, UV light and corrosive environments for many applications where plastic cable ties are simply inadequate or even dangerous.

- 316 stainless steel or galvanised carbon steel
- Pre-punched holes make fastening quick and easy
- Easy to form around any section
- Flame retardant low smoke PPA 571 coating
- Thick coating; kind to hands and cables
- Halogen free
- Simple fastening with nuts, bolts or screws
- Three widths available
- Standard black coating; other colours are available on request



316 Stainless Steel, Coated

stainless steel

5561	Band Width mm	Band Thickness mm	Dia of Hole mm	Length mm
AE466	17	1.3	7	10
AE467	26	1.3	8	10
AE475	12	1.3	5	25
AE476	17	1.3	7	25
AE477	26	1.3	8	25

Tech Sheet 68231

316 Stainless Steel, Uncoated

stainless steel

5561	Band Width mm	Band Thickness mm	Dia of Hole mm	Length mm
AE407	26	0.76	8	10
AE425	12	0.76	5	25
AE426	17	0.76	7	25
AE427	26	0.76	8	25

Tech Sheet 68231

Galvanised Carbon Steel, Coated

5561	Band Width mm	Band Thickness mm	Dia of Hole mm	Length mm
AE566	17	1.3	7	10
AE567	26	1.3	8	10
AE575	12	1.3	5	25
AE576	17	1.3	7	25
AE577	26	1.3	8	25

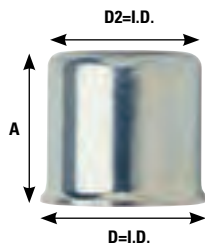
Tech Sheet 68231

Galvanised Carbon Steel, Uncoated

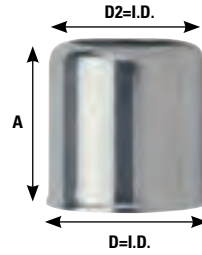
5561	Band Width mm	Band Thickness mm	Dia of Hole mm	Length mm
AE505	12	0.76	5	10
AE506	17	0.76	7	10
AE507	26	0.76	8	10

Tech Sheet 68231

Mild Steel Hose Ferrules



stainless steel

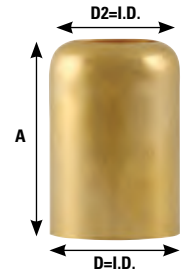


5563	Length (D) mm	Length (A) mm	Length (D2) mm
SHF-10	10.1	20	7.5
SHF-11	11.1	20	8.5
SHF-12	12.1	20	8.5
SHF-13	13.1	20	8.8
SHF-14	14.1	20	11
SHF-15	15.1	20	12.5
SHF-16	16.1	20	12.5
SHF-17	17.1	20	14.5
SHF-18	18.1	20	14.5
SHF-19	19.1	21	14.8
SHF-20	20.1	22	14.8
SHF-28	28.1	32	20.5

Grade 303

5563	Length (D) mm	Length (A) mm	Length (D2) mm
STF-11	11.1	20	8.5
STF-12	12.1	20	8.5
STF-13	13.1	20	8.8
STF-14	14.1	20	11
STF-15	15.1	20	12.5
STF-17	17.1	20	14.5
STF-18	18.1	20	14.5
STF-22	22.1	22	15.5

Brass Hose Ferrules



Type HF

5555	Length (D) mm	Length (A) mm	Length (D2) mm
HF7322	12.7	25.4	8.7
HF3588	14.3	19	9.4
HF7325	14.4	25.4	10.9
HF7326	15.1	25.4	11
HF7327	15.9	25.4	11.1
HF7328	16.7	25.4	11.1
HF7329	17.4	25.4	12.7
HF7330	18.2	25.4	12.7
HF7331	19.1	25.4	12.7
HF7332	19.8	25.4	12.7
HF7333	20.6	25.4	15.8
HF7244	22.2	22.5	17.6
HF1275	31.9	31.9	22.2

Ferrules for Low Pressure Hoses

- Red hot steel, zinc-plated and yellow chromated
- Easy, fast and safe hose crimping with hand-operated assembly machines: SPR 333 (use LPH-12.5 to LPH-23) and SPR 500 (use LPH-25 to LPH-41)
- No danger of hurt, closed and unremovable connection
- For crimping various hoses and fittings for different fluids

Maximum Working Pressure: 16 Bar


Steel

5555	I.D. Ø	To Suit Hose DIN20018	To Suit Hose Water	To Suit Hose PVC	l	d	Weight g
LPH-12.5	12.5	-	-	-	17	8.5	3
LPH-13.5	13.5	-	-	6 x 3	20	9.3	5
LPH-14.5	14.5	6 x 3.5	-	-	17	10	5
LPH-16	16.0	-	-	8 x 3	17	11.5	5
LPH-18	18.0	9 x 3.4	-	10 x 3	20	13.5	7
LPH-19	19.0	-	-	12 x 3	20	13.9	9
LPH-19.5	19.5	-	-	-	26	14.5	10
LPH-22	22.0	-	-	-	32	17.0	16
LPH-23	23.0	-	12 x 3	-	32	17.0	18
LPH-28	28.0	15 x 6	-	-	32	20.5	22
LPH-30	30.5	-	19 x 4	-	33	24.3	24
LPH-33	33.0	19 x 6	-	-	35	24.8	40
LPH-38	38.0	-	25 x 4.5	-	35	28.0	47
LPH-41	41.0	25 x 7	-	-	40	30.0	64

PIPE REPAIR COUPLINGS



A World Leader in the design & supply of sealing, connecting & clamping solutions.

High Specification Stainless Steel Coupling for Repairing Leaks to Pressure Pipe

- Nitrile Sealing Sleeve
- Double Lip Seal Design
- Upto 16 bar Pressure Rating
- Suitable for Metal and Most Plastic Pipes



Pipe Repair Couplings

- Easy assembly and disassembly
- Re-useable
- Patented double-lip seal
- Standard steel strip insert
- Suitable for both high pressure and vacuum applications



7788	Min Size mm	Max Size mm
NOR-FGRR355	34.5	35.5
NOR-FGRR429	39	42.9
NOR-FGRR45	43	45
NOR-FGRR488	45.5	48.8
NOR-FGRR549	53.6	54.9
NOR-FGRR576	55	57.6
NOR-FGRR609	57.7	60.9
NOR-FGRR74	72.6	74
NOR-FGRR769	74	76.9
NOR-FGRR85	83	85
NOR-FGRR896	85.1	89.8
NOR-FGRR1029	101	102.9
NOR-FGRR106	103	106
NOR-FGRR111	109	111
NOR-FGRR1154	112	115.4
NOR-FGRR156	153	156
NOR-FGRR170	166	170

Connect Grip Pipe Couplings

- Axial pipe coupling for connecting unrestrained metal pipes
- Strip insert included as standard for seal protection
- Unique double lip sealing system
- Progressive locking effect
- Rapid installation time
- Up to 16 bar (nominal) pressure rating



stainless steel

Clamps Supplied in W2 Material

7788	Min Size mm	Max Size mm
NOR-05788400026	26.4	27.5
NOR-05788400033	33	34.3
NOR-05788400048	47.6	50.5
NOR-05788400060	59.5	61
NOR-05788400076	75.2	77
NOR-05788400088	87	89.9
NOR-05788400114	113	115
NOR-05788400139	138.1	141.6
NOR-05788400168	166.5	170.1
NOR-05778400219	216	221

Connect Flex Pipe Couplings

- Axial pipe coupling for connecting restrained metal and/or plastic pipes
- Strip insert included as standard for seal protection
- Unique double lip sealing system
- Accommodates changes in pipe length and misalignment
- Rapid installation time
- Up to 16 bar (nominal) pressure rating



stainless steel

Clamps Supplied in W2 Material

7788	Min Size mm	Max Size mm
NOR-05738400026	26.5	27.4
NOR-05738400033	33	34.3
NOR-05738400042	41.7	43
NOR-05738400048	47.6	50.5
NOR-05738400060	59.5	61
NOR-05738400076	75.2	77
NOR-05738400088	87	89.9
NOR-05738400114	113	115.5
NOR-05738400139	138.1	141.6
NOR-05738400168	166.5	170.1
NOR-05738400180	178	182
NOR-05738400193	192	196
NOR-05738400206	202	208
NOR-05738400219	216	221
NOR-05738400267	264	269
NOR-05738400355	352	359
NOR-05738400406	402	410
NOR-05738400508	505	510
NOR-05738400609	606	613

CIRCLIPS KITS

Circlip Kits

- NBR 70 material
- 1mtr lengths various sizes
- Cutting and bonding accessories included



Assorted, 140 Pieces

5556	Description
0350003-8	External Circlips
0350004-6	Internal Circlips

Ref 0350003-8

Ø	Quantity	Ø	Quantity	Ø	Quantity
-	-	-	-	24	20
5	200	15	100	25	20
8	200	16	100	28	20
9	200	17	50	30	20
10	200	18	50	30	20
11	100	19	50	38	10
12	100	20	50	40	10
13	100	21	50	42	10
14	100	22	20	45	10

Ref 0350004-6

Ø	Quantity	Ø	Quantity	Ø	Quantity
-	-	-	-	30	20
8	200	17	100	32	20
9	200	19	100	35	20
10	200	20	50	40	20
12	200	21	50	40	20
13	200	21	50	42	10
14	100	24	50	47	10
15	100	26	50	58	10
16	100	28	20	60	10



TOOL CLIPS, PEN & TOOL HOLDERS



Tool Clips

- Steel Zinc Plated



Closed Type

0108	Min Size mm	Max Size mm
TERR-80.06-2	6	7
TERR-80.10-2	10	12
TERR-80.13-2	13	14
TERR-80.16-2	16	19
TERR-80.19-2	19	21
TERR-80.25-2	25	27
TERR-80.28-2	28	31
TERR-80.38-3	38	40



Open Type

0108	Min Size mm	Max Size mm
TERR-81.06-2	6	7
TERR-81.10-2	10	12
TERR-81.16-2	16	19
TERR-81.19-2	19	21
TERR-81.25-2	25	27
TERR-81.38-3	38	40

Worm Drive Clips

- Powergrip range of high performance hose clamps manufactured to BS5315 - 1991 standard
- Kitemark accredited
- Mild steel with Alu-zinc coating for improved corrosion resistance



Mild Steel

7777	Size Ref	Min Size mm	Max Size mm
WDC000	000	9.5	12
WDCM00	M00	11	16
WDC00	00	13	20
WDC0	0	16	22
WDCOX	OX	18	25
WDC1A	1A	22	30
WDC1	1	25	35
WDC1X	1X	30	40
WDC2A	2A	35	50
WDC2	2	40	55
WDC2X	2X	45	60
WDC3	3	55	70
WDC3X	3X	60	80
WDC4	4	70	90
WDC4X	4X	85	100
WDC5	5	90	120
WDC6	6	110	140
WDC7	7	130	160
WDC8	8	150	180
WDC9	9	175	205
WDC10	10	200	230
WDC11	11	225	255
WDC12	12	250	288
WDC13	13	275	305

Pen & Pencil Clips

- Nickel Plated Steel
- These are used for Pens, Pencils and Special Measuring Tools in Brief Cases, Tool Boxes and Pockets



0108	Size mm	Type
TERR-90.02-2	7-15	Double

HOSE CRIMPER

Hose Crimper

Crimps 7/8" to 1.1/2" OD hose (1/2" to 1" ID).
This crimper is sold without dies.



Large Bore Hose Crimper

0108
CV501

FT PRO®



For Thinking Sticks
see page 262

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 14

Paint, Sprays & Adhesives

14.01 Maintenance Paints **1559-1567**

14.02 Maintenance Sprays **1568-1583**

14.03 Thread Lockers, Sealants & Adhesives **1584-1587**

14.04 Adhesive & Barrier Tapes **1588-1590**

SECTION 14

Paint, Sprays & Adhesives

14.01 Maintenance Paints

RUST-OLEUM

1559-1567

- Floor Coating
- Hard Hat® Maintenance Aerosols
- Marking Aerosols
- LEAKSEAL™
- Hard Hat® Topcoats
- CombiColor Paints



14.02 Maintenance Sprays

RUST-OLEUM **LOCTITE** **Antaral**

1568-1583

- X1 Maintenance Sprays
- Professional Lubricants
- Cleaning & Specialist Products
- Lubrication
- Anti-Corrosion
- Inspection/Detection
- Welding
- Food Grade Cleaning & Lubrication
- Moulding Range
- Paint & Surface Preparation
- Paint Marker Pens
- Specialist Products



14.03 Thread Lockers, Sealants & Adhesives

LOCTITE

1584-1587

- Thread Sticks & Threadlockers
- Retainer & Tape
- Sealants
- Super Glue & Adhesives



14.04 Adhesive & Barrier Tapes

Scapa

1588-1590

- Adhesive Tapes
- Barrier Tapes
- Sealants, Fillers & Guns



Floor Coating

- A ready to use solution for preparing your surface.
- Removes grease, oil and other contaminations.
- Virtually odour free.
- Non-flammable
- 6-8 m²/l coverage.



EpoxyShield® Cleaner/Degreaser, 5 Litre Tub

0209	Volume Kilograms
RUS-2901.5	10
	20

Tech Sheet 60558

- Creates a surface profile that allows for maximum penetration and adhesion for the EpoxyShield® coatings.
- Uses citric etch formula to avoid producing dangerous acids or fumes.
- Will not harm grass or plants.



EpoxyShield® Etching Solution, 5 Litre Tub

0209	Volume Kilograms
RUS-108.5	10
	20

Tech Sheet 60557

Multi-use epoxy resin repair mortar for concrete or stone. Unequalled hardness and epoxy bonding power. Epoxy Repair Mortar allows fast setting (3-6 hours), granite-hard permanent repairs to be made to badly cracked and worn concrete or stone floors. For use where conventional mortar or other fillers will loosen or fail. Anglo Epoxy Repair Mortar is virtually indestructible and ideal for repairs to factory floors, driveways, worn and broken steps, garage floors, sills, grouting in bolts and railings etc.



Epoxy Repair Mortar

0209	Volume Kilograms
RUS-5180.2.5	2.5
RUS-5180.5.0	5
RUS-5180.25	25

Tech Sheet 60560

Speed Patch gives a durable, fast setting repair to damaged floors, frost spalled, eroded and cracked concrete, steps, troughs, ramps covering etc.



Speed Patch

0209	Volume Kilograms
RUS-5150.1	10
RUS-5150.2	20

Tech Sheet 71767

A quick easy way to fill holes in heavily used concrete floors inside and outside. No primer is required - just mix powder with water and pour into the hole. The rapid setting concrete repair bonds to damp or dry surfaces and can be applied at a thickness from feather edge to 100mm.



Speed Patch Pourable Grade 25kg

0209	Volume Kilograms
RUS-AXPSP25	25

Tech Sheet 60562

Speed Scred smooths uneven, damaged or worn concrete floors. A pour on durable re-surfacing material Suitable for interior or exterior use.



Speed Scred 25kg

0209	Volume Kilograms
RUS-AXSS25	25

Tech Sheet 60563

- Solvent-free Epoxy (2 part)
- For repairing fine cracks up to 3mm wide.
- Dry in 3-4 hours.

Coverage:
25 linear metres
(2mm wide, 5mm deep).



EpoxyShield® Fine Crack Repair Mortar, 500ml Tub

0209	Volume Kilograms
RUS-203010.05	0.05

Tech Sheet 60628

- Mineral-Acrylic.
 - Easy to use - Add water, stir and ready.
 - Traffic allowed after 24hrs
 - 10kg (1 part) 0.4m².
 - Recoatable after 48 hrs.
- Please note:** to be recoated with 7100 Floor coating.



EpoxyShield® Concrete Repair Mortar, 10kg Tub

0209	Volume Kilograms
RUS-203012.10	10

Tech Sheet 60559

Rust-Oleum® Asphalt Repair is a durable bitumen-based patch repair product for use on exterior potholed asphalt and concrete. Ideal for potholes in roads, car parks, paths and other bituminous and concrete surfaces.

- Simple to use - no mixing required
- Repairs can be driven over immediately after application
- Ideal for repairs 10mm – 70mm
- Coverage approx. 0.5m² per 25kg at 24mm thick
- Withstands heavy traffic



Asphalt Repair 25kg

0209	Volume Kilograms
RUS-5410.25	25

Tech Sheet 60561

MAINTENANCE PAINTS



Floor Coating

- For use on concrete, metal and wood.
- Single pack, pedestrian grade floor coating
- Great gloss appearance.
- High film build in one coat
- Touch dry after 6 hours.
- Resistant to oil, lubricants and petrol.
- Easy to apply with brush and roller.
- 8m² per litre (two coats recommended).
- Easy to clean with a neutral cleaner.

Important: Not suitable for car traffic or for car park areas



Standard Colours, 5 Litre

0209	Colour	RAL Code
RUS-7179	Black	RAL 9005
RUS-7181	Light Grey	RAL 7035
RUS-7168	English Red	-
RUS-7137	Moss Green	RAL 6005

Tech Sheet 60565



Anti-slip Version, Standard Colours, 5 Litre

0209	Colour	RAL Code
RUS-7182NS	Steel Grey	RAL 7001
RUS-7179NS	Black	RAL 9005
RUS-7181NS	Light Grey	RAL 7035
RUS-7110NS	Transparent	-

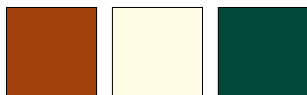
Tech Sheet 60565

Floor Coating Colours (7100 & 7100NS)

Standard Colours



RAL 7001 7182/7182NS ● RAL 1015 7142 RAL 9005 7179/7179NS RAL 7035 7181/7181NS



English Red 7168 Transparent 7110/7110NS ● RAL 6005 7137

● Anti-slip version not available.

- Slip resistant aggregate is pre-mixed in the coating.
- Unique uniform appearance.



Line Marking & Safety Colours, 5 Litre

0209	Colour	RAL Code
RUS-7124	Traffic Blue	RAL 5017
RUS-7192	White	RAL 9010
RUS-7144	Traffic Yellow	RAL 1023

Anti-slip Version, Line Marking & Safety Colours, 5 Litre

0209	Colour
RUS-7144NS	Traffic Yellow

Floor Coating Colours (7100 & 7100NS)

Line Markings & Safety Colours



Traffic Blu White Traffic yellow

Dustproofs, seals and transforms drab concrete floors. It is easy to apply and dries quickly to a tough, mid gloss finish



Polyurethane Floor Paint Single Pack, 5 Litre

0209	Colour
RUS-AFP5WHI	White
RUS-AFP5BUF	Buff
RUS-AFP5MGY	Mid Grey
RUS-AFP5LGY	Light Grey
RUS-AFP5DGY	Dark Grey
RUS-AFP5BLU	Mid Blue
RUS-AFP5GRN	Mid Green

Tech Sheet 60567

Asphalt restorer provides an 'as new' appearance that will mask old line markings and repairs and will hide ingrained dust from building works, etc.



Asphalt Restorer, 5 Litre

0209	Colour
RUS-AAR5	White

Tech Sheet 60566

A tough, flexible acrylic paint for tarmac or asphalt.

Colour and protect asphalt and tarmac drives, paths and playgrounds using this easy to apply coating.

Solvent free.



Tarmaccoat, 5 Litre

0209	Colour
RUS-6192.5	White
RUS-6181.5	Light Grey
RUS-6183.5	Mid Grey
RUS-6168.5	Tile Red
RUS-6136.5	Mid Green
RUS-6143.5	Signal Yellow

Tech Sheet 60564

Hard Hat® Maintenance Aerosols

- The quick anti-rust protector
- Ready to recoat after just 10 minutes, to handle after 30 minutes
- For new or slightly rusty surfaces
- Penetrates deeply into the surface and does not give rust a chance
- Lead and chromate free



Anti-rust Primer, 500ml

0209	Colour
RUS-2169	Red
RUS-2182	Grey
Tech Sheet 60575	

PORTWEST

For Disposable Gloves
see page 1758

Hard Hat® Galvanizing Zincs

- Cathodic protection of bare and galvanized steel
- Resists 500 hours of salt spray testing (DIN 50021 SS)
- To recoat within one hour, brush version after 4 hours
- To recoat with Hard Hat® metallic sprays



Galva Zinc

0209	Volume Grams	Volume Millilitres
RUS-1085.1	1000	-
RUS-2185	-	500
Tech Sheet 60572		

- The super-fast zinc primer
- Tack free after just 5 minutes, to handle after 10 minutes
- Ideal for production and construction environments
- Resists 400 hours of salt spray testing (DIN 50021 SS)



Galva Express, 500ml

0209	
RUS-2180	
Tech Sheet 60576	

- Zinc coating with sparkling aluminium particles
- The best compromise between a zinc spray and an aluminium spray
- Resists 340 hours of salt spray testing (DIN 50021 SS)



Galva Zinc-aluminium

0209	Volume Grams	Volume Millilitres
RUS-1017.1	1000	-
RUS-2117	-	500
Tech Sheet 60571		

- Appearance similar to new galvanized
- For touching up new galvanized
- Resists 310 hours of salt spray testing (DIN 50021 SS)
- Lower zinc contents, more aluminium



Galva Plus, 500ml

0209	Colour
RUS-2120	Zinc Gloss
Tech Sheet 60574	

	2185/1085.1 Galva Zinc	2180 Galva Express	2117/1017.1 Galva Zinc-Alu	2120 Galva Plus
Appearance	Matt Grey	Matt Grey	Sparkling Aluminium	Aluminium Gloss
Zinc %	90%	68%	80%	54%
Aluminium %	0%	1%	10%	23%
Salt Spray Test	500 hrs	400 hrs	340 hrs	310 hrs
Tack Free	10 min / 15 min	5 min	20 min / 30 min	15 min
To Handle	30 min / 2 hrs	10 min	60 min / 3 hrs	60 min
Heat-resistant	450°C / 100°C	350°C	450°C / 100°C	150°C
Main Advantage	Best protection	Quick drying	Good protection and finish	Finish like new galvanised

MAINTENANCE PAINTS



Hard Hat® Topcoats

For use on engines, heat cannons, steam pipes, boilers, radiators, vents, barbecues and stoves. 750°C maximum temperature for short periods.



Heat-resistant, 500ml

0209	Colour
RUS-7778	Black Satin Gloss
RUS-7715	Aluminium
Tech Sheet 60579	

Adheres to metal, wood, concrete, tile floors and parquet. Very quick drying (5 to 10 minutes).

For use on floors, steps, thresholds, etc. Makes every surface non-skid in a second.



Anti-slip, 500ml

0209	Colour
RUS-2410	Transparent
RUS-2444	Safety Yellow
RUS-2479	Black

TIP: for maximum efficiency of fluorescent colours, spray over matt white and finish with Hard Hat® clear coat.



Fluorescent Top Coats, 500ml

0209	Colour
RUS-2222	Blue
RUS-2255	Orange
RUS-2264	Red
RUS-2242	Yellow
Tech Sheet 60578	

Hard Hat® Metallics

Metallic sprays combine a bright metallic appearance with the durable protection of a standard topcoat.

- Gloss or sparkling metallic appearance
- To restore the metallic appearance
- For use on bare metal, galvanized, zinc primers or anti-rust primers



Durable Protection, 500ml

0209	Colour
RUS-2111	Sparkling Aluminium
RUS-2115	Silver Aluminium
Tech Sheet 60577	

- Greater abrasion resistance
- Better anti-corrosion properties than other metallics
- Excellent UV resistance (does not discolour)
- Resists acids, chemicals and alkalis



Stainless Steel Coating, 500ml

0209	
RUS-2116	
Tech Sheet 60577	

Marking Aerosols

- For marking difficult substrate
- Best hiding power, weather-resistant and watertight
- For use on metal, concrete, asphalt, gravel, soil, grass, wood, etc
- Works even on slightly wet surfaces
- Upside down spraying system
- Up to 70m marking (3cm width)



Hard Hat® High Performance, 500ml

0209	Colour	RAL Code
RUS-2358	Red Orange	-
Tech Sheet 60580		

- For use with line applicators
- Adjustable line width 5 to 10cm
- Light traffic possible after just 4 hours
- Adheres to asphalt, concrete, grass, metal and wood, etc
- Up to 120m marking (5cm width).



Hard Hat® Line Marking, 500ml

0209	Colour
RUS-2391	White
Tech Sheet 60581	

LEAKSEAL™

LEAKSEAL™ is an easy-to-use, rubberised protective coating designed to fill and seal leaks and cracks. It provides a watertight, flexible seal.

- Seals leaks and cracks
- Watertight semi-smooth finish
- Can be top-coated with latex or oil-based paints
- For use on metal, aluminium, PVC, concrete, masonry, asphalt roofing materials, etc



Flexible Rubber Coating

0209	Colour	Volume Millilitres
RUS-3410	Transparent	500
RUS-3478	Black	500
RUS-3490	White	500
Tech Sheet 20132		

Pipeline Identification Colour

Pipe Contents	RAL Code	CombiColor® Metal Protection	Hard Hat® Aerosols
Gas	RAL 1004	7349	2149
Fire Fighting	RAL 3000	7365	2165
Air	RAL 5012	7323	2123
Combustible Liquids	RAL 8001	7373	2173
Acids & Alkalis	RAL 4001	7363	2163
Water	RAL 6010	7334	2138
Other Liquids	RAL 9005	7379	2179
Steam	RAL 9006	7315	2114

Hard Hat® Topcoats

- Goes further: more paint in the can, resulting in a higher coverage: 3-4m².
- One Hard Hat® aerosol equals up to 2-3 standard aerosols.
- Works quicker: a higher film build without drips or runs.



Advantage, 500ml

0209	Colour	RAL Code
RUS-2114	Aluminium White	RAL 9006
RUS-2123	Light Blue	RAL 5012
RUS-2124	Signal Blue	RAL 5005
RUS-2125	National Blue	—
RUS-2126	Gentian Blue	RAL 5010
RUS-2127	Ultramarine Blue	RAL 5002
RUS-2128	Sapphire Blue	RAL 5003
RUS-2133	Yellow Green	RAL 6018
RUS-2134	Signal Green	RAL 6032
RUS-2135	Reseda Green	RAL 6011
RUS-2136	Emerald Green	RAL 6001
RUS-2137	Moss Green	RAL 6005
RUS-2138	Grass Green	RAL 6010
RUS-2141	Pearl White	RAL 1013
RUS-2142	Light Ivory	RAL 1015

0209	Colour	RAL Code
RUS-2143	Light Yellow	RAL 1018
RUS-2144	Traffic Yellow	RAL 1023
RUS-2145	Melon Yellow	RAL 1028
RUS-2146	Cole Seed Yellow	RAL 1021
RUS-2147	Signal Yellow	RAL 1003
RUS-2148	Safety Yellow	RAL 1007
RUS-2149	Golden Yellow	RAL 1004
RUS-2151	Pastel Orange	RAL 2003
RUS-2152	International Orange	RAL 2002
RUS-2154	Yellow Orange	RAL 2000
RUS-2163	Red Lilac	RAL 4001
RUS-2165	Bright Red	RAL 3000
RUS-2166	Traffic Red	RAL 3020
RUS-2174	Signal Brown	RAL 8002

0209	Colour	RAL Code
RUS-2176	Black Satin Gloss	RAL 9005
RUS-2178	Black Matt	RAL 9005
RUS-2179	Black	RAL 9005
RUS-2181	Light Grey	RAL 7035
RUS-2184	Steel Grey	RAL 7001
RUS-2186	Marine Grey	RAL 7005
RUS-2187	Stone Grey	RAL 7032
RUS-2189	Anthracite Grey	RAL 7016
RUS-2190	White Matt	RAL 9010
RUS-2192	White	RAL 9010
RUS-2193	White Satin Gloss	RAL 9010
RUS-2194	Cream	RAL 9001
RUS-2500	Transparent	—

Tech Sheet 10532

Hard Hat® Colours

RAL 9006 2114	RAL 5012 2123	RAL 5005 2124	2125	RAL 5010 2126	RAL 5002 2127	RAL 5003 2128	RAL 6018 2133	RAL 6032 2134	RAL 6011 2135	RAL 6001 2136	RAL 6005 2137	RAL 6010 2138	RAL 1013 2141	RAL 1015 2142
RAL 1018 2143	RAL 1023 2144	RAL 1028 2145	RAL 1021 2146	RAL 1003 2147	RAL 1007 2148	RAL 1004 2149	RAL 2003 2151	RAL 2002 2152	RAL 2000 2154	RAL 4001 2163	RAL 3000 2165	RAL 3020 2166	RAL 8002 2174	
Satin Black 2176	2178	RAL 9005 2179	RAL 7035 2181	RAL 7001 2184	RAL 7005 2186	RAL 7032 2187	RAL 7016 2189	2190	RAL 9010 2192	Satin White 2193	RAL 9001 2194	Transparent 2500		

Machine Colours

2126	Ford Blue, agricultural machinery
2133	Deutz Green, agricultural machinery
2136	John Deere Green, agricultural machinery
2143	John Deere Yellow, agricultural machinery
2145	Caterpillar Orange, excavators, dredging cranes
2148	JCB excavators
2152	Linde Orange, excavators
2154	STILL Orange, fork-lift trucks
2165	Massey Ferguson and New Holland Red, agricultural machinery
2186	Deutz Grey, agricultural machinery

Identification Colours

(See pipeline identification colours on page 796)

2114	Steam
2123	Air
2138	Water
2149	Gas
2163	Acids
2173	Liquid spirits
2179	Other liquids

Safety Colours

2126	Fresh water
2134	Safe place, escape routes, showers, exits
2143	Danger
2148	Take care/warning of danger, poison, explosion, radio-active radiation
2165	Stop/forbidden/fire extinguisher

MAINTENANCE PAINTS



CombiColor Paints

- The first coating to combine the functions of a rust-preventive primer and gloss finish in one
- One coat maintenance system for metal, can be applied directly to rust
- Long-lasting protection
- Interior and exterior use
- Sag resistant, no brush strokes
- White spirit dilutable
- Low odour
- Applicable from +5°C
- Remains flexible under all conditions



Smooth, 750ml

0209	Colour	RAL Code
RUS-7314	Gold	-
RUS-7315	White Aluminium	RAL 9006
RUS-7323	Light Blue	RAL 5012
RUS-7326	Gentian Blue	RAL 5010
RUS-7328	Ultramarine Blue	RAL 5002
RUS-7329	Steel Blue	RAL 5011
RUS-7339	Fir Green	RAL 6009
RUS-7342	Light Ivory	RAL 1015
RUS-7343	Light Yellow	RAL 1018

0209	Colour	RAL Code
RUS-7348	Safety Yellow	RAL 1007
RUS-7349	Golden Yellow	RAL 1004
RUS-7365	Bright Red	RAL 3000
RUS-7366	Traffic Red	RAL 3020
RUS-7377	Chestnut Brown	RAL 8011
RUS-7379	Black	RAL 9005
RUS-7381	Light Grey	RAL 7035
RUS-7382	Steel Grey	RAL 7001
RUS-7386	Navy Grey	RAL 7005
RUS-7392	White	RAL 9010

Tech Sheet 10369

Smooth, 2.5 Litre

0209	Colour	RAL Code
RUS-7315-2.5L	White Aluminium	RAL 9006
RUS-7322-2.5L	Marlin Blue	-
RUS-7326-2.5L	Gentian Blue	RAL 5010
RUS-7328-2.5L	Ultramarine Blue	RAL 5002
RUS-7335-2.5L	Reseda Green	RAL 6011
RUS-7336-2.5L	Emerald Green	RAL 6001
RUS-7337-2.5L	Moss Green	RAL 6005
RUS-7342-2.5L	Light Ivory	RAL 1015
RUS-7346-2.5L	Cole Seed Yellow	RAL 1021
RUS-7348-2.5L	Safety Yellow	RAL 1007
RUS-7349-2.5L	Golden Yellow	RAL 1004
RUS-7354-2.5L	Yellow Orange	RAL 2000
RUS-7365-2.5L	Bright Red	RAL 3000
RUS-7366-2.5L	Traffic Red	RAL 3020
RUS-7377-2.5L	Chestnut Brown	RAL 8011
RUS-7379-2.5L	Black	RAL 9005
RUS-7381-2.5L	Light Grey	RAL 7035
RUS-7382-2.5L	Steel Grey	RAL 7001
RUS-7386-2.5L	Marine Grey	RAL 7005
RUS-7392-2.5L	White	RAL 9010

Tech Sheet 10369

CombiColor Colours

7314	RAL 9006 7315	7322	RAL 5012 7323	RAL 5015 7324	RAL 5010 2126	RAL 5002 7328	RAL 5011 7329	RAL 6018 7333	RAL 6010 7334	RAL 6011 7335	RAL 6001 7336	RAL 6005 7337	RAL 6009 7339	RAL 1015 7342	RAL 1018 7343
RAL 1021 7346	RAL 1007 7348	RAL 1004 7349	RAL 2000 7354	RAL 4001 7363	RAL 3000 7365	RAL 3020 7366	RAL 8001 7373	RAL 8011 7377	RAL 9005 7379	RAL 7035 7381	RAL 7001 7382	7383	RAL 7005 7386	RAL 9010 7392	7390

Machine Colours

7326	Ford Blue
7333	Deutz Green
7336	John Deere Green
7343	John Deere Yellow
7348	JCB excavators
7354	STILL Orange
7365	Massey Ferguson
7365	New Holland Red
7386	Deutz Grey

Identification Colours

(See pipeline identification colours on page 796)

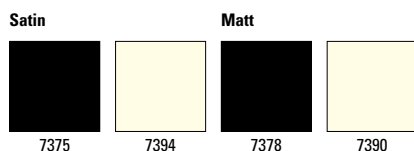
7315	Steam
7323	Air
7334	Water
7349	Gas
7363	Acids
7365	Fire-fightin
7373	Liquid spirits
7379	Other liquids

Safety Colours

7326	Fresh water
7343	Danger
7348	Danger warning of poison, explosion, radio-active radiation
7365	Stop/forbidden/fire extinguish

CombiColor Paints

CombiColor Colours



Hammertones Colours

750ml & 2.5 Litre Tin



Satin, 750ml

0209	Colour	RAL Code
RUS-7375	Black	RAL 9005
Tech Sheet 10369		

Satin, 2.5 Litre

0209	Colour	RAL Code
RUS-7375-2.5L	Black	RAL 9005
RUS-7394-2.5L	White	RAL 9010
Tech Sheet 10369		

Matt, 750ml

0209	Colour	RAL Code
RUS-7378	Black	RAL 9005
Tech Sheet 10369		

Matt, 2.5 Litre

0209	Colour	RAL Code
RUS-7378-2.5L	Black	RAL 9005
RUS-7390-2.5L	White	RAL 9010
Tech Sheet 10369		

With their masking effect, hammertone finishes are ideal for use on steel constructions, machines, cable channels, electric tools, work and switch boxes, ventilation ducts and other surfaces requiring a glossy and hammertone look.



Hammertones, 750ml

0209	Colour
RUS-7338	Dark Green
RUS-7345	Gold
RUS-7362	Copper
RUS-7374	Brown
RUS-7388	Dark Grey
Tech Sheet 10369	

Hammertones, 2.5 Litre

0209	Colour
RUS-7321-2.5L	Light Blue
RUS-7332-2.5L	Light Green
RUS-7376-2.5L	Black
RUS-7384-2.5L	Light Grey
RUS-7388-2.5L	Dark Grey
Tech Sheet 10369	

CombiColor Primers & Thinners

- Recoatable after 2 hours
- Red for dark coloured topcoats
- Grey for light coloured topcoats
- Lead and chromate free
- For even longer anti-rust protection



Anti-corrosion Primer, 750ml

0209	Colour
RUS-3369	Red
RUS-3380	Grey
Tech Sheet 10369	



Anti-corrosion Primer, 2.5 Litre Tin

0209	Colour
RUS-3369-2.5L	Red
RUS-3380-2.5L	Grey
Tech Sheet 10369	

CombiColor coatings are ready for immediate use with brush or roller. For spray application however it is advised to use a CombiColor thinner. The thinners are ideal for surface preparation as well.



Thinners, 1 Litre

0209	To Suit
RUS-7301.1	Smooth
Tech Sheet 10369	

X1 MAINTENANCE SPRAYS



X1 Cutting/Tapping Spray

500ml

0209

RUS-1611

Tech Sheet 20108

X1 Chain Drive Spray

500ml

0209

RUS-1612

Tech Sheet 20109

X1 Multi Purpose Welding Spray

500ml

0209

RUS-1613

Tech Sheet 20110

X1 White Grease Spray

500ml

0209

RUS-1617

Tech Sheet 20115

X1 Silicone Spray

500ml

0209

RUS-1615

Tech Sheet 20112

PROFESSIONAL LUBRICANTS



WD-40 Lubricant

- Cleans – WD-40's ultra-high surface attraction enables it to get under dirt, grime and grease to clean and dissolve adhesive
- Displaces moisture – WD-40 covers surfaces and microscopic irregularities to eliminate moisture and dry out electrical systems



100ml Can

9036

44201

- Penetrates – WD-40's super penetrating action loosens stuck, frozen or rusted metal parts
- Lubricates – WD-40 contains no silicone or other additives that attract dust and dirt which means it clings to moving parts preventing them from jamming



450ml Can with Smart Straw

9036

44037

- Protects – WD-40 deposits corrosion resistant ingredients to shield metal surfaces against moisture and rust



600ml Can

9036

44116



5 Litre with Spray Applicator

9036

44506

25 Litre Plastic Drum

9036

44025



CLEANING & SPECIALIST PRODUCTS



7063 Cleaner & Degreaser

General parts cleaner which leaves no residue – ideal for use prior to adhesive bonding and sealing applications. Compatible with metal, glasses rubber, most plastics and painted surfaces.

- Clean products prior to using Loctite adhesives/sealants



0753	Volume Millilitres
LOC-195814	400
Tech Sheet 67949	

7840 Cleaner & Degreaser

A concentrated, biodegradable cleaner/degreaser that contains no hazardous solvents and dilutes with water to meet a wide range of industrial cleaning applications.

- Typical applications for this product include engines, motors, castings, valves, bearings, tanks, machinery, exterior siding, windows, carpets, concrete floors, asphalt, vehicles etc
- Substances it can remove include grease, lubricants, cutting oils, fuel oils, tar, road salt, light carbon, food stains, wax, animal fat, mildew and soot
- This product has a pine odour but is also available fragrance-free



0753	Volume Millilitres
LOC-235330	750
Tech Sheet 67950	

7850 Fast Orange Hand Cleaner with Pumice

Natural hand cleaner made from Citrus rinds. Contains no synthetic solvents, mineral oils or petroleum distillate. Contains fine pumice for deep cleansing

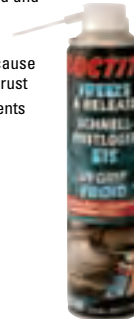
- Contains Jojoba oil, lanolin and aloe to moisturise the skin
- pH balanced
- Easy pump dispenser
- Biodegradable



0753	Volume
LOC-234228	400ml
LOC-234258	3 Litres
Tech Sheet 67951	

8040 Freeze & Release

- This product is a special mineral oil formulation to free rusted, corroded and seized parts
- The shock-freezing effect will cool parts instantly down to -43°C and cause microscopic cracks in the layer of rust
- This allows the lubricating ingredients to wick directly into the rust by capillary action
- Released parts remain lubricated and protected from corrosion



Lubricant

0753	Volume Millilitres
LOC-760225	400
Tech Sheet 67952	

Superlube Oiler



0753	Volume Millilitres
LOC-399422	7

Manual Hand Gun

- 50ml Dual cartridge application
- Manually operated dispenser
- Used for 1:1 and 2:1 mix ratio products
- Cartridges for use with this gun are 4090 and 3430 adhesives

Cartridges not included



0753
LOC-267452

PORTWEST



For Knee Protection
see page 1759

65 years ago Ambersil began manufacturing products developed to meet the most exacting standards of industry.

Ambersil has grown to become a true 'single source' supplier for industrial aerosols and chemicals. We provide maintenance professionals with exceptional product quality and performance, whilst maximising value for money. The Ambersil MRO product range is your strategic maintenance chemical partner.

Ambersil



Targeting
Cleaning / Degreasing



Targeting
Lubrication, Oils, & Greases



Targeting
Anti-Corrosion & Paints



Targeting
Welding



Targeting
Metal Working



Targeting
Fault Finding



Targeting
Workshop Additions



Targeting
Polymer Processing



Targeting
Food / Beverage / Pharma

CLEANING

Amberclens Anti-static Foaming Cleaner

Use to remove general grime and soiling on all hard surfaces or on upholstery to gently lift out grime. Particularly effective as a post-maintenance cleaner for removing finger marks and oil residues. Anti-static formulation inhibits dust attraction.



0229	Volume
6160001000	400ml
6160001200	750ml
Tech Sheet 20636	

Ambersolv Citrus Based Foaming Cleaner

Formulated from a blend of high-grade citrus oils and surfactants. An ideal alternative to traditional solvents and highly alkaline cleaners. Suitable for use in industrial, aerospace and general industrial applications.

Biodegradable, water-based formulation.

Non-flammable.



0229	Volume
6160005000	400ml
6330061005	5 Litre
Tech Sheet 20637	

Amberklene FE10

General degreasing of machinery including chains, gears, cogs, drives, motors, bearings, and more. Particularly suitable for removing grease from bearing housings and gear teeth and copper paste from threaded fasteners.

Also used for stain removal on textiles.



Fast Drying Solvent

0229	Volume Millilitres
6130002500	400
Tech Sheet 20638	

Amberklene ME20

For tough and old grease deposits which require a longer contact time. Use on pumps, gearboxes, drives exposed to the elements or with longer service intervals.



Heavy-duty Solvent

0229	Volume Millilitres
6130002600	400
Tech Sheet 20639	

Amberklene L030

Use for general degreasing on bearings, drive, motors, gears and chains but without the traditional odour associated with solvent degreasers.



Low Odour Solvent

0229	Volume
6130002700	400ml
6230003705	5 Litre
Tech Sheet 20640	

BA40 Solvent

For removal of uncured sealants and adhesives, particularly during aircraft maintenance. Extremely fast evaporating solvent degreaser.



Water Soluble Solvent

0229	Volume Millilitres
6130002800	400
Tech Sheet 20641	

Ambertron Contact Cleaner

For use on critical electronic components where only the purest contact cleaners can be used. Removes light oils and contamination safely on PCB's, relays, all electrical contacts, switches and more.



0229	Volume Millilitres
6130001500	400
Tech Sheet 10528	

Lec-Klene

For use on electronic and aviation components requiring a powerful yet ultra-safe solvent degreaser. Powerful solvent degreaser that removes oil, grease, grime, wax and tar.

Use in confined or enclosed spaces, and areas where high flash point is required.



High Flash Point Solvent

0229	Volume Millilitres
6130002900	400
Tech Sheet 20642	

Ambersolv SB1

Dissolves grease and grime from bearings, removes old lubricant from drives, slides, and guide rails.

Effective on a wide range of soiling such as oil, grease, tar, bitumen, silicones, rubber-based adhesives, oil-based paints, inks and dyes.



Citrus Based Solvent Cleaner

0229	Volume
6190003000	400ml
6330062005	5 Litre
Tech Sheet 20644	

CLEANING

Brake Cleaner

Brake Cleaner is a strong non-chlorinated solvent blend to quickly and safely remove brake fluid, grease, oil and other contaminants from brake and clutch parts.



0229	Volume Millilitres
617003000	500
Tech Sheet 20645	

GS5 Gasket Stripper

Removes in-place gaskets from engines, gearboxes, drive and chain enclosures. Use to remove thread locking compounds, silicone sealant, and mastics.



0229	Volume Millilitres
63700M7028	400
Tech Sheet 20646	

Fast Clean 200 & 201

Advanced degreasing solvent that is both exceptionally fast drying and very powerful.



Super Fast Degreaser

0229	Volume Millilitres
63700M7019	400
Tech Sheet 20648	

EPP Hard Surface Cleaner

An environmentally preferred product that can be used on all floors as a cleaner to remove grease, grime, bitumen and other soiling types.

Removes a wide variety of soiling including: grease, oil, wax, and polish.



0229	Volume Litres
6330007005	5
Tech Sheet 20649	

N F Precision Cleaner

An advanced solvent contact cleaner that is non-flammable and ideal for servicing lifts and critical electronics that cannot be switched off.

Excellent materials compatibility. Specifically formulated for cleaning delicate electronics.



Non-flammabl

0229	Volume Millilitres
6130001560	400
Tech Sheet 20651	

IPA

Ideal for cleaning optical devices, switches and PCB's. Use where a safe solvent is required on delicate electronics. Excellent material compatibility, safe to use on plastics and rubber.



Isopropyl Alcohol Electronic Cleaning Solvent

0229	Volume Millilitres
6130012000	400
Tech Sheet 20652	

CCL100

A versatile product for use on electrical contacts and switchgear.

Cleans, lubricates and prevents corrosion all in one application.



Contact Cleaner & Lubricant

0229	Volume Millilitres
63700M7018	400
Tech Sheet 20653	

EPP Degreaser

Use to degrease components when a regular solvent cleaner cannot be used. Use on gearboxes, hydraulic systems, open gears, chains and pumps to remove a variety of heavy soiling types.

An environmentally preferred product that is a non-flammable water based degreaser.

- 750ml are trigger bottles
- 5 Litre are bulk tubs



Biodegradable Cleaner Degreaser

0229	Volume
6060001570	750ml
6330001005	5 Litre
Tech Sheet 20654	

Universal Screen Cleaner

Removes grime and finger marks from control VDU s, online status screens and all monitors. Ideal for cleaning thermal imaging camera screens. Can be used on most screen types including LCD, TFT and Plasma.



0229	Volume Millilitres
6130004050	400
Tech Sheet 20655	

CLEANING

Anti-static Spray

Use on plastic surfaces prone to static charge prior to maintenance or as part of a static control program.



0229	Volume Millilitres
6130004020	400
Tech Sheet 20656	

Invertible Air Duster

Non-flammable dry air blast for removing loose dry contamination from electronics. 360° Spray system for all angle use.



0229	Volume Millilitres
6130004000	200
Tech Sheet 20657	

Ambersil Wipes

Super high absorbency hand wipes over-layered with an effective polymer web to give all the cleaning power of pumice without the scratching.

Contains anti-pathogen agents highly effective against common bacteria and viruses such as Weil's Disease, MRSA, Salmonella, Listeria and E. Coli. Passes BS 12054 (hand sanitising) and BS 1276 (surface sanitising).



High Absorbency Cleaning Wipes

0229	Quantity
6330272100	100
Tech Sheet 20658	

Glass Cleaner

Use on all glazed and ceramic surfaces to remove light soiling and marks.



0229	Volume Millilitres
6160004000	400
Tech Sheet 20660	

Multi-surface Polish

Developed to cut through and remove industrial soiling which is more tenacious than domestic or office soiling



0229	Volume Millilitres
6190010000	400
Tech Sheet 20661	

Air Duster

A liquefied propellant which provides a powerful blast for the easy removal of dust and loose contamination from precision equipment such as cameras and printed circuit boards to general cleaning in areas where the use of a liquid cleaner may be undesirable.

Non-flammable



0229	Volume Millilitres
6130012100	400
Tech Sheet 20662	

Label Remover

Removes all types of self-adhesive labels from equipment. Fast and effective removal of self-adhesive paper labels, reducing scraping.



0229	Volume Millilitres
6190012000	200
Tech Sheet 20663	



For **Cleaning Stations**
see page **1764**

LUBRICATION

40+

A true multi-purpose treatment: it can be used as a penetrant, a lubricant, an anti-corrosion coating to prevent flash rusting on steel, and as a moisture displacer in high humidity environments.

- 400ml are aerosols
- 5 Litre are bulk tubs



Multi-purpose, Industrial Protective Lubricant

0229	Volume
6130007000	400ml
6230005100	5 Litre
Tech Sheet 20664	

AGL1

Use to displace moisture and protect electrical contacts from corrosion.

Provides precision lubrication by its thin, high dielectric strength, lubricating film



Greaseless Lubricant

0229	Volume Millilitres
6130009000	400
Tech Sheet 20665	

Amberglide

Use where temperatures regularly reach a sustained 120°C to 160°C such as photocopier fuser units and moving parts near heat sourced e.g. conveyors, sideways and chutes. Particularly suitable to rapidly oscillating packaging equipment arms.

Cleans, lubricates and waterproofs.



PTFE Lubricant

0229	Volume Millilitres
6130013000	400
Tech Sheet 20666	

AMS4

Use on high voltage and 3-phase connector casing and joints to seal against moisture ingress, assist assembly/disassembly and prevent cracking of rubber seals.

Insulates high voltage parts against leaking or arcing, Waterproofs electronics in damp or humid conditions.



Multi-purpose Silicone Grease

0229	Volume Millilitres
6130008500	400
Tech Sheet 20667	

Chainspray & FLT Chain Spray

Use on all types of chain and drives including conveyors, door mechanisms, quarry plant, drying ovens doors, and forklift trucks. Ideal for fast moving or exposed chains.

Offers maximum adhesion to chain links with excellent penetration.

Separate version specifically developed for Fork Lift Trucks (500ml).



Chain & Drive Lubricant

0229	Volume Millilitres
6150001100	400
6170030010	500
Tech Sheet 20668	

Gear & Wire Rope

Ideal for open gears in dusty environments (e.g. quarries) where the dry film will not attract dust. Use all wire ropes subjected to tension and/or movement.

Forms a dry non-peeling film that overcomes the limitations of grease lubrication and pressure cushions.



Heavy-duty Lubricant

0229	Volume Millilitres
6150007000	400
Tech Sheet 20669	

Rust Flash

For use on all seized fasteners, particularly those corroded or rusted. Ideal for bolts on equipment located outside and subjected to adverse conditions.

Rust is shock-cooled, cracking it and allowing penetrating oils to work. Very fast acting for rapid job turnaround.



Rust Loosener with Freeze Shock Effect

0229	Volume Millilitres
6150003601	500
Tech Sheet 20670	

Penetrating Oil

Use as a highly effective release agent for seized fasteners, particularly bolts and grub screws.

Frees seized components rapidly.



Penetrant for Seized Parts

0229	Volume Millilitres
6150003600	400
Tech Sheet 20671	

Dry Film Anti-stick

Use on guide rails on production lines to prevent jams; ideal for use as a non-tainting lubricant on packing and cardboard folding machines.

Forms a dry non-staining film, exhibits excellent friction retardant properties.



Dry PTFE Lubricant

0229	Volume Millilitres
6140003500	400
Tech Sheet 20672	

LUBRICATION

Ambersil

Copper Anti-seize

Use on threaded fasteners to prevent seizing during prolonged maintenance intervals, in hostile/high humidity environments and areas subjected to high torque and/or temperatures.

Reduces friction and wear, good corrosion protection even in highly corrosive environments, Operational temperature range: -30°C to +1100°C.

- 400ml are aerosols
- 500gm are containers



High Temperature Anti-seize

0229	Volume
6190014010	400ml
6150001030	500g
Tech Sheet 20673	

Silicone Lubricant

Use for plastic-to-plastic lubrication, extra slip on chutes or slides, and on push fit pipes. Can also be used as a general mould release agent or as a cutting aid on paper/textile blades. Use on printing lines to reduce ink adhesion.



General Purpose

0229	Volume Millilitres
6190015000	500
Tech Sheet 20674	

Ambergrease EXL

Use on critical and high load bearings and sliding surfaces. Suitable for use in applications where a longer service interval is required.

Exceptional load carrying capacity: 4-ball weld load >800Kg, Mean Hertz Load 125kg, Timken OK load: 25Kg, Highly visible red, NLGI type 2 grease, Lithium-Calcium Complex thickener.



Extended Life, High Performance Bearing Grease

0229	Volume Millilitres
6150001010	400
Tech Sheet 20675	

Silicone Anti-stick

High concentration silicone lubricant for more demanding applications with higher loads or increased speeds e.g. robotic picking lines, conveyors, pallet guide rails and close tolerance fitting of large bore pipes.

Ideal for use where high standards of purity are essential, helps prevent line jams, inhibits adhesive build up on blades and sealers.



Concentrated Silicone Lubricant

0229	Volume Millilitres
6140001500	400
Tech Sheet 20676	

Dry Moly

Use in higher load applications where PTFE lubricants would fail, but a dry film is still required. Use as a running-in treatment on rolling and sliding bearings.

Use as a lubricant for guides and joints; on wheel bearings on kiln carts; or lubrication of open gears.

Operational temperature range: -150°C to +400°C.



Molybdenum Disulphide Lubricant

0229	Volume Millilitres
6150002000	400
Tech Sheet 20677	

Multi-lube

Versatile lubricant for use in mechanical handling maintenance, cleans, lubricates and protects against corrosion.



Multi-purpose Lubricant

0229	Volume Millilitres
6170030020	500
Tech Sheet 20678	

White Spray Grease

Ideal for use on automotive door hinges. Use on runners, guide tracks, and other moving parts, NLGI grade 2 grease in an aerosol



Multi-purpose White Grease

0229	Volume Millilitres
6170030040	500
Tech Sheet 20679	

Tufcut

Tufcut is a range of specialist metal cutting lubricants based on a mixture of lubricants, extreme pressure additives and anti-oxidants. The range has been formulated to offer instant, ready-to-use metal machining products that provide exceptional performance in demanding applications. All the products are suitable for use on a wide range of metals, including stainless and high carbon steels where "right first time" results are required



Metal Cutting Lubricant

0229	Volume
6150006000	350ml Liquid
6150005500	400ml Spray
6150006500	300ml Foam
6150006100	500g Compound
Tech Sheet 10365	

ANTI-CORROSION



Corrosion Inhibitor

Use on ferrous metal as a long-term protective coating for stored equipment. Film will not harden or crack, forms a 'self repairing' waxy film. Will not stain or mark components.



Waxy Anti-corrosion Treatment

0229	Volume Millilitres
6190011600	400

Tech Sheet 20680

Cold Galvanise Spray

Provides Cathodic protection to steel. Ideal for pipes, housings, and structural metal exposed to the weather. Sacrificial coating protects metalwork and steels from corrosion.



Zinc-Rich Protective Coating

0229	Volume Millilitres
6190011001	400

Tech Sheet 20681

Bright Cold Galvanise

Bright, Cold Galvanise weathers naturally, mimicking the natural hot-dip galvanise finish. Barrier coating protects metalwork and steels from corrosion.



Repair Coating for Hot-Dip Steel

0229	Volume Millilitres
6190011501	400

Tech Sheet 20682

Galva Shine

Offers an exact colour match to aesthetic architectural hybrid zinc galvanised metal supports. Resists weathering, retaining a super bright finish



Aesthetic Protective Coating

0229	Volume Millilitres
6190011510	400

Tech Sheet 20683

Inox 200

Use on glass pearl blasted stainless steel as a touch-up and anti-corrosion paint. Heat resistant up to 300°C.



Protective Coating for Stainless Steel

0229	Volume Millilitres
6190011513	400

Tech Sheet 20684

Alu Hi Temp

Use on furnace doors, boiler casings, drying ovens, foundry manipulators, and equipment subjected to continuous high temperatures. Continuous protection up to 600°C.



High Temperature Corrosion Protection

0229	Volume Millilitres
6190011511	400

Tech Sheet 20685

Zinc Primer

Zinc phosphate primer promotes adhesion of top-coat paint to 'difficult' substrates. Dry to touch in 30 minutes, dry to paint in 1 hour (recommended 24 hours for best results).



Multi-purpose Metal Primer

0229	Volume Millilitres
6190011512	400

Tech Sheet 20686

Battery Terminal Protector

Protects battery terminals on forklift trucks, generators, and UPS from wear and corrosion and seals out damp from battery connections.

Highly visible dye gives early warning of acid leakage by changing from yellow to red.



Anti-corrosion Terminal Treatment

0229	Volume Millilitres
6170030050	500

Tech Sheet 20687

Acrylic Conformal Coating

Apply to PCB's and electronics to protect against arcing, dust, moisture and contamination.

Colourless conformal coating, insulates and seals out moisture and dust, flexible lacquer will not crack or chip.



0229	Volume Millilitres
6130004030	400

Tech Sheet 20688

SV 100

Apply to electric motors as an insulation and protective coating to the windings. Insulates all types of electrical systems against high humidity.



Anti-tracking Insulating Film

0229	Volume Millilitres
63700M7036	400

Tech Sheet 20689

INSPECTION/DETECTION

Ambersil

Leak Detector

Spray on gaseous pipes and joints to identify leaks. Ideal for preventative maintenance checks, new installation checks, and on all HVAC systems.

Water-based formulation, no oils, silicones or harmful solvents; no 'run off' hazard, non-flammable and completely odourless.

- 400ml aerosols
- 5 Litre bulk tubs



Water Based

0229	Volume
6190019000	400ml

Tech Sheet 20690

Flaw Detectors, Cleaner, Penetrant & Developer

Use as a highly accurate check for weld quality. Ideal for use on military vehicle repair, boiler maintenance, and storage tank fabrication.

Fast acting visual results.

Highly effective system that can be used anywhere, simply, and without complicated test equipment.

Can be applied direct to the component to be tested without the need for dismantling the equipment.



Dye Penetrant Non-destructive Testing System

0229	Volume Millilitres	Description
6190005600	400	Part 1 - Cleaner
6190006510	400	Part 2 - Penetrant
6190007510	400	Part 3 - Developer

Tech Sheet 20692

WELDING

Ambersil

Spatter Release

Traditional non-flammable, solvent based spatter release formulation.

Prevents spatter adhesion on welding equipment, work pieces, surfaces, jigs and surrounding areas.



Flammable Weld Anti-spatter

0229	Volume Millilitres
6190004150	400

Tech Sheet 20693

Bioweld

A water-based spatter release agent which gives exceptional results without the use of harmful solvents, silicones or mineral oils.

Allows post welding operations, painting, plating, galvanising etc to be undertaken without interference. Contains a rust inhibiting agent.



Water Based Anti-spatter

0229	Volume Millilitres
6190004600	400

Tech Sheet 20694

Easy Weld

Easy Weld provides a quick, easy way to prevent adherence of spatter to metal surfaces, and eliminates the need for chiselling, grinding or wire brushing after welding.

A workshop spatter release based on biodegradable oil.



Biodegradable Spatter Release

0229	Volume Millilitres
6190004650	400

Tech Sheet 20695

PORTWEST

For Respiratory Protection
see page 1755





PREVENTION. NOT DETECTION.™



Available from Ambersil

LOCKED IN FOR SAFETY

INTEGRATED DESIGN BENEFITS:

- Secure spray straw locks in place
- Non-slip grip
- Traditional spray in the “down” position
- Precision application in the “up” position
- Useful catch curb - prevents oily can

Ambersil have upgraded their Food Processing range under the new “Perma-Lock®” design. Perma-Lock® is a unique, non-detachable spray system with dual position spray. There are no detachable pieces that can fall off, leading to contamination of goods and exposing food manufactures and processors to costly recalls.

Perma-Lock® reduces the need for expensive x-ray or metal detection equipment: preventing loss is better than detecting loss.

FOOD GRADE CLEANING & LUBRICATION



Silicone FG

Use where reduced friction is required, particularly on plastic-to-plastic components. Use on guide rails in finished product lines or as a guide rail and labelling equipment anti-stick treatment to dramatically reduce label and adhesive build-up.

NSF H1 registered (N°138000) for use in the food and beverage industry. Eliminates squeaking, binding and sticking.



NSF H1 Registered Silicone Lubricant

0229	Volume Millilitres
6150009350	400
Tech Sheet 20706	

Chain Lube FG

Ideal for conveyor chains, chain drives, pulleys, rollers, transfer belts, hoists and overhead door drives. Can be used above the food line.

NSF H1 registered (N°137998).

Excellent penetration and lubrication properties, can be used as a general, heavy-duty, PTFE lubricant.



NSF H1 Chain Lubricant with PTFE

0229	Volume Millilitres
6150009330	400
Tech Sheet 20705	

Penetrating Oil FG

For use in the food and drink industry on seized fasteners seized by heat, corrosion, over-tightening, and contamination.

NSF H1 registered (N° 140260) for use in the food industry.

Assists quick disassembly of mechanical components, fittings, and close tolerance fasteners.



NSF H1 Registered Penetrant for Seized Parts

0229	Volume Millilitres
6150009470	400
Tech Sheet 20715	

Ambergrease FG1

Ideal for all types of bearings and sliding rails/surfaces in low temperature areas (e.g. chiller/freezer), moist or wet environments, and where a longer re-lubrication interval is required.

NSF H1 registered (N°138264).

White, NLGI type 2, aluminium complex grease.

Operational temperature range: -50°C to +165°C.



Performance Grease for Food Processing Equipment

0229	Volume Grams
6150009370	400
Tech Sheet 20708	

Food Grease FG

Use on plain bearings, hinges, and moving parts. Particularly useful for limited access areas where regular grease penetration may be difficult.

NSF H1 registered (N° 140258) for use in the food industry, NLGI type 2 white grease, aluminium complex thickened.

Operational temperature range: -20°C to +140°C.



NSF Registered Spray Grease

0229	Volume Millilitres
6150009500	400
Tech Sheet 20711	

Assembly Paste FG

For lubrication of bushes, sliding surfaces and small open gears. Prevents damage at start-up and protects during running-in. Protects against seizing of threaded components.

Effective from -30°C to +150°C as a lubricant and to +1100°C as an anti-seize.

Please note: Images used are to indicate type of container for products.



NSF H1 Assembly Paste & Anti-seize Compound

0229	Volume Millilitres
6150009400	400
Tech Sheet 20717	

Dry PTFE Lube FG

Use for the lubrication of chutes, slides, and pins. Where silicone cannot be used.

NSF H1 (No. 139899) registered for use in the food industry. Particularly suitable in low load, low speed applications.

Operational temperature range: -150°C to +26°C.



NSF H1 Registered Dry Lubricant

0229	Volume Millilitres
6150009520	400
Tech Sheet 20713	

Belt Dressing FG

Apply to all types of belts to increase grip, reduce squeak and prolong life. Use on conveyor drive transfer belts, conveyor belts, and belts subjected to wet environments.

Belt Dressing FG is NSF H1 registered (N° 140257).

Protects belts from deterioration through oxidation and heat.



Adhesive Belt Lubricant

0229	Volume Millilitres
6150009480	400
Tech Sheet 20714	

Machine Oil FG

For use in the food industry on metal-to-metal moving parts such as hinges, gimbal-mounts, safety latches, and threaded parts.

NSF H1 registered (N°137999 and 140249).

Creates a highly effective lubricating and anti-corrosion film. Can be used as an anti-corrosion coating for metal parts in high-humidity conditions.



NSF H1 General Purpose Lubricant

0229	Volume Millilitres
6150009340	400
Tech Sheet 20707	

FOOD GRADE CLEANING & LUBRICATION



Amberclens FG

Developed for general cleaning in the food industry. Use to remove grime or soiling from equipment post-maintenance.

NSF A1 registered (N° 137995).

Stable, non-dripping foam. Foaming action helps break down soiling for effective cleaning.



NSF A1 Foam Cleaner

0229	Volume Millilitres
6150009300	500
Tech Sheet 20696	

Amberklene FG

Developed for general degreasing in the food industry. Use to remove grease and heavy oils from bearings, conveyor drives, and chains and hydraulic oil seepage. Removes wax-based anti-corrosion (transportation) coatings and metal cutting lubricant.

NSF A8 and C1 registered (N° 137996 and 140261) meets guidelines for use in the food industry.

High flash point of 40°C for application safety. Penetrates quickly and removes dirt and moisture. Does not leave residue.



NSF A8 & C1 Biodegradable Cleaner/Degreaser

0229	Volume Millilitres
6150009310	500
Tech Sheet 20698	

Stainless Steel Cleaner FG

For use on all types of stainless steel and shiny surfaces to remove light dirt, finger prints and water marks

NSF A7 and C1 registered (N°138212) for use in food industry.

Cleans and inhibits re-staining of stainless steel in one application.



NSF A7 & C1 Stainless Steel Cleaner

0229	Volume Millilitres
6150009360	500
Tech Sheet 20700	

Degreaser FG

Use to degrease components when a regular solvent cleaner cannot be used.

NSF A1 registered (N°137997).

Effective in both cold and warm water, use on gearboxes, hydraulic systems, open gears, chains and pumps to remove a variety of heavy soiling types.



NSF A1 Water Based Degreaser

0229	Volume Millilitres
6150009320	750
Tech Sheet 20697	

Industrial Degreaser FG

Use where a fast drying time and high solvency power is required. Dissolves grease and grime from bearings, removes old lubricant from drives, slides, and guide rails.

NSF A8 and K1 registered (N° 140255 and 140250) for use in food industry.

Use for degreasing and over-hauling electric motors. Can also be used to remove adhesives.



NSF A8 & K1 Registered Heavy-duty Degreaser

0229	Volume Millilitres
6150009420	500
Tech Sheet 20701	

Contact Cleaner FG

Specifically designed for electrical maintenance in the food industry, particularly production line electronics, automated systems and optical readers.

NSF K2 registered (N° 139627) for use in the food industry.

Use to remove grime and contamination from PCB's and contacts.



NSF Registered Electrical Contact Cleaner

0229	Volume Millilitres
6150009510	400
Tech Sheet 20699	

Label & Adhesive Remover FG

Use to remove labels from shipping containers, packing boxes and bulk storage (intermediate) drums.

NSF K3 registered (N° 140259) for use in the food industry.

Removes adhesives and paper labels in 3 minutes.

Improves packaging line efficiency by reducing jamming caused by label and adhesive build-up.



NSF K3 Registered Label & Adhesive Remover

0229	Volume Millilitres
6150009450	200
Tech Sheet 20704	

Ambergrease FG2

Use on bearings subjected to high temperatures such as oven conveyors, oven fan bearings, bakery lines, drying ovens and in food container moulding operations.

NSF H1 registered (N°138265).

Translucent white NLGI type 2 silicone grease.

Operational temperature range: -20°C to +220°C.



NFS H1 High Temperature Bearing Grease

0229	Volume Grams
6150009380	400
Tech Sheet 20709	

FOOD GRADE CLEANING & LUBRICATION



Ambersil

Ambergrease FG3

For use on all types of bearing in food, drinks, and consumables processing. Ideal for end-of-line conveyor lubrication, conveyor drive motors, and packing areas. NSF H1 registered (N° 140248) for use in the food industry. Provides stable, long-term lubrication. Operational temperature range: -20°C to +140°C.



NSF H1 Multi-purpose Bearing Grease

0229	Volume Grams
6150009490	400
Tech Sheet 20710	

Assembly Grease FG

Use in the same manner as a Copper Anti-Seize (as a general anti-seize) but also aids with the running in of bearings whilst grease is worked. Particularly effective as an anti-seize on oven fans. Can be used as a high temperature ejector pin lube for moulding white plastic food cartons. NSF H1 registered (N°138266 and 139900). Resists water wash-out, extending re-lubrication intervals when used as a service lubricant. Operational temperature range: -30°C to +1100°C.



NSF H1 Assembly Lubricant & Anti-seize Compound

0229	Volume Grams
6150009390	500
Tech Sheet 20712	

Moisture Remover FG

For use on equipment to displace moisture, particularly after wash-down or because of water ingress. Ideal for use on electronics. NSF H2 registered (No.142299) for use in the food and beverage industry. Provides precision lubrication by its thin, high dielectric strength, lubricating film, can be used as a multi-purpose lubricant.



NSF H2 Registered Dewatering Fluid

0229	Volume Millilitres
6150009530	500
Tech Sheet 20716	

MOULDING RANGE

Ambersil

HD-Sil Release

Exhibits excellent anti stick and slip properties. Particularly effective in mould release and injection moulding operations. Ideal for use where a clean, colourless lubrication is required. Operational up to +200°C. Easily removed with solvent cleaners.



Heavy-duty Silicone Release Agent

0229	Volume Millilitres
31631-AD	500
Tech Sheet 20718	

No-Sil Release

Provides a wet, heavy-duty film for the release of plastic and rubber parts. For use in injection moulding, vacuum forming and many other moulding and forming processes. Operational up to +170°C.



Heavy-duty Non-silicone Release Agent

0229	Volume Millilitres
31971-AA	500
Tech Sheet 20719	

Mould Solv

Ideal for removing general mould residues and release coatings. Highly effective low odour, degreasing agent that also removes anti-corrosion, storage coatings. Efficiently cleans plastic, ferrous and non ferrous coatings.



Cleaner for Moulds & Tools

0229	Volume Millilitres
31970-AA	500
Tech Sheet 20720	

Tool Guard

A light green, viscous, protective coating for use on mould tools. Remove moisture and provides long term protection to surfaces. Easy identification with total coverage assured. Will not penetrate or creep into mould tool. Resists the effects of high humidity and acid finger marking. Excellent corrosion protection.



Highly Visible Corrosion Inhibitor

0229	Volume Millilitres
31972-AA	500
Tech Sheet 20721	

Mould Protective

Non-silicone corrosion inhibitor for injection moulding tools and dies. Repels and displaces moisture, leaving a durable, non-greasy, protective film.



Mould Corrosion Inhibitor

0229	Volume Millilitres
6120005000	400
Tech Sheet 20722	

Clear Mould Protective

Use on mould tools as a long-term protective coating for storage. Repels and displaces moisture, leaving a durable, clear, protective film.



Transparent Corrosion Inhibitor

0229	Volume Millilitres
6120005500	400
Tech Sheet 20723	

PAINT & SURFACE PREPARATION

Acrylic Paints

Ambersil Acrylic Paint is a high quality paint designed for use in a wide variety of industrial, automotive and home and garden applications. It is also recommended as a protecting paint for repairs on all kinds of lacquered surfaces, or where a colour matched anti-corrosion finish is required.

When combined with Ambersil Cold Galvanize as a base coat, superior and long lasting anti-corrosion protection is achieved even when the surface is damaged.

- Fast drying
- Good hardening and resistance to wear
- Excellent flexibility
- High UV resistance once dry
- Good adhesion to metal, wood, glass, paintable plastics, concrete and stone
- Excellent coverage and opacity



Standard

0229	Volume Millilitres	Colour	RAL Code
618040004	400	Bright Red	RAL 3002
618040005	400	Blue	RAL 5015
618040007	400	Green	RAL 6002
618040008	400	Bright Yellow	RAL 1018
618040006	400	Battleship Grey	RAL 7032
618040010	400	Grey Primer	-
618040011	400	Chrome Silver	-

Tech Sheet 20725



Fluorescent

0229	Volume Millilitres	Colour
618040012	400	Green
618040013	400	Yellow
618040014	400	Red

Tech Sheet 20725

Matt

0229	Volume Millilitres	Colour	RAL Code
618040000	400	Black	RAL 9011
618040001	400	White	RAL 9010

Tech Sheet 20725



Gloss

0229	Volume Millilitres	Colour	RAL Code
618040002	400	Black	RAL 9005
618040003	400	White	RAL 9016

Tech Sheet 20725



PAINT MARKER PENS

Brilliant Paint Marker Pens

- Vibrant, long lasting paint pens for all surface marking.
- The pens come in 7 colours.
- They can write on almost any surface, including metal, glass, rubber, plastics, paint, card, concrete and wood.



3mm Nib

0229	Colour
6190050001	White
6190050002	Green
6190050003	Yellow
6190050004	Blue

0229	Colour
6190050005	Red
6190050006	Orange
6190050007	Black

Tech Sheet 20729

PAINT & SURFACE PREPARATION

Ambersil

2-in-1 Primer & Paint

- Quicker than separate primer and paint.
- Fast drying time.
- Up to 3m² coverage from single can.

Galva Colour

0229	Volume Millilitres	Colour	RAL Code
6190011530	500	Yellow	1004
6190011531	500	Red	3000
6190011533	500	Blue	5012
Tech Sheet 20732			

0229	Volume Millilitres	Colour	RAL Code
6190011536	500	Black	9005
6190011537	500	Silver	9006
6190011538	500	White	9010
Tech Sheet 20732			



SPECIALIST PRODUCTS

Ambersil

Paint & Graffiti Remove

- Dissolves marker pens instantly, softens acrylic paint in 3 minutes and Galva Colour in 10 minutes
- For use on hard non-porous surfaces
- Fast and effective on graffiti paint, inks and other common graffiti type
- Excellent pre-painting surface treatment



0229	Volume Millilitres
31630-AA	400
Tech Sheet 20733	

5005A Clear Silicone Sealant

- A ready to use one-part silicone sealant suitable for use as a general-purpose sealing and bonding agent.
- Offers excellent adhesion to metal, glass, and glazed ceramics.



0229	Volume Millilitres
6260020700	75
Tech Sheet 20734	

Adhesive QS900

- Especially useful for vertical surfaces where instant grab avoids slippage.
- Tack time approximately 30 seconds, instant 'grab and hold'



Spray Adhesive

0229	Volume Millilitres
6190009400	500
Tech Sheet 20735	



For **Adblue Fuelling Equipment** see pages **1623-1624**



THREAD STICKS & THREADLOCKERS

Threadlocker Sticks

- Effective on all types of metal threaded fasteners. Recommended where disassembly is required. Machine tools and presses, pumps and compressors, mounting bolts and gear boxes.
- For use on threads up to M50
- Functional strength 6 hours
- Long term temperature resistance +150°C



248, Medium Strength

0753	Volume Grams
LOC-248	19
Tech Sheet 67925	

- Effective on all types of metal threaded fasteners. Recommended for use where regular removal for maintenance is not required. Suspension bolts, motor transmission and pump mounts, bearing cap bolts and studs.
- For use on threads up to M50
- Functional strength 24 hours
- Long term temperature resistance +150°C



268, High Strength

0753	Volume Grams
LOC-268	19
Tech Sheet 67926	

Thread Sealant Stick

- Recommended for all coarse metal pipe threads where disassembly is required. Ideal for use in a broad range of industries including chemical, processing, waste water treatment and automotive.
- For use on threads up to 3"
- Substrate to be sealed: Metal
- Instant low pressure seal
- Low disassembly strength
- Long term temperature resistance +150°C



561, Instant Bonding

0753	Volume Grams
LOC-561	19
Tech Sheet 67927	

Anti-Seize Sticks

- Copper based anti-seize for screws, nuts, pipes, heat exchangers etc.
- Solid lubricating agent containing copper and graphite
- N.L.G.I. Class 1

Working Temperature:
-30°C to +930°C

8065, C5-A Copper, High Temperature



0753	Volume Grams
LOC-8065	20
Tech Sheet 67928	

243 Threadlocker

Particularly suitable on all metal threaded fasteners. Prevents loosening on vibrating parts such as pumps, motor mounting bolts, gear boxes or presses. Recommended for use where disassembly with hand tools is required for servicing and where parts are contaminated with oil.

- Resists vibration
- Single part – clean and easy to apply
- Can be used on all sizes of fasteners – reduces inventory costs
- Seals threads allows through-hole tapping



Medium Strength

0753	Volume Millilitres
LOC-135279	10
LOC-135278	50
Tech Sheet 67929	

270 Threadlocker

Particularly suitable for use on all metal fasteners (including stainless steels and those with protective coatings such as Zinc) where regular removal for maintenance is not required. Recommended for permanently locking studs on engine blocks and pump housings.

- Resists vibration
- Single part – clean and easy to apply
- Can be used on all sizes of fasteners – reduces inventory costs
- Seals threads allows through-hole tapping



High Strength

0753	Volume Millilitres
LOC-267380	10
LOC-232515	50
Tech Sheet 67930	

276 Threadlocker High Strength Fast Fixture

- High strength, even on passive metals
- European gas approval (EN 751-1)
- Excellent chemical and thermal resistance of cured product
- Reliable cure even at low temperatures



0753	Volume Millilitres
LOC-1266117	50
Tech Sheet 67931	

577 Thread Sealant

Particularly suitable for all coarse metal threads. Suitable for past applications at low temperatures e.g. outdoor plant maintenance. Carries the German DVGW Approval (No.96.04e 125). Tested in accordance to EN 751-1. Meets BS 6956 type B for sealing gas fittings

- Replaces hemp/tapes and pastes
- Liquids ensure complete contact between threads provides 100% seal
- Liquids will not creep, shrink or block systems (including filters) by shredding
- Disassembly can be achieved easily with normal tools



General Purpose

0753	Volume Millilitres
LOC-229342	50
Tech Sheet 68057	

542 Thread Sealant

Particularly suitable for fine threaded fittings as used in hydraulic and pneumatic installations and small fittings in general. Carries the German DVGW approval (No.96.02E 125). Tested in accordance to EN 751-1. Meets BS 6956 type A for sealing gas fittings

- Replaces hemp/tapes and pastes
- Liquids ensure complete contact between threads provides 100% seal
- Liquids will not creep, shrink or block systems (including filters) by shredding
- Disassembly can be achieved easily with normal tools



Hydraulic & Pneumatic

0753	Volume Millilitres
LOC-135483	10
LOC-267431	50
LOC-267432	250
Tech Sheet 67932	

2701 High Strength Oil Resistance

- For the high strength locking and sealing of studs, nails and bolts
- Vibration proof
- Ideal for use on inactive substrates and/or where maximum resistance to hot oil is required



0753	Volume Millilitres
LOC-234853	50
Tech Sheet 67933	

SEALANT, RETAINER, SUPER GLUE & TAPE

LOCTITE[®]

572 Low Strength Slow Cure Pipe Seal

- This product is designed for the locking and sealing of metal pipes and fitting
- The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration
- The thixotropic nature reduces the migration of liquid product after application to the substrate



0753	Volume Millilitres
LOC-229360	50
Tech Sheet 67941	

574 Flange Sealant

- Seals close fitting joints between rigid metal faces and flange
- The product cures when confined in the absence of air between close fitting metal surface
- Provides resistance to low pressures immediately after assembly of flange
- Typically used as a form-in-place gasket on rigid flanged connections e.g. gearbox and engine casings, etc.
- The thixotropic nature reduces the migration of liquid product after application to the substrate



0753	Volume Millilitres
LOC-267437	50
LOC-234573	250
Tech Sheet 67942	

518 Flexible Fast Cure

- This product is a single component, medium strength, anaerobic sealant which cures when in the absence of air between close fitting metal surface
- Typical applications include sealing close fitting joints between rigid metal faces and flange
- Provides resistance to low pressures immediately after assembly of flange
- Typically used as a form-in-place gasket on ridged flanged connections, e.g. gearbox and engine casings, etc.
- The thixotropic natures reduces the migration of liquid product after application to the substrate



0753	Volume Millilitres
LOC-229875	50
Tech Sheet 67943	

5400 Health & Safety Pipe Sealant

- No hazard symbols, no risk phrases
- White material safety data sheet
- No need for COSHH assessment
- WRAS Approved



0753	Volume Millilitres
LOC-1545634	50
LOC-1546964	250
Tech Sheet 67944	

603 Retainer

Particularly suitable for retaining close fitting cylindrical parts (up to 0.1mm gap), and for use on cylindrical fitting parts where thorough degreasing is not possible. Tested and approved for use on bearings.

- High and moderate strength products – can carry high loads and eliminate fretting
- Fill all voids – prevent corrosion
- Reduce the need for close tolerances
- 100% contact – load and stress is distributed evenly over the joint



For Retaining Cylindrical Parts

0753	Volume Millilitres
LOC-229873	10
LOC-135280	50
Tech Sheet 67945	

638 Retainer

Particularly suitable where dynamic axial and radial loads are present. Recommended for retaining shafts, gears, pulleys and similar cylindrical parts.

- High and moderate strength products – can carry high loads and eliminate fretting
- Fill all voids – prevent corrosion
- 100% contact – load and stress is distributed evenly over the joint



For Retaining Cylindrical Parts

0753	Volume Millilitres
LOC-234795	50
Tech Sheet 67946	

641 Bearing Fit Retainer

Particularly suitable for retaining parts such as bearings, and when later dismantling will be needed.

- High and moderate strength products – can carry high loads and eliminate fretting
- Fill all voids – prevent corrosion
- Reduce the need for close tolerances
- 100% contact – load and stress is distributed evenly over the joint



0753	Volume Millilitres
LOC-267442	10
LOC-135522	50
Tech Sheet 67947	

Super Glue



Bottle, Brush Application

0753	Volume Grams
LOC-272597	5



Tube, Squeeze Application

0753	Volume Grams
LOC-272602	3

Duct Tape



0753	Width mm	Length Metres
LOC-260499	50	25

SEALANT, RETAINER, SUPER GLUE & TAPE

Power Tape

Power Tape is no ordinary multi-purpose cloth tape. Manufactured to include advanced tape technology, three power layers are combined to form an outstanding, heavy-duty, fabric-reinforced power tape.

Power Tape is 100% weatherproof* and uses a unique super strong adhesive that sticks firmly to most surfaces offering up to 50% stronger adhesion than standard cloth tapes.

Power Tape is suitable for both interior and exterior use, and has hundreds of uses around the home, garden, garage and workplace.

*Not suitable for total immersion in water.

Not intended for permanent repairs.



0753	Width mm	Length Metres	Colour
LOC-297328	50	25	Silver
LOC-298392	50	25	Black

5075 Insulating Sealing Wrap

Insulating and emergency sealing wrap.

- Can be applied to wet surfaces
- Non-sticky self fusing tape
- Temperature from -54°C to +260°C



0753	Width mm	Length Metres	Colour
LOC-1684617	10	4.27	Red
LOC-1808110	10	4.27	Black

Tech Sheet 67948

SEALANTS & ADHESIVES

55 Pipe Sealing Cord



55 Thread Sealing Cord

0753	Length Metres
LOC-483283	50
LOC-270153	160

567 PTFE Pipe Sealant



567 PTFE Thread Sealant

0753	Volume Millilitres
LOC-234458	250

Threadlocker



290 High Strength Threadlocker

0753	Volume Millilitres
LOC-233733	50



6300 H&S Retainer

0753	Volume Millilitres
LOC-1546952	50

Magic Metal Stick



3463 Magic Metal Stick

0753	Volume Grams
LOC-265628	114

Anti-Seize



8009 Heavy-duty Anti-Seize "Brush in Lid"

0753	Volume Grams
LOC-504219	454

ADHESIVES

LOCTITE[®]

435 Instant Adhesive

- A rubber-toughened adhesive with increased flexibility and peel strength, along with enhanced resistance to shock
- The product provides rapid bonding on a wide range of materials including metals, plastic and elastomers, as well as porous and absorbent materials like wood, paper, leather and fabric



Clear Toughened

0753	Volume Grams
LOC-871787	20
Tech Sheet 10367	

401 Adhesive

Particularly suitable for bonding rubber and plastics.

- Fixtures in seconds
- Clear bond line – good cosmetic appearance
- Versatile – dissimilar materials can be bonded
- High strength – often giving a bond stronger than the materials being bonded
- Small parts bonding



Instant Bonding

0753	Volume Grams
LOC-135428	20
Tech Sheet 67934	

454 Instant Adhesive

- Designed for the assembly of difficult-to-bond materials which require uniform stress distribution and strong tension and/or shear strength
- The product provides rapid bonding of a wide range of materials including metals, plastics and elastomers
- This product is particularly suited for bonding porous or absorbent materials such as wood, paper, leather and fabric
- The gel consistency prevents adhesive flow, even on vertical surfaces



Gel

0753	Volume Grams
LOC-195678	20
Tech Sheet 67935	

406 Adhesive

Particularly suitable for difficult-to-bond rubber or plastics, e.g. polyethylene, polypropylene, PTFE, or thermoplastic rubbers such as Santoprene.

- Fixtures in seconds
- Clear bond line – good cosmetic appearance
- Versatile – dissimilar materials can be bonded
- High strength – often giving a bond stronger than the materials being bonded
- Small parts bonding



Instant Bonding

0753	Volume Grams
LOC-233695	20
Tech Sheet 67936	

3430 Twin Syringe Ultra Clear, Fast Cure

- Ultra-clear bond line
- Medium viscosity
- Fast cure



0753	Volume Millilitres
LOC-142517	24
Tech Sheet 67938	

Terason MS939

A gun-grade, one-component adhesive/sealant based on silane modified polymers, which cures by reaction with moisture to an elastic product. It can be used for elastic bonding of metals and plastics, elastic, interior and/or exterior seam and joint sealing.

- Pasty and thixotropic
- 1-part, low modulus, flexible
- UV resistant, sag-resistant
- Non-corrosive and free of solvents
- Isocyanates, silicones and PVC

new product



Silane-modified Polymer

0753	Volume Millilitres
2436358	290
2436359	570
Tech Sheet 71758	

3090 Two Component Gel

- Handling strength in seconds
- Gap filling up to 5m
- Gel based, non-drip formula
- Cures quickly, independently of gap and substrate
- Excellent bonding characteristics on a broad variety of substrates: metals, most plastics, rubber, porous/absorbent materials such as wood, paper, cardboard, leather and fabric



Working Temperature:
-20°C to +80°C

0753	Volume Grams
LOC-1379599	10
Tech Sheet 67939	

4090 Two Component Gel, High Temperature

- High moisture resistance
- Up to +150°C
- Impact and vibration resistant
- Gap filling up to 5m



0753	Volume Grams
LOC-1778011	50
Tech Sheet 67940	

4070 Structural Bonder

HY 4070 is a two-part, transparent, cloudy, colourless to pale yellow cyanoacrylate/acrylic hybrid gel adhesive that provides a fast fixture at room temperature. Suitable for various substrates including most plastics, rubbers and metals.

- Non-sag
- Gel consistency prevents adhesive flow, even on vertical surfaces
- Gap filling up to 5m
- Temperature and moisture resistant



0753	Volume Grams
LOC-2237457	11
Tech Sheet 68733	

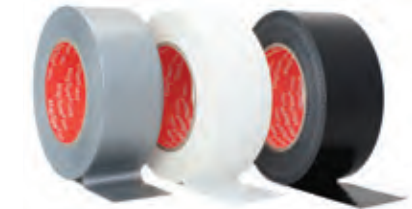
ADHESIVE TAPES

Tapes



Pipework Identification PVC tapes

0137	Description	Colour	Background
PTB5920000	Compressed Air	Black	Light Blue
PTB5920003	Gas	Black	Yellow Ochre
PTB5920005	Nitrogen	Black	Yellow Ochre
PTB5920006	Steam	Black	Silver
PTB5920008	Water	Silver	Green



Magtape Utility Gaffer Tape

0137	Description	Width mm	Roll Length Metres
CTMAGUT48BK	Black	50	50
CTMAGUT48W	White	50	50



Magtape Utility Gaffer Tape, Colours

0137	Description	Width mm	Roll Length Metres
CTMAGUT50S.BLUE	Blue	50	50
CTMAGUT50Y	Yellow	50	50



Kraken Silicone Repair Tape

0137	Description	Width mm	Roll Length Metres
RT24BK	Black	24	3.6
RT24C	Clear	24	3.6



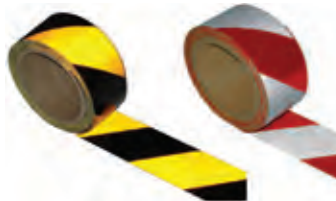
Masking Tape

0137	Description	Width mm	Roll Length Metres
MT77724	Natural	24	50
MT77748	Natural	48	50



Velcro Hook & Loop Tape

0137	Description	Roll Length Metres
VT9012525BKHOOK	Black Hook Tape 25mm Width	25



Reflective Hazard Warning PVC Tape

0137	Description	Width mm	Roll Length Metres
REFBKY50	Black/Yellow	50	10
REFRW50	Red/White	50	10



Slipway Cable Cover Tape

0137	Description	Width mm	Roll Length Metres
SW14530PBK	Matt Black	145	30



Tape Residue Remover

0137	Volume Millilitres
AR250	250



Anti Slip Primer

0137	Volume Litres
ST2238	1

ADHESIVE TAPES & BARRIER TAPES



PVC Tapes

- Nominal Thickness 0.13mm+0.025mm
- Available in a wide range of colours
- No lead content
- Good electrical properties, tough, flexible and conformable
- Approved by BS3924, IMQ, VDE, OVE
- Self extinguishing

Applications:
Electrical insulating tape
General purpose



ISOLSINT/2702 Tape, 33 Metre Rolls

0137	Size mm	Colour
2702BLACK12	12	Black
2702RED12	12	Red
2702BLUE12	12	Blue
2702DGREEN12	12	Dark Green
2702BLACK19	19	Black
2702WHITE19	19	White
2702RED19	19	Red
2702BLUE19	19	Blue
2702YELLOW19	19	Yellow
2702BROWN19	19	Brown
2702ORANGE19	19	Orange
2702YELLGRE19	19	Yellow & Green
2702BLACK25	25	Black
2702RED25	25	Red
2702BLACK50	50	Black
2702YELLOW50	50	Yellow
2702ORANGE50	50	Orange

Tech Sheet 20416

- Nominal Thickness 0.16mm+0.025mm
- Available in a wide range of colours
- Lead free
- Easy tearability

Applications: Line marking and hazard warning



2721 Tapes, 33 Metre Rolls

0137	Size mm	Colour
2721YELLBLACK50	50	Yellow & Black
2721YELLBLACK75	75	Yellow & Black

Tech Sheet 20414

31075 Foam Tapes

- Double sided polyethylene foam tape
- Heavy-duty packaging tape



30 Metre Rolls

0137	Size mm	Colour
5474WHITE2X10	2 x 10	White

Tech Sheet 20418

Packaging Tapes

- Economical carton sealing tape
- General purpose packaging tape



Polypropylene Buff Packaging Tapes, 66 Metre Rolls

0137	Size mm	Quantity
SHBPT50X66	50	1
SHBPT50X66BOX	50	36

- Available in mono or crossweave format
- Application:** Heavy-duty packaging tape.



Filament Packaging Tapes, 50 Metre Rolls

0137	Size mm	Format
SHMT25X50	25	Mono
SHMT50X50	50	Mono
SHCT25X50	25	Crossweave
SHCT50X50	50	Crossweave

Tech Sheet 20419

- The low-tack adhesive allows easy unwinding from the roll, avoiding distortion of the fil
- Easy, clean removal from the protected article after use
- Resistant to moisture, many chemicals, such as diluted acids and alkalis, and salt solutions
- Suitable for indoors or outdoors
- Used as a protection film for the transport of window frames and ladders
- The tape performs well on mild steel, stainless steel and aluminium



2903/1102 Outdoor Low-Tack Protection Tape, 100 Metre Rolls

0137	Size mm	Colour
2903BLACKBLACK50	50	Black/Black
2903BLACKBLACK75	75	Black/Black

Tech Sheet 20417

Self Amalgamating Tapes

- Compatible with a wide range of rubber and plastic dielectric cable insulation
- Highly resistant to prolonged immersion in water and has excellent resistance to ozone

Applications: Used for making watertight seals at polyethylene sleeve joints on polyethylene-sleeved telephone cables, both above and below ground. Used for jointing (splicing) and repair of a wide range of power and distribution cables up to 46 kV.



Black PIB Self Amalgamating Tape, 10 Metre Rolls

0137	Size mm
2501BLACK19	19
2501BLACK25	25

Tech Sheet 20415

Non-adhesive Barrier Tapes

- This range of economical barrier tapes can be used to section off areas



Barrier Tapes, 500 Metre Rolls

0137	Size mm	Colour
SHBTR/W-75X500	75	Red & White
SHBTB/Y-75X500	75	Black & Yellow

Waterproof Cloth Tapes

- A polyethylene coated waterproof cloth tape with a pressure sensitive adhesive
- Economy grade waterproof cloth tape
- Excellent adhesion and strength

Applications: General purpose waterproof cloth tape. Used for sealing, bundling, masking and protecting. Excellent for joining polyethylene sheeting in asbestos removal applications.



3160 Waterproof Cloth Tape, 50 Metre Rolls

0137	Size mm	Colour
3160BLACK50	50	Black
3160WHITE50	50	White
3160SILVER50	50	Silver
3160BLACK75	75	Black
3160BLACK100	100	Black
3160WHITE100	100	White
3160SILVER100	100	Silver

Tech Sheet 20420

ADHESIVE TAPES & BARRIER TAPES

PVC Tapes

- Nominal Thickness 0.13mm+0.025mm
- Available in a wide range of colours
- No lead content
- Good electrical properties, tough, flexible and conformabl
- Approved by BS3924, IMQ, VDE, OVE
- Self extinguishing

Applications: Electrical insulating tape, general purpose



33 Metre Rolls

0137	Size mm	Colour
LEMPVC19G	19	Green
LEMPVC19GY	19	Grey
LEMPVC25B	25	Blue
LEMPVC25G	25	Green
LEMPVC25BR	25	Brown

- Nominal Thickness 0.16mm+0.025mm
- Available in a wide range of colours
- Lead free
- Easy tearability

Applications: Line marking and hazard warning



33 Metre Rolls

0137	Size mm	Colour
PVC50RW008	50	Red & White

RUST-OLEUM®



For Leak Seal
see page 1564

SPRAYS & SEALANTS

Sealants, Fillers & Guns



Professional Cartridge Gun

0755
2017-6442



All with anti-fungicide.

Polyurethane Expanding Filler & Cleaner

0755	Colour	Volume Millilitres
2017-6467	Black	300
2017-6475	Brown	300
2017-6483	Clear	300
2017-6491	White	300

Tech Sheet 20094



Low Modulus Acetoxy Silicone

0755	Colour	Volume Millilitres
2017-6335	White	300

Tech Sheet 20093



Polyurethane Expanding Filler & Cleaner

0755	Type	Volume Millilitres
2017-6418	Gun Foam	750
2017-6434	Hand Held	750

Tech Sheet 20095

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 15

Blow Guns, Vacuum & Nozzles

15.01 Blow Guns **1591-1610**

15.02 Air Jets, Movers, Knives & Amplifier **1611-1616**

SECTION 15

Blow Guns, Vacuum & Nozzles

15.01 Blow Guns

- Blow Guns
- Air Blow Guns
- Extended Air Blow Guns
- Blow Guns & Air Nozzles
- Blow/Vacuum Guns & Kits
- Drag-in Pump Kit



15.02 Air Jets, Movers, Knives & Amplifier

- Air Jets
- Blow Guns & Air Nozzles
- Air Movers
- Air Knives & Amplifier





Blow Guns


Features:

The FT Pro ASG-1 safety air blow gun has been developed to comply with all aspects of the OSHA standard for compressed air used for cleaning.

This standard reads: 'Today, the most common way to comply to this standard is to fit a tamper-proof regulator set at 29 PSI ahead of the blow gun. However, this is costly and can only be used when also using a safety nozzle'.

The FT Pro ASG-1 safety air gun provides an extremely cost effective solution; it is designed with Venturi holes in the nozzle which increase air volume and allow air to escape if the nozzle is dead-ended. This specially designed feature ensures less than 30 PSI passes through the nozzle, complying with the standard set by OSHA.

In addition, all the internal components are brass, ensuring a rust-free operation. Blow gun repairs are not necessary as O-rings are self-lubricating, preventing valve leakage.

 **Working Temperature:**
-32°F to +275°F

 **Maximum Working Pressure**
150 PSI

ASG-1 Safety Air Blow Gun

Red Handle, BSPT

0424	Thread
ASG-1	1/4"



Construction:

Body:	Die cast zinc
Internal	
Components:	Nickel-plated brass
Nozzle:	Brass
Decibel:	97
Thumb Grip:	Vinyl
Inlet:	R1/4
Flow:	310 L/min



BLOW GUN ACCESSORIES FOR ASG-1

Safety Nozzle

- Standard safety nozzle

0424
ST10
Tech Sheet 20332



Safety Booster

- Increases air volume by up to 33%, and still conforms to OSHA

0424
ST11
Tech Sheet 20332



Extension Nozzles

0424	Length
ST203	3"
ST206	6"
ST208	8"
ST210	10"
ST212	12"
ST216	16"
ST218	18"
ST224	24"
ST230	30"
ST236	36"



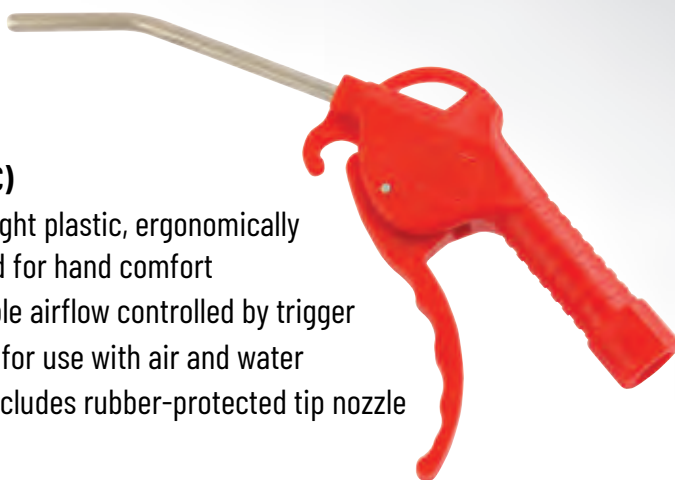
Rubber Tip

- Non safety nozzle
- For delicate surfaces that brass may damage

0424
SAT13



Air Blow Guns



BG5 (-PVC)

- Lightweight plastic, ergonomically designed for hand comfort
- Adjustable airflow controlled by trigger
- Suitable for use with air and water
- (-PVC) includes rubber-protected tip nozzle


DG-10

- Lightweight aluminium construction
- Adjustable airflow controlled by trigger
- Suitable for use with air, water and cleaning degreasers

BG-718

- Heavy-duty brass construction suitable for use in harsh environments
- Suitable for use with air and water

 **Working Temperature:**
0°C to +60°C

 **Maximum Working Pressure**
10 bar (150 PSI)

Air Blow Guns



BG5-PVC

BSPP Inlet

1305	Thread	Information
BG5	1/4"	—
BG5-PVC	1/4"	Includes PVC Tip

Tech Sheet 20335

Heavy-duty Brass Blow Gun



BG-718

BSPP Inlet

1305	Thread
BG-718	1/4"

2/2 Brass Lever/Spring Poppet Valves



BSPP

0090	Thread
PBBLH-3/8	3/8"

Air Blow Guns



BSPT Male

1305	Thread
DG-10	1/4"

Tech Sheet 10726

Air or Water Gun



3/4" Hose Tail Connection

1305	
ASW-1	

Tech Sheet 60464

Air Engine Cleaning Guns



0.6 Litre Capacity, BSPT

1305	Thread
DG-10-EC	1/4"

Tech Sheet 20337

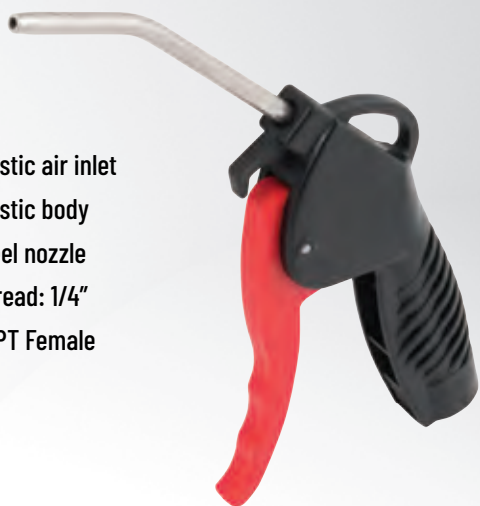


90°, BSPT

1305	Thread
DG-10-EK	1/4"

Tech Sheet 20338

EXTENDED AIR BLOW GUNS



- Plastic air inlet
- Plastic body
- Steel nozzle
- Thread: 1/4"
- BSPT Female

Maximum Pressure:
11 bar
Working Pressure:
6 bar

Air Blow Guns

1305	Length
LD04-1	4"
LD10-1	10"
LD13-1	13"
LD20-1	20"
LD40-1	40"

Tech Sheet 20421

PVC Tip for Extended Air Blow Gun

1305	
144194	



BLOW GUNS



Extension Nozzles



Plastic, BSPP Inlet

1308	Thread	Length mm
AK-13	1/4"	100
AK-300	1/4"	300
AK-600	1/4"	600
Tech Sheet 10783		

Standard Nozzles



Plastic, BSPP Inlet

1308	Thread
AN-13	1/4"
Tech Sheet 20789	

Safety Nozzles



Plastic, BSPP Inlet

1308	Thread
AL-13	1/4"
Tech Sheet 10784	

Nozzle 1/8" BSP



Plastic, 1/4" BSPP Inlet

1308	Thread
AI-13	1/4"
Tech Sheet 20788	

Low Noise Level Nozzles (63-73 DB)



Plastic, BSPP Inlet

1308	Thread
AF-13	1/4"
Tech Sheet 20790	

Replacement Nozzle

1308	To Suit
AR-12	AF-13

Safety Nozzles



Aluminium, BSPP Inlet

1308	Thread
AV-13	1/4"
Tech Sheet 10788	

Replacement Nozzle

1308	To Suit
VR-12	AV-13



Aluminium, BSPP Inlet

1308	To Suit
AA-13	1/4"

Replacement Nozzle

1308	To Suit
KD-12	AA-13
Tech Sheet 10786	

Aluminium, BSPP Inlet



1308	Thread
AS-13	1/4"
Tech Sheet 10785	

Replacement Nozzle

1308	To Suit
SD-12	AS-13



Aluminium, High Powered, Energy Saving Gun, BSPP Inlet

1308	Thread
AT-13	1/4"
Tech Sheet 20787	

Aluminium, BSPP Inlet



1308	Thread
AR-13	1/4"
Tech Sheet 20791	

Pressure Reducer



Fits Inlet on all Blow Guns, BSPP

1308	Thread	Air Pressure bar
DRV13/30	1/4"	3
DRV13/40	1/4"	4
DRV13/50	1/4"	5
DRV13/60	1/4"	6
Tech Sheet 1963		

BLOW GUNS



25

25 year warranty on the Air Boy® valve system

Working Temperature: -10°C to +80°C

Maximum Working Pressure: 16 bar

Advised Working Pressure: 8 bar

Air Boy® Classic



1/4" BSPP, Bent Pipe

1307	Nozzle OD mm	LPM
140101-000	8	380
140102-000	6	330

Tech Sheet 60024



Trade Counter, 10 Pack

1307	Nozzle OD mm	LPM
140900-000		



1/4" BSPP, Bent Pipe & Air Adjustment Screw

1307	Nozzle OD mm	LPM
140103-000	8	380
140104-000	6	330

Tech Sheet 60025



1/4" BSPP, Extended Bent Pipe

1307	Nozzle OD mm	Nozzle Length mm	LPM
140112B-000	8	300	380
140113B-000	8	500	380
140114B-000	8	1000	380

Tech Sheet 60026



1307	Nozzle OD mm	LPM
140100-000		

1/4" BSPP, Extended Straight Pipe

1307	Nozzle OD mm	Nozzle Length mm	LPM
140112-000	8	300	380
140113-000	8	500	380
140114-000	8	1000	380

Tech Sheet 60026

Air Boy® Stainless



1/4" BSPP, Stainless Steel Bent Pipe

1307	Nozzle OD mm	LPM
140120-159	8	380

Tech Sheet 60027

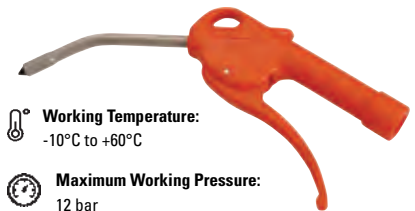


1/4" BSPP, Stainless Steel Bent Pipe

1307	Nozzle OD mm	LPM
140120-000	8	380

Tech Sheet 60024

Super Silent Air Boy®



Working Temperature: -10°C to +60°C

Maximum Working Pressure: 12 bar

High blowing force, low noise level

1/4" BSPP, Unblockable Stainless Steel Bent Pipe

1307	Nozzle OD mm	LPM
140141-000	8	330

Tech Sheet 60033



For Ear Protection see page 1753



BLOW GUNS



25 year warranty on the Air Boy® valve system



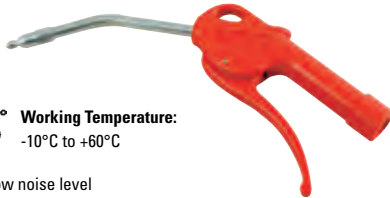
Working Temperature:
-10°C to +80°C



Maximum Working Pressure:
16 bar

Advised Working Pressure:
8 bar

Silent Air Boy®



Working Temperature:
-10°C to +60°C

Low noise level

1/4" BSPP, Unblockable Bent Pipe

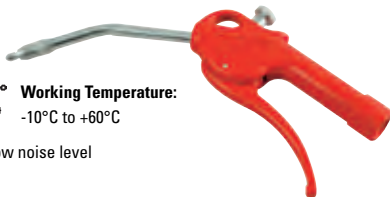
1307	Nozzle OD mm	LPM
140125-000	8	260
Tech Sheet 60031		



Low noise level

8mm, Bent Pipe with Shut Off

1307		
140128-000		

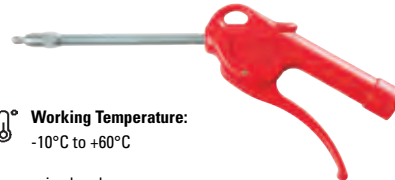


Working Temperature:
-10°C to +60°C

Low noise level

1/4" BSPP, Unblockable Bent Pipe & Air Adjustment Screw

1307	Nozzle OD mm	LPM
140135-000	8	260
Tech Sheet 60032		



Working Temperature:
-10°C to +60°C

Low noise level

1/4" BSPP, Unblockable Straight Pipe

1307	Nozzle OD mm	LPM
140126-000	6	260
Tech Sheet 60031		



Working Temperature:
-10°C to +60°C

Low noise level

1/4" BSPP, Unblockable Straight Pipe & Air Adjustment Screw

1307	Nozzle OD mm	LPM
140136-000	8	260
Tech Sheet 60032		



8mm with Extended Pipe & Shut Off

1307	Nozzle Length mm
140129-000	500

Air Boy® Anti-Block



1/4" BSPP, Unblockable Bent Pipe

1307	Nozzle OD mm	LPM
140106-000	6	330
Tech Sheet 60029		

Safety Air Boy®



1/4" BSPP, Bent Pipe, Automatic Pressure Reduction

1307	Nozzle OD mm	Pressure Reduction	LPM
140161-000	8	2	140
140171-000	8	3.5	220
Tech Sheet 60030			



1/4" BSPP, Straight Pipe, Automatic Pressure Reduction

1307	Nozzle OD mm	Pressure Reduction	LPM
140160-000	8	2	140
140170-000	8	3.5	220
Tech Sheet 60030			

PORTWEST



For **Respiratory Protection**
see page 1755

BLOW GUNS



25

25 year warranty on the Air Boy® valve system

Working Temperature: -10°C to +80°C

Maximum Working Pressure: 16 bar

Advised Working Pressure: 8 bar

Air Boy® Turbo



1/4" BSPP, Unblockable Bent Pipe & Venturi Nozzle

1307	OD mm	LPM
140110-000	6	300
140111-000	8	300

Tech Sheet 60028



Venturi Nozzle for 8mm Pipe

1307
144116

Tech Sheet 60037

Air Boy® Non Scratch



8mm, Bent Nozzle

1307
140021-000

Air Boy® Junior



Blow Gun Junior & Rubber Nozzle

1307
140023-000

Jet Air Boy®



High blowing force,
low noise level

1/4" BSPP, Unblockable Jet Air, 1 Nozzle

1307	Nozzle	LPM
140026-134	Flat	580

Tech Sheet



Jet Air Boy® with Flat Nozzle & Volume Control

1307
140027-134



1/4" BSPP, Threaded Blow Gun for Jet Air Nozzles

1307	Nozzle	LPM
140858-000	1/4" BSPP	380

Tech Sheet 60024



1/4" BSPP, Jet Air, 1 Nozzle

1307	Colour	Material	LPM
141000-000	Black	POM	580

Tech Sheet 60036



1/4" BSPP, Jet Air, 2 Nozzles

1307	Colour	Material	LPM
141001-000	Grey	ULTEM 1000 200°C	580

Tech Sheet 20428

Precision Nozzle



Hardened Steel

1307	Thread ID
145950-000	1/4"

Wide Nozzle



Pack of 3

1307	To Suit
145955-000	Sodablaster V2

BLOW GUNS



Sodablasting



Sodablasting Media

1307	Litres
320103-000	5

Sodablasting Set

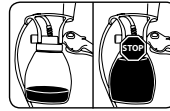


Air Blow Gun with Hose & Feeder Tube

1307	Thread ID
145110-000	1/4"

Brake Bleeders

- Air supply: 6-12 bar, 180 L/min at 8 bar



The safety valve prevents the fluid to atomize when the container is full.



1/4" BSPP Inlet, Complete with Safety Valve

1307	Capacity Litres
143103-000	1.2
Tech Sheet 20436	



1/4" BSPP Inlet

1307	Capacity Litres
143102-000	1.2

Oil Extractor

Ideal for changing oil on tractors, cars, boats, motorcycles, garden machinery and other types of engines.

The oil flow is infinitely adjustable and easily regulated with the trigger.

Also suitable for the removal of various types of oils, e.g. hydraulic, cutting and engine oils.

Made of impact-resistant materials and extremely corrosion resistant.

 **Maximum Working Pressure:**
12 bar



1/4" BSPP

1307	Capacity Litres	LPM
147150-134	1.2	180
Tech Sheet 60401		

Automotive Tools

To ensure the optimum operation of your cooling system it is important to secure that the coolant is not polluted with abrasive particles and foreign materials.

With the **Jet Flusher** you can flush the whole system without use of solvents and harsh chemicals. It uses a combination of water and compressed air, which increases the water pressure without damaging the surface.


The **Jet Flusher** is equipped with individual adjustment for both air and water flow, which easily can be set for the required output.

- Effective flushing of cooling systems - without solvent or harsh chemicals
- Individual adjustment for both air and water flow
- Combines water and compressed air for increased efficiency
- Multi-functional - possible to change the nozzle

Features:

- Effective flushing - without use of harsh chemicals
- Multi-functional - replaceable nozzle
- Individual regulations of both air and water flow
- Great mobility



 **Maximum Working Pressure:**
6-10 bar 87-145 PSI,
min 200 L/min

Jet Flusher

1307	Water Connection	Air Connection
102185-000	1/2" Nipple Water Connection, 3/4" GHT Water Hose Thread	1/4" Internal Thread (BSP)

new product

The **Jet Washer** is a powerful washing gun which allows you to wash effectively without damaging the surface with high pressure.

The combination of compressed air and water gives ideal conditions for washing, where more power, than a regular water supply can provide, is needed.


The **Jet Washer** is designed to allow operators to come close without getting wet. There is no splash back.

- Effective cleaning without damage and splash back
- Multi-functional - possible to change the nozzle to the Jet Flusher nozzle
- Adjustable air and water flow
- Great mobility - built-in swivel
- Perfect for cleaning hard to reach places

Features:

- Effective cleaning
- No splash back
- Multi-functional - possible to change the nozzle
- Adjustable air and water flow
- Great mobility - built-in swivel
- Perfect for cleaning hard to reach places



 **Maximum Working Pressure:**
6-10 bar 87-145 PSI,
min 200 L/min,

Jet Washer

1307	Water Connection	Air Connection
102010-000	1/2" Nipple water Connection, 3/4" GHT Water Hose Thread	1/4" Internal Thread (BSP)

new product

BLOW GUNS



Air Boy® Thrust Blow Gun

Air Boy® Thrust very high airflow The Air Boy® Thrust blowgun provides a very high airflow and the thrust nozzle is unblockable. The Thrust nozzle increases the airflow by 100% due to the venturi principle. The Air Boy® Thrust blowgun is well suited for commercial vehicles, trade and industry and cleaning areas.

Working Temperature: -20°C to +80°C Maximum Working Pressure: 12 bar, 600 L/min (8 bar)



Air Boy® Thrust Blow Gun only

1307	Connection
140001-000	1/4" BSP

Air Boy® Inflating Gun



Working Temperature: -10°C to +60°C

1/4" BSPP, for Footballs

1307	Nozzle	LPM
140108-000	Inflating Needle	200

Tech Sheet 20793



Working Temperature: -10°C to +60°C

1/4" BSPP, for Bicycles (Dunlop & Presta Valves)

1307	Nozzle OD mm	LPM
140118-000	8	380

Tech Sheet 20424

Blow Gun Accessories



Accessories

1307	Size mm	Type
144180	8	Protective Shield

Tech Sheet 20430

The Air Boy® Thrust blowgun provides a very high airflow and the thrust nozzle is unblockable

The Air Boy® Thrust blowgun comes with both a venturi nozzle (Thrust) and a 90° angle nozzle. The Thrust nozzle increases the airflow by 100% due to the venturi principle. The 90° angle nozzle is ideal for cleaning inside cylindrical objects or hard to reach places.

Working Temperature: -20°C to +80°C Maximum Working Pressure: 12 bar, 600 L/min (8 bar)



Air Boy® Thrust Blow Gun with 1 Metre & 90° Nozzle with 4 x 3 holes

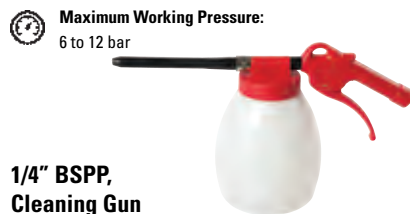
1307	Connection
140009-000	1/4" BSP

Cleaning Guns



Metal Nozzle

1307	Capacity Litres	Nozzle Length mm
142101-000	1.2	145

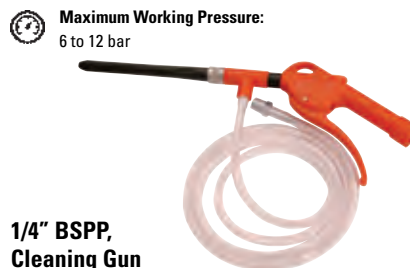


Maximum Working Pressure: 6 to 12 bar

1/4" BSPP, Cleaning Gun

1307	Capacity Litres	Nozzle Length mm	LPM
142130-000	1.2	150	100
142135-000	1.2	200	100

Tech Sheet 20431



Maximum Working Pressure: 6 to 12 bar

1/4" BSPP, Cleaning Gun with 1.5 Metre Suction Hose

1307	Nozzle Length mm	LPM
142131-000	150	100

Tech Sheet 20431

The Air Boy® Thrust blowgun comes with both a venturi nozzle (Thrust) and an angle nozzle. The Thrust nozzle increases the airflow by 100% due to the venturi principle. The angle nozzle is ideal for hard to reach places. The counter nut makes sure that the user themselves can choose the direction to blow.

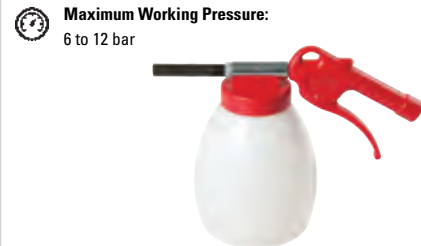
Working Temperature: -20°C to +80°C Maximum Working Pressure: 12 bar, 600 L/min (8 bar)



Air Boy® Thrust Blow Gun with 1 Metre & Directional Nozzle with 1 Hole

1307	Connection
140074-000	1/4" BSP

Sandblasting



Maximum Working Pressure: 6 to 12 bar

1/4" BSPP, Sandblasting Gun

1307	Capacity Litres	LPM
145100-000	1.2	450

Sandblasting Gun Accessories



Nozzle for Sandblasting Gun

1307	To Suit
145219	145102-000

BLOW GUNS

Blow Guns

Designed in Australia and sold for over 30 years, the Jamec Pem range is used globally in all automotive and industrial applications.

Features

- Variable air flow trigger
- Robust and durable ABS plastic handle
- Long reach with angle nozzle
- Ergonomic handle for maximum comfort
- Ideal for cleaning work areas and equipment



JAMEC PEM
COUPLE UP WITH THE RIGHT CONNECTION

230mm Angled Tipped Nozzle

1470	Description
171.0780S	230mm Angled Tipped Nozzle

Designed in Australia and sold for over 30 years, the Jamec Pem range is used globally in all automotive and industrial applications.

Features

- Strong rubber tipped nozzle, ideal for close delicate work
- Tough and durable ABS plastic
- Variable trigger airflow
- 1/4" Brass insert female connection
- Tough industrial quality



JAMEC PEM
COUPLE UP WITH THE RIGHT CONNECTION

100mm Rubber Tipped Angled Nozzle

1470	Description
171.034RTOS	100mm Rubber Tip Angled Nozzle

With a flexible 600 mm nozzle, the new Flex Nozzle blow gun from Jamec Pem provides the flexibility, innovation and convenience to make it the best hand tool in any workshop.

Features

- Durable ABS plastic handle
- Pistol grip
- 600mm flexible nozzle
- 1/4" brass inlet



JAMEC PEM
COUPLE UP WITH THE RIGHT CONNECTION

600mm Flex Nozzle

1470	Description
171.0670S	600mm Flex Nozzle

Energy Save Blow Gun Kit

Ready for use, simple and ergonomic, the Parker Legris blow gun kit remains an essential item of equipment for any blowing or spraying operation in the industrial environment.



Kit

1012	Thread	ID mm	OD mm	Length Metres
LE-0631 00 23	1/4"	4	6	4

Universal Blow Gun

Fluid Carried: Compressed air.

Maximum Flow Pressure: 10 bar.

Safety Pressure at 6 bar: 0.5 bar.

Output at 6 bar: 255 NI/min.

Force of Air Jet at 6 bar: 0,145 daN.

Noise Level (Norm. NFS 31 031): 83,3 dbA.



Dynamic Safety Blow Gun

1012	Thread
LE-0654 00 13	G1/4"

Tech Sheet 20792

DRIVEN BY AIR.



ERGO & ERGO EXTREME Blowgun Ranges

Design-engineered in the UK, with
comfort and style in mind.

BLOW GUNS

ERGO Blow Guns

Design-engineered in the UK, with comfort and style in mind, this range has the PCL DNA running right through it, from handle to tip. A sturdy product made from durable plastic that looks and feels good in your hand, it replaces the current 'best' range of blowguns, building on the high quality and performance for which PCL is renowned.



Blow Gun with Standard Nozzle

7002	Airflow	Sound	Conformity
BG7001	11.8 cfm/334 L/min	94 dBA	N/A

Designed to reduce the risk associated with noise exposure.



Low Noise Blow Gun

7002	Airflow	Sound	Conformity
BG7006	9.8 cfm/277 L/min	80 dBA	EU/2003/10/CE

Ideal when increased airflow is required.



TURBO Blow Gun

7002	Airflow	Sound	Conformity
BG7008	18.4 cfm/521 L/min	114 dBA	OSHA 1910.95 OSHASTD 1-13.1

Ideal when a larger dispersal of air is required.



Aircurtain Blow Gun

7002	Airflow	Sound	Conformity
BG7005	8.8 cfm/249 L/min	94 dBA	OSHA 1910.95 OSHASTD 1-13.1

Features

- Newly designed air release valve built into the body, enabling trigger/air flow to be feathered
- Re-enforced webbing – Robust design gives strength and confidence
- Easy to store with multiple hanging points
- 1/4" BSPP female brass inlet for increased durability

Extended Conical Nozzle allows the operator to reach small areas.



Blow Gun with Extended Nozzle

7002	Airflow	Sound	Conformity
BG7002	11.8 cfm/334 L/min	94 dBA	N/A

Safety valve restricts airflow to the recommended 2 bar eliminating user error.



2 bar Regulated Safety Blow Gun with Standard Nozzle

7002	Airflow	Sound	Conformity
BG8001	8.9 cfm/252 L/min	90 dBA	EU/2003/10/CE

Safety valve restricts airflow to the recommended 2 bar eliminating user error.



2 bar Regulated Safety Blow Gun with Extended Nozzle

7002	Airflow	Sound	Conformity
BG8002	8.9 cfm/252 L/min	90 dBA	EU/2003/10/CE

Ergo Extreme Blow Guns

Design-engineered in the UK, with comfort and style in mind.

Features

- Newly designed air release valve built into the body, enabling trigger/air flow to be feathered
- Re-enforced webbing – Robust design gives strength and confidence
- Easy to store with multiple hanging points
- 1/4" BSPP female brass inlet for increased durability
- Additional cushioning with a flexible, rubber grip on the handle, which also offers increased strength



Blow Gun with Standard Nozzle

7002	Airflow	Sound	Conformity
BG7501	11.8 cfm/334 L/min	94 dBA	N/A



Extended conical nozzle allows the operator to reach small areas.

Blow Gun with Extended Nozzle

7002	Airflow	Sound	Conformity
BG7502	11.8 cfm/334 L/min	94 dBA	N/A

Designed to reduce the risk associated with noise exposure.



Low Noise Blow Gun

7002	Airflow	Sound	Conformity
BG7506	9.8 cfm/521 L/min	80 dBA	EU/2003/10/CE

Safety valve restricts airflow to the recommended 2 bar eliminating user error.



2 bar Regulated Safety Blow Gun with Standard Nozzle

7002	Airflow	Sound	Conformity
BG8501	8.9 cfm/252 L/min	90 dBA	EU/2003/10/CE

Ideal when increased airflow is required.



TURBO Blow Gun

7002	Airflow	Sound	Conformity
BG7508	18.4 cfm/521 L/min	114 dBA	OSHA 1910.95 OSHASTD 1-13.1

Safety valve restricts airflow to the recommended 2 bar, eliminating user error.



2 bar Regulated Safety Blow Gun with Extended Nozzle

7002	Airflow	Sound	Conformity
BG8502	8.9 cfm/252 L/min	90 dBA	EU/2003/10/CE

Ideal when a larger dispersal of air is required.



Aircurtain Blow Gun

7002	Airflow	Sound	Conformity
BG7505	8.8 cfm/249 L/min	94 dBA	OSHA 1910.95 OSHASTD 1-13.1

BLOW GUNS



Metal Blow Gun with Safety Nozzle

This robust blowgun with 1/4" BSPP air inlet is manufactured from high quality die-cast alloy for a long, trouble-free life.



7002	Description
BG106	1/4" BSPP Inlet

Palm Blow Gun

The robust palm blowgun with 1/4" BSPP air inlet is manufactured from high quality die-cast alloy and is supplied with a safety nozzle and conical nozzle.

Features

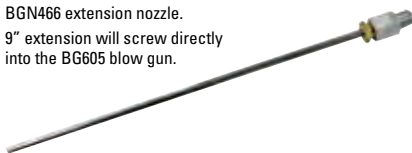
- 1/4" Female connection
- Max W.P: 10 bar
- Airflow: 247 L/min (8.9 cfm)



7002	Description
BG605	Blow Gun with Safety & Conical Nozzle

Palm Blow Gun 9" Extension Nozzle

BGN466 extension nozzle. 9" extension will screw directly into the BG605 blow gun.



7002	Description
BGN466	9" Extension to Suit BG605

Pistol Grip Blow Gun with Safety Nozzle

PCL's 1/4" BSPP pistol grip blowgun is manufactured from high quality die-cast alloy, giving the tool a long trouble-free life. Supplied with a conical and safety nozzle.



7002	Description
BG405	1/4" BSPP Inlet

Plastic Blow Gun

Manufactured from chemical and impact resistant acetal resin, PCL's range of entry level 1/4" BSPP pistol grip plastic blowguns are suitable for use with both air and water.



7002	Description
BG5002	Blow Gun with Standard 100mm Nozzle
BG5007	Blow Gun with 9" Extension Nozzle

Plastic Blow Gun with Safety Nozzle

PCL's entry level 1/4" BSPP pistol grip plastic blowgun is suitable for use with both air and water. It features an innovative safety nozzle design which ensures the airflow cannot be blocked.



7002	Description
BG5004	1/4" BSPP Blow Gun

Water Dispenser

Designed to dispense water in such applications as a radiator or windscreen water bottle filler. The sturdy design incorporates a lever for instant flow and cut-off.



7002	Description
RF104	Water Dispenser

For Hand Protection
see pages 1756-1758



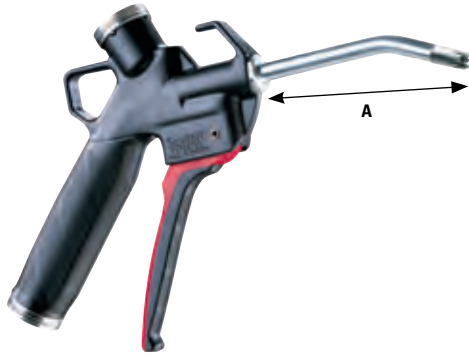
BLOW GUNS & AIR NOZZLES



Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.
A = nozzle length.

Silvent Safety Air Guns

Fitted with a Laval nozzle, this gun provides superior cleaning performance and optimal utilization of the compressed air.

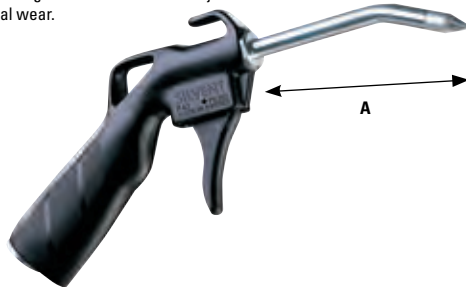


1/4" BSPP 007-L Series Air Gun, Stainless Steel Laval Nozzle

0165	A mm
SIL-007-L	94
SIL-007-L-250	250
SIL-007-L-400	400
SIL-007-L-600	600
SIL-007-L-800	800
SIL-007-L-1000	1000

Tech Sheet 10747

This gun is fitted with a zinc slotted nozzle and is suitable for general purpose cleaning where the nozzle is subject to little or no mechanical wear.



1/4" BSPP 500 Series Air Gun, Zinc Slotted Nozzle

0165	A mm
SIL-500-Z	94
SIL-500-Z-250	250
SIL-500-Z-400	400
SIL-500-Z-600	600
SIL-500-Z-800	800

Tech Sheet 10749

The zinc slotted nozzle allows powerful, quiet and efficient cleaning. Suitable for general purpose use.



1/4" BSPP 007-Z Series Air Gun, Zinc Slotted Nozzle

0165	A mm
SIL-007-Z	100
SIL-007-Z-250	250
SIL-007-Z-400	400
SIL-007-Z-600	600
SIL-007-Z-800	800
SIL-007-Z-1000	1000

Tech Sheet 20785

Pro One's specially designed nozzle makes it possible to combine effective blowing power and a low noise level. Pro One's unique design reduces the turbulence that is generated when blowing with compressed air. This means the noise level can often be reduced by over 10 dB (A) when blowing.

Blowing Force: 2.8 N (9.9 oz).

Sound Level: 78 dB (A).

Air Consumption: 14Nm³/h (8.2 scfm).



1/4" BSPP Pro One Model, Stainless Steel Blow Guns

0165	A mm
SIL-PRO-ONE	30

Tech Sheet 67994

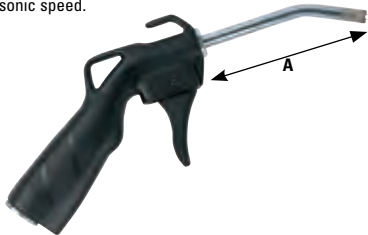
BLOW GUNS & AIR NOZZLES



Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.
A = nozzle length.

Silvent Safety Air Guns

Fitted with a stainless steel Laval nozzle, this gun creates a highly concentrated air stream that moves at supersonic speed.



1/4" BSPP 500-L Series Air Gun, Stainless Steel Laval Nozzle

0165	A mm
SIL-500-L	94
SIL-500-L-250	250
SIL-500-L-800	800
SIL-500-L-1000	1000
Tech Sheet 10748	

Fitted with a new generation of zinc Laval nozzle, this gun has a mix of divergent slots and holes surrounding the central Laval orifice, providing quiet, powerful and laminar air flow. This safety air gun is especially suitable for sweeping large areas or general purpose cleaning of parts and machines. The fin design of the nozzle prevents direct contact with skin.

Sound Level:
78 dB (A).
Maximum Pressure:
0.7 MPa.



1/4" BSPP 501-L Series Air Gun, Zinc Hole Nozzle

0165	A mm
SIL-501-L	30
Tech Sheet 67992	

An air gun with a flat nozzle for applications where the air system needs to strike a wider surface, providing quick and efficient blow-off.



1/4" BSPP 5920 Series Air Gun, Zinc Flat Nozzle

0165	A mm
SIL-5920	92
Tech Sheet 10764	

An air gun fitted with an aerodynamic aluminium nozzle that offers a blowing force equivalent to five conventional air guns.



3/8" BSPP 2000 Series Aluminium Air Gun, Slotted Nozzle

0165	A mm
SIL-2055-A	49
SIL-2055-A-500	513
SIL-2055-A-1000	1013
Tech Sheet 20786	

Silvent Air Nozzles

Fitted with a stainless steel Laval nozzle. A core stream travelling at supersonic speed, surrounded by a protective sheath of air moving parallel to the central jet, makes optimal use of your compressed air. Around the Laval orifice there are divergent slots that generate a quiet, powerful and laminar air stream. The blowing force is approximately five times that of an ordinary air gun.

Despite the high blowing force, both the noise level and air consumption are low. Frequently used in the glass industry, paper mills, foundries, steel mills, etc.

Sound Level: 92.6 dB (A).
Maximum Pressure:
0.7 MPa.



1/2" BSPP 750 Series Heavy-duty, Air Gun & Nozzle, All Stainless Steel

0165	
SIL-755-L	Tech Sheet 67995

The 511 and 512 slot nozzles generate a directed air jet. The nozzles are well suited to all-purpose blowing, and blowing in confined spaces.



Slot Nozzles, BSPP & Metric

0165	Thread	Length mm
SIL-511	1/8"	55.8
SIL-512	1/8"	30.3
SIL-5001	M7 x 0.75 Female	18.3
SIL-5003	M7 x 0.75 Male	23.3
Tech Sheet 10751		

An aluminium nozzle designed with aerodynamic slots, producing a strong, quiet and effective air stream.



3/8" BSPP High Blast Aluminium Nozzle

0165	Length mm
SIL-2005	46
Tech Sheet 10760	

For Eye Protection
see page 1754



Wonder Gun

Wonder Gun is a robust, made of aluminium tool that helps to maintain cleanliness in workplace. It can be used as traditional blow gun as well as vacuum gun sucking contaminants to the bag (sold separately).



BSPP Inlet

0025	Thread
WG-9	1/4"
Tech Sheet 10766	

Wonder Gun Kit

High powered blow or vacuum gun.

Kit consists of:

- 1 x wonder gun
- 1 x dust collection bag
- 1 x round extension nozzle
- Flat nozzle
- 1 x brush nozzle
- 1 x miniature nozzle
- 1 x 1 metre suction hose



BSPP Inlet

0025	Thread
WG-900KIT	1/4"
Tech Sheet 10767	

Spare Parts for Wonder Gun Kit



0025	Type
WGS-01	Air Hose
WGS-02	Bag
WGS-03	Round Nozzle
WGS-04	Flat Nozzle
WGS-05	Brush Nozzle
WGS-06	Tiny Nozzle
HC25-40	Hose Clip

Vacuum Guns

Deep hole air cleaning gun.

The BV22D/H has been designed with EYE SAFETY in mind. The BV22D/H is designed to blow the chip up and vacuum it away simultaneously.



Deep Hole Cleaning Gun, BSPP

0025	Thread
BV22D/H	1/4"
Tech Sheet 10782	

Simple, safe and incredibly efficient

Air Pumps are used in industry to remove waste material from around working machinery by vacuum recovery, or by high powered air blasting. Using a unique spiral exhaust air flow principle, the AP22 gives greater vertical and horizontal conveying distances.

Being air-powered means no electrical breakdowns or maintenance costs and makes wet vacuuming completely safe.



Nylon Air Pump, 6mm Push-in

0025	Thread
AP22	1/4"
Tech Sheet 10780	

Accessories for Vacuum Guns



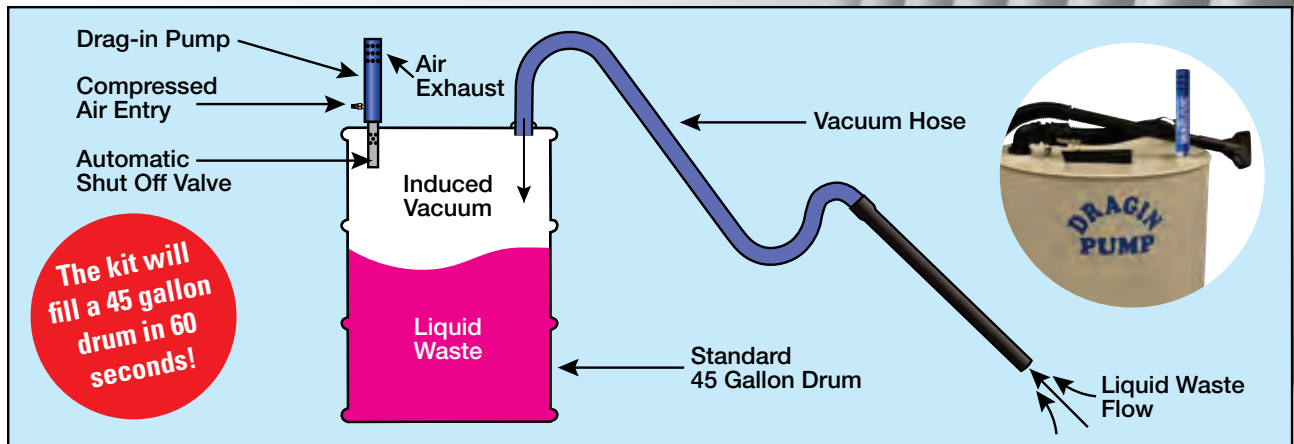
0025	Type
BV22-2	Vacuum Head
BV22-4	Long Reach Wand
BV22-5	Crevice Tool
BV22-6	Round Brush

Drag-in pump kit



The drag-in pump kit will remove liquids from lathes, milling machines, sumps, etc, including metal chips, in seconds.

Simply attach the kit to a standard, seated 45 gallon drum and connect to an air supply.



- Easy set-up and operation
- Heavy-duty construction
- No moving parts
- Auto shut off

Drag-in Pump Kit

0025
DPK-1

Pressure	Kg/cm ²	4	5	6	7	8
	psi	56.89	71.11	85.33	99.56	113.78
Air Consumption	M ³ /min	0.26	0.32	0.37	0.5	0.6
	cfm	9.18	11.29	13.06	17.65	21.18
Total Discharge	mm Hg	1.90	2.00	2.30	3.5	3.8
	cfm	67.08	70.62	81.21	123.85	134.17
Vacuum	mm Hg	220	272	314	335	375
	in Hg	8.66	10.70	12.36	13.2	14.8
Water	Litres per second	1.42	1.66	2.00	2.5	3.4
Oil SAE30	Litres per second	1	1.3	1.6	2	2.5



Air Jets

- Removing surface films from surfaces
- Controlling the coating of surfaces
- Blowing off/removing dust and debris
- Cooling or heating of materials
- Separating different weights or sizes



BSPP

0424	Thread	Material
PFFN-1/4	1/4"	Plastic
AFFN-1/4	1/4"	Aluminium

AIR JETS



Air jets use the Bernoulli effect (all aircraft engines) to produce air motion in their surroundings. A small amount of compressed air is forced through an internal ring nozzle above sonic velocity. A vacuum is produced, pulling large volumes of surrounding or free air through the jet.

Multi-channel Flat Fan Nozzle

Powerful air jet, acting upon areas. Low noise level, low air consumption.

Applications: blowing off and blowing out, cleaning, drying, cooling, conveying with air.



BSPP

0025	Thread	Material
60013056AC	1/4"	Plastic/Pom
60028342AC	1/4"	Aluminium

Tech Sheet 20087

Multi-channel Round Jet Nozzle

The multi-channel round jet nozzles of the 600.326 series generate a powerful, circular air jet. The noise level and air consumption remain low even at higher air pressures. The special geometry at the nozzle outlet prevents air penetration into human skin. These nozzles comply with the OSHA standards.

Applications: targeted blowing out and blowing off with compressed air guns.

Reduction of noise level up to 12db(a).



Plastic/Pom

BSPP

0025	Thread	Material
60032656AC	1/4"	Plastic/Pom
6003263WAC	1/4"	Zinc

Tech Sheet 20087

Zinc

Mini Round Jet Nozzle

Applications: especially for blowing out pocket holes.



BSPP

0025	Thread	Material
60038830AA	1/8"	Brass/Pom

Tech Sheet 20087

BLOW GUNS & AIR NOZZLES

Silvent Air Nozzles

These popular nozzles are installed in thousands of different applications. The protective flanges prevent direct contact between skin and exhaust ports.



1/4" BSPP Hole Nozzles

0165	Nozzle
SIL-208	Female Zinc
SIL-209	Male Zinc
SIL-210	Female Aluminium
SIL-211	Male Aluminium
SIL-215	Female Nickel
SIL-216	Male Nickel
SIL-218	Male Rilsan
Tech Sheet 10752	

Its aerodynamic slots achieve optimal utilization of the compressed air while keeping the noise level to a minimum.

stainless steel



1/2" BSPP, 700 Series Stainless Steel Nozzle

0165	Length mm
SIL-705	29
Tech Sheet 10762	

These flat nozzles are designed to generate a broad and efficient fan of air. They are outstanding for use wherever a wide but thin striking surface is required.



900 Series Flat Nozzle, BSPP

0165	Thread	Material	Nozzle
SIL-921	1/8"	Zinc	Flat Male
SIL-920B	1/8"	Zinc	Flat Female
SIL-920A	1/4"	Zinc	Flat Male
SIL-9002W	1/4"	Zytel	Flat Male
Tech Sheet 10763			

Available with or without flow regulation. Built-in flow regulation allows optimal utilization of compressed air. Adjusting the blowing force minimizes both energy consumption and noise level.

stainless steel



900 Series Flat Nozzle, Stainless Steel, BSPP

0165	Thread	Nozzle
SIL-973	1/4"	Flat Male
SIL-973F	1/4"	Flat Male with Regulation
Tech Sheet 10768		

A small angled flat nozzle that generates a broad but thin air cone. The small mounting dimensions are especially suitable for machine designs where space is limited.



1/8" Angled Flat Nozzle

0165	
SIL-961	
Tech Sheet 10753	

Allows quick and easy adjustment to the blowing angle. Maintains the desired position, even at high pressures. Available in six standard lengths.

Sound Level: 78 dB(A).

Maximum Pressure: 1 MPa.



3/8" BSPP, Magnetic Base with Single Flexbow Hose

0165	Length mm
SIL-221-L	200
SIL-231-L	300
SIL-241-L	490
SIL-251-L	590
Tech Sheet 67993	

Silvent Air Knives

Aluminium manifolds are used to build the air knives. The length of the manifold and the number of nozzles can be tailored to each customer's specific needs



3/8" BSPP Flat Nozzle Air Knives

0165	Nozzle
SIL-392	2
SIL-394	4
SIL-396	6
Tech Sheet 10765	



Angled Nozzle Air Knives

0165	Nozzle
SIL-362	2
SIL-364	4
SIL-366	6
Tech Sheet 10756	

Blow Gun Pressure Reducers



0165	Thread In/Out	Outlet Pressure
DRV13/30	1/4"	3
PRO4/04	1/4"	4
DRV13/50	1/4"	5
DRV13/60	1/4"	6

Nozzle Ball Joints



0165	Material	Thread BSPP
092.024.30.AC	Brass	1/4" MF

Test Equipment

Simply insert the end of the blow gun into the rubber tip and operate the gun to give test reading.



OSHA Gauge

0165	
SIL-OSH	
Tech Sheet 10757	

AIR MOVERS

Brauer airmovers have many uses such as: drying wet surfaces, blowing off and cleaning mechanical parts, cooling moulds, fume extraction and venting tanks.

Material: zinc alloy.
Standard Gap: 0.05mm (0.15mm for AM125).
DBA Quoted at: 5.5 bar.

Air Movers

Note: BR-AM35 shims not required.
BR-AM75 spare shims available.



Standard Fixed Gap Air Movers, BSPP

0119	Thread	DBA
BR-AM10	1/8"	72
BR-AM20	1/4"	79
BR-AM35	3/8"	80
BR-AM40	3/8"	80
BR-AM75	1/2"	80

Tech Sheet 2046

Strip air movers produce a curtain of air along the length of the application. The strip air mover uses the same Coanda effect utilised in our other air amplifiers.

No moving parts – compressed air from a local production line source can be utilised. Output volumes almost twenty times higher.

Highly efficient – significant compressed air savings can be achieved with short investment paybacks. Low noise levels. Stainless steel options.

Manufactured in any length from a combination of our standard sizes.

Material: aluminium/zinc-plated steel.

Standard Gap: 0.05-0.10mm.

DBA at 5.5 bar: 80

Shims: not required.

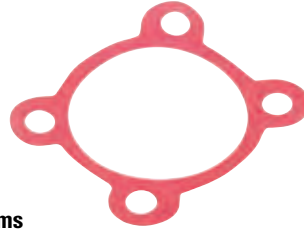
Standard Inlet Thread: 1/4" BSPP.



Strip Air Movers, BSPP

0119	Length mm	Thread
BR-SE150	150	1/4"
BR-SE300	300	1/4"
BR-SE450	450	1/4"
BR-SE600	600	1/4"

Tech Sheet 10790



Spare Shims

0119	To Suit	Size mm
BR-SH10/1.5	BR-AM10	1.5
BR-SH10/2	BR-AM10	2
BR-SH10/3	BR-AM10	3
BR-SH20/1.5	BR-AM20	1.5
BR-SH20/2	BR-AM20	2
BR-SH40/1.5	BR-AM40	1.5
BR-SH40/2	BR-AM40	2
BR-SH40/3	BR-AM40	3



Universal Connector Joints

0119	Thread
BR-AM40UJ	3/8"

Tech Sheet 10793



Magnetic Base

0119	Thread
BR-MAGNETICBASEM	1/4"

Adjustable Air Movers

Note: shims not applicable.



Aluminium Alloy, BSPP

0119	Thread	DBA
BR-AM10A	1/8"	73
BR-AM20A	1/4"	79
BR-AM35A	3/8"	80
BR-AM60A	3/8"	80
BR-AM75A	1/2"	80

Tech Sheet 20370

stainless steel



Stainless Steel, BSPP

0119	Thread	DBA
BR-SS60A	3/8"	80
BR-SS75A	1/2"	81

Tech Sheet 20371

Blow Guns



Trigger Action, BSPP

0119	Thread
BR-AG32LC	1/4"

Tech Sheet 20374

AIR KNIVES & AMPLIFIERS



Neublade Airstrip

The Neublade from Beckair utilises innovative technology developed to give the highest performance, lowest noise and lowest air consumption compared to any other product.

The powerful, whisper-quiet blade of air is ideal for drying, cleaning, cooling or containing in all kinds of process, food and manufacturing applications.

The key to its performance is our flow straightening technology (patent applied for) which provides an exceptionally laminar sheet of air. The low levels of turbulence also mean extremely low noise (65dB).

- No moving parts – the Neublade is maintenance free
- Ultra low air consumption – significantly lower running costs than standard nozzles and strips
- Ultra-quiet operation (typically 65 dB) for an improved working environment
- Easily mounted onto existing installations
- Choice of air entry for maximum flexibility

The Neublade is manufactured from extruded, anodised aluminium and comes complete with quick fit hose connector. Because of the method of construction, we are able to offer the Neublade in any length up to 2m long. Please call our sales team for further information.

Applications

- Drying: printing, paints, coatings, components, conveyor belts
- Cleaning: components, conveyors, instruments lens, dust removal, waste removal
- Cooling: components
- Air curtain: fume containment, heat containment from ovens and furnaces

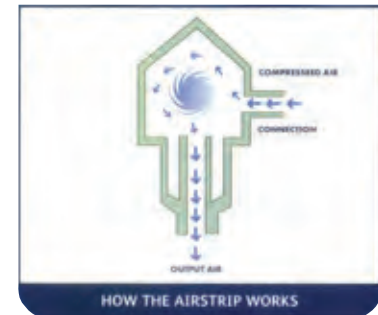
How Neublade can reduce your operating costs

Type of Airstrip	Type of Airstrip		Noise Level Db(A) at 1M	Power Required kW SLPM	Running Costs per Year*
	SLPM	SCFM			
5 holes in 50mm length of pipe (3mm or 1/8")	1980	70	95	10.0	£960
Standard air wipe (50mm)	450	16	85	2.3	£220
Neublade (50mm)	124	4.5	65	0.65	£62

*Based on 40 hours per week, 48 weeks per year with an energy cost of around £0.05 per kWh.

BSP Ports

9039	Length		Inlet	Air Consumption @ 4 bar		Noise Db (A) at 1M
	mm	Inches		SLPM	SCFM	
BNEUBLADE/80	80	3"	1/4" BSP + Push-in Fitting	198	7	65
BNEUBLADE/150	150	6"	1/4" BSP + Push-in Fitting	368	13	65
BNEUBLADE/300	300	12"	1/4" BSP + Push-in Fitting	736	26	65
BNEUBLADE/450	450	18"	1/4" BSP + Push-in Fitting	1104	39	65
BNEUBLADE/600	600	24"	1/4" BSP + Push-in Fitting	1471	52	65
BNEUBLADE/750	750	30"	1/4" BSP + Push-in Fitting	1839	65	65
BNEUBLADE/900	900	36"	1/4" BSP + Push-in Fitting	2207	78	65

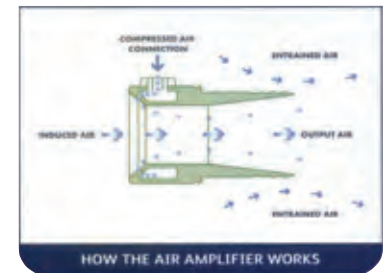


Ringjet Air Amplifier

Ringjets air amplifiers are bladeless, motorless fans which can be used for cooling, extracting, drying and ventilating in process, food and manufacturing industries.

Using a small volume of compressed air as the power source, Ringjets utilise the 'Coanda' effect to draw larger volumes of ambient air into the device to amplify the air flow by up to 25 times

- No moving parts – Ringjet is maintenance free
- No electricity required – safe to use in wet locations
- Adjustable flow control using air gap and inlet pressure
- Energy efficient – low running cost
- Low cost
- Quiet operation (less than 80 dB (A))
- Also available in stainless steel



Applications

- Cooling: components, mouldings, extrusions, people, components on test
- Extraction: fumes, water, dust, waste material
- Drying: components, printing, material



BSP Ports

9039	Throat Diameter mm	Air Inlet BSP	Air Consumption @ 4 bar		Outlet Airflow		Hose Size for Ducting		OD mm	Length mm	Material
			SLPM	SCFM	SLPM	SCFM	mm	Inches			
BRJ12A	12	G1/8"	170	6	5,666	200	19	3/4"	25	63	Anodised Alloy
BRJ20A	20	G1/8"	283	10	6,800	240	32	1.1/4"	40	63	Anodised Alloy
BRJ25A	25	G1/4"	397	14	11,333	400	38	1.1/2"	50	90	Anodised Alloy
BRJ40A	40	G1/4"	510	18	14,150	500	50	2"	63	95	Anodised Alloy
BRJ50A	50	G3/8"	962	34	20,666	730	76	3"	90	135	Anodised Alloy
BRJ75A	75	G1/2"	1416	50	33,333	1,178	100	4"	132	165	Anodised Alloy
BRJ12S/S	12	G1/8"	170	6	5,666	200	19	3/4"	25	63	Stainless Steel (316)
BRJ20S/S	20	G1/8"	283	10	6,800	240	32	1.1/4"	40	63	Stainless Steel (316)
BRJ25S/S	25	G1/4"	397	14	11,333	400	38	1.1/2"	50	90	Stainless Steel (316)
BRJ40S/S	40	G1/4"	510	18	14,150	500	50	2"	63	95	Stainless Steel (316)
BRJ50S/S	50	G3/8"	962	34	20,666	730	76	3"	90	135	Stainless Steel (316)



AIR KNIVES & AMPLIFIERS



Ringjet Air Conveyors

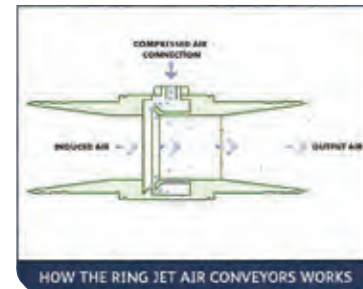
Ringjets air conveyors are bladeless, motorless fans which connect to flexible hose and are ideal for conveying and extracting all kinds of materials in process, food and manufacturing industries. Using a small volume of compressed air as the power source, Ringjets utilise the 'Coanda' effect to draw larger volumes of ambient air into the device to amplify the air by up to 25 times. Ringjet conveyors are capable of moving material over long distances and this can be increased by adding additional conveyors into the line.



- No moving parts – Ringjet is maintenance free
- No electricity required – safe to use with liquids and wet material
- Adjustable flow control using air gap and inlet pressure
- Energy efficient – low running cost
- Ideal for conveying over long distances
- Quiet operation (less than 80 dB (A))

Applications

- Conveying: plastic pellets, waste removal, food products, pills and tablets, small components, dust, liquids, paper trim
- Extraction: fumes, liquids, dust, waste material



BSP Ports

9039	Throat Diameter mm	Air Inlet BSP	Air Consumption @ 5 bar		Outlet Airflow		Hose Size for Ducting		OD mm	Length mm	Material
			SLPM	SCFM	SLPM	SCFM	mm	Inches			
BRJ12C	12	G1/8"	170	6	5,666	200	19	3/4"	25	95	Anodised Alloy
BRJ20C	20	G1/8"	283	10	6,800	240	32	1.1/4"	40	95	Anodised Alloy
BRJ25C	25	G1/4"	397	14	11,333	400	38	1.1/2"	50	135	Anodised Alloy
BRJ40C	40	G1/4"	510	18	14,150	500	50	2"	63	135	Anodised Alloy
BRJ50C	50	G3/8"	962	34	20,666	730	76	3"	90	203	Anodised Alloy

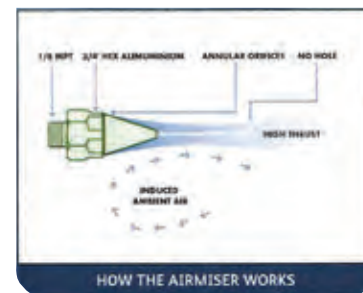
Airmiser Nozzles

The Airmiser uses a series of annular nozzles instead of a single hole to create a safer, more efficient, lower noise alternative to open tubes and pipes. A small volume of compressed air is amplified up to 25 times by utilising the 'Coanda' effect to induce a higher flow of ambient air into the air stream.

Because of the risk of serious injury from compressed air entering the bloodstream from single open pipes at high pressure, the multi-nozzle arrangement of the Airmiser is designed to be much safer alternative.

Replacing open jets with Airmisers will give significantly reduced air consumption and lower noise levels and, in most cases, it is a simple operation to install Airmiser nozzles. Airmisers are suitable for use individually or in multiple arrays to create a much greater effect.

- No moving parts – Airmiser is maintenance free
- Low air consumption – significantly lower running costs than open holes and pipes
- Quieter operation (below 80 DB (A) at 1m) for an improved working environment
- Easily mounted onto existing installations



BSP Ports

9039	Air Inlet BSP	Air Consumption @ 5 bar		Thrust		Noise Level Db (A) at 1M
		SLPM	SCFM	N	LBF	
BAMSA	G1/8"	225	8	1.8	0.4	65
BAMBH	G1/4"	566	20	5.2	1.2	74
BAMSASS	G1/8"	225	8	1.8	0.4	65
BAMBHSS	G1/4"	566	20	5.2	1.2	74

AIR KNIVES & AMPLIFIERS



Pneu-Power Air Conveyors

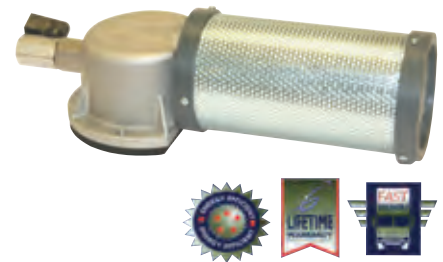
The Beckair Pneu-Power is a bladeless, motorless fan which connects to flexible hose and gives high vacuum or high flow for conveying and extracting all kinds of materials in process, food and manufacturing industries. Using a small volume of compressed air as the power source, the Pneu-Power utilises the 'Coanda' effect to draw larger volumes of ambient air into the device to amplify the air flow by up to 25 times

The Pneu-Power has very high performance and is capable of moving material over very long distances. The Pneu-Power is extremely robust, being manufactured from cast aluminium and is designed for use in harsh environments. For applications where extraction only is required, the silencer (supplied) diffuses the air and reduces the noise from the device.

- Type A offers higher flows, type B offers higher suction
- No moving parts – Pneu-Power is maintenance free
- No electricity required – safe to use with liquids and wet material
- Adjustable flow control using air valve and inlet pressure
- Energy efficient – low running cost
- Quiet operation (less than 80 dB (A))

Applications

- Conveying tank filling/emptying, hopper loading, powder, granules, swarf removal, dust, liquids
- Extraction fumes, liquids, dust, waste material



BSP Ports

9039	Air Inlet BSP	Air Consumption @ 6 bar		Outlet Airflow		Vacuum		
		SLPM	SCFM	SLPM	SCFM	mm WG	Inch WG	Inch HG
BNEUPOWERA	G1/4"	885	31	2250	80	2072	82"	6"

Clustajet Ventilators

Clustajet ventilators are a compressed air operated fan which utilise our Ringjet technology to create a robust, maintenance free, high performance ventilator.

Because the Clustajet uses compressed air, no electrical supply is needed making it suitable for safe use in damp or wet locations.

Multiple Ringjets are positioned inside a steel casing to create a space rocket jet effect which gives the unit its high performance. For a given airflow, Clustajets are lighter in weight and smaller than equivalent electric fans.

- No moving parts – Clustajet is maintenance free
- No electricity required – safe to use in damp or wet locations
- Adjustable flow control using the control valve
- Standard Clustajets are manufactured from a strong welded steel casing
- Other options include:
 - Plastic
 - Flexible hose

- ### Applications
- Extraction: welding fumes, solvent vapours, dust
 - Ventilating: confined spaces, tanks, sewers, tunnel
 - Cooling: components, pipework



BSP Ports

9039	Hose Size		Air Inlet BSP Inches	Airflow Consumption @ 4 bar		Outlet Air Flow		Dimensions					
	SLPM	SCFM		SLPM	SLPM	SPLM	SCFM	mm	Inches	mm	Inches	mm	Inches
BCJ425	102	4"	G1/4"	395	14	12,700	450	102	4"	180	7"	230	9"
BCJ620	150	6"	G1/2"	1130	40	18,400	650	152	6"	254	10"	356	14"
BCJ825	203	8"	G1"	2265	80	34,800	1230	203	8"	305	12"	457	18"
BCJ1250	305	12"	G1"	5375	190	87,750	3100	305	12"	406	16"	508	20"

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 16

Fuelling, Lubrication, Wash Down & Misting

16.01 Fuelling Triggers, Nozzles & Meters **1617-1626**

16.02 Fuelling Filtration **1627-1631**

16.03 Transfer Pumps **1632-1638**

16.04 Greasing & Lubrication Equipment **1639-1649**

16.05 Oil Drain Plugs **1650-1653**

16.06 Tank Level Gauges **1654**

16.07 Workshop Fluid Transfer **1655-1656**

16.08 Water Guns & Couplings **1657-1665**

16.09 Pressure Wash Lances & Triggers **1666-1672**

16.10 Pressure Wash Adaptors, Nozzles
& Irrigation Equipment **1673-1680**

16.11 Pressure Sprays & Vehicle
Cleaning Equipment **1681-1683**

16.12 Diaphragm Pumps **1684-1685**

16.13 Misting Systems **1686-1696**

SECTION 16

16.01 Fuelling Triggers, Nozzles & Meters

- Fuelling Equipment & Accessories
- Fuel Dispensing Hose & Gravity Hose Kits

- Fuelling Equipment & Accessories



1617-1626



16.02 Fuelling Filtration

- Fuelling Filtration
- Diesel Oil Filters



1627-1631



16.03 Transfer Pumps

- Barrel Pumps
- Rotary Pumps & Diaphragm
- Manual Transfer Pumps
- Dosing Pumps
- Electrical Transfer Pumps
- Air Operated Transfer Pump
- Manual & Compressed Air Transfer Pumps & Kits
- Fuelling Equipment & Accessories



1632-1638



16.04 Greasing & Lubrication Equipment

- Greasing & Lubrication Equipment
- Pressure Hoses



1639-1649



16.05 Oil Drain Plugs

- Quick Oil Drain Plugs



1650-1653



16.06 Tank Level Gauges

- Tank Gauges



1654



16.07 Workshop Fluid Transfer

- Workshop Fluid Transfer



1655-1656



Fuelling, Lubrication, Wash Down & Misting

16.08 Water Guns & Couplings

- Heavy-duty, Brass Water Guns
- Washdown & Cleaning Products
- Water Gun
- 1/2" System
- 3/4" System
- 1" System
- Click™ System
- Stainless Steel



1657-1665



16.09 Pressure Wash Lances & Triggers

- Wash Down Equipment



1666-1672



16.10 Pressure Wash Adaptors, Nozzles & Irrigation Equipment

- Wash Down Equipment
- Spray Guns & Accessories
- Sprinkler



1673-1680



16.11 Pressure Sprays & Vehicle Cleaning Equipment

- Pressure Spray Equipment
- Pressure Sprayers
- Commercial & Domestic Vehicle Cleaning Equipment



1681-1683

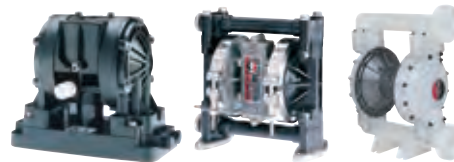


16.12 Diaphragm Pumps

- Pumps & Process Equipment



1684-1685



16.13 Misting Systems

- Misting Systems - Pump Kits
- Misting Systems - Air Injection Dry Fog System
- Misting Systems - Fans
- FO-500 Ultra-low Volume Fogger
- Misting Systems - Adaptors
- Misting Systems - Filters
- Misting Systems - Controllers



1686-1696



Ultra High Speed Auto Nozzle

- Only suitable with diesel or biodiesel up to B30.
- Automatically shuts-off the flow of fuel when vehicle tank is full
- Ideal for refuelling very large vehicles and heavy plant equipment
- Cast aluminium body
- 3 position stay open latch
- Complete with 1.1/2" BSPF swivel inlet

Maximum Flow: 250 L/min.

For use with electric pumps only

Maximum Working Pressure:
72 psi (5 bar)



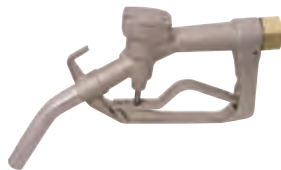
BSPP

0225	Thread	LPM
NOZA.250S	1.1/2"	250

Trigger Nozzles

- Manual trigger nozzle for use with diesel, HVO and biodiesel up to B30. For use with gravity or electric pumps up to 80L/min. Not automatic shut off.

Body: Aluminium **Maximum Working Pressure:**
Seals: Nitrile 50psi (3.5bar)



BSPP

0225	Thread
2019-9295	1"

- Suitable with diesel, HVO and oils to SAE 90.
- Aluminium body enclosed in a plastic shell making it comfortable even when used at low temperatures.
- 1" BSPF swivel inlet.
- Can be used with gravity feed tanks or electric pumps.
- Integral hook for tidy storage when not in use.

Maximum Flow: 150 L/min.

Maximum Working Pressure:
142 psi (10 bar)



Manual

0225	LPM
NOZ.S3000	150

Nozzle Holder



0225	LPM
HANG.P	

Polypropylene Manual Nozzle

- Suitable with diesel, HVO and water.
- Polyethylene body. 3/4" hose tail.
- Can be used with gravity feed tanks or electric pumps.
- Integral hook for tidy storage when not in use.

NOZ.C

Nitrile seals, mild steel spring.

Max. Flow: 60 L/min.

Maximum Working Pressure:
29 psi (2 bar)



0225	Seal
NOZ.C	Nitrile

Automatic Trigger Nozzles

- Suitable with diesel, HVO or biodiesel up to B30.
- Automatically shuts-off the flow of fuel when vehicle tank is full.
- 3 position stay open latch. 20-80 L/min, max. pressure 50 psi (3.5 bar).

For use with electric pumps only.

Not suitable for vehicles with small filler necks.

Body: Aluminium

Maximum Working Pressure:
50 psi (3.5 bar)



BSPP

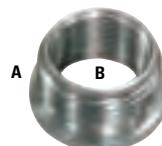
0225	Thread	LPM
2019-9311	3/4"	80
2019-9303	1"	80



Economy, BSPP

0225	Thread	LPM	Colour
NOZA.60S	1"	60	Red
NOZA.120S	1"	120	Blue

Universal Reducing Bush



0225	Thread A	Thread B
BSH.4.3A	1" Male	3/4" Female

Trigger Gun with Electronic In-line Flow Meter

- Manual trigger nozzle for use with diesel gasoline, B100 biodiesel and oils to SAE 90.

Flow Meter

Technical Data

Material: Aluminium

Seal Material:
Viton and fluorinated silicone rubber



1" BSPP Trigger Gun & Flow Meter

0225	Thread	Max Pressure Bar	LPM
CD-0G01	1"	20	10-60

Tech Sheet 60124

Professional Automatic Nozzle for Diesel

- Suitable with diesel, HVO and biodiesel up to B30.
- Automatically shuts-off the flow of fuel when vehicle tank is full.
- 3 position stay open latch, which may be disabled if required.
- 1" BSPP swivel inlet.

For use with electric pumps only.

Not approved for use on resale dispensers.

Max. Flow: Standard 10-80 L/min
High Speed 80-140 L/min

Maximum Working Pressure:
NOZA.X - 0.4-5 bar
NOZA.X25 - 0.4-3 bar



Standard version only



0225	Description	LPM
NOZA.X	Standard (ATEX)	80
NOZA.X25	Hi-speed	140

Stainless Steel Automatic Nozzle

- Suitable for use with diesel or Adblue®. Automatically shuts-off the flow of fuel when vehicle tank is full.
- 3 position stay open latch.
- 304 stainless steel body, viton seals.
- Flow rate up to 45 L/min.

For use with electric pumps only.

Inlet: 3/4" (20mm) Hose barb.

Maximum Flow: 60 L/min.

Maximum Working Pressure:
50 psi (3.5 bar) **Working Temperature:**
-10°C to +50°C



0225	Seal
NOZA.SS	Viton

Tech Sheet 20033

Automatic Trigger Nozzles



BSP

0122	Thread
ZFN34	3/4"

Auto Shut-off Nozzle Petrol & Diesel



LubeWORKS

0122	Thread
J1789022-1	3/4"

High Volume Auto Nozzle Petrol & Diesel



LubeWORKS

0122	Thread
J1789023-1	1"



LubeWORKS

0122	Thread
J18312002-1	3/4"

Oil Guns

- Semi-automatic Tip



Digital Oil Gun with Rigid & Flexible Hose, BSPP

0122	Thread
JDA-01	1/2"
Tech Sheet 2054	



new product

Digital Preset Oil Gun

0122
J18133512

- 5-Digit easy to read LCD display powered by 3V CR2 battery
- Low battery indicator
- Rubber protection shroud for meter

Working Pressure:
5 - 50 bar

2 YEAR WARRANTY



new product

Digital High Flow Oil Gun, BSP

0122	Inlet Female BSP
J18128003	3/4"
Tech Sheet 71695	

- Semi-automatic Tip



Manual Oil Gun with Flexible Hose, BSPP

0122	Thread
JA-01	1/2"
Tech Sheet 2055	

- Manual Tip



Manual Oil Gun with Rigid Tube, BSPP

0122	Thread
JM-01	1/2"



Rubber Alloy Dispensing Hoses

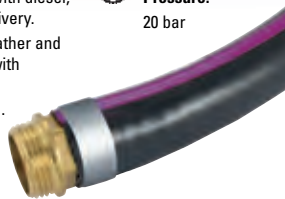
Oil resistant rubber alloy, suitable for use with diesel, air and water delivery.

Cover: black, weather and ozone resistant with purple strip.

Safety Factor: 3-1.



Maximum Working Pressure:
20 bar



3/4" BSPP Male/Male x 3/4" ID Replacement Hose

0225	Length Metres
RTDH-34-3	3
RTDH-34-4	4
RTDH-34-5	5
RTDH-34-6	6

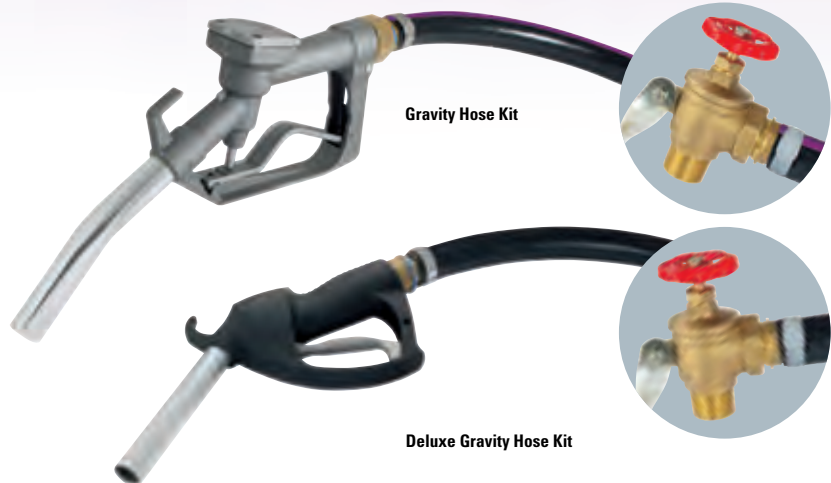
1" BSPP Male/Male x 1" ID Replacement Hose

0225	Length Metres
RTDH-1-3	3
RTDH-1-4	4
RTDH-1-5	5
RTDH-1-6	6
RTDH-1-8	8
RTDH-1-10	10
RTDH-1-12	12

1" BSPP Male/Male x 1" ID Super Flexible Deluxe Replacement Hose

0225	Length Metres
DRTDH-1-3	3
DRTDH-1-4	4
DRTDH-1-5	5
DRTDH-1-6	6
DRTDH-1-8	8
DRTDH-1-10	10
DRTDH-1-12	12

Gravity Hose Kits



Gravity Hose Kit

Deluxe Gravity Hose Kit



Hose Info Maximum Working Pressure:
20 bar

Oil resistant rubber alloy, suitable for use with diesel, air and water delivery.

Cover: black, weather and ozone resistant with purple strip.

Safety Factor: 3-1



Nozzle Info. Maximum Working Pressure:
142 psi (10 bar)

Maximum Flow:
150 L/min

Manual trigger, suitable for use with diesel, biodiesel up to B100 and oils to SAE 90.



Working Temperature:
-20°C to +60°C



Maximum Working Pressure:
58 psi (4 bar)

Maximum Flow:
80 L/min
Manual trigger, suitable for use with diesel.

1" BSPP Male/Male x 1" ID Deluxe Gravity Hose Kits

0225	Length Metres
DASS-RTDH-1-3	3
DASS-RTDH-1-4	4
DASS-RTDH-1-5	5
DASS-RTDH-1-6	6
DASS-RTDH-1-8	8
DASS-RTDH-1-10	10
DASS-RTDH-1-12	12
DASS-RTDH-1-15	15

1" BSPP Male/Male x 1" ID Gravity Hose Kits

0225	Length Metres
ASS-RTDH-1-3	3
ASS-RTDH-1-4	4
ASS-RTDH-1-5	5
ASS-RTDH-1-6	6
ASS-RTDH-1-8	8
ASS-RTDH-1-10	10
ASS-RTDH-1-12	12
ASS-RTDH-1-15	15

FUELLING EQUIPMENT & ACCESSORIES

Brass Drum Tap



BSPP

0225	Thread
2019-9394	3/4"

Drum Taps - Polyethylene

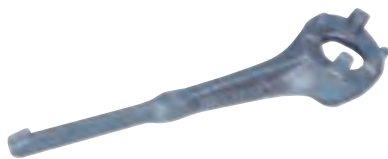
- Polyethylene drum taps can be used with a wide range of oils, acids and caustics
- Huge 2" version can be used with thick liquids
- BSPP male threads with sealing washer



BSPP

0225	Thread	Description
DTJ	2"	Full Bore Drum Tap
DT3P	3/4"	Drum Tap

Drum Wrenches



Aluminium

0225
DW-ALUMINIUM



Adblue® is a water-based chemical solution that is required for some commercial vehicles to help reduce pollution and comply to the Euro 4/5 directive.

Adblue® consumption is 5% of diesel, so for every one hundred litres of diesel, 5 litres of Adblue® is used. **You must not** use a normal fuel pump to dispense Adblue®.

Adblue® Manual Nozzle

- Suitable for use with Adblue®
- Inlet 3/4" hose tail
- Spout diameter (OD) 18.8mm
- Wetted components: (Nylon 6, 30% glass filled), stainless steel, viton
- Can be used with gravity feed or electric pumps
- Integral hook for tidy storage when not in use

Maximum Flow: 80 L/min



Maximum Working Pressure:
5 bar



Maximum Working Temperature:
+60°C



0225	LPM
NOZ-MAB	80
Tech Sheet 20032	

Adblue® Hose

- Suitable with Adblue® and antifreeze made in the UK
- PVC, polyester braided
- For suction or delivery

Specification:
BS EN ISO 6224/2001,
BS EN ISO 5774/2008

- Bore 19mm



Maximum Working Pressure:
7 bar (102psi)



Made in the UK



3/4" Adblue® Delivery Hose (Hose only)

0225	Length Metres
ABH.4.3/4	4
ABH.6.3/4	6

Lever Hand Pump & Accessories

- Suitable for use with Adblue® and other water-based fluids, antifreeze, windscreen washer fluid, herbicide, pesticides, insecticides and fertilizers.
- Wetted components polyacetal, polypropylene, polyethylene, viton
- Capable of up to 500ml per stroke
- 2" BSPM drum adaptor
- 2 piece suction pipe with one part telescopic (extends to 98cm)
- 2m x 3/4" outlet hose (flexible corrugated PVC hose)
- Temperature range: +5°C (23°F) to +45°C (115°F)
- Option (AD.HPGO) Trisure/Valorex container adaptor



0225
AB.HPPK
Tech Sheet 20031

FUELLING EQUIPMENT & ACCESSORIES



IBC Pump Kit

- Intermediate bulk container (IBC) side mounted, easy to use pump kit
- Suitable with Adblue®
- Capable of up to 25 L/min
- Manual Adblue® nozzle with stainless steel tip
- 1.5 metre flexible suction hose with CDS connector
- 4 metre outlet hose
- Designed for indoor use



MSS.AB



J10302504

0225	Nozzle
MSS.AB	Manual
J10302504	Auto
Tech Sheet 20030	

Rechargeable Adblue® Pumps

- Pump complete with control nozzle, telescopic suction tube and 1.5m flexible hose.
- 2900mAh Rechargeable Lithium-ion battery. Rechargeable via USB 2.0 type B connector (USB cable included)
- Charge Time: 3hrs
- Flow Rate: Up to 11.5 LPM
- Duty Cycle: Maximum 15 mins on and 30 mins off
- Fully charged battery can discharge up to 300ltrs (Tested using water)
- Wetted components: polypropylene, polyethylene, PVC and acetal
- Recommended use: gasoline, diesel, kerosene, light Oils, AdBlue, DEF, water, antifreeze, windshield Fluid, mild detergents and agricultural chemicals.
- Do not use with: acids, acetone, Benzene, cresol, ethyl, phenol, methyl ethyl, thinners solvents, etc.



Rechargeable DEF/AdBlue Pump

0122

ZBOP60

Tech Sheet 71689

Lever Action Barrel Pump

Features:

- Supplied complete with suction tube for use with 50-205ltr drums and 1.2m 3/4" flexible discharge hose.
- Comes complete with ZDBC - drum bung converter Trisure/Valorex.
- Delivers approx. 500cc per stroke.
- Wetted components: polypropylene, polyethylene, acetal.
- For use with: Urea/DEF, water, lubricants, windshield washer fluid, antifreeze, mild detergents, agricultural chemicals.
- Do not use with: any media not compatible with materials used in the pump construction. These pumps must not be used for fuel transfer or with solvent thinners etc.



Lubework Lever Adblue Pump

0122

J17210241

Tech Sheet 71691

Swivel Hose Fittings

- Greatly eases handling and reduces hose wear and kinking.
- All have parallel threads except (SWIV.15A) which has a taper male and parallel female.

Maximum Working Pressure:
87 psi (6 bar)



0225	Female Thread	Male Thread
SWIV.3A	3/4"	3/4"
SWIV.13A	1"	3/4"
SWIV.31A	3/4"	1"
SWIV.1A	1"	1"
SWIV.15A	1.1/2"	1.1/2"

Jointing Compound

- General purpose jointing and thread sealing compound.
- Recommended for diesel, oil, water and steam.
- **NOT** suitable with ethanol.
- Fully waterproof and MOD approved.
- 250ml screw top tins with brush applicator.
- 500ml tins without brush applicator.



0225	Millilitres
HELD	250
HELD.500	500

Fuel Lockout Valve



BSPP

0225	Thread
FLV-1	1"

Continental Softwall Diesel Hoses

- Suitable with diesel, HVO or biodiesel up to B20.
- Ideal for use on economy fuel dispensers.
- Machine swaged ends for long life.
- Electrically bonded.
- 3/4" or 1" BSPT male ends.

Not steel braided.

Not suitable for use with petrol.

Maximum Working Pressure:
50 psi (3.5 bar)



BSPT

0225	Length Metres	Thread
CH4.19	4	3/4"
CH6.19	6	3/4"
CH4.25	4	1"
CH6.25	6	1"

Continental Steel Braided Fuel Hoses

- Suitable with diesel, HVO, kerosene and petrol.
- Tested and approved to EN1360
- BSP parallel chrome plated "swaged for life" end fittings
- Smooth wipe clean covering.
- Excellent fuel and weather resistance.
- Steel braiding provides excellent protection against vandalism and the theft of nozzles by cutting through the hoses.

Maximum Working Pressure:
230 psi (15.8 bar)



BSPP

0225	Length Metres	Thread
PH12.3/4	3.66	3/4"
PH20.3/4	6.1	3/4"
PH12.1	3.66	1"
PH20.1	6.1	1"

Gravity Dispensing Hose

- Gravity dispensing hoses 25mm (1") bore, excellent flexibility to ease handling and strong enough to resist kinking. Supplied with 1" BSPT male end fittings are machine banded on to the hose.

Maximum Temperature:
-15°C to +60°C

Maximum Working Pressure:
43.5 psi



1" BSPT

0225	Length Metres
GDH-4	4
GDH-5	5
GDH-6	6

Tech Sheet 1173

Gravity Fuel Kits

- Only suitable with diesel or biodiesel up to B30.
- Provides simple and quick diesel dispensing from gravity tanks.

Kit includes: hose, valve, nozzle and PTFE tape.
25mm bore delivery hose.

Working Temperature:
-25°C to +45°C

Maximum Working Pressure:
50 psi (3.5 bar)



For use with Diesel/Gasoil

0225	Length Metres
2019-9337	3
2019-9360	5

Tech Sheet 1170

Fuelling Meters

- Suitable with diesel, HVO and biodiesel up to B30.
- Robust nutating disc flow meter shows up to 9999 litres.
- 20 -76 L/min. 1" BSPF ports. Aluminium housing.
- 4 digit register. 8 digit non resettable totaliser.
- Front face can be rotated in 90° increments.

Accuracy: +/-2%
(with adjustable calibration)
Operating Range: 20 - 76 L/min



Flow Meter without Strainer, BSPP

0225	Thread
FM4	1"

- Suitable with diesel, HVO, petrol, Kerosene and biodiesel up to B30.
- Robust nutating disc flow meter shows up to 999 litres.
- 19-75 L/min. 1" BSPF ports.
- Accuracy of +/- 2% with adjustable calibration.
- Aluminium housing and cover.
- 3 digit register. 6 digit non resettable totaliser.
- Front face can be rotated in 90° increments.

Accuracy: +/-2%
Operating Range: 19-75 L/min



Without Strainer, BSP Female

0225	Thread
807CL	1"

Tech Sheet 1168

This mechanical fuel meter has a flow rate of 20-120 L/min, with a resettable 4 digit totaliser, and a non-resettable 8 digit totaliser, which registers up to 9,999,999.9 Litres.

Features:

- Aluminium metering chamber with polybutylene nutating disk.
- 1" inlet/outlet
- Accuracy +/-1%



8 Digit Non-resettable

0122	J1581400
------	----------

Tech Sheet 2141

Features:

- Measures diesel, kerosene and petrol.
- Oval gear design.
- Low pressure drop allows for gravity and pump (in-line) applications.
- Supplied with a wire mesh strainer.

Redashe



6 Digit Non-resettable

0122	DM100
------	-------

Tech Sheet 60368

Digital In-line Turbine Flow Meters

LCD display has a 5 digit register, 7 digit non resettable totalizer. 10 - 100 L/min. 1" BSPF ports. Max pressure: 145 psi (10 bar). Accuracy: +/- 1%. Polypropylene turbine. Designed to fit in line with the delivery hose or pipework. Front can be rotated in 90° increments.



For Diesel and HVO

0225	K24
------	-----

Tech Sheet 10554



For Adblue®

0225	K24.AB
------	--------

Tech Sheet 10555



Replacement Battery

0225	To Suit
------	---------

K24.BATTERY K24 & K24.AB

Electronic In-line Flow Meters

Material: Aluminium
Seal material viton and fluorinated silicone rubber



Female Thread, BSPP

0225	Thread	Max Pressure Bar	M³/HR
CD-0G01-1	1"	20	200

Fuel Bowl Filters

- Fully interchangeable with other filter elements.
- Suitable with diesel, HVO or biodiesel up to B30.
- Choose particle only or water and particle kit/spare elements both remove particles to 10 micron.
- Fits on the outlet side only. 1" BSPF ports.



BSPP

0225	Thread	Description
FFILT.KIT	1"	Fuel Filter Kit, Particles Only
FFILT.KITW	1"	Fuel Filter Kit, Water/Particles
FFILT.EL	-	Spare Particle Only Element
FFILT.ELW	-	Spare Water/Particle Element

Fuel Filter Kit

- Suitable with diesel, HVO or biodiesel up to B7.
- Removes particle and water contamination to 30 micron.
- Fits on the outlet side only. 1" BSPF ports.
- Kit = aluminium head with disposable spin on element.
- Flow: 45 litres/min gravity, pump 100 litres/min.
- Buy a complete kit or separate element and head.



BSPP

0225	Thread	Description
HYD.GK	1"	Filter Kit Water & Particles
HYD.ELG	-	Spare Water/Particle Filter

Depuroil Portable Filter & Oil Transfer Unit

The ideal tool for decontaminating oil by removing suspended particles. The filtering unit is composed of a volu electric vane pump that allows the oil to be purified, sending it through a high filtering capacity cartridge filter that removes the impurities.

- Suitable for use with oils up to SAE90.
- 230V transfer pump
- Complete with suction and outlet hose.

Maximum Flow:
25 litres/min



10 Micron

0225	Description
WO.DEP	Transfer Unit
WO.DEPF	Spare Element

In-line Fuel Filter Elements



Paper Filter, 6mm OD

0225
25-200



Nylon Filter, 9mm OD Barb

0225
25-202



Nylon Filter, 8mm OD

0225
25-204



Paper Filter, 9mm OD Barb

0225
25-201



Nylon Filter, Elbow 8mm OD

0225
25-203

FUELLING FILTRATION



Fuel Filters & Elements



Fuel Filter

0225	Micron
ZFFL02B	10



Water Block Fuel Filter Element

0225	Micron
ZFEW	10



Fuel Filter Spin On Cartridge

0225	Micron
ZFFS10BSP	10



Replacement Fuel Filter Element

0225	Micron
ZFE10	10



For Tank Gauges
...see page 1154

Diesel Oil Filters - Series 20100-20150

Maximum Working Pressure:
1 bar



Aluminium, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20103/AL-100UM	1/4"	100	48
20101/AL-100UM	3/8"	100	48
20103AL4-44UM	1/4"	44	48
20101AL4-44UM	3/8"	44	48
20103CAL-15UM	1/4"	15	228
20101CAL-15UM	3/8"	15	228
20151/AL-100UM	3/8"	100	24

Maximum Working Pressure:
1 bar



Plastic Standard Tenite Bowl, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20103/PL-100UM	1/4"	100	48
20101/PL-100UM	3/8"	100	48
20103PL4-44UM	1/4"	44	48
20101PL4-44UM	3/8"	44	48
20103CPL-15UM	1/4"	15	228
20101CPL-15UM	3/8"	15	228
20151/PL-100UM	3/8"	100	24

Maximum Working Pressure:
1 bar



Plastic Superior Metocene Bowl, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20103/PE-100UM	1/4"	100	48
20101/PE-100UM	3/8"	100	48
20103CPE-15UM	1/4"	15	228
20101CPE-15UM	3/8"	15	228
20153/PE-100UM	1/4"	100	24
20151/PE-100UM	3/8"	100	24

Diesel Oil Filters - Series 20200

Maximum Working Pressure:
2 bar



Aluminium, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20201/AL-100UM	3/8"	100	105
20202/AL-100UM	1/2"	100	105
20201AL4-44UM	3/8"	44	105
20202AL4-44UM	1/2"	44	105
20201CAL-15UM	3/8"	15	235
20202CAL-15UM	1/2"	15	235

Maximum Working Pressure:
1 bar



Plastic Standard Tenite Bowl, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20201/PL-100UM	3/8"	100	105
20202/PL-100UM	1/2"	100	105
20201PL4-44UM	3/8"	44	105
20202PL4-44UM	1/2"	44	105
20201CPL-15UM	3/8"	15	235
20202CPL-15UM	1/2"	15	235

Diesel Oil Filters - Series 20210

Maximum Working Pressure:
1 bar



Plastic Standard Tenite Bowl with Water Drain Valve, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20211/PL-100UM	3/8"	100	105
20212/PL-100UM	1/2"	100	105
20212PL4-44UM	1/2"	44	105
20211CPL-15UM	3/8"	15	235
20212CPL-15UM	1/2"	15	235

Diesel Oil Filters with Cock & Check Valve - Series 20250

Maximum Working Pressure:
2 bar



Aluminium, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20250ALAL4-44UM	3/8"	44	105
20250CAL-15UM	3/8"	15	235

Maximum Working Pressure:
1 bar



Plastic Standard Tenite Bowl, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20250/PL-100UM	3/8"	100	105
20250PL4-44UM	3/8"	44	105
20250CPL-15UM	3/8"	15	235

Please note: Oil viton seal filters are available upon request.

Diesel Oil Filters with Cock - Series 20230

Maximum Working Pressure:
2 bar



Aluminium, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20232/AL-100UM	1/2"	100	105
20231AL4-44UM	3/8"	44	105
20232AL4-44UM	1/2"	44	105
20231CAL-15UM	3/8"	15	235
20232CAL-15UM	1/2"	15	235

Maximum Working Pressure:
1 bar



Plastic Standard Tenite Bowl, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20231/PL-100UM	3/8"	100	105
20231PL4-44UM	3/8"	44	105
20232PL4-44UM	1/2"	44	105
20231CPL-15UM	3/8"	15	235
20232CPL-15UM	1/2"	15	235

Fuel Oil Filters - Series 20300-20350

- Cover and bowl made out of aluminium.

Maximum Working Pressure:
2 bar



Without Heating Element, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20306/10-100UM	1/2"	100	300
20306/20-200UM	1/2"	200	300
20306/30-300UM	1/2"	300	530
20304/10-100UM	3/4"	100	300
20304/20-200UM	3/4"	200	300
20301/10-100UM	1"	100	300
20301/20-200UM	1"	200	300
20301/30-300UM	1"	300	530

- Cover and bowl made out of aluminium.
- Heating element PTC 20351/03 T150°C - 230 Volts.

Maximum Working Pressure:
2 bar



With Heating Element, BSPP

0270	Thread	Micron Rating	Filter Surface Area cm ²
20356/20-200UM	1/2"	200	300
20356/30-300UM	1/2"	300	530
20354/10-100UM	3/4"	100	300
20354/30-300UM	3/4"	300	500
20351/10-100UM	1"	100	300
20351/20-200UM	1"	200	300
20351/30-300UM	1"	300	500

Fuel Oil Filters - Series 20400-20450

Maximum Working Pressure:
2 bar



Without Heating Element

0270	Thread	Micron Rating	Filter Surface Area cm ²
20401/10-100UM	1"	100	670
20401/30-300UM	1"	300	1130
20402/10-100UM	1.1/4"	100	670
20402/20-200UM	1.1/4"	200	670
20403/10-100UM	1.1/2"	100	670
20403/20-200UM	1.1/2"	200	670
20403/30-300UM	1.1/2"	300	1130

Maximum Working Pressure:
2 bar



With Heating Element

0270	Thread	Micron Rating	Filter Surface Area cm ²
20451/10-100UM	1"	100	670
20453/10-100UM	1.1/4"	100	670
20453/20-200UM	1.1/4"	200	670
20453/30-300UM	1.1/4"	300	1130
20452/30-300UM	1.1/2"	300	1130

Oil Filter Spare Cartridges



To suit Series 20150

0270	Material	Type	Micron Rating
20151/C1-100	Stainless Steel	Smooth	100



To suit Series 20100

0270	Material	Type	Micron Rating
20101/C1-100	Stainless Steel	Pleated	100
20101/C4-44	Stainless Steel	Pleated	44
20101CC5	Paper	-	15



To suit Series 20200

0270	Material	Type	Micron Rating
20201/C1-100	Stainless Steel	Pleated	100
20201/C4-44	Stainless Steel	Pleated	44
20201CC5-15	Stainless Steel	Pleated	15



To suit Series 20300-20350

0270	Material	Micron Rating
20301/C1-100	Stainless Steel	100
20301/C2-200	Stainless Steel	200
20301/C3-300	Galvanized Iron	300



To suit Series 20400-20450

0270	Material	Micron Rating
20401/C1-100	Stainless Steel	100
20401/C3-300	Galvanized Iron	300

Electrical Heater



0270	Material	Voltage	Micron Rating
20351/03	100	230V/50Hz	220
20451/01	300	230V/50Hz	200



0270	To Suit
SET20100	Series 20100
SET20200	Series 20200
SET20250	Series 20250
SET20300	Series 20300
SET20400	Series 20400



For Diesel Drop Hose
...see page 1434

BARREL PUMPS



Piston Oil Pump

- With 1.5m outlet hose, anti-drip 13mm 90° spout, nozzle storage facility.
- Designed to fit awkward access filler points.
- 2" BSPM male thread, pumps on down stroke.



0225	To Suit
J9023SE	20 & 25 Litre Drums

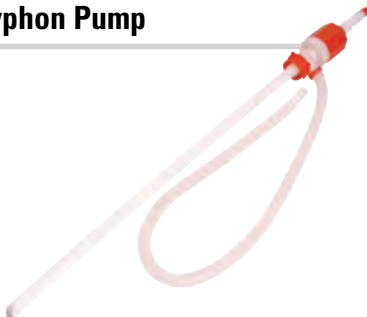
Gear Oil Bucket Pump

- With fully reversible hand rotary pump, clear PVC hose and nozzle.
- 10.5L approx.
- Robust steel base with hard powder coated finish as standard.
- Delivers and retrieves.



0225	Volume Litres
AG000SE	10.5

Syphon Pump



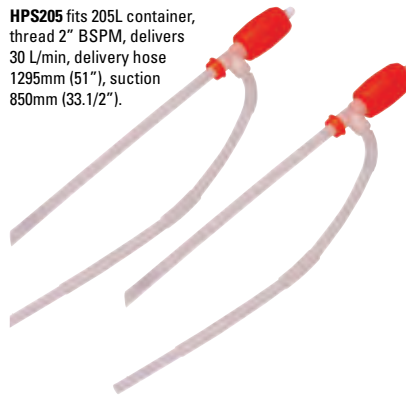
0225	To Suit
J2653	205 Litre Barrels

Manual Syphon Pumps

- Suitable for pumping most liquids: acids, alkalines, antifreeze, de-greaser, distilled water, diesel, biodiesel B100, light oils and solvents.
- Includes delivery hose and suction pipe.

HPS25 fits 5-25L containers, delivery hose 534mm (21"), suction 380mm (15").

HPS205 fits 205L container, thread 2" BSPM, delivers 30 L/min, delivery hose 1295mm (51"), suction 850mm (33.1/2").



Drum Pumps

0225	To Suit
HPS25	5-25 Litre Drum
HPS205	205 Litre Drum

Battery Operated Syphon Pump

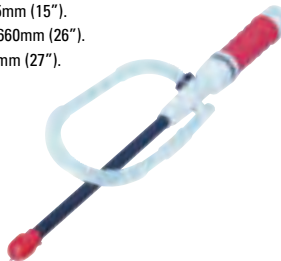
- Unique battery operated pump (2 x D size batteries not supplied).
- Suitable with water, diesel, HVO, light oils & mild / non corrosive chemicals.

Flow Rate: 4 - 7 L/min

Suction Tube: 375mm (15").

Discharge Tube: 660mm (26").

Total Length: 675mm (27").

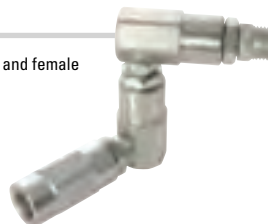


Drum Pump

0225	LPM
HPSB	8-10

Z Swivel

- 1/4" BSPM Male and female



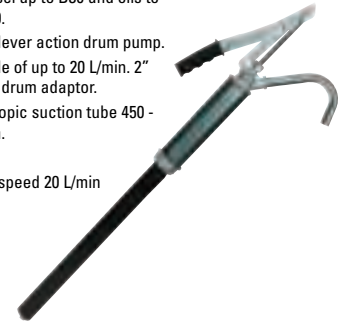
BSPM

0225	Thread
M8090	1/4"

Lever Barrel Pumps

- Suitable with diesel, HVO, biodiesel up to B30 and oils to SAE 90.
- Metal lever action drum pump.
- Capable of up to 20 L/min. 2" BSPM drum adaptor.
- Telescopic suction tube 450 - 900mm.

Note:
pumping speed 20 L/min



0225
2019-9386

Tech Sheet 1171

WHALE Urchin - Diaphragm Hand Pump

- Suitable with clean or dirty diesel, HVO, water and oils to SAE 90.
- Pumps dirty and contaminated liquids with up to 10mm solids
- Made from glass filled polypropylene complete with nitrile seals
- Hose tails accept both 1" and 1.1/2" hoses

Flow Rate:

47 L/min for 1"

68 L/min for 1.1/2"



0225
HPW

Tech Sheet 20034

Lockable Drum Taps



3/4" BSPM

0225
J4175

- All metal



Self Closing, 3/4" BSPM

0225
J4177

Rotary Barrel Pumps

- A robust cast iron rotary barrel pump capable of up to 25 L/min for dispensing fuel or oils. Supplied complete with 1 metre sectioned metal suction pipe and 2" BSP barrel adaptor.



Cast Iron

0225

2042-5658

Tech Sheet 1172

- Suitable with most chemicals and acid based products.
- PVC construction with PTFE vanes and Hastelloy springs.
- 3 piece suction pipe. Capable of up to 25 L/min.



PVC Rotary Hand Pump

0225

MSSPVC

Semi Rotary Pumps

- Suitable with diesel, light oils and water.
- Semi rotary double acting.
- Cast iron body with brass internals.
- Flanged inline threaded ports.

Choose from:

- 1/2" K0 version
- 3/4" K1 version
- 1" K2 version
- 1.1/2" K5 version

Note: never mount horizontally.



Semi Rotary Hand Pumps

0121	Size	Thread
SEMI0	0	1/2"
SEMI1	1	3/4"
SEMI2	2	1"
SEMI3	3	1.1/4"

- Fits into 2" socket, for use on 205 litre drums and tanks up to 1.5 metre deep.
- 1" semi-rotary hand pump.
- Manual nozzle.
- Tank/pump connector.
- 4 metre x 3/4" outlet hose.



Semi Rotary Pump Kit

0121

SRG2A.KIT

Description

1" BSP Hand Pump Kit

MANUAL TRANSFER PUMPS



Gear Oil Pump

- Suitable with high viscosity oils, ideal for filling gear boxes. Telescopic suction tube 300 - 500mm.
- Polypropylene pump, mild steel piston and nitrile seals.
- Dispenses approximately 100ml per stroke.
- Has a 1.5m outlet hose with spout.
- Spout can be drained by locating back into pump body.
- Supplied with 2 adaptors as standard. One fits most 25L external Plysu threads (60mm dia). The other fits most 25L Trisure/Valorex thread (56mm dia).

Option: Universal adaptor, locks onto any external thread that is less than 61mm dia.



0225	Description
HPGO	Pump
ADAPT.UNIL	Adaptor

Oil Suction Gun

For getting oil in/out of gearboxes, transfer cases and differentials.

- Suitable for use with non corrosive liquids.
- Capacity 500cc with 300mm PVC hose.
- Deluxe lip seal provides maximum suction.
- Steel barrel in pre-oxidized powder coat finish.
- Fully serviceable.
- No priming required.



0225	Description
OSG	

Liquid Suction/Extraction Units

- Novel device that both sucks and stores extracted liquids.
- Suitable for fuels, water, oils and many other liquids.

Removes: Oil from vehicles, lawn mowers, motorbikes, hydraulic reservoirs without draining, simply insert the suction pipes in the dipstick hole. Water from bunded fuel tank cabinets, fish tanks, bilges and otherwise inaccessible areas. Fuel spillages from bunded tank fill point cabinets.

- Can even suck up surface puddles.
- Prime the handle and watch it work.
- Supplied with suction probes to fit most applications.
- Lightweight and portable. 17 litre version has castors.
- When full, remove top plug to pour out the contents.

A must have for any engineers/site van multipurpose pump.



Suction/Extraction Units

0225	Capacity Litres
HP.SUC2	2.7
HP.SUC6	6.5
HP.SUC17	17

DOSING PUMPS

MixRite 3.5 Series

Tefen's MixRite line of water driven proportional dosing pumps, are used to ensure precise additive injection directly into the air or liquid line under various flow rates, feed ratios and different ranges of pressure.

Features

- Mixes additive and water precisely
- The dosage can be adjusted easily and quickly
- Repair is simple and inexpensive
- Key internal parts are from the highest quality material available (Hastelloy spring, Viton Rubber seal)

Working Temperature:
4°C to +40°C

Maximum Working Pressure:
8 bar

3/4" BSPT Male

0471	LPH	Max Pressure Bar	Dosage Rate
MRDP-1	10-3500	0.2-8	1:333 - 1:500
MRDP-2	10-3500	0.2-8	1:1000 - 1:111
MRDP-3	10-3500	0.2-8	1:333 - 1:50
MRDP-4	10-3500	0.2-8	1:200 - 1:20
MRDP-5	50-3500	0.2-8	1:100 - 1:10

Tech Sheet 60239



12V Submersible Transfer Pump

- Only suitable with diesel, biodiesel B30 and water to 80°C.
- Maximum Flow: 18 L/min. Length 145mm, diameter 47.5mm.
- 12V centrifugal submersible pump.
- 3m outlet hose (1/2"). (500 hour life expectancy).
- 4m long battery cable and clips. Weight 0.6kgs.
- Continuously rated for periods up to 1 hour.

NOTE: DO NOT RUN DRY

Maximum Working Pressure:
15 psi (1 bar)



0225	Voltage	LPM
12SP18	12V	18

Electric Oil Transfer Pump

Designed for pumping and transferring all grades of oils up to SAE 90. Suitable for lubricating oils, hydraulic oils, gear oils etc. Complete with on/off switch and internal bypass, it has 3/4" BSP threaded ports and is also supplied with a pair of 1" hose tails. Pumping rate depends on grade of oil and temperature.

- IP55 rated



2033-5279



VISCO.110

0225	Voltage
2033-5279	230V
VISCO.110	110V

Tech Sheet 1174

On-demand Diaphragm Pumps

- Only suitable for use with agricultural chemicals or water
- For spraying and transferring liquids
- High pressure switch and fittings
- Self priming to 2m
- EPDM diaphragm
- 1/2" and 3/4" barb plug-in ports



12V

0225	Description
DP12.17	17L/min, 40 psi (2.8 bar)

Portable Diesel Pump Kits

- Suitable with diesel, HVO, and biodiesel up to B30.
- Choice 12V or 24V. 40 L/min pumping speed.
- 40 L/min pumping speed.
- Sturdy steel case complete with carry handle
- On/off switch and bypass valve.
- 4m long battery cable with crocodile clips.
- UK made 6m of suction/delivery hose.
- Brass ball valve and strainer to be fitted or warranty void.

Maximum Run Time:
30 mins.



Manual, BSP

0225	Thread	Voltage
12PA.KIT1C	1"	12V
24PA.KIT1C	1"	24V

Professional Battery Diesel Pump Kits

- Suitable with diesel, HVO, empties a 205L drum in 5 mins.
- 40L/min, 4m battery cable with crocodile clips.
- Carry handle, on/off switch, bypass valve.
- UK made suction/delivery hose 6 metres in total.
- Aluminium nozzle with hose swivel.
- Complete kit for barrel/portable transfer.

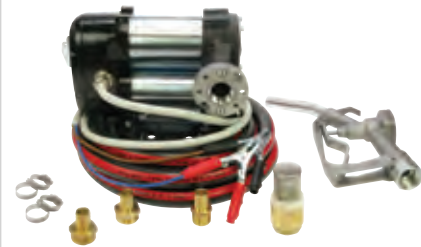
Maximum Run Time:
30 mins.



0225	Voltage	LPM
12PA.KIT1B	12V	40
24PA.KIT1B	24V	40

High Speed Battery Diesel Pump Kits

- Suitable with diesel, HVO or biodiesel up to B30.
- Maximum Flow: 70 L/min. 12V.
- 1" BSPF inlet and outlet flanges.
- PIUSI Direct drive vane pumping unit with bypass valve.
- Switch, 4m long battery cable and crocodile clips.
- Weatherproof for outdoor use.
- Maximum run time: 30 mins.
- Kit includes 7m suction/delivery hose and strainer.
- Choose manual or automatic nozzle kit.



0225	Nozzle
12BIKIT	Manual
12BIKIT2	Automatic

Battery Diesel Transfer Pumps

- Suitable with diesel, HVO and biodiesel up to B30.
- Ideal for mounting into plant equipment, excavators etc.
- Maximum Flow: 40 L/min.
- 3/4" BSPF ports.
- Choose 12V or 24V. 3/4" BSPF ports.
- Direct drive vane pumping unit with bypass valve.
- Foot mounting plate.
- Weatherproof to IP54 for outdoor use.
- Complete with switch, carry handle.
- 4m long battery cable and crocodile clips.

Maximum Run Time: 30 mins.



0225	Voltage
12PA.BARE	12V
24PA.BARE	24V

ELECTRICAL TRANSFER PUMPS



Professional Diesel Transfer Pumps

- Suitable with diesel, HVO and biodiesel up to B30.
- Pumping speeds 50, 80 or 100 L/min. 230V.
- Direct drive, self priming, vane pumping units.
- 1" BSPF ports. Switch and 2m long mains cable.
- Integral filter and bypass.
- Weatherproof to IP55 for outdoor use.
- Continuously rated motor with thermal cut out.
- Full range of spares available.



0225	Voltage	LPM
SPT60A	230V	50
SPT80A	230V	80
SPT100A	230V	100

230V Professional Diesel Pump Kits With Automatic Nozzle

- Suitable for use with diesel, HVO or biodiesel up to B30.
- Manual operated on/off switch.
- Pumping speeds choose 45 or 75 L/min option.
- Meter accuracy of +/- 2%. 4 digit resettable register.
- 8 digit non resettable totaliser.
- Weatherproof to IP55 for outdoor use.
- Integral filter and bypass valve.
- 230V continuously rated motor with thermal cut out.
- 4m delivery hose.
- Supplied with automatic nozzle.
- Self priming pump unit.
- Dimensions 300mm H x 350mm W x 500mm D (including nozzle).

45 Litres per Minute: Ideal to fill cars/vans vehicles with small fuel tanks.

75 Litres per Minute: Ideal to fill vehicles with large fuel tanks.



45 Litres per Minute

0225	Nozzle
ECON45	Automatic

75 Litres per Minute

0225	Nozzle
ECON75	Automatic

AIR OPERATED TRANSFER PUMP



Polypropylene Air Operated Diaphragm Pump

- 1:1 ratio. Max operating pressure 116 psi/8 bar.
- Rugged Polypropylene body.
- Viton diaphragm.
- Maximum solids pumped = 3mm diameter.
- Air inlet 1/4".
- Suitable for Adblue® and antifreeze.



BSPP

0225	Thread	LPM	Seal
ADP.60PV	3/4"	60	Viton

Aluminium Air Operated Diaphragm Pump

- 1:1 ratio. Max operating pressure 116 psi/8 bar.
- Rugged aluminium body.
- Nitrile diaphragm.
- Maximum solids pumped = 3mm dia.
- Air inlet 1/4". 325mm H x 255mm W x 210mm D



BSPP

0225	Thread	LPM	Seal
ADP.60AV	3/4"	60	Viton
ADP.90AN	1"	90	Nitrile

Tech Sheet 10578

Pneumatic Pumps



Oil Pumps

0122	Ratio	Description
J100	01:01	940mm Suction Tube
J300S	03:01	270mm Suction Tube
J500S	05:01	270mm Suction Tube

Tech Sheet 2053

MANUAL & COMPRESSED AIR TRANSFER PUMPS & KITS

Redashe

Hand Operated Fuel Oil & Liquid Pumps



LubeWORKS

Lubeworks Lever Hand Pump Fuel Oil

0122	Description
J1703001	Lever Hand Pump



Lift Pump Polypropylene Fuel Oils

0122	Description
HPLP	Lift Pump

Driven Fuel Transfer Pumps



Portable Fuel Transfer Pump Kit 12V & 24V

0122	Voltage
J10304022	12V
J10304024	24V



Fuel Transfer Pump

0122	Description
J1500451	Transfer Pump

Pneumatic Oil Pumps & Dispensers



Pneumatic Oil Pump Kit

0122	Description
J100TDG	Oil Pump Kit



Wall Mounted Oil Dispensing Kit

0122	Description
C808MODK	Oil Dispensing kit



Fully Enclosed Fuel Transfer Pump

0122	Description
J1500450	Transfer Pump



Break Couplers for Fuel

0122	Size
ZBKV34N	3/4"
ZBKV01N	1"

Oil Delivery

- Mobile oil dispensing units suitable for dispensing oil at medium/high viscosity, for mobile installations and fixed systems at medium distances. The drum trolley allows the system to be moved around the workshop to ease servicing and increase efficiency. All items are available separately or in kit form.



Oil Delivery System

Q225	Description
JOS200	Oil Delivery System with Hose Reel
JOS100	Oil Delivery System without Hose Reel
Tech Sheet 60363	

- Pneumatic oil dispenser equipped with level gauge and delivery gun with flexible end.
- Works autonomously without the requirement of continuous connection to air supply.

Maximum Working Pressure:
10 bar



Oil Delivery System

Q225	Capacity Litres	Max Pressure Bar
JPOD030	30	10
JPOD065	65	10
Tech Sheet 60364		

- Self-contained oil pump supplied with a 16 litre (4.23 gallon) container with handle. Fitted with a 48" (4ft) fuel-resistant soft PVC hose with nozzle for clean discharge.

Features:

- 16 litre powder-coated container
- Variable handle setting for light or heavy fluids
- Recommended for transmission differentials and heavier oils
- Not suitable for water-based fluids or other corrosive media



Oil Delivery System

Q225	Capacity Litres
ZOLP16	16
Tech Sheet 60365	

Oil Drum Transportation



Drum Trolleys

Q225	To Suit
J1708001	12.5-50kg Drums
J1708003	205 Litre/180kg Drums
Tech Sheet 60362	

Grease Guns

- Universal gun for use with cartridges (400cc) or bulk grease (500cc).



Side Lever Gun

0088
2017-3506

- Rigid tube and locknut, 4-jaw connector and filler/bleed nipple
- Universal gun for use with cartridges (400cc) or bulk grease (500cc)
- Heavy-duty follower



Heavy-duty Lever Gun

0088
2017-3514

- One hand pistol grip with rigid tube and 4-jaw connector
- Universal gun for use with cartridges (400cc) or bulk (500cc)



Pistol Grip Gun

0088
2017-3555

Grease Hoses

- **Maximum Working Pressure:**
400 bar
- **Burst Pressure:**
900 bar



Single Steel Braid Rubber Hose, Male Thread, BSPP

0088	Thread	Length
2017-3654	1/8"	12"
2017-3662	1/8"	18"

Nylon Braid Hoses Polyamide Coated, Male Thread, BSPP

0088	Thread	Length
2017-3670	1/8"	12"
2017-3688	1/8"	18"



Rigid Stem with 4 Jaw Connector

0088
2017-3720

Lithium No.2 Grease Cartridge

Multi purpose bearing grease No.2 consistency for conventional applications.



0088	Volume Grams
2017-6780	400

GREASING & LUBRICATION EQUIPMENT



Heavy-duty Lever Grease Gun



0122
J1786004

Pistol Grip Grease Gun



0122
J1786501

Groz Dual Pistol/Lever Handle Grease Gun

Features:

- 2 way operating telescopic handle
- **Pistol type:** Ideal for use in confined space
- **Lever type:** For high pressure and high volume application
- Integrated high volume/high pressure adjustable mechanism
- Aluminium die cast head fitted with bulk loader and air bleeder valve
- Non-slip comfortable vinyl grip handle
- Filling options: 400gm (14oz.) grease cartridge, bulk, suction or filler pump
- Suitable for use with NLGI 1, 2 and 3 grease

new product



0122
ZG77

Tech Sheet 71693

Quick Grease Filler Gun

Features:

- Simple method of filling grease reservoir
- Reduces the chances of cross contamination
- Suitable for use with 400g grease cartridges or bulk grease
- Barrel manufactured from high quality zinc plated steel

new product



0122

Barrel Length

Barrel Diameter

ZSGGR400T

370mm

56mm

Tech Sheet 71690

Grease Filler Pumps



Air Operated Grease Pump Kit

0122

Description

J1708001

Optional Drum Trolley

Grease Guns

A unique single hand operated grease gun of superior quality for the professionals.

The short stroke operation delivers 52,000kPa/7,500 psi/520 bar whilst the flexible extension allows you to access nipples that are normally hard to reach.

The gun can be filled by one of three ways: cartridge, bulk or J2 grease pump.

Features:

- Short stroke operation
- Easy one hand operation
- Flexible outlet with Supergrip KY Coupler
- Delivers 0.8gm per shot
- Filler/bleeder nipple 1/4" BSP (M)



Professional Flexi Grease Gun

0122

K32

A high quality lever grease gun for the professionals. This lever gun is engineered for high pressure greasing providing up to 69,000kPa/10,000 psi/690 bar. The lever gun can be filled by one of three ways: cartridge, bulk or J2 grease pump.

Features:

- Rigid outlet with Supergrip KY Coupler
- Delivers 1.5gms per shot
- Filler/bleeder nipple 1/8" BSP (M)
- Fully repairable



Professional Lever Grease Gun

0122

K40

Tech Sheet 10579

For fast and easy loading of grease guns. The pump allows you to buy greasing more economically whilst the fully sealed system keeps out any contaminants.

Features:

- Suitable for 12.5 kegs
- Delivers 54gms per stroke
- Fully sealed system keeps grease clean



J2 Grease Pump

0122

J2

The P3 power-lube is the ultimate economical, high pressure air powered greasing system. To suit 12.5kg grease pails. At the recommended air pressure of 690kPa/100 psi/ 7 bar the 50:1 ratio air motor provides fast and continuous greasing at 34,500kPa/5,000 PSI/345 bar. The grease pressure can be boosted to 69,000kPa/ 10,000 psi/690 bar simply by squeezing the gun trigger several times.

Features:

- Non corroding air motor
- 4m delivery hose
- Handles up to NLG1 No2 greases
- Delivers 460gms of grease per minute
- Suitable for 12.5kg grease kegs



P3 Air Operated Power-Lube

0122

P3

Tech Sheet 10580

The P6 Maxi-Lube is the ultimate in economical high pressure air powered greasing systems. To suit 50kg grease pails. 690kPa/100 psi/7 bar the 50:1 ratio air motor provides fast and continuous greasing at 34,500kPa/5,000 psi/345 bar. The grease pressure can be boosted to 69,000kPa/10,000 psi/690 bar simply by squeezing the gun trigger several times.

Features:

- Non corroding air motor
- 4m delivery hose
- Handles up to NLG1 No2 greases
- Delivers 460gms of grease per minute
- Suitable for 50kg grease kegs



P6 Air Operated Maxi-Lube

0122

P6

Refillable Bearing Lubricator

The refillable automatic bearing lubricators are high quality, mechanical, chemical and thermal resistant. Designed to provide constant lubrication to bearings, bushings, joints, articulated joints or wherever constant greasing is required.

Features:

- Supplied with medium tension springs
- Suitable for all types of grease NLGI 0-1-2-3-4
- Setting dial (1, 3, 6 and 12 months) supply duration

Material Body: Transparent lexan

Working Temperature:
-30°C to +132°C

Maximum Working Pressure: 200 psi



0122	Capacity Millilitres
MCGL100	100
MCGL220	220

Tech Sheet 2143

GREASING & LUBRICATION EQUIPMENT



Pneumatic Pumps

JG-50 Drum cover, 385mm/50-60kg. Follower plate 370mm/50-60kg, Connection hose SAE R2 13" x 1/4", grease gun, Z swivel. JG-12 Drum cover, 280mm/12kg. Follower plate 265mm/12kg. Connection hose SAE R2 13" x 1/4", grease gun, Z swivel.



Grease Pumps

0122	Ratio	Description
JG-50	50:1	740mm Suction Tube
JG-12	50:1	480mm Suction Tube

Grease Pumps

GR.H12.L High pressure, direct feed grease pump. Fits directly onto 12.5Kg keg. Rubber edged follower plate. 1.2m high pressure outlet hose. 4 jaw connector. GR.BFILL.L Low pressure high volume grease pump. Pumps grease up to NGLI2, fits 12.5kg kegs. 1.2m outlet hose and quick release female connector.



High Pressure

0225
GR.H12.L

Low Pressure

0225
GR.BFILL.L

For filling grease guns with bulk grease, up to NGLI2. Fits directly onto 12.5kg kegs. Fills grease guns fast. Enables you to buy grease in bulk, saving money.

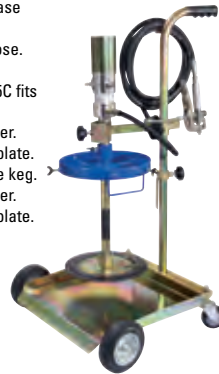


Grease Gun Filler Pump

0225
GR.GGFILL.L

Mobile Grease Dispensers

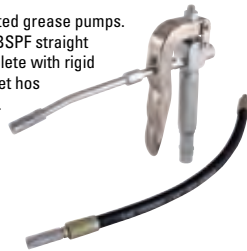
50:1 ratio air operated grease pump. 4 wheeled trolley. 4m of 1/4" bore delivery hose. Grease gun complete with straight swivel. GR.AM12.5C fits 12.5kg grease keg. 280mm diameter drum cover. 265mm diameter follower plate. GR.AM50C fits 50kg grease keg. 385mm diameter drum cover. 370mm diameter follower plate.



0225	To Suit
GR.AM12.5C	12.5kg Keg
GR.AM50C	50kg Keg

Grease Control Gun & Accessories

For use with air operated grease pumps. Inlet connection 1/4" BSPF straight swivel. Supplied complete with rigid spout and flexible outlet hos with 4 jaw connection. Option Z swivel. Spare straight swivel available.



Grease Gun

0225
GR.AGUNC

1/4" Z Swivel

0225
GR.ASWIVC

1/4" Straight Swivel

0225
GR.ASWIVS

High Volume Side Lever Grease Gun

Designed for ease of use with min effort that any gun can offer. Delivers 1.1/2 times more grease than most grease guns and generates pressure up to 10,000 psi (690 bar). Machined to precision tolerances (die cast head, 1.2mm barrel). Accepts either 400cc cartridges or 500cc bulk fill. Supplied with rigid spout 4 jaw connector and bulk filling load .



0225
GR.G3HV

High Volume Pistol Grip Grease Gun

Industrial pistol grip/one handed grease gun. Used for greasing in confined spaces/restricted access. Unique variable stroke feature allows increased pressure from short strokes and high volumes from full strokes (7500 psi 517 bar). Machined to precision tolerances (die cast head, 1.2mm barrel). Accepts either 400cc cartridges or 500cc bulk fill.

Supplied with 225mm flexible spout and 4 jaw connecto . Fitted with unique bulk filling load , doubles as an air bleed.



0225
GR.G6HV

Grease Fitting Unblocker

Opens clogged grease fittings/loosens hardened grease joints. Maintains and protects bearings, control arms, joints, king pins etc. Tap with a hammer to force light viscosity oil through the tool into the coupler and finally into the grease joint - breaking up and removing dirt and debris. Built in hand guard for added safety. Flexible hose attachment reaches fittings in difficult areas. Comes with a grease coupler for connection onto the grease fitting and 2 spare piston|seal for replacing as they wear out.



0225
GR.FU

Portable Greasing System

Ideal for heavy plant and site use. Foot operated. Suitable for grease up to and including NLGI 2. Foot operated by pressing on the spring loaded system. Hose is then charged with grease ready for dispensing. A single charge dispenses 30 shots of grease. Super dispensing gun has high pressure and high volume settings. High pressure 0.45gm per shot, high volume 1.25gms per shot. High pressure feature is useful to open blocked grease fittings. Comes with drum cover (dia 216mm) rubber lined follower plate, 1.5m hose and 5kg plastic grease bucket/drum.



0225
GR.PGS

Grease Nipples, Stainless Steel



45° Angle, Male Thread

0088	Thread
SSGN0245	1/8" BSPT
SSGN0245N	1/8" NPT
SSGN0445	1/4" BSPT
SSGNM645	M6 x 1
SSGNM845	M8 x 1
SSGNU0445	1/4" UNF



90° Angle, Male Thread

0088	Thread
SSGN0290	1/8" BSPT
SSGN0290N	1/8" NPT
SSGN0490	1/4" BSPT
SSGNM690	M6 x 1
SSGNM890	M8 x 1
SSGNU0490	1/4" UNF



Straight, Male Thread

0088	Thread
SSGN02	1/8" BSPT
SSGN02N	1/8" NPT
SSGN04	1/4" BSPT
SSGN04N	1/4" NPT
SSGNM6	M6 x 1
SSGNM8	M8 x 1
SSGNU04	1/4" UNF

Grease Nipple Covers



0225
PNR

Grease Nipples

80 piece assorted straight and angled grease nipples.
Imperial contains BSP/BSF/UNF.
Metric contains M6/M8/M10.



Box of Assorted Grease Nipples

0225	Thread
J9130/80	BSP/BSF/UNF
J9131/80	M6/M8/M10



For **Manual Grease System**
...see page 1647

Grease Nipples



Angled Male Thread, BSPT

0088	Angle	Thread
2017-3829	45°	1/8"
2017-3845	45°	1/4"
2017-3811	65°	1/8"
2017-3787	90°	1/8"
2017-3795	90°	1/4"

Angled Male Thread, Metric

0088	Angle	Thread
GNM645	45°	M6 x 1
GNM845	45°	M8 x 1
GNM690	90°	M6 x 1
GNM890	90°	M8 x 1

Angled Male Thread, NPT

0088	Angle	Thread
GN0245N	45°	1/8"
GN0445N	45°	1/4"
GN0290N	90°	1/8"
GN0490N	90°	1/4"

Angled Male Thread, UNF

0088	Angle	Thread
GNU0445	45°	1/4"
GNU0490	90°	1/4"



Straight Male Thread, BSPT

0088	Thread
2017-3738	1/8"
2017-3746	1/4"

Straight Male Thread, Metric

0088	Thread
GNM6	M6 x 1
GNM8	M8 x 1

Straight Male Thread, NPT

0088	Thread
GN02N	1/8"
GN04N	1/4"

Straight Male Thread, UNF

0088	Thread
GNU04	1/4"



16mm Double Hexagon Head (15mm A/F) Male Thread, BSPP

0088	Thread
2017-3860	1/8"
2017-3878	1/4"


16mm Double Hexagon Head (15mm A/F) Male Thread, NPT

0088	Thread
GNTH02N	1/8"
GNTH04N	1/4"



16mm Round Head Male Thread, BSPP

0088	Thread
2017-3886	1/8"
2017-3894	1/4"

For use with greasing units on hydraulic type nipples
 precision fit jaws
 are hardened for extended life.

 **Maximum Working Pressure:**
500 bar



Jaw Grease Connectors

0088	Length mm	Type
2017-3621	37	Valved
2017-3639	37	Unvalved

For use with greasing units on button and hexagon head grease nipples.

 **Maximum Working Pressure:**
400 bar



Slide-on Connector

0088
2017-3647

For use with greasing units on button and hexagon head grease nipples.

 **Maximum Working Pressure:**
400 bar



Hook-on Connector

0088
2017-3696

For use with greasing units on button and hexagon head grease nipples.

 **Maximum Working Pressure:**
400 bar



Knuckle Jointed Slide-on Connector

0088
2017-3712

Adaptors



Straight, Male Connector

0382	Male Thread	Female Thread
SMF04U/02	1/4" UNF	1/8"
SMFM6/02	M6 x 1 Taper	1/8"
SMFM8/02	M8 x 1 Taper	1/8"



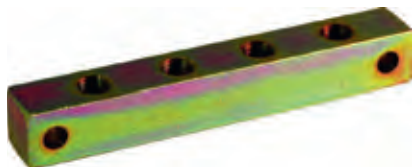
Battery Plate Adaptor, Brass, BSPP

0382	Female Thread	Tube OD mm
BPAM02-06-1	1/8"	6
BPAM02-06-2	1/8"	8



Anchor Block (One Way), Female Thread, BSPP

0382	Thread	Length mm	Width mm	Depth mm
ABS02-1	1/8"	30	15	15



Multi Point Anchor, Female Thread, BSPP

0382	Thread	Length mm	Ports
ABS02-2	1/8"	62	2
ABS02-4	1/8"	108	4
ABS02-6	1/8"	154	6

Lubrication Compression Fittings, Type LL

Suitable for oil and grease applications



Straights, Steel Zinc Plated

0382	OD mm	Thread
LU-1130	4	M6 x 1
LU-1140	4	M8 x 1
LU-1150	4	M10 x 1
LU-1160	4	1/8"
LU-1170	6	M6 x 1
LU-1180	6	M8 x 1
LU-1190	6	M10 x 1
LU-1200	6	1/8"
LU-1210	6	1/4"

stainless steel



Straights, 304 Stainless Steel

0382	OD mm	Thread
LU-1220SS	6	M6 x 1
LU-1230SS	6	M8 x 1
LU-1240SS	6	M10 x 1
LU-1250SS	6	1/8"



Elbows, Steel Zinc Plated

0382	OD mm	Thread
LU-1000	4	M6 x 1
LU-1010	4	M8 x 1
LU-1020	4	M10 x 1
LU-1030	4	1/8"
LU-1040	6	M6 x 1
LU-1050	6	M8 x 1
LU-1060	6	M10 x 1
LU-1070	6	1/8"
LU-1080	6	1/4"

Maximum Working Pressure:
100 bar

stainless steel



Elbows, 304 Stainless Steel

0382	OD mm	Thread
LU-1090SS	6	M6 x 1
LU-1100SS	6	M8 x 1
LU-1120SS	6	1/8"



Unions, Steel Zinc Plated

0382	OD mm
LU-1260	4
LU-1270	6

stainless steel



Unions, 304 Stainless Steel

0382	OD mm
LU-1290SS	6



Compression Nuts, Steel Zinc Plated

0382	OD mm
LU-1300	4
LU-1310	6

stainless steel



Compression Nuts, 304 Stainless Steel

0382	OD mm
LU-1340SS	6



Compression Rings, Steel Zinc Plated

0382	OD mm
LU-1320	4
LU-1330	6

Lubrication Push-in Fittings

Material: Brass plated.
Suitable for use with oil and grease.



Straights

0382	OD mm	Thread
LU-1360	4	M6 x 1
LU-1370	4	M8 x 1
LU-1380	4	M10 x 1
LU-1390	4	1/8"
LU-1400	6	M6 x 1
LU-1410	6	M8 x 1
LU-1420	6	M10 x 1
LU-1430	6	1/8"



Maximum Working Pressure:
60 bar



Elbows

0382	OD mm	Thread
LU-1440	4	M6 x 1
LU-1450	4	M8 x 1
LU-1460	4	M10 x 1
LU-1470	4	1/8"
LU-1480	6	M6 x 1
LU-1490	6	M8 x 1
LU-1500	6	M10 x 1
LU-1510	6	1/8"



Unions

0382	OD mm
LU-1520	4
LU-1530	6



Swivel Unions, Metric

0382	OD mm	Thread
LU-1540	6	M6 x 1
LU-1550	6	M8 x 1
LU-1560	6	M10 x 1



Swivel Unions, BSPT

0382	OD mm	Thread
LU-1570	6	1/8"

Lubrication Adaptors

Material: Galvanised steel.
Suitable for use with oil and grease.



45° Male/Female Elbows, Metric

0382	Thread
LU-1580	M8 x 1
LU-1590	M10 x 1



45° Male/Female Elbows, BSPT

0382	Thread
LU-1600	1/8"



90° Male/Female Elbows, Metric

0382	Thread
LU-1610	M6 x 1
LU-1620	M8 x 1
LU-1630	M10 x 1



90° Male/Female Elbows, BSPT

0382	Thread
LU-1640	1/8"

Material: Brass.
Suitable for use with oil and grease.



Banjo Male/Female Elbows, Metric

0382	OD mm	Thread
LU-1650	4	M8 x 1
LU-1670	6	M6 x 1
LU-1680	6	M8 x 1
LU-1690	6	M10 x 1



Banjo Male/Female Elbows, BSPT

0382	OD mm	Thread
LU-1700	6	1/8"

High Pressure Hose & Accessories



Non-filled Reinforced Hose 600 to 840 Bar, 10 Metre Coil

0382	ID mm	OD mm
LU-1710	4	8.75
LU-1730	6.3	11.3

Grease Filled Reinforced Hose 600 to 840 Bar, 10 Metre Coil

0382	ID mm	OD mm
LU-1720	4	8.75

Straight Inserts, Steel Zinc Plated



0382	ID mm	OD mm
LU-1740	4	8.75
LU-1750	6	8.75

stainless steel



Straight Inserts, Stainless Steel

0382	ID mm	OD mm
LU-1760SS	6	8.75



90° Inserts, Steel Zinc Plated

0382	ID mm	OD mm
LU-1780	6	8.75
LU-1790	8	11.3



Ferrule, Zinc Plated

0382	OD mm
LU-1800	8.75
LU-1810	11.3

stainless steel



Ferrule, Stainless Steel

0382	OD mm
LU-1820SS	8.75
LU-1830SS	11.3

Lubrication & Pumping Equipment

Three inch air motor, provides more power to create better flow.

NXT Air Valve, designed to reduce icing in continuous use applications and uses less air than competitive pumps for better efficiency. Easy to repair or replace without tearing down internal pump components for less downtime.

Modular air valve, air inlet and exhaust locations are easy to configure with just four bolts for simple, hassle free installations.

Built-in thermal relief and inlet strainer, built-in thermal relief protects your equipment from thermal expansion without the need to buy and install an additional kit.

Inlet strainer (oil only) is built-in to protect pump from contaminants that can damage your pump.

Connections:

Air line 1/4" BSP

Fluid outlet 1/2" BSP

Inlet 1" BSP

900mm plastic down tube (can be cut down as required).



LD Range Oil Pumps

0382	Ratio	LPM
24G581	3:1	9.8
24G593	5:1	7.6



Wall Mount Bracket

0382	To Suit
24F910	24G5 Series Pumps

Remote Grease Systems

Contents:

- 1 x 1/8" BSP 2 way block
- 2 x 1/8" BSP straight grease nipples
- 4 x 1/8" BSP x 6mm straights
- 2 x 1/8" BSP x 6mm straight fittings
- 30 metre of 6 x 3mm semi rigid black nylon tube



2 Point

0382
BAT03

Contents:

- 1 x 1/8" BSP 6 way block
- 6 x 1/8" BSP straight grease nipples
- 2 x 1/8" BSP x 6mm straight fittings
- 2 x 1/8" BSP x 6mm straight fittings
- 30 metre of 6 x 3mm semi rigid black nylon tube



6 Point

0382
BAT06

Manual Grease System

Contents:

- 1 x 1 litre manual pump
- 1 x 4 way grease block
- 1 x 81-5261-1/4 x 6mm straight
- 2 x 1/8" BSP x 6mm straight fittings
- 30 metre coils of 6 x 3 semi rigid black nylon tube
- 6 x 1 way pipe clips
- Suitable for soft grease NLGI NO 000,00,0
- For use on small machinery, direct feed on to bearings
- 1.00cc delivery per stroke
- Max discharge pressure 150 bar



4 Point

0382
PROG12

Grease Coupler & Bracket

- This quick disconnect grease coupler is designed for quick and convenient disengagement of the coupler from the grease/air fittings under pressure.

Maximum Working Pressure:
550 bar



Quick Disconnect Coupler

0088	Thread
ZHC203B	1/8"
Tech Sheet 60358	

- Simple snap-action clamp for safe storage of grease guns and suction guns.



Grease Gun Bracket

0225	To Suit
ZGGH01	Barrel Diameter 57mm
Tech Sheet 60380	

Hydraulic Swivel Adaptor

- Professional 360° hydraulic adaptor, three jaw, 1/8" BSPT thread and hex nut.

Maximum Working Pressure:
483 bar



360° Swivel

0088	Thread
ZHCSW3B	1/8"
Tech Sheet 60359	

Thread Gauge

Threads:

NPT: 1/8", 1/4", 3/8"

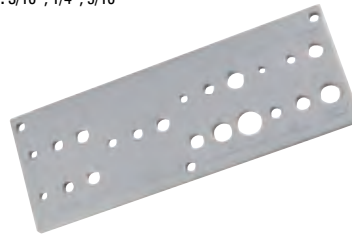
Metric: M6 x 1, M6 x 0.75, M8 x 1, M8 x 1.25, M10 x 1, M10 x 1.5

BSPT: 1/8", 1/4"

UNF/ANF: 1/4", 5/16", 3/8"

BSW: 1/4", 5/16", 1/2", 3/8"

BSF: 3/16", 1/4", 5/16"



To suit Grease Nipples

0382	
ZTHT01	
Tech Sheet 60361	

Extra Long Grease Coupler

The coupler will not move thus allowing a hands free operation

- Suitable for battery, air and manual operated grease guns
- Slim line diameter 17mm
- Unique 6 point contact design
- Length: 80mm

new product

1 YEAR WARRANTY



Extra Long Quick Disconnect Coupler

0122	Thread BSPTF	Max Pressure PSI/Bar
ZHC21XL	1/8"	8000/550
Tech Sheet 71692		



For Hand Wet Wipes
...see page 1761

Pressure Hoses

Working Temperature:
-40°C to +100°C



For use with Oil, 1/2" BSPP
Male/Female x 1/2" ID 1 Wire Hose

0300	Max Pressure PSI	Length mm
1BMF0808-600	2320	600
1BMF0808-800	2320	800
1BMF0808-2000	2320	2000
1BMF0808-4000	2320	4000
1BMF0808-10000	2320	10000



For use with Grease, 1/4" BSPP
Male/Female x 1/4" ID 2 Wire Hose

0300	Max Pressure PSI	Length mm
2BMF0404-600	5800	600
2BMF0404-1500	5800	1500
2BMF0404-4000	5800	4000
2BMF0404-10000	5800	10000



For use with Air & Water, 3/8" BSPP
Male/Female x 3/8" ID Hose

0300	Max Pressure PSI	Length mm
AW-R6-600	1620	600
AW-R6-2000	1620	2000
AW-R6-4000	1620	4000
AW-R6-10000	1620	10000

Long Life Flexible Oil Lines

Working Temperature:
-40°C to +100°C



R1, 1/4" BSPP Female/
Female x 1/4" ID 1 Wire Hose

0300	Max Pressure PSI	Length mm
1BFF0404-600	3260	600
1BFF0404-750	3260	750
1BFF0404-1000	3260	10000

Working Temperature:
-40°C to +90°C



Thermoplastic, 1/4" BSPP Female/
Female x 1/4" ID 1 Wire Hose

0300	Max Pressure PSI	Length mm
7BFF0404-600	2755	600
7BFF0404-750	2755	750
7BFF0404-1000	2755	10000

Workshop Manual Pressure Test Pump

Designed for pressure testing hoses, pipework radiators and boilers etc. Can use with water or oil for testing. Comes with a gauge to monitor the pressure in the line. Fills the line you are testing with fluid from the reservoir. Comes complete with 2m delivery hose.

- 1/2" BSPM connector.
- Brass pump with anodised aluminium piston
- Housed in a 5 litre capacity steel reservoir
- Delivery per stroke: 12cc



Maximum Working Pressure:
209psi (20 bar).

0225
PTP

QUICK, CLEAN AND SAFE OIL CHANGES



WHAT ARE THE ADVANTAGES OF THE FEMCO DRAINAGE SYSTEMS?

- The Femco oil drain plug reduces downtime
- You can drain oil at engine temperature, safely
- You can drain oil in an environmentally friendly way, because oil spillages are prevented
- Oil is contained from sump to container
- Eliminates the risk of stripped threads
- Tool-less oil changing; all you need is the drain hose

HOW DOES THE FEMCO OIL DRAIN PLUG WORK?

- 1) Remove the dust cover from the drain plug
- 2) Screw the Femco drain connector with hose onto the drainage system
- 3) The fluids are captured and flow straight to the container

WHICH OIL DRAIN PLUG SUITS MY APPLICATION THE BEST?

Femco produces a lot of oil drain plugs and they are all specialised for different applications.

- The Standard oil drain plug is installed when there is enough space available
- The Compact oil drain plug is used where space is restricted
- The Click Drain is used for a large number of vehicles
- The XL oil drain plug is used to drain a large amount of oil
- The Quick Drain is used for stationary machinery

WHERE CAN I FIND AN OIL DRAIN PLUG IN THE RIGHT SIZE?

Femco has a product range covering over 500 thread types and sizes. We can also make custom thread sizes. Please call us; we can help you to find the right size.

WHAT ARE THE DRAIN PLUGS MADE FROM?

All our oil drain plugs are made from solid brass.

CAN I USE A FEMCO OIL DRAIN PLUG IN COMBINATION WITH AN OIL EXTRACTOR PUMP?

All Femco oil drainage systems can be connected with an oil extractor pump.



CAN I PERFORM AN OIL CHANGE WHILE THE OIL IS STILL HOT?

All Femco oil drain plugs are produced from solid brass and can be used to drain oil at engine temperature.

IS IT POSSIBLE TO DRAIN FLUIDS OTHER THAN OIL?

The Femco oil drain plugs can be used to drain all kinds of fluid such as engine oil, coolant, gearbox oil and hydraulic oil.

WHAT HAPPENS IF I GET WATER IN MY FUEL TANK?

Femco drain plugs are ideal for draining condensation from fuel tanks.

HOW DO I PERFORM AN OIL CHECK?

Femco has produced various sampling nipples to make it easy to check the viscosity of the oil.

HOW CAN I CHANGE THE OIL IN A DIFFICULT-TO-REACH PLACE?

Femco can provide you with angled and extended drain connectors or special adaptors to drain oil even in the tightest spaces.

CAN A FEMCO OIL DRAIN PLUG BE FITTED WITH A MAGNET?

All Femco oil drain plugs can be provided with a magnet, which can be inspected after draining the oil.

WHO DOES FEMCO ALREADY SUPPLY?

Femco already supplies their drainage systems to companies like:

- | | | |
|-------------|-----------|------------------|
| • Emirates | • JCB | • Bell Equipment |
| • MANN | • VDL | • Alfagomma |
| • Hitachi | • Daimler | |
| • Air China | • Kobelco | |

QUICK OIL DRAIN PLUGS



Standard Drain Plugs

The Standard Drain – the original Femco® oil drain plug – was introduced in 1983 to change oil in a quick, clean and environmentally friendly way. The Standard Drain is manufactured out of 100% brass, which makes it easy to change hot oil. Additionally, the oil drain plugs are fitted with a dust cover and a double O-Ring, which protect the plug and ensure a reliable performance.

Application: Engine oil, hydraulic oil, gearbox oil, coolant, lubricating oil

Material: Brass outside and inside, stainless steel spring

Valve: Brass with Viton O-Ring/valve

Dust Cap: Brass, thread size LB: M26 x 1.5/SB: 22 x 1.5

Dust Cap Seal: NBR O-Ring

Body Seal: Viton O-Ring

Working Temperature:
-20°C to +200°C



NPT

0710	Thread
6060020141	1/4"
6060020142	3/8"
6060020143	1/2"
6060020140	3/4"
6060020145	1"

Tech Sheet 68080

UNF

0710	Thread
6080020109	1/2"-20
6080020113	3/4"-16
6080020115	7/8"-14
6080020119	7/8"-20
6080020120	1"-12

Tech Sheet 68080

Metric

0710	Thread
6090020030	M12 x 1.5
6090020033	M14 x 1.5
6090020036	M16 x 1.5
6090020038	M18 x 1.5
6090020040	M20 x 1.5
6090020046	M22 x 1.5
6090020053	M24 x 1.5

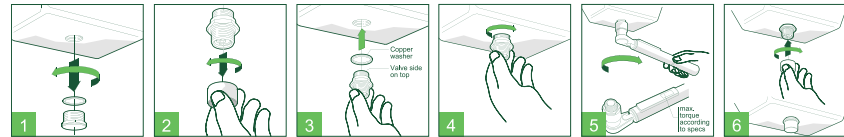
Tech Sheet 68080

BSPP

0710	Thread
6070020130	1/4"
6070020131	3/8"
6070020132	1/2"
6070020134	3/4"
6070020141	1"

Tech Sheet 68080

Installing FEMCO® Drain Plugs (Standard and Compact)



Standard Drain Accessories



Straight Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
650103	M26 x 1.5	18	250

Tech Sheet 68080



90° Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
650108	M26 x 1.5	18	250

Tech Sheet 68080



Dust Cap & Chain

0710	Thread
650113	M26 x 1.5

Tech Sheet 68080



45° Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
650121	M26 x 1.5	18	250

Tech Sheet 68080



For Hydraulic Oils
...see page 283

QUICK OIL DRAIN PLUGS



Compact Drain Plugs

The Compact Drain is the smallest Femco® oil drain plug, and is the perfect choice for oil changes in tight spaces. The Compact plug only extends 12 millimetres from the sump, and is often used in vehicles with a low ground clearance such as cars, buses and motorcycles. You can install the compact plug on any vehicle without worrying about the available space.

Application: Engine oil, hydraulic oil, gearbox oil, coolant, lubricating oil

Material: Brass outside and inside, stainless steel spring

Valve: Brass with Viton O-Ring/valve

Dust Cap: Brass, thread size LB: M24 x 1,5/SB: 20 x 1.5

Dust Cap Seal: NBR O-Ring

Body Seal: Viton O-Ring

Working Temperature:
-20°C to +200°C



NPT

0710	Thread
7060020406	1/4"
7060020407	3/8"
7060020408	1/2"
7090020411	3/4"
7060020413	1"

Tech Sheet 68080

UNF

0710	Thread
7080020354	1/2"-20
7080020360	7/8"-14
7080020363	7/8"-18
7080020378	11/8"-12
7080020372	5/16"-12

Tech Sheet 68080

Metric

0710	Thread
7090020178	M12 x 1.5
7090020181	M14 x 1.5
7090020184	M16 x 1.5
7090020186	M18 x 1.5
7090020189	M20 x 1.5
7090020195	M22 x 1.5
7090020203	M24 x 1.5

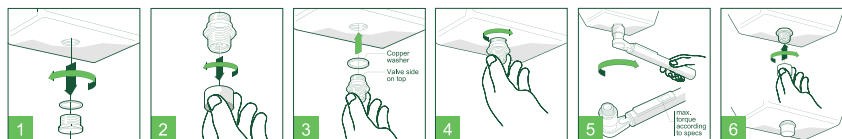
Tech Sheet 68080

BSPP

0710	Thread
7070020395	1/4"
7070020397	3/8"
7070020398	1/2"
7070020399	3/4"
7070020401	1"

Tech Sheet 68080

Installing FEMCO® Drain Plugs (Standard and Compact)



Compact Drain Accessories



Straight Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
750005	M24 x 1.5	18	250

Tech Sheet 68080



45° Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
750013	M24 x 1.5	18	250

Tech Sheet 68080



90° Drainer, with Hose

0710	Thread	To Suit Hose ID mm	Length mm
750010	M24 x 1.5	18	250

Tech Sheet 68080



Dust Cap

0710	Thread
750028	M24 x 1.5

Tech Sheet 68080

QUICK OIL DRAIN PLUGS



Click Drain Plugs

The Click Drain enables you to perform quick, clean and environmentally friendly oil changes. The Click Drain is manufactured out of solid brass. This material is heat resistant, ensuring you can safely change hot fluids such as engine oil. You can use the oil drain valve without using any specialist tools. In addition to this, it is easy to take oil samples using the Click Drain. The Click Drain oil drain valve also incorporates a locking system to ensure an effective seal, creating a clean working environment.

Click Drain plugs make oil changes on your vehicles and machines quick and easy. This oil drain system consists of a plug and a clicker. When it is time for an oil change, you simply click the clicker onto the plug to start draining the oil. The Click Drain plug is often used in combination with the Femco® oil extractor pump, and is the ideal solution for small maintenance tasks on fleets of vehicles

Applications: engine oil, hydraulic oil, gearbox oil, coolant, lubricating oil
Material: brass outside and inside, stainless steel spring
Valve: Brass with viton O-Ring/valve
Dust Cap: brass, thread size LB: M26 x 1.5/SB: 22 x 1.5
Dust Cap Seal: NBR O-Ring
Body Seal: Viton O-Ring

Advantages of the Quick Drain oil drain valve:

- Reduction of downtime
- Easy operation
- Clean oil changes
- Change hot oil safely
- No tools required
- Easy way to sample oil



Working Temperature:
 -20°C to +200°C

NPT

0710	Thread
8060020511	1/4"
8060020512	3/8"
8060020513	1/2"
8060020514	3/4"
8060020516	1"
Tech Sheet 68080	

UNF

0710	Thread
8080020482	3/4"-16
8080020483	7/8"-14
8080020486	7/8"-18
8080020487	7/8"-20
8080020489	1"-14
8080020492	1.1/2"-12
Tech Sheet 68080	

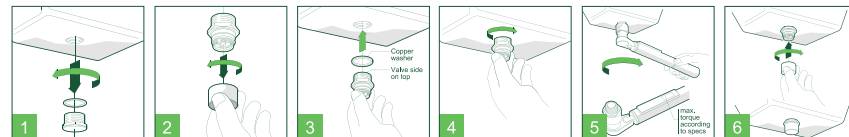
Metric

0710	Thread
8090020420	M12 x 1.5
8090020423	M14 x 1.5
8090020425	M16 x 1.25
8090020428	M18 x 1.5
8090020430	M20 x 1.5
8090020436	M22 x 1.5
8090020443	M24 x 1.5
Tech Sheet 68080	

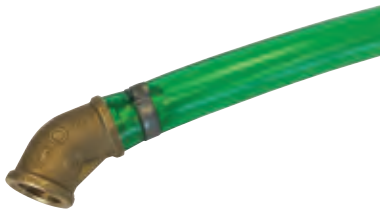
BSPP

0710	Thread
8080020501	3/8"
8080020502	1/2"
8080020504	3/4"
8080020505	3/4" (Extended thread length)
8080020506	1"
Tech Sheet 68080	

Installing FEMCO® Drain Plugs (Click Drain)



Click Drain Accessories



Drain Connector, Solo Click, BSPP

0710	Thread
851000	1/2"
Tech Sheet 68080	



Drain Connectors, Double Click, BSPP

0710	Thread
851017	1/2"
851013	3/4"
851019	1"
Tech Sheet 68080	

TANK LEVEL GAUGES



Tank Gauge - Ideal For Domestic Tanks

- Reads the oil level and sends the reading to an indoor receiver
- Suitable with diesel, HVO, kerosene, oil, biodiesel, water, antifreeze and Adblue®
- The plastic tank is up to 100 litres deep, easy to retrofit
- The transmitter needs a 20mm or 32mm hole on top of the tank
- No power required at the gauge, has a long-life lithium battery
- Comes with an electronic receiver that plugs into a 230V socket
- Receiver can be up to 200 metres away from the tank
- Tank level is displayed in ten graduations



0225	Length Metres
APOL1	3

Tank Gauge - Remote Reading

- Simple hydrostatic tank contents gauge
- Suitable with diesel, biodiesel, HVO, oils, water and Adblue®
- UNITOP suits tanks from 0.9 metre to 3.2 metre high
- Probe has 1/2" NPT thread for fitting
- Readout can be sited up to 20 metres away from the tank
- Shows percentage of full tank contents
- Calibrate on site to suit tank
- Pull the plunger and release to show tank contents



0225	Description
UNITOP	Rectangular/Cylinder Tanks

Tank Gauge - Float

- Suitable for diesel, heating oil, lube oils or water, antifreeze and biodiesel up to B100.
- Gauge provides a simple, rough indication of tank contents
- Shows EMPTY 1/4, 1/2, 3/4 or FULL
- Mounts directly into the top of tank
- Accuracy +/- 5%
- Now suitable with HVO.



0225	Thread	Length Metres
FG4E	1.1/2"	1.2
FG6E	1.1/2"	1.8

Tank Gauge - Float

- Only use on oil and fuel drums. The float has a polyethylene construction which allows it to be used with a wide range of liquids including water, coolants etc.
- The indicator is fitted with a display marked from 0 to 210 litres. Reversing the display gives graduations from 0 to 55 gallons.
- Note that this is not a precise measuring device. The gauge is only to give an approximate level of liquid in the drum to know when to arrange a new drum.



Drum Level Indicator

0122	Thread
ZDL134N	3/4"

Tech Sheet 71696

Funnels & Measures



Plastic Funnel

0225	Capacity Litres
ZFNL8	1.75
ZFNL9B	3



Flexible Spout Measure

0225	Capacity Litres
ZFSM1	1
ZFSM5	5

Fluid Drain Pans

Capacity: 17 Litres
 Approx. Diameter: 460mm
 Height: 150mm

Redashe



Oil/Fluid Drain Pan, 17 Litre

0261	
DRP03	
	Tech Sheet 1144

Oil Drain Pans



Oil Drain Pans

0225	Capacity Litres
OPAN6	6
OPAN14	14

Features:

- High density polyethylene construction
- Closed design for safe and spill free disposal
- Large opening to catch all base oils and all parts and filters.
- Integrated handle for easy carrying and handling
- Closes upright or flat without any leakage
- Complete with wheels for slosh and spill free mobility
- Recommended to be used with oil and antifreeze
- Approx. size (457mm x 406mm x 127mm)



High Density Polyethylene Oil Drain Pan

0122	Capacity Litres
ZODP15	14
	Tech Sheet 71694

Chemical Pressure Sprayer

- Brake cleaner and chemical pressure sprayer.



0225	Capacity Millilitres
J0002	1000

Garage Funnel

- Includes universal filter box.



Garage Funnel Complete with Filter

0225	
J8055/12SE	

UK Type Funnels

- Includes spill funnel, filter and flexispout.



Complete with Strainer

0225	Size
J8055/6	6"
J8055/9	9"

- HDPE Flexispout oil measures



Complete with Measure & Flexible Spout

0225	Capacity Litres
J8057/1N	1
J8057/2N	2
J8057/3N	3
J8057/5N	5

4 Piece Plastic Funnel Set

- Capacity: 430ml (15oz), 245ml (8.5oz), 120ml (4.2oz) and 40ml (1.4oz)
- Diameter: 125mm (5"), 100mm (4"), 75mm (3") and 50mm (2")
- High rim works as an effective splash guard
- Recommended use: Diesel, Gasoline, Kerosene, Urea, Oils, Antifreeze and other water based media
- Do not use with: Acids and other media at temperatures above 60°C (140°F)

Redashe



0122	
ZFNL4ST	

Tech Sheet 71688

R Grip

- Includes coil grips with bright zinc plate finish.



Pack of 100

0225	Bore Size mm
J0787	2
J1181	3
J1373	3.5
J1574	4
J1968	5
J2362	6

Linch Pins

- Linch pins with 3.5mm wire dia O-Ring.
- Includes zinc plate and oil passivated finish.



Linch Pins, Pack of 100

0225	Bore Size mm
J0250	6
J0312	8
J0437	11

- Safety linch pin with
- O-Ring 54mm usable length.



Safety Linch Pins, Pack of 100

0225	Bore Size mm
J7502	9

Heavy-duty, Brass Water Guns

- Inlet connection: 1/2" BSPP
- Automatic shut-off
- Adjustable spray pattern
- Rubber insulated body and handle
- Scuff resistant
- Trigger lock

Note: not suitable for use with sea salt

 **Maximum Working Temperature:**
+50°C

 **Maximum Working Pressure**
25 bar

BSPP Inlet, Brass

1369	Thread	Colour
WASH-GUN	1/2"	Blue
REDWASH-GUN	1/2"	Red



Heavy-duty, Stainless Steel Hygienic Water Guns

- Colour coded for use in hygienic zone systems
- Inlet connection: 1/2" BSPP
- Automatic shut-off
- Adjustable spray pattern
- Non-marking rubber insulated body and handle
- Trigger lock

 **Maximum Working Temperature:**
+90°C (intermittent use)

 **Maximum Working Pressure**
25 bar

BSPP Inlet, Stainless Steel

1369	Thread	Colour
HYGWASH-GUN	1/2"	White
HYGWASH-GUNR	1/2"	Red
HYGWASH-GUNG	1/2"	Green



WASHDOWN & CLEANING PRODUCTS



Water Guns



• Blue available to order



Water Gun

1369	Inlet BSPP
WG02	1/2"

Stainless Steel Water Gun

1369	Colour	Female Inlet BSP	Flow Rate
XGNSS	White	1/2"	25
XGNSSR	Red	1/2"	25

WASHDOWN & CLEANING PRODUCTS



High Pressure Water Quick Release Coupling & Plug

Interchangeable with:
Nito High Pressure Water Coupling
40 Series water coupling

Maximum Working Pressure:
210 bar



Female Coupling, BSPP

1369	Thread
PWQRC-38	3/8"



Female Plug, BSPP

1369	Thread
PWQRP-38	3/8"

Couplings to suit A Series Nozzles



1/4" BSPP Female Quick Release Coupling

1369
CDC-14F-14M-B



1/4" BSPP Male Quick Release Coupling

1369
CDC-14M-14M-B

Coupling & Adaptor



1/4" Brass Bayonet, Female

1369
CDAX

WATER GUN

NiTO Ergo Water Gun

Hot-water gun with an elegant design with focus on ergonomics, quality and functionality. The shape ensures a thermal protection of the handle. The trigger is protected against unintentional activation for safety, and can be locked for prolonged use. Infinitely variable flow regulation optimises the water quantity, whatever the task. Made of impact-resistant composite material with a high resistance to chemicals.

 **Maximum Working Temperature:**
+40°C

 **Maximum Working Pressure:**
6 bar



1068	Coupling Size
40525A3	1/2"
40500A3	3/4"

NiTO II Industry Water Gun

 **Maximum Working Temperature:**
+90°C

 **Maximum Working Pressure:**
25 bar



BSPP

1068	Thread
30550A3	3/4"

NiTO II Spray Nozzles



For 15mm & 20mm Hose

1068	Nozzle
20000A4	1/2"




3/4" Female Thread

1068	Nozzle
20300A9	3/4"

NiTO I Water Gun

 **Maximum Working Temperature:**
+40°C

 **Maximum Working Pressure:**
6 bar

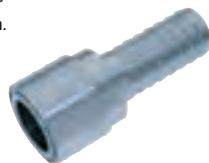


With On/Off & Linear Flow Control

1068	Thread
53800A1	1/2"
63820A1	3/4"

NiTO Safety Couplings

Note: 6151SA8 suitable for NiTO II industry water gun.



1068	ID
6151SA8	1/2"
6150SA8	3/4"

NiTO Safety Plugs

Note: 61640A8 suitable for NiTO II industry water gun.



1068	ID
61640A8	1/2"
61650A3	3/4"

NiTO O-Rings for High Pressure Couplings



1068	Description
1107A8	Viton 20 Shore
1108A8	Viton 17 Shore



NiTO High Pressure Water Couplings

 **Maximum Working Temperature:**
+100°C

 **Maximum Working Pressure:**
250 bar

Material: Brass and chromium plated

- Coupling set suitable for KEW high pressure cleaners



Complete Coupling, Female, BSPP

1068	Thread
65506B3	3/8"
Tech Sheet 20361	



Female, BSPP

1068	Thread
65500B3	3/8"
Tech Sheet 20361	



Male, BSPP

1068	Thread
6550NB3	M22 x 1.5
Tech Sheet 20361	

NiTO High Pressure Water Plugs

 **Maximum Working Temperature:**
+100°C

 **Maximum Working Pressure:**
250 bar

Material: Brass and chromium plated



Female Metric & BSPP

1068	Thread
65610B9	3/8"
65632B9	M22 x 1.5

NITO Original Water Couplings

Wide range of couplings that solve all thread and hose combination.



1/2" SYSTEM



Working Temperature:
-30°C to +80°C

Maximum Working Pressure:
25 bar

Material:
Brass nickel plating

Seal:
Nitrile

Couplings



Male, BSPP

1068	Thread	Operation
5350NA3	1/2"	No Valve
5353NA3	1/2"	Valved
5352NA3	3/4"	No Valve



Female, Metric & BSPP

1068	Thread	Operation
53500A3	1/2"	No Valve
53520A3	3/4"	No Valve
53530A3	3/4"	Valved
5353GA3	M22 x 1	Valved



Hose Tail

1068	To Suit Hose ID	Operation
5349SA3	3/8"	No Valve
5350SA3	1/2"	No Valve
5351SA3	3/4"	No Valve
5353SA3	1/2"	Valved
5354SA3	3/4"	Valved

Plugs



Male, Metric & BSPP

1068	Thread
5364BA3	3/8"
53640A3	1/2"
5364AA3	3/4"



Female, Metric & BSPP

1068	Thread
53610A3	1/2"
5361AA3	3/4"
53620A3	M22 x 1



Hose Tail

1068	ID	ID mm
5360DA3	1/4"	6
5360BA3	3/8"	8
53600A3	1/2"	13
5360CA3	5/8"	16



Equal

1068
53650A3



Double Hose Tail

1068	ID
5360AA3	1/2" & 3/4"



To suit Water Gun, BSPP

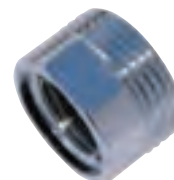
1068	Thread
53611A3	1/2"

Adaptors



Reducing Bush

1068	Male Thread	Female Thread
53690A3	1/2"	3/4"
63690A3	3/4"	1"
53700A3	1/2"	M22 x 1



Reducing Bush

1068	Male Thread	Female Thread
5371AA3	3/4"	1/2"



Reducing Bush

1068	Male Thread	Female Thread
5349BA8	1/2"	3/8"
53490A8	3/4"	1/2"

Hose Union



BSPP

1068	Thread	To Suit Hose ID
53670A3	1/2"	1/2"

Adjustable Nozzle



1068	ID
53750A3	1/2"

1/2" SYSTEM



Working Temperature: -30°C to +80°C
 Maximum Working Pressure: 25 bar
 Material: Brass nickel plating
 Seal: Nitrile

Hose Union Washer



1068
1-290A8

NiTO O-Rings



1068
53470A8

NiTO Washers



1068	Description
53440A8	1/2"

3/4" SYSTEM



Working Temperature: -30°C to +80°C
 Maximum Working Pressure: 25 bar
 Material: Brass nickel plating
 Seal: Nitrile

Couplings



Female, BSPP

1068	Thread	Operation
63500A3	3/4"	No Valve
63530A3	3/4"	Valved



Hose Tail

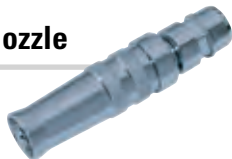
1068	To Suit Hose ID	Operation
6353SA3	3/4"	Valved
6350SA3	3/4"	No Valve

Hose Union



1068	To Suit Hose ID	ID
6367AA3	3/4"	1/2"
63670A3	3/4"	3/4"

Adjustable Nozzle



1068	ID
63750A3	3/4"

Plugs



Male, BSPP

1068	Thread
6364AA3	1/2"
63640A3	3/4"



Female, BSPP

1068	Thread
6361AA3	1/2"
63610A3	3/4"



Hose Tail

1068	To Suit Hose ID	To Suit Hose ID mm
6360BA3	1/2"	13
63600A3	3/4"	16



Double Hose Tail

1068	To Suit Hose ID
6360AA3	1" & 3/4"

NiTO O-Rings



1068
63470A8

NiTO Washers



1068
63440A8

Redashe



For Hose Reels
see pages 1456-1462

1" SYSTEM



Working Temperature:
-30°C to +80°C

Maximum Working Pressure:
25 bar

Material:
Brass nickel plating

Seal:
Nitrile

Couplings



Female, BSPP

1068	Thread	Operation
73500A3	1"	No Valve
73530A3	1"	Valved

Plugs



Male, BSPP

1068	Thread
73640A3	1"



Female, BSPP

1068	Thread
73610A3	1"



Hose Tail

1068	To Suit Hose ID
7360BA3	3/4"
73600A3	1"

CLICK™ SYSTEM



Working Temperature:
-30°C to +80°C

Maximum Working Pressure:
25 bar

- Click™ coupling system for the professional market
- compatible with the most popular plastic couplings
- The same high quality as the original NiTO couplings

- 5 year function guarantee
- Complete programme for the trade and industry, house and garden

Couplings



Male, BSPP

1068	Thread
5950NA3	1/2"



Hose Tail

1068	To Suit Hose ID
5949SA3	3/8"
5950SA3	1/2"
5951SA3	3/4"



Female, BSPP

1068	Thread
5952GA3	1/2"



Hose Tail with Valve

1068	To Suit Hose ID
5953SA3	1/2"

Plugs



Male, BSPP

1068	Thread
59640A3	1/2"



Female, BSPP

1068	Thread
5961GA3	1/2"



Hose Tail

1068	To Suit Hose ID
59600A3	1/2"



Double Hose Tail

1068	To Suit Hose ID
5960AA3	1/2" & 3/4"

STAINLESS STEEL



NiTO Original Stainless Steel Quick Release Couplings

stainless steel



Coupler to Female, BSPP

1068	Thread	Coupling Size
54500A3	1/2"	1/2"
54520A3	3/4"	1/2"
64500A3	3/4"	3/4"

stainless steel



Coupler to Hose Tail

1068	To Suit Hose ID	Coupling Size
5450SA3	1/2"	1/2"
6450SA3	3/4"	3/4"

stainless steel



Valve Couplers to Female, BSPP

1068	To Suit Hose ID	Coupling Size
54530A3	3/4"	1/2" with Valve
64530A3	3/4"	3/4" with Valve

stainless steel



Valve Couplers to Hose Tail

1068	To Suit Hose ID	Coupling Size
5453SA3	1/2"	1/2" with Stop Valve
6453SA3	3/4"	3/4" with Stop Valve

stainless steel



Nipple Couplers to Female, BSPP

1068	Thread	Coupling Size
54610A3	1/2"	1/2"
5461AA3	3/4"	1/2"
64610A3	3/4"	3/4"

stainless steel



Nipple Couplers to Male, BSPP

1068	Thread	Coupling Size
54611A3	1/2"	1/2"
64611A3	3/4"	3/4"

stainless steel



Nipple Coupler to Double Hose Tail

1068	To Suit Hose ID	Coupling Size
5460AA3	1/2" & 3/4"	1/2"

stainless steel



Nipple Couplers to Hose Tail

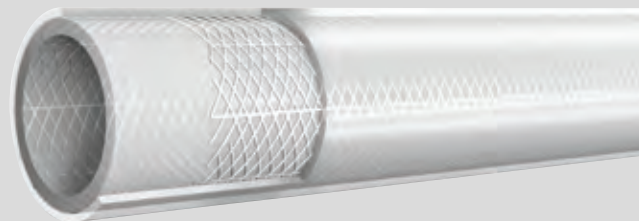
1068	To Suit Hose ID	Coupling Size
54600A3	1/2"	1/2"
64600A3	3/4"	3/4"

stainless steel



Male to Hose Tail, BSPP

1068	Thread	To Suit Hose ID
64670A3	3/4"	3/4"



For **Food Certified Reinforced PVC Braided Hose**
see page 1406

WASH DOWN EQUIPMENT



Pressure Washer Lances

- Inlet connection: 3/8" BSPP
- Maximum flow: 25 L/min
- 15° spray pattern nozzle

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar

Hand grip options: moulded or vented.
Lance style options: straight or 15° bend.
Length options: 430-900mm.

Straight Moulded Grip

1369	Thread	Length mm	Max Pressure Bar
PRESSURE-LANCESH	3/8"	430	250
PRESSURE-LANCE	3/8"	900	280

15° Moulded Grip

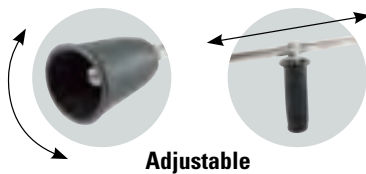
1369	Thread	Length mm	Max Pressure Bar
PRESSURE-LANCE15	3/8"	900	280

Straight, Vented Grip

1369	Thread	Length mm	Max Pressure Bar
PRESSURE-L500V	3/8"	500	280
PRESSURE-L635V	3/8"	635	280
PRESSURE-L760V	3/8"	760	280
PRESSURE-L900V	3/8"	900	280

15° Vented Grip

1369	Thread	Length mm	Max Pressure Bar
PRESSURE-L15500V	3/8"	500	280
PRESSURE-L15635V	3/8"	635	280
PRESSURE-L15760V	3/8"	760	280
PRESSURE-L15900V	3/8"	900	280



Maximum Working Temperature:
+150°C

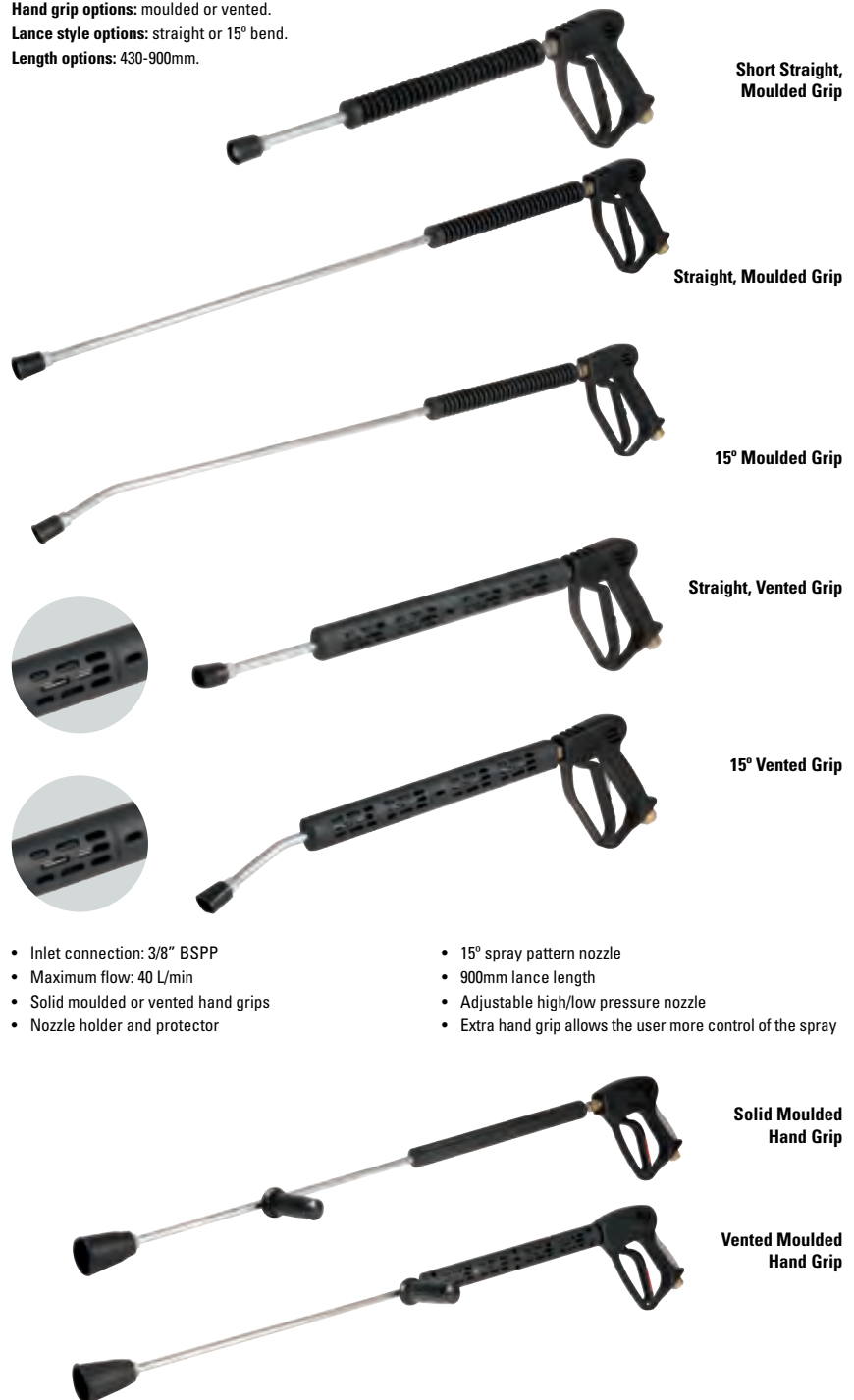
Maximum Working Pressure:
280 bar

Solid Moulded Hand Grip, BSPP

1369	Thread	Length mm
CD-2502	3/8"	900

Vented Moulded Hand Grip, BSPP

1369	Thread	Length mm
CD-2501	3/8"	900



- Inlet connection: 3/8" BSPP
- Maximum flow: 40 L/min
- Solid moulded or vented hand grips
- Nozzle holder and protector

- 15° spray pattern nozzle
- 900mm lance length
- Adjustable high/low pressure nozzle
- Extra hand grip allows the user more control of the spray

Pressure Washer Trigger & Lance Assemblies

Maximum Working Temperature:
+150°C

Flow: 40 L/min

High Flow, Short Lance, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA1	3/8"	400	310

Flow: 40 L/min

High Flow, Long Lance, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA2	3/8"	900	250

Flow: 25 L/min

Low Flow, Twin Lance with Top Control, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA3	3/8"	1060	280

Flow: 30 L/min

High Flow, Twin Lance with Top Control, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA4	3/8"	1060	310

Flow: 25 L/min

Low Flow, Twin Lance with Handle, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA5	3/8"	1060	280

Flow: 40 L/min

High Flow, Twin Lance with Handle, BSPP



1369	Thread	Length mm	Max Pressure Bar
PWLA6	3/8"	1060	345

Flow: 25 L/min

stainless steel

Low Flow, Twin Stainless Steel Lance with Top Control, BSPP



1369	Thread	Max Pressure Bar
PWLA7	3/8"	280

Flow: 40 L/min

stainless steel

High Flow, Twin Stainless Steel Lance with Handle, BSPP



1369	Thread	Max Pressure Bar
PWLA8	3/8"	250

Flow: 25 L/min

stainless steel

Low Flow, Twin Stainless Steel Lance with Handle, BSPP



1369	Thread	Max Pressure Bar
PWLA9	3/8"	280

Flow: 40 L/min

stainless steel

High Flow, Twin Stainless Steel Lance, with Top Control, BSPP



1369	Thread	Max Pressure Bar
PWLA10	3/8"	250

Wash Down Lance & Trigger

Our high pressure water assembly has a 900mm zinc plated straight lance, single moulded hand grip, nozzle holder and protector.

Maximum Flow: 40

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
310 bar

High Pressure, High Flow, Long Lance, BSPP



1369	Thread	Length mm	Max Pressure Bar
1002-0038	3/8"	900	310

Please note: Nozzles not included. See page 1674 for nozzles.

Pressure Lance Configurator

PWAA-14F

PWAA-14M

See page 1673

PWAB-14M

21-051

21-049

PWAB-14F

PWAB-22MM

PWAB-22FF

See page 1673

CDQ1500

CDQ1900

CDQ1600

CDQ2100

ST7

ST900

SW-ST4

SW-ST6

See page 1670

CDE

See page 1675

BC-13

BA-16

BD-20

CDBB-20

BMG-20

CDBJ-20

CDBU-42

CDBV-42

See page 1671

CDAZ

See page 1675

PWFC-20

CDO

CDL

See page 1675

FGB-1

See page 1672

CDN

CDM

See page 1675

SSTLTC

SSTLH

ZPTLH

ZPTLTC

SL-2

SL-3

SL-5

SL-7

SL-10

SL-12

See page 1672

CDQP001-14

CDH004

CDQC-14

CDH006

9203L

CDH002

9202L

CDC-14F-14M-B

CDH005

SJN-2-045

CDH001

RSJN-2-045

See pages 1659 & 1674

2021-8061

2020-2982

A00050

9203L

9202L

See pages 1673-1674

WASH DOWN EQUIPMENT



Pressure Wash Lance Triggers

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar



BSPP, 25 L/min

1369	Inlet Thread	Outlet Thread
ST900	3/8"	1/4"

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar



BSPP, 40 L/min, Soft Grip

1369	Inlet Thread	Outlet Thread
CDQ1500	3/8"	1/4"

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
310 bar



BSPP, 30 L/min, High Pressure

1369	Inlet Thread	Outlet Thread
ST-5	3/8"	1/4"

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar



BSPP, 25 L/min

1369	Inlet Thread	Outlet Thread
CDQ1900	3/8"	1/4"

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
345 bar



BSPP, 45 L/min, In-line

1369	Inlet Thread	Outlet Thread
CDQ2100	3/8"	1/4"

Maximum Working Temperature:
+150°C

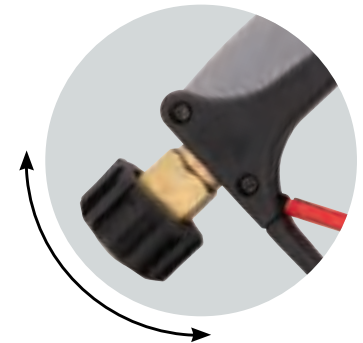
Maximum Working Pressure:
345 bar



BSPP, 45 L/min

1369	Inlet Thread	Outlet Thread
CDQ1600	3/8"	1/4"

Pressure Wash Lance Swivel Triggers



Maximum Working Temperature:
+150°C

Maximum Working Pressure:
345 bar



Metric, 40 L/min

1369	Inlet Thread	Outlet Thread
ST-7	M22 x 1.5 Female	M22 x 1.5 Female

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar



BSPP, 25 L/min

1369	Inlet Thread	Outlet Thread
SW-ST4	3/8"	1/4"

Maximum Working Temperature:
+150°C

Maximum Working Pressure:
280 bar



BSPP, 40 L/min

1369	Inlet Thread	Outlet Thread
SW-ST6	M22 x 1.5 Male	1/4"

Extended Lances, 1/4" BSPT Male Inlet/Outlet



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Straight Vented Grip, 30 L/min

1369	Length mm
BD-20	500
BD-25	635
BD-30	760
BD-36	900



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Angled Moulded Grip, 45 L/min

1369	Length mm
CDBJ-20	500
CDBJ-25	635
CDBJ-30	760
CDBJ-36	900

Extended Lances, 1/4" Male Inlet x M22 Female Outlet



Maximum Working Temperature: +150°C
Maximum Working Pressure: 250 bar

Straight Vented Grip, 80 L/min

1369	Length mm
BA-16	405
BA-18	457
BA-20	508



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Angled Vented Grip, 45 L/min

1369	Length mm
CDBB-20	500
CDBB-25	635
CDBB-30	760
CDBB-36	900



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Angled Twin Moulded Grip, 30 L/min

1369	Length mm
CDBU-42	1065
CDBU-47	1190
CDBU-50	1270



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Straight Moulded Grip, 45 L/min

1369	Length mm
BC-13	330
BC-15	380
BC-18	457
BC-20	508



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Straight Moulded Grip, 45 L/min

1369	Length mm
BMG-20	500
BMG-25	635
BMG-30	760
BMG-36	900



Maximum Working Temperature: +150°C
Maximum Working Pressure: 280 bar

Straight Twin Moulded Grip, 80 L/min

1369	Length mm
CDBV-42	1065
CDBV-47	1190
CDBV-50	1270

M22 Extension & Nozzle



Maximum Working Temperature: +60°C
Maximum Working Pressure: 150 bar

Adjustable M22 Male Extension, 25 L/min

1369	Length mm
CDBL-15	375

Twin Pressure Washer Lances

Maximum Working Temperature: +60°C

Maximum Working Pressure: 250 bar

Flow: 35 L/min

stainless steel



Stainless Steel Twin Lance with Top Control, BSPP

1369	Thread
SSTLC	1/4"

Flow: 45 L/min

stainless steel



Stainless Steel Twin Lance with Handle, BSPP

1369	Thread
SSTLH	1/4"

Flow: 45 L/min



Zinc Plated Twin Lance with Handle, BSPP

1369	Thread
ZPTLH	1/4"

Flow: 45 L/min



Zinc Plated Twin Lance with Top Control, BSPP

1369	Thread
ZPTLC	1/4"

Pressure Washer Lances

All supplied with 1/4" female thread nozzle holder and protector. 1/4" male thread inlet.

Maximum Working Temperature: +150°C

Maximum Working Pressure: 250 bar

Maximum Flow: 40 L/min



Straight with Moulded Grip Zinc Plated

1369	Length mm	No of Grips
SL-2	900	1



Bent End with Moulded Grip Zinc Plated

1369	Length mm	No of Grips
SL-3	900	1
SL-4	1200	2



Bent End with Hollow Grip Zinc Plated

1369	Length mm	No of Grips
SL-5	700	1



Bent End with Vented Grip Zinc Plated

1369	Length mm	No of Grips
SL-7	900	1
SL-8	900	2



stainless steel

Bent End with Moulded Grip Stainless Steel

1369	Length mm	No of Grips
SL-11	1200	1



stainless steel

Straight with Moulded Grip Stainless Steel

1369	Guard Type	Length mm	No of Grips
SL-13	Slide on	900	1

Heavy-duty Foam Injection Bottle

- Heavy-duty foam injection bottle connects easily to your existing pressure washer lance or gun.
- Foam bottle sprays foam all over the vehicle creating the "snow bath effect".
- 1/4" BSPP male inlet connection.
- 1 litre bottle.
- 1/4" x 1/4" adaptor removable for ease. Other adaptors can be fitted.
- Variable angle spray pattern nozzle.
- Adjustable detergent displacement.

Maximum Working Temperature: +60°C

Maximum Working Pressure: 275 bar



Male, BSPP

1369	Thread
FGB-1	1/4"

Pressure Washer Adaptors

Maximum Flow: 40 L/min

Maximum Working Temperature: +140°C

Maximum Working Pressure: 210 bar



BSPP Male x Female M22 x 1.5

1369	Thread
PWAB-14M	1/4"
PWAB-38M	3/8"
PWAB-12M	1/2"

Maximum Flow: 40 L/min

Maximum Working Temperature: +140°C

Maximum Working Pressure: 210 bar



BSPP Female x Male M22 x 1.5

1369	Thread
PWAA-14F	1/4"
PWAA-38F	3/8"
PWAA-12F	1/2"
PWAA-22F	M22 x 1.5

Maximum Working Temperature: +90°C

Maximum Working Pressure: 250 bar



Compact Swivel Coupling Brass, 3/8" BSPP

1369
21-049

Maximum Flow: 40 L/min

Maximum Working Temperature: +140°C

Maximum Working Pressure: 210 bar



BSPP Female x M22 x 1.5 Female

1369	Thread
PWAB-14F	1/4"
PWAB-38F	3/8"

Maximum Working Temperature: +150°C

Maximum Working Pressure: 280 bar



M22 x 1.5 Male

1369	Thread
PWAB-22MM	M22 x 1.5

Maximum Working Temperature: +150°C

Maximum Working Pressure: 280 bar



M22 x 1.5 Female

1369	Thread
PWAB-22FF	M22 x 1.5

Maximum Working Temperature: +130°C

Maximum Working Pressure: 250 bar



Brass Swivel Coupling Standard, BSPP

1369	Thread
21-051	1/4"
21-050	3/8"
21-052	1/2"

Maximum Working Temperature: +130°C

Maximum Working Pressure: 250 bar



stainless steel

Stainless Steel Swivel Coupling Standard, BSPP

1369	Thread
21-055	1/4"
21-056	3/8"
21-057	1/2"

Maximum Flow: 40 L/min

Maximum Working Temperature: +140°C

Maximum Working Pressure: 210 bar



BSPT Male x M22 x 1.5 Male

1369	Thread
PWAA-14M	1/4"
PWAA-38M	3/8"

Maximum Working Temperature: +130°C

Maximum Working Pressure: 250 bar



M22 x 1.5 Male Hose Coupling with Insulated Grip

1369	Thread
30-028	M22 x 1.5

Maximum Working Temperature: +130°C

Maximum Working Pressure: 250 bar



Foam Thickener

1369	Thread
26-0021	1/4"

High Pressure Spray Nozzles

Stainless steel, 1/4" male thread with a hardened steel insert for longer life and better accuracy, suitable for single and double lances.



Stainless Steel, 1/4" NPT Male

1369	Spray Pattern	LPM @ 50 Bar	LPM @ 100 Bar	LPM @ 150 Bar
2020-2982	0°	8	11.3	13.8
2020-2990	0°	8.7	12.4	15.2
2020-3014	0°	9.6	13.6	16.7
2020-3089	15°	8	11.3	13.8
2020-3105	15°	8.7	12.4	15.2
2020-3113	15°	9.6	13.6	16.7
2020-3139	25°	8	11.3	13.8
2020-3147	25°	8.7	12.4	15.2
2020-3154	25°	9.6	13.6	16.7
2020-3162	40°	8	11.3	13.8
2020-3188	40°	8.7	12.4	15.2
2020-3204	40°	9.6	13.6	16.7

Brass, 1/4" BSPT Male

1369
2021-8061



WASH DOWN EQUIPMENT



Rotating Head Nozzle

Flow: 45 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 345 bar

1/4" Female, BSPP

1369
9202L



Fixed Head Nozzle

Flow: 45 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 280 bar

1/4" Female, BSPP

1369
9203L



1/4" High Pressure Quick Release Nozzles



A Series Nozzles

1369	Spray Pattern	LPM @ 50 Bar	LPM @ 100 Bar	LPM @ 150 Bar	Colour
A00050	0°	8	11.3	13.8	Red
A00055	0°	8.7	12.4	15.2	Red
A00060	0°	9.6	13.6	16.7	Red
A15050	15°	8	11.3	13.8	Yellow
A15055	15°	8.7	12.4	15.2	Yellow
A15060	15°	9.6	13.6	16.7	Yellow
A25050	25°	8	11.3	13.8	Green
A25055	25°	8.7	12.4	15.2	Green
A25060	25°	9.6	13.6	16.7	Green
A40050	40°	8	11.3	13.8	White
A40055	40°	8.7	12.4	15.2	White
A40060	40°	9.6	13.6	16.7	White

Adjustable Pressure Nozzle

Flow: 25 L/min

Maximum Working Temperature: +60°C

Maximum Working Pressure: 200 bar

1/4" Female, BSPP

1369
CDQC-14



Fixed Jet Pressure Nozzle

Maximum Working Temperature: +90°C

Maximum Working Pressure: 385 bar

Sewer Drain Cleaning Head, 1 Forward 3 Rear, 1/4" Female, BSPP

1369	Nozzle	Flow @ 380 Bar
CDQP045-14	0.70mm-045	20 LPM
CDQP001-14	1.0mm-080	35 LPM



Drain Nozzles

Maximum Working Temperature: +95°C

Maximum Working Pressure: 385 bar

Fixed, BSPP

1369	Thread	Nozzle Dia mm
SJN-2-045	1/8"	0.7
SJN-2-050	1/8"	0.75
SJN-2-055	1/8"	0.8
SJN-4-045	1/4"	0.7
SJN-4-050	1/4"	0.75
SJN-4-055	1/4"	0.8
SJN-6-045	3/8"	0.7
SJN-6-050	3/8"	0.75
SJN-6-055	3/8"	0.8



Maximum Working Temperature: +95°C

Maximum Working Pressure: 280 bar

Rotating, BSPP

1369	Thread	Nozzle Dia mm
RSJN-2-045	1/8"	0.7
RSJN-2-050	1/8"	0.75
RSJN-2-055	1/8"	0.8
RSJN-4-045	1/4"	0.7
RSJN-4-050	1/4"	0.75
RSJN-4-055	1/4"	0.8
RSJN-6-045	3/8"	0.7
RSJN-6-050	3/8"	0.75



Nozzle Holders

Flow: 36 L/min

Maximum Working Temperature: +60°C

Maximum Working Pressure: 250 bar

Steel, 1/4" Female x 1/4" Female, BSPP

1369
CDH005



Flow: 36 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 250 bar

Steel, 1/4" Female x 1/4" Female, Adjustable with Protector, BSPP

1369
CDH004



Flow: 36 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 250 bar

Brass, 1/4" Female x 1/4" Female, BSPP

1369
CDH002



Flow: 36 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 250 bar

Brass, 1/4" Female x 1/4" Female, Adjustable with Protector, BSPP

1369
CDH006



Flow: 36 L/min

Maximum Working Temperature: +90°C

Maximum Working Pressure: 250 bar

Short Brass, 1/4" Female x 1/4" Female, BSPP

1369
CDH001



Pressure Wash Floor Cleaner

- 20"/500mm diameter
- 3/8" BSPP inlet
- Stainless steel construction
- 280 bar/4,000 psi maximum pressure
- 40 litres per minute at +100°C
- Maximum flow complete with 3 x 25° nozzles

° Maximum Working Temperature:
+100°C



20" Stainless Steel Floor Cleaning Tool

0363	Thread
PWFC-20	3/8"

Tools Adaptors



Lance M22 to CDL Adaptor

1369	Thread
CDE	M22



CDE to Tools Adaptor

1369	
CDL	

Cleaning Fluids

- PowerWash TFR is used in conjunction with mobile pressure washers, fixed arch moving gantries, and ultrasonic low pressure equipment.
- Specially designed for use in hot or cold pressure wash equipment.
- Highly economical to use and best results are obtained at very low concentration.



General Purpose Pressure Wash Detergent

0088	Volume Litres
59603-25	25

- Methanol free non-toxic concentrated screen wash designed for year round use.
- Leaves windscreens clean and smear free.



Screenwash

0088	Volume Litres
54027-25	25

Due to restrictions imposed by the Transport of Dangerous Goods Act, these products are available for delivery to MAINLAND UK ONLY. For further information please contact our customer service department.

Pressure Wash Accessories

° Maximum Working Temperature:
+100°C

Maximum Working Pressure:
190 bar



Spare Handle

1369	
CDAZ	



Hand Scrubbing Brush

1369	
CDN	



Rotating Scrubbing Brush

1369	
CDM	



Rotating Floor Scrubbing Brush

1369	
CDO	

WASH DOWN EQUIPMENT

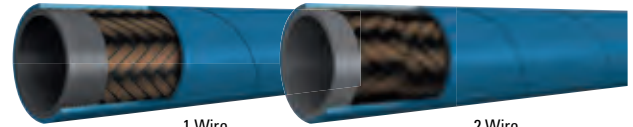


Blue Jet Wash Pressure Washer Hose



- Oil, abrasion, ozone and weather resistant synthetic pin-pricked rubber.
- High tensile 1 and 2 wire steel braid.

Working Temperature:
-40°C to +155°C



1 Wire, 10 Metre Coils

0303	ID	Max Pressure Bar
PWBLUE-04-10-R1	1/4"	225
PWBLUE-05-10-R1	5/16"	215
PWBLUE-06-10-R1	3/8"	180

Tech Sheet 3105

1 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
PWBLUE-04-25-R1	1/4"	225
PWBLUE-05-25-R1	5/16"	215
PWBLUE-06-25-R1	3/8"	180

Tech Sheet 3105

2 Wire, 10 Metre Coils

0303	ID	Max Pressure Bar
PWBLUE-06-10-R2	3/8"	330

Tech Sheet 3105

2 Wire, 100 Metre Coils

0303	ID	Max Pressure Bar
PWBLUE-04-100-R2	1/4"	400
PWBLUE-06-100-R2	3/8"	330

Tech Sheet 3105

2 Wire, Cut to Length, per Metre

1369	ID	Max Pressure Bar
2144-9681	1/4"	400
2144-9699	5/16"	350
2052-1423	3/8"	330

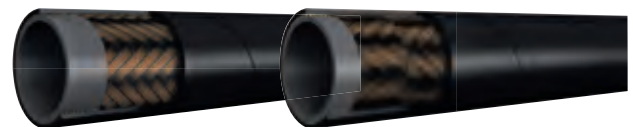
Tech Sheet 3105

Black Jet Wash Pressure Washer Hose



- Oil, abrasion, ozone and weather resistant synthetic pin-pricked rubber.
- High tensile 1 and 2 wire steel braid.

Working Temperature
-40°C to +155°C



1 Wire, 10 Metre Coils

0303	ID	Max Pressure Bar
PWBLACK-04-10-R1	1/4"	225
PWBLACK-05-10-R1	5/16"	215
PWBLACK-06-10-R1	3/8"	180

Tech Sheet 3105

1 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
PWBLACK-04-25-R1	1/4"	225
PWBLACK-05-25-R1	5/16"	215
PWBLACK-06-25-R1	3/8"	180

Tech Sheet 3105

1 Wire, 100 Metre Coils

0303	ID	Max Pressure Bar
PWBLACK-04-100R1	1/4"	225

Tech Sheet 3105

2 Wire, 100 Metre Coils

0303	ID	Max Pressure Bar
PWBLACK-04-100R2	1/4"	400
PWBLACK-05-100R2	5/16"	350
PWBLACK-06-100R2	3/8"	330

Tech Sheet 3105

1 Wire, Cut to Length, per Metre

1369	ID	Max Pressure Bar
2144-9657	1/4"	225
2144-9665	5/16"	215
2144-9673	3/8"	180

Tech Sheet 3105

2 Wire, Cut to Length, per Metre

1369	ID	Max Pressure Bar
2144-9715	1/4"	400
2144-9723	5/16"	350
2144-9731	3/8"	330

Tech Sheet 3105

Blue Cold Water Pressure Wash Hose



Working Temperature:
-40°C to +100°C



1 Wire, 50 Metre Coils

0303	ID	Max Pressure Bar
CWBLUE04-50-R1	1/4"	190
CWBLUE05-50-R1	5/16"	175
CWBLUE06-50-R1	3/8"	157

Tech Sheet 10262

1 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
CWBLUE04-25-R1	1/4"	190
CWBLUE05-25-R1	5/16"	175
CWBLUE06-25-R1	3/8"	157

Tech Sheet 10262

2 Wire, 50 Metre Coils

0303	ID	Max Pressure Bar
CWBLUE04-50-R2	1/4"	350
CWBLUE05-50-R2	5/16"	297
CWBLUE06-50-R2	3/8"	280

Tech Sheet 10262

2 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
CWBLUE04-25-R2	1/4"	350
CWBLUE05-25-R2	5/16"	297
CWBLUE06-25-R2	3/8"	280

Tech Sheet 10262

Black Cold Water Pressure Wash Hose



Working Temperature:
-40°C to +100°C



1 Wire, 50 Metre Coils

0303	ID	Max Pressure Bar
CWBLACK04-50-R1	1/4"	190
CWBLACK05-50-R1	5/16"	175
CWBLACK06-50-R1	3/8"	157

Tech Sheet 10262

1 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
CWBLACK04-25-R1	1/4"	190
CWBLACK05-25-R1	5/16"	175
CWBLACK06-25-R1	3/8"	157

Tech Sheet 10262

2 Wire, 50 Metre Coils

0303	ID	Max Pressure Bar
CWBLACK04-50-R2	1/4"	350
CWBLACK05-50-R2	5/16"	297
CWBLACK06-50-R2	3/8"	280

Tech Sheet 10262

2 Wire, 25 Metre Coils

0303	ID	Max Pressure Bar
CWBLACK04-25-R2	1/4"	350
CWBLACK05-25-R2	5/16"	297
CWBLACK06-25-R2	3/8"	280

Tech Sheet 10262

WASH DOWN EQUIPMENT



Pressure Washer Hose Assemblies

- Oil and water resistant synthetic pin-pricked rubber.
- Special high temperature synthetic rubber cover.
- Blue suitable where non marking hose is required.
- Black suitable to handle pressure washer service.



1 Wire Braid 3/8" ID, 10 Metre Hose, 3/8" BSPP Male x Female

1369	ID	Max Pressure Bar	Colour
1PWLA-M-F-38N	3/8"	180	Black

1 Wire Braid 1/4" ID, 10 Metre Hose, 1/4" BSPP Female

1369	ID	Max Pressure Bar	Colour
1PWLA-14N	1/4"	225	Black

1 Wire Braid 3/8" ID, 10 Metre Hose, 3/8" BSPP Female

1369	ID	Max Pressure Bar	Colour
1PWLA-38B	3/8"	180	Blue
1PWLA-38N	3/8"	180	Black



2 Wire Braid 3/8" ID, 10 Metre Hose, 3/8" BSPP Female

1369	ID	Max Pressure Bar	Colour
2PWLA-38B	3/8"	330	Blue
2PWLA-38N	3/8"	330	Black

2 Wire Braid 3/8" ID, 10 Metre Hose, M22 x 1.5 x M22 x 1.5

1369	ID	Max Pressure Bar	Colour
2PWLA-K-K-38B	3/8"	330	Blue
2PWLA-K-K-38N	3/8"	330	Black

2 Wire Braid 3/8" ID, 10 Metre Hose, M22 x 1.5 x 3/8" BSPP Female

1369	ID	Max Pressure Bar	Colour
2PWLA-K-F-38B	3/8"	330	Blue
2PWLA-K-F-38N	3/8"	330	Black

2 Wire Braid 3/8" ID, 10 Metre Hose, M22 x 1.5 x 3/8" BSPP Male

1369	ID	Max Pressure Bar	Colour
2PWLA-K-M-38B	3/8"	330	Blue
2PWLA-K-M-38N	3/8"	330	Black

Bend Restrictor Assembly



Brass M22 x 1.5 Female, with Steel Tail & Ferrule

0300	To Suit Hose ID
M22-CUFF-4	1/4"
M22-CUFF-5	5/16"
M22-CUFF-6	3/8"

Jet Wash Female Hose Couplings



M22 x 1.5 Female Thread

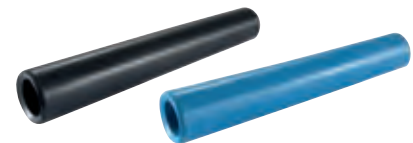
0300	To Suit Hose ID
JWF-22-04	1/4"
JWF-22-05	5/16"
JWF-22-06	3/8"

Stainless Steel, M22 x 1.5 Female Thread

0044	To Suit Hose ID
DKO-KA-DN06	1/4"
DKO-KA-DN08	5/16"
DKO-KA-DN10	3/8"
DKO-KA-DN12	1/2"

Tech Sheet 60627

End Cuff



Suitable for 1 & 2 Wire

0303	Colour	To Suit Hose ID
1/4-BLUE-CUFF	Blue	1/4"
1/4-BLACK-CUFF	Black	1/4"
3/8-BLUE-CUFF	Blue	3/8"
3/8-BLACK-CUFF	Black	3/8"

Jet Wash Male Hose Couplings



Male Adaptor

0300	To Suit Hose ID
JWM-04	1/4"
JWM-05	5/16"
JWM-06	3/8"

Spray Guns

9 spray patterns. Supplied with 1/2" quick connect male to 3/4" BSPP connector.



Spray Lance

0399	Size mm
TOOL-371756	770



Metal Spray Gun

0399
KA-03-94-76



Metal 6 Function Spray Gun

0399
KA-03-94-79

Metal Soft Rain Lance



0399	Length mm
KA-15-20-00	600
KA-15-20-09	900
KA-15-20-12	1200

Water Guns



Water Gun

1369
THWS010901

Spray Gun Display Packs

Display box of 50 plastic 1/2" male to 1/2" male quick connectors.



1/2" 2 Way Connector

0399	Quantity
TOOL-656601	50

Spray Gun Accessories

Solid brass 1/2" quick connect male to 3/4" BSPP.



Brass Internal Adaptor

0399
TOOL-244973

Solid brass 3/4" BSPP-1/2" quick connect male. 3/4" BSPP fits 1/2" outside tap.



Brass Tap Connector

0399
TOOL-598438

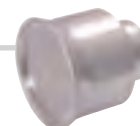
Solid brass 1/2" quick connect female to 1/2" compression. Auto stop.



Brass Quick Connector with Auto Stop

0399
TOOL-196506

Roses



Large Alloy Rose, BSPP

0399	Thread
KA-15-00-07F	3/4"

Water Nozzles



Brass Jet Nozzles

0399	ID
BJN12	1/2"
BJN34	3/4"
BJN1	1"

5 piece plastic hose fitting set 1 x 1/2" quick connect without water stop, 3/4" BSP tap connector and 100mm spray nozzle with infinite spray pattern.



4 Piece Hose Connector Set

0399
TOOL-394989

Solid brass 1/2" quick connect female to 1/2" compression without auto stop.



Brass Quick Connector without Auto Stop

0399
TOOL-868573

Solid brass 100mm spray nozzle, 2 x 1/2" quick connectors with water stop. 3/4" BSP tap adaptor fits 1/2" outdoor tap. Infinite spray patterns.



Brass Fitting Set

0399
TOOL-793753

SPRINKLERS



Sprinklers

Unique lower pressure sprinkler featuring butterfly type rotating spinner and rotary frame which provides even water distribution.



Pope Rotoframe Sprinkler, BSPP

0399	Thread	OD mm
KA-59-00-10	1/2"	4.5

Part circle brass sprinkler with fingertip adjustment for watering full 26m circle or any part of it. Baffle deflector controls height of jet and diameter of circle. Diffuser pin adjusts from heavy to fine stream.



Part Circle Metal Sprinkler, BSPP

0399	Thread	OD mm
KA-60-04-23-40	1/2"	4

Heavy-duty metal construction. Large part circle sprinkler with stainless steel springs and axle. Easy fingertip adjustment to any part of circle. 28m coverage.



Large Part Circle Metal Sprinkler, BSPP

0399	Thread	OD mm
KA-62-33-00	3/4"	3.9

Impulse sprinkler covers 360° diameter with full of half circle adjustable pattern. 1/2" quick connector. Daisy-chain facility.



Spike Sprinkler

0399	Type
TOOL-868552	1/2" Quick Connector

Sprinkler Stands

Made from coated steel complete with riser. Supplied complete with a quick coupling to connect to any Geka type fitting.



Metal Sled Base, BSPP

0399	Height mm	Thread
KA-68-25-05	300	1/2"

Porous Pipe

Used for various irrigation purposes. It should be used at pressures between 4-12 psi. The maximum run length is 50 metres and the output is 4 litres per hour per metre.



0399	Description
KA-92-10-30	30m Retail Pack Porous Pipe complete with 16mm Fittings
KA-92-15-50	50m Roll Porous Pipe

PRESSURE SPRAY EQUIPMENT



Pressure Sprayers

Mesto is a European market leading manufacturer of professional cleaning equipment and has been providing innovation for the industry since 1919.

Product description:

- Tank: Plastic, with filling scal
- Seals: FPM
- Nozzle: Plastic, adjustable

Applications:

- Construction work
- Cleaning industry
- Professional pest control
- Handicraft

Special features of the product:

- Safety valve



° Maximum Working Temperature:
+30°C

Maximum Working Pressure:
3 bar

UNIVERSAL PLUS, Hand Pump Sprayer

0465	Capacity Litres	Material
3132PG	1.5	Polyethylene
Tech Sheet 60139		

Product description:

- Tank: Plastic with filling scal
- Seals FPM (Viton®)
- Nozzle: Plastic, adjustable
- Plastic jacket wand to protect the non-return valve

Applications:

- Foaming cleaning industry

Special features of the product:

- Safety valve
- Specially coated spring



° Maximum Working Temperature:
+30°C

Maximum Working Pressure:
3 bar

FOAMER, Heavy-duty Hand Pump

0465	Capacity Litres	Material
3132FO	1.5	Polyethylene
Tech Sheet 60140		



Large selection of models for various application are available on request.

BEFORE USE, CHECK CAREFULLY WHETHER THE MATERIAL IS RESISTANT TO THE LIQUID BEING USED.

PRESSURE SPRAY EQUIPMENT



Compression Sprayers

Mesto is a European market leading manufacturer of professional cleaning equipment and has been providing innovation for the industry since 1919.

Device description:

- Tank: Plastic with large pressure reservoir
- Carried at the side
- Seals: FPM (Viton®)
- Nozzle: adjustable plastic nozzle
- Spray wand: Plastic, 48 cm, 360° rotatable
- Hose: 2.0 m, transparent oil resistant

Applications:

- Construction work
- Cleaning industry

 **Maximum Working Temperature:**
+30°C

 **Maximum Working Pressure:**
3 bar

Special features of the product:

- Professional pump
- Integrated dirt filter



FIX PLUS, Professional

0465	Capacity Litres	Material
3237FM	5	Polyethylene
Tech Sheet 60141		

Device description:

- Tank: Plastic, with large pressure reservoir
- Carried at the side
- Seals: FPM (Viton®)
- Nozzle: Plastic flat jet nozzle
- Spray wand: Plastic 48 cm, 360° rotatable
- Hose: 2.0 m
- Ergonomically formed shut-off valve with fine filter

Applications:

- Cleaning industry
- Vehicle cleaning
- Disinfection
- Corrosion protection
- Impregnation

 **Maximum Working Temperature:**
+40°C

 **Maximum Working Pressure:**
3 bar

Special features of the product:

- Professional pump with specially coated piston rod
- Large filling funnel
- With specially coated spring



CLEANER, Heavy-duty

0465	Capacity Litres	Material
3270PP	10	Polyethylene
Tech Sheet 60142		

Device description:

- Tank: Stainless steel
- Carried on the back – padded carrying straps
- Seals: FPM (Viton®)
- Nozzle: Brass flat jet nozzle with fine filter
- Spray wand: Brass 50cm, 360° rotatable
- Hose: Spiral hose 2.5 m with safety interlock

Applications:

- Construction work
- Cleaning industry
- Professional pest control

 **Maximum Working Temperature:**
+50°C

 **Maximum Working Pressure:**
6 bar



INOX PLUS, Stainless Steel

0465	Capacity Litres	Material
3615P	10	Stainless Steel
Tech Sheet 60143		

Applications:

- General purpose
- Gardening
- Horticulture
- Domestic cleaning
- Integrated safety valve and strap

 **Maximum Working Temperature:**
+30°C

 **Maximum Working Pressure:**
3 bar



GARANT, General Purpose

0465	Capacity Litres	Material
3195E	5	Polyethylene
Tech Sheet 60144		

Large selection of models for various application are available on request.

BEFORE USE, CHECK CAREFULLY WHETHER THE MATERIAL IS RESISTANT TO THE LIQUID BEING USED.

PRESSURE SPRAYERS

Manual



5 Litre Pressure Sprayer

0088
TOOL-675108



8 Litre Pressure Sprayer

0088
TOOL-868593



10 Litre Pressure Sprayer

0088
TOOL-630070



20 Litre Backpack

0088
TOOL-633595

COMMERCIAL & DOMESTIC VEHICLE CLEANING EQUIPMENT

Vehicle Brushes

The shape design gives more cleaning productivity, as the brush is in constant contact with the surface, when used as either a waterfed or a dip brush.



Hi-Lo Waterfed Brush

0143	Description
VIK-524752	Rubber Edged

Effective all surface water-fed bodywork brush for large areas, up to 3 metres in height.



Bodywork Brushes

0143	Width mm	Description
VIK-475552	250	Rubber Edged
VIK-475752	400	-

Brush for cleaning wheel rims on trucks and buses.



Wheel Brush

0143	Width mm
VIK-545252	230



Hand Waterfed Brushes

0143	Length mm
VIK-525452	350

Vehicle Brush Handles

Handles to suit all vehicle brushes.

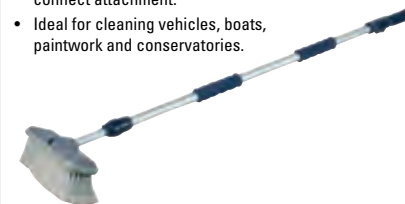


Vehicle Brush Handles

0143	Length Metres	Description
VIK-299152	1.5	Waterfed Handle
VIK-297352	1.5-2.75	Telescopic Waterfed Handle
VIK-297552	1.5-2.75	Telescopic Handle

Cleaning Brushes

- Features on/off water control and quick connect attachment.
- Ideal for cleaning vehicles, boats, paintwork and conservatories.



Telescopic Car Cleaning Brush

0088	Length mm
TOOL-719788	1070-1760

PUMPS & PROCESS EQUIPMENT



Air Operated Double Diaphragm Pumps

Typical Applications:

- OEMs
- Printing
- Wastewater
- Plating/surface finishin

Typical Fluids Handled:

- Waterborne materials, some HHC's
- Paints, coatings, inks and dyes
- Car wash chemicals
- Laundry chemicals and detergents
- Chemicals

Features:

- 1/4" (6.35 mm) end-porting
- Low-cost, compact design
- Spring check valves for superior priming in any mounting configuratio
- True-formed PTFE and Santoprene diaphragms for enhanced performance
- Can also be remotely-controlled using an external controller
- Delivery up to 5 gpm (18.93 L/min)



Husky 205, BSPP

0074	Body	Balls	Diaphragms
D11021	Acetal	Acetal	PTFE
D12096	Polypropylene	Polypropylene	Santoprene

Typical Applications:

- Drum transfer for fluids up to 1000 centipoise
- Circulation of low viscosity inks, stains and dyes
- Coolant circulation and evacuation
- Waste fluid removal
- On-demand batch chemical metering
- Low viscosity adhesive supply
- Consistent low pressure air spray or HVLP supply

Typical Fluids Handled:

- Paints
- Lubricants
- Inks
- Stains
- Solvents
- Coatings
- Dyes

Features:

- 3/8" (9.52 mm) end porting
- Fully-groundable acetal model
- Operates on as little as 20 psi (1.4 bar, 0.14 MPa) air pressure
- Delivery up to 7 gpm (26.5 L/min)
- Easy-to-service air valve and ball checks
- Quiet operation – 75 dBA at 50 psi (3.5 bar, 0.35 MPa) and 60 cpm



Husky 307, BSPP

0074	Body	Seats	Balls	Diaphragms
D3A211	Acetal	Acetal	PTFE	PTFE
D3B911	Polypropylene	Polypropylene	PTFE	PTFE
D3B955	Polypropylene	Polypropylene	Hytrel	Hytrel
D3A255	Acetal	Acetal	Hytrel	Hytrel

Typical Applications:

- Machine lube servicing
- Drum evacuation
- Plating and dip tanks
- Water treatment

Typical Fluids Handled:

- Cleaning fluids and detergent
- Chemicals
- Ceramic glazes
- Inks
- Solvents and flammable
- Acids and bases

Features:

- 1/2" (12.7 mm) centre-porting and 3/4 in. (19.05 mm) end-porting
- Quiet running – less than 85 dBA with easy-to-use remote muffler capability for even lower noise levels
- No seals to leak or fail
- High flow rates in a small, portable packag
- Can also be remotely-controlled using an external controller
- Delivery up to 15 gpm (56.88 L/min)



Husky 515, BSPP

0074	Body	Seats	Balls	Diaphragms
D5B911	Polypropylene	Polypropylene	PTFE	PTFE
D5A211	Acetal	Acetal	PTFE	PTFE
D5A277	Acetal	Acetal	Buna	Buna

Tech Sheet 10288

Typical Applications:

- Machine lube servicing
- Cleaning fluids and detergent
- Plating and dip tanks
- Water treatment

Typical Fluids Handled:

- Oil
- Water
- Most solvents

Features:

- 3/4" (19.05 mm) centre and end-porting
- Quiet running – less than 85 dBA with easy-to-use remote muffler capability for even lower noise levels
- High flow rates in a small, portable packag
- No seals to leak or fail
- Can also be remotely-controlled using an external controller
- Delivery up to 16 gpm (60.87 L/min)



Husky 716, BSPP

0074	Body	Seats	Balls	Diaphragms
D5C277	Aluminium	Acetal	Buna-N	Buna-N
D5D311	Stainless	Stainless	PTFE	PTFE

Tech Sheet 10288

Air Operated Double Diaphragm Pumps

Typical Applications:

- Drum fluid transfe
- Unloading fluid
- Bilge pumping
- Chemical evacuation
- Dewatering and sump evacuation
- Tank and sump drainage

Typical Fluids Handled:

- Chemicals
- Contaminated surface water
- Adhesives, varnishes, dispersions, solvents and stains
- Resins, latexes, wood preservative stains, concrete and primers

Features:

- 1" (25.4 mm) ANSI end-porting
- High flow – 50 gpm (189 L/min) in a compact, portable size
- Fluid pressure to 120 psi (8.6 bar, 0.86 MPa)
- E-coated centre section for corrosive environments
- Equipped with an effective and reliable air valve system
- Can also be remotely-controlled using an external controller



Husky 1050, BSPP

0074	Body	Seats	Balls	Diaphragms
647121	Aluminium	Geolast	Geolast	Geolast
647109	Aluminium	Stainless	PTFE	PTFE

Typical Applications:

- Filter press
- Tank stripping
- Bilge pumping
- Sand and ball mill pumping
- Oil transfer and oil skimming
- Chemical plating

Typical Fluids Handled:

- Latex
- Corrosive fluid
- Acids: hydrochloric, ferric, sulfuric, nitric and phosphoric
- Slurries: petroleum, lime, clay, ferrite, salt/brine and pumice
- Sludge: secondary and clarifie
- Pottery slip

Features:

- 1.1/2" (38.1 mm) ANSI end-porting
- High flow – 100 gpm (378 L/min) in a compact, portable size
- Fluid pressure to 120 psi (8.4 bar, 0.84 MPa)
- Lube-free operation
- Patented, high-reliability "closed centre" air valve is "online" serviceable
- Epoxy-coated air section for tough environmental conditions
- Can also be remotely-controlled using an external controller



Husky 1590, BSPP

0074	Body	Seats	Balls	Diaphragms
DBC666	Aluminium	Geolast	Geolast	Geolast
DBD311	Stainless	Stainless	PTFE	PTFE
DB2911	Polypropylene	Polypropylene	PTFE	PTFE

Typical Applications:

- Drum fluid transfe
- Bulk fluid suppl
- Chemical evacuation
- Ground water and sump evacuation
- Waste fluid remova
- Tank and bilge drainage
- Slurry and sludge transfer
- Filter press feed

Typical Fluids Handled:

- Acids, alkalies, solvents, suspensions, dispersions, electroplating baths, paints, varnishes, resins, latex, adhesives, effluent sludge and stabiliser
- Ship cleaning and stripping chemicals

Features:

- 2" (50.8 mm) ANSI end-porting
- Larger ports for more flow – up to 150 gpm (568 L/min)
- Fluid pressure to 120 psi (8.4 bar, 0.84 MPa)
- Lube-free operation
- Patented, high-reliability "closed centre" air valve is "online" serviceable
- Epoxy-coated air section for tough environmental conditions
- Can also be remotely-controlled using an external controller



Husky 2150, BSPP

0074	Body	Seats	Balls	Diaphragms
DFC666	Aluminium	Geolast	Geolast	Geolast
DFC666	Aluminium	Santoprene	Santoprene	Santoprene
DF2911	Polypropylene	Polypropylene	PTFE	PTFE

Typical Applications:

- Chemical transfers
- Filter press-feed
- Dewatering

Typical Fluids Handled:

- Chemicals
- Bulk paint resins
- Ceramic slip

Features:

- 3" (76.2 mm) ANSI centre porting
- Bolted leak-free flanged connections – no clamp bands used
- Easy air valve maintenance
- Large flow paths can handle high viscosities
- Heavy-duty construction
- Fluid flow up to 275 gpm (1040 L/min)



Husky 3275, BSPP

0074	Body	Seats	Balls	Diaphragms
652021	Aluminium	Stainless	PTFE	PTFE

Fogco Environmental is a recognised industry leading manufacturer of high quality misting equipment for residential, commercial and industrial markets.



Pump Kits

See page 1687



Pumps

See page 1689



Fans

See page 1690



Air Injection Dry Fog System

See page 1691



Slip Lok Push-in Fittings

See page 1692



Nozzles

See page 1693



Adaptors

See page 1694



Filters

See page 1695



Controllers

See page 1696

MISTING SYSTEMS - PUMP KITS



Direct Drive Kit

This kit range includes a 1,000 psi Fogco direct drive misting pump with either a flexible nylon, pre-fabricated copper or stainless steel tubing mist line, a filter assembly with water supply connections, plus all of the necessary fittings and components to complete a mist system installation for the listed lengths. These Fogco misting kits include a direct drive 230V mist pump and a standard brass and stainless steel misting nozzle with 24" spacing.



Key:
 LPM: Litres per minute
 HP: Horse power
 FLA: Full load amperage

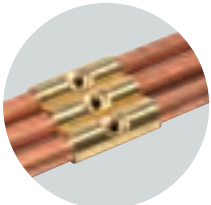
With Nylon Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Direct Pump Ref. no
				LPM	HP	FLA	
8N20215	20	10	0.76	0.8	1	7.1	8100215
8N30215	30	15	1.14	1.6	1	7.1	8200215
8N40215	40	20	1.52	1.6	1	7.1	8200215
8N50215	50	25	1.9	3.5	1	7.1	8300215
8N60215	60	30	2.28	3.5	1	7.1	8300215
8N70215	70	35	2.66	3.5	1	7.1	8300215
8N80215	80	40	3.04	3.5	1	7.1	8300215
8N90215	90	45	3.42	3.5	1	7.1	8300215



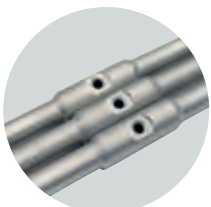
With Copper Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Direct Pump Ref. no
				LPM	HP	FLA	
8C20215	20	10	0.76	0.8	1	7.1	8100215
8C30215	30	15	1.14	1.6	1	7.1	8200215
8C40215	40	20	1.52	1.6	1	7.1	8200215
8C50215	50	25	1.9	3.5	1	7.1	8300215
8C60215	60	30	2.28	3.5	1	7.1	8300215
8C70215	70	35	2.66	3.5	1	7.1	8300215
8C80215	80	40	3.04	3.5	1	7.1	8300215
8C90215	90	45	3.42	3.5	1	7.1	8300215



With Stainless Steel Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Direct Pump Ref. no
				LPM	HP	FLA	
8S20215	20	10	0.76	0.8	1	7.1	8100215
8S30215	30	15	1.14	1.6	1	7.1	8200215
8S40215	40	20	1.52	1.6	1	7.1	8200215
8S50215	50	25	1.9	3.5	1	7.1	8300215
8S60215	60	30	2.28	3.5	1	7.1	8300215
8S70215	70	35	2.66	3.5	1	7.1	8300215
8S80215	80	40	3.04	3.5	1	7.1	8300215
8S90215	90	45	3.42	3.5	1	7.1	8300215



Direct Delivery to Mainland UK only. All include a 2-3 day delivery charge for Mainland UK.
 For Next Day Delivery, please contact our sales office for a quote.

MISTING SYSTEMS - PUMP KITS



Pulley Drive Kit

This kit range includes a 1,000 psi Fogco pulley drive misting pump with either a flexible nylon, copper or stainless steel tubing mist line, a filter assembly with water supply connections, plus all of the necessary fittings and components to complete a mist system installation for the listed lengths. These Fogco misting kits include our pulley drive 230V mist pump and our standard brass and stainless steel misting nozzle with 24" spacing.

Key:

LPM: Litres per minute

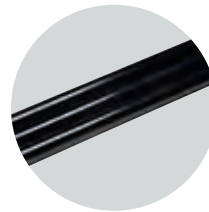
HP: Horse power

FLA: Full load amperage



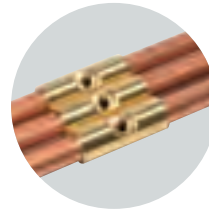
With Nylon Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Pulley Pump Ref. no
				LPM	HP	FLA	
7N20215	20	10	0.76	1	1	7.1	7100215
7N30215	30	15	1.14	2	1	7.1	7200215
7N40215	40	20	1.52	2	1	7.1	7200215
7N50215	50	25	1.9	4	1	7.1	7400215
7N60215	60	30	2.28	4	1	7.1	7400215
7N70215	70	35	2.66	4	1	7.1	7400215
7N80215	80	40	3.04	4	1	7.1	7400215
7N90215	90	45	3.42	4	1	7.1	7400215



With Copper Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Pulley Pump Ref. no
				LPM	HP	FLA	
7C20215	20	10	0.76	1	1	7.1	7100215
7C30215	30	15	1.14	2	1	7.1	7200215
7C40215	40	20	1.52	4	1	7.1	7200215
7C50215	50	25	1.9	4	1	7.1	7400215
7C60215	60	30	2.28	4	1	7.1	7400215
7C70215	70	35	2.66	4	1	7.1	7400215
7C80215	80	40	3.04	4	1	7.1	7400215
7C90215	90	45	3.42	4	1	7.1	7400215



With Stainless Steel Tube

9583	Tube Length Feet	No. of Nozzles	Total LPM	Pump Specification			Pulley Pump Ref. no
				LPM	HP	FLA	
7S20215	20	10	0.76	1	1	7.1	7100215
7S30215	30	15	1.14	2	1	7.1	7200215
7S40215	40	20	1.52	4	1	7.1	7200215
7S50215	50	25	1.9	4	1	7.1	7400215
7S60215	60	30	2.28	4	1	7.1	7400215
7S70215	70	35	2.66	4	1	7.1	7400215
7S80215	80	40	3.04	4	1	7.1	7400215
7S90215	90	45	3.42	4	1	7.1	7400215



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MISTING SYSTEMS - PUMP KITS

Direct Drive Pump

The 50Hz direct drive mist pump range are medium duty outdoor rated units, designed to operate at 70 bar for 8 hours per day, seven days a week under normal operating conditions. This range is ideal for light to medium duty mist applications. These pumps provide quality components in a small and convenient platform.

This mist pump range is available in 230V and includes:

- Direct drive pump
- On/off switch
- Inlet solenoid
- Adjustable regulator with bypass thermal relief valve
- Glycerine filled pressure gauge
- Rubber isolation feet
- Filter assembly

Key:

LPM: Litres per minute

HP: Horse power

FLA: Full load amperage



230V/50Hz

9583	Description			Weight Kg	Dimensions cm		
	LPM	HP	FLA		L	W	H
8100215	0.8	1	7.1	27.7	59.7	31.8	26.7
8200215	1.6	1	7.1	27.7	59.7	31.8	26.7
8300215	3.5	1	7.1	27.7	58.4	31.8	26.7
8400215	4.4	1	7.1	27.7	58.4	31.8	26.7
8700215	6.6	1.5	11.3	29.9	58.4	37.8	26.7

Pulley Driven Pump

The 50Hz pulley drive mist pumps are industrial duty outdoor rated units, designed to operate at 70 bar for 24/7 use, under normal operating conditions. This range is ideal for industrial and commercial applications that includes UL compliant thermal and short circuit protection, as well as a low water pressure cut-off switch.

This mist pump range is available in 230V and includes:

- Pulley drive pump
- Exhaust fan
- Panel mount switch
- Inlet solenoid
- Adjustable regulator with bypass thermal relief valve
- Hour meter
- Glycerine filled pressure gauge
- Rubber isolation feet
- Filter assembly

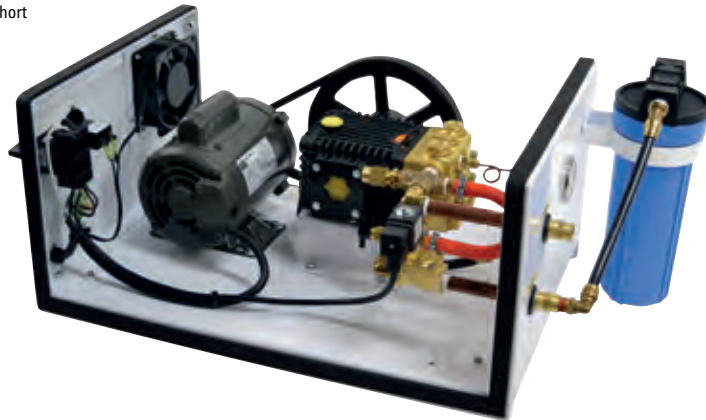
Key:

LPM: Litres per minute

HP: Horse power

FLA: Full load amperage

RPM: Revs per minute



230V/50Hz

9583	Description					Weight Kg	Dimensions cm		
	LPM	HP	FLA	RPM	L		W	H	
7100215	1	1	7.1	770	49.9	66.0	30.5	40.6	
7200215	2	1	7.1	598	49.9	66.0	30.5	40.6	
7400215	4	1	7.1	486	49.9	66.0	30.5	40.6	
7800215	8	1.5	11.3	973	53.5	66.0	30.5	40.6	
7120215	12	3	13	1450	59.0	66.0	30.5	40.6	



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MISTING SYSTEMS - FANS



Revolution

The **Revolution** misting fan provides improved evaporative cooling and humidification, compared to traditional misting fans. Its unique design allows a more uniform distribution of the fog and improved absorption of the moisture.

By integrating a focused horizontal air stream into the fog, the water droplets can cover more surface area. This allows the mist system to cool or humidify up to 5 times the amount of air, compared to static line misting systems. This mist fan can cover up to 3,600 sq.ft. or 36,000 cu.ft.

This misting fan is available in 230V and uses 0.8 amps. The unit includes a stainless steel fog ring with 10 nozzle fittings



230V Ceiling Mount Fan

9583	Fan Specification		Weight Kg	Dimensions cm		
	HP	FLA		L	W	H
93820	0.25	0.9	18.1	61.0	61.0	25.4

Revolution II

The **Revolution II** misting fan is a smaller version of the **Revolution** and provides improved evaporative cooling and humidification. Its unique design allows a more uniform distribution of the fog and improved absorption of the moisture.

Similar to the **Revolution**, integrating a focused horizontal air stream into the fog, the water droplets can cover more surface area. This allows the mist system to cool or humidify up to 5 times the amount of air compared to static line misting systems. This mist fan can cover up to 900 sq.ft. or 9,000 cu.ft.

This misting fan provides 250 cfm and is available in 230V and uses 0.12 amps. The unit includes 10ft of 18 gauge insulated power cord, 10ft of flexible high pressure feed line and a rustproof treated and powder coated housing with a 6 nozzle stainless steel fog ring. Custom fog rings are also available.



Ceiling Mount Fan

9583	Fan Specification		Weight Kg	Dimensions cm		
	HP	FLA		L	W	H
94820	0.25	0.12	2.0	30.5	30.5	8.9

Key:

HP : Horse power
FLA : Full load amperage



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Evolution Mini

The **Evolution Mini** does not include the cannon shaped housing, so it requires a shorter distance for the absorption of the fog compared to the projection that is capable with the standard **Evolution**.

Because of this characteristic, the **Evolution Mini** is well suited for low ceilings and restricted or confined applications. Due to the reduced noise level and low profile design, this fan can be used in an office or warehouse environment

The **Evolution Mini** uses a single misting nozzle but multiple nozzle configurations are also available, if increased moisture is required.

The **Evolution Mini** requires a 6 Watt 12V DC power supply. Once the unit is wall mounted, with the provided bracket, it can be adjusted both horizontally and vertically.

The power supply includes a DIN rail and is designed to be mounted in a cabinet or enclosure.



12V DC Wall Mount Fan

9583	Weight Kg	Dimensions cm		
		L	W	H
93000-12VDC	2.7	24.1	20.3	20.3

MISTING SYSTEMS - AIR INJECTION DRY FOG SYSTEM

The Fogco Air Injection Dry Fog System utilises the proprietary control box, capable of producing over 150 lbs of dry fog per hour. It includes the FOGCOntroller II microprocessor.

The box allows on-site adjustments to the system performance and output. The Drip Free air injection nozzles prevent dripping when the system shuts down and to prevent the water supply from running if there is a loss of air pressure.

The air injection nozzles are capable of producing flow rates from 8 lbs/hr to 16 lbs/hr while providing droplets as small as 1 micron and achieving humidity levels up to 99%. The Fogco Air Injection System requires the availability of compressed air of at least 80 psi and 25 cfm and water pressure of 60 psi to produce the maximum output of 150 lbs/hr.

The system utilises directionally adjustable dry fog nozzles on a magnetic base or hung using an 3/8" mount.



Air Injection Control Box



Includes FOGCOntroller II Microprocessor

9583	Weight Kg	Dimensions cm		
		L	W	H
96100	13.6	30.5	30.5	25.4

Drip Free Adjustable Air Nozzle



With All-Thread Mount

9583	Flow
96081	8lbs/hr - 16lbs/hr



With Magnetic Base

9583	Flow
96080	8lbs/hr - 16lbs/hr

FO-500 ULTRA-LOW VOLUME FOGGER

- Disinfection
- Pest Control
- Odour Control
- Plant Protection



ULV Fogger 240V

9584
FO-500



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MISTING SYSTEMS - AIR INJECTION DRY FOG SYSTEM



The Fogco line of industrial Slip Lok fittings are rated at 1,500 psi and have been used successfully in industrial applications for over 20 years.

The fittings include a heavy-duty bod , thicker locking ferrule and an over sized viton o-ring. Their unique design allows them to be easily removed, replaced or re-installed anytime after the initial installation. No special tools or crimping procedures are required.

- Standard threads are 10/24 UNC.



Male Stud



Male Thread, NPT x Tube

9583	Tube OD	Thread
94853	1/4"	1/4"
92707	3/8"	3/8"

Mistscaping Equal Joiner



Tube x UNC

9583	Tube OD	Thread
94630	1/4"	10/24
92630	3/8"	10/24

End Plug



Tube

9583	Material	Tube OD
94706	Plastic	1/4"
92706	Brass	3/8"

Mistscaping Adaptor



Tube x UNC

9583	Tube OD	Thread
92923	3/8"	10/24

Joiners



Tube x Tube

9583	Tube OD
92702	3/8"

Equal Elbow



Tube x Tube

9583	Tube OD
92703	3/8"

Equal Cross



Tube x Tube

9583	Tube OD
92711	3/8"

MISTING SYSTEMS - ADAPTORS



Standard Mist Nozzle

These misting nozzles are available in brass with stainless steel orifices. The sizes range from 0.008" to 0.020" with flow rates from 0.020 gpm to 0.055 gpm

- Spray patterns vary from 60° to 90°.
- Standard threads are 10/24 UNC.
- All stainless steel and 12/24 UNC are available on request.



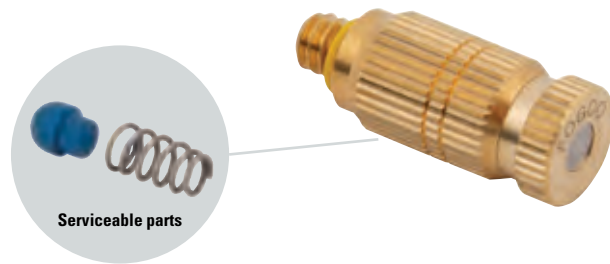
Brass

9583	Orifice Size Inches	LPM	Spray Pattern	O-Ring Colour	Weight g	Dimensions cm		
						L	W	H
93508	0.008	0.76	60°	Red	9.1	2.5	1.0	1.0
93512	0.012	0.110	70°	Black	9.1	2.5	1.0	1.0
80450	0.016	0.167	80°	Brown	9.1	2.5	1.0	1.0
93520	0.020	0.208	90°	Green	9.1	2.5	1.0	1.0

Cleanable Anti-drip Nozzle

All cleanable misting nozzles include an anti-drip adaptor. This range is available in brass with a stainless steel orifice or all stainless steel design. The sizes range from 0.006" to 0.020" with flow rate from 0.01 gpm to 0.045 gpm.

- Spray patterns from 45° to 85°.
- Larger orifice sizes and different threads are also available as special order items.
- Standard threads are 10/24 UNC.
- All stainless steel and 12/24 UNC are available on request.



Brass

9583	Orifice Size Inches	LPM	Spray Pattern	O-Ring Colour	Weight g	Dimensions cm		
						L	W	H
95031	0.006	0.037	45°	Yellow	9.1	2.5	1.0	1.0
95037	0.008	0.060	55°	Red	9.1	2.5	1.0	1.0
95038	0.012	0.095	65°	Black	9.1	2.5	1.0	1.0
95039	0.016	0.136	75°	Brown	9.1	2.5	1.0	1.0
95040	0.020	0.170	85°	Green	9.1	2.5	1.0	1.0

Stainless Steel

9583	Orifice Size Inches	LPM	Spray Pattern	O-Ring Colour	Weight g	Dimensions cm		
						L	W	H
95032	0.006	0.037	45°	Brown	9.1	2.5	1.0	1.0
95033	0.008	0.060	55°	Brown	9.1	2.5	1.0	1.0
95034	0.012	0.095	65°	Brown	9.1	2.5	1.0	1.0
95035	0.016	0.136	75°	Brown	9.1	2.5	1.0	1.0
95036	0.020	0.170	85°	Brown	9.1	2.5	1.0	1.0



For Knee Protection
...see page 1759



MISTING SYSTEMS - ADAPTORS



The nozzle adaptor range includes extensions, clusters and adaptors to provide more options in the designing and installation of a mist system. Clusters allow 3 or 5 nozzles to be placed in a single nozzle fitting. Extensions allow the fog to be directed in a specific wa , while extending the fog up to 12 inches from the line.

Nozzle Extensions



Stainless Steel, UNC

9583	Nozzle Length Inches	Male Thread	Female Thread
94506	6	10/24	10/24
94512	12	10/24	10/24

Nozzle Cluster



Stainless Steel, UNC

9583	Male Thread	Female Thread
93019	10/24	5 x 10/24

Nozzle Swivel Adaptor



Nickel-plated, UNC

9583	Male Thread	Female Thread
95041	10/24	10/24

Nozzle Adaptor



Brass

9583	Male Thread	Female Thread
92519	1/8" NPT	10/24 UNC

Nozzle Plug



Brass, UNC

9583	Male Thread
93505	10/24

Nozzle Removal Tool



Plastic

9583
92100

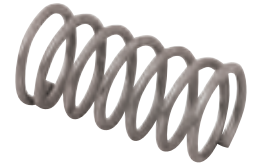
Nozzle O-Rings



Plastic

9583	Material
10252	Nitrile
93598	Viton

Replacement Spring



For Cleanable Anti-drip Nozzle

9583
92788

Replacement Stemmed Ball



For Cleanable Anti-drip Nozzle

9583
93354



For Eye Protection
...see page 1754

MISTING SYSTEMS - FILTERS



Filtration is highly recommended for every mist system. Fogco offer a full range of filter cartridges and housing. From their smallest 'hose end' calcium inhibitor filter to the larger 10" filter housing with varying micron cartridges

Fogco's filter range also includes a special phosphate cartridge for the 10" filter housing. This cartridge helps eliminate the adverse effects of calcium and dissolved solids present in the water supply.

For very high flow rates, Fogco offers an increased capacity filtration option that includes a larger housing and a dual stage cartridge. This filter housing include 1" ports for maximum flow.

Water Pretreatment Kit



With Cartridges

9583	Type
93613	Polyphosphate
93614	Scalex

10" Filter Housing



1" Ports, High Flow

9583
92611

10" Blue Slimline Filter Housing



1/2" Ports

9583
92609

10" Dual Filter Cartridge



For 92611

9583	Pre-filter Micron μ m	Filter Micron μ m	GPM
92612	25	1	30

Filter Cartridges



Particle Removal Filter

9583	Micron μ m
92603	1
92608	2



Limescale/Corrosion Inhibiting Filter

9583	Type
93039	Polyphosphate
92613	Scalex

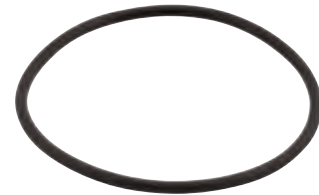
Mounting Bracket



For 92609

9583
95022

Replacement O-Ring



For 92609

9583
95024

MISTING SYSTEMS - CONTROLLERS



FOGController

The FOGController is a 2 zone 24V AC microprocessor that accepts input from two separate sensors. The controller has 5 independent programmable relays that can control a series of fans, zone valves, and pumps.

The controller also includes a programmable time delay NC contact that can be used to terminate all output signals from the controller if a defined condition develops with the system.

The humidity settings range from 30% to 99% with a hysteresis range between 1 and 9. The temperature settings range from 70° to 99° with a hysteresis range between 1 and 9. The standard sensor will have an accuracy of +/- 2% from 10% to 70% humidity. It is recommended that the high humidity sensor be used for applications requiring humidity levels above 70%.

- The controller requires a 50 Watt 24V AC transformer as a power supply.



2 Zone Microprocessor

9583	Weight g	Dimensions cm		
		L	W	H
92910	454	15.2	8.9	5.7

FOGController II

The FOGController II is a humidity controller, with an internal humidity sensor that provides automated operation of a fog system. The unit can operate based on its internal sensor or can be fitted with an external sensor for high humidity applications.

The humidity settings range from 10% to 99% with a hysteresis range between 1 and 5. It is recommended to use the external sensor for humidity levels above 50% and our high humidity sensor for humidity levels above 70%.

The FOGController II is a single zone microprocessor and has two output relays with a programmable delay start and stop.

The internal and external sensors are fully calibrated re-flow humidity sensors with digital output that send binary data over RS485 protocol. The sensor will have an accuracy of +/- 2%.

- The controller requires a 50 Watt 24V AC transformer as a power supply.



Single Zone Microprocessor

9583	Weight g	Dimensions cm		
		L	W	H
94160	182	14	7.6	2.5

Sensor



For High Humidity

9583	Detection Range	Weight g	Dimensions cm		
			L	W	H
92906	0 to 99%	137	10.2	10.2	2.5

Remote Sensor



For Temperature/Humidity

9583	Detection Range	Weight g	Dimensions cm		
			L	W	H
92909	0 to 70%	91	10.2	5.1	2.5

4 Pin Connector



To Suit FOGController & FOGController II

9583	Weight g	Dimensions cm		
		L	W	H
92908	10	2.5	2.5	2.5



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1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 17

Compressors & Air Tools

17.01 Compressors **1697-1703**

17.02 Air Tools & Accessories **1704-1720**

17.03 Tyre Inflation Equipmen **1721-1726**

SECTION 17

Compressors & Air Tools

17.01 Compressors

- Compressors

NUAIR

Fini

BAMBI

1697-1703



17.02 Air Tools & Accessories

- Pneumatic Power Tools
- Pneumatic Spraying Equipment & Accessories
- Spray Guns
- Paint Spray Guns
- Air Tools
- Multi-swivel Air Couplings
- Pneumatic Power Tools & Accessories

FT PRO

AEROPRO

PCL

1704-1720



Chicago Pneumatic

Redashe

17.03 Tyre Inflation Equipmen

- Professional Tyre Inflato
- Tyre Inflation Equipmen

FT PRO

JAMEC PEM

VWV Air Boy

1721-1726



PCL

COMPRESSORS



Portable Direct Drive Oil Free - Traditional Series 1.1 to 1.5 kW



SO1/6 HP 1.5 VENTO Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-A6BB304FPS534	1.1/1.5	6.7	8/115

Tech Sheet 71795



VENTO OM200/6 SILENCED Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-A2BB104NUA	1.1/1.5	4.1	8/116

Tech Sheet 71795



ROLL CAGE OM 195/6 Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-8213885FPS505	1.1/1.5	7.1	8/116

Tech Sheet 71795



SO2/24 & 50CM2 Piston Compressor

0610	kW/HP	CFM	Bar/PSI	Capacity Litres
S-A3CC404FPS501	1.5/2	8.1	8/116	24
S-A3DV404FPS536	1.5/2	8.1	8/116	50

Tech Sheet 71795

Portable Direct Drive Oil Free - 110 Volt Series 1.1 kW



ROLL CAGE OM195/6 - 110 V Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-8213885FPS566	1.1/1.5	7.1	8/116

Tech Sheet 71795



OM197/24 TECH - 110V Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-A8CA3C4FPS567	1.1/1.5	7.1	8/116

Tech Sheet 71795

Portable Direct Drive Lubricated - Tech Series 1.5 to 1.8 kW



F1-241/24 TECH Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-6SCA404FPS506	1.5/2	8.5	10/145

Tech Sheet 71795



F1-260/50 TECH Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-75DA4G4FPS507	1.8/2.5	9.2	10/145

Tech Sheet 71795

Portable Direct Drive Lubricated - Traditional Series 1.1 to 2.2 kW



ND2/24 & 50CM2 Piston Compressor

0610	kW/HP	CFM	Bar/PSI	Capacity Litres
S-FCCC404FPS502	1.5/2	7.4	8/116	24
S-FCDC404FPS503	1.5/2	7.4	8/116	50

Tech Sheet 71795



NDV/50CM3 Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-SXDL504FPS504	2.2/3	12.6	8/116

Tech Sheet 71795

Portable Belt Driven Lubricated - Tech Series 1.5 to 2.2 kW



NB2800B/50/2M TECH Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-28DA404FPS008	1.5/2	9	10/145

Tech Sheet 71795



N2800B/50/2M TECH 110 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-28DA4C4FPS060	1.5/2	9	10/145

Tech Sheet 71795

COMPRESSORS

Portable Belt Driven Lubricated - Tech Series 1.5 to 2.2 kW



**NB2800B/50/3M TECH
Piston Compressor**

0610	kW/HP	CFM	Bar/PSI
S-28DA504FPS032	2.2/3	12.5	10/145

Tech Sheet 71795



**NB2800B/100/3M TECH
Piston Compressor**

0610	kW/HP	CFM	Bar/PSI
S-28FA504FPS009	2.2/3	12.5	10/145

Tech Sheet 71795



**N2800B/150/3M TECH
Piston Compressor**

0610	kW/HP	CFM	Bar/PSI
S-28HA504FPS051	2.2/3	12.5	10/145

Tech Sheet 71795

FT PRO



For FRL's
see page 637

Belt Driven Lubricated - Blue Star Series 1.5 to 7.5 kW



NB28C/50 FM2 230 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-28DC404FPS039	1.5/2	9	10/145

Tech Sheet 71795



NB28C/100 FM3 230 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-28FN504FPS040	2.2/3	12.5	10/145

Tech Sheet 71795



**NB38C/150 & 200 FM3 230 Volt
Piston Compressors**

0610	kW/HP	CFM	Bar/PSI	Capacity Litres
S-36HN504FPS012	2.2/3	13.95	10/145	150
S-36LN504FPS014	2.2/3	13.95	10/145	200
S-36LN684FPS075	3/4	18	10/145	200

Tech Sheet 71795



**NB38C/150 & 200 FT3 400 Volt
Piston Compressors**

0610	kW/HP	CFM	Bar/PSI	Capacity Litres
S-36HN541FPS013	2.2/3	13.95	10/145	150
S-36LN541FPS015	2.2/3	13.95	10/145	200

Tech Sheet 71795



**NB38/270 TDT Tandem 400 Volt
Piston Compressor**

0610	kW/HP	CFM	Bar/PSI
S-36NW541FPS037	2 x 2.2/3	27.9	10/145

Tech Sheet 71795



NB7/200 FT 5 400 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-N7LN701FPS044	4/5.5	24	10/145

Tech Sheet 71795



NB7/270 FT 7 400 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-N7NN801FPS018	5.5/7.5	29.7	10/145

Tech Sheet 71795



NB10/270 FT 10 400 Volt Piston Compressor

0610	kW/HP	CFM	Bar/PSI
S-N1NN905FPS019	7.5/10	38.1	10/145

Tech Sheet 71795



**NB38/270 TD Tandem 230 Volt
Piston Compressor**

0610	kW/HP	CFM	Bar/PSI
S-36NW505FPS038	2 x 2.2/3	27.9	10/145

Tech Sheet 71795

COMPRESSORS



Belt Driven Vertical Series



Vertical Series Piston Compressors

0610	Voltage	kW/HP	CFM	Bar/PSI	Capacity Litres
S-36HY504FPS068	230V	2.2 / 3	13.95	10 / 145	150
S-36HY541FPS069	400V	2.2 / 3	13.95	10 / 145	150
S-36HY684FPS074	230V	3/4	18	10 / 145	150
S-N5NY701FPS070	400V	4 / 5.5	22.9	11 / 160	270

Tech Sheet 71795

Direct Drive Silent Compressors



ROLLCAGE 6L OL244 Silenced Compressor 230 Volt

0610	kW/HP	CFM	Bar/PSI	Capacity Litres	dB(A)
S-B4BA304FPS571	1.1 / 1.5	7.1	8 / 116	6	60

Tech Sheet 71795



PIONEER 10L OL244 Silenced Compressor 230 Volt

0610	kW/HP	CFM	Bar/PSI	Capacity Litres	dB(A)
S-B4PP304FPS573	1.1 / 1.5	7.1	8 / 116	10	62

Tech Sheet 71795



OL244/24 TECH SE Silenced Compressor 230 Volt

0610	kW/HP	CFM	Bar/PSI	Capacity Litres	dB(A)
S-B4CA304FPS572	1.1 / 1.5	7.1	8 / 116	24	62

Tech Sheet 71795

Belt Driven Lubricated Low Noise Series 1.5 to 7.5 kW



Low Noise Portable Fully Enclosed Piston Compressors

0610	Voltage	kW/HP	CFM	Bar/PSI	Capacity Litres
S-28FR404FPS078	230V	1.5 / 2	9	10 / 145	100
S-28FR504FPS079	230V	2.2 / 3	11.6	10 / 145	100
S-28FR541FPS080	400V	2.2 / 3	11.6	10 / 145	100

Tech Sheet 71795



Low Noise Portable Piston Compressors

0610	Voltage	kW/HP	CFM	Bar/PSI	Capacity Litres
S-36FR504FPS076	230V	2.2 / 3	11.6	10 / 145	100
S-36FR541FPS077	400V	2.2 / 3	11.6	10 / 145	100

Tech Sheet 71795



Low Noise Receiver Mounted Piston Compressors

0610	Voltage	kW/HP	CFM	Bar/PSI	Capacity Litres
S-N5NT701FPS083	400V	4 / 5.5	22.6	11 / 160	270
S-N7NT801FPS084	400V	5.5 / 7.5	29.7	11 / 160	270
S-N1TT905FPS086	400V	7.5 / 10	43.4	11 / 160	500

Tech Sheet 71795



Low Noise Free Standing Piston Compressors

0610	Voltage	kW/HP	CFM	Bar/PSI
S-N5AT701FPS081	400V	4 / 5.5	22.6	11 / 160
S-N7AT801FPS082	400V	5.5 / 7.5	29.7	11 / 160
S-N1AT905FPS085	400V	7.5 / 10	43.4	11 / 160

Tech Sheet 71795

COMPRESSORS



MICRO Fixed Speed Flexonic Belt Driven Screw Compressors 2.2 to 5.5 kW



MICRO Series Receiver Mounted Screw Compressors

0620	Volt	kW/HP	CFM	Bar/PSI
F-V77JT60FNM501	230	2.2/3	10.2	10/145
F-V77JS72FNM701	400	3/4	15.2	8/116
F-V77JQ72FNM701	400	3/4	13.6	10
F-V77JR72FNM701	400	4/5.5	20.5	8/116
F-V77JP72FNM701	400	4/5.5	17.1	10/145
F-V91JW92FNM701	400	5.5/7.5	25.4	8/116
F-V91JO92FNM701	400	5.5/7.5	22.9	10/145

Tech Sheet 71794



MICRO Series Receiver Mounted c/w Dryer - Screw Compressors

0620	Volt	kW/HP	CFM	Bar/PSI
F-V77JT60FNM801	230	2.2/3	10.2	10/145
F-V77JS72FNM801	400	3/4	15.2	8/116
F-V77JQ72FNM801	400	3/4	13.6	10/145
F-V77JR72FNM801	400	4/5.5	20.5	8/116
F-V77JP72FNM801	400	4/5.5	17.1	10/145
F-V91JW92FNM801	400	5.5/7.5	25.4	8/116
F-V91JO92FNM801	400	5.5/7.5	22.9	10/145

Tech Sheet 71794

FINI PLUS Fixed Speed Flexonic Belt Driven Screw Compressors 7.5 to 15 kW



FINI PLUS Series Receiver Mounted Screw Compressors

0620	Capacity Litres	kW/HP	CFM	Bar/PSI
F-V91NG92FNM701	270	7.5/10	44.1	8/116
F-V91NH92FNM701	270	7.5/10	35.3	10/145
F-V91NL92FNM701	270	11/15	58.2	8/116
F-V91NM92FNM701	270	11/15	53	10/145
F-V83NP92FNM701	500	15/20	75.9	8/116
F-V83NQ92FNM701	500	15/20	65.3	10/145

Tech Sheet 71794



FINI PLUS Series Receiver Mounted c/w Dryer - Screw Compressors

0620	Capacity Litres	kW/HP	CFM	Bar/PSI
F-V91NG92FNM801	270	7.5/10	44.1	8/116
F-V91NH92FNM801	270	7.5/10	35.3	10/145
F-V91NL92FNM801	270	11/15	58.2	8/116
F-V91NM92FNM801	270	11/15	53	10/145
F-V83NP92FNM801	500	15/20	83	8/116
F-V83NQ92FNM801	500	15/20	72.4	10/145

Tech Sheet 71794

For Long Life
Compressor Oil
...see page 434



COMPRESSORS



Bambi Compressors



Silent Air Compressor, 9 Litre Tank

0630	Litres per Minute	Pressure Bar	Voltage
BB8	50	8	240/50

Tech Sheet 71793



Silent Air Compressor, 24 Litre Tank

0630	Litres per Minute	Pressure Bar	Voltage
BB24	50	8	240/50

Tech Sheet 71793



Silent Air Compressor, 15 Litre Tank

0630	Litres per Minute	Pressure Bar	Voltage
BB15	50	8	240/50

Tech Sheet 71793



Silent Air Compressor, 50 Litre Tank

0630	Litres per Minute	Pressure Bar	Voltage
BB50D	100	8	240/50

Tech Sheet 71793



For **Automatic Drain Valves**
...see pages 1024-1025



Silent Air Wheel Kit (BB24 & BB50)

0630	Description
BPB0157	Wheel Kit suits BB24 & BB50D

Tech Sheet 71793

AEROPRO

ENGINEERED FOR PROFESSIONALS

FEATURES & BENEFITS

Design: attractive, lightweight and comfortable composite grip handle.

Quality: designed with superior technology, manufactured with precision and high quality to deliver more power and a longer life.

Robust: heat treated components for increased durability, fully hardened planetary gears and reduced friction for extended tool productivity.

Warranty: 12 months manufacturer's warranty.

www.aeropro-eu.com



PNEUMATIC POWER TOOLS

SAFETY TIPS:

A few tips to increase safety awareness and help avoid accident and injury in the workplace.

(These are not a substitute to the AEROPRO safety/instruction manuals.)

VISUAL INSPECTION PRIOR TO USE

Conduct a visual check of the tool, including hoses and fittings for signs of damage/excess wear or defect parts. Ensure tool is fully oiled.

USE THE CORRECT ACCESSORIES

Always use recommended accessories with **AEROPRO** tools, e.g. never use hand sockets with impact wrenches. Always disconnect air supply prior to changing an accessory.

SAFETY WEAR

Always adhere to workplace safety workwear regulations. In addition when operating equipment always wear goggles and ear plugs as well as gloves, apron, helmet and dust mask when required. When working with materials that may produce harmful airborne particles, use other equipment such as dust extractors to control exposure.

MAINTAIN A SAFE WORKING AREA

Make other people aware of your working area and ensure they are kept at a safe distance. Clear your floor space keeping it free of trip hazards, trailing hoses, etc. Direct exhaust gases away from yourself and others, do not use in explosive atmospheres and always keep away from electrical wiring.

Pneumatic Power Tool Accessories



PNEUMATIC POWER TOOLS

AEROPRO
ENGINEERED FOR PROFESSIONALS

Ratchet Wrenches

- Designed with superior technology and manufactured with precision and high quality to deliver more power and a longer life
- Ball bearing mounted air motor produces enough power for most requirements
- Fully hardened planetary gears reduce friction for extended tool productivity
- Comfortable composite grip handle
- Ball socket retainer provides fast and easy socket replacement
- Heat treated components for increased durability
- Lightweight aluminium body
- Compact head design allows flexibility in tight areas
- Forward/reverse lever located behind the ratchet head for quick change of direction
- Side exhaust
- Recommended air pressure: 90 PSI



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
		Imp	Met mm		Ft-Lb	N.m	In	mm			cfm	l/min	Lbs	Kgs
AP17411	3/8"	1/2	13	160	50	68	10.8	275	1/4"	3/8"	3	85.5	2.5	1.15

3/8" Square Drive

0373

AP17411-3/8

Tech Sheet 10236



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
		Imp	Met mm		Ft-Lb	N.m	In	mm			cfm	l/min	Lbs	Kgs
AP17411	1/2"	1/2"	13	160	50	68	10	254	1/4"	3/8"	2.7	77	2.4	1.1

1/2" Square Drive

0373

AP17411-1/2

Tech Sheet 10236

Air Impact Wrenches

- Twin hammer mechanism has two identical hammers that deliver an instantaneous balanced blow, reducing vibration and transferring more torque to the drive than any other mechanism on the market
- Provides more power and smooth balanced blows
- Screened filter air inlet keeps dirt and debris from damaging the tool
- Rear exhaust
- Recommended air pressure: 90 PSI



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
		Imp	Met mm		Ft-Lb	N.m	In	mm			cfm	l/min	Lbs	Kgs
AP7451	1/2"	5/8"	16	7,500	450	610	7.48	190	1/4"	3/8"	6.5	183.9	4.2	1.9

1/2" Square Drive

0373

AP7451

Tech Sheet 10235

Colour may vary.



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
		Imp	Met mm		Ft-Lb	N.m	In	mm			cfm	l/min	Lbs	Kgs
AP7460	3/4"	1"	25	7000	1000	1355	8.2	208	3/8"	1/2"	9.5	269	6.6	3.0

3/4" Square Drive

0373

AP7460

Tech Sheet 10237

Air Impact Wrench Kit

- Twin hammer mechanism has two identical hammers that deliver an instantaneous balanced blow, reducing vibration and transferring more torque to the drive than any other mechanism on the market
- Provides more power and smooth balanced blows
- Screened filter air inlet keeps dirt and debris from damaging the tool
- Rear exhaust
- Recommended air pressure: 90 PSI

Contents:

- 1 x AP17407 1/2" impact wrench
- 10 x impact sockets (9, 10, 11, 13, 14, 17, 19, 22, 24, 27mm)
- 1 x 5" extension bar
- 1 x oil pot
- 1 x hex wrench
- 1 x mini oiler
- 1 x nipple
- 1 x blow moulded case



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
		Imp	Met mm		Ft-Lb	N.m	In	mm			cfm	l/min	Lbs	Kgs
AP17407	1/2"	5/8"	16	7,500	450	610	7.30	187.4	1/4"	3/8"	6.5	183.5	4.9	2.26

1/2" Square Drive, 17 Piece Kit

0373

AP17808

Tech Sheet 10238

Air Impact Wrench

- Ergonomic design handle, central gravity for steady control
- Alloy steel strike structure, strong, anti-fatigue, long life and excellent torque/weight ratios
- 45° air inlet design to decrease hose twisting
- Extended drive shaft for easy accessibility to concave restricted access
- Four speed forward and reverse setting



Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Working Torque		Overall Length		Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight		Suggested Air Comp
		Imp	Met mm		Ft-Lb	N.m	Imp	Met mm			cfm	l/min	Lbs	Kgs	
AP7495	1"	2"	50	2800	2500	3480	25.4	644	1/2"	5/8"	43	1225	41.6	18.9	5 HP

1" Square Drive

0373

AP7495

Tech Sheet 20217

FT PRO



You might also need
Air Hose see page 1410

FT PRO



You might also need
QRC see page 290

PNEUMATIC POWER TOOLS

AEROPRO
ENGINEERED FOR PROFESSIONALS

Straight Grip Drill

- For applications where a compact and low profile tool is require
- Precision machined gearing ensures maximum power transfer and durability
- Lightweight – helps prevent fatigue during prolonged use
- Ideal for confined space
- Recommended air pressure: 90 PSI



Model No.	Chuck Size	Free Speed RPM	Air Inlet	Air Hose (ID)	Overall Length		Average Air Consumption		Net Weight	
					In	mm	cfm	l/min	Lbs	Kgs
AP17111	3/8"	2,600	1/4"	3/8"	8.8	225	4.0	115	1.87	0.85

3/8" Keyed Chuck

0373

AP17111

Tech Sheet 10239

Pistol Grip Reversible Drill

- Suited to compact low profile applications
- Variable speed throttle for easy starts
- Precision machined gearing ensures maximum power transfer and durability
- Convenient one hand push button (forward/reverse)
- Lightweight – helps avoid fatigue during prolonged use
- Quiet operation with rear exhaust directs air away from workplace
- Ball bearing construction
- Recommended air pressure: 90 PSI



Model No.	Chuck Size	Free Speed RPM	Air Inlet	Air Hose (ID)	Overall Length		Average Air Consumption		Net Weight	
					In	mm	cfm	l/min	Lbs	Kgs
AP17101	3/8"	1,800	1/4"	3/8"	7	180	3.7	104	1.98	0.9

3/8" Keyed Chuck

0373

AP17101

Tech Sheet 10240



Model No.	Chuck Size	Free Speed RPM	Air Inlet	Air Hose (ID)	Overall Length		Average Air Consumption		Net Weight	
					In	mm	cfm	l/min	Lbs	Kgs
AP17107	1/2"	700	1/4"	3/8"	7.68	195	4	115	1.18	1.19

1/2" Keyed Chuck

0373

AP17107

Tech Sheet 10241

Air Impact Hammer

- Ergonomic grip for comfort and stability
- Heat treated impact parts for enhanced durability
- Positive action trigger and built-in air regulator for simple power and speed control
- Screened filter air inlet to keep dirt and debris from damaging the tool
- Standard quick change spring for speed and ease of chisel change
- Front exhaust
- Recommended air pressure: 90 PSI
- 4 piece chisel set included



Model No.	Chisel Shank mm	Blows per min	Air Inlet	Air Hose (ID)	Overall Length		Average Air Consumption		Net Weight	
					In	mm	cfm	l/min	Lbs	Kgs
AP17621	10.2	4,500	1/4"	3/8"	6.10	155	2.8	79.8	2.65	1.2

Heavy-duty

0373

AP17621

Tech Sheet 10242

2 in 1 Air Nailer & Stapler

- Strong and lightweight aluminium die-casting gun body
- Multidirectional exhaust port directs air away from the operator and work surface
- Hardened one piece drive blade for professional application
- Teflon O-ring to protect the piston from wearing
- Tool free depth-of-drive adjustment for exact setting of nail head
- Adjustable knob for either sequential or contact firin
- Designed for Ga18 style nails and staples up to 50mm in length
- Includes nailer, wrenches, oil, operating manual and rugged carrying case



Model No.	Dimensions (mm)	Required Pressure		Max Pressure		Nail Capacity	Weight	
		PSI	Bar	PSI	Bar		lbs	kgs
APSF5040RC	283x256x60	70-110	4.8-7.5	120	8.3	100 Pcs	3.52	1.6

0373

APSF5040RC

Tech Sheet 20219

PORTWEST



For Eye Glasses
see page 1754

Die Grinder

- Lightweight aluminium body
- Safety lever prevents accidental starts
- Rear exhaust
- Can be used with all types of accessories for porting, weld breaking and smoothing sharp edges, as well as deburring, polishing and grinding
- Recommended air pressure: 90 PSI



Model No.	Grinder Cap	Free Speed RPM	Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
					cfm	l/min	Lbs	Kgs
AP17313	1/4"	20,000	1/4"	3/8"	3	86.25	0.70	0.32

Straight, 1/4"

0373

AP17313

Tech Sheet 10243

- Angle head provides easy access into confined space
- Lightweight aluminium body
- Safety lever prevents accidental starts
- Rear exhaust
- Can be used with accessories for porting, weld breaking and smoothing sharp edges, as well as deburring, polishing and grinding
- Recommended air pressure: 90 PSI



Model No.	Grinder Cap	Free Speed RPM	Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
					cfm	l/min	Lbs	Kgs
AP17315	1/4"	20,000	1/4"	3/8"	2.2	62	0.99	0.45

Angled, 1/4"

0373

AP17315

Tech Sheet 10244

Angle Die Grinder Kit

- Angled head provides easy access into confined space
- Lightweight aluminium body
- Safety lever prevents accidental starts
- Rear exhaust
- Can be used with all types of accessories for porting, weld breaking and smoothing sharp edges as well as deburring, polishing and grinding
- Recommended air pressure: 90 PSI

Kit contains:

- | | |
|---------------------------------|---------------|
| 1 x angle die grinder (AP17315) | 1 x nipple |
| 2 x hand wrenches | 1 x collet |
| 10 x grinding stones | 1 x blow case |



Model No.	Grinder Cap	Free Speed RPM	Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
					cfm	l/min	Lbs	Kgs
AP17315	1/4"	20,000	1/4"	3/8"	2.2	62	0.99	0.45

16 Piece Kit

0373

AP17803-A

Tech Sheet 20220

4" Angle Grinder

- Built-in regulator to control speed
- Planetary gearing balances load on bearings and gears for greater power
- Side exhaust
- Recommended air pressure: 90 PSI



Model No.	Sanding Pad		Free Speed RPM	Air Inlet	Air Hose (ID)	Average Air Consumption		Net Weight	
	In	mm				cfm	l/min	Lbs	Kgs
AP7319	4"	100	10,000	1/4"	3/8"	5	140	2.86	1.3

Heavy-duty

0373

AP7319

Tech Sheet 10245

Basic Air Tool Kit

Kit contains:

- Paint spray gun
- Blow gun
- Tyre inflation gun
- Wash gun
- 5mm recoil air hose



5 Piece Set

0373

AP8031K5G

Tech Sheet 20753

PORTWEST



For Impact Gloves
see page 1758

PNEUMATIC POWER TOOLS

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1/2" Impact Socket Set

- Contains hexagon sizes: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" and 1"
- Hardened steel for robust use
- Steel case for safe storage



Imperial, 11 Piece Set

0373
AP7007

7" Chisel Kit

Kit contains:

- Flat chisel
- Tapered punch chisel
- V chisel
- Claw chisel



4 Piece Kit, suitable for AP17621

0373
AP7002-7

Replacement Keyless Chuck



3/8" & 1/2"

0373	To Suit
APKLC38	3/8"
APKLC12	1/2"

Chisel Spring Retainer

To suit AP17621.



Replacement Spring

0373
AP7001

Airline Oil

High quality mineral oil with excellent lubricating properties for machine and power tools.

Due to restrictions imposed by the Transport of Dangerous Goods Act, this product is available for delivery to **MAINLAND UK ONLY**.

For further information please contact our customer service department.



Airline Lubricant

0088	0373	0373	Litres
2020-6009			5
Tech Sheet 1224			

Universal Tool Oil



0088	0373	0373	Volume Millilitres
H0076			100
H0077			220

Industrial Airless Paint Sprayer

- PC control system can show the working condition of the machine clearly
- Ergonomic design makes it easy to transport
- Long performance motor designed for industrial use

Includes:

- 1 x AP818C (airless spray gun)
- 1 x AP8648-15M (15m high pressure paint spraying hose assembly)



Model No.	Voltage	Motor Size	Max Pressure	Standard Nozzle	Discharge Connection	Flow rate L/min	Nett Weight Kg
AP488	220V/50Hz	1.2HP	230 bar	0.017"	1/4"	2.1	16.5

Brushless Motor

0373	AP488
Tech Sheet 20222	

Airless Spray Gun

- In-handle paint filter reduces tip clogs and improves finish
- Well balanced and lightweight
- Full trigger (four-finger) locks open for flushing and cleanin
- Ergonomic design and easy trigger pivot to reduce operator fatigue



Model No.	Nozzle Size (AP517)		Pattern Width mm	Paint Capacity mm	Type of Feed	Working Pressure (bar)	Paint Inlet Connection	
	Fan Width	Orifice Size					In	Npsm
AP818C	0.017	0.517	254-305	300	Pressure	248	1/4"	18

Four-finger Trigger

0373	AP818C
Tech Sheet 20223	

Interchangeable with Titan Graco sprayer.



Airless Spray Gun Switch Tips

0373	Orifice mm	Fan Width
AP313	0.33	152-203
AP415	0.38	203-254
AP515	0.38	254-305
Tech Sheet 20224		



Extension Nozzles

0373	Length mm
AP8641-1	450
AP8641-4	1000

PORTWEST



For Engineers Gloves
see page 1760

PNEUMATIC SPRAYING EQUIPMENT & ACCESSORIES

AEROPRO
ENGINEERED FOR PROFESSIONALS

Air Powered Diaphragm Pumps

Widely used in paint spraying, chemical, ceramics, biotechnology, medical and food industries.



Model No.	Air Inlet	Paint Inlet	Paint Outlet	Capacity (ml)	Weight (Kg)	Operating Pressure (bar)	Air Consumption (m ³ /h)	Flow Rate (Lph)	Pressure Ratio
APA-15	1/4"	3/8"	1/4"	400	7	2-7	10	1080	1:1

0373

APA-15

Tech Sheet 20227

- Diaphragm life up to 18 million cycles
- Patented commutator construction
- 100% transmission efficiency
- Available for 4-6 spray guns simultaneously
- Suitable for conveying fluid and paint spraying
- Unique air circulation structure which provides stall-free life cycle



Model No.	Air Inlet	Paint Inlet	Paint Outlet	Capacity (ml)	Weight (Kg)	Operating Pressure (bar)	Air Consumption (m ³ /h)	Flow Rate (Lph)	Pressure Ratio
APA-25	1/4"	3/4"	3/4"	-	4.5	2-7	40	3060	1:1

0373

APA-25

Tech Sheet 20228

Paint Mixing Tanks

- Used for premixed paint, excellent for larger spray areas
- Compact portable design quick release catches for paint tank
- 3m twin hose set permits easy movement
- Fluid pressure regulator included for accurate setting
- Includes pressure spray gun with 2mm nozzle



Model No.	Capacity (L)	Operating Pressure		Paint Outlet	Mixing Type
		psi	bar		
APR8312	10	20-30	1.4-2.1	1/4"	-

10L Paint Tank with Hose & Spray Gun

0373

APR8312

Tech Sheet 20543

PORTWEST



For Respiratory Protection
see page 1755

HVLP

High volume, low pressure (HVLP) spray guns are designed similar to conventional spray guns, the only difference being that unlike conventional spray guns, which operate under high pressure, HVLP spray guns operate at a much lower pressure.

- Offers a more accurate way of spray painting, with less chance of overspray
- Produces a more thick and consistent quality of paint finish
- Less pollution compared to conventional spray guns
- Consumes less materials down to minimising overspray

LVLP

Low volume, low pressure (LVLP) spray guns are designed to work similar to the HVLP spray guns but to consume less air than the HVLP and used mainly in more intricate spraying on smaller areas. Used in auto painting and spraying of furniture, etc.

- More intricate spraying
- Low volume of air is utilised to finely atomize paint creating a very smooth finish
- Increased prevention of overspray and material wastage

Spray Guns

- Stainless steel needle and nozzle to accommodate a variety of coatings
- Brass air cap and adjustable knob
- Includes adjustable fluid, pattern and air control
- Designed to provide equal atomisation and particle size for all kinds of surface painting
- Lightweight, ergonomic design and easy trigger pivot to reduce operator fatigue



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
APH827A	Gravity	600	2.0-3.5	180-250	4.2-7.1	1.4

HVLP, Gravity Feed

0373

APH827A

Tech Sheet 20575



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
APR500	Gravity	600	2.0-3.5	180-250	3.0-3.9	1.5

LVLP, Gravity Feed

0373

APR500

Tech Sheet 20577



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
APR71	Pressure	-	3.0-4.0	180-250	3.5-6.4	1.5

Gravity Feed

0373

APR71

Tech Sheet 20577



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
APAS1005	Suction	1000	2.0-3.5	180-250	4.2-7.1	1.4

HVLP, Suction Feed

0373

APAS1005

Tech Sheet 20576



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
APR200S	Suction	1000	2.0-3.5	180-250	3.0-3.9	1.5

LVLP, Suction Feed

0373

APR200S

Tech Sheet 20578



Model No.	Type of Feed	Paint Capacity (cc)	Operating Pressure (Bar)	Pattern Width (mm)	Air Consumption (cfm)	Standard Nozzle (mm)
AP100B	Suction	600	3.0-4.0	180-250	4.2-6.4	1.5

Detailing, Suction Feed

0373

AP100B

Tech Sheet 20580

Nozzles

0373	To Suit	Ø mm
APH827-N1.4	APH827A	1.4
APH827-N1.7	APH827A	1.7
APAS1005-N1.4	APAS1005	1.4
APAS1005-N1.7	APAS1005	1.7
APR500R200S-N1.5	APR500 & APR200S	1.5
APR71-N1.7	APR71	1.7



Nozzle Size (mm)	Application
1.3	Clearcoats
1.4 to 1.7	Basecoats
2.0 to 2.2	Primers

SPRAY GUNS



High Pressure Spray Gun

- High pressure spray gun
- Dual action trigger
- Adjustable spray pattern
- External mix nozzle
- 1/4" bayonet quick connect.



0088

TOOL-763556

Expert Gravity Feed Spray Gun

- High performance, well balanced, spray gun
- For use in automotive spraying
- Separable flow and pattern controls
- 125ml nylon cup
- 1.2mm nozzle
- 1/4" bayonet quick connect



0088

TOOL-580420

Suction Feed Spray Gun

- Suction feed spray gun
- Dual action trigger
- Adjustable spray pattern
- External 1.5mm mix nozzle
- 750cc capacity
- 1/4" bayonet quick connect



0088

TOOL-196536

Gravity Feed Spray Gun

- Gravity feed spray gun
- Separable flow and pattern controls
- Dual action trigger control
- 1.5mm nozzle
- 500ml nylon cup
- 1/4" bayonet quick connect



0088

TOOL-783124

PAINT SPRAY GUNS



HVLP Spray Guns

PCL's HVLP suction spray gun utilises a precision engineered brass air cap, stainless steel fluid nozzle and needle which provide a premium quality paint finish. This newly developed 'compliant' spray gun offers the user high transfer efficiency, lower material consumption and is environmentally friendly.

- Suitable for water based paints
- 1.7mm fluid nozzle
- 1 litre aluminium cup

 **Maximum Working Pressure:**
50lb/in²



Suction Spray Gun

7000
SG01P

PCL's HVLP gravity spray gun utilises a precision engineered brass air cap, stainless steel fluid nozzle and needle which provide a premium quality paint finish. This newly developed 'compliant' spray gun offers the user high transfer efficiency, lower material consumption and is environmentally friendly.

- Suitable for water based paints
- 1.4mm fluid nozzle
- 0.6 litre plastic cup

 **Maximum Working Pressure:**
50lb/in²



Gravity Spray Gun

7000
SG02P

Lite Air Tools

Key Product Benefits:

- Ergonomic design for comfort,
- Lightweight materials
- Ready for immediate use
- Comes complete with cleaning brush and hose tail piece

Key Product Features:

- Tank capacity: 750cc
- Operating pressure: 3 to 4 bar
- Air consumption: 4.2 to 7.1 cfm
- Nozzle size: 1.5mm
- Pattern width: 140 to 180mm
- Body and canister material: aluminium



Lite Suction Spray Gun

7000
SG01L
Tech Sheet 2172

Key Product Benefits:

- Tank capacity: 600cc
- Operating pressure: 3 to 4 bar
- Air consumption: 4.2 to 7.1 cfm
- Nozzle size: 1.5mm
- Pattern width: 120 to 250mm
- Body and canister material: aluminium and plastic



Lite Gravity Spray Gun

7000
SG02L
Tech Sheet 2173



For **Ambersil Cleaning & Lubrication**
see pages 1571-1575

AIR TOOLS

Impact Wrenches

Features:

- DYNA-PACT oil bath clutch
- One handed push button forward/reverse with four positive power settings
- Full power in reverse
- Compact and ergonomic with rubber handle
- 425ft-lbs (576Nm) of maximum torque in reverse

Benefits:

- Clutch delivers smooth operation and extreme durability
- Versatile and powerful tool ideal for all general repairs and maintenance applications



1/2" Super Duty

0219

CP734H

Tech Sheet 3071

Features:

- 3/4" impact wrench with ring retainer
- DYNA-PACT oil bath clutch
- Single handed reverse button with four power settings
- Comfortable handle grip

Benefits:

- General maintenance
- Smooth operation with DYNA-PACT clutch
- Comfortable use with low noise and vibration levels
- Good durability



3/4" Super Duty

0219

CP772H

Tech Sheet 60253

Features:

- Steel front cover and aluminium body
- One hand operation forward/reverse by either left or right handed users
- Easily adjustable for either right or left handed operation
- Three setting positions
- Length: 4.4" (112mm)
- Jumbo hammer

Benefits:

- Best power to weight ratio: 306ft-lbs (415Nm)
- Ultra compact
- Easy to use
- Durable



3/8" Compact

0219

CP7731

Tech Sheet 60195

Features:

- Steel front cover and aluminium body
- One hand operation forward/reverse by either left or right handed users
- Three setting positions
- Length: 4.4" (112mm)
- Jumbo hammer

Benefits:

- Best power to weight ratio: 450ft-lbs (610Nm)
- Ultra compact
- Easy to use
- Durable



1/2" Compact

0219

CP7732

Tech Sheet 60252

Durable and Powerful:

- Maximum torque: 1,250Nm in reverse
- Working torque: 102-786Nm
- Includes rechargeable torch

Features:

- 922ft-lbs (1,250Nm) of maximum torque in reverse
- Durable aluminium back housing
- Insulated and comfortable grip with rubber-injected composite housing
- Universal and durable twin hammer mechanism

Benefits:

- Maximise work efficiency with great power
- Most powerful 1/2" impact wrench in the range
- Extremely fast run down for quick work
- Reduced operator fatigue



1/2" Composite

0219

CP7748

Tech Sheet 60251

Features:

- 1" straight impact wrench with 6" extended anvil
- 1,920ft-lbs (2,600Nm) of maximum torque in reverse
- Pinless, closed, reinforced rocking dog impact mechanism
- Dual socket retention, hole and friction ring
- Ergonomic side handle
- Full teasing trigger
- Regulator with integrated forward/reverse, with three position power settings in both directions

Benefits:

- Highly efficient yet economical motor with durable reinforced clutch mechanism
- Durable impact wrench with great power for the toughest jobs on heavy vehicles



1" Heavy-duty

0219

CP7782-6

Tech Sheet 60196

AIR TOOLS

Drills

Features:

- Compact low profile head to get in to confined space
- Reverse valve for easy directional change
- High performance gearing for extended durability

Benefits:

- Compact angle head drill
- Operator control from start up through run down
- Ideal for drilling and screw driving in confined area



3/8" Angle Drill

0219

CP879

Tech Sheet 3074

Features:

- Fast and efficient at 2,900rpm
- Industrial quality Jacob's chuck
- Ergonomic grip

Benefits:

- Productivity and durability
- Maximise operator comfort
- Power suitable for many applications



3/8" Pistol Drill, Heavy-duty

0219

CP9285

Tech Sheet 3076

Ratchet

Features:

- 1/2" ratchet
- Compact head design
- Hardened gears

Benefits:

- Good durability
- Easy grip reverse for simple directional changes



1/2" Ratchet

0219

CP886H

Tech Sheet 60202

Riveters

Features:

- Compact size and composite body
- 3/16" maximum capacity
- Heavy pulling: up to 1,900lbs (865kg)
- Low vibration and low noise level
- Includes: 3/32", 1/8", 5/32" and 3/16" (2.4, 3.2, 4 and 4.8mm) nose pieces

Benefits:

- Broad applications coverage
- Durable, reliable and easy to service
- Maximise operator comfort



3/16" Riveter, Heavy-duty

0219

CP9883

Tech Sheet 3092

Features:

- Air riveter for general maintenance
- Compact size
- 3/16" maximum capacity
- For rivets in aluminium, copper and softer materials
- Heavy pulling: up to 2,200lbs (1,000kg)
- Transparent container with holes for quick release of rivet ends
- Includes nose pieces for rivets: 3/32", 1/8", 5/32" and 3/16" (2.4, 3.2, 4 and 4.8mm)

Benefits:

- Simple construction for easy maintenance
- Great for trailer panels, number plates, and any type of panels maintenance



General Purpose Riveter

0219

CP9882

Tech Sheet 60205

Grinders

Features:

- Keyless adjustable protective guard
- Aluminium alloy housing
- Helical bevel gear design
- 5" (125mm) wheel capacity
- M14 spindle thread
- 0.8hp (600W) governed motor
- Ergonomic side handle

Benefits:

- Suitable for general maintenance applications
- Lightweight but rugged housing
- Durability and performance



5" Angle Grinder

0219

CP9121AR

Tech Sheet 60204

Features:

- 3mm and 1/8" collets included
- Very low noise level – only 71dB(A)
- Good power/size ratio with 60,000rpm high free speed

Benefits:

- Extremely easy to handle, quiet and lightweight
- Ideal for tight access application



Compact Pencil Grinder

0219

CP9104Q

Tech Sheet 3084

Features:

- Powerful 0.8hp (600W) motor
- Adjustable protective guard and aluminium alloy housing
- Spiral bevel gears
- Ergonomic side handle

Benefits:

- Excellent for weld preparation and smoothing, rust removal, deburring and blending of steel, cast iron and aluminium
- Lightweight but rugged housing
- Durability and performance



4" Angle Grinder, Heavy-duty

0219

CP9120CR

Tech Sheet 3089

Features:

- Efficient and powerful 0.32hp (240W) motor
- Low noise level: 80dB(A)
- Easy access speed regulator
- Compact and ergonomic grip
- Rear exhaust
- 1/4" and 6mm collets included

Benefits:

- Maximised operator comfort
- Performance and power
- Increased precision for best operator control
- Ideal for confined access applications



Compact In-line Die Grinder

0219

CP9105QB

Tech Sheet 3086

AIR TOOLS

Sanders

Features:

- PSA sanding pad
- Insulated grip and lock-off throttle to prevent accidental start-ups
- Power regulator for precise control

Benefits:

- Excellent for blending and smoothing filler, feather edging and pre-paint preparation
- Operator comfort



Dual Action Sander

0219
CP870

Tech Sheet 3081

Features:

- Quick change belt replacement
- Adjustable sanding arm
- Handle exhaust and swivel air inlet
- Rubber moulded grip

Benefits:

- Excellent for paint removal, weld sanding, smoothing and rust removal in tight areas
- Operator comfort



Belt Sander

0219
CP9779

Tech Sheet 3083

High Speed Cutter

Features:

- Wheel diameter 2.7/8"
- Adjustable speed regulator
- Safety lever to prevent accidental start up
- Rear exhaust

Benefits:

- Ideal for cutting through composite, sheet metal, bolts, etc.
- Precise and safe control



High Speed Cutter, Standard Duty

0219
CP874

Tech Sheet 3095

Hammer Kit

Features:

- Heavy-duty pistol grip hammer
- Standard .401 round shank
- Internal muffler minimises exhaust sound
- Unique vibration damping
- Teasing trigger for slow start-up

Benefits:

- Maximise operator comfort and control
- Smooth operation
- Low vibrations to maximise productivity

Kit Includes:

- Four chisels
- One posi-lock retainer
- Heavy-duty case



Hammer Kit, Heavy-duty

0219
CP7110 KIT

Tech Sheet 60207




For **BE Couplings**
see pages **325-328**

Swivel Connector

The MultiFlex swivel is an ingenious multidirectional connector. Connect your tool and the hose will stay in the ideal position however much you and the tool move around. The MultiFlex bends and rotates 360° in all directions while the hose stays straight. It takes the effort out of working in those cramped spaces, the hose feels almost weightless and it reduces hose wear.

Features and Benefits

- Improved ergonomics; less strength is needed to move around tool and hose
- Reduced hose wear
- High flow capacity and low pressure drop
- Strong and durable for long lifetime



Working Temperature:
-10°C to +70°C

Maximum Working Pressure:
10 bar

BSPP

0454	Thread
MFCB-02	1/8"
MFCB-04	1/4"
MFCB-06	3/8"
MFCB-08	1/2"
Tech Sheet 20443	

NPT

0454	Thread
MFCN-02	1/8"
MFCN-04	1/4"
MFCN-06	3/8"
MFCN-08	1/2"
Tech Sheet 20443	



For **Hose Reels**
see pages 1448-1453

Blind Riveter 3/16" Capacity

Features:

- Maximum rivet capacity: 3/16"
- Air pressure: 90 PSI
- Tool length and height: 271mm x 255mm
- Tool weight: 1.75kg
- Air inlet: 1/4" BSPP female
- Air consumption: 4.2 cfm
- Sound pressure: 73 dB (A)
- Sound power: 65 dB (A)
- Vibration level: 0.7 m/s²



0088

2017-0460

Paint Spray Guns



Code	Flow	Bowl Capacity	Inlet	Hose ID
W-97	Suction	1000cc	1/4"	3/8"

Code	Average Air Consumption		Working Pressure cc		Nozzle mm
	CFM	Litres/min	psi	kg/cm ²	
W-97	10	280	50-70	3.5-5.0	1.5

High Pressure Spray Gun

0088

W-97

Type

Gun & Bowl

Tech Sheet 20434

Tool Balancers

Plastic coated steel wire.



0088	Kg	Length Metres
2021-0209	0.6-1.5	1.6
2021-0217	1-2	1.6
2021-0225	1.5-3	1.5
2021-2030	3-5	0.9
Tech Sheet 20433		

A complete range of balancers, capabilities from 0.4 to 14kg, available stroke up to 2.5m. To eliminate labour, to cut down idle times, to improve work quality, to reduce hose and cable wear and to avoid both damage to people and tools. For either bench or assembly line jobs, applications ranging from small tools to industrial guns and multiple screwdrivers.

Features:

- Stainless steel cable
- Auxiliary safety suspension
- Adjustable stroke-limiting device
- Adjustable capacity
- Polyamide thimble
- Rugged construction, cast aluminium body
- (Models 2-3) safety device against load dropping due to spring breakage (>3kg)
- Cable guide in anti-friction material



Redashe

For Tools & Weights from 0.4 to 14Kg

0122	Kg	Length Metres
M9311	0.4-1	1.6
M9312	1-2	1.6
M9313	2-3	1.6
M9320	1-2.5	2
M9321	2-4	2
M9322	4-6	2
M9323	6-8	2
M9336	2-4	2.5
M9337	4-6	2.5
M9338	6-8	2.5
M9339	8-10	2.5
M9340	10-14	2.5

Ambersil



For Paint Marker Pens
see page 1582

Professional Tyre Inflator

Features:

- Body: zinc alloy and aluminium, 1/4" female
- Hose: 1/4" x 33cm rubber hose with spring guard
- Chuck: 1/4" female x 6" long with PVC protector
- Chuck material: brass and zinc alloy
- Vibration resistant



Pressure Range:

0-1050 kPa

0-150 PSI, 0-10 kg/cm²

0088

IG400

Tech Sheet 1948



Tyre Inflators



In-line

1305

TG-4



Trigger

1305

TG-3

TYRE INFLATION EQUIPMENT

Jamec Auto 1000 Automatic Tyre Inflator



1470	Connector Style
11.06120S2	Single Clip-on

Jamec TDR2000 Tyre Inflator , 500mm/20" Hose



1470	Similar To	Connector Style	Calibration
10.20000S	AFG4H03	Angled Twin Hold-on	0-138 PSI/ 0-960 kPa

Jamec TDR2000 Tyre Inflator , 2.7 Metres/9' Hose



1470	Similar To	Connector Style	Calibration
10.20000S4	AFG4H03	Single Clip-on	0-138 PSI/ 0-960 kPa

Jamec TDR Digital Tyre Inflator Twin Clip-on Connector, 2.7 Metres Hose



1470	Connector Style	Calibration
10.30120S2	Angled Twin Clip-on	+/- 2 PSI at 25 - 75 PSI

Jamec Single Clip-on Connector, Open End



1470	Similar To	Connection	Thread
03.04470S	C08T73	Single Clip-on	1/4" BSPF

Jamec Twin Hold-on Connector, Open End



1470	Similar To	Connector Style	Thread
03.04650S	C01A03	Angled Twin Connector	1/4" BSPF

Jamec Twin Hold-on Connector, Closed End



1470	Similar To	Connector Style	Thread
03.04720S	C01B03	Angled Twin Connector	1/4" BSPF

Jamec Twin Clip-on Connector, Open End



1470	Valve Connection Type	Style
03.0435NS0S	Twin Clip-on	Open Ends

Jamec Twin Clip-on Connector, Closed End



1470	Valve Connection Type	Style
03.0435N0S	Twin Clip-on	Closed Ends

TYRE INFLATION EQUIPMENT

Car Tyre Inflator

 **Maximum Working Pressure:**
12 bar



With Clamping Nipple, 1/4" BSPP Inlet

1307	Gauge Ø mm
150120-134	63
150130-134	80

Tech Sheet 20437



 **Maximum Working Pressure:**
12 bar

With Twin Connector, 1/4" BSPP Inlet

1307	Gauge Ø mm
150123-134	63
150131-134	80

Tech Sheet 20437

QT Connector for airtight connection

- New cars are fitted with TPMS valves, which requires precise air pressure in the tyre and here the QT Connector is the right solution. It is light and simple to connect and is completely airtight even at 9 bar.
- QT Connector has been tested for over 100,000 activations and is still completely airtight and fully functional.
- You can easily and simply connect the QT Connector to the valve with one push. Pull back the locking ring to release it again.



Tyre Inflator with QT Connecto

1307	Gauge Ø mm
151120-134	63

Precise - Air Boy® eXact

The high measuring accuracy - 0.01 bar combined with the airtight QT-Connector makes the Air Boy® eXact the perfect choice for inflating tyres with TPMS valves.

Durable - Air Boy® eXact

The electronics are protected from impact and the strong construction withstands a free fall from even 2 metres on a concrete floor. Thoroughly tested and approved by Force Technology. Significantly better than the stringent DS/EN 12645:2014 standard for inflating guns. IP65 Approved.

Ergonomic - Air Boy® eXact

The display is easy to read with large numbers and backlighting. Optimal in both left and right hand. Easy to hang from your belt with the inbuilt "eye".



Calibrated - Air Boy® eXact


All guns are individually tested and come together with a calibration certificate. The Air Boy® eXact measures tyre pressures in the range of 0.2 to 10 bar with a resolution of 0.01 bar.

Air Boy® eXact Digital Inflating Gun with QT Connector , 1/4"

1307	Gauge
156100-134	Digital

The QT connector is extremely airtight when connected. No air is leaking from the QT connector - even at 9 bar/130 PSI. A tight connection is a must for an accurate pressure reading and with TPMS sensors on all new cars an accurate measurement is more important than ever.

 **Working Temperature:**
-20°C to +60°C

 **Maximum Working Pressure:**
16 bar, 232 PSI



QT Connector

1307	Connection
116002	Internal 1/4"
116021	3/16" (5.5mm) Hose
116022	1/4" (6.5mm) Hose

TYRE INFLATION EQUIPMENT



PCL's handheld tyre inflation products are recognised internationally as the brand to buy, due to their reputation for speed, safety and ease of use and readability.

AIRFORCE MK4 Air Line Gauges (Open End)

A new and improved version of the highly regarded MK3 tyre inflator.

- Open-end: unvalved (air straight through)
- Hold-on: hold onto valve to inflate
- Clip-on: clip slides down to hold on to valve to inflate
- Supplied with a certificate of calibration



Inflation pressures
up to 138 PSI / 9.6 bar

MK4

7001	Hose Length	Connector
AFG4H03	0.53m (21")	Twin Hold-on Connector
AFG4H04	0.53m (21")	Single Clip-on Connector
Tech Sheet 60250		

MK4 Tyre Shop

Inflation pressures
up to 138 PSI / 9.6 bar

7001	Hose Length	Connector
AFG4H05	1.8m (6ft)	Twin Clip-on Connector
AFG4H06	2.7m (9ft)	Twin Clip-on Connector
AFG4H061	2.7m (9ft)	Single Clip-on Connector
Tech Sheet 60250		

Forecourt

Inflation pressures
up to 138 PSI / 9.6 bar

7001	Hose Length	Connector
AFG4H031	0.36m (14")	Short Stem Twin Hold-on

Truck

Inflation pressures
up to 174 PSI / 12 bar

7001	Hose Length	Connector
AFG5H36	3.6m (12ft)	Twin Clip-on
Tech Sheet 60250		

High Pressure

Inflation pressures
up to 300 PSI / 21 bar

7001	Hose Length	Connector
AFG6H04	1.8m (6ft)	Single Clip-on

Analogue AirForce II Handheld Tyre Inflator

Featuring a user-friendly dial display for fast, trouble-free tyre inflation, the AirForce II, with its high performance mechanical dial, boasts industry-standard EC Directive BS EN12645:2014 approvals and certifications for accuracy, reliability and robustness.

Inflation pressures
up to 170 PSI / 12 bar



7001	Hose Length	Connector
AFG1H08	1.8m (6ft)	Euro Clip-on
AFG1H03	0.53m (21")	Twin Hold-on

Digital ACCURA 1 Handheld Tyre Inflator

PCL's ACCURA 1 broke the mould for handheld units, merging ease of use and readability with rapid, safe and cost-effective tyre inflation

Inflation pressures
up to 174 PSI / 12 bar



7001	Hose Length	Connector	Calibration
DAC1C08	1.8m (6ft)	Euro Clip-on	0-12 bar
DAC1A06	2.7m (9ft)	Twin Clip-on	0-174 PSI
DAC1A03	0.53m (21")	Twin Hold-on	0-174 PSI

ACCURA MK4 Digital Tyre Inflator

The ACCURA MK4 tyre inflator marries the ruggedness of a metal analogue inflator with the lightness, accuracy and ease of use of a digital gauge.

Features:

- Extremely robust aluminium body with protective rubber bumper
- Permanently backlit in use, auto off after 25 seconds no-use (easy to read in dark workshops or at night)
- Three units of calibration toggle as standard (PSI, bar and kPa)
- The lightest digital inflator on the market
- Higher pressure range for multiple applications
- Individually tested and certified against national approved gauge

Inflation pressures
up to 250 PSI / 17.2 bar / 1723 kPa



7001	Connection	Hose Length
DAC403	Twin Hold-on	0.53m (21")
DAC404	Single Clip-on	0.53m (21")
DAC405	Twin Clip-on	1.8m (6ft)
DAC406	Twin Clip-on	2.7m (9ft)
DAC4061	Single Clip-on	2.7m (9ft)
DAC436	Twin Clip-on	3.6m (12ft)

Alloy Tyre Inflator

This general purpose tyre inflator, with its durable, alloy body and rubber protected gauge, is ideal for lower volume and non-commercial applications.



7001	Hose Length	Connector
ADTG4	0.85m	Euro Clip-on

TYRE INFLATION EQUIPMENT

Tyre Valve Connectors

- Open end: unvalved (air straight through)
- Closed end: valved (operates when valve opens tyre valve)
- Hold-on: hold onto valve to inflate
- Clip-on: clip slides down to hold onto valve to inflate

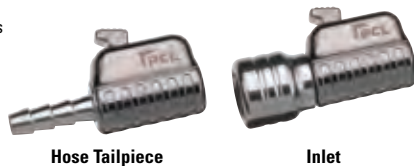


7001	Description
CO1A03	Twin Hold-on Connector (Open End)
CO1B03	Twin Hold-on Connector (Closed End)
CO3A03	Twin Clip-on Connector (Open End)
CO3B03	Twin Clip-on Connector (Closed End)
CO8E72	Euro Style Single Clip-on Connector (Open End) for 4.75mm (3/16") Bore Hose

Straight, Single Clip-on Air Connectors

Features and Benefits

- Once the new PCL Air Connector is on, it stays on - no air leakage
- Simple but effective thumb push button - quickly releases the tyre valve, reducing non-value added time
- 360° swivel motion
- Simply turn clockwise to achieve even more grip
- Open end connector
- Suitable for use in tyre shops



Hose Tailpiece

Inlet

7001	Thread Size
CH2K01	7.9mm, 5/16" Bore Hose
CH2H01	6.35mm, 1/4" Bore Hose
CH2A01	1/4" BSPP Inlet

Angled, Single Clip-on Air Connectors



Hose Tailpiece

Inlet

7001	Thread Size
CH4K01	7.9mm, 5/16" Bore Hose
CH4H01	6.35mm, 1/4" Bore Hose
CH4A01	1/4" BSPP Inlet

Tyre Pressure Gauges

Includes integral pocket clip and removable protective cap.

- Complies to BS EN12645:2014
- Accuracy +/- 2 PSI



Pocket Service Type, Dual Calibrated

7001	Calibration	Resolution
TPG4H01	10-120 PSI / 0.8-8.2 bar	2 PSI / 0.2 bar

Includes integral pocket clip and removable protective cap.

- Complies to BS EN12645:2014
- Accuracy +/- 2 PSI



Pocket Type, Angled Head, Dual Calibrated

7001	Calibration	Resolution
TPG3H07	10-120 PSI / 0.8-8.2 bar	2 PSI / 0.2 bar
TPG1H07	6-50 PSI / 0.5-3.4 bar	1 PSI / 0.1 bar

Tread Depth Gauge

PCL's "Made in Sheffield" tyre Tread Depth Gauge is manufactured to stringent quality standards and is DVSA (previously VOSA) MOT centre approved.



7001	Description
TDG16C05	1.6mm Marking

PCL Dial Type Tyre Gauge

Designed for simplicity and convenience of use, the dial type "TyreCheck" pressure gauge is the professional's choice of dial pressure gauge for fast, clear and accurate readings.



7001	Description
DPG1H08	0-170 PSI & 0-12 bar, Euro Clip-on Connector



Transair: Modular Pipe Systems

- Lower pressure drop
- Air quality class 1-1-1
- Safest connection technologies
- Labour and installation time reduced
- Services to support your project



ENGINEERING YOUR SUCCESS.

1 Hydraulics **3-284**

2 Hydraulic Quick Release Couplings **285-320**

3 Pneumatic Quick Release Couplings **321-406**

4 Monitor & Test **407-446**

5 Pneumatic & Vacuum **447-762**

6 Push-in Fittings & Tubing **763-918**

7 Valves & Actuation **919-1060**

8 Ring Main **1061-1136**

9 Hose Tails, Adaptors, Fittings & Manifolds **1137-1224**

10 Stainless Steel **1225-1332**

11 Malleable Iron **1333-1398**

12 Hose, Couplings, Ducting & Hose Reels **1399-1510**

13 Clips & Clamps **1511-1558**

14 Paint, Sprays & Adhesives **1559-1590**

15 Blow Guns, Vacuum & Nozzles **1591-1616**

16 Fuelling, Lubrication, Wash Down & Misting **1617-1696**

17 Compressors & Air Tools **1697-1726**

18 Hand Tools & PPE **1727-1765**

SECTION 18

Hand Tools & PPE

18.01 Hand Tools **1727-1749**

18.02 PPE & Safeguarding Equipment **1750-1765**

SECTION 18

Hand Tools & PPE

18.01 Hand Tools

- Industrial Grade Hand Tools
- Torches Work Lamps & Lighting
- Professional Tools
- Interchangeable Storage & Display System



Redashe

1727-1749



18.02 PPE & Safeguarding Equipment

- PPE & Safeguarding Equipment
- Industrial Cleaning Equipment
- Engineering Consumables



1750-1765



Industrial Grade Hand Tools

TOTAL

Tools designed for ergonomic comfort, ease of use and manufactured to last

- Contoured for effortless performance with textured hard-wearing rubber for an incredibly comfortable grip
- Rigorous testing ensures a superior quality tool every time
- Exceptional quality, competitively priced
- Once you use Total Tools, no other brand will compare

Cutting & Grinding



Wire Cup Brush, 100mm

0455	Wire Diameter mm	Thread
TAC31041	0.3	M14 x 2



Twist Wire Cup Brush, 100mm

0455	Wire Diameter mm	Thread
TAC32041	0.5	M14 x 2



Turbo Diamond Disc Wet & Dry Cut

0455	Diameter mm
TAC2131151	115

Drill Accessories



M2 HSS Individual Drill Bits

0455	Diameter mm	Total Length mm	Useable Length mm
TAC110401	4	75	43
TAC110601	6	93	57
TAC111001	10	133	87
TAC111201	12	151	101
TAC111301	13	151	101

- 6 x HSS twist drill bits, 2, 3, 3.5, 4, 5 and 6mm
- 4 x masonry drill bits, 4, 5, 6 and 8mm
- 6 x 25cm screwdriver bits, SL4.5, SL5.5, PH1, PH2, PZ1 and PZ2
- Packed in a double blister



Drill & Screwdriver Bits Box Set, 16 Pieces

0455	Size mm
TACSD3165	2-6

- 19 x HSS Twist Drill bits: 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5mm, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5 and 10mm.
- Packed in a plastic box



19 Piece HSS DIN 338 Twist Drill Bits Set

0455	Size mm
TACSD0195	1-10

- 6 x metal drill bits: 2, 3, 4, 5, 6, 8mm
- Packed in a plastic box



6 Piece HSS DIN 338 Twist Drill Bits Set

0455	Size mm
TACSD0065	2-8

- 5 x SDS PLUS Drill bits: 6 x 110mm, 8 x 110mm, 10 x 110mm, 10 x 160mm and 12 x 160mm.
- Packed in a plastic box



5 Piece Hammer SDS Drill Bits Set

0455	Size mm
TAC190501	6 x 110 to 12 x 160

- 5 x Masonry Drill bits: 5 x 85mm, 6 x 100mm, 6.5 x 120mm, 8 x 120mm, 10 x 120mm
- Packed in a plastic box



5 Piece Masonry Drill Bits Set

0455	Size mm
TACSD5051	5 x 85 to 10 x 120

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Jig Saw Blades

- Metal Progressive HSS Wavy set.
- 5 x for Metal
- 12 TPI



Metal Jig Saw Blade Set, 5 Pieces

0455
TACS1118B

- Metal Fast cut HSS Wavy set.
- 2 x for Wood 8 TPI, 2 x for Metal 12 TPI, 2 x for Aluminium 8 TPI.



Assorted Jig Saw Blade Set, 5 Pieces

0455
TACS1051

Hole Saw Set

- Sizes: 20, 22, 25, 32, 35, 38, 44, 48 and 50mm
- 2 piece hole saw arbours
- Supplied in a strong aluminium case



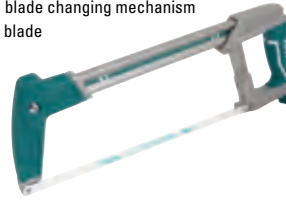
Bi-metal, 12 Pieces

0455
TACSH1121

Size mm
20-50

Hacksaws

- Material: heavy-duty steel frame, aluminium/ABS/TPR handle
- Strong and comfortable with adjustable tension
- Quick release blade changing mechanism
- 1 x 65Mn saw blade



Heavy-duty

0455
THT54106

Frame Size
12"

- Length: 12" (300mm)
- Adjustable handle frame with soft grip
- 1 x 65Mn saw blade
- Supplied on paper card



Standard

0455
THT54166

Frame Size
12"

Saw



12" Back Saw

0455
THT59126B

TPI
11

- Size: 300 x 140 x 80
- Thickness: 20mm
- 1 piece back saw
- Size: 300mm/12" - 11 TPI



Mitre Box & Back Saw Set

0455
THT59126

- Size: 20" / 500mm.
- Material: Taiwan SK57TPI, Heat treated teeth.
- Triple teeth (precision ground on 3 edges).
- Two colour soft grip handle.



20" Hand Saw

0455
THT55206D

Files

- Length: 8" (200mm)
- 1 x flat steel fil
- 1 x half round steel fil
- 1 x round steel fil
- 1 x triangle steel fil
- 1 x square steel fil
- Material: T12 steel
- Packed in a double blister



File Set, 5 Pieces

0455
THT918516

Length
8"



File Set, 6 Pieces

0455
THT91462

Size
6"

Riveter

- Length: 10.5"
- Rivet sizes: 2.4, 3.2, 4.0 and 4.8mm
- Material: Aluminium alloy body



Hand Riveter

0455
THT32105

Wire Brush

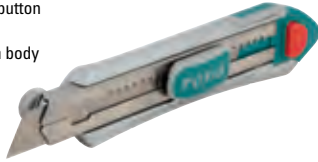


0455
THT92102

Length mm
250

Cutting Tools

- Length: 185mm
- 6 x SK5 blades
- Blade locking bolt
- Flat push button
- Material: aluminium body
- Net weight: 220g
- Packed in a double blister



Snap Off Blade Knife

0455	Blade Size mm
TG5121806	18 x 100

- 6 x SK5 blades
- Material: zinc alloy shell
- Net weight: 256g
- Packed in a double blister



Utility Knife

0455	Blade Size mm
TG5126101	19 x 61

- 15 Functions**
- 1 x large knife
 - 1 x can opener
 - 1 x Phillips screwdriver
 - 1 x leather punch
 - 1 x bottle opener
 - 1 x scissors
 - 1 x needle
 - 1 x slotted screwdriver
 - 1 x fish scale
 - 1 x hook remover
 - 1 x saw
 - 1 x corkscrew
 - 1 x nail cleaner
 - 1 x nail fil
 - 1 x key ring
 - Strong aluminium handle
 - Length: 9.5cm
 - Packed on a plastic hanger



Multifunction Knife

0455	
THMFK0156	



Folding Knife

0455	Blade Size mm
THT513613	19 x 61

Aviation Snips

- Material: carbon steel
- Supplied on a plastic hanger



Right Handed

0455	Length
THT523106	10"

- Material: carbon steel
- Supplied on a plastic hanger



Straight

0455	Length
THT522106	10"

Pliers

- Length: 8" (200mm)
- Material: Cr-V
- Supplied on a plastic hanger



Wire Stripping Pliers

0455	Length
THT25616	6"

Pipe Cutters

- Material: aluminium
- Packed in a double blister
- Length: 210mm



Basic PVC Pipe Cutter

0455	Range mm
THT53351	3-35

- Material: aluminium
- Packed in a double blister



PVC Pipe Cutter, Automatic Opening

0455	Range mm
THT53422	3-42



Copper & Aluminium Pipe Cutter

0455	Range mm
THT53321	3-32

Cable Cutters

- Length: 6" (154mm)
- Material: Carbon Steel



6" Cable Cutter

0455	Length
THT11561	6"

- Length: 10" (254mm)
- Material: carbon steel
- Packed in a half double blister



Heavy-duty Cable Cutter

0455	Length
THT115102	10"

- Blades Material: 65Mn
- Used for cutting copper and aluminium cable
- Not for cutting ACSR, wire rope, steel or self-supporting strand
- Cutting Area: 450mm²
- Body heat treatment, cutting edges induction quenched



Comfortable Rubber Handle



65Mn

Copper and aluminum cables

Cable Cutter 36"

0455	Length
THT115242	24"
THT115362	36"

- Cr-V blade
- Black finish and polis
- TPR two colour handle



Comfortable Rubber Handle



Cr-V

Bolt Cutter 42"

0455	Description
THT113426	Cr-V 42"

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Bolt Cutters

- Length: 8" (200mm)
- Material: Cr-V



8" Mini Bolt Cutter

0455	Length
THT11386	8"

- Length: 14" (355mm)
- Material: Cr-V



14" Bolt Cutter

0455	Length
THT113146	14"

- Material: Cr-V
- Supplied in a poly bag



24" Bolt Cutter

0455	Length
THT113246	24"

Wrecking Bar



48" Wrecking Bar

0455	Size mm
THT431482	1200 x 29 x 15

Sledge Hammer



0455	Description
THT750416	10lb Sledge Hammer

Hammers

- Drop forged head and fibreglass handle



Machinist Hammer

0455	Gram
THT715006	500

- Dropped forged head and fibreglass handle



Stoning Hammer

0455	Gram
THT7215006	1500

- Drop forged head and fibreglass handle



All Steel Claw Hammer

0455	Weight
THT7143166	16oz/450g

- Drop forged head and fibreglass handle



Ball Pein Hammer

0455	Weight
THT74246	24oz/660g

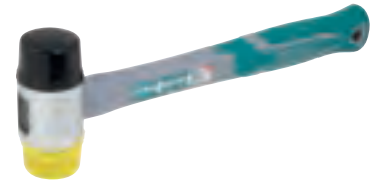
- Fibreglass handle



Rubber Mallet

0455	Weight
THT761616	16oz/450g

- Rubber head with fibreglass handle



Dual Rubber & Plastic Hammer

0455	Size mm
THT77406	40

- Weight: 2lb
- Non-rebounding
- Non-marring plastic faces
- Non-spark



Dead Blow Mallet

0455	Description
THT79021	2lb Dead Blow Mallet

Chisels

- Material: Cr-V
- Blade width: 6, 12, 19 and 25mm

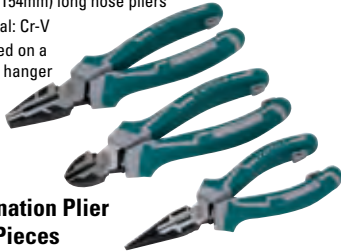


Wood Chisel Set, 4 Pieces

0455	Size mm
THT41K0401	6, 12, 19 & 25

High Leverage Pliers

- 1 x 8" (200mm) combination pliers
- 1 x 7" (180mm) diagonal cutting pliers
- 1 x 6" (154mm) long nose pliers
- Material: Cr-V
- Supplied on a plastic hanger



Combination Plier Set, 3 Pieces

0455	Length
THT2K0301S	

- Length: 7" (180mm)
- Material: Cr-V
- Saving 30% strength against standard pliers
- Supplied on a plastic hanger



Combination Pliers

0455	Length
THT210706S	7"
THT210906S	9"

- Length: 8" (200mm)
- Material: Cr-V
- Supplied on a plastic hanger



8" Combination Pliers

0455	Length
THT210806	8"

- Length: 6" (154mm)
- Material: Cr-V
- Supplied on a plastic hanger



Long Nose Pliers

0455	Length
THT220606	6"

- Length: 8" (200mm)
- Material: Cr-V
- Supplied on a plastic hanger



Long Nose Pliers

0455	Length
THT220806S	8"

- Length: 7" (180mm)
- Material: Cr-V
- Supplied on a plastic hanger



Cutting Pliers

0455	Length
THT230706	7"

Pliers

- Length: 6" (154mm)
- Material: Cr-V
- Supplied on a plastic hanger



End Cutting Pliers

0455	Length
THT260606	6"

- Length: 8" (200mm) and 10" (254mm)
- Material: Cr-V
- Supplied on a plastic hanger



Rabbit Pliers

0455	Length
THT2881	8"
THT28101	10"

- Length: 6" (154mm)
- Material: Cr-V
- Supplied on a plastic hanger



Carpenters Pliers

0455	Length
THT290801	8"

- Length: 6" (152mm)
- Material: Cr-V
- Supplied on a plastic hanger



Bent Nose Pliers

0455	Length
THT24616	6"

- Length: 10" (254mm)
- Material: Cr-V
- Supplied on a plastic hanger



Pump Pliers

0455	Length
THT281006	10"

- Material: Cr-V nickel plated
- Packed in a half double blister



Curved Jaw Locking Pliers

0455	Length
THT191001	10"

- Material: Cr-V nickel plated
- Supplied on a plastic hanger



Straight Jaw Pliers

0455	Length
THT191002	10"

- Length: 10" (254mm)
- With sharp edge for cutting and push down wire function
- Will strip 6 wire sizes and 5 copper screw sizes
- Supplied on sliding card



Wire Stripping Pliers

0455	Length
THT15101	10"

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Wrenches

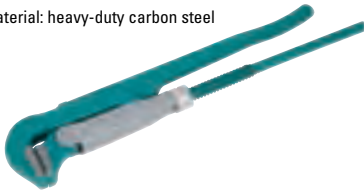
- Supplied on a plastic hanger
- 6" adjustable clamp size diameter 0-24mm
- 8" adjustable clamp size diameter 0-30mm
- 10" adjustable clamp size diameter 0-35mm
- 12" adjustable clamp size diameter 0-41mm



Adjustable Wrenches

0455	Length
THT101066	6"
THT101086	8"
THT101106	10"
THT101126	12"

- Material: heavy-duty carbon steel



90° Swedish Pipe Wrenches

0455	Description
THT172011	1"
THT172021	2"

- Body material: ductile cast iron



Pipe Wrenches

0455	Length	Max. Clamping Diameter mm
THT170806	8"	27
THT171206	12"	42
THT171186	18"	60
THT171246	24"	76
THT171366	36"	85
THT171486	48"	110

- 1 piece double open end wrench: 9-14mm, 15-22mm
- 1 piece single open end wrench, 23-32mm
- Chrome plated
- TPR two colour handle



Bent Wrench Set (2 Pieces)

0455	Length
THT10309328	2 Piece Bent Wrench Set

- Size: 10"/250mm.
- Clamping diameter: 14-40mm.
- Carbon steel.
- Black finish and polish
- Packed by poly bag.



Ratcheting Pipe Wrench 10"

0455	Length mm
THT171102	14-40

- Size: 14"/350mm.
- Clamping diameter: 18-52mm.
- Carbon steel.
- Black finish and polish
- Packed by poly bag.

Ratcheting Pipe Wrench 14"

0455	Length mm
THT171142	18-52

Screwdrivers

- Material: Nickel plated
- 10 piece set: PH2 and SL6.0 (65mm)
- Supplied in a plastic box



Double Ended Bits Set, 10 Pieces

0455
TAC16HL133

- PH1, PH2, PH3, SL4.0, SL5.5, SL6.5, PZ1, PZ2
- 1 x magnetic bit holder with quick release
- Material: S2 industrial steel, magnetic



Screwdriver Set, 9 Pieces complete with Bit Holder

0455
TACSD3091

- Material: Cr-V
- Size: 3/6mm, 6/8mm, 8/11mm, 11/14mm, and 14/18mm
- Supplied in a plastic box



Screw Extractor, 5 Pieces

0455
TACSE0051

- Material: Cr-V



Phillips Head

0455	Size	Diameter mm	Length mm
THT22386	PH2	6	38

Screwdrivers

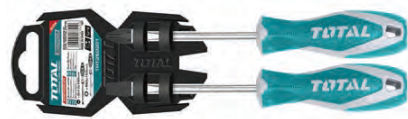
- Material: S2 industrial steel



Go-thru Screwdriver, Slotted Head

0455	Size mm	Length mm
THTGTS8200	8.0	200

- Material: Cr-V
- 1 x SL6.5 - 6" (125mm)
- 1 x Phillips PH2 - 6" (125mm)
- Supplied on a plastic hanger



Screwdriver Set, 2 Pieces

0455
THT250201

- Material: Cr-V
- 1 x SL5.5 (75mm) 1 x SL5.5 (100mm) 1 x SL6.5 (150mm)
- 1 x PH1 (75mm) 1 x PH1 (100mm) and 1 x PH2 (150mm)
- Supplied on a hanger card



Screwdriver Set, 6 Pieces

0455
THT250606

- Ergonomic comfort-grip handle
- SL2.0 x 50, SL2.5 x 50, SL3.0 x 50, PH00 x 50, PH0 x 50, T6 x 50, T8 x 50
- Material: Cr-V



Precision Screwdriver Set, 7 Pieces

0455
THT250726

- Material: Cr-V
- 1 x SL3.0 (75mm), 1 x SL5.5 (100mm), 1 x SL6.5 (150mm)
- 1 x SL6.5 (38mm), 1 x PH0 (75mm), 1 x PH1 (75mm), 1 x PH2 (125mm) and 1 x PH2 (38mm)
- Supplied on a hanger card



Screwdriver Set, 8 Pieces

0455
THT250608

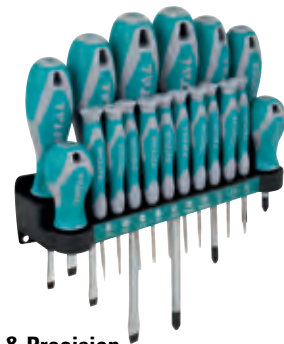
- Material: Cr-V
- 1 x SL3.0 (75mm), 1 x SL4.0 (100mm), 1 x SL5.5 (125mm), 1 x SL6.5 (150mm), 1 x SL8.0 (200mm), 1 x SL6.5 (38mm), 1 x PH0 (60mm), 1 x PH1 (80mm), 1 x PH2 (100mm) and 1 x PH3 (150mm)
- Supplied on a hanger card



Screwdriver Set, 10 Pieces

0455
THT250610

- 8 piece screwdrivers:**
 - SL5.5 (75mm), SL6.5 (100mm), SL8.0 (150mm), SL6.5 (38mm), PH1 (75mm), PH2 (100mm), PH3 (150mm) and PH2 (38mm)
- 10 piece precision screwdrivers:**
 - SL1.5 x 50, SL2 x 50, SL2.5 x 50, SL3 x 50, PH000 x 50, PH00 x 50, PH0 x 50, T6 x 50, T8 x 50 and T10 x 50
- Supplied in a blow moulded case



Screwdriver & Precision Screwdriver Set, 18 Pieces

0455
THT250618

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Screwdrivers

- 1000V VDE
- Material: Cr-V



Insulated Screwdriver, Slotted Head

0455	Size mm	Length mm
THTIS4100	4.0	100
THTIS5125	5.5	125

- 6 pieces insulated screwdriver set:
1 x SL3.0 (75mm), 1 x SL4.0 (100mm), 1 x SL6.5 (150mm),
1 x PH0 (60mm), PH1 (80mm), PH2 (100mm)
- Aluminium frame
- Round shank



Insulated Screwdriver Set, 6 Pieces

0455
THTIS566

- Folding Handle,
- High quality ratchet mechanism.
- 12 pieces 6.35 to 25mm Screwdriver bits.
- Size: SL4, SL5, SL6, SL7, PH0



13 in 1 Ratchet Screwdriver Set

0455	Description
TACSD30136	13 in 1 Ratchet Set

- Material: Cr-V
- 1 x Ratchet Holder,
- 18 x 65mm Screwdriver bit: PH0, PH1, PH2, PH3, PZ1, PZ2, PZ3, SL3, SL4, SL5, SL6, SL7, T10, T15, T20, T25, T27 and T30
- Sockets: 5mm, 6mm, 7mm, 8mm, 9mm and 10mm
- Supplied in a bag and double blister



Screwdriver & Bit Set, 26 Pieces

0455
TACSD30266

- 1 x 7 in 1 unique design industrial ratchet handle
- 20 x 6.35 x 25mm screwdriver bits, SL3, SL4, SL5, SL6 x 2, PH0, PH1, PH2, PH3, PZ1, PZ2, T10, T15, T20, T25, T30, HEX3, HEX4, HEX5
- 1 x 4-6mm (25mm) bits adaptor
- 9 x 1/4" x 20.5mm sockets, 4, 5, 6, 7, 8, 9, 10, 11 and 12mm
- 1 x 125mm strong magnetic bits holder
- 1 x 75mm strong magnetic bits holder
- Supplied in a plastic box



Screwdriver & Bit Set, 33 Pieces

0455
TACSD30336

- 1 x T-handle ratchet wrench
- 9 x 6.35 x 25mm screwdriver bits, SL4, SL5, SL6, PH1, PH2, PH3, PZ1, PZ2, PZ3
- 1 x 5 x 100mm strong magnetic bit holder
- 1 x 4-6mm (25mm) adaptor
- 6 x 1/4" sockets, 5, 6, 7, 8, 9 and 10mm
- Supplied in a plastic box



T-handle Wrench Screwdriver Set, 18 Pieces

0455
TACSD30186

- Material: Cr-V
- 20 x 6.35 x 25mm screwdriver bits: PH0, PH1, PH2, PH2, PH3, SL3, SL4, SL5, SL6, SL8, HEX3, HEX4, HEX5, PZ1, PZ2, T10, T15, T20, T25 and T30
- 1 x 4-6mm (25mm) bits adaptor.
- 1 x 1/4"-3/8" socket adaptor.
- 1Pcs 125mm magnetic bits holder.
- 1Pcs 75mm magnetic bits holder.
- 1 x industrial ratchet.
- Supplied in a plastic box



T Handle Wrench Screwdriver Set, 25 Pieces

0455
TACSD30256

Hexagonal Keys

- Material: Cr-V
- Heat treated and chrome plated



Metric Pocket Pack, 8 Pieces

0455	Size mm
THT1061826	2-8

- Material:Cr-V.
- Size:1.5 - 10mm.
- Long arm.
- Heat treated and chrome plated.
- Packed by double blister.



Long Arm, Hex Key Set, 9 Pieces

0455	Size mm
THT106191	Cr-V 1.5-10mm

- Material: Cr-V
- Heat treated and chrome plated



Ball Point Pocket Pack, 8 Pieces

0455	Size mm
THT1061836	2-8

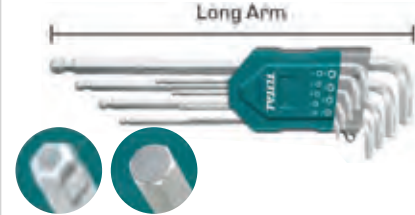
- 9 x keys, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0 and 10mm
- Material: Cr-V
- Heat treated and chrome plated



Ball Point Long Arm Set, 9 Pieces

0455	Size mm
THT106291	1.5-10

- Material: Cr-V Size: 1.5-10mm
- Extra-long arm
- Heat treated and chrome plated



9 Piece Ball Point Hex Key Set Extra Long Arm

0455	Size mm
THT106292	1.5-10

- 9 x keys, T10, T15, T20, T25, T27, T30, T40, T45 and T50
- Material: Cr-V
- Heat treated and chrome plated



Torx Key Long Arm Set, 9 Pieces

0455	Size
THT106391	T10-T50

Socket Sets

1/2" drive (33 pieces)

- 19 x 1/2" hex sockets, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30 and 32mm
- 5 x 1/2" star sockets, W10, E12, E14, E16, E20
- 1 x 1/2" flex handle, 375mm
- 2 x 1/2" extension bars, 75mm (3"), 250mm (10")
- 1 x 1/2" universal joint
- 1 x three way adaptor 1/2" to 3/8"
- 2 x spark plug sockets, 16 and 21mm
- 1 x 1/2" L-handle, 250mm (10")
- 1 x 1/2" ratchet wrench (45T)

3/8" drive (19 pieces)

- 15 x 3/8" 12 point sockets, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 21 and 22mm
- 2 x 3/8" extension bars 75mm (3"), 150mm (6")
- 1 x 3/8" universal joint
- 1 x 3/8" ratchet wrench (45T)

1/4" drive (49 pieces)

- 26 x 1/4" screwdriver bits (25mm) PH0, PH1, PH2, PH2, PH3, PZ0, PZ1, PZ2, PZ3, SL4, SL5.5, SL7, H2, H3, H4, H5, H6, H7, H8, H10, T10H, T15H, T20H, T25H, T27H, T30H and T40H
- 1 x bit holder
- 9 x 1/4" hex sockets 4, 4.5, 5, 5.5, 6, 7, 8, 9 and 10mm

- 5 x 1/4" star sockets E4, E5, E6, E7 and E8
- 3 x 1/4" extension bars 50mm (2"), 100mm (4"), 150mm (6")
- 1 x 1/4" universal joint
- 1 x three way adaptor 3/8" to 1/4"
- 1 x 1/4" spinner handle, 150mm
- 1 x 1/4" flexible extension bar, 150mm
- 1 x 1/4" ratchet wrench (45T)

Other tools (41 pieces)

- 17 x combination spanners, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22 and 24mm
- 5 x flare nut spanners, 8 x 10, 10 x 12, 11 x 13, 12 x 14 and 17 x 19mm
- 10 x hex keys, 2.5, 3, 4, 5, 6, 7, 8, 10, 12 and 14mm
- 1 x machinist hammer, 300g
- 1 x combination pliers, 7"
- 1 x curved jaw lock pliers, 10"
- 2 x slotted screwdrivers (S2), SL6.5 x 100mm, SL6.5 x 150mm
- 2 x Phillips screwdrivers (S2), PH2 x 100mm, PH2 x 150mm
- 2 x stubby screwdrivers, PH2 x 38mm, SL6.5 x 38mm
- Supplied in a blow moulded carry case



Combination Socket Set, 142 Pieces

0455
THKTHP21426

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Socket Sets



162 Piece Tool Chest Set

0455	Description
THTPCS71621	162 Piece Mobile Tool Chest



120 Piece Tools & Accessories

0455	Description
THKTAC01120	

- 13 x 1/4" sockets, 4, 4.5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13 and 14mm
- 1 x 1/4" universal joint
- 2 x 1/4" extension bars, 50mm (2"), 100mm (4")
- 1 x 1/4" spinner handle, 150mm
- 1 x 1/4" ratchet wrench (45T)
- 20 x screwdriver bits, PH1, PH2, PH3, PZ1, PZ2, PZ3, SL4, SL5, SL6, H1.5, H2, H3, H4, H5, H6, T10, T15, T25, T30
- 1 x screwdriver bits holder
- 1 x 1/4" flexible extension bar, 150mm
- 1 x 1/4" sliding T-bar, 114mm
- 4 x hex key wrench, 1.5, 2.0, 2.5, 3.0mm
- Material: Cr-V (50BV30), heat treated
- Supplied in a blow moulded carry case



1/4" Drive Socket Set, 45 Pieces

0455	Size mm
THT141451	4-14

1/4" drive sockets

- 13 x 1/4" sockets, 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13 and 14mm
- 1 x 1/4" universal joint
- 2 x 1/4" extension bars, 50mm (2"), 100mm (4")
- 1 x 1/4" sliding T bar, 114mm
- 1 x 1/4" flexible extension bar, 150mm
- 1 x 1/4" ratchet wrench (45T)

1/2" drive sockets

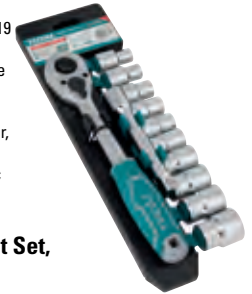
- 18 x 1/2" sockets, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 30 and 32mm
- 1 x 1/2" universal joint
- 2 x 1/2" extension bars, 125mm (5"), 250mm (10")
- 1 x 1/2" sliding T bar, 250mm (10")
- 2 x spark plug sockets, 16 and 21mm
- 1 x 1/2" ratchet wrench (45T)
- Supplied in a blow moulded carry case



1/4" & 1/2" Drive Socket Set, 44 Pieces

0455	Size mm	Size mm
THT421441	10-24 (1/4")	8-32 (1/2")

- 10 x 1/2" sockets, 10, 11, 12, 13, 14, 15, 17, 19 and 24mm
- 1 x 1/2" quick release soft grip ratchet wrench (7ZT)
- 1 x 1/2" extension bar, 125mm (5")
- Supplied on a plastic hanger



1/2" Drive Socket Set, 12 Pieces

0455	Size mm
THT141121	10-24

- 18 x 1/2" sockets, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 30 and 32mm
- 1 x 1/2" universal joint
- 2 x 1/2" extension bars, 125mm (5"), 250mm (10")
- 2 x spark plug sockets, 16 and 21mm
- 1 x 1/2" ratchet wrench (45T)
- Material: Cr-V (50BV30), heat treated
- Supplied in a blow moulded carry case



1/2" Drive Socket Set, 25 Pieces

0455	Size mm
THT121251	10-32

Socket Drives

- (45T)
- Material: Cr-V + Cr-Mo
- Supplied on a plastic hanger



Ratchet Wrench

0455	Size	Length mm
THT106146	1/4"	158
THT106386	3/8"	205
THT106126	1/2"	260

Socket Sets

1/2" Drive 6 Point Sockets

0455	Size mm
THTST12131	13
THTST12211	21
THTST12321	32



Spanner Sets

- 6, 8, 10, 12, 14, 15, 17 and 19mm
- Fine polished
- Supplied on a plastic hanger



Combination Spanner Set, 8 Pieces

0455	Size mm
THT102286	6-19

- 6, 8, 10, 11, 12, 13, 14, 15, 17, 19, 22 and 24mm
- Fine polished
- With roll pouch



Combination Spanner Set, 12 Pieces

0455	Size mm
THT1022121	6-24

- 6, 8, 10, 12, 12, 14, 17, 19, 22, 24, 27, 30 and 32
- Fine polished
- With roll pouch



Combination Spanner Set, 12 Pieces

0455	Size mm
THT1022122	6-32

- 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27, 25 x 28 and 30 x 32mm
- Fine polished
- With roll pouch



8 Piece Double Open End Spanner Set 6-22mm

0455	Size 1	Size 2
THT102386	6 x 7, 8 x 9, 10 x 11, 12 x 13 mm	14 x 15, 16 x 17, 18 x 19, 20 x 22 mm

- 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27, 25 x 28 and 30 x 32mm
- Fine polished
- With roll pouch



Double Open End Spanner Set, 12 Pieces

0455	Size mm
THT1023121	6-32

- 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19 and 20 x 22mm
- Fine polished
- Supplied on a plastic hanger



Offset Ring Spanner Set, 8 Pieces

0455	Size mm
THT102486	6-22

- 6 x 7, 8 x 9, 10, x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27, 25 x 28 and 30 x 32mm
- Fine polished
- With roll pouch



Offset Ring Spanner Set, 12 Pieces

0455	Size mm
THT1024121	6-32

- 19, 22, 24, 27, 30 and 32mm
- Fine polished Cr-V
- With canvas bag



Ratchet Spanner Set, 6 Pieces

0455	Size mm
THT102RK061	19-32

Measuring Equipment

- 3 stop button function
- Metric and inch display
- Rubber cover



Steel Tape Measure

0455	Length Metres	Width mm
TMT126031	3	16
TMT126052	5	25
TMT126101	10	25

- Reading: 0.01mm metric/inch system conversion in any position
- Supplied in a plastic box



Digital Caliper

0455	Range mm
TMT321501	0-150
TMT322001	0-200

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Clamps



Bench Vice

0455	Maximum Force Kgs
THT6146	1300
THT6186	2500

- Body material: malleable cast iron
- Thread: T-shaped
- Supplied in a poly bag



G Clamp

0455	Size
THT13141	4"
THT13161	6"



- Clamp size: 50 x 200mm
- Max clamp force: 170kgs
- Thickness and width of iron ruler: 5 x 15mm
- Diameter of screw thread : 11mm

F Clamp, 200mm

0455	Size mm	Force Kgs
THT1320502	200	170

- Clamp Size: 80 x 300mm
- Max Clamp Force: 270kgs
- Thickness and Width of Iron Ruler: 6 x 22mm
- Diameter of Screw Thread: 13mm

F Clamp, 300mm

0455	Size mm	Force Kgs
THT1320801	300	270

- Clamp size: 140 x 1000mm
- Max clamp force: 450KGS
- Thickness and width of iron ruler: 8 x 30mm
- Diameter of screw thread:15.3mm

F Clamp, 1000mm

0455	Size mm	Force Kgs
THT1321401	1000	450

Spirit Levels

- Double side milled
- 0.5mm/m accurate vials
- Aluminium thickness: 1.5mm
- Fitted with 3 powerful magnets
- Double flat surface desig

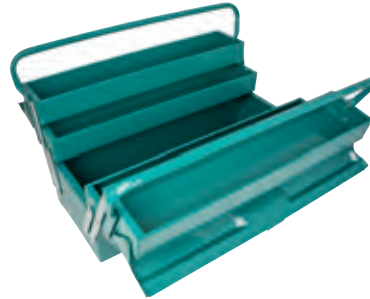


Magnetic

0455	Length cm
TMT21005M	100

Tool Box

- 495 x 200 x 290mm



Metal Cantilever Tool Box

0455
THT10701

Flashlight

- Material: Aviation grade aluminium alloy: 6N01-T6
- U.S.A. manufactured
- CREE XPE2 R3 LED 3W
- Lumen: 135
- Beam distance: 200m
- Lifespan: 100000 hours
- Batteries: 3 x AAA
- Runtime: 5 hours
- Tail light switch
- Waterproof grade: IPX-4
- Weight: 105g (without batteries)



Aviation Grade

0455	Diameter mm	Length mm
TFL013AAA1	32	126.5



Headlamp

0455
THL013AAA2



For Malleable Iron Fittings
see pages 1338-1376

INDUSTRIAL GRADE HAND TOOLS

TOTAL

Grease Gun

- Capacity: 400cc/14oz
- Loading: 14oz cartridge/400cc bulk
- Working pressure: 4500 - 10,000psi
- Burst pressure: 14000psi
- Material: 1.2mm steel tube and aluminium casting
- Standard accessories: 1 x 12" high pressure flexible nylon hose, 1 x metallic bend spout



Heavy-duty

0455
THT111051

Tool Pouches & Bags

- Reinforced plastic base
- Adjustable shoulder strap



24" Rigid Frame Tool Bag

0455
THT16241

- Adjustable belt: 92 -127cm



Single Tools Pouch

0455	Adjustable Belt cm
THT16P2031	92-127



Single Tools Pouch

0455
THT16P1011

Gloves

- For use in an oil environment
- Nitrile coated palm, smooth and rough texture finish
- Packed in a poly bag



Nitrile Gloves XL

0455	Size
TSP12101	10

TORCHES WORK LAMPS & LIGHTING

Redashe Rechargeable Slim Work Light

Features:

- Dimmable operational switch to create a floodlight or focused beam
- Swivelling base with strong built-in scratch proof magnet
- Smooth wand pivot of up to 150°
- Lamp body rotates up to 270°
- Charging time: Approx. 3 hours
- Minimum operation time: 2 hours
- Ergonomic and comfort grip handle
- Micro USB weatherproof charging point complete with charging indicator

new product



Redashe



0478	Colour
JETW007R	Red
JETW007G	Green
JETW007Y	Yellow

Tech Sheet 71697

Redashe Rechargeable Headlamp

Features:

- Adjustable zoom headlamp for spotlight or floodlight application
- Infrared manual sensor system for a more convenient operation
- Lithium-ion rechargeable battery for longer life and consistent power
- Built-in battery level indicator on the front of the headlamp
- The lamp head can be adjusted 80° up and down
- Non-slip elastic head strap

new product



Redashe



0478	Lumens
JK120	400

Intrinsically Safe Polymer Penlight

new product



0712	Lumens	Beam
JXPP-5422B	120	170 Metres

PROFESSIONAL TOOLS



RIDGID® pipe wrenches are world-renowned for their unsurpassed toughness and serviceability. The original heavy-duty pipe wrench, pictured here, has earned the confidence of pipe professionals for over 80 years because it does the job right the first time, every time.

RIDGID® pipe wrenches are also available in a wide variety of purpose-built configurations, and are available with cast aluminium handles that offer an average 40% weight reduction.



RIDGID Lifetime Warranty.

Pipe Wrenches

- Sturdy, cast-iron housing
- I-beam handle
- Full floating forged hook jaw
- Self cleaning threads with replaceable hook and heel jaws



Heavy-duty Pipe Wrenches

0494	Ø mm	Length mm	Model	Kg
31020	50	350	14	1.6
31025	65	450	18	2.6
31030	80	600	24	4.4
Tech Sheet 60448				

- Jaws and all other parts identical to RIDGID® heavy-duty wrenches
- All the great benefits of the heavy-duty RapidGrip wrench
- Professional strength in lightweight aluminium
- Nearly 40% lighter than comparable cast iron wrenches
- 35% lighter than heavy-duty models
- Ideal for overhead applications
- Offers the same durability and ease-of-use found in all RIDGID® heavy-duty wrenches



Aluminium Pipe Wrenches

0494	Ø mm	Length mm	Model	Kg
31095	50	350	814	1.1
31100	65	450	818	1.7
31105	80	600	824	2.7
Tech Sheet 60448				

- Features a jaw opening parallel to the handle and a narrower hook jaw head
- Provides easy entry into tight spots



Heavy-duty Offset Pipe Wrenches

0494	Ø mm	Length mm	Model	Kg
89445	80	600	24	4.4
Tech Sheet 60448				

- Features a jaw opening parallel to the handle and a narrower hook jaw head
- Provides easy entry into tight spots



Aluminium Offset Pipe Wrenches

0494	Ø mm	Length mm	Model	Kg
31120	50	350	14	0.9
31125	65	450	18	1.6
31130	80	600	24	2.7
Tech Sheet 60448				

Cutting Tool

PC 116 Powered Tubing Cutter

This 4.5" machine saves time and effort thanks to its fast set-up and operating features:

- Quick size adjustment
- Quick-feeding mechanism
- Spark-free
- Cold cutting

High-strength alloy wheels with tool-free replacement. It delivers consistent and accurate cutting in a wide variety of materials, such as:

- Stainless steel
- Steel
- Coated steel
- Aluminium
- Copper



PC116 Powered Tubing Cutter

0494	Capacity mm	Description
68118	12-116	With Plastic & Metallic Cutter Wheels, 110V
70003	12-116	With Plastic & Metallic Cutter Wheels, 230V

Cutting Tool Accessories



PC116 Tube Cutting Stand

0494
64903



PC116

0494	Description
66938	Cutter Wheel without Bearing for Carbon Steel, Stainless Steel & Aluminium.
66943	Cutter Wheel without Bearing for Plastic & Copper.



For **Stainless Steel Press Fit Piping System**
see pages **1118-1126**



PROFESSIONAL TOOLS

RIDGID
**new
product**

Press Tools

RP 219 is our Next-Gen 19 kN compact press tool.

Providing the user **FULL ACCESS** in the most confined spaces with its Lightweight (<2 kg) and Ultra-Slim Inline Design as well as the **full flexible 350° Head Rotatio** .

RP 219 also provides the user **FULL ACCESS** to super-fast pressing, critical tool information, multiple power sources and a wide range of 19 kN compact press jaws.

The RP 219 also features 'Press-check!', an integrated pressure sensor that monitors and confirms every press cycle and offers the lowest cost-of-ownership.

RP 219 Kits include: Carrying case, 1 x 2.5 Ah Li-Ion battery and 1x 230V fast-charger, 1 x car charging cord



RP 219 Press Tool

0494	Description	Weight (kg)
69073	RP 219 without Press Jaws	5.2
69078	RP 219 with M15-18-22 Press Jaws	9.2
69083	RP 219 with M15-22-28 Press Jaws	9.2

The **RIDGID RP 350** features a brushless motor capable of over 100,000 press cycles and requires no scheduled maintenance. Get access to hard-to-reach locations with endless 360° swivel. The RP 350 has been upgraded from top to bottom with the most advanced LED interface and lighting.

RP 350-B Tool Kits include: 1 x 2.5Ah battery, 1 x fast-charger and Carrying Case



RP 350 Press Tool

0494	Description
67088	RP 350-B Tool Kit (No Jaws)
69818	RP 350-B Kit + M15-18-22
69823	RP 350-B Kit + M15-22-28

Jaws for M Standard Pressfit System

0494	Press Jaw Type
69868	M12
69873	M15
69878	M18
69883	M22
69888	M28
69893	M35



The **RP 351** Inline Design Press Tool is designed for speed and continued operation in the most confined spaces. Optimally balanced for one-handed use and reduced job site fatigue. Driven by the new RIDGID Brushless Motor Technology, RP 351 reaches over 100,000 press cycles and requires no scheduled maintenance.

RP 351-B Tool Kits include: 1 x 2.5AH battery, 1 x fast-charger and carrying case



RP 351 Press Tool

0494	Description
67228	RP 351-B + Case + Battery + Charger
69838	RP 351-B Tool Kit + M15-18-22
69843	RP 351-B Tool Kit + M15-22-28

The **NEW RIDGID® StrutSlayr** is the latest accessory, making the world's most popular press tool even more valuable. StrutSlayr attaches to RIDGID® 32kN press tools to deliver a fab shop quality, burr-free cut in 5 seconds or less. No grinding or sawing sparks - just a clean, consistent SHEAR cut with a pull of a trigger.

Fab Shop Quality: Burr-free cuts eliminate the need for extra filin

Increased Efficiency: Clean, consistent cuts in 5 seconds or less

Shear Cut: no grinding or sawing sparks

Portable: Easy to move around the job site and mounts to RIDGID TRISTANDS

Built-in Measuring Guide: allows the accuracy of cut-on application.



Strut Shear Head

0494	Capacity mm	Weight (Kg)	Tool Compatibility
64053	41 x 21	8.96	RP350, RP340, RP330
64058	41 x 41	8.96	RP350, RP340, RP330

Pipe/Tube Cutting & Preparation

- Specifically designed for use in restricted spaces on small diameter, hard and soft copper, aluminium, brass and plastic tubing
- Rollers include grooves for close-to-flare cut
- Strong, lightweight slide and wheel housing
- Large knurled feed screw knob gives easy control of cutting pressure for clean cuts
- Models 117 and 118 include a self-feeding cutter wheel that automatically cuts after tightening the knob once (AUTOFEED®)
- Model 118 features a special knob for easier tightening of the feed screw
- Model 101-ML is for multi-layer tubing only



Midget Cutters for Close Quarters Tubing

0494	Capacity mm	Description	Model	Kg
40617	6-28	Midget Cutter	101	0.23
32975	3-16	Midget Cutter	103	0.15
32985	5-24	Midget Cutter	104	0.15
32933	-	Ratchet Handle only for 118 & 101 Midget Cutters	118	0.26
21938	6-28	Midget Cutter for Multilayer Tubing	101-ML	0.15

Tech Sheet 60451

- For plastic (PVC, CPVC, PP, PEX, PE) and multilayer tubing
- Spring-loaded handles for faster positioning
- Single stroke, easy cut
- Durable aluminium construction for heavy-duty use
- Easy attachable ML adaptor for improved multi-layer cutting and instant re-rounding of tubing



Plastic & Multi-layer Pipe Cutters

0494	Capacity mm	Description	Model	Kg
23493	6-25	Single Stroke Tubing Cutter	PC-1375 ML	0.34

Tech Sheet 60451

- Ergonomic grips on bottom handle are spaced at 1/2" increments to act as a quick pipe-measuring scale
- X-CEL® quick-change blade
- Burr-less cutting operation provides a square cut
- For plastic (PVC, CPVC, PP, PEX, PE), rubber hose and multi-layer tubing



Ratchet Cutters with Ergonomic Grips

0494	Capacity mm	Description	Model	Kg
23498	3-42	Ratchet Action Plastic Pipe & Tubing Cutter	RC-1625	0.52

Tech Sheet 60451

C-Style cutters cut 15mm/22mm or 28mm copper tubing while offering unique features that take copper tube cutting to a whole new level.

new product



C Style Cutter

0494	Capacity mm	Model	Kg
57018	15-22	C15/22	0.23
60668	28	C28	0.21



For **PVC Braided Hose** see pages 1402-1405



PROFESSIONAL TOOLS

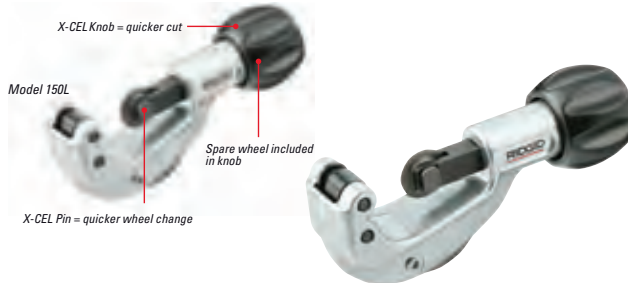


Pipe/Tube Cutting & Preparation

X-CEL® Means Speed

Many of our most popular tubing cutters now include several X-CEL® features to make your job quicker and easier:

- X-CEL® Knob – cut tubing more quickly and easily with our larger, more ergonomic designs
- X-CEL® Wheel Pin – change your cutter wheel quickly using our new ball detent design, no tool needed, no lost clips.
- Spare cutter wheels included for maximum uptime



Enclosed Feed Tubing Cutters, X-CEL Features, for Copper Tube

0494	Capacity mm	Description	Model	Kg
66737	6 - 35	Enclosed Feed Cutter	150L	0.44
33055	6 - 60	Ratcheting Enclosed Feed Cutter	205L	0.91

Tech Sheet 60451

Enclosed Feed Tubing Cutters with New X-CEL® Features:

- Telescoping feed screw design keeps the cutter at the same length regardless of tubing diameter - good for tight spaces
- Enclosed feed screw to eliminate clogging and jamming
- Grooved rollers for close-to-flare cut
- Fold-away reamer
- Now includes X-CEL® Knob and X-CEL® Pin for quicker cutting and wheel replacement
- Made from high-strength zinc alloy
- Spare cutter wheel included in the knob
- Cuts hard/soft copper, aluminium, brass and multilayer tubes



Enclosed Feed Tubing Cutters, X-CEL Features, for Stainless Steel Tube

0494	Capacity mm	Description	Model	Kg
29963	6 - 35	Enclosed Feed Cutter	150L	0.47
31803	6 - 60	Ratcheting Enclosed Feed Cutter	205L	0.91

Tech Sheet 60451

Pipe Bending Equipment

- Combines accuracy with easy operation
- Designed for bending copper, steel and stainless steel ($\leq 1.5\text{mm}$) to a maximum of 180°
- Offset cushion grip handles for comfort when forming 180° bends
- A 90° start angle and unique oil-absorbing shoe minimise bending effort while forming accurate bends in copper and steel tubing



400 Series Instrument Benders

0494	OD mm	Bend Radius mm	Model	Kg
36112	6	16	406M	0.68
36092	8	24	408M	1.18
36127	12	38	412M	2.45

Tech Sheet 60458

- The stainless steel specialist
- High quality bending performance on stainless steel and other hard tubing such as steel and titanium
- Two-stage design allows for in-place bending from 90° to 180° without ever crossing handles
- Lock/unlock with a half-turn rotation of the bending handle
- Extra long 16" (40cm) handles increase leverage, and roll dies in the bending form reduce force needed
- Vice clamp built into bending form for extra stability



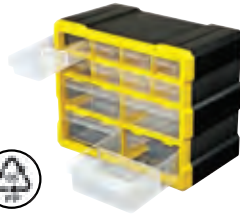
600 Series Heavy-duty Instrument Benders

0494	OD mm	Bend Radius mm	Model	Kg
38053	6	16	606M	0.76
38058	10	24	610M	1.84
38063	12	38	612M	2.76

Tech Sheet 60458

Component Organisers

Big drawer quantity: 4
Big drawer dimensions:
 Length 153mm x width 127mm x height 58mm
Small drawer quantity: 8
Small drawer dimensions:
 Length 153mm x width 62mm x height 37mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



12 Drawer Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 12	245	293	164
Tech Sheet 20173			

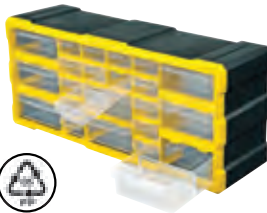
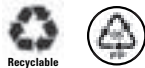
Drawer quantity: 18
Drawer dimension:
 Length 153mm x width 127mm x height 58mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



18 Drawer Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 18	457	424	164
Tech Sheet 20173			

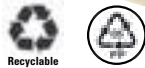
Big drawer quantity: 8
Big drawer dimension:
 Length 153mm x width 127mm x height 58mm
Small drawer quantity: 14
Small drawer dimension:
 Length 153mm x width 62mm x height 37mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



22 Drawer Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 22	245	555	164
Tech Sheet 20173			

Small drawer quantity: 30
Small drawer dimensions:
 Length 153mm x width 62 x height 37mm
Big drawer quantity: 9
Big drawer dimensions:
 Length 153mm x width 127 x height 58mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



39 Drawer Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 39	457	424	164
Tech Sheet 20173			

Drawer quantity: 60
Drawer dimension:
 Length 153mm x width 62mm x height 37mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



60 Drawer Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 60	457	424	164
Tech Sheet 20173			

Drawer quantity: 9
Drawer dimension:
 Length 153mm x width 127mm x height 58mm
Bin quantity: 9
Bin drawer dimension:
 Length 153mm x width 127mm x height 65mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



9 Drawer, 9 Bins Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 9B9D	457	424	164
Tech Sheet 20173			

Drawer qty: 30
Drawer dimension:
 Length 153mm x width 62mm x height 37mm
Bin drawer quantity: 30
Bin drawer dimensions:
 Length 153mm x width 127mm x height 65mm
Wall mounting key holes: 4
Partition with gripper: Yes
Tight-fitted partition: Yes
Cabinet material: Polypropylene
Drawer material: Clear polypropylene



30 Drawer, 9 Bins Storage Cabinet

0426	Height mm	Width mm	Depth mm
V-ACO 9B30D	460	426	166
Tech Sheet 20173			

Pocket qty: 12
Side pocket inner dimensions:
 Length x 125mm x width 100mm x height 70mm
Centre pocket inner dimensions:
 Length x 125mm x width 123mm x height 68mm
Wall mounting key holes: 4
Body and frame: Polypropylene
Lid: Polycarbonate



12 Pockets with Transparent Lid Storage Cabinet

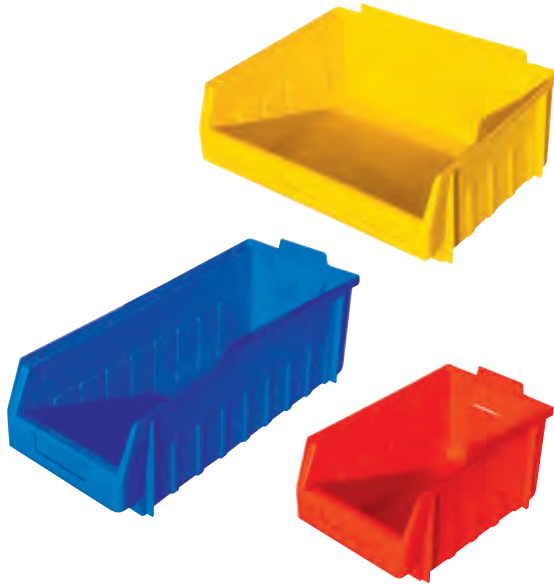
0426	Height mm	Width mm	Depth mm
V-ACO 12 PTL	460	426	166
Tech Sheet 20173			

INTERCHANGEABLE STORAGE & DISPLAY SYSTEMS



Supra Storage Bins

- Impact resistant.
- Strong rear lip for use with louvred panels. Integral label holder.
- Clear access to contents.
- Manufactured from high density polypropylene.
- High and low temperature tolerant.
- Resistant to most individual solvents.
- Easy to stack on top of each other.
- Incorporates a safety stop feature at the back in SB4/5/6 for use in shelves.



Red, Blue, Yellow or Grey

0128	Colour	Height mm	Length mm	Width mm	Pack Qty
SB-1-RED-P60	Red	60	125	100	60
SB-1-BLUE-P60	Blue	60	125	100	60
SB-2-RED-P60	Red	85	170	100	60
SB-2-BLUE-P60	Blue	85	170	100	60
SB-2-YELLOW-P60	Yellow	85	170	100	60
SB-3-RED-P50	Red	125	220	130	50
SB-3-BLUE-P50	Blue	125	220	130	50
SB-3-YELLOW-P50	Yellow	125	220	130	50
SB-4-RED-P10	Red	143	290	178	10
SB-4-BLUE-P10	Blue	143	290	178	10
SB-5-BLUE-P5	Blue	145	290	363	5
SB-6-BLUE-P10	Blue	145	440	180	10
SB-7-BLUE-P6	Blue	215	435	400	6
SB-8-BLUE-P6	Blue	300	600	425	6

Tech Sheet 20172

Accessories – Partitions

0128	Description
HP/SB4/6	Horizontal Partition for SB-4 & SB-6
VP/SB4/5	Vertical Partition for SB-4 & SB-5
VP/SB7	Vertical Partition for SB-7
VP/SB8	Vertical Partition for SB-8

Tech Sheet 20172

Shop Floor Stands

- Free standing stands come complete with louvred panels on one side
- Easy to assemble
- Storage bins ordered separately



Free Standing Louvred Panel Stands

0128	Length mm	Width mm	Height mm	Type
FSS/L/1	457	630	1560	Single Span
FSS/L/2	914	630	1560	Double Span
FSS/L/3	1371	630	1560	Triple Span

Tech Sheet 20170

Ideal for component storage and transfer to assembly or production areas. Unit comprises of base unit with aluminium chequered top plate fitted with castors and a frame on which four louvre panels can be fitted (supplied).

Example: trolley can hold 16 x SB-1, 32 x SB-2, 12 x SB-3, 10 x SB-4 on the panels with the base free for different sizes of bins as per your requirement.

Storage bins not supplied.

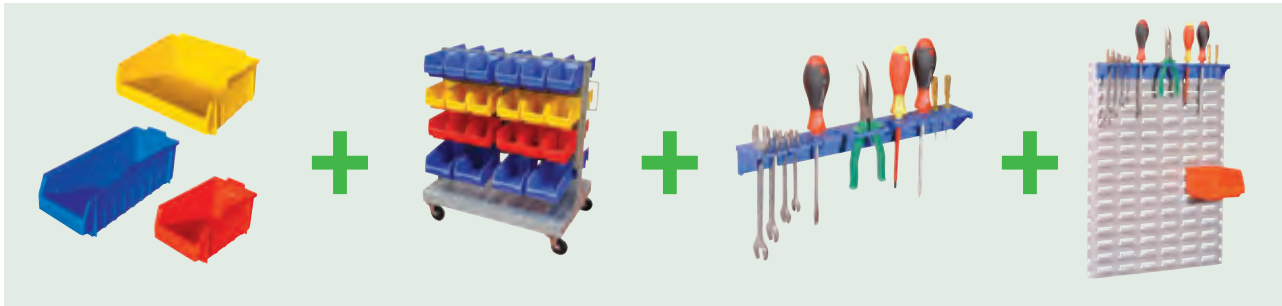
- Robust construction
- Epoxy powder coated
- Easy assembly



Mobile Louvred Panel Stand

0128	Length mm	Width mm	Height mm
SFT	970	600	1100

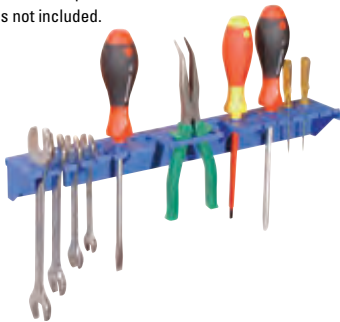
Tech Sheet 20171



Tool Trays

Can be screwed to walls, workstations or for use with louvred panels.

Note: tools not included.



Red, Blue or Grey

0128

TTH-RED

TTH-BLUE

TTH-GREY

Tech Sheet 20173

Multi-purpose Display Board

- 451 hanging holes
- 38 strong hooks (two sizes) and 38 locks

Note: tools not included.



Red or Blue

0128	Width mm	Height mm
MDB500-RED	505	390
MDB500-BLUE	505	390

Tech Sheet 20174

Poly Bins & Rails

Each bin is 5" x 4" x 3".



Set of 20 Bins & 5 Rails

0128

PBR205

Tech Sheet 20175

Louvred Wall Panels

The louvred panels are made from powder-coated 1.5mm CRCA steel and come in four sizes.

These louvre panels can be easily fitted on walls or on a stand.

Note: tool tray, tools and Supra bin not included.



For Use with Supra Bins

0128	Width mm	Height mm
SB/LP1	457	457
SB/LP2	457	610
SB/LP3	457	915
SB/LP6	457	1830

Tech Sheet 20176



On celebrating 120 years of peak protection Portwest has possessed an unrelenting ambition to produce the world's most trusted and requested protective wear. Through the decades, they have continuously proven their dedication to quality, producing world-beating safety garments, foot protection, hand protection and PPE, while pushing the boundaries in protection technologies.

Technologies that make the workplace a safer place.



INDUSTRY INSPIRED DESIGN

For 120 years, Portwest's product designers have been developing a deep understanding of the safety needs of workers across many industries. This understanding has enabled them to create industry-focused safety wear solutions tailored to the specific risks faced by professionals across a multitude of industries, allowing workers to perform at the height of their ability.



HEAD PROTECTION

The rapidly expanding Portwest head protection range aims to benefit wearers by combining the most up-to-date styles with the highest standards in head protection, irrespective of job or location. A wide selection of compatible accessories is also available.



Head Protection

- Specially designed for working at height
- Electrical insulation up to 1000V AC or 1500V DC (EN50365)
- Unvented helmet shell for safe use with electrical applications
- 6-point textile suspension harness for enhanced wearer comfort and safety
- Size adjustable headband via wheel ratchet system
- Chin strap included



Height Endurance Helmet

0352	Colour
PS53BKR	Black
PS53ORR	Orange
PS53RBR	Royal Blue
PS53WHR	White
PS53YER	Yellow

- Specially designed for working at height
- Size adjustable headband via wheel ratchet system
- Hi-visibility colour for visibility in daylight
- Y-style 4-point chin strap
- Light and robust



Height Endurance Helmet

0352	Colour
PS73ORR	Orange
PS73RBR	Royal Blue
PS73RER	Red
PS73WHR	White
PS73YER	Yellow

BEST SELLER

- Unvented helmet shell for safe use with electrical applications
- Electrical insulation up to 1000V AC or 1500V DC (EN 50365)
- Size adjustable headband via wheel ratchet system
- 4-point textile suspension harness for enhanced wearer comfort and safety
- Soft foam sweat band included



Safety Helmet

0352	Colour
PS57ORR	Orange
PS57RBR	Royal Blue
PS57RER	Red
PS57WHR	White
PS57YER	Yellow

- Portwest exclusive design and patented model
- Translucent shell to see through peak and sides
- 6-point textile suspension harness for enhanced wearing comfort and safety
- Vented helmet shell to allow air circulation cooling the wearer's head
- Size adjustable headband via wheel ratchet system
- UV 400 stabilised



Peak View Ratchet Hard Hat, Vented

0352	Colour
PV60BLU	Blue
PV60GNR	Green
PV60ORR	Orange
PV60SKR	Smoke
PV60YER	Yellow

- Premium style bump cap with innovative plastic shell
- Durable and impact resistant PE shell
- EPP foam liner for maximum impact protection
- Lightweight for enhanced wearer comfort
- Reflective piping for increased visibility
- Multiple ventilation holes in plastic shell and top mesh on cap
- Short peak
- Brightness 150 lumens



Bump Cap

0352	Colour
PS79BKR	Black
PS79NAR	Navy
PS79ORR	Orange
PS79YER	Yellow

- Equipped with a removable and USB rechargeable light
- Inner ABS shell and soft pad for shock absorption
- Durable high density EVA protects and gives comfort to the wearer
- USB rechargeable Li-ion battery



Bump Cap with LED Light

0352	Colour	Brightness
PW29NAR	Navy	150 Lumens

Light only

- Magnetic housing makes it easy to put on and remove
- Adhesive backing to attach housing to helmets
- Compatible with most hard hats
- USB rechargeable Li-ion battery
- Non-slip high grip surface wash
- Brightness 150 lumens



Magnetic Helmet Light

0352	Brightness
HV29BKR	150 Lumens



EAR PROTECTION

Portwest's hearing protection range includes PPE with different level sound attenuation, to be adapted to various working environments giving the correct protection from dangerous noise, without isolating the workers. This new range of earmuffs offer a variety of models and colours allowing a personalised choice.



Ear Protection

- Padded headband for comfort
- Adjustable dual pin system provides multiple positions for better fit
- SNR 34dB attenuation level
- Light and robust



Premium Ear Defenders

0352	Colour
PS46GRR	Grey

- Colour coded cups for easy identification of attenuation levels
- Effective headband for better visibility and premium look
- Padded headband for comfort
- Adjustable dual pin system provides multiple positions for better fit
- PW72GGN
Grey/Green Trim 26db
- PW73GYR
Grey/Yellow Trim 28db
- PW78GOR
Grey/Orange Trim 32db



HV Extreme Ear Defenders

0352	Colour
PW72GGN	Grey
PW73GYR	Grey/Navy
PW78GOR	Grey/Orange

- Folds to palm size for better carriage and to keep clean
- Lightweight and comfortable
- Padded headband for comfort
- Adjustable length for a secure and comfortable fit
- SNR 32db



Top Ear Defenders

0352	Colour
PS44BKR	Black

- Ultra lightweight for long uses
- Padded headband for comfort
- Adjustable length for a secure and comfortable fit
- 100% metal free
- SNR 28db



Classic Ear Defenders

0352	Colour
PW48RER	Red
PW48YER	Yellow

- Disposable ear plugs made from soft PU foam
- Excellent attenuation rate
- Easy fit



Foam Ear Plugs

- Box Quantity - 200 pairs

0352	Colour
EP02ORR	Orange

- Disposable ear plugs made from soft PU foam
- Ergonomically designed for comfort and ease of use
- Excellent attenuation rate



Bell Comfort Foam Ear Plugs

- Box Quantity - 200 pairs

0352	Colour
EP06ORR	Orange

- Reusable earplugs to support sustainability
- Each pair individually wrapped in re-closable zip bag for hygiene purposes
- Supplied in a handy portable dispenser box



Reusable TPR Ear Plugs

- Box Quantity - 50 pairs

0352	Colour
EP10ORR	Orange

- Disposable ear plugs made from soft PU foam
- Corded for safe keeping
- Easy fit



Comfort Foam Corded Ear Plugs

- Box Quantity - 200 pieces

0352	Colour
EP09ORR	Orange

EYE PROTECTION

Portwest's eye protection range includes spectacles, safety goggles and visors, designed to protect the eyes and face of workers from injury during work activities



Eye Protection

Pack Qty: 1

- Single wrap around lens
- Co-injected TPE brow guard for extra protection from particles, impact and glare
- Soft rubber temple tips for non-slip fit
- KN certified lens coatings (anti-scratch/anti-fog)
- Non-magnetic - nickel and ferrous free
- Exceptionally good, universal fit
- Ideal fit for smaller face shape
- Ultra lightweight for long uses



Dynamic KN Safety Glasses

0352	Colour
PS10CLR	Clear
PS10SKR	Smoke

- Wrap around style for panoramic view
- Co-injected TPE brow guard for extra protection from particles, impact and glare
- Soft rubber temple tips for non-slip fit
- KN certified lens coatings (anti-scratch/anti-fog)
- Non-magnetic - nickel and ferrous free
- Soft TPR nose piece for universal fit
- Soft rubber temple tips for non-slip fit



Dynamic Plus KN Safety Glasses

0352	Colour
PS20CLR	Clear
PS20SKR	Smoke

- Suitable for wearing over most prescription glasses
- Adjustable elastic headband for a perfect fit
- Protects from fluid and splashes
- Anti-scratch coating for added durability
- Anti-fog coating for additional comfort to the wearer



Over Safety Glasses

0352	Colour
PS24CLR	Clear

- Lightweight premium design wrap-around design
- Superior front and side face protection
- Back foam ventilation and lens treatment prevents misting and fogging of the ocular
- Adjustable dual pin system provides multiple positioning for better fit
- Adjustable elastic headband for a perfect fit
- Protects from fluid and splashes



Slim Safety Goggles

0352	Colour
PW26CLR	Clear

- Supplied in a handy portable dispenser box
- Low linting construction for minimal contamination
- Each towelette individually wrapped

Box Qty: 100

Lens Cleaning Wipes

0352	Colour	Box Quantity
PA01WHR	White	100

- Single panoramic lens glasses
- Detachable foam offers additional protection against shocks and dust
- Lightweight wrap-around design
- Flexible arms for ultra comfort
- Soft arms tips for ultra comfort
- Excellent side protection
- Anti-scratch/anti-fog
- 99% UV Protection



Best seller

Wrap Around Spectacles

0352	Colour
PS32AMR	Amber
PS32CLR	Clear
PS32MIR	Mirror
PS32SKR	Smoke

- Single panoramic lens glasses
- Extendable side arms for secure and comfortable fit
- Anti-scratch coating for added durability
- Moulded side shield and brow guard for optimised protection against impacts
- Excellent side protection
- 99% UV protection



Welding Safety Spectacles

0352	Colour
PW68BGR	Bottle Green

- Silicone free - Ideal for manufacturing, paint applications, electronics and glass handling where silicone is problematic
- Anti-static and anti-fog formula



RESPIRATORY PROTECTION

Portwest's range of face masks is designed to offer the most comfortable and best fitting product. A user-friendly range, including disposable masks, half masks and filters. Breathe easier with Portwest.



Respiratory Protection

- Ultrasonic welded head straps
- Foam padding around the nose bridge for additional comfort
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Comfortable cup style respirator
- Pack of 20



FFP1 Respirator

0352	Colour	Quantity
P100WHR	White	20

- Ultrasonic welded head straps
- Foam padding around the nose bridge for additional comfort
- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Comfortable cup style respirator
- Pack of 10



FFP1 Valved Respirator

0352	Colour	Quantity
P101WHR	White	10

- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Foam padding around the nose bridge for additional comfort
- Ultrasonic welded head straps
- Comfortable cup style respirator
- Pack of 10



FFP2 Valved Respirator

0352	Colour	Quantity
P201WHR	White	10

- Special compact vertical flat design
- Ultrasonic welded head straps
- Foam padding around the nose bridge for additional comfort
- Pack of 20



FFP2 Flat Fold Respirator

0352	Colour	Quantity
P250WHR	White	20

- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Special compact vertical flat design
- Ultrasonic welded head straps
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Foam padding around the nose bridge for additional comfort
- Pack of 20



FFP2 Valved Flat Fold Respirator

0352	Colour	Quantity
P251WHR	White	20

- Special compact vertical flat design
- Ultrasonic welded head straps
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Foam padding around the nose bridge for additional comfort
- Pack of 20



FFP3 Flat Fold Respirator

0352	Colour	Quantity
P350WHR	White	20

- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Adjustable nose bar for proven fit and reduced fogging of glasses
- Ultrasonic welded head straps
- Pack of 10



FFP3 Light Cut Respirator

0352	Colour	Quantity
P304WHR	White	10

- Dual bayonet filter connections
- Quick and easy to disassemble for cleaning
- 4-point plastic suspension harness for wearer comfort, safety and easy cleaning
- Adjustable strap fastening for flexible sizing

Filters sold separately



TPR Half Mask

0352	Colour	Size
P421GRRS/M	Grey	M
P421GRRM/L	Grey	L

- Dual bayonet filter connections
- Quick and easy to disassemble for cleaning
- 4-point plastic suspension harness for wearer comfort, safety and easy cleaning
- Adjustable strap fastening for flexible sizing

Filters sold separately



Silicone Half Mask

0352	Colour	Size
P431BLUS/M	Blue	M
P431BLUM/L	Blue	L

- Class 2 thermoplastic rubber full face mask
- Durable polycarbonate visor provides all round visibility
- Adjustable 6-point quick release harness for a uniform face seal
- Dual bayonet filter connections
- Anti-scratch & anti-fog coating

Filters sold separately



Vienna Full Face Mask

0352	Colour
P500BKR	Black

Not suitable for P500 also available

HAND PROTECTION

A newly expanded range of hand protection products caters for all work and safety needs. Only the best materials and manufacturing methods are used in the production of this extensive and highly specialised range.



Cut Gloves

Pack Qty: 1 pair

- Level F cut resistance
- Seamless liner for a perfect fit
- Nitrile foam coating for excellent grip in wet and dry conditions
- Reinforced thumb crotch for extra protection and durability
- This glove can be used with most mobile touch screen devices
- Reflective label for improved visibility



Nitrile Cut Glove

0352	Size	Colour
A672K8RXS	XS	Black
A672K8RS	S	Black
A672K8RM	M	Black
A672K8RL	L	Black
A672K8RXL	XL	Black
A672K8RXXL	XXL	Black

- Level F cut resistance
- Seamless 13 gauge liner
- Smooth PU coating for increased abrasion resistance
- Reinforced thumb crotch for extra protection and durability
- This glove can be used with most mobile touch screen devices
- Reflective label for improved visibility
- Protection against contact heat up to 100°



PU Cut Glove

0352	Size	Colour
A670K8RXS	XS	Black
A670K8RS	S	Black
A670K8RM	M	Black
A670K8RL	L	Black
A670K8RXL	XL	Black
A670K8RXXL	XXL	Black

- Level D cut resistance
- Seamless 13 gauge liner
- Liquid Pro offers maximum liquid protection
- Dual latex coating
- Prevents grease, oil and water penetration
- Excellent for jobs requiring high dexterity



Liquid Pro Cut Glove

0352	Size	Colour
AP81B4RXS	XS	Blue
AP81B4RS	S	Blue
AP81B4RM	M	Blue
AP81B4RL	L	Blue
AP81B4RXL	XL	Blue
AP81B4RXXL	XXL	Blue

- Level C cut resistance
- Seamless liner for a perfect fit
- Smooth PU coating for increased abrasion resistance
- Palm dipped to increase dexterity and ventilation
- Breathable seamless liner
- Medium risk cut protection
- Protection against contact heat up to 100°



Impact Cut Resistant Glove

0352	Size	Colour
A622G7RXS	XS	Grey/Black
A622G7RS	S	Grey/Black
A622G7RM	M	Grey/Black
A622G7RL	L	Grey/Black
A622G7RXL	XL	Grey/Black
A622G7RXXL	XXL	Grey/Black
A622G7RXXXL	XXXL	Grey/Black

- Level D cut resistance
- Seamless 13 gauge liner
- Protects against cuts and abrasion
- Double dipping for maximum liquid repellency
- Sticky finish for exceptional grip in water, grease or oil
- Prevents grease, oil and water penetration



Aqua Pro Cut Glove

0352	Size	Colour
AP50B8RS	S	Black
AP50B8RM	M	Black
AP50B8RL	L	Black
AP50B8RXL	XL	Black
AP50B8RXXL	XXL	Black

BEST SELLER

- Nitrile foam coating for excellent grip in wet and dry conditions
- Palm dipped to increase dexterity and ventilation
- 15 gauge liner for extra dexterity
- Breathable seamless liner
- Lightweight and comfortable
- Maximum EN level 4 abrasion



Dermiflex Glove

0352	Size	Colour
A350BKRXS	XS	Black
A350BKRS	S	Black
A350BKRM	M	Black
A350BKRL	L	Black
A350BKRXL	XL	Black
A350BKRXXL	XXL	Black
A350BKRXXXL	XXXL	Black

Gloves

Pack Qty: 1 pair

BEST SELLER

- Smooth PU coating for increased abrasion resistance
- Palm dipped to increase dexterity and ventilation
- 13 gauge liner for a perfect fit
- Perfect for intricate tasks
- Maximum dexterity
- Superb abrasion and tear resistance



PU Palm Glove

0352	Size	Colour
A120BKRXXS	XXS	Black
A120BKRXS	XS	Black
A120BKRS	S	Black
A120BKRM	M	Black
A120BKRL	L	Black
A120BKRXL	XL	Black
A120BKRXXL	XXL	Black
A120BKRXXXL	XXXL	Black

- Made using a sustainable bamboo liner
- 15 gauge liner for extra dexterity
- Palm dipped to increase dexterity and ventilation
- Nitrile foam coating for excellent grip in wet and dry conditions



Foam Nitrile Bamboo Gloves

0352	Size	Colour
AP10KBRXS	XS	Black
AP10KBR	S	Black
AP10KBRM	M	Black
AP10KBR	L	Black
AP10KBRXL	XL	Black
AP10KBRXL	XL	Black

BEST SELLER

- Latex foam coating for excellent grip in wet and dry conditions
- Crinkle latex grip offers excellent grip
- Tough 10 gauge liner
- Breathable seamless liner
- Premium quality work glove
- Open back for breathability



Latex Grip Glove

0352	Size	Colour
A100G4RS	S	Grey/Blue
A100G4RM	M	Grey/Blue
A100G4RL	L	Grey/Blue
A100G4RXL	XL	Grey/Blue
A100G4RXXL	XXL	Grey/Blue
A100GNRM	M	Green
A100GNRL	L	Green
A100GNRXL	XL	Green
A100GNRXXL	XXL	Green
A100K8RM	M	Black
A100K8RL	L	Black
A100K8RXL	XL	Black
A100K8RXXL	XXL	Black
A100ORRS	S	Orange
A100ORRM	M	Orange
A100ORRL	L	Orange
A100ORRXL	XL	Orange
A100ORRXXL	XXL	Orange
A100R8RM	M	Red/Black
A100R8RL	L	Red/Black
A100R8RXL	XL	Red/Black
A100R8RXXL	XXL	Red/Black

- Specially designed for use in cold conditions
- Palm dipped to increase dexterity and ventilation
- Crinkle latex grip offers excellent grip
- Warm 10 gauge acrylic liner for cold protection
- Breathable seamless liner
- Ergonomically designed for comfort and ease of use



Thermal Grip Glove

0352	Size	Colour
A140BKRXS	XS	Black
A140BKRS	S	Black
A140BKRM	M	Black
A140BKRL	L	Black
A140BKRXL	XL	Black
A140BKRXXL	XXL	Black
A140ORB	M	Orange/Black
A140ORB	L	Orange/Black
A140ORBXL	XL	Orange/Black
A140ORBXXL	XXL	Orange/Black

- Fully coated for maximum liquid protection
- Nitrile foam coating for excellent grip in wet and dry conditions
- Superb abrasion and tear resistance
- 13 gauge liner for a perfect fit
- Lightweight and comfortable
- Elasticated cuffs for a secure fit



Dermi Pro Glove

0352	Size	Colour
AP3008RXS	XS	Orange/Black
AP3008RS	S	Orange/Black
AP3008RM	M	Orange/Black
AP3008RL	L	Orange/Black
AP3008RXL	XL	Orange/Black
AP3008RXXL	XXL	Orange/Black

- Liquid Pro offers maximum liquid protection
- Latex foam coating for excellent grip in wet and dry conditions
- Dual latex coating for additional protection in tough conditions
- 13 gauge liner for a perfect fit
- Lightweight and comfortable
- Elasticated cuffs for a secure fit



Liquid Pro Glove

0352	Size	Colour
AP80B4RS	S	Blue
AP80B4RM	M	Blue
AP80B4RL	L	Blue
AP80B4RXL	XL	Blue
AP80B4RXXL	XXL	Blue

PPE & SAFEGUARDING EQUIPMENT

Gloves

- High performance multi-purpose glove
- Reinforced thumb crotch for extra protection and durability
- This glove can be used with most mobile touch screen devices
- Lightweight and comfortable
- Wrist strap for secure fittin
- Specially engineered high visibility material



PW3 General Utility Glove

0352	Size	Colour
A770BKYS	S	Black/Yellow
A770BKYM	M	Black/Yellow
A770BKYL	L	Black/Yellow
A770BKYXL	XL	Black/Yellow
A770BKYXXL	XXL	Black/Yellow

- Level B cut resistance
- High performance multi-purpose glove
- Reinforced thumb crotch for extra protection and durability
- This glove can be used with most mobile touch screen devices
- Wrist strap for secure fittin
- Lightweight and comfortable



DX4 Cut Glove

0352	Size	Colour
A774K2RS	S	Black/Yellow
A774K2RM	M	Black/Yellow
A774K2RL	L	Black/Yellow
A774K2RXL	XL	Black/Yellow
A774K2RXXL	XXL	Black/Yellow
A774MBRS	S	Metro Blue
A774MBRM	M	Metro Blue
A774MBRL	L	Metro Blue
A774MBRXL	XL	Metro Blue
A774MBRXXL	XXL	Metro Blue

- High performance multi-purpose glove
- Reinforced panels in high wear areas for maximum durability
- Additional knuckle padding for extra protection
- Durable synthetic leather palm
- Reinforced padded palms
- Wrist strap for secure fittin



Impact Performance Glove

0352	Size	Colour
A720NARM	M	Navy
A720NARL	L	Navy
A720NARXL	XL	Navy
A720NARXXL	XXL	Navy

BEST SELLER

- Premium full grain cow leather
- Breathable leather for use in mild and hot climates
- Classic leather driver
- Superb abrasion and tear resistance
- Increased puncture resistance properties
- Durable leather



Lined Drivers Glove

0352	Size	Colour
A271TARL	L	Tan
A271TARXL	XL	Tan

- Silicone free - Ideal for manufacturing, paint applications, electronics and glass handling where silicone is problematic
- Suitable for use in chemical, oil and food industries
- Textured pattern for enhanced grip
- Flock lined for added comfort
- 0.38mm thickness
- 330mm length



Nitrosafe Chemical Gauntlets

0352	Size	Colour
A812GNRXS	XS	Green
A812GNRS	S	Green
A812GNRM	M	Green
A812GNRL	L	Green
A812GNRXL	XL	Green
A812GNRXXL	XXL	Green

Disposable Gloves

Manufactured from synthetic nitrile rubber our disposable nitrile gloves eliminate the risk of allergic reaction associated with latex gloves. Textured finish provides enhanced fingertip gri and dexterity in both wet and dry conditions.

- Suited for food processing plants and resistant to greases, animal fats and oils
- Disposable nitrile gloves eliminate the risk of allergic reaction associated with latex gloves
- Smooth and non-textured with a beaded cuff
- Acceptable quality limit (AQL) 1.5
- 240mm length
- 0.07mm thickness
- Retail box which aids presentation for retail sales
- CE certifie
- CE foodsafe

100 gloves per box.

Materials: Nitrile



A925 Powder Free Nitrile Disposable Gloves

0352	Size	Colour	Box Quantity
A925BLUS	S	Blue	100
A925BLUM	M	Blue	100
A925BLUL	L	Blue	100
A925BLUXL	XL	Blue	100

Premium high strength disposable gloves using innovative crystal grip technology. 7mm thickness for exceptional strength. Highly durable synthetic nitrile compound make this glove three times stronger than standard nitrile.

- Silicone Free
- Idea for auto manufacture, electronics and glass sectors
- Crystal grip technology
- Silicone free. Ideal for manufacturing, paint applications, electronics and glass handling where silicone is problematic
- Suited for food processing plants and resistant to greases, animal fats and oils
- Three times stronger than standard nitrile
- 7mm/0.18mm thickness for exceptional strength
- 240mm length
- Highly durable synthetic nitrile compound
- Retail box which aids presentation for retail sales
- Ideal for auto repair, construction and other sectors
- Acceptable quality limit (AQL) 1.5
- This product is sold in inner boxes
- CE certifie
- CE foodsafe

100 gloves per box.

Materials: Nitrile



HD Disposable Gloves

0352	Size	Colour	Box Quantity
A930ORRM	M	Orange	100
A930ORRL	L	Orange	100
A930ORRXL	XL	Orange	100

KNEE PROTECTION

All Portwest knee pads use premium high density material to provide the user with the best protection possible for their knees no matter what the hazard.



Knee Pads

- Ergonomically designed and tested straps ensure no pinching to the back of the wearers leg
- A strong and durable outer shell makes for a long lasting tough knee pad
- Silicone gel inserts protect joints and ensure great wearer comfort



Super Gel Knee Pads

0352	Colour
KP30BKR	Black

- Tough abrasion resistant PVC shell
- Thick silicone gel adapts to your kneecap
- Ergonomically designed and tested straps ensure no pinching to the back of the wearers leg



Ultimate Gel Knee Pads

0352	Colour
KP40BKR	Black

- Lightweight EVA foam cushioning
- Reduces knee and back strain
- Integral carry handle



Kneeling Pad

0352	Colour
KP05BKR	Black

LUGGAGE

The essential collection of versatile luggage pieces, suitable for travel, work or general everyday use. Robustly constructed with strong materials.



Duffle Bag

- Ideal for carrying tools, equipment or for use as a travel bag
- Two zipped compartments
- Robust base panel
- Adjustable shoulder strap for added comfort
- 65cm x 25cm x 35cm
- 60 litres



0352	Colour	Size Litres
B960BKR	Black	60

Boot Bag

- Generous storage to fit most work boots
- Carry handle for added convenience
- Integrated changing mat
- 35cm x 30 cm x 12 cm
- 12 litres



0352	Colour	Size Litres
B914BKR	Black	12

Rucksacks

- Reflective safety elements and reflective tape for added visibility
- Pull string front provides extra storage
- Two mesh water bottle pockets double as multi-use pockets
- 38cm/15" laptop sleeve
- Padded mesh back panel and a breathable lumbar panel for comfortable ventilated support
- 47cm x 30cm x 19.5 cm
- 25 litres



PW3 Hi-Vis Rucksack

0352	Colour	Size Litres
B955YER	Yellow	25

- Padded double straps for added support
- Reflective tape for increased visibility
- Padded back panel for wearer comfort
- Phone pocket
- 28cm x 21cm x 43 cm
- 25 litres



Hi-Vis Rucksack

0352	Colour	Size Litres
B905ORR	Orange	25
B905YER	Yellow	25

PPE & SAFEGUARDING EQUIPMENT

Overalls

- Elasticated hood, ankles, cuffs and waist
- Two way front zip and sealable front fla
- Anti static
- Excellent liquid and particulate barrier protection



Microporus Overall

0352	Size	Colour
ST40WHRS	S	White
ST40WHRM	M	White
ST40WHRL	L	White
ST40WHRXL	XL	White
ST40WHRXXL	XXL	White
ST40WHRXXXL	XXXL	White

Sleeve

- Elasticated cuffs for a secure fi
- Designed for a comfortable fi
- Box of 150 pairs



Microporus Sleeve

0352	Colour
ST43WHR	White

Cut level D



Cut Resistant Sleeve

0352	Colour
A690GRR	Grey
A690YER	Yellow

Overshoes

- Disposable boot covers for superior protection against cross contamination
- Elasticated cuffs for a secure fi
- Box of 200 pairs



Microporus Shoe Cover

0352	Colour
ST44WHR	White

PPE & SAFEGUARDING EQUIPMENT

Engineers Gloves



Superior Nitrile Gloves, Orange, 50 Singles Pack

0086	Size
5300-207	S (7)
5300-208	M (8)
5300-209	L (9)
5300-210	XL (10)



Superior Nitrile Gloves, Black, 50 Singles Pack

0086	Size
5300-107	S (7)
5300-108	M (8)
5300-109	L (9)
5300-110	XL (10)
5300-111	XXL (11)

INDUSTRIAL CLEANING EQUIPMENT

Hand Wet Wipes

The moist wipes require no additional liquids as the low alcohol base anti-bacterial cleaning solutions helps clear all stains and marks leaving the skin cleansed as well as dry thanks to rapid evaporation. Each tub contains 150 perforated sheets.



Degreasing Wipes

0212	Quantity
IPGM	150 Wipes

A powerful alcohol based cleaning solution that quickly gets to work on paint and related stains cleaning fast. Each tub contains 150 perforated sheets.



Paint & Mastic Removing Wipes

0212	Quantity
IPGP	150 Wipes

In today's food preparation areas, hygiene guidelines are tough and the risk of cross contamination through neglecting these requirements puts many people at risk. With the surface wipes, killing off all potentially lethal bacteria from passing from one product to another.



Sani Safe Disinfectant Wipes

0212	Quantity
IPSS4	200 Wipes

These handy wipes are an ideal size to keep handy and give off a pleasant fragrance that also identifies when the product is actively killing off bacteria.



Office Wipe

0212	Quantity
BA035	150 Wipes

Non-woven Dry Wipes

A strong, low lint, solvent resistant, absorbent cloth. Supplied in a handy dispenser box, suitable for all applications.



Super Strong Low Lint Rag Replacement

0212	Quantity
DWTWDP	150 Wipes

An industrial 2 ply centre feed roll.



Wiper Rolls

0212	Length Metres	Quantity
CF14BE	140	6 Rolls
MR74	140	2 Rolls

A retail branded quality 2 ply toilet roll.



Toilet Rolls

0212	Quantity	Colour
CT402839	40 Rolls x 220 Sheets	White

A high volume toilet roll suitable for volume use areas. 76mm core.



Jumbo Toilet Rolls

0212	Quantity
JT04	12 Rolls

A quality soft hand towel white C-fold.



Hand Towels

0212	Quantity
HT24	2400 Towels

Dispensers

Lockable.



C-Fold Hand Towel Dispenser

0212
HTD534



Mini Jumbo Toilet Roll Dispenser

0212
JTD202



Standard Centrefeed Roll Dispenser

0212
CFD216

Portable free standing dispenser.



Floor Stand Dispenser

0212
MRD522

ENGINEERING CONSUMABLES

Lockout & Tagout Products



**Universal
Circuit Breaker Lockout**

0086	Description
LOK043	Universal MCB Lockout



Mini Circuit Breaker Lockout

0086	Type	Colour
LOK020-L	Pin Out	Yellow



Electrical/Pneumatic Plug Lockout

0086	
LOK030	



Lockout Kit, Medium

0086	
LOK116	



Maintenance Electrical Lockout Kit

0086	
LOK230	



Electrical Lockout Kit

0086	
LOK229	



Lockout Board, 5 Station

0086	
LOK172	



Lockout Board, 10 Station

0086	
LOK173	



Multi-purpose Cable Lockout

0086	Cable Type
LOK014	2.5 Metre Nylon Cable



For **Spill Absorbents & Spill Prevention**
see pages **279-282**



ENGINEERING CONSUMABLES

Lockout & Tagout Products



Ball Valve Lockouts

0086	Size mm	Maximum Handle Length mm
LOK023	9.5-31	190
LOK024	32-76	254



Ladder Tag Kit, 10 Pieces

0086	Description
TG04BOX	10 Piece Ladder Tag Kit



Lockout Tags, Double Sided, 10 Pack

0086	Description
LOK073	Do Not Use/Do Not Open - Double Sided, 10 Pack



Safety Lockout Padlocks

0086	Colour
LOK011-L	Black
LOK010-L	Blue
LOK007-L	Red
LOK008-L	Yellow
LOK009-L	Green



Dielectric Safety Lockout Padlock, Non-conductive

0086	Colour
LOK068	Yellow

First Protection



Fire Extinguisher - Powder

0086	Description
14364	600kg Dry Powder Extinguisher
14365	800kg Dry Powder Extinguisher



Fire Extinguisher - Powder

0086	Description
14366	1kg Dry Powder Extinguisher

First Aid



Travel Pouch 1 Person First Aid Kit

0086	Description
254810	



Van & Truck Drivers First Aid Kit

0086	Description
254809	

ENGINEERING CONSUMABLES

Shadowboard Cleaning Stations

Style A

0086	Colour
SB-BD01-BL	Blue
SB-BD01-GR	Green
SB-BD01-RD	Red
SB-BD01-YL	Yellow



Style B

0086	Colour
SB-BD02-BL	Blue
SB-BD02-GR	Green
SB-BD02-RD	Red
SB-BD02-YL	Yellow



Style C

0086	Colour
SB-BD03-BL	Blue
SB-BD03-GR	Green
SB-BD03-RD	Red
SB-BD03-YL	Yellow



Style D

0086	Colour
SB-BD04-BL	Blue
SB-BD04-GR	Green
SB-BD04-RD	Red
SB-BD04-YL	Yellow



Duracell Industrial Batteries

AA Batteries, 10 Pack

0086
DPB2A



AAA Batteries, 10 Pack

0086
DPB3A



9V Battery

0086
DPB9V



Padlocks

Standard Brass Padlocks

0088	Size mm
SP24L	30
SP26L	40



Brass 4 Wheel Combi Padlock

0088	Size mm
SP162P	30



Weather Resistant Padlock

0088	Size mm
SP160P	30





i-Flow: **Cost effective** on-site **nitrogen gas** generation

- ▶ Economical, on-demand N2 solution that saves you money
- ▶ Highly efficient & reliable technology, for maximum productivity
- ▶ Future-proof, expandable design to meet your growing demands
- ▶ Expert consultation & system design, backed by world-class support

Contact us today to discover more!

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Rose	
Uic Release Couplings Lu	

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Torches Labels	
Ash Loop n Cleanin	
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Taps Oils	
Plane Vision Lu ps	
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Pressure Temperature Gauges	

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03053FDPOS	63	03090FDPOS-45	78	03190027	1526	04073FD	76	07000	67
03053FDPOS-45	65	03091036	1530	03190029	1526	04074	76	07001	67
03054FDPOS	63	03091FD	76	03190031	1526	04075	76	07002	67
03054FDPOS-45	65	03092FDPOS	77	03190033	1526	04076	76	07003	67
03056FDPOS	63	03092FDPOS-45	78	03190035	1526	04076/45FD	78	07004	67
03056FDPOS-45	65	03170001	1526	03190037	1526	04076FD	76	07005	67
03057FDPOS	63	03170003	1526	03190039	1526	04077	76	07006	67
03057FDPOS-45	65	03170005	1526	03190041	1526	04078	76	07007	67
03058FDPOS	63	03170007	1526	03190043	1526	04079	76	07008	67
0305R	1538	03170009	1526	03190045	1526	04080	76	07020	76
03060002	558	03170011	1526	0350003-8	1557	04081	76	07021	76
03060202	558	03170013	1526	0350004-6	1557	04082	76	07022	76
03060402	558	03170015	1526	03503116	1530	04083	76	07023	76
03061102	558	03170017	1526	03503124	1530	04084	76	07024	76
03062502	558	03170019	1526	03503201	1530	04085	76	07025	76
03063702	558	03170021	1526	03503211	1530	04086	76	07026	76
03063802	558	03170023	1526	03503221	1530	04087	76	07027	76
03066001	1529	03170025	1526	03503231	1530	04088	76	07028	76
03066002	1529	03170027	1526	03503241	1530	04089	76	07029	76
03066003	1529	03170029	1526	03503251	1530	05000/45FD	65	07030	76
03066004	1529	03170031	1526	03503261	1530	05000FD	64	07031	76
03066005	1529	03170033	1526	03503271	1530	05001/45FD	65	07059	66
03066006	1529	03170035	1526	03503281	1530	05001FD	64	07060	66
03066007	1529	03170037	1526	0351000050	550	05002/45FD	65	07061	66
03066008	1529	03170039	1526	03C00A-00	227	05002FD	64	07062	66

07063	66	09028-08-SPG	69	09409	64	100200800	862	100R4-102-20	14
07064	66	09030-12-SPG	69	09410	64	100201000	862	100R4-115-10	14
07065	66	090R	1538	09411	64	100201200	862	100R4-127-10	14
07066	66	09100/HD	69	09412	64	1002501	1050	100R4-127-20	14
07080	66	09101/HD	69	09500	68	1002503	1050	100R4-152-10	14
07081	66	09102/HD	69	09501	68	1002505	1050	100R4-152-20	14
07083	66	09103/HD	69	09502	68	1002507	1050	100R4-19-10	14
07084	66	09105/HD	69	09503	68	1002509	1050	100R4-19-20	14
07085	66	09106/HD	69	09504	68	1002511	1050	100R4-19-40	14
07086	66	0911R	1538	09505	68	1002513	1050	100R4-25-10	14
0709R	1538	09168	69	09506	68	1002515	1050	100R4-25-20	14
08010	66	09169	69	09507	68	1002517	1050	100R4-25-40	14
08011	66	09170-M16-SPG	69	09508	68	1002519	1050	100R4-32-10	14
08012	66	09173-M14-SPG	69	09509	68	1002521	1050	100R4-32-20	14
08013	66	09176-M22-SPG	69	09510	68	1002523	1050	100R4-32-40	14
08014	66	09179	69	09511	68	100290400	862	100R4-38-10	14
08015	66	09179-M10-SPG	69	09512	68	100290600	862	100R4-38-20	14
08016	66	092.024.30.AC	1612	09513	68	100290800	862	100R4-38-40	14
0811R	1538	09220	60	09514	68	100291000	862	100R4-51-10	14
081ABK	887	09221	60	09515	68	100291200	862	100R4-51-20	14
08550	77	09222	60	09516	68	10031-S03	228	100R4-51-40	14
08551	77	09223	60	0951602093	496	1003A.17.04.00	1063	100R4-64-10	14
08552	77	09224	60	09517	68	1003A.25.04.00	1063	100R4-64-20	14
08553	77	09240	60	09521	68	1003A.40.04.00	1063	100R4-76-10	14
08554	77	09241	60	09550	68	1003A.50.04	1063	100R4-76-20	14
08555	77	09242	60	09551	68	1003A.63.04	1063	100R4-89-10	14
08556	77	09243	60	09552	68	100400400	862	100R4-89-20	14
08557	77	09244	60	09553	68	100400600	862	100R6-04-50	38
08558	77	09245	60	09554	68	100400800	862	100R6-04-B-50	39
08559	77	09250	60	09555	68	100401000	862	100R6-04-G-50	39
08560	77	09251	60	09556	68	100401200	862	100R6-04-R-50	38
08561	77	09252	60	095R	1538	10053-S03	228	100R6-05-50	38
08562	77	09253	60	09605	77	100600400	862	100R6-06-50	38
08564	77	09255	60	09606	77	100600600	862	100R6-06-B-50	39
08565	77	09258	60	09607	77	100600800	862	100R6-06-G-50	39
08566	77	09280	63	09608	77	100601000	862	100R6-06-R-50	38
08567	77	09281	63	09609	77	100601200	862	100R6-08-50	38
08568	77	09282	63	09610	77	1006A.25.04.00	1063	100R6-08-B-50	39
08569	77	09283	63	09612	77	1006A.40.04.00	1063	100R6-08-G-50	39
08570	77	09284	63	09700	79	1006A.50.04	1063	100R6-08-R-50	38
08571	77	09285	63	09701	79	1006A.63.04	1063	100R6-10-50	38
08572	77	09300	79	09702	79	100R1AT-03-100	6	100R6-12-25	38
08573	77	09301	79	09703	79	100R1AT-04-100	6	100R6-12-B-25	39
08574	77	09302	79	09704	79	100R1AT-05-100	6	100R6-12-G-25	39
08575	77	09303	79	09705	79	100R1AT-06-100	6	100R6-12-R-25	38
08576	77	09304	79	09707	79	100R1AT-08-100	6	100R6-16-25	38
08577	77	09305	79	09711	79	100R1AT-10-100	6	100R6-16-B-25	39
08578	77	09320	79	09712	79	100R1AT-12-100	6	100R6-16-G-25	39
08579	77	09321	79	0B00A-00	227	100R1AT-16-100	6	100R6-16-R-25	38
08580	77	09322	79	0F00A-00	227	100R1AT-20-40	6	100R7-03-25	13
08581	77	09323	79	1		100R1AT-24-40	6	100R7-03-75	13
08582	77	09324	79	1/2EPW	884	100R1AT-32-40	6	100R7-04-25	13
08584	77	09397	64	1/2-ORING	108	100R2AT-03-100	7	100R7-04-25-TWIN	13
08585	77	09398	64	1/4-BLACK-CUFF	1678	100R2AT-04-100	7	100R7-04-75	13
085ABK	887	09399	64	1/4-BLUE-CUFF	1678	100R2AT-05-100	7	100R7-04-75-TWIN	13
086ABK	887	09400	64	10.2000OS	1722	100R2AT-06-100	7	100R7-05-25	13
087R	1538	09401	64	10.2000OS4	1722	100R2AT-08-100	7	100R7-05-25-TWIN	13
0880160000000000	429	09402	64	10.3012OS2	1722	100R2AT-10-100	7	100R7-05-75	13
0880260000000000	429	09403	64	1000A-00	227	100R2AT-12-100	7	100R7-05-75-TWIN	13
0880460000000000	429	09404	64	1001E.250001	1066	100R2AT-16-100	7	100R7-06-25	13
0880600000000000	429	09405	64	1001E.250004	1066	100R2AT-20-40	7	100R7-06-25-TWIN	13
09025-02-SPG	69	09406	64	1002-0038	1667	100R2AT-24-40	7	100R7-06-75	13
09026-04-SPG	69	09407	64	100200400	862	100R2AT-32-40	7	100R7-06-75-TWIN	13
09027-06-SPG	69	09408	64	100200600	862	100R4-102-10	14	100R7-08-25	13

100R7-08-25-TWIN	13	1010-1061	204	1012-0047	1186	1012-0113	1187	1012-0177	1188
100R7-08-75	13	1010-1062	204	1012-0048	1186	1012-0114	1187	1012-0178	1188
100R7-08-75-TWIN	13	1010-1063	205	1012-0049	1186	1012-0115	1187	1012-0179	1188
101/2-MS	1517	1010-1064	205	1012-0050	1186	1012-0116	1187	1012-0180	1188
101/2-SS	1517	1010-1065	206	1012-0051	1186	1012-0117	1187	1012-0181	1188
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1010-1004	204	1010-1070	206	1012-0056	1186	1012-0122	1187	1012-0186	1188
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1012-0263	1189	1012-0327	1189	10163	113	10394	114	10597-03	228
1012-0264	1189	1012-0328	1189	10167	113	104.22.6.30.PC	568	105R	1538
1012-0265	1189	1012-0329	1189	10181	114	104.32.0.1.LC	567	1063-1	938
1012-0266	1189	1012-0330	1189	10198	113	104.32.0.1.PA	567	1063-112	938
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1012-0275	1189	101250828	862	102151248	862	104.32.6.23/3.LC	567	1063-4	938
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1012-0278	1189	101251028	862	102250418	862	104.32.6.25.PA	567	10668	113
1012-0279	1189	101251038	862	102250428	862	104.32.6.27.LC	568	10671	113
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1012-0281	1189	101251238	862	102250618	862	104.32.6.30.LC	568	10692	113
1012-0282	1189	10128	113	102250628	862	104.32.6.30.PC	568	10696	113
1012-0283	1189	1013-0003	1180	102250818	862	104.32.6.31.LA	568	1071-1	938
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1012-0292	1189	1013-0028	1180	10252	1694	10424	114	1071-38	938
1012-0293	1189	1013-0029	1180	1025L04 01 25	851	10432	113	1071-4	938
1012-0294	1189	1013-0030	1180	1025L06 01	851	10438	114	10715-04-04-04	79
1012-0295	1189	1013-0032	1180	1025L08 01	851	10458	113	10715-05-05-05	79
1012-0296	1189	1013-0034	1180	1025L08 01 05	851	10459	113	10715-06-06-06	79
1012-0297	1189	1013-0035	1180	10272	114	10460	113	10715-08-08-08	79
1012-0298	1189	1013-0038	1180	10289	114	10485	114	10715-10-10-10	79
1012-0299	1189	1013-0039	1180	102GA1818	864	10491	114	10715-12-12-12	79
1012-0300	1189	1013-0040	1180	102GA2828	864	105.32.6.40C	567	10716-04-04-04	78
1012-0301	1189	1013-0041	1180	102GA3838	864	10500	278	10716-05-05-05	78
1012-0302	1189	1013-0042	1180	102GA4848	864	10511	113	10716-06-06-06	78
1012-0303	1189	1013-0043	1180	102GB1818	864	10525-03	76	10716-08-08-08	78
1012-0304	1189	1013-0044	1180	102GB2828	864	10525-04	76	10716-10-10-10	78
1012-0305	1189	1013-0048	1180	102GB3838	864	10525-05	76	10716-12-12-12	78
1012-0306	1189	1013-0050	1180	102GB4848	864	10525-06	76	1072-1	939
1012-0307	1189	1013-0051	1180	102GD0418	864	10525-08	76	1072-12	939
1012-0308	1189	1013-0052	1180	102GD0428	864	10525-10	76	1072-14	939

1072-34	939	11/4-ORING	108	1120250025CN	469	1193-12	939	1202035100	1120
1072-38	939	110177	113	1120250050CN	469	1193-14	939	1202035114	1120
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1073-1	938	110180	113	1120250125CN	469	11975	67	1202054200	1120
1073-112	938	110181	113	1120250160CN	469	11976	67	12021	113
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1074-12	939	1102N2PA12D	237	1120320125CN	538	11PN07	1060	120290400	863
1074-14	939	1102N2PA12I	237	1120320160CN	538	11PP07	1060	120290600	863
1074-34	939	1102N35RA12D	237	1120320200CN	538	1200.12.04	477	1203-1010	243
1074-38	939	1102N35RA12I	237	1120320250CN	538	1200.25.04/1	477	1203-1313	243
10750	114	11041	113	11204	74	1200.32.03	477	1203-1717	243
10763	113	1107A8	1660	1120400025CN	538	1200.8.01	477	1203-2121	243
10810	113	1108420000	1535	1120400050CN	538	1200.8.02	477	120400400	863
10900	77	11089	113	1120400080CN	538	1200.8.05	477	120400600	863
10902	77	1108A8	1660	1120400100CN	538	120001515	1121	120401515	1121
10903	77	110R	1538	1120400125CN	538	120002222	1121	120402222	1121
10904	77	111/2-MS	1517	1120400160CN	538	120002828	1121	120402828	1121
10905	77	111/2-SS	1517	1120400200CN	538	120003535	1121	120403535	1121
10907	77	1110100010XN	469	1120400250CN	538	120004242	1121	120404242	1121
10908	77	1110100025XN	469	11-204-004	689	120005454	1121	120405454	1121
10940	113	1110100050XN	469	11-204-006	689	12001000	631	12041000	631
10958	228	1110120010CN	469	11205	74	12001300	631	12041300	631
10959	228	1110120025CN	469	1120500025CN	538	12001700	631	12041700	631
1095EL-12	385	1110120050CN	469	1120500050CN	538	12002100	631	12042100	631
10960	228	1110160010CN	469	1120500080CN	538	12002700	631	12042700	631
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10968	113	1110200010CN	469	1120500160CN	538	1201015034	1120	120600400	863
1096B-11	385	1110200025CN	469	1120500200CN	538	1201015038	1120	120600600	863
1097-11	385	1110200050CN	469	1120500250CN	538	1201022012	1120	12075	113
1098-11	385	1110250010CN	469	11242	113	1201022034	1120	1208015012	1120
10990	278	1110250025CN	469	113R	1538	1201022100	1120	1208022034	1120
10991	114	1110250050CN	469	11506	113	1201028034	1120	1208028100	1120
10996	113	11139	114	116002	1723	1201028100	1120	1208035114	1120
10BPEX-25C	882	1113R	1538	116021	1723	1201035100	1120	1208042112	1120
10BPEX-50C	882	11157	113	116022	1723	1201035114	1120	1208054200	1120
10BV	881	11201	74	11752	113	1201042112	1120	12090500	631
10EPR	884	1120160010CN	469	11755	113	1201054200	1120	12091000	631
10HSV	881	1120160025CN	469	11-808-960	689	12011	113	12091300	631
10J-10J-MM-10K	90	1120160050CN	469	11-818-100	690	12012	113	12091700	631
10J-12J-MM-10K	90	1120160080CN	469	11-818-110	690	12013	113	12092100	631
10J-16J-MM-10K	90	1120160100CN	469	11-818-999	690	12017	113	12092700	631
10J-8J-MF-10K	91	1120160125CN	469	11874	62	12018	113	12093200	631
10J-8N-MFA-10K	91	1120160160CN	469	11875	62	12019	113	120R	1538
10J-C-10K	94	1120160200CN	469	11876	62	12020	113	121/2-MS	1517
10J-E-MF-10K	93	11202	74	11877	62	1202002	674	121/2-SS	1517
10JITS	80	1120200010CN	469	11878	62	1202003	674	12100	113
10JMITS	80	1120200025CN	469	11880	62	120200400	863	1210013	674
10J-P-10K	94	1120200050CN	469	11881	62	120200600	863	1210014	674
10J-T-MM-10K	93	1120200080CN	469	11882	62	1202015012	1120	12100151515	1123
10JTN	80	1120200100CN	469	11883	62	1202015034	1120	12100222222	1123
10MC	883	1120200125CN	469	11884	62	1202022012	1120	12100282828	1123
10SCV	884	1120200160CN	469	11885	62	1202022034	1120	12100353535	1123
10W OIL	283	1120200200CN	469	11905	78	1202022100	1120	12100424242	1123
11.0612OS2	1722	1120200250CN	469	11907	78	1202028034	1120	12100500	631
11/2-ORING	108	1120250010CN	469	1193-1	939	1202028100	1120	12100545454	1123

12101	113	1213320500BL	500	1213630400BL	500	121470418	863	123601515	1126
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12101300	631	1213400025BL	500	1213630500BL	500	121470628	863	123602828	1126
12102	113	1213400025CN	491	1213630500CN	492	121470638	863	123603535	1126
12103	113	1213400050BL	500	1213800025AN	492	121670418	863	123604242	1126
12104	113	1213400050CN	491	1213800025WL	500	122	1034	123605454	1126
12105	113	1213400080BL	500	1213800050AN	492	122001515	1124	123801515	1126
12106	113	1213400080CN	491	1213800050WL	500	122002222	1124	123802222	1126
12107	113	1213400100BL	500	1213800080AN	492	122002828	1124	123802828	1126
12109	113	1213400100CN	491	1213800080WL	500	122003535	1124	123803535	1126
12110	113	1213400125BL	500	1213800100AN	492	122004242	1124	123804242	1126
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12110282228	1123	1213400160CN	491	1213800125WL	500	122101515	1125	123AL02054A	225
12110352235	1123	1213400200BL	500	1213800160AN	492	122102222	1125	123AL02056A	225
12110352835	1123	1213400200CN	491	1213800160WL	500	122102828	1125	123AL02062A	225
12110422242	1123	1213400250BL	500	1213800200AN	492	122103535	1125	123AL02070A	225
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12124	113	1213500200CN	491	1213A10160WL	500	1226054	675	1241035	1122
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121250428	863	1213500320BL	500	1213A10250AN	492	1231015012	1124	124302215	1121
121250628	863	1213500320CN	491	1213A10250WL	500	1231015038	1124	124302815	1121
121250638	863	1213500400BL	500	1213A10320AN	492	1231022034	1124	124302822	1121
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1213320025CN	491	1213500500CN	491	1213A10400WL	500	1231042112	1124	124304222	1121
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1213320100CN	491	1213630080CN	492	1213A20125WL	500	1232028012	1124	124305442	1121
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1213320160BL	500	1213630125BL	500	1213A20200AN	492	1232035114	1124	1251-1313	243
1213320160CN	491	1213630125CN	492	1213A20200WL	500	123-212	446	1251-1717	243
1213320200BL	500	1213630160BL	500	1213A20250AN	492	1234015012	1125	1251-2121	243
1213320200CN	491	1213630160CN	492	1213A20250WL	500	1234022034	1125	1252-2010	243
1213320250BL	500	1213630200BL	500	1213A20320AN	492	123501515	1126	1252-2013	243
1213320250CN	491	1213630200CN	492	1213A20320WL	500	123502222	1126	1252-2017	243
1213320320BL	500	1213630250BL	500	1213A20400AN	492	123502828	1126	1252-2021	243
1213320320CN	491	1213630250CN	492	1213A20400WL	500	123503535	1126	1253-3013	243
1213320400BL	500	1213630320BL	500	1213A20500AN	492	123504242	1126	1253-3017	243
1213320400CN	491	1213630320CN	492	1213A20500WL	500	123505454	1126	1253-3021	243

1261L-11	385	129001510-3MTR	1126	12J-TFF-10K	94	130698	811	13220-12-38	1210
12650	113	129002212	1126	12J-TMM-10K	93	130709	808	13220-14-12	1210
12652	113	129002212-3MTR	1126	12JTN	80	130710	808	13220-15-12	1210
1270001	675	129002812	1126	12N-12J-E-MF-10K	93	130711	808	13220-22-34	1210
12785	113	129002812-3MTR	1126	12N-12J-MF-10K	91	130712	808	13220-4-18	1210
1280.10.100.M	476	129003515	1126	12N-12J-MM-10K	90	130713	808	13220-6-14	1210
1280.10.15.M	476	129003515-3MTR	1126	12N-12N-FF-10K	92	130714	808	13220-6-18	1210
1280.12.100.M	476	129004215	1126	12N-12N-MF-A-10K	91	130715	808	13220-8-14	1210
1280.12.15.M	476	129004215-3MTR	1126	12N-12N-MM-10K	90	130716	808	13220-8-18	1210
1280.12.250.M	476	129005415	1126	12N-14J-MF-10K	91	130717	808	13220-8-38	1210
1280.12.300.M	476	129005415-3MTR	1126	12N-16J-MF-10K	91	13080	54	13230	72
1280.12.50.M	476	1-290A8	1663	12N-16J-MM-10K	90	13081	54	1323001	674
1280.16.100.M	476	129501506	1126	12N-16N-FF-10K	92	13082	54	13231	72
1280.16.150.M	476	129501506-3MTR	1126	12N-16N-MF-A-10K	91	13083	54	13232	72
1280.16.160.M	476	129502207	1126	12N-2N-MF-B-10K	92	13084	54	13233	72
1280.16.200.M	476	129502207-3MTR	1126	12N-2N-MM-10K	90	13085	54	1324030	675
1280.16.50.M	476	129502808	1126	12N-4N-MF-B-10K	92	13086	54	1324054	675
1280.16.75.M	476	129502808-3MTR	1126	12N-4N-MM-10K	90	13088	54	1325030	674
1280.16.80.M	476	129503510	1126	12N-6N-MF-B-10K	92	13089	54	1325054	674
1280.16.F	477	129503510-3MTR	1126	12N-6N-MM-10K	90	130AA	1034	132600	812
1280.20.15.M	476	129504211	1126	12N-8J-MM-10K	90	130AC	1034	13260-10	1209
1280.20.150.M	476	129505412	1126	12N-8N-MF-B-10K	92	130AE	1034	13260-12	1209
1280.20.200.M	476	129505412-3MTR	1126	12N-8N-MM-10K	90	130AL	1034	13260-15	1209
1280.20.25.M	476	12967	113	12N-C-10K	94	131.2	264	13260-22	1209
1280.20.250.M	476	12BKIT	1635	12N-E-10K	93	131.3	264	1326030	675
1280.20.300.M	476	12BIKIT2	1635	12N-E-MF-10K	93	131.4	264	13260-4	1209
1280.20.350.M	476	12-DVCC	243	12N-E-MM-10K	92	131.8	264	1326054	675
1280.20.50.M	476	12G-10J-MF-10K	91	12N-P-10K	94	1310013	674	13260-6	1209
1280.20.75.M	476	12G-10J-MM-10K	90	12N-T-10K	94	1310014	674	13260-8	1209
1280.20.80.M	476	12G-12G-FF-10K	92	12N-TMM-10K	93	1315R	1538	13280-10-12	1209
1280.25.100.M	476	12G-12G-MFA-10K	91	12N-X-10K	94	131B04-230AC	1038	13280-10-14	1209
1280.25.125.M	476	12G-12G-MM-10K	90	12PA.BARE	1635	131B04-24DC	1038	13280-10-38	1209
1280.25.15.M	476	12G-12J-MF-10K	91	12PA.KIT1B	1635	131B14-230AC	1038	13280-12-12	1209
1280.25.200.M	476	12G-12J-MM-10K	90	12PA.KIT1C	1635	131B14-24DC	1038	13280-12-14	1209
1280.25.25.M	476	12G-12N-MM-10K	90	12PS10BTV1R2B	250	1320.100.13/1F	515	13280-12-38	1209
1280.25.250.M	476	12G-16G-MFA-10K	91	12SP18	1635	1320.100.13F	515	13280-14-12	1209
1280.25.300.M	476	12G-16G-MM-10K	90	130.2	264	1320.32.13/1F	515	13280-15-12	1209
1280.25.400.M	476	12G-16J-MF-10K	91	130.3	264	1320.32.18F	515	13280-22-34	1209
1280.25.50.M	476	12G-16J-MM-10K	90	130.4	264	1320.32.32F	515	13280-4-18	1209
1280.25.75.M	476	12G-16N-MM-10K	90	13020	70	1320.32.33F	515	13280-6-14	1209
1280.25.80.M	476	12G-2G-MF-B-10K	92	1302002	674	1320.40.05/1F	515	13280-6-18	1209
1280.32.150.M	476	12G-4G-MF-B-10K	92	1302003	674	1320.40.13/1F	515	13280-8-14	1209
1280.32.250.M	476	12G-6G-MF-B-10K	92	13021	70	1320.40.13F	515	13280-8-18	1209
1280.32.400.M	476	12G-8G-MF-B-10K	92	13022	70	1320.40.32F	515	13280-8-38	1209
1280.32.50.M	476	12G-8J-MM-10K	90	13023	70	1320.40.33F	515	132981	811
1280.8.FS	477	12G-C-10K	94	13024	70	1320.50.13/1F	515	132999	808
1281.12.150.M	476	12G-E-FF-10K	93	13025	70	1320.50.13F	515	133R	1538
1281.16.150.M	476	12G-E-MF-10K	93	13026	70	1320.50.32F	515	13460-10	1209
1281.16.80.M	476	12G-E-MM-10K	92	130606	810	1320.63.13/1F	515	13460-12	1209
1281.20.200.M	476	12G-P-10K	94	130607	810	1320.63.32F	515	13460-15	1209
1281.20.50.M	476	12G-TFF-10K	94	130608	810	1320.80.13/1F	515	13460-22	1209
1281.25.160.M	476	12G-TMM-10K	93	130610	811	1320.80.13F	515	13460-4	1209
1281.25.50.M	476	12J-12J-FF-10K	92	130611	811	13200	55	13460-6	1209
1281.25.75.M	476	12J-12J-MF-10K	91	130612	811	13200-10	1210	13460-8	1209
1281.32.200.M	476	12J-12N-MFA-10K	91	130613	811	13200-12	1210	13465-10	1209
1281.32.300.M	476	12J-16J-MM-10K	90	130614	811	13200-14	1210	13465-12	1209
1281.32.50.M	476	12J-8J-MF-10K	91	130615	811	13200-22	1210	13465-14	1209
1281.32.75.M	476	12J-8N-MFA-10K	91	130616	811	13200-4	1210	13465-4	1209
12826	113	12J-C-10K	94	130622	811	13200-6	1210	13465-6	1209
12827	113	12J-E-FF-10K	93	130623	811	13200-8	1210	13465-8	1209
12845	113	12J-E-MF-10K	93	130624	811	1321006	673	13480-10-12	1209
12847	113	12JITS	80	130642	810	13220-10-12	1210	13480-10-14	1209
128R	1538	12JUMTS	80	130643	810	13220-10-14	1210	13480-10-38	1209
129001510	1126	12J-P-10K	94	130644	810	13220-10-38	1210	13480-12-12	1209

13480-12-14	1209	13550-8-14	1210	1376470	489	1380.80.09F	515	1391.100.400.01	514
13480-12-38	1209	13550-8-18	1210	1376471	489	1380.80.15F	515	1391.100.450.01	514
13480-14-12	1209	13550-8-38	1210	1376472	489	1380.80.30F	515	1391.100.50.01	514
13480-15-12	1209	1359980	531	1376473	489	1380.80.35F	515	1391.100.500.01	514
13480-22-12	1209	13600-10-12	1210	1376474	489	1383333	448	1391.100.600.01	514
13480-22-34	1209	13600-4-6	1210	1376475	489	1383334	448	1391.100.75.01	514
13480-4-14	1209	13600-6-8	1210	1376476	489	1383335	448	1391.100.800.01	514
13480-4-18	1209	13600-8-10	1210	1376477	489	1383336	448	1391.125.300.01	514
13480-6-14	1209	1360248	531	1376478	489	1383337	448	1391.160.700.01	514
13480-6-18	1209	1366948	448	1376656	448	1383338	448	1391.32.100.01	514
13480-6-38	1209	1366949	448	1376657	448	1383339	448	1391.32.125.01	514
13480-8-14	1209	1366950	448	1376658	448	1383340	448	1391.32.150.01	514
13480-8-18	1209	1366951	448	1376659	448	1383341	448	1391.32.200.01	514
13480-8-38	1209	1366952	448	1376660	448	1383342	448	1391.32.250.01	514
13485-10-14	1209	1366953	448	1376661	448	1383343	448	1391.32.300.01	514
13485-10-38	1209	1366954	448	1376662	448	1383344	448	1391.32.350.01	514
13485-22-1	1209	1366955	448	1376663	448	1383366	489	1391.32.450.01	514
13485-22-34	1209	1366956	448	1376664	448	1383367	489	1391.32.50.01	514
13485-4-18	1209	1366957	448	1376665	448	1383368	489	1391.32.500.01	514
13485-6-14	1209	1366958	448	1376666	448	1383369	489	1391.40.100.01	514
13485-6-18	1209	1366959	448	1376667	448	1383370	489	1391.40.150.01	514
13485-8-14	1209	13680-10	1210	1376903	489	1383371	489	1391.40.200.01	514
13485-8-18	1209	13680-12	1210	1376904	489	1383372	489	1391.40.250.01	514
13485-8-38	1209	13680-14	1210	1376905	489	1383373	489	1391.40.300.01	514
134AA	1034	13680-15	1210	1376906	489	1383374	489	1391.40.350.01	514
134AC	1034	13680-4	1210	1376907	489	1383375	489	1391.40.400.01	514
134AE	1034	13680-6	1210	1376908	489	1383376	489	1391.40.50.01	514
13500-10-12	1209	13680-8	1210	1376909	489	1383377	489	1391.40.500.01	514
13500-10-14	1209	1370001	675	1376910	489	1383578	448	1391.40.600.01	514
13500-10-38	1209	13740-10	1210	1376911	489	1383579	448	1391.50.100.01	514
13500-12-12	1209	13740-12	1210	1376912	489	1383580	448	1391.50.1000.01	514
13500-12-14	1209	13740-14	1210	1376913	489	1383581	448	1391.50.125.01	514
13500-12-38	1209	13740-15	1210	1376914	489	1383582	448	1391.50.150.01	514
13500-14-12	1209	13740-22	1210	13780-10	1210	1383583	448	1391.50.200.01	514
13500-15-12	1209	13740-4	1210	13780-12	1210	1383584	448	1391.50.25.01	514
13500-22-34	1209	13740-6	1210	13780-14	1210	1383585	448	1391.50.250.01	514
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13500-4-18	1209	1376301	489	13780-22	1210	1383587	448	1391.50.350.01	514
13500-6-14	1209	1376304	489	13780-4	1210	1383588	448	1391.50.400.01	514
13500-6-18	1209	1376305	489	13780-6	1210	1383589	448	1391.50.50.01	514
13500-8-14	1209	1376306	489	13780-8	1210	1383632	489	1391.50.500.01	514
13500-8-18	1209	1376307	489	1380.100.08F	515	1383633	489	1391.50.75.01	514
13500-8-38	1209	1376308	489	1380.100.09/1F	515	1383634	489	1391.63.100.01	514
13510-10	1210	1376309	489	1380.100.09F	515	1383635	489	1391.63.150.01	514
13510-12	1210	1376310	489	1380.100.11F	515	1383636	489	1391.63.200.01	514
13510-6	1210	1376311	489	1380.100.35F	515	1383637	489	1391.63.25.01	514
13510-8	1210	1376312	489	1380.32.09F	515	1383638	489	1391.63.250.01	514
13530-10-14	1209	1376313	489	1380.32.10F	515	1383639	489	1391.63.300.01	514
13530-10-38	1209	1376314	489	1380.32.15F	515	1383640	489	1391.63.350.01	514
13530-6-14	1209	1376422	448	1380.32.35F	515	1383641	489	1391.63.450.01	514
13530-6-18	1209	1376423	448	1380.40.09/1F	515	1383642	489	1391.80.1000.01	514
13530-8-14	1209	1376424	448	1380.40.09F	515	1383643	489	1391.80.200.01	514
13530-8-38	1209	1376425	448	1380.40.11F	515	138R	1538	1391.80.250.01	514
13540-10-10	1210	1376426	448	1380.40.15F	515	1390.100.03F	515	1391.80.300.01	514
13540-12-10	1210	1376427	448	1380.50.08F	515	1390.63.03F	515	1391.80.500.01	514
13540-12-13	1210	1376428	448	1380.50.09/1F	515	1390.80.03F	515	1395606	531
13540-6-7	1210	1376429	448	1380.50.09F	515	1390.A	515	1-3DVL	243
13540-8-10	1210	1376430	448	1380.50.11F	515	1391.100.125.01	514	13KAAK13MPX	331
13540-8-7	1210	1376431	448	1380.50.15F	515	1391.100.150.01	514	13KAAK17MPX	331
13550-10-14	1210	1376432	448	1380.63.08F	515	1391.100.200.01	514	13KAAK21MPX	331
13550-10-38	1210	1376433	448	1380.63.09/1F	515	1391.100.25.01	514	13KAIW13MPX	331
13550-4-18	1210	1376467	489	1380.63.09F	515	1391.100.250.01	514	13KAIW17MPX	331
13550-6-14	1210	1376468	489	1380.63.11F	515	1391.100.300.01	514	13KAIW21MPX	331
13550-6-18	1210	1376469	489	1380.63.35F	515	1391.100.350.01	514	13KATF06MPX	331

13KATF08MPX	331	1401035100	1120	140900-000	1597	142402222	1122	144304228	1121
13KATF10MPX	331	1401035114	1120	140R	1538	142402828	1122	144304235	1121
13KATF13MPX	331	140104-000	1597	141000-000	1599	1424030	675	144305422	1121
13MHH-0.5	1193	1401042112	1120	141001-000	1599	142403535	1122	144305428	1121
13MHH-1	1193	1401054200	1120	1410013	674	142404242	1122	144305435	1121
13MHH-2	1193	140106-000	1598	1410014	674	1424054	675	144305442	1121
13MHH-2.5	1193	140108-000	1601	14100151515	1123	142405454	1122	145100-000	1601
13MHH-3	1193	140110-000	1599	14100222222	1123	1425030	674	145110-000	1600
13MHH-4	1193	140111-000	1599	14100282828	1123	1425054	674	145219	1601
13MHHM-1	1193	140112-000	1597	14100353535	1123	1426030	675	145950-000	1599
13MHHM-2	1193	140112B-000	1597	141004224242	1123	1426054	675	145955-000	1599
13MHHM-2.5	1193	140113-000	1597	14100545454	1123	1427379	531	145R	1538
13MHHM-3	1193	140113B-000	1597	14110221522	1123	1430000	278	1461EL-12	385
13MHHM-4	1193	140114-000	1597	14110281528	1123	143-1	980	1462B-11	385
13PG-0.5	1193	140114B-000	1597	14110282228	1123	1431015012	1124	1462EL-12	385
13PG-0.75	1193	140118-000	1601	14110352235	1123	1431015038	1124	1470001	675
13PG-1	1193	140120-000	1597	14110352835	1123	143102-000	1600	147150-134	1600
13PG-1.5	1193	140120-159	1597	14110422242	1123	1431022034	1124	1492110	1035
13PG-2	1193	140125-000	1598	14110422842	1123	1431028100	1124	1492111	1035
13PG-2.5	1193	140126-000	1598	14110423542	1123	143103-000	1600	1492112	1035
13PG-3	1193	140128-000	1598	14110542254	1123	1431035114	1124	1492113	1035
13PG-4	1193	140129-000	1598	14110542854	1123	1431042112	1124	1492114	1035
13PNA110DG09R	236	140135-000	1598	14110543554	1123	1431054200	1124	1492118	1035
13PNA36DG09R	236	140136-000	1598	14110544254	1123	143-112	980	1492119	1035
13PNA45DG09R	236	140141-000	1597	1412000	278	143-114	980	1492120	1035
13PNA54DG09R	236	140160-000	1598	14120151215	1123	143-12	980	1492121	1035
13PNA66DG09R	236	140161-000	1598	14120153815	1123	143-2	980	1492122	1035
13PNA84DG09R	236	140170-000	1598	14120221222	1123	1432015012	1124	1492206	1035
13PNA96DG09R	236	140171-000	1598	14120223422	1123	1432015038	1124	1492207	1035
13SFAK13SXN	331	1402002	674	14120281218	1123	1432022012	1124	1492208	1035
13SFAK17SXN	331	1402003	674	14120283428	1123	1432022034	1124	1492209	1035
13SFAK21SXN	331	1402015012	1120	14120351235	1123	1432028012	1124	1492210	1035
13SFIW13SXN	331	1402015034	1120	14120353435	1123	1432028100	1124	1492214	1035
13SFIW17SXN	331	1402015038	1120	14120421242	1123	1432035012	1124	1492215	1035
13SFIW21SXN	331	1402022012	1120	14120423442	1123	1432035114	1124	1492216	1035
13SFTF06SXN	331	1402022034	1120	14120541254	1123	143-212	980	1492217	1035
13SFTF08SXN	331	1402022100	1120	14120543454	1123	143-3	980	1492218	1035
13SFTF10SXN	331	1402028034	1120	1420000	278	143-34	980	1492302	1035
13SFTF13SXN	331	1402028100	1120	142001515	1124	143-4	980	1492303	1035
140001-000	1601	1402035100	1120	142002222	1124	1434015012	1125	1492304	1035
140001515	1121	1402035114	1120	142002828	1124	1434022034	1125	1492305	1035
140002222	1121	1402042112	1120	142003535	1124	14364	1763	1492306	1035
140002828	1121	1402054200	1120	142004242	1124	14365	1763	1492310	1035
140003535	1121	140401515	1121	142005454	1124	14366	1763	1492311	1035
140004242	1121	140402222	1121	1421006	673	1440022	1125	1492312	1035
140005454	1121	140402828	1121	142101-000	1601	1440028	1125	1492313	1035
140009-000	1601	140403535	1121	142101515	1125	1440035	1125	1492314	1035
140021-000	1599	140404242	1121	142102222	1125	1440042	1125	14J-12J-MF-10K	91
140023-000	1599	140405454	1121	142102828	1125	1440054	1125	14JUMTS	80
140026-134	1599	1406N1PA12D	237	142103535	1125	1441015	1122	14J-TMM-10K	93
140027-134	1599	1406N1PA12I	237	142104242	1125	1441022	1122	14KAAW13MPX	332
140074-000	1601	1406N22PA12D	237	142105454	1125	1441028	1122	14KAAW17MPX	332
140100-000	1597	1406N22PA12I	237	142130-000	1601	1441035	1122	14KAAW21MPX	332
140101-000	1597	1406N2PA12D	237	142131-000	1601	1441042	1122	14KAIW13MPX	332
1401015012	1120	1406N2PA12I	237	142135-000	1601	1441054	1122	14KAIW17MPX	332
1401015034	1120	1406N35RA12D	237	1422002	673	144116	1599	14KAIW21MPX	332
1401015038	1120	1406N35RA12I	237	1423001	674	144180	1601	14KATF06MPX	332
140102-000	1597	1408015012	1120	142301515	1122	144194	1595	14KATF08MPX	332
1401022012	1120	1408022034	1120	142302222	1122	144302215	1121	14KATF09MPX	332
1401022034	1120	1408028100	1120	142302828	1122	144302815	1121	14KATF10MPX	332
1401022100	1120	1408035114	1120	142303535	1122	144302822	1121	14KATF13MPX	332
1401028034	1120	1408042112	1120	142304242	1122	144303522	1121	14KEAK13MPN	333
1401028100	1120	1408054200	1120	142305454	1122	144303528	1121	14KEAK21MPN	333
140103-000	1597	140858-000	1599	142401515	1122	144304222	1121	14KEIW13MPN	333

14KEIW17MPN	333	1523-4	1148	153063	811	153142	810	153328	813
14KEIW21MPN	333	1523-6	1148	153065	811	153143	810	153329	813
14KETFO6MPN	333	1524030	675	153066	811	153144	810	153332	812
14KETFO8MPN	333	1526825	531	153067	811	153145	810	153333	812
14KETFO9MPN	333	1526986	531	153068	811	153146	810	153334	812
14KETF10MPN	333	153001	808	153069	811	153147	810	153335	812
14KETF13MPN	333	153002	808	153070	811	153148	811	153336	812
14MMP-0.5	1193	153003	808	153071	811	153149	811	153344	813
14MMP-0.75	1193	153004	808	153072	811	153150	811	153345	813
14MMP-1	1193	153005	808	153073	811	153151	811	153347	813
14MMP-1.5	1193	153006	808	153074	811	153152	811	153348	813
14MMP-2	1193	153007	808	153076	809	153153	811	153349	813
14MMP-2.5	1193	153008	808	153077	809	153154	811	153350	813
14MMP-3	1193	153009	808	153078	809	153155	811	153366	813
14MMP-4	1193	153010	808	153079	809	153156	811	153367	813
1500.U	477	153012	808	153080	809	153157	810	153368	813
1500-2	1148	153013	808	153081	809	153158	810	153369	813
1500-3	1148	153014	808	153082	809	153159	810	153371	813
1500-4	1148	153015	808	153083	809	153160	810	153372	813
1500-6	1148	153016	808	153084	809	153161	810	153373	813
150120-134	1723	153017	808	153085	809	153172	810	153374	813
150123-134	1723	153018	808	153086	810	153173	810	153376	813
150130-134	1723	153019	808	153087	810	153174	810	153377	813
150131-134	1723	153020	808	153088	810	153175	810	153498	816
1502003	674	153021	808	153089	810	153176	810	153499	816
15026	64	153022	808	153090	810	153177	810	153500	816
15027	64	153023	808	153091	810	153178	810	153501	816
15028	64	153024	808	153092	810	153179	810	153502	816
15030	64	153025	808	153093	810	153180	810	153503	816
15031	64	153026	808	153094	810	153181	810	153504	816
15032	64	153027	808	153095	810	153262	811	153505	816
1503269	531	153028	808	153106	809	153263	811	153506	816
1504-22	1148	153029	808	153107	809	153264	811	153507	816
1504-32	1148	153030	808	153108	809	153265	811	153508	816
1504-33	1148	153031	810	153109	809	153266	811	153509	816
1504-43	1148	153032	810	153110	809	153267	811	153510	816
1504-44	1148	153033	810	153111	809	153268	811	153511	816
1504-64	1148	153034	810	153112	809	153269	811	153512	816
1504-66	1148	153035	810	153113	809	153270	811	153513	816
150HIT 04	936	153037	810	153114	809	153271	811	153514	816
150HIT 05	936	153038	810	153115	809	153273	809	153515	816
150HIT 06	936	153039	810	153117	809	153274	809	153516	816
150HIT 07	936	153040	810	153118	809	153275	809	153517	816
150HIT 08	936	153041	811	153119	809	153276	809	153518	816
150HIT 09	936	153042	810	153120	809	153277	809	153519	816
150HIT 10	936	153043	811	153121	809	153278	809	153520	816
150HIT 11	936	153044	811	153122	809	153279	809	153521	816
150HIT 12	936	153045	809	153123	809	153280	809	1540.100.80.01.1	536
150HIT 13	936	153046	809	153124	809	153303	812	1540.20.03F	536
150HIT 14	936	153047	809	153125	809	153304	812	1540.20.05/1F	536
150HIT 16	936	153048	809	153126	809	153305	812	1540.20.15.01.1	536
150R	1538	153049	809	153128	811	153306	812	1540.20.50.01.1	536
151120-134	1723	153050	809	153129	811	153307	812	1540.25.50.01.1	536
1513-2	1148	153051	809	153130	811	153314	812	1540.25.60.01.1	536
1513-3	1148	153052	809	153131	811	153315	812	1540.32.15.01.1	536
1513-4	1148	153053	809	153132	811	153316	812	1540.32.20.01.1	536
1513-6	1148	153054	809	153134	811	153317	812	1540.32.200.01.1	536
151687	581	153056	811	153135	811	153318	812	1540.32.30.01.1	536
1517R	1538	153057	811	153136	811	153319	812	1540.32.60.01.1	536
1518R	1538	153058	811	153137	811	153321	812	1540.40.75.01.1	536
1521006	673	153059	811	153138	810	153324	813	1540.50.100.01.1	536
1523001	674	153060	811	153139	810	153325	813	1540.50.30.01.1	536
1523-2	1148	153061	811	153140	810	153326	813	1540.50.35.01.1	536
1523-3	1148	153062	811	153141	810	153327	813	1540.50.50.01.1	536

1540.63.100.01.1	536	16094	58	164981	809	16702496	1539	16N-8N-MF-B-10K	92
1540.63.25.01.1	536	16095	58	16601	59	16702497	1539	16N-8N-MM-10K	90
1540.63.50.01.1	536	16096	58	16700001	1539	16702498	1539	16N-C-10K	94
1547102	531	16102	58	16700002	1539	16702864	1539	16N-E-10K	93
156100-134	1723	16103	58	16700003	1539	16702951	1539	16N-E-MF-10K	93
1577238	531	16117	59	16700004	1539	16702993	1539	16N-E-MM-10K	92
1578512	531	16121	59	16700005	1539	16702998	1539	16N-P-10K	94
1578518	531	16122	59	16700006	1539	16704055	1539	16N-T-MM-10K	93
1580U	477	16123	59	16700007	1539	168R	1538	16N-X-10K	94
15-8-2MM	1421	16124	59	16700008	1539	16AMP-0.5	1193	170001515	1121
15900007	1538	16125	59	16700009	1539	16AMP-1	1193	170002222	1121
15APT-B	881	16126	59	16700010	1539	16AMP-2	1193	170002828	1121
15BDC	881	16127	59	16700011	1539	16AMP-2.5	1193	170003535	1121
15BPB-100C	882	16128	59	16700012	1539	16AMP-3	1193	170004242	1121
15BPB-25C	882	16136	59	16700013	1539	16AMP-4	1193	170005454	1121
15BPB-50C	882	16137	59	16700014	1539	16G-10J-MM-10K	90	17001	74
15BPEX-100C	882	16142	59	16700015	1539	16G-12G-MF-B-10K	92	17004	74
15BPEX-20X2L	882	16169	58	16700016	1539	16G-12J-MF-10K	90	1700KEAW17SPN	368
15BPEX-20X3L	882	16170	58	16700017	1539	16G-12J-MM-10K	90	1700KEAW21SPN	368
15BPEX-25C	882	16171	58	16700018	1539	16G-16G-FF-10K	92	1700KEAW26SPN	368
15BPEX-50C	882	16172	58	16700019	1539	16G-16G-MFA-10K	91	1700KEIW21SPN	368
15BSC	881	16173	58	16700020	1539	16G-16G-MM-10K	90	1700KEIW26SPN	368
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15DCV	881	16175	58	16700026	1539	16G-16J-MM-10K	90	1701015034	1120
15ESOT	881	16176	58	16700028	1539	16G-16N-MM-10K	90	1701015038	1120
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15JMST	80	16181	59	16700037	1539	16G-6G-MF-B-10K	92	1701022100	1120
15MC	883	16182	59	16700040	1539	16G-8G-MF-B-10K	92	1701028034	1120
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15RA	1091	16184	59	16700044	1539	16G-E-FF-10K	93	1701035100	1120
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15WB	880	16187	59	16700048	1539	16G-E-MM-10K	92	1701042112	1120
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16092	58	1644389	531	16702494	1539	16N-6N-MF-B-10K	92	170828	528
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1845723	544	186269	812	190667	809	1908303	465	19211	463
1845724	544	186350	808	190668	809	1908304	465	192-112-STRAINER	972
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18560-4	937	18-868/1	406	190708	811	1908311	463	19216	463
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18560-6	937	18-979/1	406	1-908-02-20-600	270	1908313	464	19218	463
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186107	808	18SFIW17SXN	335	1908269	464	19152	70	19234	464
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193139	815	19922	60	19VTS.S.38.04035	748	1BJP2440	73	1BP08T08	55
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193143	815	19924	60	19Y	338	1BJP3240	73	1BP08T12	55
193144-FESTO	815	19925	60	1A-MS	1517	1BMF0808-10000	1649	1BP08T16	55
193145	815	19927	60	1A-MS-BOX	1517	1BMF0808-2000	1649	1BP08T20	55
193146	815	19930	60	1A-SS	1517	1BMF0808-4000	1649	1BP1010	54
193147	815	19931	60	1BFF0404-1000	1649	1BMF0808-600	1649	1BP1012	54
193148	815	19932	60	1BFF0404-600	1649	1BMF0808-800	1649	1BP1016	54
193149	815	19933	60	1BFF0404-750	1649	1BNT0204	55	1BP1020	54
193150	815	19934	60	1BJP0207	73	1BNT0402	55	1BP10T06	55
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193156	815	199M12U34	97	1BJP0412	73	1BNT1212	55	1BP1220	54
193157	815	199M16U78	97	1BJP0414	73	1BNT1616	55	1BP1224	54
193158	815	199M18U1116	97	1BJP0417	73	1BNT2420	55	1BP1232	54
193159	815	199M22U1316	97	1BJP0421	73	1BNT2424	55	1BP12T04	55
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	2175-1082	785	2175-1146	786	2182-8181	41	2196-4282	901	21KAKS06MPN	341
	2175-1083	785	2175-1147	786	2182-8199	41	2196-4283	901	21KAKS08MPN	341
	2175-1084	785	2175-1148	786	2182-8207	41	2196-4284	901	21KARP06MPN	343
	2175-1085	785	2175-1149	786	2182-8215	41	2196-4285	901	21KARP08MPN	343
	2175-1086	785	2175-1150	786	2182-8223	41	2196-4286	901	21KATF04MPN	341
	2175-1087	785	2175-1151	786	2182-8231	41	2196-4287	901	21KATF06MPN	341
	2175-1088	785	2175-1152	786	2182-8249	41	2196-4288	901	21KATF08MPN	341
	2175-1089	785	2175-1153	786	2182-8256	41	2196-4289	901	21KATF09MPN	341
	2175-1090	785	2175-1154	786	2182-8272	41	2196-4290	901	21KATF10MPN	341
	2175-1091	785	2175-1155	786	2182-8280	41	2196-4291	901	21KATF10MPN8	346
	2175-1092	785	2175-1160	783	2182-8306	41	2196-4292	901	21KATS04MPN	341
	2175-1093	785	2175-1170	783	21938	1745	2196-4293	901	21KATS06MPN	341
	2175-1094	785	2175-1171	783	2196-4229	901	2196-4294	901	21KATS08MPN	341
	2175-1095	785	2175-1172	783	2196-4230	901	2196-4295	901	21KBAW10DPX	347
	2175-1096	785	2175-1173	783	2196-4231	901	2196-4296	901	21KBAW10MPX	344
	2175-1097	786	2175-1174	783	2196-4232	901	2196-4297	901	21KBAW13DPX	347
	2175-1098	786	2175-1175	783	2196-4233	901	2196-4298	901	21KBAW13MPX	344
	2175-1099	786	2175-1176	783	2196-4234	901	2196-4299	901	21KBIW10DPX	347
	2175-1100	786	2175-1177	783	2196-4235	901	2196-4300	901	21KBIW10FVX	347
	2175-1101	786	2175-1178	783	2196-4236	901	2196-4301	901	21KBIW10MPX	344

21KBIW13DPX	347	21SFKO08FXX	348	2206003	1212	2208010	1212	226-0032-0000	1446
21KBIW13MPX	344	21SFKO08MXN	342	2206004	1212	2208011	1212	226-0038-0000	1446
21KBKE06DPX	349	21SFKS06MXN	342	2206005	1212	2209001	1212	226-0051-0000	1446
21KBKE06FVX	349	21SFKS08MXN	342	2206006	1212	2209002	1212	226-0063-0000	1446
21KBKO06DPX	347	21SFRP06MPN	343	2207001	1212	2209003	1212	226-0076-0000	1446
21KBKO06FVX	347	21SFRP08MPN	343	2207002	1212	2209004	1212	227-0032-0000	1446
21KBKO06MPX	344	21SFTF04MXN	342	2207003	1212	2209005	1212	227-0032-1003	1446
21KBKO08MPX	344	21SFTF04MXN0	346	2207004	1212	2209006	1212	227-0038-0000	1446
21KBKS06DPX	347	21SFTF04MXN6	346	2207005	1212	2210	250	227-0038-1003	1446
21KBTE04DPX	349	21SFTF05MXN	342	2207006	1212	2211001	1212	227-0050-0000	1446
21KBTF04DPX	347	21SFTF06DXX	348	2207008	1212	2211002	1212	227-0050-1003	1446
21KBTF04MPX	344	21SFTF06MXN	342	2207011	1212	2211003	1212	228.32.0.1	570
21KBTF06DPX	347	21SFTF06MXN8	346	2207-0684	782	2211004	1212	228.32.1.1	570
21KBTF06MPX	344	21SFTF08MXN	342	2207-0685	782	2211005	1212	228.32.10.2/1	570
21KBTF08MPX	344	21SFTF09MXN	342	2207-0686	782	2212001	1212	228.32.10/1	570
21KSAW10MPN	345	21SFTF10MXN	342	2207-0687	782	2212002	1212	228.32.11.1	609
21KSAW13MPN	345	21SFTS04FXX	348	2207-0688	782	2212003	1212	228.32.11.11	609
21KSIW10MPN	345	21SFTS04MXN	342	2207-0689	782	2212004	1212	228.32.11.12	609
21KSIW13MPN	345	21SFTS06MXN	342	2207-0690	782	2212005	1212	228.32.13.1	609
21KSTF06MPN	345	21SFTS09MXN	342	2207-0691	782	2213233	490	228.32.2.1	570
21KSTF08MPN	345	21SSAW10MXN	345	2207-0692	782	2214899	490	228.32.2.1/1	570
21KSTF10MPN	345	21SSAW13MXN	345	2207-0693	782	2214909	490	228.32.2.1/2	570
21SBAW10DPX	349	21SSIW10MXN	345	2207-0694	782	2214971	490	228.32.4.1	570
21SBAW10MPX	344	21SSIW13MXN	345	2207-0695	782	221G13-230AC	1038	228.32.6.1/1	570
21SBAW13DPX	349	21SSTF06MXN	345	2207-0696	782	221G13-24DC	1038	228.32.6.1/2	570
21SBIW10DPX	349	21SSTF08MXN	345	2207-0697	782	221G1530-24DC	1038	228.32.6.1/3	570
21SBIW10MPX	344	21SSTF10MXN	345	2207-0698	782	221G16-230AC	1038	228.32.6.13/1	570
21SBIW13DPX	349	2201	250	2207-0699	782	221G16-24DC	1038	228.32.6.13/3	570
21SBKO06DPX	349	2201001	1212	2207-0700	782	221G17-24DC	1038	228.32.6.25	570
21SBKO06MPX	344	2201002	1212	2207-0701	782	221G21-230AC	1038	228.32.6.27	570
21SBKO08FVX	349	2201003	1212	2207-0702	782	221G2130-24DC	1038	228.32.6.28	570
21SBKO08MPX	344	2201004	1212	2207-0703	782	221G6106-230AC	1037	228.32.9.1/2	570
21SBKS06DPX	349	2201005	1212	2207-0704	784	221G6136-24DC	1037	228.32.9/2	570
21SBTF08MPX	344	2202	250	2207-0705	784	221G6306-230AC	1037	228.52.1.1	573
21SFAW10DXX	348	2202001	1212	2207-0706	784	221G6506-230AC	1037	228.52.10.1	573
21SFAW10MXN	342	2202002	1212	2207-0707	784	221G6536-24DC	1037	228.52.10.1/1	573
21SFAW10MXN0	346	2202004	1212	2207-0708	784	221G6606-230AC	1037	228.52.10.1P	573
21SFAW10MXN3	346	2202005	1212	2207-0709	784	2225-1	982	228.52.11.1	610
21SFAW10MXN6	346	2202006	1212	2207-0710	784	2225-12	982	228.52.11.11	610
21SFAW10MXN8	346	2202007	1212	2207-0711	784	2225-14	982	228.52.11.12	610
21SFAW13DXX	348	2203	250	2207-0714	782	2225-34	982	228.52.13.1	610
21SFAW13MXN	342	2203001	1212	2207-0800	782	2225-38	982	228.52.2.1	573
21SFAW13MXN0	346	2203002	1212	2207-0801	782	2225R	1538	228.52.2.1/1	573
21SFAW13MXN3	346	2203003	1212	2207-0802	782	224.32.11.1	609	228.52.2.1/2	573
21SFAW13MXN6	346	2203004	1212	2207-0803	782	224.32.11.11	609	228.52.4.1	573
21SFAW13MXN8	346	2203005	1212	2207-0804	782	224.32.8.1	570	228.52.55/1	573
21SFAW17MXN	342	2203006	1212	2207-0805	782	224.32.9.1/1	570	228.52.55/2	573
21SFIW10MXN	342	2204001	1212	2207-0806	782	224.32.9.1/2	570	228.52.55/3	573
21SFIW10MXN0	346	2204002	1212	2207-0807	782	224.32.9.2	570	228.52.6.25	573
21SFIW10MXN3	346	2204003	1212	2207-0808	782	224.32.9.3	570	228.52.6.27	573
21SFIW10MXN6	346	2204004	1212	2207-0809	782	224.52.11.1	610	228.52.6.28	573
21SFIW10MXN8	346	2205001	1212	2207-0810	782	224.52.11.11	610	228.52.9/2	573
21SFIW13DXX	348	2205002	1212	2207-0811	782	224.52.8.1	573	228.53.31.9.1/1	574
21SFIW13FXX	348	2205003	1212	2207-0812	782	224.52.9.1/1	573	228.53.31.9.1/2	574
21SFIW13MXN	342	2205004	1212	2207-0813	782	224.52.9.1/2	573	228.53.31.9/1	574
21SFIW13MXN0	346	2205005	1212	2207-0814	782	224.52.9.1/3	573	228.53.31.9/2	574
21SFIW13MXN3	346	2205007	1212	2207-0815	782	224.52.9.2	573	228.53.32.10.1	574
21SFIW13MXN6	346	2205008	1212	2207-0816	782	224.53.31.11.11	610	228.53.32.9.1/2	574
21SFIW13MXN8	346	2205009	1212	2208002	1212	224.53.31.9.1/2	574	22BLKCON-25C	884
21SFIW17MXN	342	2205010	1212	2208003	1212	224.53.31.9.1/3	574	22BPB-25C	882
21SFKK06MXN	342	2205011	1212	2208005	1212	224.53.31.9.2	574	22BPB-50C	882
21SFKK08MXN	342	2205012	1212	2208006	1212	2250	1042	22BPEX-20X2L	882
21SFKO06DXX	348	2206001	1212	2208007	1212	225R	1538	22BPEX-20X3L	882
21SFKO06MXN	342	2206002	1212	2208009	1212	226-0025-0000	1446	22BPEX-25C	882

22BPEX-50C	882	23012394	1537	230BM18G1	96	232BM25N1	96	23KATF13MPN	351
22BV	881	23012407	1537	230BM22G34	96	232BM32N114	96	23SFAK10SXN	351
22CFA	882	23012415	1537	230BM25G1	96	232BM38N112	96	23SFAK13SXN	351
22CMA	882	23012423	1537	230BM25G34	96	232BM6N14	96	23SFAK17SXN	351
22HSV	881	23012431	1537	230BM32G1	96	232BM6N18	96	23SFAK21SXN	351
22KAAK13MPN	350	23012440	1537	230BM32G114	96	232BM8N14	96	23SFIW10SXN	351
22KAAK17MPN	350	23012458	1537	230BM38G112	96	232F0220	704	23SFIW13SXN	351
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22KAIW21MPN	350	2302004	1162	230BM6G12	96	232F0240	704	23SFIW21SXN	351
22KATF06MPN	350	2302005	1162	230BM6G14	96	232F0260	704	23SFTF06SXN	351
22KATF08MPN	350	2302006	1162	230BM6G18	96	232F0280	704	23SFTF08SXN	351
22KATF13MPN	350	2302007	1162	230BM8G14	96	234 895	560	23SFTF09SXN	351
22MC	883	2302008	1162	2311001	1162	234 904	560	23SFTF10SXN	351
22RA	1091	2303001	1162	2311002	1162	234 905	560	23SFTF13SXN	351
22SFAK13SXN	332	2303002	1162	2311003	1162	234 9054	563	2400	1042
22SFAK17SXN	332	2303003	1162	231A0210	704	234 925	560	2401 09	966
22SFAK21SXN	332	2303004	1162	231A0220	704	234 945	559	2401 10	966
22SFIW13SXN	332	2304001	1162	231A0230	704	234 955	559	2401 11	966
22SFIW17SXN	332	2304002	1162	231A0240	704	234 965	559	2401 12	966
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22SFTF06SXN	332	2305002	1162	231A0260	704	234 972	560	2401 14	966
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22SFTF13SXN	332	2305005	1162	231M10R12	96	234 990	560	2401 20	966
22STV	881	2305006	1162	231M10R14	96	23493	1745	2402 09	964
22WB	880	2305007	1162	231M10R18	96	23498	1745	2402 10	964
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2301002	1162	2305009	1162	231M12R12	96	235 904	560	2402 12	964
2301003	1162	2305010	1162	231M12R14	96	235 905	560	2402 13	964
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2301006	1162	2306004	1162	231M16R12	96	235 955	559	2406 08	964
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23012010	1537	2307005	1162	231M22R34	96	235 985	559	2406 13	964
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23012036	1537	2307009	1162	231M25R34	96	2351001	1162	2406 16	964
23012044	1537	2307010	1162	231M32R1	96	2351002	1162	2406 18	964
23012052	1537	2308001	1162	231M32R114	96	2351003	1162	2406 20	964
23012060	1537	2308002	1162	231M38R112	96	2351004	1162	2413-1	961
23012079	1537	2308004	1162	231M38R114	96	2351005	1162	2413-112	961
23012087	1537	2308005	1162	231M6R12	96	2351006	1162	2413-114	961
23012108	1537	2308006	1162	231M6R14	96	2351007	1162	2413-12	961
23012116	1537	2308007	1162	231M6R18	96	2351008	1162	2413-14	961
23012124	1537	2308008	1162	231M8R14	96	2351009	1162	2413-2	961
23012132	1537	2308009	1162	231M8R18	96	2351010	1162	2413-34	961
23012140	1537	2308010	1162	232-101	446	2351011	1162	2413-38	961
23012159	1537	2308012	1162	2327R	1538	2351012	1162	24-14-2MM	1421
23012167	1537	2309001	1162	232A0220	704	2352002	1162	242287	223
23012175	1537	2309002	1162	232A0230	704	2356001	1162	242885	223
23012183	1537	2309004	1162	232A0240	704	238929	223	2436358	1587
23012191	1537	230BM10G12	96	232A0260	704	239751	223	2436359	1587
23012204	1537	230BM10G14	96	232A0270	704	23KAAK13MPN	351	2440-1	964
23012300	1537	230BM10G18	96	232A0280	704	23KAAK17MPN	351	2440-112	964
23012319	1537	230BM10G38	96	232A0340	704	23KAAK21MPN	351	2440-114	964
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23012335	1537	230BM12G14	96	232A0380	704	23KAIW17MPN	351	2440-14	964
23012343	1537	230BM12G34	96	232BM10N14	96	23KAIW21MPN	351	2440-2	964
23012351	1537	230BM12G38	96	232BM10N38	96	23KATF06MPN	351	2440-34	964
23012360	1537	230BM16G12	96	232BM12N12	96	23KATF08MPN	351	2440-38	964
23012378	1537	230BM16G34	96	232BM20N12	96	23KATF09MPN	351	2445-1	964
23012386	1537	230BM16G38	96	232BM20N34	96	23KATF10MPN	351	2445-112	964

2445-114	964	24N2A20A025	475	25KATF10RVX	360	25SRTF10SXN	355	2702BLACK12	1589
2445-12	964	24N2A20A040	475	25KATF13MPN	353	25SSAK13SXN	359	2702BLACK19	1589
2445-14	964	24N2A20A050	475	25KATF13RVX	360	25SSAK17SXN	359	2702BLACK25	1589
2445-2	964	24N2A20A080	475	25KATS08MPN	353	25SSAK21SXN	359	2702BLACK50	1589
2445-34	964	24N2A20A100	475	25KATS10MPN	353	25SSIW13SXN	359	2702BLUE12	1589
2445-38	964	24N2A20A125	475	25KBAK17BPX	356	25SSIW17SXN	359	2702BLUE19	1589
2447-1	964	24N2A20A160	475	25KBTf06BPX	356	25STTF08SXN	359	2702BROWN19	1589
2447-112	964	24N2A20A200	475	25KDAK13BPNS	361	25SSTF10SXN	359	2702DGREEN12	1589
2447-114	964	24N2A20A250	475	25KDIW13BPNS	361	25SSTF13SXN	359	2702ORANGE19	1589
2447-12	964	24N2A20A300	475	25KDIW21BPNS	361	25W	354	2702ORANGE50	1589
2447-2	964	24N2A25A010	475	25KDTF08BPNS	361	25Y	354	2702RED12	1589
2447-212	964	24N2A25A025	475	25KSAK13SPN	359	26-0021	1673	2702RED19	1589
2447-3	964	24N2A25A040	475	25KSTF10SPN	359	2619969	544	2702RED25	1589
2447-34	964	24N2A25A050	475	25KSTF13SPN	359	265M10U916	98	2702WHITE19	1589
2447-4	964	24N2A25A080	475	25SBTF10MPX	356	265M12U34	98	2702YELLOW19	1589
2450 09	966	24N2A25A100	475	25SDAW13MPN	361	265M16U78	98	2702YELLOW19	1589
2450 10	966	24N2A25A125	475	25SDAW17MPN	361	265M18U1116	98	2702YELLOW50	1589
2450 11	966	24N2A25A160	475	25SDAW21MPN	361	265M22U1316	98	27070FDPOS	76
2450 12	966	24N2A25A200	475	25SDIW13MPN	361	265M25U1516	98	27072FDPOS	76
2450 13	966	24N2A25A250	475	25SDIW17MPN	361	265M32U158	98	27073FDPOS	76
2450 14	966	24N2A25A300	475	25SDIW21MPN	361	265M38U178	98	27074FDPOS	76
2450 16	966	24N2A25A320	475	25SDTF08MPN	361	265M6U716	98	27075FDPOS	76
2451 09	966	24N2A25A400	475	25SDTF10MPN	361	265M8U12	98	27076FDPOS	76
2451 10	966	24N2A25A500	475	25SDTF13MPN	361	26KAAW10MPX	362	27077FDPOS	76
2451 11	966	24PA.BARE	1635	25SFAK10SXN	354	26KAAW13MPX	362	27079FDPOS	76
2451 12	966	24PA.KIT1B	1635	25SFAK13SXN	354	26KAAW17MPX	362	2721YELLBLACK50	1589
2451 13	966	24PA.KIT1C	1635	25SFAK17SXN	354	26KAAW21MPX	362	2721YELLBLACK75	1589
2451 14	966	2501010	1162	25SFAK21SXN	354	26KAIW13MPX	362	2731R	1538
2451 16	966	2501011	1162	25SFAW10MXX	362	26KAIW17MPX	362	273M10G14	96
2453 09	966	2501012	1162	25SFAW13MXX	362	26KAIW21MPX	362	273M10G38	96
2453 10	966	2501BLACK19	1589	25SFAW13MXX8	358	26KATF06MPX	362	273M10R14	96
2453 11	966	2501BLACK25	1589	25SFAW13RXX	360	26KATF08MPX	362	273M10U716	96
2453 12	966	25-200	1627	25SFAW17MXX	362	26KATF09MPX	362	273M10U916	96
2453 13	966	25-201	1627	25SFAW17RXX	360	26KATF10MPX	362	273M12G38	96
2453 14	966	25-203	1627	25SFAW21MXX	362	26KATF13MPX	362	273M12R14	96
2453 16	966	25-204	1627	25SFAW21RXX	360	26KBTf10MPX	363	273M12R38	96
2453 18	966	2528R	1538	25SFIW10MXX	362	26KEAW13MPN	364	273M12U916	96
245R	1538	254809	1763	25SFIW10SXN	354	26KEAW17MPN	364	273M16G12	96
2465321	660	254810	1763	25SFIW13MXX	362	26KEAW21MPN	364	273M16R12	96
24F910	1647	2570-13	243	25SFIW13MXX3	358	26KEIW13MPN	364	273M16U34	96
24G581	1647	2570-17	243	25SFIW13MXX6	358	26KEIW17MPN	364	273M18U1116	96
24G593	1647	2570-21	243	25SFIW13RXX	360	26KEIW21MPN	364	273M18U34	96
24JITS	80	2570-26	243	25SFIW13SXN	354	26KETf06MPN	364	273M20G34	96
24JTN	80	25FAAK13SPN	355	25SFIW17MXX	362	26KETf08MPN	364	273M20R12	96
24KAAW13MPX	352	25JMTS	80	25SFIW17MXX8	358	26KETf09MPN	364	273M20R34	96
24KAAW17MPX	352	25KAAK13MPN	353	25SFIW17RXX	360	26KETf10MPN	364	273M22G34	96
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24KAIW13MPX	352	25KAAK21MPN	353	25SFIW21MXX	362	26KPAW13APX	365	273M22U1116	96
24KAIW17MPX	352	25KAAW13RVX	360	25SFIW21RXX	360	26KPAW17APX	365	273M25G1	96
24KAIW21MPX	352	25KAAW17RVX	360	25SFIW21SXN	354	26KPAW21APX	365	273M25R1	96
24KATF06MPX	352	25KAIW13MPN	353	25SFTF06MXX	362	26KPIW13APX	365	273M25R34	96
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24KATF10MPX	352	25KAIW17MPN	353	25SFTF06SXN	354	26KPIW21APX	365	273M25U1516	96
24KATF13MPX	352	25KAIW17RVX	360	25SFTF08MXX	362	26KPTf06APX	365	273M32G114	96
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24N2A16A025	475	25KAIW21RVX	360	25SFTF08SXN	354	26KPTf10APX	365	273M38G112	96
24N2A16A040	475	25KAKK08MPN	353	25SFTF09MXX	362	26KPTf13APX	365	273M38R112	96
24N2A16A050	475	25KAKK10MPN	353	25SFTF09SXN	354	26W	362	273M6G18	96
24N2A16A080	475	25KAKO08MPN	353	25SFTF10MXX	362	26Y	362	273M6R18	96
24N2A16A100	475	25KATF08MPN	353	25SFTF10RXX	360	2700	1042	273M6U716	96
24N2A16A125	475	25KATF09BPX6	358	25SFTF10SXN	354	27000216	905	273M8G14	96
24N2A16A160	475	25KATF09BPX8	358	25SFTF13MXX	362	27000825	905	273M8G18	96
24N2A16A200	475	25KATF09MPN	353	25SFTF13RXX	360	27010216	905	273M8R14	96
24N2A20A010	475	25KATF10MPN	353	25SFTF13SXN	354	27010825	905	273M8U12	96

273M8U716	96	27KATF19MPN	366	28012	1500	2811-4003-80	1086	28PHA12	1149
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275M16N38	98	2800200015XP	532	28033	1498	2811-5002-80	1085	28PHA23	1149
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275M25U1516	98	2800250025XP	532	28051	1499	2811-6617-80	1085	28PHA40	1149
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275M32N114	98	2800250050XP	532	2810-0038-10	1087	281A0211	1413	28PHA40B	1149
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28PHM08	1149	2900800050AP	533	2-971-57-02-001	271	2B1224	61	2BM0826	61
28PHM09A	1149	2903BLACKBLACK50	1589	2-971-57-04-001	271	2B1606	61	2BM1022	61
28PHMR04B	1149	2903BLACKBLACK75	1589	2-971-58-02-001	271	2B1608	61	2BM1222	61
28PHMR04C	1149	2931678	1050	2-971-58-04-001	271	2B1612	61	2BMF0404-10000	1649
28PHMR05	1149	2931681	1050	2-971-75-00-001	271	2B1616	61	2BMF0404-1500	1649
28PHMR06	1149	2931682	1050	2-971-75-04-001	271	2B1620	61	2BMF0404-4000	1649
28PHMR08	1149	2931683	1050	29963	1746	2B1624	61	2BMF0404-600	1649
28PHMR09	1149	29500FDPOS	77	299M10	100	2B1632	61	2F01000	865
28PHMR10	1149	29501FDPOS	77	299M12	100	2B2008	61	2F01001	865
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2900100010AP	533	29503FDPOS	77	299M20	100	2B2016	61	2F01003	865
2900100015AP	533	29505FDPOS	77	299M22	100	2B2020	61	2F01007	865
2900100020AP	533	29506FDPOS	77	299M25	100	2B2024	61	2F01008	865
2900100025AP	533	29507FDPOS	77	299M32	100	2B2416	61	2F01009	865
2900100040AP	533	29508FDPOS	77	299M38	100	2B2420	61	2F01010	865
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2900320015CP	533	2-971-20-02-001	271	2B0204	61	2BJ0812	74	2F02011	866
2900320020CP	533	2-971-20-04-001	271	2B0206	61	2BJ0814	74	2F03001	865
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2900800025AP	533	2-971-54-02-001	271	2B1216	61	2BM0822	61	2F31003	866

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2F31008	866	2J0907	75	2L02007	868	2L24004	822	2L35010	821
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2F31015	866	2J1214	75	2L03003	868	2L25009	822	2L39C08	869
2F31C02	866	2J1217	75	2L03004	868	2L31001	869	2L39C09	869
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2F31C11	866	2J1714	75	2L03304	868	2L31009	869	2L40004	868
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2F32008	866	2J2626	75	2L04001	868	2L31014	869	2L43001	822
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2F39C02	866	2JB0806	75	2L05005	868	2L31C12	869	2L46003	822
2F39C08	866	2JB0808	75	2L07004	869	2L31C13	869	2L46004	822
2F39C09	866	2JB0904	75	2L08002	869	2L31C14	869	2M1414	62
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2F39C11	866	2JB1206	75	2L08006	869	2L32003	869	2M1618	62
2F39C12	866	2JB1208	75	2L08007	869	2L32008	869	2M1818	62
2F39C13	866	2JB1210	75	2L08008	869	2L32009	869	2M2020	62
2G-12G-MFA-10K	91	2JB1212	75	2L10001	821	2L32010	869	2M2022	62
2G-12G-MM-10K	90	2JB1406	75	2L10003	821	2L32011	869	2M2218	62
2G-12N-MM-10K	90	2JB1408	75	2L10004	821	2L32012	869	2M2220	62
2G-16G-MM-10K	90	2JB1410	75	2L10005	821	2L32013	869	2M2222	62
2G-16N-MM-10K	90	2JB1412	75	2L10006	821	2L32014	869	2MB1204	62
2G-2G-MFA-10K	91	2JB1712	75	2L11001	868	2L34001	821	2MB1404	62
2G-2G-MM-10K	90	2JB2116	75	2L11003	868	2L34002	821	2MB1406	62
2G-2N-MM-10K	90	2JB2620	75	2L11004	868	2L34003	821	2MB1604	62
2G-4G-MFA-10K	91	2J-E-FF-10K	93	2L11005	868	2L34006	821	2MB1606	62
2G-4G-MM-10K	90	2J-T-FF-10K	94	2L11301	868	2L34007	821	2MB1608	62
2G-4J-MM-10K	90	2L01000	868	2L11302	868	2L34008	821	2MB1612	62
2G-4N-MM-10K	90	2L01001	868	2L11303	868	2L34009	821	2MB1806	62
2G-6G-MFA-10K	91	2L01002	868	2L11304	868	2L34010	821	2MB1808	62
2G-6G-MM-10K	90	2L01003	868	2L11305	868	2L34011	821	2MB2006	62
2G-6J-MM-10K	90	2L01007	868	2L11306	868	2L34013	821	2MB2008	62
2G-6N-MM-10K	90	2L01008	868	2L11307	868	2L34014	821	2MB2012	62
2G-8G-MFA-10K	91	2L01009	868	2L11308	868	2L34016	821	2MB2208	62
2G-8G-MM-10K	90	2L01010	868	2L21001	821	2L34017	821	2MB2212	62
2G-8N-MM-10K	90	2L01011	868	2L21003	821	2L34F01	821	2MB2606	62
2G-C-10K	94	2L01012	868	2L21004	821	2L34F05	821	2MB3008	62
2G-E-FF-10K	93	2L01013	868	2L22001	821	2L34F06	821	2-MS	1517
2G-E-MF-10K	93	2L01018	868	2L22003	821	2L34F07	821	2-MS-BOX	1517
2G-E-MM-10K	92	2L01C02	868	2L22004	821	2L34F08	821	2N-12N-FF-10K	92
2G-P-10K	94	2L01C07	868	2L23005	821	2L34F09	821	2N-12N-MFA-10K	91
2G-TFF-10K	94	2L01C08	868	2L23006	821	2L34F10	821	2N-16N-FF-10K	92
2G-TMM-10K	93	2L01C09	868	2L23402	821	2L35001	821	2N-2J-MM-10K	90
2J0707	75	2L01C10	868	2L23403	821	2L35002	821	2N-2N-FF-10K	92
2J0709	75	2L01C11	868	2L23406	821	2L35003	821	2N-2N-MFA-10K	91
2J0712	75	2L02001	868	2L23407	821	2L35006	821	2N-2N-MM-10K	90
2J0714	75	2L02002	868	2L23409	821	2L35007	821	2N-4J-MM-10K	90
2J0808	75	2L02005	868	2L23410	821	2L35008	821	2N-4N-FF-10K	92

2N-4N-MFA-10K	91	3025-1/8	1175	3040-9-3/8	1145	307M8N18	98	308M6G14	99
2N-4N-MM-10K	90	3025-3/4	1175	3045-12-1/2	1145	307R	1538	308M6G18	99
2N-6N-FF-10K	92	3025-3/8	1175	3045-12-1/4	1145	30800220	1464	308M8G14	99
2N-6N-MFA-10K	91	3026-1/2	1175	3045-12-3/8	1145	30800230	1464	308M8G18	99
2N-8N-FF-10K	92	3026-1/4	1175	3045-15-1/2	1145	30800420	1464	309M10N12	99
2N-8N-MFA-10K	91	3026-1/8	1175	3045-17-1/2	1145	30800430	1464	309M10N14	99
2N-C-10K	94	3026-3/4	1175	3045-17-3/8	1145	30800783	1464	309M10N18	99
2N-E-10K	93	3026-3/8	1175	3045-4.5-M5	1145	30800883	1464	309M10N38	99
2N-E-MF-10K	93	303/V	1224	3045-4-1/8	1145	30800983	1464	309M12N12	99
2N-E-MM-10K	92	303M10U1116	100	3045-6-1/4	1145	30801083	1464	309M12N14	99
2N-P-10K	94	303M10U1316	100	3045-6-1/8	1145	30801183	1464	309M12N34	99
2N-T-10K	94	303M10U1516	100	3045-7-1/4	1145	30801283	1464	309M12N38	99
2N-TMM-10K	93	303M10U34	100	3045-7-1/8	1145	30801383	1464	309M16N12	99
2N-X-10K	94	303M10U78	100	3045-8-1/4	1145	30801883	1464	309M16N34	99
2-ORING	108	303M12U1116	100	3045-8-1/8	1145	30802183	1464	309M16N38	99
2PWLA-38B	1678	303M12U1516	100	3045-9-1/2	1145	30802283	1464	309M18N1	99
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2PWLA-K-K-38B	1678	303M18U1516	100	305.11.00	599	30804981	1465	309M25N34	99
2PWLA-K-K-38N	1678	303M18U158	100	305.11.01L	599	30805081	1465	309M32N1	99
2PWLA-K-M-38B	1678	303M18U178	100	305.11.02L	599	30810284	1465	309M32N114	99
2PWLA-K-M-38N	1678	303M25U158	100	305.11.03L	599	30810384	1465	309M38N112	99
2SC-04-100	9	303M25U178	100	305.M1	599	30810484	1465	309M38N114	99
2SC-06-100	9	303M6U1116	100	305.M1/1	599	30810584	1465	309M6N12	99
2SC-08-100	9	303M6U1516	100	305/V	1224	30810684	1465	309M6N14	99
2SC-12-100	9	303M6U34	100	3050-2	311	30810884	1465	309M6N18	99
2SC-16-100	9	303M6U716	100	3050-3	311	30811284	1465	309M8N14	99
2-SS	1517	303M6U78	100	30550A3	1660	30811484	1465	309M8N18	99
2X-MS	1517	304/V	1224	3055-6-1/4	1145	30811584	1465	30JMTS	80
2X-MS-BOX	1517	3040-10-1/2	1145	3055-6-1/8	1145	30811684	1465	30KAAW13SPN	369
2X-SS	1517	3040-10-1/4	1145	3055-9-1/4	1145	30811784	1465	30KAAW17SPN	369
3		3040-10-1/8	1145	3060-1	1172	30811884	1465	30KAAW21SPN	369
3/4-ORING	108	3040-10-3/8	1145	3060-1/2	1172	30812184	1465	30KAIW13SPN	369
3/8-BLACK-CUFF	1678	3040-12-1/2	1145	3060-1/4	1172	30812284	1465	30KAIW17SPN	369
3/8-BLUE-CUFF	1678	3040-12-1/4	1145	3060-1/8	1172	30813284	1465	30KAIW21SPN	369
300/V	1224	3040-12-3/8	1145	3060-3/4	1172	30813384	1465	30KATF08SPN	369
30-028	1673	3040-14-1/2	1145	3060-3/8	1172	30813484	1465	30KATF10SPN	369
3005-2	311	3040-14-3/8	1145	3060-M5	1172	30813584	1465	30SFAW13SXXN	369
3005-3	311	3040-15-1/2	1145	307/V	1224	30813684	1465	30SFAW17SXXN	369
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301-0050-0000	1440	3040-17-1/2	1145	307M10N38	98	308M10G14	99	30SFIW21SXXN	369
301-0065-0000	1440	3040-17-3/8	1145	307M12N12	98	308M10G38	99	30SFTF06SXXN	369
301-0075-0000	1440	3040-18-1/2	1145	307M12N14	98	308M12G12	99	30SFTF08SXXN	369
301-0100-0000	1440	3040-18-3/4	1145	307M12N34	98	308M12G14	99	30SFTF10SXXN	369
301-0125-0000	1440	3040-18-3/8	1145	307M12N38	98	308M12G34	99	30SFTF13SXXN	369
301-0150-0000	1440	3040-20-1/2	1145	307M16N12	98	308M12G38	99	31/2-ORING	108
301-0160-0000	1440	3040-20-3/4	1145	307M16N34	98	308M16G12	99	31020	1742
3010-2	311	3040-20-3/8	1145	307M16N38	98	308M16G14	99	31025	1742
301-0200-0000	1440	3040-25-1	1145	307M18N1	98	308M16G34	99	31030	1742
301-0225-0000	1440	3040-25-3/4	1145	307M18N34	98	308M16G38	99	31095	1742
301-0250-0000	1440	3040-4-1/8	1145	307M22N34	98	308M20G12	99	310M10U916	99
3010-3	311	3040-6-1/4	1145	307M25N1	98	308M20G34	99	310M12U34	99
301-0300-0000	1440	3040-6-1/8	1145	307M25N34	98	308M22G1	99	310M16U78	99
302/V	1224	3040-7-1/4	1145	307M32N1	98	308M22G12	99	310M18U1116	99
3022829	1050	3040-7-1/8	1145	307M32N114	98	308M22G34	99	310M22U1316	99
3022833	1050	3040-8-1/4	1145	307M38N112	98	308M25G1	99	310M25U1516	99
3022834	1050	3040-8-1/8	1145	307M38N114	98	308M25G34	99	310M32U158	99
3022835	1050	3040-8-3/8	1145	307M6N12	98	308M32G1	99	310M38U178	99
3025-1	1175	3040-9-1/2	1145	307M6N14	98	308M32G114	99	310M6U716	99
3025-1/2	1175	3040-9-1/4	1145	307M6N18	98	308M38G112	99	310M8U12	99
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31100	1742	321K3106-230AC	1038	331.05.12	629	338 015 02 U7H	593	34003604	1205
31105	1742	321K3106-24DC	1038	333-0050-0007	1441	338 015 02 U7J	593	34005607	1205
3111	490	321K3306-230AC	1038	333-0065-0007	1441	338 015 02 U7K	593	34005704	1205
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3134R	1538	32975	1745	334 011 02 U7J	594	33890	490	34033016	1205
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31434	61	330-0050-0000	1442	334 015 02 U73	594	33894	490	34033027	1205
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3160BLACK50	1589	330-0160-1002	1440	334 E11 02 U74	594	33973	464	341N35-481865C2	1021
3160BLACK75	1589	330-0200-0000	1442	334 E11 02 U76	594	33974	464	341N35-4958703D	1021
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3160WHITE100	1589	330-0250-1002	1440	334 E11 02 U7J	594	33KAAK17SPN	370	3437R	1538
3160WHITE50	1589	330-0300-1002	1440	334 E11 02 U7K	594	33KAAK21SPN	370	34-3DVL	243
31630-AA	1583	330-0350-1002	1440	334 E15 02	594	33KAIW13SPN	370	345.M1	599
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31971-AA	1581	331.01.06.18	629	334 E15 02 U77	594	33KATF13SPN	370	34719	463
31972-AA	1581	331.01.08.14	629	334 E15 02 U7H	594	33SFAK13SXN	370	34720	464
31-PEIND	259	331.01.08.18	629	334 E15 02 U7J	594	33SFAK17SXN	370	34721	465
320103-000	1600	331.01.10.38	629	334 E15 02 U7K	594	33SFAK21SXN	370	348 015 02	593
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3206002	679	331.01.12.38	629	338 011 02 U73	593	33SFIW17SXN	370	348 015 02 U73	593
3206003	679	331.02.04.18	629	338 011 02 U74	593	33SFIW21SXN	370	348 015 02 U74	593
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320M8U12	99	331.05.10	629	338 015 02 U77	593	34002104	1205	3483008	679

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34KATF13SPN	371	350 000 5209	750	3502003	678	354 E11 02 U77	595	358 035	607
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34SFAK17SXN	371	350 002 1112	753	351.01.08.08	629	354 E11 02 U7J	595	358 896	561
34SFAK21SXN	371	350 002 3021	753	351.01.10.10	629	354 E11 02 U7K	595	358 897	561
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459215	215	475 16	977	48SBTF06DPX	376	4BX0406	58	4J-6J-MF-10K	91
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467119	114	48.250.00.10.00	704	4B3216	59	4G-12G-MF-A-10K	91	4N-4N-MM-10K	90
467120	114	48.250.00.10.10	704	4B3220	59	4G-12G-MM-10K	90	4N-6J-MM-10K	90
467121	114	48.250.00.50.00	704	4B3224	59	4G-12N-MM-10K	90	4N-6N-FF-10K	92
467127	114	48.250.00.50.10	704	4B4024	59	4G-16G-MF-A-10K	91	4N-6N-MF-A-10K	91
467128	114	48002	1502	4B4032	59	4G-16G-MM-10K	90	4N-6N-MM-10K	90
467129	114	48003	1502	4B4832	59	4G-16N-MM-10K	90	4N-8J-MM-10K	90
467130	114	48006	1502	4BG02	60	4G-2G-MF-B-10K	92	4N-8N-FF-10K	92
467131	114	48008	1502	4BG0204	60	4G-2N-MM-10K	90	4N-8N-MF-A-10K	91
467133	114	48010	1502	4BG0206	60	4G-4G-FF-10K	92	4N-8N-MM-10K	90
467134	114	48013	1501	4BG04	60	4G-4G-MF-A-10K	91	4N-C-10K	94
4680002	678	48014	1501	4BG0402	60	4G-4G-MM-10K	90	4N-E-10K	93
4681001	679	48015	1501	4BG0406	60	4G-4J-MF-10K	91	4N-E-MF-10K	93
4682005	680	48022	1501	4BG0408	60	4G-4J-MM-10K	90	4N-E-MM-10K	92
4683005	679	48023	1501	4BG06	60	4G-4N-MM-10K	90	4N-P-10K	94
4684005	681	48024	1501	4BG0602	60	4G-5J-MF-10K	91	4N-T-10K	94
469.23-5.0BAR	986	48026	1501	4BG0604	60	4G-6G-FF-10K	92	4N-TMM-10K	93
469.24-7.0BAR	986	48027	1501	4BG0608	60	4G-6G-MF-A-10K	91	4N-X-10K	94
469.24-9.0BAR	986	48030	1501	4BG08	60	4G-6G-MM-10K	90	4-ORING	108
469.25-11.0BAR	986	48031	1501	4BG0804	60	4G-6J-MF-10K	91	4SH-12-40	12
469.26-16.0BAR	986	48032	1501	4BG0806	60	4G-6J-MM-10K	90	4SH-16-40	12
469.27-20.0BAR	986	48034	1501	4BG0812	60	4G-6N-MM-10K	90	4SP-04-40	11
469.33-5.0BAR	986	48041	1502	4BG0816	60	4G-8G-FF-10K	92	4SP-06-40	11
469.34-7.0BAR	986	48042	1502	4BG1208	60	4G-8G-MF-A-10K	91	4SP-08-40	11
469.34-9.0BAR	986	48043	1502	4BG1612	60	4G-8G-MM-10K	90	4SP-10-40	11
469.35-11.0BAR	986	48473-A00	228	4BN0802	59	4G-8J-MM-10K	90	4SP-12-40	11
469.36-16.0BAR	986	48KBAW13FVX	375	4BN0804	59	4G-8N-MM-10K	90	4SP-16-40	11
469.37-20.0BAR	986	48KBAW17DPX	375	4BN1206	59	4G-C-10K	94	4SP-20-40	11
474 900	563	48KBAW17FVX	375	4BN1604	59	4G-E-FF-10K	93	4SP-24-40	11
474 905	563	48KBAW21DPX	375	4BN1608	59	4G-E-MF-10K	93	4SP-32-40	11
475 05	977	48KBIW13DPX	375	4BN2016	59	4G-E-MM-10K	92	4-SS	1517
475 06	977	48KBIW17DPX	375	4BN2416	59	4G-P-10K	94	4X-MS	1517
475 07	977	48KBIW21FVX	375	4BN4032	59	4G-TFF-10K	94	4X-SS	1517
475 08	977	48KBTf06DPX	375	4BN4832	59	4G-TMM-10K	93	5	
475 09	977	48KBTf06FVX	375	4BX02	58	4J-2N-MF-A-10K	91	5/16SCV	884
475 10	977	48KBTf09DPX	375	4BX0204	58	4J-4J-FF-10K	92	50.780.00.10.00	704
475 11	977	48KBTf13DPX	375	4BX0206	58	4J-4J-MF-10K	91	50.780.00.10.10	704
475 12	977	48KBTf13FVX	375	4BX0208	58	4J-4J-MM-10K	90	50.780.00.25.00	704
475 13	977	48SBIW17DPX	376	4BX04	58	4J-4N-MF-A-10K	91	50.780.00.80.00	704

50.880.00.40.00	704	500-20-4	988	500-40-7	988	500L15-8.5	989	500T25-3	992
500-05	1542	500-20-5	988	500-40-7.5	988	500L20-1.5	989	500T25-4	992
500-06	1542	500-20-5.5	988	50040N10	856	500L20-10	989	500T25-5	992
500-08	1542	500-20-6	988	50040N10-8	856	500L20-11	989	500T25-6	992
500-09	1542	500-20-6.5	988	50040N12	856	500L20-11.5	989	500T32-1	992
50010	1551	500-20-7	988	50040N12-10	856	500L20-12	989	500T32-2	992
500-10	1542	500-20-7.5	988	50040N4	856	500L20-12.5	989	500T32-3	992
500-10SS	1542	500-20-8	988	50040N6	856	500L20-2.5	989	500T32-4	992
500-12	1542	500-20-8.5	988	50040N6-4	856	500L20-3	989	500T32-5	992
500-13	1542	500-20-9	988	50040N8	856	500L20-3.5	989	500T32-6	992
500-13SS	1542	500-21	1542	50040N8-6	856	500L20-4	989	500T50-1	992
500-15-1	988	500-21SS	1542	500-40SS	1542	500L20-5	989	500T50-2	992
500-15-10	988	500-22	1542	500-44	1542	500L20-5.5	989	500T50-3	992
500-15-10.5	988	500-22SS	1542	500-44SS	1542	500L20-6	989	500T50-4	992
500-15-11	988	500-25	1542	500-48	1542	500L20-6.5	989	500T50-5	992
500-15-11.5	988	500-25-1.5	988	500-48SS	1542	500L20-7	989	500T50-6	992
500-15-3	988	500-25-11	988	5005000N01	817	500L20-7.5	989	50106N4-1/4	856
500-15-4	988	500-25-12.5	988	5005000N02	817	500L20-8	989	50106N4-1/8	856
500-15-5	988	500-25-2	988	5005000N03	817	500L20-8.5	989	50106N6-1/4	856
500-15-5.5	988	500-25-2.5	988	5005000N04	817	500L20-9	989	50106N6-1/8	856
500-15-6	988	500-25-3	988	5005000N05	817	500L25-1.5	989	50106N8-1/4	856
500-15-6.5	988	500-25-3.5	988	5005000N06	817	500L25-11	989	50106N8-1/8	856
500-15-7	988	500-25-4	988	500-50-12.5	988	500L25-12.5	989	50106N8-3/8	856
500-15-7.5	988	500-25-5.5	988	500-50-3.5	988	500L25-2	989	501-10	1542
500-15-8.5	988	500-25-7	988	500-50-7	988	500L25-2.5	989	501-10SS	1542
500-16	1542	500-25-7.5	988	500-52	1542	500L25-3	989	50111N10-1/2	856
500-16SS	1542	500-25-8	988	500-52SS	1542	500L25-3.5	989	50111N10-1/4	856
500-19	1542	500-25-8.5	988	500-56	1542	500L25-4	989	50111N10-3/8	856
500-19SS	1542	500-25SS	1542	500-56SS	1542	500L25-5.5	989	50111N12-1/2	856
5002000N01	817	500-28	1542	500-5SS	1542	500L25-7	989	50111N12-3/8	856
5002000N02	817	500-28SS	1542	500-60	1542	500L25-7.5	989	50111N14-1/2	856
5002000N03	817	500-29	1542	500-60SS	1542	500L25-8	989	50111N14-3/8	856
5002000N04	817	500-29SS	1542	500-6SS	1542	500L25-8.5	989	50111N4-1/4	856
5002000N05	817	5003000N01	817	500-8SS	1542	500L32-10	989	50111N4-1/8	856
5002000N06	817	5003000N02	817	500L10-1	989	500L32-11	989	50111N6-1/4	856
5002000N07	817	5003000N03	817	500L10-1.5	989	500L32-3	989	50111N6-1/8	856
5002000N08	817	5003000N04	817	500L10-10	989	500L32-3.5	989	50111N8-1/2	856
5002000N09	817	5003000N05	817	500L10-11	989	500L32-5	989	50111N8-1/4	856
5002000N11	817	5003000N06	817	500L10-12	989	500L32-7.5	989	50111N8-1/8	856
5002000N12	817	5003000N08	817	500L10-12.5	989	500L32-8.5	989	50111N8-3/8	856
5002000N13	817	5003000N09	817	500L10-2	989	500L40-1.5	989	501-12	1542
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5002000N17	817	5003000N11	817	500L10-3	989	500L40-3	989	501-13	1542
5002000N18	817	5003000N12	817	500L10-3.5	989	500L40-3.5	989	501-13SS	1542
5002000N19	817	5003000N13	817	500L10-4	989	500L40-4	989	501-16	1542
5002000N20	817	5003000N14	817	500L10-5	989	500L40-7	989	501-16SS	1542
5002000N22	817	5003000N15	817	500L10-5.5	989	500L40-7.5	989	501-19	1542
5002000N23	817	500-32	1542	500L10-6	989	500L50-12.5	989	501-19SS	1542
5002000N24	817	500-32-10	988	500L10-6.5	989	500L50-3.5	989	501-21	1542
5002000N25	817	500-32-11	988	500L10-8	989	500L50-7	989	501-22	1542
5002000N27	817	500-32-3	988	500L10-9.5	989	500T15-1	992	501-25	1542
5002000N28	817	500-32-3.5	988	500L15-1	989	500T15-2	992	501-28	1542
5002000N29	817	500-32-5	988	500L15-10	989	500T15-3	992	501-28SS	1542
5002000N31	817	500-32-7.5	988	500L15-10.5	989	500T15-4	992	501-29	1542
5002000N32	817	500-32-8.5	988	500L15-11	989	500T15-5	992	50130N10	856
500-20-1.5	988	500-32SS	1542	500L15-11.5	989	500T15-6	992	50130N12	856
500-20-10	988	500-35	1542	500L15-3	989	500T20-1	992	50130N14	856
500-20-11	988	500-35SS	1542	500L15-4	989	500T20-2	992	50130N4	856
500-20-11.5	988	500-40	1542	500L15-5	989	500T20-3	992	50130N6	856
500-20-12	988	500-40-1.5	988	500L15-5.5	989	500T20-4	992	50130N8	856
500-20-12.5	988	500-40-12	988	500L15-6	989	500T20-5	992	501-32	1542
500-20-2.5	988	500-40-3	988	500L15-6.5	989	500T20-6	992	501-32SS	1542
500-20-3	988	500-40-3.5	988	500L15-7	989	500T25-1	992	501-35	1542
500-20-3.5	988	500-40-4	988	500L15-7.5	989	500T25-2	992	501-35SS	1542

501-40	1542	505-14	1513	510-80	1533	5216093	466	5228458	467
501-40SS	1542	505-14SS	1513	5108001F	665	5216094	466	5228459	467
501-48	1542	505-15	1513	5108002F	665	5216095	466	5228460	467
501-5	1542	505-15SS	1513	5108003F	665	5216096	466	5228461	467
501-52	1542	505-16	1513	5108004F	665	5216098	466	523-RED	391
501-56	1542	505-16SS	1513	5110003	663	5216099	466	526060	662
501-6	1542	505-17	1513	5110004	663	5216100	466	526063	662
501-60	1542	505-17SS	1513	511-14	391	5216101	466	526064	662
501-60SS	1542	505-18	1513	511-18	391	5217238	467	526069	662
501-6SS	1542	505-18SS	1513	511-38	391	5217239	467	526073	662
501-8	1542	50550N10-1/4	856	5125	468	5217240	467	526074	662
501-8SS	1542	50550N10-3/8	856	5126	468	5217241	467	526075	662
501-9	1542	50550N12-3/8	856	5127	468	5217242	467	526082	662
501-9SS	1542	50550N4-1/8	856	5128	468	5217243	467	526083	662
50211N10-1/2	856	50550N4-M5	856	513-BLUE	391	5217244	467	529144	659
50211N10-1/4	856	50550N6-1/4	856	513-RED	391	5217245	467	529146	659
50211N10-3/8	856	50550N6-1/8	856	51KBIW13SPN	377	5217246	467	529148	659
50211N12-1/2	856	50550N6-M5	856	51KBIW17SPN	377	5217248	467	529150	659
50211N12-3/8	856	50550N8-1/4	856	51SFAW13SXN	377	5224633	466	529152	659
50211N14-1/2	856	50550N8-1/8	856	51SFIW13SXN	377	5224634	466	529156	659
50211N14-3/8	856	50550N8-3/8	856	51SFIW17SXN	377	5224635	466	529158	659
50211N4-1/4	856	505-9	1513	5201001	663	5224636	466	529176	659
50211N4-1/8	856	505-9SS	1513	5201002	663	5224637	466	529178	659
50211N6-1/4	856	50700N10-4	856	5201002F	665	5224639	466	529180	659
50211N6-1/8	856	50700N10-6	856	52021	54	5224641	466	529182	659
50211N8-1/2	856	50700N10-8	856	5203001	663	5224642	466	529184	659
50211N8-1/4	856	50700N12-10	856	5204008	663	5224643	466	529188	659
50211N8-1/8	856	50700N12-8	856	5205008	663	5224644	466	529190	659
50211N8-3/8	856	50700N6-4	856	5205011	663	5224645	466	529192	659
50223N10-1/2	856	50700N8-4	856	5205102F	665	5224646	466	529194	659
50223N10-1/4	856	50700N8-6	856	5205105F	665	5224647	466	529415	659
50223N10-3/8	856	507825	219	5205111F	665	5225836	467	529417	659
50223N12-1/2	856	507826	219	5205-4M	309	5225837	467	529419	659
50223N12-3/8	856	507833	219	5206008	664	5225838	467	529531	661
50223N4-1/4	856	507834	219	5206011	664	5225839	467	529761	211
50223N4-1/8	856	507847	219	5207003	663	5225840	467	529762	210
50223N6-1/4	856	507848	219	5207004	663	5225841	467	529763	210
50223N6-1/8	856	507852	219	5208001F	665	5225842	467	529764	212
50223N8-1/2	856	507855	219	5208002F	665	5225843	467	529765	212
50223N8-1/4	856	5101001	663	5208003F	665	5225844	467	529817	661
50223N8-1/8	856	5101002	663	5208004F	665	5225846	467	529853	662
50223N8-3/8	856	5101002F	665	5209-4M	309	5228001F	665	529989	659
50230N10	856	510-12	1533	5210003	663	5228002F	665	529991	659
50230N12	856	510-16	1533	5210004	663	5228003F	665	529993	659
50230N14	856	510-20	1533	521-12	391	5228004F	665	52KBAW13SPN	378
50230N4	856	510-22	1533	5211896	466	5228227	466	52KBAW17SPN	378
50230N6	856	510-25	1533	5211897	466	5228228	466	52KBAW21SPN	378
50230N8	856	510-30	1533	5211898	466	5228229	466	52KBIW13SPN	378
5025-3PR	309	5103001	663	5211899	466	5228230	466	52KBIW17SPN	378
5029-3PR	309	510-35	1533	5211900	466	5228231	466	52KBIW21SPN	378
50310N10	856	510-40	1533	5211901	466	5228232	466	52KBTF11SPN	378
50310N4	856	5104008	663	5211903	466	5228233	466	52SFAW17SXN	378
50310N6	856	5104011	663	5211904	466	5228234	466	52SFTF06SXN	378
50310N8	856	510-45	1533	5211905	466	5228235	466	5300-107	1760
50501	1551	510-50	1533	5211906	466	5228236	466	5300-108	1760
5050-1/2	1174	5105008	663	5211908	466	5228237	466	5300-109	1760
505-10	1513	5105011	663	5211909	466	5228238	466	5300-110	1760
505-10SS	1513	5105111F	665	5212001	664	5228239	466	5300-111	1760
505-11	1513	510-55	1533	521-38	391	5228452	467	5300-207	1760
505-11SS	1513	510-60	1533	5216087	466	5228453	467	5300-208	1760
505-12	1513	5106008	664	5216088	466	5228454	467	5300-209	1760
505-12SS	1513	5106011	664	5216089	466	5228455	467	5300-210	1760
505-13	1513	5107003	663	5216090	466	5228456	467	530029	816
505-13SS	1513	5107004	663	5216091	466	5228457	467	530030	816

530031	816	5353GA3	1662	536254	523	536321	524	54027-25	1675
530032	816	5353NA3	1662	536255	523	536322	524	5407772	468
530033	816	5353SA3	1662	536256	523	536323	524	5407787	468
530038	816	5354SA3	1662	536257	523	536324	524	5407847	468
530039	816	535615	1020	536258	523	536325	524	541258	661
530040	816	535720	659	536259	523	536326	524	541259	661
530041	816	535722	659	536260	523	536327	524	541267	661
530042	816	535724	659	536261	523	536328	524	541268	661
530043	816	53600A3	1662	536262	523	536329	524	541272	661
530044	816	5360AA3	1662	536263	523	536331	523	541333	526
530045	816	5360BA3	1662	536264	523	536332	524	541334	468
530244	658	5360CA3	1662	536265	523	536333	524	541338	526
530338	659	5360DA3	1662	536266	523	536334	524	541341	526
530340	659	53610A3	1662	536268	524	536335	524	542-15-1	990
530AA	1034	53611A3	1662	536269	524	536336	524	542-15-1.5	990
530AC	1034	5361AA3	1662	536270	524	536337	524	542-15-10	990
530AL	1034	536204	523	536271	524	536338	524	542-15-10.5	990
531117	658	536205	523	536272	524	536339	524	542-15-2	990
532184	662	536206	523	536273	524	536340	524	542-15-2.5	990
532185	662	536207	523	536274	524	536341	523	542-15-3	990
532186	662	536208	523	536275	524	536342	524	542-15-3.5	990
532195	662	536209	523	536276	524	536343	524	542-15-4	990
532196	662	53620A3	1662	536277	524	536344	524	542-15-4.5	990
532800	662	536210	523	536278	524	536345	524	542-15-5	990
532801	662	536211	523	536279	524	536346	524	542-15-5.5	990
533534-001	1031	536212	523	536280	524	536347	524	542-15-6	990
533534-003	1031	536213	523	536281	524	536348	524	542-15-7	990
533534-011	1031	536214	523	536282	524	536349	524	542-15-7.5	990
533534-024	1031	536215	523	536283	524	536350	524	542-15-8	990
533593-003	1031	536216	523	536284	524	536352	523	542-15-8.5	990
533593-011	1031	536217	523	536285	524	536353	524	542-15-9	990
533593-020	1031	536219	523	536286	524	536354	524	542-15-9.5	990
534-1	924	536220	523	536287	524	536355	524	542-20-1	990
534-112	924	536221	523	536289	524	536356	524	542-20-1.5	990
534-114	924	536222	523	536290	524	536357	524	542-20-10	990
534-12	924	536223	523	536291	524	536358	524	542-20-10.5	990
534-14	924	536224	523	536292	524	536359	524	542-20-2	990
534-2	924	536225	523	536293	524	536360	524	542-20-2.5	990
534-3	924	536226	523	536294	524	536361	524	542-20-3	990
534337	815	536227	523	536295	524	536362	523	542-20-3.5	990
534338	815	536228	523	536296	524	536363	524	542-20-4	990
534339	815	536229	523	536297	524	536364	524	542-20-4.5	990
534-34	924	536230	523	536298	524	536365	524	542-20-5	990
534340	815	536231	523	536299	524	536366	524	542-20-5.5	990
534341	815	536232	523	536300	524	536367	524	542-20-6	990
534342	815	536234	523	536301	524	536368	524	542-20-7	990
534343	815	536235	523	536302	524	536369	524	542-20-7.5	990
534344	815	536236	523	536303	524	536370	524	542-20-8	990
534-38	924	536237	523	536304	524	536371	524	542-20-8.5	990
53440A8	1663	536238	523	536305	524	536373	523	542-20-9	990
53470A8	1663	536239	523	536306	524	536383	523	542-25-1	990
53490A8	1662	536240	523	536307	524	53640A3	1662	542-25-1.5	990
5349BA8	1662	536241	523	536308	524	5364AA3	1662	542-25-10	990
5349SA3	1662	536242	523	536310	524	5364BA3	1662	542-25-10.5	990
534AA	1034	536243	523	536311	524	53650A3	1662	542-25-2	990
534AC	1034	536244	523	536312	524	53670A3	1662	542-25-2.5	990
534AE	1034	536245	523	536313	524	53690A3	1662	542-25-3	990
53500A3	1662	536246	523	536314	524	53700A3	1662	542-25-3.5	990
5350NA3	1662	536247	523	536315	524	537075	815	542-25-4	990
5350SA3	1662	536248	523	536316	524	537076	815	542-25-4.5	990
5351SA3	1662	536249	523	536317	524	5371AA3	1662	542-25-5	990
53520A3	1662	536251	523	536318	524	53750A3	1662	542-25-6	990
5352NA3	1662	536252	523	536319	524	53800A1	1660	542-25-7	990
53530A3	1662	536253	523	536320	524	5400A-00	227	542-25-7.5	990

542-25-8	990	542F-63-6	992	542L-50-9.5	991	5500000013	817	55111-12-1/2	818
542-25-8.5	990	542F-80-1	992	542L-65-2	991	5500000014	817	55111-12-1/4	818
542-25-9	990	542F-80-2	992	542L-65-3	991	5500000015	817	55111-12-3/8	818
542-25-9.5	990	542F-80-3	992	542L-65-3.5	991	5500000016	817	55111-14-1/2	818
542-32-1	990	542F-80-4	992	542L-65-5	991	5500000017	817	55111-14-3/8	818
542-32-10	990	542F-80-6	992	542L-80-4.5	991	5500000018	817	55111-4-1/4	818
542-32-2.5	990	542L-15-1	991	542L-80-7	991	5500000019	817	55111-4-1/8	818
542-32-3	990	542L-15-1.5	991	543211881300	682	5500000020	817	55111-5-1/8	818
542-32-3.5	990	542L-15-10	991	543861	526	550000DIS	1037	55111-6-1/2	818
542-32-4	990	542L-15-10.5	991	543862	526	550001DIS	1037	55111-6-1/4	818
542-32-4.5	990	542L-15-2	991	543863	526	550002DIS	1037	55111-6-1/8	818
542-32-5	990	542L-15-2.5	991	543872	526	550003DIS	1037	55111-6-3/8	818
542-32-6.5	990	542L-15-3	991	54500A3	1665	550004DIS	1037	55111-8-1/2	818
542-32-7	990	542L-15-3.5	991	5450SA3	1665	550005DIS	1037	55111-8-1/4	818
542-32-8	990	542L-15-4	991	54520A3	1665	550009DIS	1037	55111-8-1/8	818
542-32-8.5	990	542L-15-4.5	991	54530A3	1665	550010DIS	1037	55111-8-3/8	818
542-32-9	990	542L-15-5	991	5453SA3	1665	550011DIS	1037	55116-10-1/2	818
542-32-9.5	990	542L-15-6	991	54600A3	1665	550013DIS	1037	55116-10-1/4	818
542-40-1	990	542L-15-7	991	5460AA3	1665	550014DIS	1037	55116-10-3/8	818
542-40-1.5	990	542L-15-8.5	991	54610A3	1665	550015DIS	1037	55116-12-1/2	818
542-40-10	990	542L-20-1	991	54611A3	1665	550016DIS	1037	55116-12-1/4	818
542-40-10.5	990	542L-20-1.5	991	546146	1035	550017DIS	1037	55116-12-3/8	818
542-40-2	990	542L-20-10	991	546147	1035	550026DIS	1039	55116-14-1/2	818
542-40-3.5	990	542L-20-2	991	546148	1035	550029DIS	1039	55116-14-3/8	818
542-40-4	990	542L-20-2.5	991	546149	1035	550030DIS	1039	55116-4-1/4	818
542-40-5	990	542L-20-3	991	546150	1035	550031DIS	1039	55116-4-1/8	818
542-40-6	990	542L-20-3.5	991	546151	1035	550033DIS	1039	55116-4-M3X0.5	818
542-40-7	990	542L-20-5	991	546152	1035	550034DIS	1039	55116-4-M5	818
542-40-7.5	990	542L-20-6	991	546153	1035	550035DIS	1039	55116-4-M7X1	818
542-40-8	990	542L-20-6.5	991	546162	1035	550036DIS	1039	55116-5-1/8	818
542-50-10	990	542L-20-7	991	546163	1035	550037DIS	1039	55116-5-M5	818
542-50-10.5	990	542L-20-8	991	546164	1035	550039DIS	1039	55116-6-1/2	818
542-50-2	990	542L-20-9	991	546165	1035	550046DIS	1039	55116-6-1/4	818
542-50-3.5	990	542L-25-1	991	546166	1035	550047DIS	1039	55116-6-1/8	818
542-50-6	990	542L-25-1.5	991	546167	1035	550049DIS	1039	55116-6-3/8	818
542-50-7	990	542L-25-10	991	546168	1035	550050DIS	1039	55116-6-M5	818
542-50-7.5	990	542L-25-10.5	991	546169	1035	550051DIS	1039	55116-8-1/2	818
542-50-8	990	542L-25-2	991	5461AA3	1665	550052DIS	1039	55116-8-1/4	818
542578	661	542L-25-2.5	991	546799	526	550057DIS	1039	55116-8-1/8	818
542582	661	542L-25-3	991	5474WHITE2X10	1589	550067	1036	55116-8-3/8	818
542598	661	542L-25-3.5	991	549903	1036	550072DIS	1039	55130-10	818
542602	661	542L-25-4	991	549904	1036	550076DIS	1039	55130-12	818
542-65-3	990	542L-25-5	991	549905	1036	5501000001	817	55130-14	818
542-65-4	990	542L-25-6	991	549906	1036	5501000002	817	55130-4	818
542-65-7.5	990	542L-25-7	991	549907	1036	5501000003	817	55130-5	818
542F-32-1	992	542L-25-8	991	549908	1036	5501000004	817	55130-6	818
542F-32-2	992	542L-32-10	991	54D-P016G-DA1-AA	429	5501000005	817	55130-8	818
542F-32-3	992	542L-32-10.5	991	54D-P016G-DD0-AA	429	550198DIS	1039	551365	526
542F-32-4	992	542L-32-3	991	54D-V101G-DA1-AA	429	550218DIS	1039	551367	526
542F-32-6	992	542L-32-4	991	54D-V101G-DD0-AA	429	55040-10	818	551369	526
542F-40-1	992	542L-32-8	991	54D-V110G-DA1-AA	429	55040-10-6	818	551373	526
542F-40-2	992	542L-40-1.5	991	54D-V110G-DD0-AA	429	55040-10-8	818	551375	526
542F-40-3	992	542L-40-10	991	5500000001	817	55040-12	818	551377	526
542F-40-4	992	542L-40-2.5	991	5500000002	817	55040-12-10	818	551379	526
542F-40-6	992	542L-40-5	991	5500000003	817	55040-14	818	551382	526
542F-50-1	992	542L-40-6	991	5500000004	817	55040-4	818	55140-10	818
542F-50-2	992	542L-40-7	991	5500000005	817	55040-5	818	55140-10-12	818
542F-50-3	992	542L-50-1.5	991	5500000006	817	55040-6	818	55140-12	818
542F-50-4	992	542L-50-10	991	5500000007	817	55040-6-4	818	55140-4	818
542F-50-6	992	542L-50-10.5	991	5500000008	817	55040-8	818	55140-4-6	818
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542F-63-3	992	542L-50-7.5	991	5500000011	817	55111-10-1/4	818	55140-8	818
542F-63-4	992	542L-50-8.5	991	5500000012	817	55111-10-3/8	818	55140-8-10	818

55230-10	819	55500-5-M6	819	5611V101	670	5623V703	670	564938	427
55230-12	819	55500-6-1/4	819	5611V201	670	5624A704	671	564940	427
55230-14	819	55500-6-1/8	819	5611V701	670	5624B244	669	565401	427
55230-4	819	55500-6-M5	819	5612A702	671	5624B24L104	671	565402	427
55230-5	819	55500-6-M6	819	5612B242	669	5624B264	669	565405	427
55230-6	819	55500-8-1/4	819	5612B24L102	671	5624B544	669	565406	427
55230-8	819	55500-8-1/8	819	5612B262	669	5624B54L104	671	565465	211
55240-10	819	55500-8-3/8	819	5612B542	669	5624B564	669	57018	1745
55240-10-12	819	55510-4-M5	819	5612B54L102	671	5624C104	667	571061	1020
55240-12	819	55510-5-1/4	819	5612B562	669	5624D104	667	5711114-1/2	846
55240-4	819	55510-5-1/8	819	5612C102	667	5624F204	666	5711114-3/8	846
55240-4-6	819	55510-6-1/4	819	5612D102	667	5624F504	666	572576	428
55240-6	819	55510-6-1/8	819	5612F202	666	5624L104	669	572577	428
55240-6-4	819	55510-8-1/4	819	5612F502	666	5624R144	668	572646	525
55240-8	819	55510-8-1/8	819	5612L102	669	5624R164	668	572647	525
55240-8-10	819	558278	912	5612R142	668	5624R244	668	572648	525
552950	662	558279	912	5612R162	668	5624R264	668	572649	525
55310-10	819	559263	465	5612R242	668	5624S204	671	572650	525
55310-12	819	559264	465	5612R262	668	5624V104	670	572651	525
55310-4	819	559265	465	5612S202	671	5624V204	670	572652	525
55310-6	819	559266	465	5612V102	670	5624V704	670	572653-FESTO	525
55310-8	819	559267	465	5612V202	670	5625A705	671	572654	525
55330-4-4	819	559268	465	5612V702	670	5625B245	669	572655	525
55330-4-6	819	559269	465	5613A703	671	5625B24L105	671	572656	525
55330-6-6	819	559270	465	5613B243	669	5625B265	669	572657	525
55330-6-8	819	559271	465	5613B24L103	671	5625B545	669	572658	525
55340-4-1/4	819	559272	465	5613B263	669	5625B54L105	671	572659	525
55340-4-1/8	819	559273	465	5613B543	669	5625B565	669	572660	525
55340-6-1/4	819	559274	465	5613B54L103	671	5625C105	667	572661	525
55340-6-1/8	819	559275	465	5613B563	669	5625D105	667	572662	525
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55345-4-1/8	819	559277	465	5613D103	667	5625F505	666	572664	525
55345-6-1/4	819	559278	465	5613F203	666	5625L105	669	572665	525
55345-6-1/8	819	559279	465	5613F503	666	5625R145	668	572666	525
55350-10-6	819	559280	465	5613L103	669	5625R165	668	572667	525
55350-10-8	819	559281	465	5613R143	668	5625R245	668	572668	525
55350-6-4	819	559282	465	5613R163	668	5625R265	668	572669	525
55350-8-4	819	559283	465	5613R243	668	5625S205	671	572670	525
55350-8-6	819	559284	465	5613R263	668	5625V105	670	572671	525
553534-002	1031	559285	465	5613S203	671	5625V205	670	572672	525
55410-1/2	820	559286	465	5613V103	670	5625V705	670	572673	525
55410-1/4	820	559287	465	5613V203	670	5626A706	671	572674	525
55410-1/8	820	559288	465	5613V703	670	5626B246	669	572675	525
55410-3/8	820	559289	465	56144010	411	5626B24L106	671	572676	525
55410-M12X1.5	820	559290	465	56145010	411	5626B266	669	572677	525
55410-M5	820	559291	465	5623A703	671	5626B546	669	572678	525
55410-M6	820	559292	465	5623B243	669	5626B54L106	671	572679	525
55420-1/2	820	5611A701	671	5623B24L103	671	5626B566	669	572680	525
55420-1/4	820	5611B241	669	5623B263	669	5626D106	667	572681	525
55420-1/8	820	5611B24L101	671	5623B543	669	5626F206	666	572682	525
55420-3/8	820	5611B261	669	5623B54L103	671	5626F506	666	572683	525
55430-1/2	820	5611B541	669	5623B563	669	5626L106	669	572684	525
55430-1/4	820	5611B54L101	671	5623C103	667	5626R146	668	572685	525
55430-1/8	820	5611B561	669	5623D103	667	5626R166	668	572686	525
55430-3/8	820	5611C101	667	5623F203	666	5626R246	668	572687	525
55500-10-3/8	819	5611D101	667	5623F503	666	5626R266	668	572688	525
55500-12-1/2	819	5611F201	666	5623L103	669	5626S206	671	572689	525
55500-12-3/8	819	5611F501	666	5623R143	668	5626V106	670	572690	525
55500-4-1/8	819	5611L101	669	5623R163	668	5626V206	670	572691	525
55500-4-M5	819	5611R141	668	5623R243	668	5626V706	670	572692	525
55500-4-M6	819	5611R161	668	5623R263	668	564930	427	572693	525
55500-5-1/4	819	5611R241	668	5623S203	671	564932	427	572694	525
55500-5-1/8	819	5611R261	668	5623V103	670	564934	427	572695	525
55500-5-M5	819	5611S201	671	5623V203	670	564936	427	572696	525

572697	525	575513	582	58100-6-M10X1	858	60020-10-1/2	878	601-16	1542
572698	525	575518	580	58100-6-M6X1	858	60020-10-1/4	878	601-16SS	1542
572699	525	575520	582	58100-6-M8X1	858	60020-10-3/8	878	601-19	1542
572700	525	575525	580	58110-4-1/8	858	60020-12-1/2	878	601-19SS	1542
572701	525	575527	582	58110-4-M10	858	60020-12-3/8	878	601-22	1542
572702	525	575541	582	58110-4-M6	858	60020-14-1/2	878	601-22SS	1542
572703	525	575568	580	58110-4-M8	858	60020-4-1/4	878	601-25	1542
572704	525	575570	580	58110-6-1/8	858	60020-4-1/8	878	601-25SS	1542
572705	525	575574	582	58110-6-M10	858	60020-4-M5	878	601-28	1542
572706	525	575596	580	58110-6-M6	858	60020-6-1/4	878	601-28SS	1542
572707	525	575604	580	58110-6-M8	858	60020-6-1/8	878	60130X-10	879
572708	525	575606	582	5949SA3	1664	60020-6-M5	878	60130X-12	879
572709	525	575611	580	5950NA3	1664	60020-8-1/4	878	60130X-14	879
572710	525	575613	582	5950SA3	1664	60020-8-1/8	878	60130X-4	879
572711	525	575618	580	5951SA3	1664	60028342AC	1611	60130X-6	879
572712	525	575620	582	5952GA3	1664	6003263WAC	1611	60130X-8	879
572713	525	576363	581	5953SA3	1664	60032656AC	1611	601-32	1542
572714	525	576365	581	59600A3	1664	60038830AA	1611	601-32SS	1542
572715	525	576367	581	59603-25	1675	60040-10	879	601-36	1542
572716	525	576369	581	5960AA3	1664	60040-10-12	879	601-36SS	1542
572717	525	576371	581	5961GA3	1664	60040-12	879	601-40	1542
572718	525	576409	581	59640A3	1664	60040-14	879	601-40SS	1542
572719	525	576410	581	598261	227	60040-4	879	601-44	1542
572720	525	576411	581	598262	227	60040-4-6	879	601-44SS	1542
572721	525	576417	581	598263	227	60040-6	879	601-48	1542
572722	525	576419	581	598264	227	60040-6-8	879	601-48SS	1542
572723	525	576421	581	598265	227	60040-8	879	601-52	1542
572724	525	576423	581	5986572-001	224	60040-8-10	879	601-52SS	1542
572725	525	576425	581	5986574-001	224	60050-10	879	601-6	1542
572726	525	576465	581	5986576-001	224	60050-12	879	601-6SS	1542
572727	525	576467	581	5E-PBIND	257	60050-4	879	601-8	1542
572728	525	576469	581	5F-PBIND	257	60050-6	879	601-8SS	1542
572729	525	576471	581	5JITS	80	60050-8	879	60210X-10-12	878
572730	525	576473	581	5J-TMM-10K	93	601-10	1542	60210X-10-14	878
572731	525	577257	1020	5JTN	80	601-10SS	1542	60210X-10-38	878
572732	525	57KBAW26SPN	379	5-MS	1517	60110X-10-12	878	60210X-12-12	878
572733	525	57KBAW33SPN	379	5-ORING	108	60110X-10-14	878	60210X-12-38	878
572734	525	57KBIW21SPN	379	5-SS	1517	60110X-10-38	878	60210X-4-14	878
572735	525	57KBIW26SPN	379	5VS-401-800	445	60110X-12-12	878	60210X-4-18	878
573346	427	57KBIW33SPN	379	5VS-402-800	445	60110X-12-38	878	60210X-6-14	878
573347	427	57KBTF19SPN	379	5VS-410-800	445	60110X-4-14	878	60210X-6-18	878
573348	427	57SBAW21SPN	379	5VS-412-800	445	60110X-4-18	878	60210X-8-14	878
573349	427	57SBAW26SPN	379	5VS-420-800	445	60110X-6-14	878	60210X-8-18	878
573350	427	57SBAW33SPN	379	5VS-421-800	445	60110X-6-18	878	60215X-10-12	878
573351	427	57SBIW21SPN	379	6		60110X-8-14	878	60215X-10-14	878
574334	468	57SBIW26SPN	379	6000/06/G/5.5	985	60110X-8-18	878	60215X-10-38	878
574335	526	58.1045OS	1454	6000/06/H/9.0	985	601-13	1542	60215X-12-12	878
574336	526	58.3023OS	1454	60000-10-1/4	878	601-13SS	1542	60215X-12-38	878
574337	526	58.3045OS	1454	60000-10-3/8	878	60115X-10-12	878	60215X-14-12	878
574338	526	58000-4-1/8	858	60000-12-1/2	878	60115X-10-14	878	60215X-4-14	878
574339	468	58000-4-M10	858	60000-12-3/8	878	60115X-10-38	878	60215X-4-M5	878
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7020021200	586	7040011200	604	7070020395	1652	71/2-SS	1517	720322ABF	888
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7020022300	587	7040012200	605	7070020399	1652	710316ABF	888	720722ABF	888
7020-1/2	631	7040012300	606	7070020401	1652	710322ABF	888	7238-04	69
7020-1/4	631	7040020100	584	7070-1	630	710516ABF	888	7238-05	69
7020-1/8	631	7040020200	584	7070-1/2	630	710522ABF	888	7238-06	69
7020-3/4	631	7040020300	584	7070-1/4	630	710722ABF	888	7238-08	69
7020-3/8	631	7040020400	583	7070-1/8	630	7120215	1689	7238-10	69
7020-M5	631	7040020500	584	7070-3/4	630	71-3C12-12RP	319	7238-12	69
7021020100	583	7040020600	584	7070-3/8	630	71-3C16-16RP	319	7238-14	69
7021020200	583	7040021100	585	707277-C	222	71-3C4-4RP	319	7238-16	70
70216-4-1/8	861	7040021200	586	707278-C	222	71-3C6-6RP	319	7250	1042
70216-6-1/4	861	7040021300	586	7080020354	1652	71-3C8-8RP	319	7251	1042
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70216-8-1/4	861	7040021600	586	7080020363	1652	71-3N16-16RP	319	728A-04AC220	1024
70216-8-1/8	861	7040022100	587	7080020372	1652	71-3N4-4RP	319	728A-04AC24	1024
70230-10	861	7040022200	588	7080020378	1652	71-3N6-6RP	319	728A790-04AC220	1025
70230-12	861	7040022300	587	7080-1	630	71-3N8-8RP	319	728A790-04DC24	1025

72KBIW13DPX	317	7432 16-1/2	832	7542 10-8-1/4	833	75N24-24RP	319	765-1013-6M	183
72KBIW13MVX	317	7432 16-3/4	832	7542 10-8-3/8	833	75SBIW26DPX	317	765-10X1.5	183
72KBIW13RVX	320	7432 4-1/8	832	7542 6-4-1/4	833	75SBIW26MVX	317	765-10X1.5-6M	183
72SBIW13DPX	317	7432 4-M5	832	7542 6-4-1/8	833	760300ABF	888	765-10X2	183
72SBIW13MVX	317	7432 6-1/4	832	7542 8-6-1/4	833	760500ABF	888	765-1213	183
72SBIW13RVX	320	7432 6-1/8	832	7542 8-6-1/8	833	760700ABF	888	765-12X1.5	183
73016011	1528	7432 6-M5	832	7545 10-8	833	7610 10-1/4	834	765-12X1.5-6M	183
73016020	1528	7432 8-1/4	832	7545 6-4	833	7610 10-3/8	834	765-12X2	183
73016038	1528	7432 8-1/8	832	7545 8-6	833	7610 12-3/8	834	765-1513	183
73016046	1528	7432 8-3/8	832	7550 10	833	7610 4-1/8	834	765-1515-6M	183
73016062	1528	743516ABF	888	7550 12	833	7610 6-1/4	834	765-15X1.5	183
73016070	1528	7442 10-1/4	832	7550 16	833	7610 6-1/8	834	765-15X2	183
73016089	1528	7442 10-3/8	832	7550 4	833	7610 8-1/4	834	765-1602-6M	183
73016095	1528	7442 12-1/2	832	7550 6	833	7610 8-1/8	834	765-16X1.5	183
73016100	1528	7442 12-3/8	832	7550 8	833	7612 02-10-1/4	834	765-16X1.5-6M	183
73016118	1528	7442 16-1/2	832	7555 10-10	833	7612 02-10-3/8	834	765-16X2	183
730312ABF	888	7442 16-3/4	832	7555 12-12	833	7612 02-12-3/8	834	765-18X1.5	183
730316ABF	888	7442 4-1/8	832	7555 4-4	833	7612 02-4-1/8	834	765-18X2	183
730322ABF	888	7442 6-1/4	832	7555 6-6	833	7612 02-6-1/4	834	7652 10-1/4	834
7304106	822	7442 6-1/8	832	7555 8-8	833	7612 02-6-1/8	834	7652 10-3/8	834
7304112	822	7442 8-1/4	832	7560 10	833	7612 02-8-1/4	834	7652 4-1/8	834
730516ABF	888	7442 8-1/8	832	7560 10-8	833	7612 02-8-1/8	834	7652 6-1/4	834
730522ABF	888	7442 8-3/8	832	7560 4	833	7612 03-10-1/4	834	7652 6-1/8	834
7306206	822	74KBIW21DPX	317	7560 6	833	7612 03-4-1/8	834	7652 8-1/4	834
7306212	822	74KBIW21MVX	317	7560 6-4	833	7612 03-6-1/4	834	7652 8-1/8	834
730722ABF	888	74SBIW21DPX	317	7560 8	833	7612 03-6-1/8	834	765-20X1.5	183
7308306	822	74SBIW21MVX	317	7560 8-6	833	7612 03-8-1/4	834	765-20X2	183
7308312	822	750005	1652	7562 10-1/4	832	7612 03-8-1/8	834	765-20X2-6M	183
73500A3	1664	750010	1652	7562 10-3/8	832	7622 10-1/4	834	765-20X3	183
73530A3	1664	750013	1652	7562 4-1/8	832	7622 10-3/8	834	765-22X1.5	183
73600A3	1664	750028	1652	7562 6-1/4	832	7622 12-3/8	834	765-22X2	183
7360BA3	1664	750300ABF	887	7562 6-1/8	832	7622 4-1/8	834	765-25X1.5	183
73610A3	1664	750500ABF	887	7562 8-1/4	832	7622 6-1/4	834	765-25X2	183
73640A3	1664	750700ABF	887	7562 8-1/8	832	7622 6-1/8	834	765-25X2.5	183
73KBIW17DPX	317	7522 10-1/2	832	7572 4-1/4	832	7622 8-1/4	834	765-25X2.5-6M	183
73KBIW17MVX	317	7522 10-1/4	832	7572 4-1/8	832	7622 8-1/8	834	765-25X3	183
73SBIW17DPX	317	7522 10-3/8	832	7572 6-1/4	832	7632 02-1/4	834	765-28X2	183
73SBIW17MVX	317	7522 12-1/2	832	7572 6-1/8	832	7632 02-1/8	834	765-30X3	183
7400	1042	7522 12-1/4	832	7575 6-4	833	7632 02-3/8	834	765-30X3-6M	183
74000	55	7522 12-3/8	832	7575 8-6	833	7632 03-1/4	834	765-35X3	183
74001	55	7522 16-1/2	832	7580 10	833	7632 03-1/8	834	765-42X3	183
74002	55	7522 16-3/4	832	7580 12	833	7640 10-1/4	834	765-6X1.5	183
7400215	1689	7522 4-1/4	832	7580 4	833	7640 4-1/8	834	765-6X1.5-6M	183
74003	55	7522 4-1/8	832	7580 6	833	7640 6-1/4	834	765-6X2	183
74004	55	7522 4-M5	832	7580 8	833	7640 6-1/8	834	765-8X1.5	183
74005	55	7522 4-M7	832	75C12-12RP	319	7640 8-1/4	834	765-8X1.5-6M	183
74006	55	7522 6-1/4	832	75C16-16RP	319	7640 8-1/8	834	765-8X2	183
74007	55	7522 6-1/8	832	75C20-20RP	319	7642 02-10-1/4	834	7681-04	70
74008	55	7522 6-M5	832	75C24-24RP	319	7642 02-4-1/8	834	7681-06	70
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74010	55	7522 8-1/8	832	75MDC-12	319	7642 02-8-1/4	834	7691-04	71
74011	55	7522 8-3/8	832	75MDC-16	319	7642 02-8-1/8	834	7691-06	71
74012	55	7526 4-1/8	832	75MDC-20	319	7642 03-10-1/4	834	7691-08	71
74014	55	7526 6-1/4	832	75MDC-24	319	7642 03-4-1/8	834	7691-12	71
74015	55	7526 6-1/8	832	75MDC-32	319	7642 03-6-1/4	834	76KBIW33DPX	317
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7432 12-3/8	832	7540 8	833	75N20-20RP	319	765-1013	183	770-1212	158

770-1515	158	790-02DC24-VIS	1025	79120351235	1132	7B32	62	7S90215	1688
770-1818	158	790-03AC110	1025	79120421242	1132	7BFF0404-1000	1649	7-SS	1517
770-2222	158	790-03AC110-VIS	1025	79120541254	1132	7BFF0404-600	1649		
770-2828	158	790-03AC220	1025	792101515	1134	7BFF0404-750	1649	80001	63
770300ABF	888	790-03AC220-VIS	1025	792102222	1134	7BSBC02	71	80002	63
770-3535	158	790-03AC24	1025	792102828	1134	7BSBC04	71	80003	63
770-4242	158	790-03AC24-VIS	1025	792103535	1134	7BSBC06	71	80004	63
770500ABF	888	790-03DC24	1025	792104242	1134	7BSBC08	71	80005	63
770700ABF	888	790-03DC24-VIS	1025	792105454	1134	7BSBC10	71	80006	63
771 04	956	790-04AC110	1025	792301515	1131	7BSBC12	71	80008	63
771 05	956	790-04AC110-VIS	1025	792302222	1131	7BSBC16	71	800-100	446
771 06	956	790-04AC220	1025	792302828	1131	7BSBC20	71	8001469	661
771 07	956	790-04AC220-VIS	1025	792303535	1131	7BSBC24	71	800212ABF	887
771 08	956	790-04AC24	1025	792304242	1131	7BSBC32	71	800216ABF	887
771 09	956	790-04AC24-VIS	1025	792305454	1131	7C20215	1688	800312ABF	887
771 10	956	790-04DC24	1025	792401515	1131	7C30215	1688	800316ABF	887
771 11	956	790-04DC24-VIS	1025	792402222	1131	7C40215	1688	800322ABF	887
771 12	956	7901015012	1129	792402828	1131	7C50215	1688	8003354	428
771 13	956	7901015034	1129	792403535	1131	7C60215	1688	800412ABF	887
771 14	956	7901022012	1129	792404242	1131	7C70215	1688	800416ABF	887
7710061	434	7901022034	1129	792405454	1131	7C80215	1688	800422ABF	887
7710062	434	7901028100	1129	7931015012	1133	7C90215	1688	800516ABF	887
7710063	434	7901035100	1129	7931022034	1133	7E-PBIND	257	800522ABF	887
7710064	434	7901035114	1129	7931028100	1133	7F-PBIND	257	800622ABF	887
7800 10-12	833	7901042112	1129	7932015012	1133	7J07	79	800722ABF	887
7800 4-6	833	7901054200	1129	7932022034	1133	7J08	79	800822ABF	887
7800 4-8	833	7901066212	1129	7932028100	1133	7J09	79	800826ABF	887
7800 6-10	833	7902015012	1129	7941015	1131	7J12	79	800-950	446
7800 6-12	833	7902015034	1129	7941022	1131	7J14	79	800-951	446
7800 6-8	833	7902022012	1129	7941028	1131	7J17	79	8025330	581
7800 8-10	833	7902022034	1129	7941035	1131	7J19	79	8025331	581
7800 8-12	833	7902022100	1129	7941042	1131	7J21	79	8025335	581
7800215	1689	7902028034	1129	7941054	1131	7J26	79	8025336	581
7801-04-04	55	7902028100	1129	794302215	1130	7J30	79	8025337	581
7801-06-06	55	7902035114	1129	794302815	1130	7J40	79	8025354	658
7801-08-08	55	7902042112	1129	794302822	1130	7M12	71	8025355	658
7801-12-12	55	7902054200	1129	794303522	1130	7M14	71	8025356	658
789-1	946	7908015012	1129	794303528	1130	7M16	71	8025357	658
789-112	946	7908022034	1129	794304222	1130	7M18	71	8025358	658
789-114	946	7908028100	1129	794304228	1130	7M20	71	8025359	658
789-12	946	7908035114	1129	794304235	1130	7M22	71	8026208	581
789-14	946	7908042112	1129	794305435	1130	7-MS	1517	8026209	581
789-2	946	7908054200	1129	794305442	1130	7N02	62	8026210	581
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789-38	946	79100222222	1132	7950 12	833	7N06	62	8026221	581
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790002828	1130	79100424242	1132	7950 8	833	7N16	62	8026227	581
790003535	1130	79100545454	1132	7B02	62	7N20215	1688	8026261	581
790004242	1130	79110221522	1132	7B0204	62	7N24	62	8026263	581
790005454	1130	79110282228	1132	7B04	62	7N30215	1688	8026265	581
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790-01AC220	1025	79110422842	1132	7B06	62	7N60215	1688	8026297	581
790-01AC220-VIS	1025	79110423542	1132	7B0608	62	7N70215	1688	8026299	581
790-01DC24	1025	79110542254	1132	7B08	62	7N80215	1688	8026301	581
790-01DC24-VIS	1025	79110542854	1132	7B0810	62	7N90215	1688	8026303	581
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790-02AC110-VIS	1025	79110544254	1132	7B10	62	7S30215	1688	8026335	581
790-02AC220	1025	79120151215	1132	7B12	62	7S40215	1688	8026336	581
790-02AC220-VIS	1025	79120221222	1132	7B1216	62	7S50215	1688	8029134	1020
790-02AC24	1025	79120223422	1132	7B16	62	7S60215	1688	8029135	1020
790-02AC24-VIS	1025	79120281228	1132	7B20	62	7S70215	1688	8029136	1020
790-02DC24	1025	79120283428	1132	7B24	62	7S80215	1688	8029137	1020

8029138	1020	8048681	912	8068747	815	8119201	662	850800ABF	888
8029139	1020	8048683	912	8068748	815	8119204	662	851000	1653
8029144	1020	8048685	912	8068749	815	81400	392	851013	1653
803-232	446	8048687	912	8068750	815	81500	392	851017	1653
803-233	446	8048689	912	8068751	815	815200ABF	889	851019	1653
8035533	428	8048691	912	8068752	815	815300ABF	889	8512 10-1/4	873
8035536	428	8048693	912	807CL	1626	815400ABF	889	8512 10-3/8	873
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80361	1551	8048711	912	8080020504	1653	8156130135	1535	8522 10-3/8	873
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80381	1551	8048715	912	8080020506	1653	8157911	660	8522 12-3/8	873
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8043217	579	8049881	579	8086644	660	81612	392	8522 8-1/4	873
8043218	579	8049882	579	8086645	660	820014-51KIT	688	8522 8-1/8	873
8043219	579	8050B-11	385	8086646	660	820014-52KIT	688	8540 4	873
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8047614	1017	8060020512	1653	8090020425	1653	820048-89KIT	688	8550 4	873
8047615	1017	8060020513	1653	8090020428	1653	820068-51KIT	688	8550 6	873
8047616	1017	8060020514	1653	8090020430	1653	823AA	1034	8550 8	873
8047617	1017	8060020516	1653	8090020436	1653	823AC	1034	8580 4	873
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8047622	1017	8060530	1050	8098257	659	829AN00102A	215	859172	211
8047624	1017	8060533	1050	8098258	659	829AN00103A	217	859177	211
8047626	1017	8060536	1050	8098259	659	829AN00105A	217	859195	210
8047631	1017	8060538	1050	8098264	659	829AN00132A	216	859197	212
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8047646	1017	8065262	1017	8098266	659	829AN00165A	217	860200ABF	888
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8048124	1017	8065264	1017	8098302	659	829AN00221A	217	860400ABF	888
8048125	1017	8065265	1017	8098304	659	83000	64	860500ABF	888
8048126	1017	8065266	1017	8098305	659	83001	64	860600ABF	888
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8048130	1017	8065270	1017	8098312	659	83004	64	8624B-11	385
8048131	1017	8065271	1017	81/2-MS	1517	83005	64	865637	219
8048132	1017	8065272	1017	81/2-SS	1517	830AE	1034	865638	219
8048134	1017	8065273	1017	81000	392	840014-51KIT	688	865882	219
8048136	1017	8065274	1017	8100215	1689	840014-52KIT	688	865884	219
8048138	1017	8065275	1017	810212ABF	887	8400215	1689	867332	218
8048140	1017	8065276	1017	810216ABF	887	840024-50KIT	688	867335	218
8048142	1017	8068723	815	810312ABF	887	840048-01KIT	688	867339	218
8048143	1017	8068724	815	810316ABF	887	840068-51KIT	688	867340	218
8048145	1017	8068725	815	810322ABF	887	8432 4-1/8	873	867364	218
8048147	1017	8068726	815	810412ABF	887	8432 6-1/8	873	868300	218
8048149	1017	8068727	815	810416ABF	887	8432 8-1/4	873	868314	218
8048151	1017	8068728	815	810422ABF	887	8432 8-1/8	873	868651	218
8048671	912	8068729	815	810516ABF	887	850200ABF	888	869628	213
8048673	912	8068732	815	810522ABF	887	850300ABF	888	869641	213
8048675	912	8068734	815	810622ABF	887	850400ABF	888	869951	210
8048677	912	8068735	815	810722ABF	887	850600ABF	888	869952	211
8048679	912	8068736	815	810822ABF	887	850700ABF	888	869953	211

869959	210	87KBTH09MVX	383	88110282228	1132	888.11.03	599	8911100007	859
869960	212	87KBTH13MVX	383	88110352235	1132	8880.32.C.39.F00	598	8911100008	859
86KBAW13MVX	381	87KFTF09MVX	383	88110352835	1132	88801	905	8911100009	859
86KBIW13MVX	381	87KFTF13MVX	383	88110422242	1132	88802	905	8911100011	859
86KBTF06MVX	381	87KFTH09MVX	383	88110422842	1132	8880520035F00	598	8911100012	859
86KBTF09MVX	381	87KFTH13MVX	383	88110423542	1132	8880520039F00	598	8911100013	859
86KBTH09MVX	381	87KFTR09MVX	383	88110542254	1132	8884.32.A.39.F00	598	8911100014	859
86KBTR09MVX	381	87KFTR13MVX	383	88110542854	1132	8884.32.C.39.F00	598	8911100015	859
86KFAW13MVX	381	87SBAK17MVX	383	88110543554	1132	8884520035F00	598	8911100016	859
86KFIW13MVX	381	87SBAK21MVX	383	88110544254	1132	8884520039F00	598	8911100017	859
86KFTF09MVX	381	87SFAK13MXX	383	88120151215	1132	8900000001	859	8913000001	860
86KFTR09MVX	381	87SFAK17MXX	383	88120221222	1132	8900000002	859	8913000002	860
86SBAK13MVX	382	87SFAK21MXX	383	88120223422	1132	8900000003	859	8913000003	860
86SFAK10MXX	382	87SFIW13SXX	383	88120281228	1132	8900000004	859	8913000004	860
86SFAK13MXX	382	87SFIW17SXX	383	88120283428	1132	8900000005	859	8913000005	860
86SFAK17MXX	382	87-SILICONE	383	88120351235	1132	8900000006	859	8913000006	860
86-SILICONE	382	87-VITON	383	88120421242	1132	8900000007	859	8915-M5	1160
86-VITON	382	880001515	1130	88120541254	1132	8900000008	859	8920-1/4	1160
8700215	1689	880002222	1130	882001515	1131	8900000009	859	8920-1/8	1160
870024	213	880002828	1130	882002222	1131	8900000010	859	8921100001	859
870036	213	880003535	1130	882002828	1131	8900000011	859	8921100005	859
870038	213	880004242	1130	882003535	1131	8900000012	859	8921100006	859
870043	213	880005454	1130	882004242	1131	8900000013	859	8921100007	859
8701-04-14	74	8801015012	1129	882005454	1131	8900000014	859	8921100008	859
8701-06-18	74	8801015034	1129	882301515	1131	8900000015	859	8921100009	859
8701-08-22	74	8801022012	1129	882302222	1131	8900000016	859	8921100010	859
8701-12-30	74	8801022034	1129	882302828	1131	8900000017	859	8921100011	859
8701-16-33	74	8801028100	1129	882303535	1131	8900000018	859	8921100012	859
870177	211	8801035100	1129	882304242	1131	8900-1/4	1160	8921100013	859
870200ABF	888	8801035114	1129	882305454	1131	8903000001	859	8921100014	859
870221	210	8801042112	1129	8831015012	1133	8903000002	859	8923000001	860
870300ABF	888	8801054200	1129	8831022034	1133	8903000003	859	8923000003	860
870378	211	8801066212	1129	8831028100	1133	8903000004	859	8923000004	860
870400ABF	888	8802015012	1129	8832015012	1133	8903000005	859	8923000005	860
870500ABF	888	8802015034	1129	8832022034	1133	8903000006	859	8923000006	860
870518	212	8802022012	1129	8832028100	1133	8903000007	859	8925-1/4	1160
870600ABF	888	8802022034	1129	8841015	1131	8903000008	859	8925-M5	1160
870804	210	8802022100	1129	8841022	1131	8904000001	860	89445	1742
871358	210	8802028034	1129	8841028	1131	8904000002	860	8950-4/2.7-1/8	1160
871505	210	8802028100	1129	8841035	1131	8904000003	860	8950-6/4-1/4	1160
8751-04-14	72	8802035114	1129	8841042	1131	8904000004	860	8950-6/4-M5	1160
8751-06-18	72	8802042112	1129	8841054	1131	8904000005	860	8950-8/6-1/4	1160
8751-08-22	72	8802054200	1129	884302215	1130	8904000006	860	8950-8/6-1/8	1160
8751-10-24	72	880401515	1130	884302815	1130	8904000007	860	8952-1/4	1160
8751-12-30	72	880402222	1130	884302822	1130	8904000008	860	8952-1/8	1160
8751-16-33	72	880402828	1130	884303522	1130	8904000009	860	8952DL-12	385
877-0004	1209	880403535	1130	884303528	1130	8905000001	860	8955-10/8-1/4	1160
877-0006	1209	880404242	1130	884304222	1130	8905000003	860	8955-6/4-1/4	1160
877-0008	1209	880405454	1130	884304228	1130	8905000004	860	8955-6/4-1/8	1160
877-0009	1209	880553	218	884304235	1130	8905000005	860	8955-8/6-1/8	1160
877-0010	1209	8807-11	385	884305435	1130	8905000006	860	8957-1/4	1160
877-0012	1209	8808015012	1129	884305442	1130	8910600001	859	8957-1/8	1160
877-0013	1209	8808022034	1129	888	599	8910600002	859	8960-6/4-1/8	1160
877-0015	1209	8808028100	1129	888.02	599	8910600003	859	8960-8/6-1/8	1160
877-0016	1209	8808035114	1129	888.03	599	8910600004	859	8962-1/8	1160
877-0018	1209	8808042112	1129	888.04	599	8910600005	859	8965-10/8-1/4	1160
877-0027	1209	8808054200	1129	888.05	599	8910600006	859	8965-4/2.7-M5	1160
877-0125	1209	88100151515	1132	888.06	599	8910-M5	1160	8965-6/4-M5	1160
8787-11	385	88100222222	1132	888.07	599	8911100001	859	8965-8/6-1/8	1160
8788-11	385	88100282828	1132	888.08	599	8911100002	859	8967-1/4	1160
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879342	218	88100424242	1132	888.10	599	8911100004	859	8970000001	860
87KBTF09MVX	383	88100545454	1132	888.11.01	599	8911100005	859	8970000002	860
87KBTF13MVX	383	88110221522	1132	888.11.02	599	8911100006	859	8970000003	860

8970000004	860	8G-8G-MM-10K	90	8N-8N-FF-10K	92	9001020C	824	9011601B	824
8970000005	860	8G-8J-MF-10K	91	8N-8N-MFA-10K	91	9001021C	824	9011602B	824
8970-6/4-1/4	1160	8G-8J-MM-10K	90	8N-8N-MM-10K	90	9001022C	824	9011605B	824
8970-6/4-M5	1160	8G-8N-MM-10K	90	8N90215	1687	9001030	762	9011606B	824
8970-8/6-1/4	1160	8G-C-10K	94	8N-C-10K	94	9001069	762	9011607B	824
8972-1/4	1160	8G-E-FF-10K	93	8N-E-10K	93	9001070	762	9011608B	824
8972-1/8	1160	8G-E-MF-10K	93	8N-E-MF-10K	93	9001101V	824	9011609B	824
8975-4/2.7-1/8	1160	8G-E-MM-10K	92	8N-E-MM-10K	92	9001102V	824	9011610B	824
8975-6/4-1/8	1160	8G-P-10K	94	8N-P-10K	94	9001103V	824	9011612B	824
8977-1/4	1160	8G-T-FF-10K	94	8N-T-10K	94	9001104V	824	9011623B	824
8977-1/8	1160	8G-T-MM-10K	93	8N-T-MM-10K	93	9001115V	824	9011624B	824
8BP0202	68	8J-10J-MM-10K	90	8N-X-10K	94	9001120V	824	9011625B	824
8BP0404	68	8J-12J-MM-10K	90	8S20215	1687	9001121V	824	9013000001	1083
8BP0406	68	8J-4J-MF-10K	91	8S30215	1687	9001122V	824	9013000002	1083
8BP0604	68	8J-6J-MF-10K	91	8S40215	1687	9001609B	824	9013000003	1083
8BP0606	68	8J-6N-MFA-10K	91	8S50215	1687	9001610B	824	9013000004	1083
8BP0608	68	8J-8J-FF-10K	92	8S60215	1687	9001620B	824	9013000005	1083
8BP0806	68	8J-8J-MM-10K	90	8S70215	1687	9001621B	824	9013000006	1083
8BP0808	68	8J-8N-MFA-10K	91	8S80215	1687	9001622B	824	9014000001	1083
8BP0812	68	8J-C-10K	94	8S90215	1687	9001623B	824	9014000002	1083
8BP1010	68	8J-E-FF-10K	93	9		9001624B	824	9014000003	1083
8BP1208	68	8J-E-MF-10K	93	900.18.8E	702	9001625B	824	9014000004	1083
8BP1212	68	8JITS	80	900000011J4B5	1082	9002100	705	9014000005	1083
8BP1616	68	8JMTS	80	900000011J9B5	1082	9002180	705	9015000001	1082
8BP2020	68	8JP0707	78	900000011K4B5	1082	9002300	705	9015000002	1082
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8BP3232	68	8JP0909	78	900000011W3B5	1082	9003000001	1082	9015-04-06AS	80
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8BPX0608	68	8JP1414	78	900006025BL	1082	9003000004	1082	9015-06-12AS	80
8BPX0806	68	8JP1717	78	900006032BL	1082	9004000001	1082	9015-08-10AS	80
8BPX0808	68	8JP2121	78	900006040BL	1082	9004000002	1082	9015-10-12AS	80
8BPX1010	68	8J-T-FF-10K	94	900006050BL	1082	9004000003	1082	9015-12-16AS	80
8BPX1208	68	8J-T-MM-10K	93	900006063BL	1082	9004000004	1082	9015-16-20AS	80
8BPX1212	68	8JTN	80	9000401	624	9004000006	1082	9016000001	1082
8BPX1616	68	8MP1212	68	9000402	624	901 C1A	622	9016000002	1082
8C20215	1687	8MP1414	68	9000600	624	901 F1A	622	9016000003	1082
8C30215	1687	8MP1616	68	9000802	672	901 G1A	622	9016000004	1082
8C40215	1687	8MP1818	68	9000803	664	901 H1	622	902 C2A	622
8C50215	1687	8MP2020	68	9001000001	1082	9011001C	824	902 F2A	622
8C60215	1687	8MP2222	68	9001000002	1082	9011003C	824	902 G2A	622
8C70215	1687	8MP2424	68	9001000003	1082	9011004C	824	902 H2	622
8C80215	1687	8N-10J-MF-10K	91	9001000004	1082	9011005C	824	9021001C	825
8C90215	1687	8N-12J-MF-10K	91	9001000005	1082	9011006C	824	9021002C	825
8G-10J-MF-10K	91	8N-12J-MM-10K	90	9001000006	1082	9011007C	824	9021005C	825
8G-10J-MM-10K	90	8N-12N-FF-10K	92	9001000007	1082	9011008C	824	9021006C	825
8G-12G-MFA-10K	91	8N-12N-MFA-10K	91	9001000008A	1082	9011009C	824	9021007C	825
8G-12G-MM-10K	90	8N-16N-FF-10K	92	9001000009	1082	9011011C	824	9021008C	825
8G-12J-MF-10K	91	8N-16N-MFA-10K	91	9001000011	1082	9011014C	824	9021009C	825
8G-12J-MM-10K	90	8N20215	1687	9001000012	1082	9011015C	824	9021011C	825
8G-12N-MM-10K	90	8N-2N-MFB-10K	92	9001000013	1082	9011016C	824	9021012C	825
8G-16G-MFA-10K	91	8N-2N-MM-10K	90	9001000014	1082	9011101V	824	9021014C	825
8G-16G-MM-10K	90	8N30215	1687	9001001C	824	9011102V	824	9021015C	825
8G-16J-MM-10K	90	8N40215	1687	9001002C	824	9011103V	824	9021016C	825
8G-16N-MM-10K	90	8N-4J-MM-10K	90	9001003	762	9011104V	824	9021101V	825
8G-2G-MF-B-10K	92	8N-4N-MF-B-10K	92	9001004	762	9011105V	824	9021102V	825
8G-4G-MF-B-10K	92	8N50215	1687	9001004/0	762	9011106V	824	9021105V	825
8G-4J-MM-10K	90	8N60215	1687	9001007C	824	9011107V	825	9021106V	825
8G-4N-MM-10K	90	8N-6J-MM-10K	90	9001008	762	9011110V	824	9021108V	825
8G-6G-MF-B-10K	92	8N-6N-MF-B-10K	92	9001009	762	9011111V	824	9021109V	825
8G-6J-MF-10K	91	8N70215	1687	9001010	762	9011114V	824	9021111V	825
8G-6N-MM-10K	90	8N80215	1687	9001011C	824	9011123V	824	9021112V	825
8G-8G-FF-10K	92	8N-8J-E-MF-10K	93	9001012C	824	9011124V	824	9021114V	825
8G-8G-MFA-10K	91	8N-8J-MM-10K	90	9001016	762	9011125V	824	9021115V	825



9021116V	825	9031009C	825	9041411	827	9068016	830	919805	223
9021201B	825	9031010C	825	9041412	827	9068024	830	919850	223
9021202B	825	9031011C	825	9041501	827	9068216	830	9200 10	978
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9021206B	825	9031014C	825	9041508	827	9069016	831	9200 12	978
9021207B	825	9031015C	825	9041509	827	9069024	831	9200 13	978
9021208B	825	9031016C	825	9041510	827	9069224	831	9200 14	978
9021209B	825	9031101V	825	9041511	827	9069408	831	9200 16	978
9021211B	825	9031102V	825	9041512	827	9069409	831	9200401	675
9021212C	825	9031103V	825	9042	385	9069410	831	9200601	676
9021214B	825	9031104V	825	9060000001	1082	9069411	831	9200701	664
9021215B	825	9031105V	825	9060000002	1082	9069610	831	9200703	624
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9023000002	1083	9031108V	825	9060200002	1083	9070000002	1084	9201 12	978
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9023000004	1083	9031110V	825	9061000002	1083	9070000004	1084	9201 14	978
9023000005	1083	9031111V	825	9061000003	1083	9070000005	1084	9201 16	978
9023000006	1083	9031112V	825	9061000004	1083	9070000006	1084	9201 18	978
9023500001	1083	9031114V	825	9061000006	1083	9072000001	1084	9201001	676
9023500002	1083	9031115V	825	9061316	829	9072000002	1084	9201201	827
9023500003	1083	9031116V	825	9061324	829	9081500001	1083	920227	224
9023500004	1083	9031201B	825	9061601	623	9081500002	1083	9202L	1674
9023500005	1083	9031202B	825	9062000001	1083	9081500003	1083	9203L	1674
9023500008	1083	9031203B	825	9062000002	1083	9081500004	1083	92100	1694
9023500013	1083	9031204B	825	9062000003	1083	9081500005	1083	9210000	672
9023600001	1082	9031205B	825	9062000005	1083	9081500006	1083	9210001	672
9023600002	1082	9031206B	825	9062000006	1083	9081700001	1083	9210002	672
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9023600005	1082	9031208B	825	9062000008	1083	9090001	824	9210010	672
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9023600007	1082	9031210B	825	9062000010A	1083	9090003	824	9210012	672
9023600008	1082	9031211B	825	9062000011	1083	91/2-MS	1517	9210013	672
9023600017A	1082	9031212B	825	9062110	831	91/2-SS	1517	9210014	672
9023600018A	1082	9031214B	825	9062216	831	910.04.SDP011414	1223	9210150	672
9024000004	1084	9031215B	825	9062224	831	910.04.SDP012828	1223	9210151	672
9024000006	1084	9031216B	825	9063016	829	910.04.SDP030606	1223	9210155	672
9024000007	1084	9031301C	825	9063024	829	910.04.SDP032727	1223	9210156	672
9024000010	1084	9031302C	825	9063116	829	910.04.SDP062727	1223	9210160	672
9024000011	1084	9031303C	825	9063124	829	910.04.SDP142828	1223	9210161	672
9024100001	1084	9031401V	825	9063308	829	910.06.SDP011414	1223	9210165	672
9024100002	1084	9031402V	825	9063309	829	910.06.SDP030606	1223	9210166	672
9024200001	1084	9031403V	825	9063310	829	910.06.SDP062727	1223	922733	223
9024200002	1084	9031501B	825	9063311	829	910.06.SDP142828	1223	922850	223
9024200004	1084	9031502B	825	9064016	829	910.10.SDP011414	1223	922851	223
9025000017A	1082	9031503B	825	9064024	829	910.10.SDP012828	1223	923468	223
9025900001	1083	9041001	827	9064200001	1083	9101201	827	923469	223
9025900002	1083	9041002	827	9064200002	1083	9126344341	513	923470	223
9025900003	1083	9041003	827	9064400001	1083	9126344342	513	923471	223
9025900004	1083	9041004	827	9064400002	1083	9129-04	81	923496	223
9025900005	1083	9041005	827	9065016	830	9129-06	81	923497	223
903 C3A	622	9041201	827	9065024	830	9129-08	81	923498	223
903 F3A	622	9041202	827	9065116	830	9129-10	81	923548	223
903 G3A	622	9041203	827	9065124	830	9129-12	81	923AL	1034
903 H3	622	9041204	827	9066016	830	9129-16	81	923EA	1034
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9031001C	825	9041301	827	9066116	830	9129-24	81	923EE	1034
9031002C	825	9041316	827	9066124	830	9170301	664	9250102	676
9031003C	825	9041324	827	9067016	830	919191	224	9250103	676
9031004C	825	9041401	827	9067024	830	919262	223	9251708	664
9031005C	825	9041402	827	9067108	830	919632	223	9251709	664
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9031008C	825	9041410	827	9067111	830	919772	223	9254	490

9255	490	934AA	1034	9422-8-M22	892	9505-12	978	9515-10-12	81
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92612	1695	9356-04-04	81	94506	1694	9506-08-08	81	9515-16-16	81
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92908	1696	9400701	672	9502-10/7-M16	891	951 P11 23 U76	621	952 P11 23 U7H	621
92909	1696	9400702	681	9502-10/7-M22	891	951 P11 23 U77	621	952 P11 23 U7J	621
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92923	1692	9401002	676	9502-10-M16	891	951 P11 23 U7J	621	9525-04-04	81
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93002	63	9412-10-M16	892	9502-18-M22	891	9512-10-M22	891	953 P11 23 U73	621
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93004	63	9412-12-M12	892	95024	1695	9512-12-M14	891	953 P11 23 U76	621
93005	63	9412-12-M16	892	9502-6-M10	891	9512-12-M16	891	953 P11 23 U77	621
93006	63	9412-12-M22	892	9502-6-M12	891	9512-12-M22	891	953 P11 23 U7H	621
93019	1694	9412-15/11-M16	892	9502-6-M16	891	9512-15/11-M16	891	953 P11 23 U7J	621
93039	1695	9412-15/11-M22	892	9502-6-M22	891	9512-15-M16	891	953 P11 23 U7K	621
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93108	60	9422-12-M16	892	95040	1693	9515-04-04	81	9580-15/11	892
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93354	1694	9422-8-M16	892	9505-114	978	9515-10-10	81	9590-8-M18-S01	892

9592-12-8-M18	892	9707-12-12-12	81	A100G4RXL	1757	A15050	1674	A2-BR	1471
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95KSAK21BPN	384	971-05-251	1223	A100GNRXL	1757	A1-AU-NPT	1468	A2-SS	1469
95KSIW13BPN	384	971-05-256	1223	A100GNRXXL	1757	A1-BR	1471	A2-SS-NPT	1469
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96SSTF06MXN	384	9793D-12	385	A120BKRXL	1757	A270200	1540	A322 0C2 U74	592
96SSTF09MXN	384	99001	76	A120BKRXS	1757	A270250	1540	A322 0C2 U76	592
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9705-16-16-16	81	9925-20	80	A12-SS	1469	A280060	1540	A322 1C2 U7H	592
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9706-08-08-08	81	9-946-02-01-020	271	A140BKRM	1757	A280160	1540	A331 0C2	592
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9707-10-10-10	81	A100G4RS	1757	A140ORBXXL	1757	A2-AU-NPT	1468	A331 1C2	592

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A331 1C2 U76	592	A622G7RXL	1756	A940060-2	1547	AA5306	402	AAMM22	1490
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A331 1C2 U7J	592	A622G7RXXL	1756	A940080-1	1547	AA5310	402	AAMM43	1490
A331 1C2 U7K	592	A622G7RXXXL	1756	A940080-2	1547	AA5312	402	AAMMBSPURT33	1490
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A332 0C2 U74	592	A670K8RXL	1756	A940120-2	1547	AA7101	397	AB10730	910
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A34-SS	1469	A770BKYM	1758	A980240	1540	AA7510	399	AB1V2H2 09	959
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A350BKRM	1756	A770BKYXXL	1758	A980280	1540	AA7702	398	AB1V2H2 12	959
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A350BKRXS	1756	A774K2RS	1758	A980320	1540	AA7707	398	AB1V2H2 16	959
A350BKRXXL	1756	A774K2RXL	1758	A980330	1540	AA7710	398	AB1V2H2 18	959
A350BKRXXXL	1756	A774K2RXXL	1758	A980350	1540	AA7711	398	AB1V2H2 20	959
A3-AU	1468	A774MBRL	1758	A980380	1540	AA7712	398	AB4230	910
A3-AU-NPT	1468	A774MBRM	1758	A980400	1540	AA7802	401	AB6430	910
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A3-PP-NPT	1470	A812GNRXL	1758	A980550	1540	AA7811	401	ABCC212	1489
A3-SS	1469	A812GNRXS	1758	A980560	1540	AA7812	401	ABCCBSP3	1489
A3-SS-NPT	1469	A812GNRXXL	1758	A980600	1540	AA7813	401	ABCCBSP4	1489
A40050	1674	A83	596	A980640	1540	AAFUDURT3	1490	ABCCURT3	1489
A40055	1674	A84	596	A980700	1540	AAFUDURT4	1490	ABCCURT4	1489
A40060	1674	A86	596	AA1106	396	AAFNP16URT3	1490	ABH.4.3/4	1623
A400T	651	A8B	596	AA1109	396	AAMF112112	1490	ABH.6.3/4	1623
A4-AU	1468	A8D	596	AA11AF	396	AAMF1122	1490	ABPC2	1489
A4-AU-NPT	1468	A8E	596	AA11AM	396	AAMF1123	1490	ABPC212	1489
A4-BR	1471	A925BLUL	1758	AA11CF	396	AAMF2122	1490	ABPCBSP3	1489
A4-BR-NPT	1471	A925BLUM	1758	AA11CM	396	AAMF212212	1490	ABPCURT3	1489
A4-PP	1470	A925BLUS	1758	AA-13	1596	AAMF2123	1490	ABS	1100
A4-PP-NPT	1470	A925BLUXL	1758	AA5102	402	AAMF22	1490	ABS/CTUBE-3-1	1100
A4-SS	1469	A930ORRL	1758	AA5103	402	AAMF2212	1490	ABS/CTUBE-3-112	1100
A4-SS-NPT	1469	A930ORRM	1758	AA5106	402	AAMF23	1490	ABS/CTUBE-3-114	1100
A5000-BRKT	651	A930ORRXL	1758	AA5107	402	AAMF32	1490	ABS/CTUBE-3-2	1100
A5-BR-NPT	1471	A940040-1	1547	AA5110	402	AAMF3212	1490	ABS/CTUBE-3-212	1100
A6000SE	1632	A940040-2	1547	AA5111	402	AAMF33	1490	ABS/CTUBE-3-3	1100

ABS/CTUBE-3-4	1100	AC4EM02	395	AC7706	398	ACC02083	418	AD42-34-UPVC	1110
ABS/CTUBE-3-6	1100	AC4JF02	395	AC7708	398	ACK10A	1478	AD42-43-UPVC	1110
ABS/CTUBE-3-8	1100	AC4JM02	395	AC7710	398	ACK10I	1478	AD42-44-UPVC	1110
ABS/CTUBE-6-1	1100	AC5010-06D	650	AC7713	398	ACK10T	1478	ADAPT.UNI.L	1634
ABS/CTUBE-6-112	1100	AC5010-10D	650	AC77CF	398	ACK12A	1478	ADCH-16	318
ABS/CTUBE-6-114	1100	AC51CF	402	AC77CM	398	ACK12I	1478	ADCH-20	318
ABS/CTUBE-6-2	1100	AC51CM	402	AC77EF	398	ACK12T	1478	ADCH-32	318
ABS/CTUBE-6-212	1100	AC51EF	402	AC77EM	398	ACK34A	1478	ADCH-4	318
ABS/CTUBE-6-3	1100	AC51EM	402	AC77JF	398	ACK34I	1478	ADCH-6	318
ABS/CTUBE-6-4	1100	AC51JF	402	AC77JM	398	ACK34T	1478	ADP	198
ABS/ETUBE-3-1	1100	AC51JM	402	AC7806	401	ACK38A	1478	ADP60AV	1636
ABS/ETUBE-3-112	1100	AC51R	402	AC7808	401	ACK38I	1478	ADP60PV	1636
ABS/ETUBE-3-114	1100	AC51S	402	AC7810	401	ACK38T	1478	ADP90AN	1636
ABS/ETUBE-3-12	1100	AC51T	402	AC7813	401	ACKIT01	394	ADSCV1414	1419
ABS/ETUBE-3-2	1100	AC52CF	403	AC78CF	401	ACT112	1487	ADSCV1438	1419
ABS/ETUBE-3-3	1100	AC52CM	403	AC78CM	401	ACT2	1487	ADSCV3838	1419
ABS/ETUBE-3-34	1100	AC59JF	403	AC78EF	401	ACT212	1487	ADSCV51638	1419
ABS/ETUBE-3-4	1100	AC59JM	403	AC78EM	401	ACT3BSP	1487	ADTG4	1724
ABS/ETUBE-6-1	1100	AC59V	403	AC78JF	401	ACT3URT	1488	AE407	1555
ABS/ETUBE-6-112	1100	AC5EF02	395	AC78JM	401	ACT4BSP	1487	AE425	1555
ABS/ETUBE-6-114	1100	AC5EM02	395	AC901-15D	655	ACT4URT	1488	AE426	1555
ABS/ETUBE-6-12	1100	AC5JF02	395	AC901-20D	655	ACTMKEASYFIP-1	1019	AE427	1555
ABS/ETUBE-6-2	1100	AC5JM02	395	AC91CF	393	ACTMKEASYFIP-112	1019	AE466	1555
ABS/ETUBE-6-3	1100	AC6103	393	AC91CM	393	ACTMKEASYFIP-114	1019	AE467	1555
ABS/ETUBE-6-34	1100	AC61CF	400	AC91EF	393	ACTMKEASYFIP-12	1019	AE475	1555
ABS02-1	1645	AC61CM	400	AC91EM	393	ACTMKEASYFIP-2	1019	AE476	1555
ABS02-2	1645	AC61EF	400	AC91JF	393	ACTMKEASYFIP-34	1019	AE477	1555
ABS02-4	1645	AC61EM	400	AC91JM	393	ACTMKEASYGF-1	1019	AE505	1555
ABS02-6	1645	AC61JF	400	AC91R	393	ACTMKEASYGF-112	1019	AE506	1555
ABSB-06B	261	AC61JM	400	AC91S	393	ACTMKEASYGF-12	1019	AE566	1555
ABSB-08B	261	AC61R	400	AC91T	393	ACTMKEASYGF-2	1019	AE567	1555
ABSB-12B	261	AC61S	400	ACA1793	394	AD32-10-UPVC	1110	AE575	1555
ABSB-16B	261	AC61T	400	ACA2487	394	AD32-11-UPVC	1110	AE576	1555
ABU-1000-1000AN	170	AC7106	397	ACA2488	394	AD32-12-UPVC	1110	AE577	1555
ABU-250-250AN	170	AC7108	397	ACA2593	394	AD32-13-UPVC	1110	AE-A	979
ABU-375-375AN	170	AC7109	397	ACA2653	395	AD32-15-UPVC	1110	AE-B	979
ABU-500-500AN	170	AC7110	397	ACA2654	395	AD32-17-UPVC	1110	AE-C	979
ABU-750-750AN	170	AC7113	397	ACA2657	395	AD32-19-UPVC	1110	AEMC14	1419
AC015CBFI	430	AC71CF	397	ACA2658	395	AD32-3-UPVC	1110	AEMC38	1419
AC1106	396	AC71CM	397	ACA2659	395	AD32-4-UPVC	1110	AEMC3814	1419
AC1109	396	AC71EF	397	ACA2660	395	AD32-5-UPVC	1110	AE-SP-ABD	979
AC11AF	396	AC71EM	397	ACA2661	395	AD32-6-UPVC	1110	AE-SP-C	979
AC11AM	396	AC71JF	397	ACA2746	394	AD32-7-UPVC	1110	AF-13	1596
AC11CF	396	AC71JM	397	ACA2994	395	AD32-8-UPVC	1110	AF2000-01	650
AC11CM	396	AC7306	401	ACA2999	395	AD32-9-UPVC	1110	AF2000-02	650
AC2010-01	650	AC7308	401	ACA3035	395	AD42-112112-UPVC	1110	AF3000-02	650
AC2010-02	650	AC7310	401	ACA3036	395	AD42-112114-UPVC	1110	AF3000-02D	650
AC2010-02D	650	AC7313	401	ACA3037	395	AD42-1122-UPVC	1110	AF4000-04	650
AC21CF02	393	AC73CF	401	ACA6582	394	AD42-114114-UPVC	1110	AF4000-04D	650
AC21CM02	393	AC73CM	401	ACA6583	394	AD42-1141-UPVC	1110	AF4000-06D	650
AC21EF02	393	AC73EF	401	ACA6584	394	AD42-11-UPVC	1110	AF5000-06D	650
AC21EM02	393	AC73EM	401	ACA6909	394	AD42-1212-UPVC	1110	AF5000-10D	650
AC21JF02	393	AC73JF	401	ACA6912	400	AD42-1234-UPVC	1110	AF900-15D	655
AC21JM02	393	AC73JM	401	ACA6922	400	AD42-134-UPVC	1110	AF900-20D	655
AC21R02	393	AC7506	399	ACA6923	400	AD42-2112-UPVC	1110	AFBV-12	932
AC21S02	393	AC7508	399	ACA6924	400	AD42-212212-UPVC	1110	AFBV-34	932
AC21T02	393	AC7510	399	ACA6930	400	AD42-2122-UPVC	1110	AFC080	102
AC3010-02	650	AC7513	399	ACC00005	418	AD42-2123-UPVC	1110	AFC100	102
AC3010-02D	650	AC75CF	399	ACC00006	418	AD42-22-UPVC	1110	AFC102	102
AC4010-04	650	AC75CM	399	ACC00007	418	AD42-3212-UPVC	1110	AFC104	102
AC4010-04D	650	AC75EF	399	ACC00022	418	AD42-33-UPVC	1110	AFC106	102
AC4CF02	395	AC75EM	399	ACC01582	418	AD42-3412-UPVC	1110	AFC108	102
AC4CM02	395	AC75JF	399	ACC01583	418	AD42-341-UPVC	1110	AFC110	102
AC4EF02	395	AC75JM	399	ACC02082	418	AD42-3434-UPVC	1110	AFC112	102

AFC114	102	AFS106G-034	103	AFS403G	103	AGRK-1/2-DN19	30	AKN04NP	1176
AFC116	102	AFS106G-100	103	AFS403G-034	103	AGRK-1/4-DN05	30	AKN06NP	1176
AFC118	102	AFS106G-114	103	AFS403N	103	AGRK-1/4-DN06	30	AKN08NP	1176
AFC401	102	AFS106N	103	AFS403N-034	103	AGRK-1/4-DN08	30	AK-NN12	1170
AFC402	102	AFS106N-114	103	AFS403S	105	AGRK-1/4-DN10	30	AK-NN14	1170
AFC403	102	AFS106S	105	AFS403S-A30	105	AGRK-1/8-DN05	30	AK-NN18	1170
AFC404	102	AFS106S-A50	105	AFS403ST	106	AGRK-1/8-DN06	30	AK-NN38	1170
AFC405	102	AFS106ST	106	AFS404/90S	106	AGRK-11/2-DN38	30	AK-PP12	1170
AFC406	102	AFS108G	103	AFS404G	103	AGRK-11/4-DN31	30	AK-PP14	1170
AFC407	102	AFS108G-100	103	AFS404G-100	103	AGRK-1-DN19	30	AK-PP18	1170
AFFN-1/4	1611	AFS108G-112	103	AFS404N-100	103	AGRK-1-DN25	30	AK-PP38	1170
AFG1H03	1724	AFS108G-114	103	AFS404S	105	AGRK-2-DN51	30	AK-TT1	1170
AFG1H08	1724	AFS108N	103	AFS404S-A38	105	AGRK-3/4-DN12	30	AK-TT12	1170
AFG4H03	1724	AFS108N-112	103	AFS404ST	106	AGRK-3/4-DN16	30	AK-TT14	1170
AFG4H031	1724	AFS108S	105	AFS405/90G	102	AGRK-3/4-DN19	30	AK-TT18	1170
AFG4H04	1724	AFS108ST	106	AFS405/90S	106	AGRK-3/4-DN25	30	AK-TT34	1170
AFG4H05	1724	AFS110G	103	AFS405G	103	AGRK-3/8-DN06	30	AK-TT38	1170
AFG4H06	1724	AFS110G-200	103	AFS405G-114	103	AGRK-3/8-DN08	30	AK-VV12	1170
AFG4H061	1724	AFS110N	103	AFS405N	103	AGRK-3/8-DN10	30	AK-VV14	1170
AFG5H36	1724	AFS110S	105	AFS405N-114	103	AGRK-3/8-DN12	30	AK-VV18	1170
AFG6H04	1724	AFS110ST	106	AFS405S	105	AGT13/06K	1147	AL-13	1596
AFR900-15D	655	AFS112G	103	AFS405S-A50	105	AGT13/08K	1147	AL2000-02	651
AFR900-20D	655	AFS112G-212	103	AFS405ST	106	AGT13/09K	1147	AL3000-02	651
AFS/90G	102	AFS112N	103	AFS406/90G	102	AGT13/13K	1147	AL4000-04	651
AFS080/90G-038	102	AFS112ST	106	AFS406/90S	106	AGT17/09K	1147	AL900-15	655
AFS080/90S	106	AFS114G	103	AFS406G	103	AGT17/13K	1147	AL900-20	655
AFS080/90S-038	106	AFS114G-300	103	AFS406G-112	103	AGT21/13K	1147	AL-RM1210-3M-20B	1090
AFS080G	103	AFS114N	103	AFS406N	103	AGT21/19K	1147	AL-RM1513-3M-20B	1090
AFS080G-038	103	AFS114S	105	AFS406N-112	103	AGT26/19K	1147	AL-RM1816-3M-20B	1090
AFS080N	103	AFS114ST	106	AFS406S	105	AGT33/25K	1147	AL-RM2220-3M-20B	1090
AFS080N-038	103	AFS116G	103	AFS406ST	106	AHK-1000B	433	AL-RM2826-3M-10B	1090
AFS080S	105	AFS116G-312	103	AFS700/90ST	106	AHK-100B	433	ALU-CUTTER15	882
AFS080S-038	105	AFS116N	103	AFS702/90ST	106	AHK-10B	433	ALU-CUTTER22	882
AFS080S-A20	105	AFS116S	105	AFS704/90ST	106	AHK-1500B	433	ALU-CUTTER28	882
AFS080ST	106	AFS116ST	106	AFS706/90ST	106	AHK-150B	433	AM1915W	884
AFS080ST-038	106	AFS200/90ST	106	AFS708/90ST	106	AHK-15B	433	AMPH-16	318
AFS100/90G	102	AFS202/90ST	106	AG50-0015	412	AHK-2000B	433	AMPH-20	318
AFS100/90S	106	AFS204/90ST	106	AGJ-1/2-DN05	31	AHK-200B	433	AMPH-24	318
AFS100G	103	AFS206/90ST	106	AGJ-1/2-DN06	31	AHK-24B	433	AMPH-32	318
AFS100G-012	103	AFS208/90ST	106	AGJ-1/2-DN08	31	AHK-270B	433	AMPH-8	318
AFS100N-012	103	AFS401/90G-012	102	AGJ-11/16-DN12	31	AHK-3000B	433	AMT112	1487
AFS100S	105	AFS401/90G-038	102	AGJ-11/16-DN16	31	AHK-500B	433	AMT2	1487
AFS100S-A25	105	AFS401/90S-012	106	AGJ-11/16-DN19	31	AHK-50B	433	AMT212	1487
AFS100ST	106	AFS401/90S-038	106	AGJ-15/16-DN19	31	AHK-5B	433	AMT3BSP	1487
AFS102/90G	102	AFS401G-012	103	AGJ-15/16-DN25	31	AHK-720B	433	AMT3URT	1487
AFS102G	103	AFS401G-038	103	AGJ-15/8-DN25	31	AHK-900B	433	AMT4BSP	1487
AFS102G-012	103	AFS401N-012	103	AGJ-15/8-DN31	31	AI-13	1596	AMT4URT	1487
AFS102G-034	103	AFS401N-038	103	AGJ-17/8-DN31	31	AIRTU020S	1069	AN-13	1596
AFS102N	103	AFS401S-012	105	AGJ-17/8-DN38	31	AIRTU025S	1069	AN14	1419
AFS102N-034	103	AFS401S-038	105	AGJ-21/2-DN38	31	AIRTU032S	1069	AN38	1419
AFS102S	105	AFS401S-A20	105	AGJ-21/2-DN51	31	AIRTU040S	1069	ANTI-BLOC 100G	164
AFS102S-A30	105	AFS401ST-012	106	AGJ-3/4-DN10	31	AK-13	1596	ANTI-BLOC 1KG	164
AFS102ST	106	AFS401ST-038	106	AGJ-3/4-DN12	31	AK-300	1596	AP100B	1713
AFS104/90G	102	AFS402/90G	102	AGJ-7/16-DN05	31	AK-600	1596	AP10K8RL	1757
AFS104G	103	AFS402/90S	106	AGJ-7/16-DN06	31	AK-MM08	1170	AP10K8RM	1757
AFS104G-034	103	AFS402G	103	AGJ-7/8-DN10	31	AK-MM10	1170	AP10K8RS	1757
AFS104G-100	103	AFS402G-012	103	AGJ-7/8-DN12	31	AK-MM12	1170	AP10K8RXL	1757
AFS104N	103	AFS402N	103	AGJ-7/8-DN16	31	AK-MM14	1170	AP10K8RXS	1757
AFS104N-100	103	AFS402N-012	103	AGJ-9/16-DN05	31	AK-MM16	1170	AP17101	1708
AFS104S-A38	105	AFS402S	105	AGJ-9/16-DN06	31	AK-MM18	1170	AP17107	1708
AFS104ST	106	AFS402S-A25	105	AGJ-9/16-DN08	31	AK-MM20	1170	AP17111	1708
AFS106/90G	102	AFS402ST	106	AGJ-9/16-DN10	31	AK-MM22	1170	AP17313	1709
AFS106/90S	106	AFS403/90G	102	AGRK-1/2-DN10	30	AK-MM24	1170	AP17315	1709
AFS106G	103	AFS403/90S	106	AGRK-1/2-DN12	30	AKN02NP	1176	AP17411-1/2	1706

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AP17411-3/8	1706	AP-C1	197	APIPC26	1548	APOL.1	1654	AQV-19-10	1415
AP17621	1708	AP-C1-SS	197	APIPC32	1548	APPC108	1548	AQV-19-30	1415
AP17803-A	1709	AP-C2	197	APIPC40	1548	APPC176	1548	AQV-26-10	1415
AP17808	1707	AP-C2-SS	197	APIPC48	1548	APPC20	1548	AQV-26-30	1415
AP22	1609	AP-C3	197	APIPC54	1548	APPC31	1548	AQV-33-10	1415
AP3008RL	1757	AP-C3-SS	197	APIPC58	1548	APPC40	1548	AR100	1458
AP3008RM	1757	AP-C4	197	APIPC68	1548	APPC52	1548	AR-12	1596
AP3008RS	1757	AP-C4-SS	197	APIPC72	1548	APPC57	1548	AR-13	1596
AP3008RXL	1757	AP-C5	197	APIPC88	1548	APPC63	1548	AR200	1458
AP3008RXS	1757	AP-C5-SS	197	APK-A0	191	APPC67	1548	AR2000-01	649
AP3008RXXL	1757	AP-C6	197	APK-A0-SS	191	APPC72	1548	AR250	1588
AP313	1711	AP-C6-SS	197	APK-A1	191	APPC76	1548	AR3000-02	649
AP415	1711	AP-C7	197	APK-A1-SS	191	APPC89	1548	AR4000-04	649
AP488	1711	AP-C7-SS	197	APK-A2	191	APPC95	1548	AR4000-06	649
AP50B8RL	1756	AP-C8-SS	197	APK-A2-SS	191	APR200S	1713	AR5000-06	649
AP50B8RM	1756	APD-A0	191	APK-A3	191	APR500	1713	AR5000-10	649
AP50B8RS	1756	APD-A1	191	APK-A3-SS	191	APR500R200S-N1.5	1713	AR900-15	655
AP50B8RXL	1756	APD-A2	191	APK-A4	191	APR71	1713	AR900-20	655
AP50B8RXXL	1756	APD-A3	191	APK-A4-SS	191	APR71-N1.7	1713	AS-10L	156
AP515	1711	APD-A5	191	APK-A5	191	APR8312	1712	AS-10S	156
AP7001	1710	APD-A6	191	APK-A5-SS	191	APR-A0	191	AS-12L	156
AP7002-7	1710	APD-C1	197	APK-A6	191	APR-A1	191	AS-12S	156
AP7007	1710	APD-C2	197	APK-A6-SS	191	APR-A2	191	AS-13	1596
AP7319	1709	APD-C3	197	APK-A7-SS	191	APR-A3	191	AS-14S	156
AP7451	1706	APD-C5	197	APK-A8-SS	191	APR-A4	191	AS-15L	156
AP7460	1706	APDLA1	191	APKLC12	1710	APR-A5	191	AS-16S	156
AP7495	1707	APDLA2	191	APKLC38	1710	APR-A6	191	AS-18L	156
AP8031K5G	1709	APDLA3	191	APLA0	191	APR-B1	194	AS-20S	156
AP80B4RL	1757	APEC-12	1206	APLA1	191	APR-B2	194	AS-22L	156
AP80B4RM	1757	APEC-14	1206	APLA1-SS	191	APR-B3	194	AS-25S	156
AP80B4RS	1757	APEC-38	1206	APLA2	191	APR-B4	194	AS-28L	156
AP80B4RXL	1757	APEC-516	1206	APLA2-SS	191	APR-B5	194	AS-6L	156
AP80B4RXXL	1757	APEE-12	1206	APLA3	191	APRC13	1548	AS-6S	156
AP818C	1711	APEE-14	1206	APLA3-SS	191	APRC20	1548	AS71CF	397
AP81B4RL	1756	APEE-38	1206	APLA4	191	APRC25	1548	AS71CM	397
AP81B4RM	1756	APEE-516	1206	APLA4-SS	191	APRLA1	191	AS71EF	397
AP81B4RS	1756	APET-12	1206	APLA5	191	APRLA2	191	AS71EM	397
AP81B4RXL	1756	APET-14	1206	APLA5-SS	191	APRLA3	191	AS71JF	397
AP81B4RXS	1756	APET-38	1206	APLA6	191	APSE-12-12	1206	AS71JM	397
AP81B4RXXL	1756	APET-516	1206	APLA6-SS	191	APSE-12-14	1206	AS-8L	156
AP8641-1	1711	APFE-14-14	1206	APLALL048	1078	APSE-12-38	1206	AS-8S	156
AP8641-4	1711	APFE-38-38	1206	APLALL068	1078	APSE-14-12	1206	AS-A0/A1	192
APA-15	1712	APFE-516-14	1206	APLALLMUL068038	1078	APSE-14-14	1206	AS-A0/A1-SS	192
APA-25	1712	APFS-12-12	1206	APLALLMUL068048	1078	APSE-14-18	1206	AS-A2	192
APAS1005	1713	APFS-12-14	1206	APLC1	197	APSE-14-38	1206	AS-A2-SS	192
APAS1005-N1.4	1713	APFS-12-38	1206	APLC2	197	APSE-38-12	1206	AS-A3	192
APAS1005-N1.7	1713	APFS-14-12	1206	APLC3	197	APSE-38-14	1206	AS-A3-SS	192
AP-B1	194	APFS-14-14	1206	APLC4	197	APSE-38-18	1206	AS-A4	192
AP-B1-SS	194	APFS-14-18	1206	APLC5	197	APSE-38-38	1206	AS-A4-SS	192
AP-B2	194	APFS-14-38	1206	APMS-12-12	1206	APSE-516-14	1206	AS-A5	192
AP-B2-SS	194	APFS-38-12	1206	APMS-12-14	1206	APSE-516-18	1206	AS-A5-SS	192
AP-B3	194	APFS-38-14	1206	APMS-12-38	1206	APSE-516-38	1206	AS-A6	192
AP-B3-SS	194	APFS-38-38	1206	APMS-14-12	1206	APSF5040RC	1708	AS-A6-SS	192
AP-B4	194	APFS-516-12	1206	APMS-14-14	1206	APSHM10	1548	ASAFG-20	1105
AP-B4-SS	194	APFS-516-14	1206	APMS-14-18	1206	APST-12-14	1206	ASAFG-25	1105
AP-B5	194	APFS-516-38	1206	APMS-14-38	1206	APST-14-14	1206	ASAFG-32	1105
AP-B5-SS	194	APH827A	1713	APMS-38-12	1206	APST-14-18	1206	ASAFG-50	1105
APBN-12	1206	APH827-N1.4	1713	APMS-38-14	1206	APST-38-14	1206	ASAFG-63	1105
APBN-14	1206	APH827-N1.7	1713	APMS-38-18	1206	APST-516-14	1206	ASAFG-75	1105
APBN-38	1206	APIPC112	1548	APMS-38-38	1206	AQM-SEALANT	1107	ASAFG-90	1105
APBO-12	1206	APIPC137	1548	APMS-516-12	1206	AQV-12-10	1415	ASAH-1/2-20	1436
APBO-14	1206	APIPC14	1548	APMS-516-14	1206	AQV-12-30	1415	ASAH-1/4-20	1436
APBO-38	1206	APIPC159	1548	APMS-516-18	1206	AQV-16-10	1415	ASAH-1-20	1436
APBO-516	1206	APIPC20	1548	APMS-516-38	1206	AQV-16-30	1415	ASAH-3/4-20	1436

ASAH-3/8-20	1436	ASV8L	127	AW-R6-2000	1649	B12-BR-NPT	1471	B203L	565
ASAH-5/16-20	1436	ASV8S	127	AW-R6-4000	1649	B12-PP	1470	B203P	608
ASAH-5/8-20	1436	ASW-1	1595	AW-R6-600	1649	B12-SS	1469	B20X22	1421
AS-B1	194	AT051	1015	B		B12-SS-NPT	1469	B2102BH	326
AS-B1-SS	194	AT051S10	1015	B 12/16	510	B12X14	1421	B2102F	326
AS-B2	194	AT101	1015	B 20/25	510	B13X14SS	1421	B2102FP	326
AS-B2-SS	194	AT101S12	1015	B 41 100	510	B13X15	1421	B2102M	326
AS-B3	194	AT-13	1596	B 41 125	510	B14X16	1421	B2102MP	326
AS-B3-SS	194	AT201	1015	B 41 160	510	B15X16SS	1421	B2103HP	326
AS-B4	194	AT201S10	1015	B 41 200	510	B1612CF	23	B2104BH	326
AS-B4-SS	194	AT251	1015	B 41 32	510	B1616CF	23	B2104F	326
AS-B5	194	AT251S09	1015	B 41 40	510	B16X18	1421	B2104FP	326
AS-B5-SS	194	AT301	1015	B 41 50	510	B1702FP	325	B2104H	326
AS-C1	197	AT301S10	1015	B 41 63	510	B1702MP	325	B2104HP	326
AS-C1-SS	197	AT351	1015	B 41 80	510	B1704F	325	B2104M	326
AS-C2	197	AT351S09	1015	B00KM-10F	577	B1704FP	325	B2104MP	326
AS-C2-SS	197	AT401	1015	B00KM-1F	577	B1704H	325	B2105H	326
AS-C3	197	AT401S12	1015	B00KM-2F	577	B1704HP	325	B2105HP	326
AS-C3-SS	197	AT451S11	1015	B00KM-3F	577	B1704M	325	B2106H	326
AS-C4	197	AT501S09	1015	B00KM-4F	577	B1704MP	325	B2106Q	326
AS-C4-SS	197	ATC12	703	B00KM-5F	577	B1705H	325	B2106QBH	326
AS-C5	197	ATC6	703	B00KM-6F	577	B1705HP	325	B2106QP	326
ASG-1	1593	ATCFRL12	703	B00KM-8F	577	B1706F	325	B2108Q	326
ASK-106	156	ATCFRL6	703	B00KM-B	577	B1706FP	325	B2108QBH	326
ASK-107	156	ATF II	283	B0203CF	23	B1706H	325	B2108QP	326
ASK-108	156	ATF12	703	B0204CF	23	B1706HP	325	B212-AU	1468
ASK-127	156	ATF6	703	B0403CF	23	B1706M	325	B212-AU-NPT	1468
ASK-128	156	ATL12	703	B0404CF	23	B1706MP	325	B212-BR	1471
ASK-129	156	ATL6	703	B0405CF	23	B1708F	325	B212-BR-NPT	1471
ASK-1610	156	ATR12	703	B0406CF	23	B1708H	325	B212-SS	1469
ASK-1611	156	ATR6	703	B0604CF	23	B1708HP	325	B21X23	1421
ASK-1612	156	AV-13	1596	B0605CF	23	B1708M	325	B2304F	326
ASK-2012	156	AVK-1000B	433	B0606CF	23	B1708MP	325	B2304FP	326
ASK-2014	156	AVK-1000G	434	B0608CF	23	B18.5X19.5SS	1421	B2304HP	326
ASK-2015	156	AVK-100B	433	B0806CF	23	B18X20	1421	B2304M	326
ASK-2016	156	AVK-100G	434	B0808CF	23	B1902MP	325	B2304MP	326
ASK-2515	156	AVK-1500B	433	B1008CF	23	B1904F	325	B2304MPS	326
ASK-2517	156	AVK-150B	433	B1010CF	23	B1904FP	325	B2305H	326
ASK-2519	156	AVK-2000B	433	B10AA	1034	B1904H	325	B2306F	326
ASS-RTDH-1-10	1622	AVK-2000G	434	B10AC	1034	B1904HP	325	B2306FP	326
ASS-RTDH-1-12	1622	AVK-200B	433	B10AE	1034	B1904M	325	B2306H	326
ASS-RTDH-1-15	1622	AVK-200G	434	B10AL	1034	B1904MP	325	B2306HP	326
ASS-RTDH-1-3	1622	AVK-24B	433	B112-AU	1468	B1905H	325	B2306M	326
ASS-RTDH-1-4	1622	AVK-270B	433	B112-AU-NPT	1468	B1905HP	325	B2308F	326
ASS-RTDH-1-5	1622	AVK-270G	434	B112-BR	1471	B1906F	325	B2308HP	326
ASS-RTDH-1-6	1622	AVK-3000B	433	B112-BR-NPT	1471	B1906FP	325	B2308M	326
ASS-RTDH-1-8	1622	AVK-3000G	434	B112-PP	1470	B1906H	325	B23X25	1421
ASV10L	127	AVK-500B	433	B112-PP-NPT	1470	B1906HP	325	B23X25SS	1421
ASV12L	127	AVK-500G	434	B112-SS	1469	B1906M	325	B2502FP	327
ASV12S	127	AVK-50B	433	B112-SS-NPT	1469	B1906MP	325	B2502MP	327
ASV14S	127	AVK-720B	433	B114-AU	1468	B1908F	325	B2504F	327
ASV15L	127	AVK-720G	434	B114-AU-NPT	1468	B1908FP	325	B2504FP	327
ASV16S	127	AVK-900B	433	B114-BR	1471	B1908H	325	B2504H	327
ASV18L	127	AVK-900G	434	B114-BR-NPT	1471	B1908HP	325	B2504HP	327
ASV20S	127	AW2000-01	649	B114-PP	1470	B1908M	325	B2504M	327
ASV22L	127	AW2000-02	649	B114-PP-NPT	1470	B1908MP	325	B2504MP	327
ASV25S	127	AW2000-02D	649	B114-SS	1469	B1-AU	1468	B2505H	327
ASV28L	127	AW3000-02	649	B114-SS-NPT	1469	B1-AU-NPT	1468	B2505HP	327
ASV30S	127	AW3000-02D	649	B11X12SS	1421	B1-BR	1471	B2506F	327
ASV35L	127	AW4000-04	649	B12/34-PP-NPT	1470	B1-BR-NPT	1471	B2506FP	327
ASV38S	127	AW4000-04D	649	B1210CF	23	B1-PP	1470	B2506H	327
ASV42L	127	AW5000-06D	649	B1212CF	23	B1-PP-NPT	1470	B2506HP	327
ASV6L	127	AW5000-10D	649	B12-AU	1468	B1-SS	1469	B2506M	327
ASV6S	127	AW-R6-10000	1649	B12-BR	1471	B1-SS-NPT	1469	B2506MP	327

B



B2506MPS	327	B3-AU	1468	B960BKR	1759	BD-30	1671	BEL-15-DN10	35
B2508F	327	B3-AU-NPT	1468	BA035	1761	BD-36	1671	BEL-15-DN12	35
B2508FP	327	B3-BR	1471	BA-16	1671	BDH-19	1435	BEL-18-45-DN16	35
B2508H	327	B3-BR-NPT	1471	BA-18	1671	BDH-19-10	1435	BEL-18-90-DN16	35
B2508HP	327	B3-PP	1470	BA-20	1671	BDH-25	1435	BEL-18-DN12	35
B2508M	327	B3-PP-NPT	1470	BAMBH	1615	BDH-25-10	1435	BEL-18-DN16	35
B2508MP	327	B3-SS	1469	BAMBHSS	1615	BDH-32	1435	BEL-22-45-DN19	35
B25B04F	327	B3-SS-NPT	1469	BAMSA	1615	BDH-32-10	1435	BEL-22-90-DN19	35
B25B04HP	327	B43003BXS	565	BAMSASS	1615	BDH-38	1435	BEL-22-DN16	35
B25B04M	327	B43003CS	565	BASA150-110-UPVC	1105	BE-112-DN38	35	BEL-22-DN19	35
B25B04MP	327	B43003ES	565	BASA150-32-UPVC	1105	BE-114-DN31	35	BEL-28-45-DN25	35
B25B05H	327	B43003FS	565	BASA150-40-UPVC	1105	BE-12-DN12	35	BEL-28-90-DN25	35
B25B05HP	327	B43003HXS	565	BASA150-50-UPVC	1105	BE-14-DN06	35	BEL-28-DN25	35
B25B06F	327	B43003LS	565	BASA150-63-UPVC	1105	BE-1-DN25	35	BEL-35-45-DN31	35
B25B06H	327	B43003RS	565	BASA150-75-UPVC	1105	BE33-112-ABS	1097	BEL-35-90-DN31	35
B25B06HP	327	B43003RTS	565	BASA150-90-UPVC	1105	BE33-112-UPVC	1109	BEL-35-DN31	35
B25B06M	327	B43004HXS	565	BAT03	1647	BE33-114-ABS	1097	BEL-42-45-DN38	35
B25B06MP	327	B43004LS	565	BAT06	1647	BE33-114-UPVC	1109	BEL-42-90-DN38	35
B25B08F	327	B46X50	1421	BB02CF	23	BE33-12-ABS	1097	BEL-42-DN38	35
B25B08H	327	B4-AU	1468	BB04CF	23	BE33-12-UPVC	1109	BES-06-45-DN05	35
B25B08HP	327	B4-AU-NPT	1468	BB06CF	23	BE33-1-ABS	1097	BES-06-45-DN06	35
B25B08M	327	B4-BR	1471	BB08CF	23	BE33-1-UPVC	1109	BES-06-90-DN05	35
B25B08MP	327	B4-BR-NPT	1471	BB10CF	23	BE33-212-ABS	1097	BES-06-90-DN06	35
B26X28	1421	B4-PP-NPT	1470	BB12CF	23	BE33-212-UPVC	1109	BES-06-DN05	35
B2704MP	328	B4-SS	1469	BB15	1703	BE33-2-ABS	1097	BES-06-DN06	35
B2706F	328	B4-SS-NPT	1469	BB16CF	23	BE33-2-UPVC	1109	BES-08-45-DN06	35
B2706H	328	B53003FS	565	BB24	1703	BE33-34-ABS	1097	BES-08-90-DN06	35
B2706HP	328	B53003HX	565	BB50D	1703	BE33-34-UPVC	1109	BES-08-DN06	35
B2708F	328	B53003LT	565	BB8	1703	BE33-3-ABS	1097	BES-08-DN08	35
B2708FP	328	B53004FS	565	BBJM-10-15	23	BE33-3-UPVC	1109	BES-10-45-DN06	35
B2708H	328	B53004HXS	565	BBJM-12-15	23	BE33-4-ABS	1097	BES-10-45-DN08	35
B2708M	328	B53004LT	565	BBJM-14-15	23	BE33-4-UPVC	1109	BES-10-45-DN10	35
B2708MP	328	B64G-NNK-AD3-RMN	684	BBJM-16-15	23	BE-34-DN19	35	BES-10-90-DN06	35
B2710HP	328	B64G-NNK-MD3-RMN	684	BBJM-18-15	23	BE-38-DN10	35	BES-10-90-DN08	35
B28X30	1421	B67X70	1421	BBJM-20-15	23	BE-516-DN08	35	BES-10-90-DN10	35
B29X30SS	1421	B6804F	328	BBJM-22-15	23	BE-58-DN16	35	BES-10-DN06	35
B2-AU	1468	B6804FP	328	BBJM-26-15	23	BEL06-45-DN05	35	BES-10-DN08	35
B2-AU-NPT	1468	B6804MP	328	BBJM-30-15	23	BEL06-45-DN06	35	BES-10-DN10	35
B2-BR	1471	B6806FP	328	BC-110-UPVC	1103	BEL06-90-DN05	35	BES-12-45-DN08	35
B2-BR-NPT	1471	B6806H	328	BC-125-UPVC	1103	BEL06-90-DN06	35	BES-12-90-DN08	35
B2-PP	1470	B6806HP	328	BC-13	1671	BEL06-DN05	35	BES-12-90-DN10	35
B2-PP-NPT	1470	B6806MP	328	BC-140-UPVC	1103	BEL06-DN06	35	BES-12-DN06	35
B2-SS	1469	B6808F	328	BC-15	1671	BEL08-45-DN06	35	BES-12-DN08	35
B2-SS-NPT	1469	B6808FP	328	BC-160-UPVC	1103	BEL08-90-DN06	35	BES-12-DN10	35
B326CVCMK110VAC	1053	B6808H	328	BC-16-UPVC	1103	BEL08-DN05	35	BES-12-DN12	35
B326CVCMK240VAC	1053	B6808HP	328	BC-18	1671	BEL08-DN06	35	BES-14-45-DN10	35
B326CVCMK24VAC	1053	B6808M	328	BC-20	1671	BEL08-DN08	35	BES-14-90-DN10	35
B326CVCMK24VDC	1053	B6808MP	328	BC-200-UPVC	1103	BEL10-45-DN06	35	BES-14-DN10	35
B33X35	1421	B6812F	328	BC-20-UPVC	1103	BEL10-45-DN08	35	BES-16-45-DN12	35
B345000XXH	566	B6812H	328	BC-225-UPVC	1103	BEL10-45-DN10	35	BES-16-90-DN12	35
B34-AU	1468	B6812M	328	BC-25-UPVC	1103	BEL10-90-DN06	35	BES-16-DN12	35
B34-AU-NPT	1468	B6812MP	328	BC-32-UPVC	1103	BEL10-90-DN08	35	BES-20-45-DN16	35
B34-BR	1471	B68G-NNK-AR3-RLN	684	BC-40-UPVC	1103	BEL10-90-DN10	35	BES-20-90-DN16	35
B34-BR-NPT	1471	B6-BR-NPT	1471	BC-50-UPVC	1103	BEL10-DN08	35	BES-20-DN12	35
B34-PP	1470	B82G-2GK-AP3-RMG	686	BC-63-UPVC	1103	BEL10-DN10	35	BES-20-DN16	35
B34-PP-NPT	1470	B82G-2GK-QP3-RMG	686	BC-75-UPVC	1103	BEL12-45-DN08	35	BES-20-DN19	35
B34-SS	1469	B84G-3GK-AP3-RMG	686	BC-90-UPVC	1103	BEL12-45-DN10	35	BES-25-45-DN19	35
B34-SS-NPT	1469	B84G-3GK-QP3-RMG	686	BCJ1250	1616	BEL12-90-DN08	35	BES-25-90-DN19	35
B356CVCMK110VAC	1053	B84G-4GK-AP3-RMG	686	BCJ425	1616	BEL12-90-DN10	35	BES-25-DN19	35
B356CVCMK240VAC	1053	B84G-4GK-QP3-RMG	686	BCJ620	1616	BEL12-90-DN12	35	BES-25-DN25	35
B356CVCMK24VAC	1053	B905ORR	1759	BCJ825	1616	BEL12-DN10	35	BES-30-45-DN25	35
B356CVCMK24VDC	1053	B905YER	1759	BD-20	1671	BEL12-DN12	35	BES-30-90-DN25	35
B36X38	1421	B914BKR	1759	BD212	1495	BEL15-45-DN12	35	BES-30-DN25	35
B36X38SS	1421	B955YER	1759	BD-25	1671	BEL15-90-DN12	35	BES-38-45-DN31	35

BES-38-90-DN31	35	BF1010CF-OR	18	BFC-187-125N	167	BG-718	1594	BJM-06-22	23
BES-38-DN31	35	BF10-212-ABS	1099	BFC-250-125N	167	BG7501	1605	BJM-08-16	23
BF 100 125	511	BF104505CF	17	BFC-250-250N	167	BG7502	1605	BJM-08-18	23
BF 160 200	511	BF104508CF	17	BFC-312-125N	167	BG7505	1605	BJM-08-22	23
BF 40 50	511	BF104510CF	17	BFC-375-250N	167	BG7506	1605	BJM-10-22	23
BF 63 80	511	BF109008CF	17	BFC-500-375N	167	BG7508	1605	BJM-10-26	23
BF00-112-UPVC	1111	BF109010CF	17	BFC-500-500N	167	BG8001	1604	BJM-12-22	23
BF00-1-UPVC	1111	BF-12	178	BFC-6-125N	174	BG8002	1604	BJM-12-26	23
BF00-2-UPVC	1111	BF1208CF	17	BFC-6-250N	174	BG8501	1605	BJM-16-30	23
BF00-3-UPVC	1111	BF1210CF	17	BFC-625-500N	167	BG8502	1605	BJN1	1679
BF00-4-UPVC	1111	BF1212CF	17	BFC-750-750N	167	BGN466	1606	BJN12	1679
BF00-5-UPVC	1111	BF1212CF-OR	18	BFC-8-125N	174	BH08-08M08M-06MT	15	BJN34	1679
BF0203CF	17	BF124508CF	17	BFC-875-750N	167	BH08-08M08M-09MT	15	BL07-201	689
BF0204CF	17	BF124510CF	17	BFCV04	246	BH08-08Q08M-.5MT	15	BL5040-N	723
BF0206CF	17	BF124512CF	17	BFCV06	246	BH08-08Q08P-06MT	15	BL5040-S3	723
BF024503CF	17	BF-125	172	BFCV08	246	BH08-08Q08P-09MT	15	BL5040-S5	723
BF024504CF	17	BF129008CF	17	BFCV12	246	BH10	142	BL5040-WS3	723
BF029003CF	17	BF129010CF	17	BFCV16	246	BH100	1458	BL5040-WS3-FDA	723
BF029004CF	17	BF129012CF	17	BFCVC04	246	BH12	142	BL5040-WS5	723
BF0403CF	17	BF1290C12CF	17	BFCVC06	246	BH1-60	310	BL5040-WS5-FDA	723
BF0404CF	17	BF-14	178	BFCVC08	246	BH1-60-BSPP	310	BL64-401	683
BF0404CF-OR	18	BF-15	178	BFCVC12	246	BH1-61	310	BL64-408	683
BF0405CF	17	BF-16	178	BFCVC16	246	BH1-61-BSPP	310	BL64-421	683
BF0406CF	17	BF1612CF	17	BFF0404CF	18	BH2-60	310	BL64-428	683
BF044503CF	17	BF1616CF	17	BFF0406CF	18	BH2-60-BSPP	310	BL64-608	683
BF044504CF	17	BF1616CF-OR	18	BFF044504CF	18	BH2-61	310	BL82-201G	686
BF044505CF	17	BF164516CF	17	BFF049004CF	18	BH2-61-BSPP	310	BL82-221G	686
BF049003CF	17	BF169012CF	17	BFF0604CF	18	BH3-60	310	BL84-301G	686
BF049004CF	17	BF169016CF	17	BFF0605CF	18	BH3-60-BSPP	310	BL84-321G	686
BF049005CF	17	BF1690C16CF	17	BFF0606CF	18	BH3-61	310	BL84-401G	686
BF049006CF	17	BF-18	178	BFF0608CF	18	BH3-61-BSPP	310	BL84-421G	686
BF0490C04CF	17	BF-187	172	BFF064506CF	18	BH4-60	310	BLH2-25M-ASSY	1426
BF0604CF	17	BF-20	178	BFF069006CF	18	BH4-60-BSPP	310	BLH2-50M-ASSY	1426
BF0604CF-OR	18	BF2016CF	17	BFF0806CF	18	BH4-61	310	BLH3-100M-ASSY	1426
BF0605CF	17	BF2020CF	17	BFF0808CF	18	BH4-61-BSPP	310	BLH3-25M-ASSY	1426
BF0606CF	17	BF204520CF	17	BFF084508CF	18	BH6	142	BLH3-50M-ASSY	1426
BF0606CF-OR	18	BF209016CF	17	BFF089008CF	18	BH6-60	310	BLH4-100M-ASSY	1426
BF0608CF	17	BF209020CF	17	BFF1008CF	18	BH6-60-BSPP	310	BLH4-25M-ASSY	1426
BF064504CF	17	BF-22	178	BFF1010CF	18	BH6-61	310	BLH4-50M-ASSY	1426
BF064505CF	17	BF2420CF	17	BFF1208CF	18	BH6-61-BSPP	310	BLH6-100M-ASSY	1426
BF064506CF	17	BF2424CF	17	BFF1210CF	18	BH8	142	BLH6-25M-ASSY	1426
BF064508CF	17	BF244524CF	17	BFF1212CF	18	BH8-60	310	BLH6-50M-ASSY	1426
BF069004CF	17	BF249020CF	17	BFF124512CF	18	BH8-60-BSPP	310	BLN02	70
BF069005CF	17	BF249024CF	17	BFF129012CF	18	BH8-61	310	BLN04	70
BF069006CF	17	BF-25	178	BFF1612CF	18	BH8-61-BSPP	310	BLN06	70
BF069008CF	17	BF-250	172	BFF1616CF	18	BIODDH-1	1417	BLN08	70
BF0690C06CF	17	BF-3	178	BFF164516CF	18	BIODDH-34	1417	BLN10	70
BF0804CF	17	BF-312	172	BFF169016CF	18	BJ10-8	142	BLN-1000	172
BF0805CF	17	BF3232CF	17	BFF2020CF	18	BJ4-4	142	BLN-10-FT	178
BF0806CF	17	BF324532CF	17	BFF2424CF	18	BJ6-4	142	BLN12	70
BF0806CF-OR	18	BF329032CF	17	BFF3232CF	18	BJ6-6	142	BLN-125	172
BF0808CF	17	BF-375	172	BG106	1606	BJ8-6	142	BLN-12-FT	178
BF0808CF-OR	18	BF-4	178	BG405	1606	BJ8-8	142	BLN-14	178
BF084506CF	17	BF-500	172	BG5	1594	BJM-03-10	23	BLN16	70
BF084508CF	17	BF-6	178	BG5002	1606	BJM-03-12	23	BLN-16-FT	178
BF084510CF	17	BF-625	172	BG5004	1606	BJM-04-10	23	BLN-18	178
BF089006CF	17	BF-750	172	BG5007	1606	BJM-04-12	23	BLN-187	172
BF089008CF	17	BF-8	178	BG5-PVC	1594	BJM-04-14	23	BLN20	70
BF0890C08CF	17	BF-875	172	BG605	1606	BJM-05-14	23	BLN-20-FT	178
BF-10	178	BFC-1000-1000N	167	BG7001	1604	BJM-05-16	23	BLN24	70
BF-1000	172	BFC-10-250N	174	BG7002	1604	BJM-05-18	23	BLN-250	172
BF1008CF	17	BFC-12-375N	174	BG7005	1604	BJM-06-14	23	BLN-3	178
BF1008CF-OR	18	BFC-12-500N	174	BG7006	1604	BJM-06-16	23	BLN-312	172
BF1010CF	17	BFC-125-125N	167	BG7008	1604	BJM-06-18	23	BLN32	70

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BLN-375	172	BMC-875-750N	167	BN12-2-ABS	1097	BNTM08/060N-100	915	BPHN8-8RP	318
BLN-4	178	BMG-20	1671	BN12-2-UPVC	1108	BNTM08/060R	915	BPLOBP113	1495
BLN-500	172	BMG-25	1671	BN12-34-ABS	1097	BNTM08/060R-100	915	BPLOBP219	1495
BLN-6	178	BMG-30	1671	BN12-34-UPVC	1108	BNTM08/060Y	915	BPLODIN9	1495
BLN-625	172	BMG-36	1671	BN12-38-UPVC	1108	BNTM08/060Y-100	915	BPLOWC13	1495
BLN-750	172	BMT0203CF	18	BN12-3-ABS	1097	BNTM10/070	915	BPLOWC19	1495
BLN-8	178	BMT0204CF	18	BN12-3-UPVC	1108	BNTM10/070B	915	BPN16-110-UPVC	1105
BLN-875	172	BMT0403CF	18	BN12-4-ABS	1097	BNTM10/070N	915	BPN16-20-UPVC	1105
BM0203CF	17	BMT0404CF	18	BN12-4-UPVC	1108	BNTM10/070R	915	BPN16-25-UPVC	1105
BM0204CF	17	BMT0405CF	18	BN-12X80	1181	BNTM10/080	915	BPN16-32-UPVC	1105
BM0403CF	17	BMT0406CF	18	BN-14	1181	BNTM10/080-100	915	BPN16-40-UPVC	1105
BM0404CF	17	BMT0604CF	18	BN-14X80	1181	BNTM10/080B	915	BPN16-50-UPVC	1105
BM0405CF	17	BMT0605CF	18	BN-18	1181	BNTM10/080B-100	915	BPN16-63-UPVC	1105
BM0406CF	17	BMT0606CF	18	BN-18X30	1181	BNTM10/080N	915	BPN16-75-UPVC	1105
BM0604CF	17	BMT0608CF	18	BN-1X100	1181	BNTM10/080N-100	915	BPS212	1495
BM0605CF	17	BMT0806CF	18	BN-1X150	1181	BNTM10/080R	915	BPU065/100B	903
BM0606CF	17	BMT0808CF	18	BN-2	1181	BNTM10/080R-100	915	BPU080/120B	903
BM0608CF	17	BMT0810CF	18	BN-212	1181	BNTM12/090	915	BPU100/145B	903
BM0804CF	17	BMT1010CF	18	BN-3	1181	BNTM12/090B	915	BR-1000	171
BM0806CF	17	BMT1208CF	18	BN-34	1181	BNTM12/090N	915	BR-125	171
BM0808CF	17	BMT1210CF	18	BN-34X80	1181	BNTM12/090R	915	BR-250	171
BM0810CF	17	BMT1212CF	18	BN-38	1181	BNTM12/100	915	BR-375	171
BM1008CF	17	BMT1612CF	18	BN-38X80	1181	BNTM12/100N	915	BR-500	171
BM1010CF	17	BMT1616CF	18	BN-4	1181	BNTM14/110	915	BR-625	171
BM1208CF	17	BMT2016CF	18	BNEUBLADE/150	1614	BNTM14/110N	915	BR-AG32LC	1613
BM1210CF	17	BMT2020CF	18	BNEUBLADE/300	1614	BOR-10KG	281	BR-AM10	1613
BM1212CF	17	BMT2420CF	18	BNEUBLADE/450	1614	BORS1-10	1429	BR-AM10A	1613
BM1612CF	17	BMT2424CF	18	BNEUBLADE/600	1614	BORS112-10	1429	BR-AM20	1613
BM1616CF	17	BMT3224CF	18	BNEUBLADE/750	1614	BORS112-30	1429	BR-AM20A	1613
BM2016CF	17	BMT3232CF	18	BNEUBLADE/80	1614	BORS114-10	1429	BR-AM35	1613
BM2020CF	17	BN-1	1181	BNEUBLADE/900	1614	BORS114-30	1429	BR-AM35A	1613
BM2420CF	17	BN11-112-ABS	1097	BNEUPWERA	1616	BORS1-30	1429	BR-AM40	1613
BM2424CF	17	BN11-112-UPVC	1108	BNTM03/015	915	BORS2-10	1429	BR-AM40UJ	1613
BM3232CF	17	BN11-114-ABS	1097	BNTM04/025	915	BORS212-10	1429	BR-AM60A	1613
BMC-1000-750N	167	BN11-114-UPVC	1108	BNTM04/025-100	915	BORS212-30	1429	BR-AM75	1613
BMC-10-250N	174	BN11-12-ABS	1097	BNTM04/025B	915	BORS2-30	1429	BR-AM75A	1613
BMC-10-375N	174	BN11-12-UPVC	1108	BNTM04/025G	915	BORS3-10	1429	BRC12	1472
BMC-10-500N	174	BN11-14-UPVC	1108	BNTM04/025N	915	BORS3-30	1429	BRC6	1472
BMC-12-250N	174	BN11-1-ABS	1097	BNTM04/025R	915	BORS34-10	1429	BRJ12A	1614
BMC-12-375N	174	BN11-1-UPVC	1108	BNTM04/2	915	BORS34-30	1429	BRJ12C	1615
BMC-12-500N	174	BN-112	1181	BNTM05/030	915	BP12	143	BRJ12S/S	1614
BMC-125-125N	167	BN11-212-ABS	1097	BNTM05/030-100	915	BP12B	889	BRJ20A	1614
BMC-187-125N	167	BN11-212-UPVC	1108	BNTM05/030B	915	BP16B	889	BRJ20C	1615
BMC-250-125N	167	BN11-2-ABS	1097	BNTM05/030N	915	BP20	143	BRJ20S/S	1614
BMC-250-250N	167	BN11-2-UPVC	1108	BNTM06/040	915	BP2-205	284	BRJ25A	1614
BMC-250-375N	167	BN11-34-ABS	1097	BNTM06/040-100	915	BP22B	889	BRJ25C	1615
BMC-250-500N	167	BN11-34-UPVC	1108	BNTM06/040B	915	BP4	143	BRJ25S/S	1614
BMC-312-125N	167	BN11-38-UPVC	1108	BNTM06/040B-100	915	BP4-205	284	BRJ40A	1614
BMC-312-250N	167	BN11-3-ABS	1097	BNTM06/040G	915	BP6	143	BRJ40C	1615
BMC-375-125N	167	BN11-3-UPVC	1108	BNTM06/040G-100	915	BP8	143	BRJ40S/S	1614
BMC-375-250N	167	BN-114	1181	BNTM06/040N	915	BPAM02-06-1	1645	BRJ50A	1614
BMC-375-375N	167	BN11-4-ABS	1097	BNTM06/040N-100	915	BPAM02-06-2	1645	BRJ50C	1615
BMC-500-250N	167	BN11-4-UPVC	1108	BNTM06/040R	915	BPB0157	1703	BRJ50S/S	1614
BMC-500-375N	167	BN-12	1181	BNTM06/040R-100	915	BPHC12-12RP	318	BRJ75A	1614
BMC-500-500N	167	BN12-112-ABS	1097	BNTM06/040Y	915	BPHC16-16RP	318	BR-MAGNETICBASEM	1613
BMC-500-750N	167	BN12-112-UPVC	1108	BNTM06/040Y-100	915	BPHC24-24RP	318	BR-SE150	1613
BMC-6-125N	174	BN12-114-ABS	1097	BNTM060/030	915	BPHC4-4RP	318	BR-SE300	1613
BMC-6-250N	174	BN12-114-UPVC	1108	BNTM08/060	915	BPHC6-6RP	318	BR-SE450	1613
BMC-625-375N	167	BN12-12-ABS	1097	BNTM08/060-100	915	BPHC8-8RP	318	BR-SE600	1613
BMC-625-500N	167	BN12-12-UPVC	1108	BNTM08/060B	915	BPHN12-12RP	318	BR-SH10/1.5	1613
BMC-750-500N	167	BN12-1-ABS	1097	BNTM08/060B-100	915	BPHN16-16RP	318	BR-SH10/2	1613
BMC-750-750N	167	BN12-1-UPVC	1108	BNTM08/060G	915	BPHN32-32RP	318	BR-SH10/3	1613
BMC-8-125N	174	BN12-212-ABS	1097	BNTM08/060G-100	915	BPHN4-4RP	318	BR-SH20/1.5	1613
BMC-8-250N	174	BN12-212-UPVC	1108	BNTM08/060N	915	BPHN6-6RP	318	BR-SH20/2	1613

BR-SH40/1.5	1613	BSB64	1384	BSL32-316-3X2.5	1191	BU-10	175	BV1070-14	935
BR-SH40/2	1613	BSH.4.3A	1620	BSL32-316-4X1.5	1191	BU-1000	168	BV1070-2	935
BR-SH40/3	1613	BSH-1	1482	BSL32-316-4X2	1191	BU-125	168	BV1070-34	935
BR-SS60A	1613	BSH-3/4	1482	BSL32-316-4X3	1191	BU-12-FT	175	BV1070-38	935
BR-SS75A	1613	BSHA-3/4	1482	BS-M10	110	BU-14	175	BV1071-1	935
BS-1	110	BSIDF-13H-1	1192	BS-M12	110	BU-15	175	BV1071-112	935
BS-1116JIC	110	BSIDF-13H-1.5	1192	BS-M14	110	BU-16	175	BV1071-114	935
BS-1-116JIC	110	BSIDF-13H-2	1192	BS-M16	110	BU-18	175	BV1071-12	935
BS-112	110	BSIDF-13H-2.5	1192	BS-M18	110	BU-187	168	BV1071-14	935
BS-112N	110	BSIDF-13H-3	1192	BS-M22	110	BU-20	175	BV1071-2	935
BS-112V	110	BSIDF-14-1	1192	BS-M8	110	BU-250	168	BV1071-34	935
BS-114	110	BSIDF-14-1.5	1192	BSP-112-BR	957	BU-312	168	BV1071-38	935
BS-1-14JIC	110	BSIDF-14-2	1192	BSP-114-BR	957	BU-375	168	BV12-12W	924
BS-114N	110	BSIDF-14-2.5	1192	BSP-1-BR	957	BU-3-FT	175	BV12-14W	924
BS-1-18JIC	110	BSIDF-14-3	1192	BSP-2-BR	957	BU-4	175	BV12-1W	924
BS-12	110	BSIDF-14-4	1192	BSP-34-BR	957	BU-500	168	BV12-34W	924
BS-12JIC	110	BSIDF-15-1	1192	BSRJT-13H-1	1192	BU-6	175	BV12-38W	924
BS-12N	110	BSIDF-15-1.5	1192	BSRJT-13H-1.5	1192	BU-625	168	BV13-1	923
BS-12V	110	BSIDF-15-2	1192	BSRJT-13H-2	1192	BU-750	168	BV13-12	923
BS-14	110	BSIDF-15-2.5	1192	BSRJT-13H-2.5	1192	BU-8	175	BV13-12W	924
BS-14JIC	110	BSIDF-15-3	1192	BSRJT-13H-3	1192	BUNA-1	1472	BV13-14	923
BS-14N	110	BSIDF-15-4	1192	BSRJT-13H-4	1192	BUNA-112	1472	BV13-14W	924
BS-14V	110	BSIDF-SEAL-1	1192	BSRJT-13HBN-1	1192	BUNA-114	1472	BV13-1W	924
BS-1516JIC	110	BSIDF-SEAL-1.5	1192	BSRJT-13HBN-1.5	1192	BUNA-12	1472	BV13-34	923
BS-18	110	BSIDF-SEAL-2	1192	BSRJT-13HBN-2	1192	BUNA-2	1472	BV13-34W	924
BS-18N	110	BSIDF-SEAL-2.5	1192	BSRJT-13HBN-2.5	1192	BUNA-212	1472	BV13-38	923
BS-1N	110	BSIDF-SEAL-3	1192	BSRJT-13HBN-3	1192	BUNA-3	1472	BV13-38W	924
BS-1V	110	BSIDF-SEAL-4	1192	BSRJT-13HBN-4	1192	BUNA-34	1472	BV210-1	925
BS-2	110	BSJ-IW13	1143	BSRJT-14-1	1192	BUNA-4	1472	BV210-12	925
BS-2BA	110	BSJ-TF06	1143	BSRJT-14-1.5	1192	BUNA-6	1472	BV210-34	925
BS-2N	110	BSJ-TF08	1143	BSRJT-14-2	1192	BUSLEEVE-31	46	BV210-38	925
BS2WCL316-1	1191	BSJ-TF10	1143	BSRJT-14-2.5	1192	BUSLEEVE-31-10	46	BV215-1	932
BS2WCL316-1.5	1191	BSK-1	112	BSRJT-14-3	1192	BUSLEEVE-36	46	BV215-112	932
BS2WCL316-2	1191	BSK-2	112	BSRJT-14-4	1192	BUSLEEVE-36-10	46	BV215-114	932
BS2WCL316-2.5	1191	BSL2KS-316-1	1191	BSRJT-15-1	1192	BUSLEEVE-42	46	BV215-12	932
BS2WCL316-3	1191	BSL2KS-316-1.5	1191	BSRJT-15-1.5	1192	BUSLEEVE-42-10	46	BV215-2	932
BS2WCL316-4	1191	BSL2KS-316-2	1191	BSRJT-15-2	1192	BUSLEEVE-46	46	BV215-34	932
BS-34	110	BSL2KS-316-2.5	1191	BSRJT-15-2.5	1192	BUSLEEVE-46-10	46	BV22-2	1609
BS-34JIC	110	BSL2KS-316-3	1191	BSRJT-15-3	1192	BUSLEEVE-54	46	BV22-4	1609
BS-34N	110	BSL2KS-316-4	1191	BSRJT-15-4	1192	BUSLEEVE-54-10	46	BV22-5	1609
BS-34V	110	BSL2S-316-1	1191	BSRJT-SEAL-1	1192	BUTVCE-1	967	BV22-6	1609
BS-38	110	BSL2S-316-1.5	1191	BSRJT-SEAL-1.5	1192	BUTVCE-112	967	BV22D/H	1609
BS-38N	110	BSL2S-316-2	1191	BSRJT-SEAL-2	1192	BUTVCE-2	967	BV23-1	924
BS-38V	110	BSL2S-316-2.5	1191	BSRJT-SEAL-2.5	1192	BUTVRJT-1	967	BV23-12	924
BS-4BA	110	BSL2S-316-3	1191	BSRJT-SEAL-3	1192	BUTVRJT-112	967	BV23-34	924
BS-516JIC	110	BSL2S-316-4	1191	BSRJT-SEAL-4	1192	BUTVRJT-2	967	BV28-15	944
BS-58JIC	110	BSL31-316-1.5X1	1191	BSV-1	110	BUTVRJT-212	967	BV28-22	944
BS-6BA	110	BSL31-316-1X0.5	1191	BSV-112	110	BUTVRJT-3	967	BV28-28	944
BS-716JIC	110	BSL31-316-2.5X1	1191	BSV-114	110	BUTVRJT-4	967	BV28-35	944
BS7WWO-316-1	1191	BSL31-316-2.5X15	1191	BSV-12	110	BUTVWE-1	967	BV28-42	944
BS7WWO-316-1.5	1191	BSL31-316-2.5X2	1191	BSV-14	110	BUTVWE-112	967	BV28-54	944
BS7WWO-316-2	1191	BSL31-316-2X1	1191	BSV-18	110	BUTVWE-2	967	BV35-12	926
BS7WWO-316-2.5	1191	BSL31-316-2X1.5	1191	BSV-2	110	BUTVWE-212	967	BV35-12M	926
BS7WWO-316-3	1191	BSL31-316-3X2	1191	BSV-34	110	BUTVWE-3	967	BV35-14	926
BS7WWO-316-4	1191	BSL31-316-3X2.5	1191	BSV-38	110	BUTVWE-4	967	BV35-14M	926
BS7WWW-316-1	1191	BSL31-316-4X1.5	1191	BSV-58	110	BV07-1	924	BV35-18	926
BS7WWW-316-1.5	1191	BSL31-316-4X2	1191	BTI03	1215	BV07-12	924	BV35-18M	926
BS7WWW-316-2	1191	BSL31-316-4X2.5	1191	BTI04	1215	BV07-34	924	BV35-38	926
BS7WWW-316-2.5	1191	BSL31-316-4X3	1191	BTI05	1215	BV1021-14	935	BV35-38M	926
BS7WWW-316-3	1191	BSL32-316075X0.5	1191	BTI06	1215	BV1021-38	935	BV50-12NPT	925
BS7WWW-316-34	1191	BSL32-316-2.5X2	1191	BTI08	1215	BV1070-1	935	BV50-34NPT	925
BS-916JIC	110	BSL32-316-2X1	1191	BTM06	1215	BV1070-112	935	BV538-1	923
BSB20	1384	BSL32-316-2X1.5	1191	BTM08	1215	BV1070-114	935	BV538-12	923
BSB48	1384	BSL32-316-3X2	1191	BTM10	1215	BV1070-12	935	BV538-34	923

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	BV538-38	923	BV90-38	923	BVL13-34-PVC	937	BWF6-4-212	1392	C112-BR	1471
	BV548-1	924	BV93-112L	932	BVSU-1	1113	BWF6-4-3	1392	C112-PP	1470
	BV548-12	924	BV93-114L	932	BVSU-112	1113	BWF7-112-1	1392	C112-SS	1469
	BV548-34	924	BV93-12L	932	BVSU-114	1113	BWF7-112-114	1392	C114-AU	1468
	BV548-38	924	BV93-14L	932	BVSU-34	1113	BWF7-112-12	1392	C114-BR	1471
	BV581-1	925	BV93-1L	932	BVT13-112-PVC	937	BWF7-112-34	1392	C114-PP	1470
	BV581-12	925	BV93-2L	932	BVT13-114-PVC	937	BWF7-2-114	1392	C114-SS	1469
	BV581-34	925	BV93-34L	932	BVT13-12-PVC	937	BWF7-212-112	1392	C1-15/12.5-1/2	1156
	BV581-38	925	BV93-38L	932	BVT13-1-PVC	937	BWF7-3-2	1392	C11-6/4	1159
	BV6000-12	956	BVBS-6	1113	BVT13-2-PVC	937	BWF7-3-212	1392	C11-8/6	1159
	BV6000-18	956	BVD13-112-PVC	937	BVT13-34-PVC	937	BWF7-4-212	1392	C-12	177
	BV620-12	924	BVD13-114-PVC	937	BWF1-1	1392	BWF7-4-3	1392	C-125-FT	172
	BV620-34	924	BVD13-12-PVC	937	BWF1-112	1392	BWF8-1	1392	C12-AU	1468
	BV64-1	944	BVD13-1-PVC	937	BWF1-114	1392	BWF8-112	1392	C12-BR	1471
	BV64-112	944	BVD13-212-PVC	937	BWF1-2	1392	BWF8-114	1392	C12-PP	1470
	BV64-114	944	BVD13-2-PVC	937	BWF1-212	1392	BWF8-12	1392	C12-SS	1469
	BV64-12	944	BVD13-34-PVC	937	BWF1-3	1392	BWF8-4	1392	C133	1554
	BV64-2	944	BVD13-3-PVC	937	BWF1-34	1392	BX-10	1420	C134	1554
	BV64-34	944	BVD13-4-PVC	937	BWF1-4	1392	BX-13	1420	C135	1554
	BV84-1	943	BVDUS-1	1100	BWF2-1	1392	BX-19	1420	C136	1554
	BV84-112	943	BVDUS-112	1100	BWF2-112	1392	BX-8	1420	C-14	177
	BV84-112L	943	BVDUS-12	1100	BWF2-114	1392	C		C1-4/2.7-1/8	1156
	BV84-112W	943	BVDUS-2	1100	BWF2-2	1392	C 41 32	510	C140-1-12	1371
	BV84-112WL	943	BVDUS-212	1100	BWF2-212	1392	C 41 40	510	C140-112-1	1371
	BV84-114	943	BVHC12-12RP	318	BWF2-3	1392	C 41 50	510	C140-112-114	1371
	BV84-114L	943	BVHC16-16RP	318	BWF2-34	1392	C 41 63	510	C140-112-114N	1371
	BV84-114W	943	BVHC20-20RP	318	BWF2-4	1392	C H 41 100	510	C140-112-12	1371
	BV84-114WL	943	BVHC24-24RP	318	BWF3-1	1392	C H 41 125	510	C140-112-12N	1371
	BV84-12	943	BVHC32-32RP	318	BWF3-112	1392	C H 41 160	510	C140-112-1N	1371
	BV84-12L	943	BVHC4-4RP	318	BWF3-114	1392	C H 41 200	510	C140-112-34	1371
	BV84-12W	943	BVHC6-6RP	318	BWF3-2	1392	C H 41 80	510	C140-112-34N	1371
	BV84-12WL	943	BVHC8-8RP	318	BWF3-3	1392	C001	1554	C140-1-12N	1371
	BV84-14	943	BVHN12-12RP	318	BWF3-4	1392	C00269	1554	C140-1-14	1371
	BV84-14L	943	BVHN16-16RP	318	BWF4-1	1392	C00KM-10F	577	C140-114-1	1371
	BV84-14W	943	BVHN20-20RP	318	BWF4-112	1392	C00KM-1F	577	C140-114-12	1371
	BV84-14WL	943	BVHN24-24RP	318	BWF4-2	1392	C00KM-2F	577	C140-114-1N	1371
	BV84-1L	943	BVHN32-32RP	318	BWF4-212	1392	C00KM-3F	577	C140-114-34	1371
	BV84-1W	943	BVHN4-4RP	318	BWF4-3	1392	C00KM-4F	577	C140-114-34N	1371
	BV84-1WL	943	BVHN6-6RP	318	BWF4-4	1392	C00KM-5F	577	C140-1-14N	1371
	BV84-2	943	BVHN8-8RP	318	BWF5-112-114	1392	C00KM-6F	577	C140-12-14	1371
	BV84-212	943	BVI13-112-ABS	945	BWF5-12-34	1392	C00KM-8F	577	C140-12-14N	1371
	BV84-212L	943	BVI13-112-PVC	945	BWF5-2-114	1392	C00KM-B	577	C140-12-18	1371
	BV84-2L	943	BVI13-114-ABS	945	BWF5-2-12	1392	C-10	177	C140-12-18N	1371
	BV84-2W	943	BVI13-114-PVC	945	BWF5-212-112	1392	C-1000	172	C140-12-38	1371
	BV84-2WL	943	BVI13-12-ABS	945	BWF5-212-114	1392	C10-10/8-M14	1157	C140-12-38N	1371
	BV84-3	943	BVI13-12-PVC	945	BWF5-3-112	1392	C10-15/12.5-M20	1157	C140-1-34	1371
	BV84-34	943	BVI13-1-ABS	945	BWF5-3-2	1392	C10-4/2.7-M6	1157	C140-1-34N	1371
	BV84-34L	943	BVI13-1-PVC	945	BWF5-4-212	1392	C10-5/3-M7	1157	C140-1-38	1371
	BV84-34W	943	BVI13-212-ABS	945	BWF6-112-1	1392	C10-6/4-M10	1157	C140-1-38N	1371
	BV84-34WL	943	BVI13-212-PVC	945	BWF6-112-114	1392	C10-6/4-M8	1157	C140-14-18	1371
	BV84-38	943	BVI13-2-ABS	945	BWF6-112-12	1392	C10-8/6-M12	1157	C140-2-1	1371
	BV84-38L	943	BVI13-2-PVC	945	BWF6-114-34	1392	C10X-10/8	1157	C140-2-112	1371
	BV84-38W	943	BVI13-34-ABS	945	BWF6-2-1	1392	C10X-12/10	1157	C140-2-112N	1371
	BV84-38WL	943	BVI13-34-PVC	945	BWF6-2-112	1392	C10X-6/4	1157	C140-2-114	1371
	BV84-3L	943	BVI13-38-PVC	945	BWF6-2-114	1392	C10X-8/6	1157	C140-2-114N	1371
	BV84-4	943	BVI13-3-ABS	945	BWF6-212-112	1392	C1-10/8-1/2	1156	C140-2-12	1371
	BV84-4L	943	BVI13-3-PVC	945	BWF6-212-114	1392	C1-10/8-1/4	1156	C140-212-112	1371
	BV90-1	923	BVI13-4-ABS	945	BWF6-212-2	1392	C1-10/8-1/8	1156	C140-212-112N	1371
	BV90-112	923	BVI13-4-PVC	945	BWF6-3-112	1392	C1-10/8-3/8	1156	C140-212-114	1371
	BV90-114	923	BVL13-112-PVC	937	BWF6-3-114	1392	C11-12/10	1159	C140-212-114N	1371
	BV90-12	923	BVL13-114-PVC	937	BWF6-3-2	1392	C11-15/12.5	1159	C140-212-12	1371
	BV90-14	923	BVL13-12-PVC	937	BWF6-3-212	1392	C1-12/10-1/2	1156	C140-212-12N	1371
	BV90-2	923	BVL13-1-PVC	937	BWF6-34-12	1392	C1-12/10-3/8	1156	C140-212-1N	1371
	BV90-34	923	BVL13-2-PVC	937	BWF6-4-2	1392	C112-AU	1468	C140-212-2	1371

C140-212-2N	1371	C147-114N	1373	C155-2N	1375	C161-4N	1375	C-187	172
C140-2-12N	1371	C147-12	1373	C155-34	1375	C176-1	1371	C192-112N	1374
C140-2-1N	1371	C147-12N	1373	C155-34N	1375	C176-112	1371	C192-114N	1374
C140-2-34	1371	C147-11N	1373	C155-3N	1375	C176-112N	1371	C192-12N	1374
C140-2-34N	1371	C147-2	1373	C156	1554	C176-114	1371	C192-14	1374
C140-3-1	1371	C147-212	1373	C156-1	1374	C176-114N	1371	C192-1N	1374
C140-3-112	1371	C147-212N	1373	C156-112	1374	C176-12	1371	C192-2N	1374
C140-3-112N	1371	C147-2N	1373	C156-112N	1374	C176-12N	1371	C192-34N	1374
C140-3-114N	1371	C147-3	1373	C156-114	1374	C176-1N	1371	C193-1	1374
C140-3-2	1371	C147-34	1373	C156-114N	1374	C176-2	1371	C193-112	1374
C140-3-212	1371	C147-34N	1373	C156-12	1374	C176-2N	1371	C193-112N	1374
C140-3-212N	1371	C147-3N	1373	C156-12N	1374	C176-34	1371	C193-114	1374
C140-3-2N	1371	C147-4	1373	C156-1N	1374	C176-34N	1371	C193-12	1374
C140-34-12	1371	C147-4N	1373	C156-2	1374	C177-1	1371	C193-12N	1374
C140-34-12N	1371	C-15	177	C156-2N	1374	C177-112	1371	C193-1N	1374
C140-34-14	1371	C1-5/3-1/8	1156	C156-34	1374	C177-112N	1371	C193-2	1374
C140-34-14N	1371	C151-1	1374	C156-34N	1374	C177-114	1371	C193-212	1374
C140-34-18	1371	C151-112	1374	C-16	177	C177-114N	1371	C193-212N	1374
C140-34-18N	1371	C151-1-12	1374	C1-6/4-1/4	1156	C177-12	1371	C193-2N	1374
C140-34-38	1371	C151-112N	1374	C1-6/4-1/8	1156	C177-12N	1371	C193-3	1374
C140-34-38N	1371	C151-1-12N	1374	C1-6/4-3/8	1156	C177-1N	1371	C193-34	1374
C140-38-18	1371	C151-114	1374	C161-1	1375	C177-2	1371	C193-34N	1374
C140-4-2	1371	C151-114-1	1374	C161-112	1375	C177-212N	1371	C197-112N	1376
C140-4-212N	1371	C151-114N	1374	C161-1-12	1375	C177-2N	1371	C197-12N	1376
C140-4-2N	1371	C151-12	1374	C161-112-1	1375	C177-34	1371	C197-1N	1376
C140-4-3	1371	C151-12N	1374	C161-112-114N	1375	C177-34N	1371	C197-2N	1376
C140-4-3N	1371	C151-1N	1374	C161-112-12	1375	C177-3N	1371	C197-34N	1376
C144-1	1370	C151-2	1374	C161-112-12N	1375	C179-1-12	1372	C199-1	1376
C144-112	1370	C151-212	1374	C161-112-1N	1375	C179-112-1	1372	C199-112	1376
C144-112N	1370	C151-212N	1374	C161-112-34	1375	C179-112-114	1372	C199-112N	1376
C144-114	1370	C151-2N	1374	C161-112-34N	1375	C179-112-114N	1372	C199-114	1376
C144-114N	1370	C151-3	1374	C161-112N	1375	C179-112-1N	1372	C199-12	1376
C144-12	1370	C151-34	1374	C161-1-12N	1375	C179-1-12N	1372	C199-12N	1376
C144-12N	1370	C151-34N	1374	C161-114	1375	C179-114-1	1372	C199-1N	1376
C144-14	1370	C151-3N	1374	C161-114-1	1375	C179-114-12N	1372	C199-2	1376
C144-1N	1370	C151-4N	1374	C161-114-12	1375	C179-114-12N	1372	C199-2N	1376
C144-2	1370	C152-1	1373	C161-114-12N	1375	C179-114-34	1372	C199-34	1376
C144-212	1370	C152-112	1373	C161-114-1N	1375	C179-12-38	1372	C199-34N	1376
C144-212N	1370	C152-112N	1373	C161-114-34	1375	C179-1-34	1372	C1-AU	1468
C144-2N	1370	C152-114	1373	C161-114N	1375	C179-1-34N	1372	C1-BR	1471
C144-3	1370	C152-114N	1373	C161-12	1375	C179-2-1	1372	C1-PP	1470
C144-34	1370	C152-12	1373	C161-12-14N	1375	C179-2-112	1372	C1-SS	1469
C144-34N	1370	C152-12N	1373	C161-12N	1375	C179-2-112N	1372	C1X-12/10-3/8	1156
C144-38	1370	C152-14N	1373	C161-1-34	1375	C179-2-114	1372	C1X-6/4-1/4	1156
C144-3N	1370	C152-1N	1373	C161-1-34N	1375	C179-2-114N	1372	C1X-8/6-1/4	1156
C144-4	1370	C152-2	1373	C161-14N	1375	C179-2-1N	1372	C1X-8/6-1/8	1156
C144-4N	1370	C152-212N	1373	C161-1N	1375	C179-34-12	1372	C1Y-10/6.5-1/4	1156
C145-1-12	1370	C152-2N	1373	C161-2	1375	C179-34-12N	1372	C1Y-10/8-1/4	1156
C145-112-114	1370	C152-34	1373	C161-2-1	1375	C-18	177	C1Y-12/10-3/8	1156
C145-1-12N	1370	C152-34-12	1373	C161-2-112	1375	C1-8/6-1/4	1156	C1Y-6/4-1/4	1156
C145-114-1	1370	C152-34-12N	1373	C161-2-114	1375	C1-8/6-1/8	1156	C1Y-6/4-1/8	1156
C145-114-1N	1370	C152-34N	1373	C161-2-114N	1375	C1-8/6-3/8	1156	C1Y-8/6-1/4	1156
C145-1-34	1370	C152-3N	1373	C161-212	1375	C185-1	1373	C1Y-8/6-1/8	1156
C145-1-34N	1370	C153	1554	C161-2-12	1375	C185-112	1373	C1Z-10/8-1/2	1156
C145-2-1	1370	C154	1554	C161-212N	1375	C185-112N	1373	C1Z-10/8-1/4	1156
C145-2-112	1370	C155-1	1375	C161-2-1N	1375	C185-114N	1373	C1Z-10/8-1/8	1156
C145-2-112N	1370	C155-112	1375	C161-3	1375	C185-12	1373	C1Z-10/8-3/8	1156
C145-2-114N	1370	C155-112N	1375	C161-3-2	1375	C185-12N	1373	C1Z-12/10-1/2	1156
C145-34-12	1370	C155-114	1375	C161-34	1375	C185-1N	1373	C1Z-12/10-3/8	1156
C145-34-12N	1370	C155-114N	1375	C161-34-12	1375	C185-2	1373	C1Z-4/2.7-1/8	1156
C147-1	1373	C155-12	1375	C161-34N	1375	C185-212N	1373	C1Z-4/2.7-5M	1156
C147-112	1373	C155-12N	1375	C161-38N	1375	C185-2N	1373	C1Z-4/2.7-6M	1156
C147-112N	1373	C155-1N	1375	C161-3N	1375	C185-34	1373	C1Z-5/3-1/8	1156
C147-114	1373	C155-2	1375	C161-4	1375	C185-34N	1373	C1Z-5/3-5M	1156

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C1Z-5/3-6M	1156	C257-34N	1370	C4-8/6	1156	C5Y6/4-M5	1158	C808-WELD-OP	1459
C1Z-6/4-1/2	1156	C2-6/4-1/4	1156	C4-8/6-6/4	1156	C5Y8/6-1/4	1158	C809-325L	1458
C1Z-6/4-1/4	1156	C2-6/4-1/8	1156	C4-AU	1468	C5Y8/6-1/8	1158	C8-10/8-1/4	1158
C1Z-6/4-1/8	1156	C2-6/4-3/8	1156	C4-BR	1471	C-6	177	C820-358	1459
C1Z-6/4-3/8	1156	C2681	1459	C4-PP	1470	C605-100	1459	C8-6/4-1/4	1158
C1Z-6/4-5M	1156	C2752	1456	C4-SS	1469	C6-10/8	1158	C8-6/4-1/8	1158
C1Z-6/4-6M	1156	C2753	1456	C-500	172	C6-12/10	1158	C-875	172
C1Z-8/6-1/4	1156	C2782	1456	C5-10/8-1/2	1158	C-625	172	C8-8/6-1/4	1158
C1Z-8/6-1/8	1156	C2783	1456	C5-10/8-1/4	1158	C6-4/2.7	1158	C8-8/6-1/8	1158
C1Z-8/6-3/8	1156	C2-8/6-1/2	1156	C5-10/8-1/8	1158	C6-5/3	1158	C9-10/8	1158
C-20	177	C2-8/6-1/4	1156	C5-10/8-3/8	1158	C6-6/4	1158	C9-10/8-8/6	1158
C202	1554	C2-8/6-1/8	1156	C5-12/10-1/2	1158	C6-8/6	1158	C9-12/10	1158
C203	1554	C2-8/6-3/8	1156	C5-12/10-3/8	1158	C6-AU	1468	C9-4/2.7	1158
C203Y	1554	C289-1	1372	C5-15/12.5-1/2	1158	C705-100	1458	C940040-1	1547
C204	1554	C289-112	1372	C529M-1	1376	C705-200	1458	C940040-2	1547
C204B	1554	C289-112N	1372	C529M-112	1376	C7-10/8-1/4	1158	C940050-1	1547
C205	1554	C289-114N	1372	C529M-112N	1376	C7-12/10-3/8	1158	C940050-2	1547
C205G	1554	C289-12	1372	C529M-114	1376	C7-15/12.5-1/2	1158	C940060-1	1547
C206	1554	C289-12N	1372	C529M-114N	1376	C7-4/2.7-1/8	1158	C940070-1	1547
C206R	1554	C289-1N	1372	C529M-12	1376	C-750	172	C940080-1	1547
C208-3-100H	1460	C289-2	1372	C529M-12N	1376	C7-6/4-1/4	1158	C940080-2	1547
C208-4-65H	1460	C289-212N	1372	C529M-1N	1376	C7-6/4-1/8	1158	C940100-1	1547
C2-10/8-1/4	1156	C289-2N	1372	C529M-2	1376	C7-8/6-1/4	1158	C940100-2	1547
C2-12/10-3/8	1156	C289-34	1372	C529M-212	1376	C7-8/6-1/8	1158	C940120-1	1547
C212-AU	1468	C289-34N	1372	C529M-212N	1376	C7X-10/8-1/4	1158	C9-5/3	1158
C212-BR	1471	C2910-7153	1462	C529M-2N	1376	C7X-6/4-1/4	1158	C9-6/4	1158
C212-SS	1469	C2910-8104	1462	C529M-3	1376	C7X-6/4-1/8	1158	C9-8/6	1158
C213-2520EX	1462	C2-AU	1468	C529M-34N	1376	C7X-8/6-1/4	1158	CA1	1480
C-22	177	C2-BR	1471	C529M-38	1376	C7X-8/6-1/8	1158	CA112	1480
C223-2530SSEX	1462	C2-PP	1470	C529M-38N	1376	C7Y6/4-1/8	1158	CA12	1480
C-25	177	C2-SS	1469	C529M-3N	1376	C7Y8/6-1/4	1158	CA150HDG	1385
C-250	172	C2X-10/8-1/4	1157	C529M-4	1376	C7Y8/6-1/8	1158	CA234	1480
C252	1554	C2X-6/4-1/4	1157	C529M-4N	1376	C-8	177	CA300HDG	1385
C253	1554	C2X-8/6-1/4	1157	C530M-1	1376	C800C-1	965	CA34	1480
C254	1554	C2X-8/6-3/8	1157	C530M-112	1376	C800C-112	965	CA34Q19S/DL	1480
C255	1554	C-3	177	C530M-114	1376	C800C-112S	965	CA450HDG	1385
C256	1554	C3-10/8	1156	C530M-114N	1376	C800C-114	965	CA600HDG	1385
C256-1	1372	C3-10/8-8/6	1156	C530M-1N	1376	C800C-114S	965	CA73-112-ABS	1098
C256-112	1372	C-312	172	C530M-34N	1376	C800C-12	965	CA73-112-UPVC	1110
C256-112N	1372	C3-12/10	1156	C5-4/2.7-1/8	1158	C800C-12S	965	CA73-114-ABS	1098
C256-114	1372	C3-15/12.5	1156	C5-5/3-1/8	1158	C800C-1S	965	CA73-114-UPVC	1110
C256-114N	1372	C3-4/2.7	1156	C5-6/4-1/4	1158	C800C-2	965	CA73-12-ABS	1098
C256-12	1372	C34-AU	1468	C5-6/4-1/8	1158	C800C-2S	965	CA73-12-UPVC	1110
C256-12N	1372	C34-BR	1471	C5-8/6-1/2	1158	C800C-34	965	CA73-1-ABS	1098
C256-1N	1372	C34-PP	1470	C5-8/6-1/4	1158	C800C-34S	965	CA73-1-UPVC	1110
C256-2	1372	C34-SS	1469	C5-8/6-1/8	1158	C800S-1	965	CA73-212-ABS	1098
C256-212	1372	C3-5/3	1156	C5-8/6-3/8	1158	C800S-112	965	CA73-212-UPVC	1110
C256-212N	1372	C3-6/4	1156	C5F-10/8-1/4	1158	C800S-112S	965	CA73-2-ABS	1098
C256-2N	1372	C3-6/4-5/3	1156	C5F-10/8-3/8	1158	C800S-114	965	CA73-2-UPVC	1110
C256-3	1372	C-375	172	C5F-5/3-1/8	1158	C800S-114S	965	CA73-34-ABS	1098
C256-34	1372	C3-8/6	1156	C5F-6/4-1/4	1158	C800S-12	965	CA73-34-UPVC	1110
C256-34N	1372	C3-8/6-6/4	1156	C5F-6/4-1/8	1158	C800S-12S	965	CA73-3-ABS	1098
C256-3N	1372	C3-AU	1468	C5F-8/6-1/4	1158	C800S-1S	965	CA73-3-UPVC	1110
C257-1	1370	C3-BR	1471	C5F-8/6-1/8	1158	C800S-2	965	CA73-4-ABS	1098
C257-112	1370	C3-PP	1470	C5X-10/8-1/4	1158	C800S-2S	965	CA73-4-UPVC	1110
C257-112N	1370	C3-SS	1469	C5X-4/2.7-1/8	1158	C800S-34	965	CA73-5-UPVC	1110
C257-114	1370	C-4	177	C5X-6/4-1/4	1158	C800S-34S	965	CA73-6-UPVC	1110
C257-114N	1370	C4-10/8	1156	C5X-6/4-1/8	1158	C808-350L	1461	CA73-8-UPVC	1110
C257-12	1370	C4-12/10	1156	C5X-8/6-1/4	1158	C808-350M	1461	CA750HDG	1385
C257-12N	1370	C4-4/2.7	1156	C5X-8/6-1/8	1158	C808-450L	1461	CAP04NP	1176
C257-1N	1370	C4-6/4	1156	C5Y-10/8-1/4	1158	C808-450M	1461	CAP06NP	1176
C257-2	1370	C4-6/4-5/3	1156	C5Y-4/2.7-1/8	1158	C808-466L	1458	CAP08NP	1176
C257-2N	1370	C460-3-350H	1460	C5Y-6/4-1/4	1158	C808MODK	1637	CAP16NP	1176
C257-34	1370	C460-4-270H	1460	C5Y-6/4-1/8	1158	C808-WELD-OA	1459	CAP54-1	425

CAP54-10	425	CD-2501	1666	CES-10-DN06	33	CG63-250B	412	CH9060	1417
CAP54-12	425	CD-2502	1666	CES-10-DN08	33	CG63-400B	412	CH9063	1417
CAP54-16	425	CDAX	1659	CES-10-DN10	33	CG63-600B	412	CH9070	1417
CAP65-13	425	CDAZ	1675	CES-12-DN08	33	CGS-1	1472	CH9076	1417
CAP65-3	425	CDBB-20	1671	CES-12-DN10	33	CGS-114-212	1472	CH9089	1417
CAP67-M12	425	CDBB-25	1671	CES-14-DN08	33	CGS-12-34	1472	CHAIN	1489
CARMKIT-1	1088	CDBB-30	1671	CES-14-DN10	33	CGS-3-4	1472	CHEMC-1000	1107
CARMKIT-2	1088	CDBB-36	1671	CES-16-DN10	33	CH-13/19-75	1432	CHR11602	1462
CARMKIT-3	1088	CDBJ-20	1671	CES-16-DN12	33	CH13513	1417	CHR826-12-366L	1462
CAS050MS	1552	CDBJ-25	1671	CES-20-DN12	33	CH13522	1417	CHR826-14-466L	1462
CAS050SS	1552	CDBJ-30	1671	CES-20-DN16	33	CH13535	1417	CHS102	1417
CAS075MS	1552	CDBJ-36	1671	CES-20-DN19	33	CH13538	1417	CHS11	1417
CAS075SS	1552	CDBL15	1671	CES-25-DN19	33	CH13541	1417	CHS13	1417
CAS100MS	1552	CDBU-42	1671	CES-25-DN25	33	CH13551	1417	CHS16	1417
CAS100SS	1552	CDBU-47	1671	CES-30-DN25	33	CH13554	1417	CHS19	1417
CAS120MS	1552	CDBU-50	1671	CES-38-DN31	33	CH13557	1417	CHS22	1417
CAS120SS	1552	CDBV-42	1671	CF1	762	CH-19/25-75	1432	CHS25	1417
CAS150MS	1552	CDBV-47	1671	CF14BE	1761	CH-25/34-75	1432	CHS28	1417
CAS150SS	1552	CDBV-50	1671	CF4	762	CH2A01	1725	CHS32	1417
CAS175SS	1552	CDC-14F-14M-B	1659	CF5	762	CH2H01	1725	CHS35	1417
CAS200MS	1552	CDC-14M-14M-B	1659	CF6	762	CH2K01	1725	CHS38	1417
CAS225MS	1552	CDE	1675	CF8	762	CH38	278	CHS41	1417
CAS225SS	1552	CDH001	1674	CF9	762	CH4.19	1625	CHS45	1417
CAS250MS	1552	CDH002	1674	CFD0610	246	CH4.25	1625	CHS48	1417
CAS250SS	1552	CDH004	1674	CFD0620	246	CH4513	1417	CHS51	1417
CAS275MS	1552	CDH005	1674	CFD063	246	CH4516	1417	CHS54	1417
CAS275SS	1552	CDH006	1674	CFD0632	246	CH4519	1417	CHS57	1417
CAS300MS	1552	CDL	1675	CFD066	246	CH4522	1417	CHS60	1417
CAS300SS	1552	CDM	1675	CFD0840	246	CH4525	1417	CHS63	1417
CAS330MS	1552	CDN	1675	CFD0860	246	CH4528	1417	CHS70	1417
CAS330SS	1552	CDO	1675	CFD0880	246	CH4532	1417	CHS76	1417
CAS355MS	1552	CD-OG01	1620	CFD216	1761	CH4535	1417	CHS8	1417
CAS355SS	1552	CD-OG01-1	1626	CFFRT-15-15-12	1217	CH4538	1417	CHS89	1417
CAS380MS	1552	CDQ1500	1670	CFFRT-22-22-12	1217	CH4541	1417	CHS95	1417
CAS380SS	1552	CDQ1600	1670	CFFRT-22-22-34	1217	CH4545	1417	CI02/02	1200
CAS405MS	1552	CDQ1900	1670	CFRT-15-15-22	1217	CH4548	1417	CI03/02	1200
CAS405SS	1552	CDQ2100	1670	CFRT-22-15-15	1217	CH4551	1417	CI03/04	1200
CAS455MS	1552	CDQC-14	1674	CFRT-22-15-22	1217	CH4554	1417	CI04/02	1200
CAS505MS	1552	CDQP001-14	1674	CFRT-22-22-15	1217	CH4557	1417	CI04/04	1200
CAS555MS	1552	CDQP045-14	1674	CFRT-28-28-22	1217	CH4560	1417	CI05/02	1200
CAS555SS	1552	CEL06-DN05	32	CFRT-35-35-15	1217	CH4563	1417	CI05/04	1200
CAS605MS	1552	CEL06-DN06	32	CFV1B-N	438	CH4570	1417	CI05/06	1200
CAS605SS	1552	CEL08-DN05	32	CFV2B-N	438	CH4576	1417	CI05/08	1200
CAS710MS	1552	CEL08-DN06	32	CFV3B-N	438	CH4A01	1725	CI06/02	1200
CAS710SS	1552	CEL10-DN06	32	CFV4B-N	438	CH4H01	1725	CI06/04	1200
CAS810SS	1552	CEL10-DN08	32	CFV5B-N	438	CH4K01	1725	CI06/06	1200
CAS910MS	1552	CEL10-DN10	32	CFVC04	246	CH6.19	1625	CI06/08	1200
CAS910SS	1552	CEL12-DN06	32	CFVC06	246	CH6.25	1625	CI08/04	1200
CAS965MS	1552	CEL12-DN08	32	CFVC08	246	CH90102	1417	CI08/06	1200
CAS965SS	1552	CEL12-DN10	32	CG16	280	CH9013	1417	CI08/08	1200
CAT-KIT01	112	CEL12-DN12	32	CG1N02000C022	1044	CH9016	1417	CI08/12	1200
CBP-03	208	CEL15-DN10	32	CG1N02VL1C022	1045	CH9019	1417	CI10/08	1200
CBP-05	208	CEL15-DN12	32	CG1N02VL2C022	1045	CH9022	1417	CI12/08	1200
CCOP-PA-03	208	CEL18-DN12	32	CG1N02VL3C022	1045	CH9025	1417	CI12/12	1200
CCOP-PA-05	208	CEL18-DN16	32	CG205CTW00	1053	CH9028	1417	CIA04/02	1200
CCOP-PB-03	208	CEL18-DN19	32	CG205STW00	1053	CH9032	1417	CIA05/04	1200
CCOP-PB-05	208	CEL22-DN16	32	CG206CTX00	1053	CH9035	1417	CIA06/04	1200
CCRHA-1320SS	1461	CEL22-DN19	32	CG206STX00	1053	CH9038	1417	CIA06/06	1200
CCRHA-1330SS	1461	CEL28-DN19	32	CG207CTY00	1053	CH9041	1417	CIA08/08	1200
CCRHA-1920SS	1461	CEL28-DN25	32	CG207STY00	1053	CH9045	1417	CIBH03	1201
CCRHA-1930SS	1461	CEL35-DN31	32	CG208STZ00	1053	CH9048	1417	CIBH04	1201
CCRHA-2520SS	1461	CEL42-DN38	32	CG209STK00	1053	CH9051	1417	CIBH05	1201
CD-100MS	1520	CES-06-DN06	33	CG210STJ00	1053	CH9054	1417	CIBH06	1201
CD-100SS	1520	CES-08-DN06	33	CG63-100B	412	CH9057	1417	CIBH08	1201

CIBT03	1202	CISPH04/04	1202	CM10/04	1197	CMBH12	1198	CMNC06	1198
CIF03/02	1200	CISPH05/05	1202	CM10/06	1197	CMBH16	1198	CMNC08	1198
CIF03/04	1200	CISPH06/06	1202	CM10/08	1197	CMBL10	1198	CMNF04/02	1197
CIF04/02	1200	CISPH08/08	1202	CM12/04	1197	CMBT06	1199	CMNF05/02	1197
CIF04/04	1200	CISPNO3/03	1202	CM12/06	1197	CMBT08	1199	CMNF06/02	1197
CIF05/04	1200	CISPNO4/04	1202	CM12/08	1197	CMBT10	1199	CMNF06/04	1197
CIF06/04	1200	CISPNO5/05	1202	CM12/12	1197	CMF04/02	1197	CMNF08/04	1197
CIF06/06	1200	CISPNO6/06	1202	CM15/08	1197	CMF05/02	1197	CMNF10/04	1197
CIF08/08	1200	CIT03	1202	CM16/06	1197	CMF05/04	1197	CMNF12/06	1197
CIF10/08	1200	CIT04	1202	CM16/08	1197	CMF06/02	1197	CMNF12/08	1197
CIL04	1201	CIT05	1202	CM16/12	1197	CMF06/04	1197	CMP04	1197
CIL05	1201	CIT06	1202	CM1815B	884	CMF08/02	1197	CMP04/02	1197
CIL06	1201	CIT08	1202	CM1815R	884	CMF08/04	1197	CMP04/04	1197
CIL08	1201	CIT12	1202	CM1N02000A022	1045	CMF08/06	1197	CMP05	1197
CILF06/06	1201	CITM04/02	1202	CM1N02000B022	1045	CMF10/04	1197	CMP05/02	1197
CILF08/06	1201	CITM06/04	1202	CM1N02VL1A022	1046	CMF10/06	1197	CMP05/04	1197
CILF08/08	1201	CITR06/04	1202	CM1N02VL1B022	1046	CMF12/06	1197	CMP06	1197
CILM03/02	1201	CITRS04	1202	CM1N02VL2A022	1046	CMF12/08	1197	CMP06/02	1197
CILM03/04	1201	CITS04	1202	CM1N02VL2B022	1046	CMF16/08	1197	CMP06/04	1197
CILM04/02	1201	CITS06	1202	CM1N02VL3A022	1046	CML04	1198	CMP08	1197
CILM04/04	1201	CIUSL05	1201	CM1N02VL3B022	1046	CML05	1198	CMP08/02	1197
CILM05/02	1201	CIUSL06	1201	CM22/08	1197	CML06	1198	CMP08/04	1197
CILM05/04	1201	CIUST04	1202	CM22/12	1197	CML08	1198	CMP08/06	1197
CILM05/06	1201	CIUST06	1202	CM3-1G	208	CML10	1198	CMP08/08	1197
CILM06/04	1201	CIX06	1202	CM3-1G/ALU	208	CML12	1198	CMP10	1197
CILM06/06	1201	CIY06	1202	CM3-1G-ADJ	208	CML16	1198	CMP10/04	1197
CILP12	1480	CIY08	1202	CM3-2G	208	CMLF06/04	1198	CMP10/06	1197
CILP34	1480	CKA210-06-NC	600	CM3-2G/ALU	208	CMLF08/04	1198	CMP10/08	1197
CILS03	1201	CKA210-06-NO	600	CM3-2G-ADJ	208	CMLF10/04	1198	CMP12	1197
CILS04	1201	CKA210-08-NC	600	CM3-3G	208	CMLF10/06	1198	CMP12/06	1197
CILS05	1201	CKA210-08-NO	600	CM3-3G/ALU	208	CMLM04/02	1198	CMP12/08	1197
CILS06	1201	CKA220-06	600	CM3-3G-ADJ	208	CMLM04/04	1198	CMP16/08	1197
CILS08	1201	CKA220-08	600	CM3-4G	208	CMLM05/02	1198	CMP22	1197
CIMB08/04	1202	CKA310-10-NC	600	CM3-4G/ALU	208	CMLM05/04	1198	CMS04	1198
CIMFB04/03	1201	CKA310-10-NO	600	CM3-4G-ADJ	208	CMLM06/02	1198	CMS05	1198
CIMFB05/04	1201	CKA320-10	600	CM3-5G	208	CMLM06/04	1198	CMS06	1198
CIMFB06/04	1201	CKL110-06	547	CM3-5G/ALU	208	CMLM06/06	1198	CMS08	1198
CIMFB06/05	1201	CKL210-08	547	CM3-5G-ADJ	208	CMLM08/02	1198	CMS10	1198
CIMFB08/05	1201	CKL310-10	547	CM3-6G	208	CMLM08/04	1198	CMS12	1198
CIMFB08/06	1201	CKV210-06-NC	575	CM3-6G/ALU	208	CMLM08/06	1198	CMS16	1198
CINC08	1201	CKV210-06-NO	575	CM3-6G-ADJ	208	CMLM08/08	1198	CMS22	1198
CINF03/02	1200	CKV210-08-NC	575	CM5-1G	208	CMLM10/04	1198	CM-SC-15S	883
CINF05/04	1200	CKV210-08-NO	575	CM5-1G-ADJ	208	CMLM10/06	1198	CMSP02/08	1199
CINF06/06	1200	CKV220-06	575	CM5-2G	208	CMLM12/06	1198	CMSP04/06	1199
CINF08/06	1200	CKV220-08	575	CM5-2G-ADJ	208	CMLM12/08	1198	CMSP04/08	1199
CINF08/08	1200	CKV310-10-NC	575	CM5-3G	208	CMLM16/08	1198	CMSP06/10	1199
CIP03/02	1200	CKV310-10-NO	575	CM5-3G-ADJ	208	CMLM16/12	1198	CMSP06/12	1199
CIP04	1200	CKV320-10	575	CM5-4G	208	CMLS06	1199	CMSP08/12	1199
CIP04/02	1200	CL15-10	1144	CM5-4G-ADJ	208	CMLS08	1199	CMSPH04/03	1199
CIP04/04	1200	CM04/02	1197	CM5-5G	208	CMLS10	1199	CMSPH06/04	1199
CIP05	1200	CM04/04	1197	CM5-5G-ADJ	208	CMLS12	1199	CMSPH08/04	1199
CIP06	1200	CM05/02	1197	CM5-6G	208	CMLS16	1199	CMSPH12/06	1199
CIP06/06	1200	CM05/04	1197	CM5-6G-ADJ	208	CMMB12/08	1199	CMSPN12/12	1199
CIP08	1200	CM06/02	1197	CMA05/02	1197	CMMB16/10	1199	CMT04	1199
CIP08/06	1200	CM06/04	1197	CMA06/02	1197	CMMFB05/04	1198	CMT05	1199
CIS03	1201	CM06/06	1197	CMA06/04	1197	CMMFB08/06	1198	CMT06	1199
CIS04	1201	CM0715S	881	CMA08/04	1197	CMMFB10/06	1198	CMT08	1199
CIS05	1201	CM0722S	881	CMA08/06	1197	CMMFB10/08	1198	CMT10	1199
CIS06	1201	CM0728S	881	CMA12/08	1197	CMMFB12/06	1198	CMT12	1199
CIS08	1201	CM08/02	1197	CMBH04	1198	CMMFB12/08	1198	CMT16	1199
CIS12	1201	CM08/04	1197	CMBH05	1198	CMMFB12/10	1198	CMTM04/02	1199
CISP04/04	1202	CM08/06	1197	CMBH06	1198	CMMFB16/08	1198	CMTM06/02	1199
CISP04/05	1202	CM08/08	1197	CMBH08	1198	CMMFB16/12	1198	CMTM08/04	1199
CISPH03/03	1202	CM10/02	1197	CMBH10	1198	CMNC05	1198	CMTM10/04	1199

CMTR06/02	1199	CPN-112	1183	CRWM-1340	1461	CSWC112	1480	CV105-12	960
CMTRS06	1199	CPN-114	1183	CRWM-1920	1461	CSWC2	1480	CV105-34	960
CMTRS10	1199	CPN-12	1183	CRWM-1920SS	1461	CT0302021-4	1525	CV105-38	960
CMTRS12	1199	CPN-14	1183	CRWM-1940	1461	CT0302023-0	1525	CV12M-1	960
CMTS08	1199	CPN-2	1183	CRWM-2520	1461	CT0302025-7	1525	CV12M-112	960
CMTS10	1199	CPN-212	1183	CRWM-2520SS	1461	CT0302029-0	1525	CV12M-114	960
CMTS12	1199	CPN-34	1183	CRWM-2530	1461	CT0302030-2	1525	CV12M-12	960
CMTS16	1199	CPN-38	1183	CS13-364-10GG	685	CT0302031-0	1525	CV12M-2	960
CMX06	1199	CPOM2DDV	220	CS13-664-10GG	685	CT0302034-5	1525	CV12M-34	960
CNS-1	1497	CPOM3DDV	220	CS15CP-S	1546	CT-12-2	1107	CV12R-1	960
CNS-112	1497	CPVC10/16	1409	CS1-M-10	455	CT402839	1761	CV12R-112	960
CNS-114	1497	CPVC12/15	1409	CS1-M-12	455	CTC1	905	CV12R-114	960
CNS-12	1497	CPVC12/18	1409	CS1-M-16	455	CTC108-130	1515	CV12R-12	960
CNS-2	1497	CPVC14/15	1409	CS1-M-20	455	CTC121-143	1515	CV12R-2	960
CNS-212	1497	CPVC16/22	1409	CS1-M-25	455	CTC133-155	1515	CV12R-34	960
CNS-3	1497	CPVC18/15	1409	CS1-M-32	455	CTC146-168	1515	CV130-1	962
CNS-34	1497	CPVC19/25	1409	CS1-M-40	455	CTC184-206	1515	CV130-112	962
CNS-4	1497	CPVC25/31	1409	CS1-M-8	455	CTC2	905	CV130-114	962
CNS-5	1497	CPVC316/15	1409	CS215CP-S	1546	CTC25-45	1515	CV130-12	962
CNS-6	1497	CPVC34/15	1409	CS22CP-S	1546	CTC32-54	1515	CV130-2	962
CO1A03	1725	CPVC38/15	1409	CS3814-1	278	CTC45-67	1515	CV130-212	962
CO1B03	1725	CPVC5/11	1409	CS3814-2	278	CTC57-79	1515	CV130-3	962
CO3A03	1725	CPVC516/15	1409	CS3814-3	278	CTC70-92	1515	CV130-34	962
CO3B03	1725	CPVC532/10	1409	CS3814-4	278	CTC83-105	1515	CV130-38	962
CO8E72	1725	CPVC58/15	1409	CS3814-6	278	CTC95-117	1515	CV130-4	962
COF-10	1416	CPVC6/12	1409	CS-720W-01	1025	CTMAGUT48BK	1588	CV501	1558
COF-12	1416	CPVC8/14	1409	CS-720W-02	1025	CTMAGUT48W	1588	CVBZ384-1	960
COF-3.2	1416	CR1	1208	CS-720W-03	1025	CTMAGUT50S.BLUE	1588	CVBZ384-112	960
COF-3.5	1416	CR12	1208	CS-720W-04	1025	CTMAGUT50Y	1588	CVBZ384-114	960
COF-4.0	1416	CR14	1208	CSB1	1376	CTP-AB-03	208	CVBZ384-12	960
COF-4.5	1416	CR143B	557	CSB112	1376	CTP-AB-05	208	CVBZ384-2	960
COF-5.0	1416	CR143C	557	CSB112N	1376	CTP-PT-03	208	CVBZ384-34	960
COF-5.5	1416	CR144A	557	CSB114	1376	CTP-PT-05	208	CVD13-112-ABS	1100
COF-6.0	1416	CR18	1208	CSB12	1376	CTR1	905	CVD13-112-PVC	1112
COF-70	1416	CR316	1208	CSB12N	1376	CTWA-1315SSH	1459	CVD13-114-ABS	1100
COF-75	1416	CR33-112-UPVC	1110	CSB14	1376	CUPVC/TUBE-11022	1106	CVD13-114-PVC	1112
COF-8.0	1416	CR33-114-UPVC	1110	CSB14N	1376	CUPVC/TUBE-11053	1106	CVD13-12-ABS	1100
COF-9.0	1416	CR33-12-ABS	1098	CSB1N	1376	CUPVC/TUBE-12525	1106	CVD13-12-PVC	1112
COP-100	281	CR33-12-UPVC	1110	CSB2	1376	CUPVC/TUBE-14028	1106	CVD13-1-ABS	1100
CP112	1480	CR33-1-ABS	1098	CSB212N	1376	CUPVC/TUBE-16032	1106	CVD13-1-PVC	1112
CP218	1480	CR33-1-UPVC	1110	CSB2N	1376	CUPVC/TUBE-16047	1106	CVD13-2-ABS	1100
CP234	1480	CR33-212-UPVC	1110	CSB3	1376	CUPVC/TUBE2015	1106	CVD13-2-PVC	1112
CP-2910	1462	CR33-2-ABS	1098	CSB34	1376	CUPVC/TUBE2515	1106	CVD13-34-ABS	1100
CP7110 KIT	1718	CR33-2-UPVC	1110	CSB34N	1376	CUPVC/TUBE3218	1106	CVD13-34-PVC	1112
CP734H	1716	CR33-34-ABS	1098	CSB38	1376	CUPVC/TUBE3224	1106	CW1	110
CP772H	1716	CR33-34-UPVC	1110	CSB3N	1376	CUPVC/TUBE4020	1106	CW100	1458
CP7731	1716	CR34	1208	CSB4	1376	CUPVC/TUBE4030	1106	CW112	110
CP7732	1716	CR38	1208	CSB4N	1376	CUPVC/TUBE5018	1106	CW114	110
CP7748	1716	CR516	1208	CSM-E020	485	CUPVC/TUBE6318	1106	CW12	110
CP7782-6	1716	CRH-1	1416	CSM-E050	485	CUPVC/TUBE6330	1106	CW14	110
CP78	1480	CRH-112	1416	CSP-03	208	CUPVC/TUBE6347	1106	CW18	110
CP870	1718	CRH-114	1416	CSP-05	208	CUPVC/TUBE-7518	1106	CW2	110
CP874	1718	CRH-118	1416	CSR-2-40	281	CUPVC/TUBE-7536	1106	CW34	110
CP879	1717	CRH-134	1416	CSS-20	281	CUPVC/TUBE-9018	1106	CW38	110
CP886H	1717	CRH-138	1416	CS-S95-01	1025	CV100-1	960	CWBLACK04-25-R1	1677
CP9104Q	1717	CRH-2	1416	CS-S95-02	1025	CV100-112	960	CWBLACK04-25-R2	1677
CP9105QB	1717	CRH-78	1416	CS-S95-03	1025	CV100-114	960	CWBLACK04-50-R1	1677
CP9120CR	1717	CRHA-1320	1461	CS-S95-04	1025	CV100-12	960	CWBLACK04-50-R2	1677
CP9121AR	1717	CRHA-1920	1461	CST 220	475	CV100-2	960	CWBLACK05-25-R1	1677
CP9285	1717	CRHA-1930	1461	CST 232	475	CV100-34	960	CWBLACK05-25-R2	1677
CP9779	1718	CRHA-2520	1461	CST 250	475	CV100-38	960	CWBLACK05-50-R1	1677
CP9882	1717	CRHA-920	1461	CST 262	475	CV105-1	960	CWBLACK05-50-R2	1677
CP9883	1717	CRHA-930	1461	CST 332	475	CV105-112	960	CWBLACK06-25-R1	1677
CPN-1	1183	CRWM-1320	1461	CST 362	475	CV105-114	960	CWBLACK06-25-R2	1677

CWBLACK06-50-R1	1677	D00KM-3F	577	D1-BR	1471	D34-PP-NPT	1470	D6-8/6-1/2	1159
CWBLACK06-50-R2	1677	D00KM-4F	577	D1-BR-NPT	1471	D34-SS	1469	D6-8/6-1/4	1159
CWBLUE04-25-R1	1677	D00KM-5F	577	D1-PP	1470	D34-SS-NPT	1469	D6-8/6-1/8	1159
CWBLUE04-25-R2	1677	D00KM-6F	577	D1-PP-NPT	1470	D3A211	1684	D6-AU	1468
CWBLUE04-50-R1	1677	D00KM-8F	577	D1-SS	1469	D3A255	1684	D6-AU-NPT	1468
CWBLUE04-50-R2	1677	D00KM-B	577	D1-SS-NPT	1469	D3-AU	1468	D6-BR-NPT	1471
CWBLUE05-25-R1	1677	D02 09	957	D1VW001CNJW	220	D3-AU-NPT	1468	D7-1/2	1159
CWBLUE05-25-R2	1677	D02 10	957	D2003-M16	893	D3B911	1684	D7-1/4	1159
CWBLUE05-50-R1	1677	D02 11	957	D2003-M16-S01	893	D3B955	1684	D7-1/8	1159
CWBLUE05-50-R2	1677	D02 12	957	D2003-M22	893	D3-BR	1471	D7-3/8	1159
CWBLUE06-25-R1	1677	D02 13	957	D2022-M16XM16	893	D3-BR-NPT	1471	D7-5M-L	1159
CWBLUE06-25-R2	1677	D02 14	957	D2022-M16XM22	893	D3-PP	1470	D7-6M	1159
CWBLUE06-50-R1	1677	D02 16	957	D2022-M22XM22	893	D3-PP-NPT	1470	D7-M12X1.5	1159
CWBLUE06-50-R2	1677	D1045	1059	D2032-M16	893	D3-SS	1469	D80BTOR	1059
CWM10	110	D1060	1059	D2062-M16XM12	893	D3-SS-NPT	1469	D8-1/2	1159
CWM12	110	D1080	1059	D2062-M16XM16	893	D3W008CNJW	220	D8-1/4	1159
CWM14	110	D1100	1059	D2062-M16XM22	893	D400LB-04	654	D8-1/8	1159
CWM16	110	D11021	1684	D2062-M22XM22	893	D45BTOR	1059	D8-3/8	1159
CWM18	110	D11-1	1159	D2072-M16XM12	893	D4-AU	1468	D884DVU-110/50	1041
CWM22	110	D11-1/2	1159	D2072-M16XM16	893	D4-AU-NPT	1468	D884DVU-230/50	1041
CWM8	110	D11-1/4	1159	D2072-M16XM22	893	D4-BR	1471	D885DVU-230/50	1041
CZT-81 501 025	613	D11-1/8	1159	D2072-M22XM22	893	D4-BR-NPT	1471	D885DVU-24	1041
CZT-81 503 025	613	D11-11/2	1159	D2077-M16M22S01	893	D4-PP	1470	D886DVU-110/50	1041
CZT-81 503 710	613	D11-2	1159	D2077-M16-S01	893	D4-PP-NPT	1470	D886DVU-230/50	1041
CZT-81 503 720	613	D1120	1059	D212-AU	1468	D4-SS	1469	D886DVU-24	1041
CZT-81 503 725	613	D112-AU	1468	D212-AU-NPT	1468	D4-SS-NPT	1469	D910BTOR	1059
CZT-81 504 025	613	D112-AU-NPT	1468	D212-BR	1471	D5-10/8-1/2	1159	D912BTOR	1059
CZT-81 506 025	613	D112-BR	1471	D212-BR-NPT	1471	D5-10/8-1/4	1159	D980050	1540
CZT-81 506 710	613	D112-BR-NPT	1471	D212-SS	1469	D5-10/8-3/8	1159	D980060	1540
CZT-81 506 720	613	D112-PP	1470	D212-SS-NPT	1469	D5-12/10-3/8	1159	D980080	1540
CZT-81 507 540	613	D112-PP-NPT	1470	D2502-M22XM22	893	D5-4/2.7-5M	1159	D980090	1540
CZT-81 507 720	613	D112-SS	1469	D2512-M22XM16	893	D5-5/3-5M	1159	D980100	1540
CZT-81 513 052	613	D112-SS-NPT	1469	D2602-10-M16-L30	894	D5-6/4-1/4	1159	D980120	1540
CZT-81 513 501	613	D11-3/4	1159	D2602-11.5M16L35	894	D5-6/4-1/8	1159	D980130	1540
CZT-81 513 502	613	D11-3/8	1159	D2602-12-M16X1.5	894	D5-6/4-5M	1159	D980140	1540
CZT-81 513 510	613	D114-AU	1468	D2612-M12X1.5	894	D5-8/6-1/4	1159	D980160	1540
CZT-81 513 552	613	D114-AU-NPT	1468	D2612-M16X1.5	894	D5-8/6-1/8	1159	D980180	1540
CZT-81 519 032	613	D114-BR	1471	D2612-M22X1.5	894	D5-8/6-3/8	1159	D980200	1540
CZT-81 519 632	613	D114-BR-NPT	1471	D288DBW-110/50	1041	D5A211	1684	D980210	1540
CZT-81 521 501	613	D114-PP	1470	D288DBW-230/50	1041	D5A277	1684	D980220	1540
CZT-81 522 501	613	D114-PP-NPT	1470	D288DBW-24	1041	D5B911	1684	D980250	1540
CZT-81 532 001	613	D114-SS	1469	D289BW-110/50	1041	D5-BR-NPT	1471	D980280	1540
CZT-81 532 102	613	D114-SS-NPT	1469	D289BW-230/50	1041	D5C277	1684	D980300	1540
CZT-81 532 104	613	D11-5M	1159	D289BW-24	1041	D5D311	1684	D980320	1540
CZT-81 540 001	613	D11X-1/2	110	D290DBW-110/50	1041	D606DTY110VAC	1042	D980340	1540
CZT-81 540 005	613	D11X-1/4	110	D290DBW-230/50	1041	D606DTY240VAC	1042	D980380	1540
CZT-81 541 001	613	D11X-1/8	110	D290DBW-24	1041	D606DTY24VAC	1042	D980400	1540
CZT-81 541 005	613	D11X-3/4	110	D293DBY-110/50	1041	D60BTOR	1059	D980440	1540
CZT-81 545 001	613	D11X-3/8	110	D293DBY-230/50	1041	D6-10/8-1/2	1159	D980480	1540
CZT-84 150 201	613	D11X-5M	110	D293DBY-24	1041	D6-10/8-1/8	1159	D980500	1540
CZT-84 150 202	613	D11Z-1/4	1159	D2-AU	1468	D622DTY110VAC	1042	D980520	1540
CZT-84 150 203	613	D12/34-PP-NPT	1470	D2-AU-NPT	1468	D622DTY240VAC	1042	D980550	1540
D		D12096	1684	D2-BR	1471	D622DTY24VAC	1042	D980560	1540
D E 41 100	510	D12-AU	1468	D2-BR-NPT	1471	D634DTT110VAC	1042	D980570	1540
D E 41 125	510	D12-AU-NPT	1468	D2-PP	1470	D634DTT240VAC	1042	D980600	1540
D E 41 160	510	D12-BR	1471	D2-PP-NPT	1470	D634DTT24VAC	1042	D980660	1540
D E 41 200	510	D12-BR-NPT	1471	D2-SS	1469	D635DTT110VAC	1042	D980700	1540
D E 41 32	510	D12-PP	1470	D2-SS-NPT	1469	D635DTT240VAC	1042	D980800	1540
D E 41 40	510	D12-SS	1469	D3043-M16-2D-S01	893	D635DTT24VAC	1042	D981000	1540
D E 41 50	510	D12-SS-NPT	1469	D34-AU	1468	D636DTT110VAC	1042	D981100	1540
D E 41 63	510	D13-1/2	1159	D34-AU-NPT	1468	D636DTT240VAC	1042	DAC1A03	1724
D E 41 80	510	D13-1/4	1159	D34-BR	1471	D636DTT24VAC	1042	DAC1A06	1724
D00KM-1F	577	D1-AU	1468	D34-BR-NPT	1471	D6-4/2.7-1/8	1159	DAC1C08	1724
D00KM-2F	577	D1-AU-NPT	1468	D34-PP	1470	D6512-4-M10	894	DAC403	1724

DAC404	1724	DC34-PP	1470	DFS100SU-A25	108	DGWEV18LRWD	126	DIRFEM8020CF	1079
DAC405	1724	DC34-SS	1469	DFS102SM	108	DGWEV20SRWD	126	DIRFEM8025CF	1079
DAC406	1724	DC3-AU	1468	DFS102SM-A30	108	DGWEV22LRWD	126	DIRFEM8032CF	1079
DAC4061	1724	DC3-BR	1471	DFS102SU	108	DGWEV25SRWD	126	DIRFEM8040CF	1079
DAC436	1724	DC3-PP	1470	DFS102SU-A30	108	DGWEV28LRWD	126	DIRFEM8050CF	1079
DAK10-25MS	1481	DC3-SS	1469	DFS104SM	108	DGWEV30SRWD	126	DIRFEM8063CF	1079
DAK10-25ST	1481	DC400JK	654	DFS104SM-A38	108	DGWEV35LRWD	126	DIRFEM8080CF	1079
DAK12-13MS	1481	DC401-01	653	DFS104SU	108	DGWEV38SRWD	126	DIRFEM8110CF	1079
DAK12-13ST	1481	DC401-02	653	DFS104SU-A38	108	DGWEV42LRWD	126	DIRLUB0750	1079
DAK15-38ST	1481	DC401-02D	653	DFS106SM	108	DGWEV6LR1/4WD	126	DIRLUBGEL0950	1079
DAK34-19MS	1481	DC401-03D	653	DFS106SM-A50	108	DGWEV6LRWD	126	DIRMOLMLEST016	1079
DAK34-19ST	1481	DC4-AU	1468	DFS106SU	108	DGWEV6SRWD	126	DIRMOLMLEST020	1079
DAPGO45FAL020048	1078	DC4-SS	1469	DFS106SU-A50	108	DGWEV8LRWD	126	DIRMOLMLEST025	1079
DAPGO45FAL025048	1078	DC601-06	653	DFS108SM	108	DGWEV8SRWD	126	DIRMOLMLINT016	1079
DAPGO45FAL025068	1078	DC601-08D	653	DFS108SU	108	DGWW10L	126	DIRMOLMLINT020	1079
DAR4	626	DC6-AU	1468	DFS110SM	108	DGWW10S	126	DIRMOLMLINT025	1079
DASS-RTDH-1-10	1622	DC6-BR	1471	DFS110SU	108	DGWW12L	126	DIRPIEGTMLS1625	1079
DASS-RTDH-1-12	1622	DCH-3/4-15SAFETY	1412	DFS112SM	108	DGWW14S	126	DIRPMUAL120	1078
DASS-RTDH-1-15	1622	DCRV012/180	244	DFS112SU	108	DGWW16S	126	DIRPMUAL200	1078
DASS-RTDH-1-3	1622	DCRV04/180	244	DFS114SM	108	DGWW18L	126	DIRRULLUNI	1077
DASS-RTDH-1-4	1622	DCRV06/180	244	DFS114SU	108	DGWW20S	126	DIRSBVUNI	1079
DASS-RTDH-1-5	1622	DCRV08/180	244	DFS116SM	108	DGWW22L	126	DIRSM016050	1079
DASS-RTDH-1-6	1622	DDA1	1398	DFS116SU	108	DGWW25S	126	DIRSM063110	1079
DASS-RTDH-1-8	1622	DDA2	1398	DFS401SM-012	108	DGWW28L	126	DIRSPE020032	1079
DASV06	244	DDA3	1398	DFS401SM-038	108	DGWW30S	126	DIRSPE040063	1079
DASV08	244	DDA4	1398	DFS401SM-A20	108	DGWW35L	126	DIRVSP028	1078
DASV12	244	DDA5	1398	DFS401SU-012	108	DGWW38S	126	DISPKS1	1532
DB-1000	261	DDA6	1398	DFS401SU-038	108	DGWW42L	126	DISPKS2	1532
DB-1500	261	DDRH19X-50	1434	DFS401SU-A20	108	DGWW6L	126	DISPKZ1	1532
DB-2400	261	DDRH25X-50	1434	DFS402SM	108	DGWW6S	126	DISPKZ2	1532
DB2911	1685	DF200-02	653	DFS402SM-A25	108	DGWW8L	126	DKA210-06	600
DBC GGG	1685	DF200-02D	653	DFS402SU	108	DGWW8S	126	DKA210-08	600
DBD311	1685	DF200-03D	653	DFS402SU-A25	108	DHG2BG	1531	DKA220-06	600
DBL101A	1059	DF2911	1685	DFS403SM	108	DHT3BG	1531	DKA220-08	600
DBL141	1059	DF400-03D	653	DFS403SM-A30	108	DIK10-25ST	1481	DKA230C-06	601
DBL161	1059	DF400-04	653	DFS403SU	108	DIK12-13MS	1481	DKA230C-08	601
DBL171	1059	DF400-04D	653	DFS403SU-A30	108	DIK12-13ST	1481	DKA230E-06	601
DBL181	1059	DF400-06	653	DFS404SM	108	DIK15-38MS	1481	DKA230E-08	601
DBL305	1059	DF600-06	653	DFS404SM-A38	108	DIK15-38ST	1481	DKA230P-06	601
DC112-AU	1468	DF600-08	653	DFS404SU	108	DIK34-19MS	1481	DKA230P-08	601
DC112-BR	1471	DF600-08D	653	DFS404SU-A38	108	DIK34-19ST	1481	DKA310-10	600
DC112-PP	1470	DFC666	1685	DFS405SM	108	DIRAPFRLAL048048	1078	DKA320-10	600
DC112-SS	1469	DFCGGG	1685	DFS405SM-A50	108	DIRAPLAL048048	1078	DKA330C-10	601
DC114-AU	1468	DFI900	252	DFS405SU	108	DIRAPLAL068068	1078	DKA330E-10	601
DC114-PP	1470	DFR200-01	652	DFS405SU-A50	108	DIRAPMAL048048	1078	DKA330P-10	601
DC114-SS	1469	DFR200-02	652	DFS406SM	108	DIRCALML016025	1079	DKA410-15	600
DC-12	1058	DFR200-02D	652	DFS406SU	108	DIRDERFF025048	1072	DKA420-15	600
DC12-AU	1468	DFR200-03D	652	DFT980	253	DIRDERFF032048	1072	DKA430C-15	601
DC12-BR	1471	DFR400-03D	652	DG-10	1595	DIRDERFF040048	1072	DKA430E-15	601
DC1-AU	1468	DFR400-04	652	DG-10-EC	1595	DIRDERFF040068	1072	DKA430P-15	601
DC1-BR	1471	DFR400-04D	652	DG-10-EK	1595	DIRDERFF050048	1072	DKBT	1496
DC1-PP	1470	DFR400-06	652	DGI10	1481	DIRDERFF050068	1072	DKF210-08	549
DC1-SS	1469	DFR400-06D	652	DGI12	1481	DIRDERFF063048	1072	DKF210-08G	549
DC201-01	653	DFR600-06	652	DGI15	1481	DIRDERFF063068	1072	DKF210-08L	549
DC201-02	653	DFR600-08D	652	DGI20	1481	DIRDERFF063088	1072	DKF210-08LG	549
DC201-02D	653	DFS080SM	108	DGI34	1481	DIRDERFF080048	1072	DKH210-06	549
DC201-03D	653	DFS080SM-038	108	DGWEV10LR3/8WD	126	DIRDERFF080068	1072	DKH230-C-06	549
DC212-AU	1468	DFS080SM-A20	108	DGWEV10LRWD	126	DIRDERFF080088	1072	DKH230-C-08	549
DC212-BR	1471	DFS080SU	108	DGWEV10SRWD	126	DIRDERFF110068	1072	DKH310-08	549
DC2-AU	1468	DFS080SU-038	108	DGWEV12LR1/2WD	126	DIRDERFF110088	1072	DKH310-10	549
DC2-BR	1471	DFS080SU-A20	108	DGWEV12LRWD	126	DIRDIL168DIN	1077	DKH330-C-10	549
DC2-PP	1470	DFS100SM	108	DGWEV12SRWD	126	DIRFC110DIN	1076	DKHA230-C-06	549
DC2-SS	1469	DFS100SM-A25	108	DGWEV15LRWD	126	DIRFEM10168CF	1077	DKHA230-C-08	549
DC34-AU	1468	DFS100SU	108	DGWEV16SRWD	126	DIRFEM8016CF	1079	DKHA330-C-10	549

DKHV210-06-S	548	DKJ7/16-90-DN06	31	DKOL-12-90-DN06	32	DKOS-10-90-DN08	33	DKR-1/4-45-DN05	30
DKHV230-C-06-S	548	DKJ7/16-DN05	31	DKOL-12-90-DN08	32	DKOS-10-90-DN10	33	DKR-1/4-45-DN06	30
DKHV310-08-S	548	DKJ7/16-DN06	31	DKOL-12-90-DN10	32	DKOS-10-DN06	33	DKR-1/4-45-DN08	30
DKHV310-10-S	548	DKJ-7/8-45-DN10	31	DKOL-12-90-DN12	32	DKOS-10-DN08	33	DKR-1/4-45-DN10	30
DKHV330-C-08-S	548	DKJ-7/8-45-DN12	31	DKOL-12-DN06	32	DKOS-10-DN10	33	DKR-1/8-45-DN05	30
DKHV330-C-10-S	548	DKJ-7/8-45-DN16	31	DKOL-12-DN08	32	DKOS-12-45-DN06	33	DKR-1/8-45-DN06	30
DKHV410-15-S	548	DKJ7/8-90-DN10	31	DKOL-12-DN10	32	DKOS-12-45-DN08	33	DKR-11/2-45-DN31	30
DKHV410-20-S	548	DKJ7/8-90-DN12	31	DKOL-12-DN12	32	DKOS-12-45-DN10	33	DKR-11/2-45-DN38	30
DKHV430-C-15-S	548	DKJ7/8-90-DN16	31	DKOL-15-45-DN10	32	DKOS-12-45-DN12	33	DKR-11/4-45-DN25	30
DKHV430-C-20-S	548	DKJ7/8-DN10	31	DKOL-15-45-DN12	32	DKOS-12-90-DN06	33	DKR-11/4-45-DN31	30
DKJ1.5/8-90-DN25	31	DKJ7/8-DN12	31	DKOL-15-90-DN10	32	DKOS-12-90-DN08	33	DKR-12RG	159
DKJ-1/2-45-DN06	31	DKJ7/8-DN16	31	DKOL-15-90-DN12	32	DKOS-12-90-DN10	33	DKR-1-45-DN19	30
DKJ-1/2-45-DN08	31	DKJ7/8-DN19	31	DKOL-15-DN06	32	DKOS-12-90-DN12	33	DKR-1-45-DN25	30
DKJ1/2-90-DN05	31	DKJ-9/16-45-DN06	31	DKOL-15-DN08	32	DKOS-12-DN06	33	DKR-16RG	159
DKJ1/2-90-DN06	31	DKJ-9/16-45-DN08	31	DKOL-15-DN10	32	DKOS-12-DN08	33	DKR-20RG	159
DKJ1/2-90-DN08	31	DKJ-9/16-45-DN10	31	DKOL-15-DN12	32	DKOS-12-DN10	33	DKR-2-45-DN38	30
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DKJ11/16-90-DN16	31	DKJ9/16-DN05	31	DKOL-18-90-DN16	32	DKOS-14-DN10	33	DKR-3/4-45-DN16	30
DKJ11/16-90-DN19	31	DKJ9/16-DN06	31	DKOL-18-DN10	32	DKOS-16-45-DN10	33	DKR-3/4-45-DN19	30
DKJ11/16-DN12	31	DKJ9/16-DN08	31	DKOL-18-DN12	32	DKOS-16-45-DN12	33	DKR-3/8-45-DN06	30
DKJ11/16-DN16	31	DKJ9/16-DN10	31	DKOL-18-DN16	32	DKOS-16-90-DN10	33	DKR-3/8-45-DN08	30
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DM13/6	1220	DP1-SS	1469	DPD-C2	197	DS10-SS	1181	DX2-606-BN	608
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DN13/21K	1171	DP4-AU	1468	DPR-16S	159	DS31/31	1144	E03 10	965
DN17/17	1171	DP4-BR	1471	DPR-18L	159	DS38/38	1144	E03 11	965
DN17/17K	1171	DP6-AU	1468	DPR-20S	159	DS50/50	1144	E03 12	965
DN17/21	1171	DP6-BR	1471	DPR-22L	159	DSM-EN020	485	E03 14	965
DN17/21K	1171	DP-A0	191	DPR-25S	159	DSM-EN050	485	E03 16	965
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DN26/33	1171	DP-A3-SS	191	DPR-6S	159	DUBV-20-UPVC	1106	E1-10/8-1/4	1157
DN26/33K	1171	DP-A4	191	DPR-8L	159	DUBV-25-UPVC	1106	E1-10/8-1/8	1157
DN33/33	1171	DP-A4-SS	191	DPR-8S	159	DUBV-32-UPVC	1106	E1-10/8-3/8	1157
DN33/33K	1171	DP-A5	191	DR100	1458	DUBV-40-UPVC	1106	E112-AU	1468
DN33/42	1171	DP-A5-SS	191	DR200-01	652	DUBV-50-UPVC	1106	E112-BR	1471
DN33/42K	1171	DP-A6	191	DR200-02	652	DUBV-63-UPVC	1106	E112-PP	1470
DN42/42	1171	DP-A6-SS	191	DR200-03	652	DUBV-75-UPVC	1106	E112-SS	1469
DN42/42K	1171	DP-A7-SS	191	DR400-03	652	DUBV-90-UPVC	1106	E114-AU	1468
DN42/50	1171	DP-A8-SS	191	DR400-04	652	DUCV-110-UPVC	1106	E114-BR	1471
DN42/50K	1171	DP-B1	194	DR600-06	652	DUCV-20-UPVC	1106	E114-PP	1470
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DN50/55K	1171	DP-B2-SS	194	DRK 15	894	DUCV-50-UPVC	1106	E12-BR	1471
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DP-02	199	DPB9V	1764	DRTDH-1-3	1622	DUFV-50-UPVC	1106	E1-8/6-1/4	1157
DP-03	199	DP-C1	197	DRTDH-1-4	1622	DUFV-63-UPVC	1106	E1-8/6-3/8	1157
DP-04	199	DP-C1-SS	197	DRTDH-1-5	1622	DUFV-75-UPVC	1106	E1-AU	1468
DP112-AU	1468	DP-C2	197	DRTDH-1-6	1622	DUFV-90-UPVC	1106	E1-BR	1471
DP112-BR	1471	DP-C2-SS	197	DRTDH-1-8	1622	DV306	245	E1-PP	1470
DP112-PP	1470	DP-C3	197	DRV13/30	1596	DV308	245	E1-SS	1469
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DP114-AU	1468	DP-C4	197	DRV13/50	1596	DV406	245	E1X-10/8-1/4	1157
DP114-BR	1471	DP-C4-SS	197	DRV13/60	1596	DV408	245	E1X-12/8-3/8	1157
DP114-PP	1470	DP-C5	197	DS04/04	1144	DV412	245	E1X-6/4-1/4	1157
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DP12-AU	1468	DP-C6	197	DS06/06	1144	DWH-1	1415	E1X-8/6-1/4	1157
DP12-BR	1471	DP-C6-SS	197	DS06-SS	1181	DWH-12	1415	E1Y-10/6.5-1/4	1157
DP12-SS	1469	DP-C7	197	DS08/08	1144	DWH-34	1415	E1Y-6/4-1/4	1157
DP1-AU	1468	DP-C7-SS	197	DS08-SS	1181	DWTWDP	1761	E1Y-6/4-1/8	1157
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E1Z-8/6-1/4	1157	EBC60C	421	EE-320/620	187	EE-MI1-114	1344	EE-MI130-14N	1345
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E21 11	974	EBF10	63	EE-328/628	187	EE-MI1-1N	1344	EE-MI130-2-114	1346
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E34-BR	1471	EBMF12	63	EE-451	187	EE-MI130-1-114N	1346	EE-MI130-2-3	1346
E34-PP	1470	EBMF16	63	EE-45-110-UPVC	1102	EE-MI130-112	1345	EE-MI130-2-34	1346
E34-SS	1469	EBMF20	63	EE-45-125-UPVC	1102	EE-MI130-1-12	1346	EE-MI130-2-34N	1346
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E3-BR	1471	EC-1	1181	EE-45-200-UPVC	1102	EE-MI130-112114N	1346	EE-MI130-3	1345
E3-PP	1470	EC-112	1181	EE-45-225-UPVC	1102	EE-MI130-112-12	1346	EE-MI130-3-112	1346
E3-SS	1469	EC-114	1181	EE-45-25-UPVC	1102	EE-MI130-112-12N	1346	EE-MI130-3-112N	1346
E4	142	EC-12	1181	EE-453.4	187	EE-MI130-112-1N	1346	EE-MI130-3-2	1346
E4-AU	1468	EC-14	1181	EE-45-32-UPVC	1102	EE-MI130-112-2	1346	EE-MI130-3-212	1346
E4-BR	1471	EC-18	1181	EE-45-40-UPVC	1102	EE-MI130-112-2N	1346	EE-MI130-3-212N	1346
E4-PP	1470	EC-2	1181	EE-45-50-UPVC	1102	EE-MI130-112-34	1346	EE-MI130-3-2N	1346
E4-SS	1469	EC-34	1181	EE-456.4	187	EE-MI130-112-34N	1346	EE-MI130-34	1345
E5	142	EC-38	1181	EE-45-63-UPVC	1102	EE-MI130-112N	1345	EE-MI130-34-1	1346
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E6	142	ECON45	1636	EE-45-90-UPVC	1102	EE-MI130-114	1345	EE-MI130-34-12N	1346
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EB18	1207	EE-12	1183	EE-90-20-UPVC	1102	EE-MI130-114-2	1346	EE-MI130-38	1345
EB316	1207	EE-14	1183	EE-90-225-UPVC	1102	EE-MI130-114-2N	1346	EE-MI130-38-12	1346
EB38	1207	EE-18	1183	EE-90-25-UPVC	1102	EE-MI130-114-34	1346	EE-MI130-38-12N	1346
EB-45-32-UPVC	1102	EE-2	1183	EE-90-32-UPVC	1102	EE-MI130-114-34N	1346	EE-MI130-38-14	1346
EB-45-40-UPVC	1102	EE-206/406	187	EE-90-40-UPVC	1102	EE-MI130-114N	1345	EE-MI130-38-14N	1346
EB-45-63-UPVC	1102	EE-208/408	187	EE-90-50-UPVC	1102	EE-MI130-12	1345	EE-MI130-38N	1345
EB-45-75-UPVC	1102	EE-210/410	187	EE-90-63-UPVC	1102	EE-MI130-12-1	1346	EE-MI130-3N	1345
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EB-90-110-UPVC	1102	EE-212/412	187	EEC1	1207	EE-MI130-12-1N	1346	EE-MI130-4-2N	1346
EB-90-20-UPVC	1102	EE-214/414	187	EEC12	1207	EE-MI130-12-34	1346	EE-MI130-4-3	1346
EB-90-25-UPVC	1102	EE-215/415	187	EEC14	1207	EE-MI130-12-34N	1346	EE-MI130-4-3N	1346
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EB-90-40-UPVC	1102	EE-217.2/417.2	187	EEC316	1207	EE-MI130-12-38N	1346	EE-MI131-1	1345
EB-90-50-UPVC	1102	EE-218/418	187	EEC34	1207	EE-MI130-12N	1345	EE-MI131-112	1345
EB-90-63-UPVC	1102	EE-219/419	187	EEC38	1207	EE-MI130-1-34	1346	EE-MI131-112N	1345

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EE-MI300-12N	1341	EEMI30C123838N	1347	EE-MI340-1	1341	EE-MI41-12N	1345	EE-MI90-4N	1342
EE-MI300-14	1341	EEMI30C13412	1347	EE-MI340-112	1341	EE-MI41-1N	1345	EE-MI92-1	1342

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EE-MI98-114N	1342	EGE-DKO-12L-2EO	162	EGESD25SMWD	128	EHRVG-112-5CP	241	EL53-12-UPVC	1109
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EPS-CFE-22-15	1216	EPS-CFM-54-2	1216	EPS-CFSTC-15-12	1217	EPS-MRBSP35D-S	1546	ES4-S-38-WD	152
EPS-CFE-28	1216	EPS-CFM-6-14	1216	EPS-CFSTC-15-34	1217	EPS-MRBSP35-S	1546	ES516	1208
EPS-CFE-35	1216	EPS-CFM-8-12	1216	EPS-CFSTC-22-34	1217	EPS-MRBSP54D-S	1546	ESE11NFA	259
EPS-CFE-42	1216	EPS-CFM-8-14	1216	EPS-CFTC-15	1217	EPS-MRBSP67-S	1546	ESE11NFB	259
EPS-CFE-54	1216	EPS-CFM-8-38	1216	EPS-CFTC-22	1217	EPS-MRBSP76-S	1546	ESE11NFC	259
EPS-CFE-6	1216	EPS-CFME-10-12	1216	EPS-CFTC-28	1217	EPS-SO15CP-S	1545	ESE11NFD	259
EPS-CFE-8	1216	EPS-CFME-10-14	1216	EPS-CFTC-35	1217	EPS-SO15-S	1545	ESE12NFA	259
EPS-CFET-10	1217	EPS-CFME-10-38	1216	EPS-CFTC-42	1217	EPS-SO22CP-S	1545	ESE12NFB	259
EPS-CFET-12	1217	EPS-CFME-15-12	1216	EPS-CFTC-54	1217	EPS-SO22-S	1545	ESE12NFC	259
EPS-CFET-15	1217	EPS-CFME-15-14	1216	EPS-CFWE-15-12	1216	EPS-SO28CP-S	1545	ESE12NFD	259
EPS-CFET-22	1217	EPS-CFME-15-34	1216	EPS-CFWE-22-12	1216	EPS-SO28-S	1545	ESE21NFA	259
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EPS-CFET-35	1217	EPS-CFME-22-34	1216	EPS-CS10-S	1546	EPS-SO35-S	1545	ESE21NFC	259
EPS-CFET-42	1217	EPS-CFME-28-1	1216	EPS-CS15-S	1546	EPS-SO42CP-S	1545	ESE21NFD	259
EPS-CFET-54	1217	EPS-CFME-35-114	1216	EPS-CS215-S	1546	EPS-SO42-S	1545	ESE22NFA	259
EPS-CFET-6	1217	EPS-CFME-42-112	1216	EPS-CS22-S	1546	EPS-SO54CP-S	1545	ESE22NFB	259
EPS-CFET-8	1217	EPS-CFME-54-2	1216	EPS-CS28-S	1546	EPS-SO54-S	1545	ESE22NFC	259
EPS-CFF-10-12	1216	EPS-CFME-8-14	1216	EPS-CS35-S	1546	EPS-SOPB12-S	1545	ESE22NFD	259
EPS-CFF-10-14	1216	EPS-CFME-8-38	1216	EPS-CS42-S	1546	EPS-SOPB15CP-S	1545	ESI-1	1113
EPS-CFF-10-38	1216	EPS-CFN-10	1217	EPS-CS54-S	1546	EPS-SOPB15-S	1545	ESI-112	1113
EPS-CFF-15-12	1216	EPS-CFN-15	1217	EPS-DPBSP15CP-S	1546	EPS-SOPB22CP-S	1545	ESI-114	1113
EPS-CFF-15-14	1216	EPS-CFN-22	1217	EPS-DPBSP15-S	1546	EPS-SOPB22-S	1545	ESI-12	1113
EPS-CFF-15-34	1216	EPS-CFN-28	1217	EPS-DPBSP22-S	1546	EPS-SOPB28CP-S	1545	ESI-2	1113
EPS-CFF-15-38	1216	EPS-CFN-8	1217	EPS-DPBSP28CP-S	1546	EPS-SOPB28-S	1545	ESI-34	1113
EPS-CFF-22-1	1216	EPS-CFR-10-8	1216	EPS-DPBSP28-S	1546	EPS-SOPB35CP-S	1545	ESR12	631
EPS-CFF-22-12	1216	EPS-CFR-12-10	1216	EPS-DPBSP35CP-S	1546	EPS-SOPB35-S	1545	ESR14	631
EPS-CFF-22-34	1216	EPS-CFR-15-10	1216	EPS-DPBSP35-S	1546	ER99.06.02	1067	ESR18	631
EPS-CFF-28-1	1216	EPS-CFR-15-12	1216	EPS-DPBSP42-S	1546	ER99.06.03	1067	ESR38	631
EPS-CFF-28-34	1216	EPS-CFR-15-8	1216	EPS-DPBSP54-S	1546	ERA21NFC	259	ESRI-1	1113
EPS-CFF-35-114	1216	EPS-CFR-22-15	1216	EPS-FP10CP-S	1545	ERA21NFD	259	ESRI-12	1113
EPS-CFF-42-112	1216	EPS-CFR-28-15	1216	EPS-FP10-S	1545	ERA31NFC	259	ESRI-2	1113
EPS-CFF-54-2	1216	EPS-CFR-28-22	1216	EPS-HB15CP-S	1545	ERA31NFD	259	ESRI-34	1113
EPS-CFF-6-14	1216	EPS-CFR3-10-6	1217	EPS-HB15-S	1545	ERA32NFC	259	ESV10L	127
EPS-CFF-8-14	1216	EPS-CFR3-10-8	1217	EPS-HB22CP-S	1545	ERA32NFD	259	ESV-10L-FT	155
EPS-CFF-8-38	1216	EPS-CFR3-15-10	1217	EPS-HB22-S	1545	ERA41NFC	259	ESV10S	127
EPS-CFFE-10-12	1216	EPS-CFR3-15-12	1217	EPS-HB28CP-S	1545	ERA41NFD	259	ESV-10S-FT	155
EPS-CFFE-10-14	1216	EPS-CFR3-15-8	1217	EPS-HB28-S	1545	ERA51NFC	259	ESV12L	127

ESV-12L-FT	155	ETSD 10 S	134	EVGE-12S-18MEO	148	EVL-6L	149	EW-DKOS-20	161
ESV12S	127	ETSD 12 L	134	EVGE-12S-4EO	148	EVL-6S	149	EW-DKOS-25	161
ESV-12S-FT	155	ETSD 12 S	134	EVGE-12S-6EO	148	EVL-8L	149	EW-DKOS-30	161
ESV14S	127	ETSD 14 S	134	EVGE-12S-8EO	148	EVL-8S	149	EW-DKOS-38	161
ESV-14S-FT	155	ETSD 15 L	134	EVGE-14S-20MEO	148	EVMM-12	982	EWSD 10 L	134
ESV15L	127	ETSD 16 S	134	EVGE-14S-8EO	148	EVMM-14	982	EWSD 10 S	134
ESV-15L-FT	155	ETSD 18 L	134	EVGE-15L-18MEO	148	EVMM-18	982	EWSD 12 L	134
ESV16S	127	ETSD 20 S	134	EVGE-15L-6EO	148	EVMM-38	982	EWSD 12 S	134
ESV-16S-FT	155	ETSD 22 L	134	EVGE-15L-8EO	148	EVT-10L	148	EWSD 14 S	134
ESV18L	127	ETSD 25 S	134	EVGE-16S-12EO	148	EVT-10S	148	EWSD 15 L	134
ESV-18L-FT	155	ETSD 28 L	134	EVGE-16S-22MEO	148	EVT-12L	148	EWSD 16 S	134
ESV-20L-FT	155	ETSD 30 S	134	EVGE-16S-6EO	148	EVT-12S	148	EWSD 18 L	134
ESV20S	127	ETSD 35 L	134	EVGE-16S-8EO	148	EVT-14S	148	EWSD 20 S	134
ESV-20S-FT	155	ETSD 38 S	134	EVGE-18L-12EO	148	EVT-15L	148	EWSD 22 L	134
ESV22L	127	ETSD 42 L	134	EVGE-18L-22MEO	148	EVT-16S	148	EWSD 25 S	134
ESV25S	127	ETSD 6 L	134	EVGE-18L-6EO	148	EVT-18L	148	EWSD 28 L	134
ESV-25S-FT	155	ETSD 6 S	134	EVGE-18L-8EO	148	EVT-20S	148	EWSD 30 S	134
ESV28L	127	ETSD 8 L	134	EVGE-20S-12EO	148	EVT-22L	148	EWSD 35 L	134
ESV-28L-FT	155	ETSD 8 S	134	EVGE-20S-27MEO	148	EVT-25S	148	EWSD 38 S	134
ESV30S	127	ETVD10L	129	EVGE-20S-8EO	148	EVT-28L	148	EWSD 42 L	134
ESV35L	127	ETVD10S	129	EVGE-22L-12EO	148	EVT-30S	148	EWSD 45 10 L	134
ESV38S	127	ETVD12L	129	EVGE-22L-26MEO	148	EVT-35L	148	EWSD 45 10 S	134
ESV42L	127	ETVD12S	129	EVGE-22L-6EO	148	EVT-38S	148	EWSD 45 12 L	134
ESV6L	127	ETVD14S	129	EVGE-22L-8EO	148	EVT-42L	148	EWSD 45 12 S	134
ESV-6L-FT	155	ETVD15L	129	EVGE-25S-12EO	148	EVT-6L	148	EWSD 45 15 L	134
ESV-6S-FT	155	ETVD16S	129	EVGE-25S-16EO	148	EVT-6S	148	EWSD 45 16 S	134
ESV8L	127	ETVD18L	129	EVGE-28L-12EO	148	EVT-8L	148	EWSD 45 18 L	134
ESV-8L-FT	155	ETVD20S	129	EVGE-28L-16EO	148	EVT-8S	148	EWSD 45 20 S	134
ESV8S	127	ETVD22L	129	EVGE-28L-33MEO	148	EVW-10L	151	EWSD 45 22 L	134
ESV-8S-FT	155	ETVD25S	129	EVGE-30S-20EO	148	EVW-10S	151	EWSD 45 25 S	134
ET-1	1181	ETVD28L	129	EVGE-30S-42MEO	148	EVW-12L	151	EWSD 45 28 L	134
ET-112	1181	ETVD30S	129	EVGE-35L-20EO	148	EVW-12S	151	EWSD 45 30 S	134
ET-114	1181	ETVD35L	129	EVGE-35L-42MEO	148	EVW-14S	151	EWSD 45 35 L	134
ET-12	1181	ETVD38S	129	EVGE-38S-24EO	148	EVW-15L	151	EWSD 45 38 S	134
ET-14	1181	ETVD42L	129	EVGE-38S-48MEO	148	EVW-16S	151	EWSD 45 42 L	134
ET-18	1181	ETVD6L	129	EVGE-42L-24EO	148	EVW-18L	151	EWSD 45 6 L	134
ET-2	1181	ETVD6S	129	EVGE-42L-48MEO	148	EVW-20S	151	EWSD 45 6 S	134
ET-212	1181	ETVD8L	129	EVGE-6L-10MEO	148	EVW-22L	151	EWSD 45 8 L	134
ET-3	1181	ETVD8S	129	EVGE-6L-2EO	148	EVW-25S	151	EWSD 45 8 S	134
ET-34	1181	EV-12	982	EVGE-6S-12MEO	148	EVW-28L	151	EWSD 6 L	134
ET-38	1181	EV-14	982	EVGE-6S-2EO	148	EVW-30S	151	EWSD 6 S	134
ET-38-5	1107	EV-18	982	EVGE-6S-4EO	148	EVW-35L	151	EWSD 8 L	134
ET-4	1181	EV-38	982	EVGE-8L-12MEO	148	EVW-38S	151	EWSD 8 S	134
ET-DKOL-06	161	EV-DKOL-06	152	EVGE-8L-4EO	148	EVW-42L	151	EWWD10L	129
ET-DKOL-08	161	EV-DKOL-08	152	EVGE-8L-6EO	148	EVW-6L	151	EWWD10S	129
ET-DKOL-10	161	EV-DKOL-10	152	EVGE-8S-14MEO	148	EVW-6S	151	EWWD12L	129
ET-DKOL-12	161	EV-DKOL-12	152	EVGE-8S-4EO	148	EVW-8L	151	EWWD12S	129
ET-DKOL-15	161	EV-DKOL-15	152	EVGE-8S-6EO	148	EVW-8S	151	EWWD14S	129
ET-DKOL-18	161	EV-DKOL-18	152	EVL-10L	149	EW-DKOL-06	161	EWWD15L	129
ET-DKOL-22	161	EV-DKOL-22	152	EVL-10S	149	EW-DKOL-08	161	EWWD16S	129
ET-DKOL-28	161	EV-DKOL-28	152	EVL-12L	149	EW-DKOL-10	161	EWWD18L	129
ET-DKOL-35	161	EV-DKOL-35	152	EVL-12S	149	EW-DKOL-12	161	EWWD20S	129
ET-DKOL-42	161	EV-DKOL-42	152	EVL-14S	149	EW-DKOL-15	161	EWWD22L	129
ET-DKOS-06	161	EVGE-10L-14MEO	148	EVL-15L	149	EW-DKOL-18	161	EWWD25S	129
ET-DKOS-08	161	EVGE-10L-4EO	148	EVL-16S	149	EW-DKOL-22	161	EWWD28L	129
ET-DKOS-10	161	EVGE-10L-6EO	148	EVL-18L	149	EW-DKOL-28	161	EWWD30S	129
ET-DKOS-12	161	EVGE-10L-8EO	148	EVL-20S	149	EW-DKOL-35	161	EWWD35L	129
ET-DKOS-14	161	EVGE-10S-16MEO	148	EVL-22L	149	EW-DKOL-42	161	EWWD38S	129
ET-DKOS-16	161	EVGE-10S-4EO	148	EVL-25S	149	EW-DKOS-06	161	EWWD42L	129
ET-DKOS-20	161	EVGE-10S-6EO	148	EVL-28L	149	EW-DKOS-08	161	EWWD6L	129
ET-DKOS-25	161	EVGE-10S-8EO	148	EVL-30S	149	EW-DKOS-10	161	EWWD6S	129
ET-DKOS-30	161	EVGE-12L-4EO	148	EVL-35L	149	EW-DKOS-12	161	EWWD8L	129
ET-DKOS-38	161	EVGE-12L-6EO	148	EVL-38S	149	EW-DKOS-14	161	EWWD8S	129
ETSD 10 L	134	EVGE-12L-8EO	148	EVL-42L	149	EW-DKOS-16	161	EX12	1208

EX14	1208	F114-SS-NPT	1469	F280-2-24	1040	F6-BR	1471	FBSTD-34	1387
EX516	1208	F12	141	F280-34-110	1040	F8	141	FBSTD-4	1387
EY53-112-ABS	1097	F12/34-PP-NPT	1470	F280-34-230	1040	F82C-2GD-AP0	687	FBSTD-6	1387
EY53-112-UPVC	1109	F12-AU	1468	F280-34-24	1040	F82C-2GD-QP0	687	FBSTE-1	1387
EY53-114-ABS	1097	F12-AU-NPT	1468	F280-38-110	1040	F82G-2GN-AP3	687	FBSTE-112	1387
EY53-114-UPVC	1109	F12-BR	1471	F280-38-230	1040	F82G-2GN-QP3	687	FBSTE-114	1387
EY53-12-ABS	1097	F12-BR-NPT	1471	F280-38-24	1040	F84C-3GD-AP0	687	FBSTE-12	1387
EY53-12-UPVC	1109	F12-PP	1470	F2-AU	1468	F84C-3GD-QP0	687	FBSTE-2	1387
EY53-1-ABS	1097	F12-SS	1469	F2-AU-NPT	1468	F84C-4GD-AP0	687	FBSTE-212	1387
EY53-1-UPVC	1109	F12-SS-NPT	1469	F2-BR	1471	F84C-4GD-QP0	687	FBSTE-3	1387
EY53-212-ABS	1097	F133-14-110	1040	F2-BR-NPT	1471	F84G-3GN-AP3	687	FBSTE-34	1387
EY53-212-UPVC	1109	F133-14-230	1040	F2-PP	1470	F84G-3GN-QP3	687	FBSTE-4	1387
EY53-2-ABS	1097	F133-14-24	1040	F2-PP-NPT	1470	F84G-4GN-AP3	687	FBSTE-5	1387
EY53-2-UPVC	1109	F133-18-110	1040	F2SC-04	16	F84G-4GN-QP3	687	FBSTE-6	1387
EY53-34-ABS	1097	F133-18-230	1040	F2SC-06	16	FA13A13ISPN	355	FBT	1519
EY53-34-UPVC	1109	F133-18-24	1040	F2SC-08	16	FA17A17ISPN	355	FBT-1000-1000N	169
EY53-3-ABS	1097	F133-38-110	1040	F2SC-12	16	FASA150-110-UPVC	1105	FBT-1000-750N	169
EY53-3-UPVC	1109	F133-38-230	1040	F2SC-16	16	FASA150-25-UPVC	1105	FBT-10-250N	175
EY53-4-ABS	1097	F133-38-24	1040	F2-SS	1469	FASA150-32-UPVC	1105	FBT-12-250N	175
EY53-4-UPVC	1109	F16	141	F2-SS-NPT	1469	FASA150-40-UPVC	1105	FBT-12-375N	175
EY53-5-UPVC	1109	F180-1-110	1040	F333-14-110	1041	FASA150-50-UPVC	1105	FBT-125-125N	169
EY53-6-ABS	1097	F180-112-110	1040	F333-14-230	1041	FASA150-63-UPVC	1105	FBT-16-500N	175
EY53-6-UPVC	1109	F180-112-230	1040	F333-14-24	1041	FASA150-90-UPVC	1105	FBT-250-125N	169
EY53-8-UPVC	1109	F180-112-24	1040	F333-18-110	1041	FASA150HT2	1492	FBT-250-250N	169
F		F180-12-110	1040	F333-18-230	1041	FB09B	1519	FBT-375-250N	169
F 100	511	F180-12-230	1040	F333-18-24	1041	FB13B	1519	FBT-375-375N	169
F 125	511	F180-12-24	1040	F34-AU	1468	FB13H	1519	FBT-375-500N	169
F 160	511	F180-1-230	1040	F34-AU-NPT	1468	FB16B	1519	FBT-500-250N	169
F 200	511	F180-1-24	1040	F34-BR	1471	FB19B	1519	FBT-500-375N	169
F 32	511	F180-2-110	1040	F34-PP	1470	FB19H	1519	FBT-500-500N	169
F 40	511	F180-2-230	1040	F34-PP-NPT	1470	FBP1	1208	FBT-6-125N	175
F 50	511	F180-2-24	1040	F34-SS	1469	FBP12	1208	FBT-6-250N	175
F 61 100	511	F180-34-110	1040	F34-SS-NPT	1469	FBP14	1208	FBT-625-500N	169
F 61 125	511	F180-34-230	1040	F39-100-A0TG	689	FBP18	1208	FBT-750-750N	169
F 61 32	511	F180-34-24	1040	F39-200-MOMG	689	FBP34	1208	FBT-8-125N	175
F 61 40	511	F180-38-110	1040	F39-200-M0TG	689	FBP38	1208	FBT-8-250N	175
F 61 50	511	F180-38-230	1040	F3-AU	1468	FBSOTD-10	1387	FBU-112	1113
F 61 80	511	F180-38-24	1040	F3-AU-NPT	1468	FBSOTD-2	1387	FBU-112-ABS	1098
F 63	511	F1-AU	1468	F3-BR	1471	FBSOTD-3	1387	FBU-114-ABS	1098
F 63 100	511	F1-AU-NPT	1468	F3-BR-NPT	1471	FBSOTD-300	1387	FBU-12-ABS	1098
F 63 125	511	F1-BR	1471	F3-PP	1470	FBSOTD-4	1387	FBU-1-ABS	1098
F 63 32	511	F1-BR-NPT	1471	F3-PP-NPT	1470	FBSOTD-612	1387	FBU-2-ABS	1098
F 63 40	511	F1-PP	1470	F3-SS	1469	FBSOTD-658	1387	FBU-34-ABS	1098
F 63 50	511	F1-PP-NPT	1470	F3-SS-NPT	1469	FBSOTD-8	1387	FC04	355
F 63 63	511	F1-SS	1469	F4	141	FBSOTE-1	1387	FC10	1174
F 63 80	511	F1-SS-NPT	1469	F4-AU	1468	FBSOTE-10	1387	FC-1000-1000N	167
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F112-AU-NPT	1468	F212-SS	1469	F4-SS	1469	FBSOTE-3	1387	FC-10-375N	174
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F112-PP-NPT	1470	F280-112-230	1040	F64G-NNN-AD3	684	FBSOTE-612	1387	FC-10-500RG	174
F112-SS	1469	F280-112-24	1040	F64G-NNN-MD3	684	FBSOTE-658	1387	FC-10-500RT	174
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F114-AU	1468	F280-12-230	1040	F64H-4GD-MD0	684	FBSTD-1	1387	FC12-12	141
F114-AU-NPT	1468	F280-12-24	1040	F68G-NNN-AR3	684	FBSTD-114	1387	FC-12-125RT	174
F114-BR	1471	F280-1-230	1040	F68G-NNN-MR3	684	FBSTD-12	1387	FC-12-250N	174
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F114-PP	1470	F280-2-110	1040	F6-AU	1468	FBSTD-212	1387	FC-12-250RT	174
F114-SS	1469	F280-2-230	1040	F6-AU-NPT	1468	FBSTD-3	1387	FC-12-375N	174



FC-12-375RG	174	FC-375-750N	167	FE-125-125N	169	FF15X-WS	740	FFA12/12NP	1175
FC-12-375RT	174	FC-4-125N	174	FE-125-250N	169	FF15X-WS-FDA	740	FFA16/16NP	1175
FC-12-500N	174	FC4-4	141	FE13	1174	FF-16	178	FFDC-04	292
FC-12-500RG	174	FC-500-250N	167	FE-16-500N	176	FF-18	178	FFDC-06	292
FC-12-500RT	174	FC-500-250RT	167	FE17	1174	FF-187	172	FFDC-08	292
FC-125-125N	167	FC-500-375N	167	FE-187-125N	169	FF-20	178	FFDC-12	292
FC-125-250N	167	FC-500-375RG	167	FE21	1174	FF20-CS	741	FFDC-16	292
FC-12-750RT	174	FC-500-375RT	167	FE-250-125N	169	FF20-N	741	FFDP-04	292
FC13	1174	FC-500-500N	167	FE-250-250N	169	FF20-S	741	FFDP-06	292
FC14-12	141	FC-500-500RG	167	FE-250-375N	169	FF20-WS	741	FFDP-08	292
FC-15-375RT	174	FC-500-500RT	167	FE-250-500N	169	FF20-WS-FDA	741	FFDP-12	292
FC-15-500N	174	FC-500-750N	167	FE-312-125N	169	FF20X-CS	741	FFDP-16	292
FC-15-500RT	174	FC-6-125N	174	FE-312-250N	169	FF20X-N	741	FFH02/03	1143
FC16-16	141	FC-6-125RT	174	FE-375-125N	169	FF20X-S	741	FFH02/04	1143
FC-16-500N	174	FC-6-250N	174	FE-375-250N	169	FF20X-WS	741	FFH02/05	1143
FC17	1174	FC-6-250RG	174	FE-375-375N	169	FF20X-WS-FDA	741	FFH02/06	1143
FC-187-125N	167	FC-6-250RT	174	FE-375-500N	169	FF-22	178	FFH04/03	1143
FC20-20	141	FC-625-375N	167	FE-500-250N	169	FF-25	178	FFH04/04	1143
FC-20-500N	174	FC-625-500N	167	FE-500-375N	169	FF-250	172	FFH04/05	1143
FC-20-500RG	174	FC-625-750N	167	FE-500-500N	169	FF2510	311	FFH04/06	1143
FC-20-500RT	174	FC-6-375N	174	FE-6-125N	176	FF2516	311	FFH06/04	1143
FC-20-750N	174	FC-6-375RG	174	FE-6-250N	176	FF2520	311	FFH06/05	1143
FC-20-750RT	174	FC-6-375RT	174	FE-625-375N	169	FF2526	311	FFH06/06	1143
FC21	1174	FC6-4	141	FE-625-500N	169	FF25-CS	741	FFH06/08	1143
FC-22-1000N	174	FC-6-500N	174	FE-6-500N	176	FF25-N	741	FFH08/04	1143
FC-22-1000RT	174	FC-6-500RG	174	FE-750-500N	169	FF25-S	741	FFH08/05	1143
FC-22-500RG	174	FC-6-500RT	174	FE-750-750N	169	FF25-WS	741	FFH08/06	1143
FC-22-750N	174	FC6-6	141	FE-8-250N	176	FF25-WS-FDA	741	FFH08/08	1143
FC-22-750RT	174	FC6-8	141	FE-875-750N	169	FF3	178	FFH08/10	1143
FC24-24	141	FC-750-500N	167	FEHT2	1492	FF30-112-ABS	1099	FFH08/12	1143
FC-250-125N	167	FC-750-750N	167	FEHT3	1492	FF30-112-UPVC	1111	FFH08/16	1143
FC-250-125RT	167	FC-8-125N	174	FEHT4	1492	FF30-114-ABS	1099	FFILT.EL	1627
FC-250-250N	167	FC-8-125RT	174	FET14-38	1144	FF30-114-UPVC	1111	FFILT.ELW	1627
FC-250-250RG	167	FC-8-250N	174	FET14-516	1144	FF30-12-ABS	1099	FFILT.KIT	1627
FC-250-250RT	167	FC-8-250RG	174	FET38-12	1144	FF30-12-UPVC	1111	FFILT.KITW	1627
FC-250-375N	167	FC-8-250RT	174	FET38-38	1144	FF30-1-ABS	1099	FFR04/02NP	1176
FC-250-375RG	167	FC-8-375N	174	FF-10	178	FF30-1-UPVC	1111	FFR06/04NP	1176
FC-250-375RT	167	FC-8-375RG	174	FF-1000	172	FF30-2-ABS	1099	FFR08/04NP	1176
FC-250-500N	167	FC-8-375RT	174	FF10-CS-M5M	740	FF30-2-UPVC	1111	FFR08/06NP	1176
FC-250-500RG	167	FC8-4	141	FF10-N-M5M	740	FF30-3-ABS	1099	FFR12/04NP	1176
FC-250-500RT	167	FC-8-500N	174	FF10-S-M5M	740	FF30-3-UPVC	1111	FFR12/06NP	1176
FC-25-1000N	174	FC-8-500RG	174	FF10-WS-M5M	740	FF30-3-ABS	1099	FFR12/08NP	1176
FC-25-1000RT	174	FC-8-500RT	174	FF10-WS-M5M-FDA	740	FF30-3-UPVC	1111	FFR16/08NP	1176
FC-25-750N	174	FC8-6	141	FF-12	178	FF30-4-ABS	1099	FFR16/12NP	1176
FC-25-750RT	174	FC-875-750N	167	FF-125	172	FF30-4-UPVC	1111	FFTA-50-112-UPVC	1107
FC-312-125N	167	FC8-8	141	FF13267	111	FF30-CS	741	FG4E	1654
FC-312-250N	167	FD10	1174	FF13268	111	FF30-N	741	FG6E	1654
FC-312-250RG	167	FD13	1174	FF13269	111	FF30-S	741	FGB-1	1672
FC-312-375N	167	FD17	1174	FF13270	111	FF30-WS	741	FGR-1-18	280
FC-312-500RG	167	FD21	1174	FF13271	111	FF30-WS-FDA	741	FGR-3-18	280
FC-3-125N	174	FDHT2	1492	FF13272	111	FF-312	172	FGSG-10	48
FC-3-125RT	174	FDHT3	1492	FF13273	111	FF31-2-ABS	1099	FGSG-12	48
FC-3-250N	174	FDHT4	1492	FF13570	111	FF-375	172	FGSG-14	48
FC-3-250RG	174	FDHT5	1492	FF13571	111	FF-4	178	FGSG-16	48
FC-375-125N	167	FDHT6	1492	FF-14	178	FF-500	172	FGSG-20	48
FC-375-250N	167	FE10	1174	FF-15	178	FF-6	178	FGSG-25	48
FC-375-250RG	167	FE-1000-1000N	169	FF15-CS	740	FF-625	172	FGSG-32	48
FC-375-250RT	167	FE-1000-750N	169	FF15-N	740	FF-750	172	FGSG-42	48
FC-375-375N	167	FE101	355	FF15-S	740	FF-8	178	FGSG-50	48
FC-375-375RG	167	FE-10-125N	176	FF15-WS	740	FF-875	172	FGSG-60	48
FC-375-375RT	167	FE-10-250N	176	FF15-WS-FDA	740	FFA02/02NP	1175	FH10/14FF	1143
FC-375-500N	167	FE-12-250N	176	FF15X-CS	740	FFA04/04NP	1175	FH10/18	1143
FC-375-500RG	167	FE-12-375N	176	FF15X-N	740	FFA06/06NP	1175	FH10/18FF	1143
FC-375-500RT	167	FE-12-500N	176	FF15X-S	740	FFA08/08NP	1175	FH10/316	1143

FH10/316FF	1143	FH6004	24	FHROAF19	1466	FIRE-FHQ6430	1495	F-KF200CA	484
FH13/14	1143	FH6005	24	FHROAF25	1466	FIRE-FHQ6430LA	1495	F-KF200CB	484
FH13/14FF	1143	FH6006	24	FHROAS19	1466	FIRE-FHR4518	1494	F-KF200CR	484
FH13/14SS	1181	FH6013	24	FHROAS25	1466	FIRE-FHR4518LA	1494	F-KF32CA	484
FH13/18	1143	FH6044	24	FHROMF19	1466	FIRE-FHR4523	1494	F-KF32CB	484
FH13/316	1143	FHA-1-ABS	1098	FHROMF25	1466	FIRE-FHR4523LA	1494	F-KF32CR	484
FH13/316FF	1143	FHAFIFBSP2122	1493	FHROMS19	1466	FIRE-FHR4530	1494	F-KF32FA	484
FH13/38	1143	FHAFIFBSP212212	1493	FHROMS25	1466	FIRE-FHR6418	1494	F-KF32FTC	484
FH13/38FF	1143	FHAFIFI212212	1493	FHSASASS2	1492	FIRE-FHR6418LA	1494	F-KF32LB	484
FH13/516	1143	FHAFIMBSP2122	1493	FHSCBMMF212	1493	FIRE-FHR6423	1494	F-KF32TF	484
FH13/516FF	1143	FHAFIMBSP212212	1493	FHSDBFFM212	1493	FIRE-FHR6423LA	1494	F-KF32TM	484
FH17/12	1143	FHAMIFBSP2122	1493	FHSESS2	1492	FIRE-FHR6430	1494	F-KF40CA	484
FH17/12FF	1143	FHAMIFBSP212212	1493	FHSNP16SS2	1492	FIRE-FHR6430LA	1494	F-KF40CB	484
FH17/14	1143	FHAMIMBSP2122	1493	FHSNP16SS3	1492	FKA12FA	454	F-KF40CR	484
FH17/14FF	1143	FHAMIMBSP212212	1493	FHT10/13	1145	FKA12LB	455	F-KF40FA	484
FH17/38	1143	FHAMIMI212212	1493	FHT10/17	1145	FKA12SDB	455	F-KF40FTC	484
FH17/38FF	1143	FHCC112FEMALE	1493	FHT12	1495	FKA12TC	454	F-KF40LB	484
FH17/38SS	1181	FHCC112MALE	1493	FHT12/17	1145	FKA20FA	454	F-KF40TF	484
FH17/516	1143	FHCC134FEMALE	1493	FHT12/21	1145	FKA20LB	455	F-KF40TM	484
FH17/516FF	1143	FHCC134MALE	1493	FHT1212	1495	FKA20SDB	455	F-KF50CA	484
FH21/12	1143	FHCC212	1493	FHT22	1495	FKA20TC	454	F-KF50CB	484
FH21/12FF	1143	FHCC212112	1493	FHT2212	1495	FKA32LB	455	F-KF50CR	484
FH21/12SS	1181	FHCC212134	1493	FHT32	1495	FKA32SDB	455	F-KF50FA	484
FH21/14	1143	FHCC2122	1493	FHT6/10	1145	FKA32TC	454	F-KF50FTC	484
FH21/14FF	1143	FHCC212212	1493	FHT6/13	1145	FKA40LB	455	F-KF50LB	484
FH21/38	1143	FHCC2123	1493	FHT7/10	1145	FKA40SDB	455	F-KF63CA	484
FH21/38FF	1143	FHCC212FEMALE	1493	FHT7/13	1145	FKA40TC	454	F-KF63CB	484
FH21/516	1143	FHCC212MALE	1493	FHT8/13	1145	FKA8FA	454	F-KF63CR	484
FH21/516FF	1143	FHCC234FEMALE	1493	FHT9/13	1145	FKA8LB	455	F-KF63FA	484
FH21/58FF	1143	FHCC2FEMALE	1493	FHT9/17	1145	FKA8SDB	455	F-KF63FTC	484
FH26/12	1143	FHCC2MALE	1493	FHW221210	1495	FKA8TC	454	F-KF63LB	484
FH26/12FF	1143	FHCC3FEMALE	1493	FHW221215	1495	FKASS16FA	460	F-KF63TF	484
FH26/34	1143	FHCC3MALE	1493	FHW221220	1495	FKASS16LB	460	F-KF63TM	484
FH26/34FF	1143	FHCG	1493	FHW22125	1495	FKASS16LN	460	F-KF80CA	484
FH26/34SS	1181	FHDPPVC1	1406	FIRE-FHB4518	1494	FKASS16PLN	460	F-KF80CB	484
FH26/58FF	1143	FHDPPVC1-100	1406	FIRE-FHB4518LA	1494	FKASS16SDB	460	F-KF80CR	484
FH3001	24	FHDPPVC112	1406	FIRE-FHB4523	1494	FKASS16Y	460	F-KF80FA	484
FH3002	24	FHDPPVC114	1406	FIRE-FHB4523LA	1494	FKASS20FA	460	F-KF80FTC	484
FH3003	24	FHDPPVC12	1406	FIRE-FHB4530	1494	FKASS20LB	460	F-KF80LB	484
FH3004	24	FHDPPVC12-100	1406	FIRE-FHB6418	1494	FKASS20LN	460	FL1	762
FH3005	24	FHDPPVC14	1406	FIRE-FHB6418LA	1494	FKASS20PLN	460	FL111	252
FH3006	24	FHDPPVC14-100	1406	FIRE-FHB6423	1494	FKASS20SDB	460	FL112	252
FH3007	24	FHDPPVC2	1406	FIRE-FHB6423LA	1494	FKASS20Y	460	FL2	762
FH3011	24	FHDPPVC34	1406	FIRE-FHB6430	1494	FKASS25PLN	460	FL211	252
FH33/1	1143	FHDPPVC34-100	1406	FIRE-FHB6430LA	1494	FKASS25Y	460	FL212	252
FH33/12	1143	FHDPPVC38	1406	FIRE-FHC4518	1494	FKF100CA	484	FL3	762
FH33/12FF	1143	FHDPPVC38-100	1406	FIRE-FHC4518LA	1494	FKF100CB	484	FL311	252
FH33/19SS	1181	FHDPPVC516	1406	FIRE-FHC4523	1494	FKF100CR	484	FL312	252
FH33/1FF	1143	FHDPPVC516-100	1406	FIRE-FHC4523LA	1494	FKF100FA	484	FL4	762
FH33/34	1143	FHN1	1495	FIRE-FHC4530LA	1494	FKF100FTC	484	FL5	762
FH33/34FF	1143	FHN1900	1466	FIRE-FHC6418	1494	FKF100LB	484	FL6	762
FH33/58	1143	FHN2500	1466	FIRE-FHC6418LA	1494	FKF125CA	484	FL64-608	683
FH42/114	1143	FHN34	1495	FIRE-FHC6423	1494	FKF125CB	484	FL64-628	683
FH42/114FF	1143	FHO1930	1466	FIRE-FHC6423LA	1494	FKF125CR	484	FL8	762
FH48/112	1143	FHO2530	1466	FIRE-FHC6430	1494	FKF125FA	484	FL9	762
FH48/112FF	1143	FHPC212	1493	FIRE-FHC6430LA	1494	FKF125LB	484	FLEX-15	1091
FH48/114	1143	FHRAAF19	1466	FIRE-FHQ4518	1495	FKF125TF	484	FLEX-22	1091
FH48/38SS	1181	FHRAAF25	1466	FIRE-FHQ4518LA	1495	FKF125TM	484	FLGS-127	261
FH52/2	1143	FHRAAS19	1466	FIRE-FHQ4523	1495	FKF160CA	484	FLGS-127-10	261
FH52/2FF	1143	FHRAAS25	1466	FIRE-FHQ4523LA	1495	FKF160CB	484	FLGS-254	261
FH52/50SS	1181	FHRAAF19	1466	FIRE-FHQ4530LA	1495	FKF160CR	484	FLGS-254-10	261
FH6001	24	FHRAAF25	1466	FIRE-FHQ6418LA	1495	FKF160FTC	484	FLGS-76	261
FH6002	24	FHRAAS19	1466	FIRE-FHQ6423	1495	FKF160LB	484	FLGS-76-10	261
FH6003	24	FHRAAS25	1466	FIRE-FHQ6423LA	1495	FKF160TM	484	FLH-3-1	36

FLH-3-1.1/2	36	F-M10125II	455	FM26223232	254	FO3/4-19	1420	FPBLTD-250	1387
FLH-3-1.1/4	36	F-M10125U	455	FM26322112	254	FO3/8-10	1420	FPBLTD-300	1387
FLH-3-1/2	36	F-M10125YI	484	FM26322212	254	FO3/8-13	1420	FPBLTD-32	1387
FLH-3-2	36	F-M1025YE	455	FM26332112	253	FO3/8-6	1420	FPBLTD-50	1387
FLH-3-3/4	36	F-M12125F	455	FM26332122	253	FO-500	1691	FPBLTD-65	1387
FLH-6-1	36	F-M12125II	455	FM26332212	253	FON1/2-13	1421	FPBLTD-80	1387
FLH-6-1.1/2	36	F-M12125U	455	FM26332222	253	FON1/4-6	1421	FPBLTE-100	1387
FLH-6-1.1/4	36	F-M12125YI	484	F-M27200U	485	FON1/4-8	1421	FPBLTE-125	1387
FLH-6-1/2	36	F-M16150F	485	F-M27200YI	484	FON1-25	1421	FPBLTE-15	1387
FLH-6-2	36	F-M16150U	485	FM2DDSV	220	FON3/4-16	1421	FPBLTE-150	1387
FLH-6-3/4	36	F-M16150YI	484	F-M36200U	485	FON3/4-19	1421	FPBLTE-200	1387
FLP-06B	1407	F-M20150F	485	F-M36200YI	484	FON3/8-10	1421	FPBLTE-25	1387
FLP-08B	1407	F-M20150U	485	FM3DDSV	220	FOOT150	1436	FPBLTE-250	1387
FLP-10B	1407	F-M20150YI	484	FM4	1626	FOOT200	1436	FPBLTE-300	1387
FLP-12B	1407	FM2-20-01-C	647	FM-402-04-S	648	FOOT250	1436	FPBLTE-32	1387
FLS050SS	1552	FM2-20-01-F	647	FMP01VG1	439	FOOT300	1436	FPBLTE-40	1387
FLS075SS	1552	FM2-20-01-L	647	FMP02VG6	439	FOOT400	1436	FPBLTE-50	1387
FLS100SS	1552	FM2-20-01-R	647	FMP03VL100	439	FOOT600	1436	FPBLTE-65	1387
FLS120SS	1552	FM2-20-01-W	647	FMP04VL160	439	FOR-1-18	280	FPBLTE-80	1387
FLS150SS	1552	FM2-20-20UM	648	FMP06VG10	439	FOR-3-18	280	FPE11B06BNFC31XX	259
FLS225SS	1552	FM2-20-MB	648	FMP06VL4	439	FP1/2-10BX	1420	FPE12B06BNFC31XX	259
FLS250SS	1552	FM2-20-N	648	FMP07VG16	439	FP1/2-13BX	1420	FPE21B10BNFC31XX	259
FLS275SS	1552	FM2-21-01-C	647	FMP07VL7	439	FP11/2-40BX	1420	FPE22B10BNFC31XX	259
FLS300SS	1552	FM2-30-02-C	647	FMP08VG25	439	FP1-19BX	1420	FPE31B12BNFC31XX	259
FLS330SS	1552	FM2-30-02-F	647	FMP08VL11	439	FP1-25BX	1420	FPE32B12BNFC31XX	259
FLS380SS	1552	FM2-30-02-L	647	FMP09VG40	439	FP12M	626	FPE41B12BNFC31XX	259
FLS405SS	1552	FM2-30-02-R	647	FMP09VL18	439	FP25M	626	FPE42B12BNFC31XX	259
FLT112	252	FM2-30-02-W	647	FMP10VG100	439	FP3/4-10BX	1420	FPG20B06DNFC03CX	258
FLT121	252	FM2-30-20UM	648	FMP10VL35	439	FP3/4-13BX	1420	FPG20B06DNFD03CX	258
FLT212	252	FM2-30-MB	648	FMP11VG100	439	FP3/4-16BX	1420	FPG21B06DNFC03CX	258
FLT221	252	FM2-30-N	648	FMP11VL50	439	FP3/4-19BX	1420	FPG21B06DNFD03CX	258
FLT312	252	FM2-31-02-C	647	FMP12VG160	439	FP3/8-10BX	1420	FPG22B08DNFC03CX	258
FLT321	252	FM2-40-03-C	647	FMP12VL70	439	FP3/8-13BX	1420	FPG22B08DNFD03CX	258
FLTGS-127	261	FM2-40-03-F	647	FMP13VG250	439	FP35M	626	FPG31B10DNFC03CX	258
FLTGS-127-10	261	FM2-40-03-L	647	FMP14VG300	439	FPB12B04CNFA03EX	257	FPG31B10DNFD03CX	258
FLTGS-254	261	FM2-40-03-R	647	FMP15VG350	439	FPB12B04CNFB03EX	257	FPL1.E	437
FLTGS-254-10	261	FM2-40-03-W	647	FMP15VL170	439	FPB12B04CNFC03EX	257	FPL2.E	437
FLTGS-76	261	FM2-40-04-C	647	FMUM3KVMS08	248	FPB12B04CNFD03EX	257	FPL1E-1	437
FLTGS-76-10	261	FM2-40-04-F	647	FMUM3MVMMS08	247	FPB13B06CNFA03EX	257	FPL1E-112	437
FLV-1	1625	FM2-40-04-L	647	FMUT1KVMS08	248	FPB13B06CNFB03EX	257	FPL1E-114	437
FLX15	882	FM2-40-04-R	647	FMUT1MVMMS08	247	FPB13B06CNFC03EX	257	FPL1E-12	437
FLX16	882	FM2-40-04-W	647	FN14	1208	FPB13B06CNFD03EX	257	FPL1E-2	437
FLX17	882	FM2-40-20UM	648	FN18	1208	FPB21B08CNFA03EX	257	FPL1E-34	437
FLX18	882	FM2-40-MB	648	FN38	1208	FPB21B08CNFB03EX	257	FPM21B04CNFA03XX	258
FLX19	882	FM2-40-N	648	FNF14	1208	FPB21B08CNFC03EX	257	FPM21B04CNFB03XX	258
FLX20	882	FM2-41-03-C	647	FNF18	1208	FPB21B08CNFD03EX	257	FPM21B04CNFB03XX	258
FLX21	882	FM2-41-04-C	647	FNF38	1208	FPB31B10CNFA03EX	257	FPM21B04CNFD03XX	258
FLX22	882	FM2-50-06-C	647	FNP14	1208	FPB31B10CNFB03EX	257	FPM22B06CNFA03XX	258
FLX24	882	FM2-50-06-F	647	FNP16HT112	1492	FPB31B10CNFC03EX	257	FPM22B06CNFB03XX	258
FLX26	882	FM2-50-06-L	647	FNP16HT2	1492	FPB31B10CNFD03EX	257	FPM22B06CNFC03XX	258
FLX27	882	FM2-50-06-R	647	FNP16HT212	1492	FPB33B12CNFA03EX	257	FPM22B06CNFD03XX	258
FLX33	882	FM2-50-06-W	647	FNP16HT3	1492	FPB33B12CNFB03EX	257	FPM22B08CNFA03XX	258
FLX36	882	FM2-50-10-C	647	FNP16HT4	1492	FPB33B12CNFC03EX	257	FPM22B08CNFB03XX	258
FLX37	882	FM2-50-10-F	647	FNP16HT6	1492	FPB33B12CNFD03EX	257	FPM22B08CNFC03XX	258
F-M04070U	455	FM2-50-10-L	647	FNP16HT8	1492	FPB34B12CNFA03EX	257	FPM22B08CNFD03XX	258
F-M04070YE	455	FM2-50-10-R	647	FNP18	1208	FPB34B12CNFB03EX	257	FPN1/2-10	1421
F-M06100II	455	FM2-50-10-W	647	FNT14	1208	FPB34B12CNFC03EX	257	FPN1/2-13	1421
F-M06100U	455	FM2-50-20UM	648	FNT516	1208	FPB34B12CNFD03EX	257	FPN1/2-8	1421
F-M06100YE	455	FM2-50-MB	648	FO1/2-13	1420	FPBLTD-100	1387	FPN16-110-UPVC	1105
F-M08125F	455	FM2-51-06-C	647	FO1/4-6	1420	FPBLTD-15	1387	FPN16-20-UPVC	1105
F-M08125II	455	FM2-51-10-C	647	FO1/4-8	1420	FPBLTD-150	1387	FPN16-25-UPVC	1105
F-M08125U	455	FM26122212	254	FO1/8-6	1420	FPBLTD-20	1387	FPN16-32-UPVC	1105
F-M08125YE	455	FM26222112	254	FO11/4-32	1420	FPBLTD-200	1387	FPN16-40-UPVC	1105
F-M10125F	455	FM26223132	254	FO3/4-16	1420	FPBLTD-25	1387	FPN16-50-UPVC	1105

FPN16-63-UPVC	1105	FR79-06	16	FRDS-34A	199	FRS-4-2	1183	FS-44-R-15	45
FPN16-75-UPVC	1105	FR79-08	16	FRDS-38A	199	FRS-4-3	1183	FS-51-R	45
FPN16-90-UPVC	1105	FR79-12	16	FRDS-43A	199	FRT-1000-1000N	169	FS-51-R-15	45
FPN3/4-10	1421	FRA21B04BNFC32WX	259	FRDS-45A	199	FRT-1000-750N	169	FS-57-R	45
FPN3/4-13	1421	FRA21B04BNFD32WX	259	FRDS-49A	199	FRT-10-250N	175	FS-57-R-15	45
FPN3/4-16	1421	FRA31B06BNFC32WX	259	FRDS-57A	199	FRT-12-250N	175	FS-63-R	45
FPN3/4-19	1421	FRA31B06BNFD32WX	259	FRDS-61A	199	FRT-12-375N	175	FS-63-R-15	45
FPN3/8-10	1421	FRA32B08BNFC32WX	259	FRDS-77A	199	FRT-125-125N	169	FS-70-R	45
FPSLEEVE-017	46	FRA32B08BNFD32WX	259	FRDS-89A	199	FRT-16-500N	175	FS-70-R-15	45
FPSLEEVE-020	46	FRA41B10BNFC32WX	259	FRDZ-115A	199	FRT-250-125N	169	FS-76-R	45
FPSLEEVE-023	46	FRA41B10BNFD32WX	259	FRDZ-159A	199	FRT-250-250N	169	FS-76-R-15	45
FPSLEEVE-027	46	FRA51B12BNFC32WX	259	FRDZ-169A	199	FRT-375-250N	169	FS-83-R	45
FPSLEEVE-031	46	FRA51B12BNFD32WX	259	FRDZ-194A	199	FRT-500-375N	169	FS-83-R-15	45
FPSLEEVE-036	46	FRA53B16BNFC32WX	259	FRDZ-220A	199	FRT-500-500N	169	FS-89-R	45
FPSLEEVE-040	46	FRA53B16BNFD32WX	259	FRDZ-22A	199	FRT-6-125N	175	FS-89-R-15	45
FPSLEEVE-044	46	FRB-12-ABS	1098	FRDZ-25A	199	FRT-6-250N	175	FS-95-R	45
FPSLEEVE-055	46	FRB-34-ABS	1098	FRDZ-30A	199	FRT-750-750N	169	FS-95-R-15	45
FPSLEEVE-060	46	FRB-BSP-1/2EPDM	1388	FRDZ-34A	199	FRT-8-125N	175	FSC1-1	1207
FPSLEEVE-066	46	FRB-BSP-1/2NBR	1388	FRDZ-38A	199	FRT-8-250N	175	FSC12-12	1207
FPSLEEVE-073	46	FRB-BSP-112EPDM	1388	FRDZ-43A	199	FS-06-R	45	FSC12-14	1207
FPSLEEVE-093	46	FRB-BSP-112NBR	1388	FRDZ-45A	199	FS-06-R-15	45	FSC14-12	1207
FPSLEEVE-112	46	FRB-BSP-114EPDM	1388	FRDZ-49A	199	FS-1	1185	FSC14-14	1207
FPSOTD-100	1387	FRB-BSP-114NBR	1388	FRDZ-57A	199	FS-102-R	45	FSC14-18	1207
FPSOTD-125	1387	FRB-BSP-1EPDM	1388	FRDZ-61A	199	FS-102-R-15	45	FSC14-38	1207
FPSOTD-150	1387	FRB-BSP-1NBR	1388	FRDZ-77A	199	FS-10-R	45	FSC18-14	1207
FPSOTD-200	1387	FRB-BSP-212EPDM	1388	FRDZ-89A	199	FS-10-R-15	45	FSC18-18	1207
FPSOTD-250	1387	FRB-BSP-212NBR	1388	FRL-MX2-1/2-KIT	691	FS-112	1185	FSC316-14	1207
FPSOTD-300	1387	FRB-BSP-2EPDM	1388	FRL-MX2-3/4-KIT	691	FS-114	1185	FSC316-18	1207
FPSOTD-32	1387	FRB-BSP-2NBR	1388	FRL-MX2-3/8-KIT	691	FS-114-R	45	FSC316-38	1207
FPSOTD-50	1387	FRB-BSP-3/4EPDM	1388	FRL-MX3-1-KIT	691	FS-114-R-15	45	FSC34-12	1207
FPSOTD-65	1387	FRB-BSP-3/4NBR	1388	FRL-MX3-3/4-KIT	691	FS-12-R	1185	FSC34-34	1207
FPSOTD-80	1387	FRB-BSP-3EPDM	1388	FR-MX2-1/2-KIT	691	FS-127-R	45	FSC38-12	1207
FPSOTE-100	1387	FRB-BSP-3NBR	1388	FR-MX2-3/4-KIT	691	FS-127-R-15	45	FSC38-14	1207
FPSOTE-125	1387	FRB-PN16-10EPDM	1388	FR-MX2-3/8-KIT	691	FS-12-R	45	FSC38-18	1207
FPSOTE-15	1387	FRB-PN16-10NBR	1388	FR-MX3-1-KIT	691	FS-12-R-15	45	FSC38-38	1207
FPSOTE-150	1387	FRB-PN16-112EPDM	1388	FR-MX3-3/4-KIT	691	FS-14	1185	FSC516-12	1207
FPSOTE-20	1387	FRB-PN16-112NBR	1388	FRS-1-12	1183	FS-14-R	45	FSC516-14	1207
FPSOTE-200	1387	FRB-PN16-114EPDM	1388	FRS-112-1	1183	FS-14-R-15	45	FSC516-18	1207
FPSOTE-25	1387	FRB-PN16-114NBR	1388	FRS-112-114	1183	FS-16-R	45	FSC516-38	1207
FPSOTE-250	1387	FRB-PN16-12EPDM	1388	FRS-112-34	1183	FS-16-R-15	45	FSE12-12	1208
FPSOTE-300	1387	FRB-PN16-12NBR	1388	FRS-1-14	1183	FS-18	1185	FSE14-14	1208
FPSOTE-32	1387	FRB-PN16-212EPDM	1388	FRS-114-1	1183	FS-19-R	45	FSE14-18	1208
FPSOTE-40	1387	FRB-PN16-212NBR	1388	FRS-114-12	1183	FS-19-R-15	45	FSE316-18	1208
FPSOTE-50	1387	FRB-PN16-2EPDM	1388	FRS-114-34	1183	FS-2	1185	FSE38-12	1208
FPSOTE-65	1387	FRB-PN16-2NBR	1388	FRS-12-14	1183	FS-212	1185	FSE38-14	1208
FPSOTE-80	1387	FRB-PN16-3EPDM	1388	FRS-12-18	1183	FS-22-R	45	FSE38-38	1208
FQ100	1458	FRB-PN16-3NBR	1388	FRS-12-38	1183	FS-22-R-15	45	FSE516-14	1208
FQSD1-10	1434	FRB-PN16-4EPDM	1388	FRS-1-34	1183	FS-25-R	45	FSFSA-112	1386
FQSD112-10	1434	FRB-PN16-4NBR	1388	FRS-1-38	1183	FS-25-R-15	45	FSFSA-112-300	1386
FQSD112-5	1434	FRB-PN16-5EPDM	1388	FRS-14-18	1183	FS-28-R	45	FSFSA-12-300	1386
FQSD114-10	1434	FRB-PN16-5NBR	1388	FRS-2-1	1183	FS-28-R-15	45	FSFSA-1-300	1386
FQSD114-5	1434	FRB-PN16-6EPDM	1388	FRS-2-112	1183	FS-3	1185	FSFSA-2	1386
FQSD1-5	1434	FRB-PN16-6NBR	1388	FRS-2-114	1183	FS-32-R	45	FSFSA-212	1386
FQSD2-10	1434	FRB-PN16-8EPDM	1388	FRS-212-114	1183	FS-32-R-15	45	FSFSA-2-300	1386
FQSD212-10	1434	FRB-PN16-8NBR	1388	FRS-212-2	1183	FS-34	1185	FSFSA-3	1386
FQSD212-5	1434	FRDS-108A	199	FRS-2-34	1183	FS-35-R	45	FSFSA-34-300	1386
FQSD2-5	1434	FRDS-115A	199	FRS-3-114	1183	FS-35-R-15	45	FSFSB-1	1386
FQSD3-10	1434	FRDS-133A	199	FRS-3-2	1183	FS-38	1185	FSFSB-112	1386
FQSD3-5	1434	FRDS-169A	199	FRS-3-212	1183	FS-38-R	45	FSFSB-112-300	1386
FQSD4-10	1434	FRDS-20A	199	FRS-34-12	1183	FS-38-R-15	45	FSFSB-114	1386
FQSD4-5	1434	FRDS-22A	199	FRS-34-14	1183	FS-4	1185	FSFSB-114-300	1386
FR79-03	16	FRDS-25A	199	FRS-34-38	1183	FS-41-R	45	FSFSB-12	1386
FR79-04	16	FRDS-27A	199	FRS-38-14	1183	FS-41-R-15	45	FSFSB-12-300	1386
FR79-05	16	FRDS-30A	199	FRS-38-18	1183	FS-44-R	45	FSFSB-1-300	1386

FSFSB-2	1386	FSG-16	48	FTP-10MMBOX-P	767	FYSG-25	48	G40-06R	410
FSFSB-212	1386	FSG-20	48	FULL-KIT	49	FYSG-32	48	G40-07R	410
FSFSB-212-300	1386	FSG-200	48	F-V77JP72FNM701	1702	FYSG-42	48	G40-10R	410
FSFSB-2-300	1386	FSG-25	48	F-V77JP72FNM801	1702	FYSG-50	48	G40-12R	410
FSFSB-3	1386	FSG-32	48	F-V77JQ72FNM701	1702	FYSG-60	48	G40-16R	410
FSFSB-3-300	1386	FSG-42	48	F-V77JQ72FNM801	1702	G		G40-20R	410
FSFSB-34	1386	FSG-50	48	F-V77JR72FNM701	1702	G 12/16	510	G42-UL	151
FSFSB-34-300	1386	FSG-60	48	F-V77JR72FNM801	1702	G 160/200	510	G50-01B	410
FSFSB-4	1386	FSG-74	48	F-V77JS72FNM701	1702	G 20	510	G50-01C	410
FSFSB-4-300	1386	FSG-80	48	F-V77JS72FNM801	1702	G 25/32	510	G50-01R	410
FSFSOA-1	1386	FSG-88	48	F-V77JT60FNM501	1702	G 40	510	G50-025C	410
FSFSOA-112	1386	FSS/L/1	1748	F-V77JT60FNM601	1702	G 41 125	510	G50-02B	410
FSFSOA-114-300	1386	FSS/L/2	1748	F-V83NP92FNM701	1702	G 50/63	510	G50-02C	410
FSFSOA-12	1386	FSS/L/3	1748	F-V83NP92FNM801	1702	G 80/100	510	G50-02R	410
FSFSOA-2	1386	FSS-14-110	1041	F-V83NQ92FNM701	1702	G1	1421	G50-02T	410
FSFSOA-2-300	1386	FSS-14-230	1041	F-V83NQ92FNM801	1702	G100-04B	410	G50-04B	410
FSFSOA-3	1386	FSS-14-24	1041	F-V91JO92FNM701	1702	G100-06B	410	G50-04C	410
FSFSOA-34	1386	FSS-18-24	1041	F-V91JO92FNM801	1702	G100-10B	410	G50-04R	410
FSFSOA-34-300	1386	FS-TAPE-25-N-11	45	F-V91JW92FNM701	1702	G100-14B	410	G50-04T	410
FSFSOA-4	1386	FS-TAPE-25-R-11	45	F-V91JW92FNM801	1702	G10-UL	151	G50-06B	410
FSFSOA-4-300	1386	FT3-12-03CF	16	F-V91NG92FNM701	1702	G10-US	151	G50-06C	410
FSFSOB-1	1386	FT3-12-04CF	16	F-V91NG92FNM801	1702	G112	1421	G50-06R	410
FSFSOB-112	1386	FT3-12-05CF	16	F-V91NH92FNM701	1702	G12	1421	G50-06T	410
FSFSOB-112-300	1386	FT3-12-06CF	16	F-V91NH92FNM801	1702	G12-UL	151	G50-10B	410
FSFSOB-114	1386	FT3-12-08CF	16	F-V91NL92FNM701	1702	G12-US	151	G50-10C	410
FSFSOB-12	1386	FT3-12-10CF	16	F-V91NL92FNM801	1702	G14-US	151	G50-10R	410
FSFSOB-12-300	1386	FT3-12-12CF	16	F-V91NM92FNM701	1702	G15-UL	151	G50-10T	410
FSFSOB-2	1386	FT3-12-16CF	16	F-V91NM92FNM801	1702	G16-US	151	G50-12B	410
FSFSOB-212	1386	FT3-12-20CF	16	FVS-112	1436	G18-UL	151	G50-12C	410
FSFSOB-212-300	1386	FT3-12-24CF	16	FVS-3	1436	G1NU2000	620	G50-12PM	411
FSFSOB-2-300	1386	FT3-12-32CF	16	FVS-4	1436	G1TU2VL1	1044	G50-12R	410
FSFSOB-3	1386	FTA-110-3-UPVC	1104	FW1	110	G1TU2VL2	1044	G50-12T	410
FSFSOB-3-300	1386	FTA-110-4-UPVC	1104	FW112	110	G1TU2VL3	1044	G50-16C	410
FSFSOB-34	1386	FTA-16-12-UPVC	1104	FW114	110	G2	1421	G50-16R	410
FSFSOB-4	1386	FTA-16-38-UPVC	1104	FW12	110	G20-US	151	G50-16T	410
FSFSOB-4-300	1386	FTA-20-12-UPVC	1104	FW14	110	G22-UL	151	G50-20R	410
FSFWA-1	1386	FTA-20-34-UPVC	1104	FW18	110	G256121S-23050	1033	G50-20T	410
FSFWA-112	1386	FTA-25-12-UPVC	1104	FW2	110	G256C113S-24VDC	1031	G63-001BG	264
FSFWA-114	1386	FTA-25-1-UPVC	1104	FW34	110	G256C121S-11050	1033	G63-001RG	264
FSFWA-2	1386	FTA-25-34-UPVC	1104	FW38	110	G256C121S-2450	1033	G63-002BG	264
FSFWA-212	1386	FTA-32-1-UPVC	1104	FW5M	110	G256C121S-24DC	1033	G63-002RG	264
FSFWA-212-300	1386	FTA-32-34-UPVC	1104	FX050-30	1431	G256C129S-11050	1031	G63-004BG	264
FSFWA-3	1386	FTA-40-114-UPVC	1104	FX075-10	1431	G256C129S-23050	1031	G63-004RG	264
FSFWA-3-300	1386	FTA-40-1-UPVC	1104	FX075-30	1431	G256C129S-2450	1031	G63-006BG	264
FSFWA-4	1386	FTA-50-112-UPVC	1104	FX100-10	1431	G256C136S-11050	1033	G63-006RG	264
FSFWA-4-300	1386	FTA-50-114-UPVC	1104	FX100-30	1431	G256C136S-23050	1033	G63-010RG	264
FSFWB-1	1386	FTA-50-2-UPVC	1104	FX125-10	1431	G256C136S-24	1033	G63-012BG	264
FSFWB-112	1386	FTA-63-112-UPVC	1104	FX125-30	1431	G256C136S-2450	1033	G63-012RG	264
FSFWB-112-300	1386	FTA-63-2-UPVC	1104	FX150-10	1431	G256C145S-11050	1031	G63-01D	410
FSFWB-114	1386	FTA-75-212-UPVC	1104	FX150-30	1431	G256C145S-23050	1031	G63-020BG	264
FSFWB-1-300	1386	FTA-75-2-UPVC	1104	FX200-10	1431	G256C145S-2450	1031	G63-020RG	264
FSFWB-2	1386	FTA-90-212-UPVC	1104	FX200-30	1431	G256C145S-24VDC	1031	G63-025BG	264
FSFWB-212	1386	FTA-90-3-UPVC	1104	FX250-10	1431	G25-US	151	G63-025RG	264
FSFWB-212-300	1386	FTA-90-4-UPVC	1104	FX250-30	1431	G28-UL	151	G63-040BG	264
FSFWB-2-300	1386	FTB1A10QV25G16X	251	FX300-10	1431	G30-US	151	G63-040RG	264
FSFWB-3	1386	FTBE2A20Q	251	FX300-30	1431	G356C136S-11050	1033	G63-04D	410
FSFWB-4	1386	FTP-06MMBOX-M	844	FX400-10	1431	G356C136S-23050	1033	G63-060BG	264
FSFWB-4-300	1386	FTP-06MMBOX-OTP	781	FX400-30	1431	G356C136S-24	1033	G63-060RG	264
FSG-10	48	FTP-06MMBOX-P	767	FXKE1	430	G356C136S-2450	1033	G63-10T	410
FSG-100	48	FTP-08MMBOX-M	844	FXKE3	430	G35-UL	151	G63-120BG	264
FSG-12	48	FTP-08MMBOX-OTP	781	FYSG-10	48	G38-US	151	G63-120RG	264
FSG-130	48	FTP-08MMBOX-P	767	FYSG-12	48	G40-01R	410	G63-12T	410
FSG-14	48	FTP-10MMBOX-M	844	FYSG-16	48	G40-02R	410	G63-16T	410
FSG-150	48	FTP-10MMBOX-OTP	781	FYSG-20	48	G40-04R	410	G63-200BG	264

G63-200RG	264	GA800S-112S	959	GAI-42L-24RG	147	GAV35LR	130	GDH-4	1625
G63-250BG	264	GA800S-114	959	GAI-6L-2N	147	GAV38SR	130	GDH-5	1625
G63-250RG	264	GA800S-114S	959	GAI-6L-2RG	147	GAV42LR	130	GDH-6	1625
G63-400BG	264	GA800S-12	959	GAI-6L-4N	147	GAV6LM	130	GDM2011-G	219
G63-400RG	264	GA800S-12S	959	GAI-6L-4RG	147	GAV6LR	130	GDML2011-GB1-B	219
G63-600BG	264	GA800S-1S	959	GAI-6L-6RG	147	GAV6SM	130	GDML2011-LED-120B	219
G63-600RG	264	GA800S-2	959	GAI-6L-8RG	147	GAV6SR	130	GDML2011-LED-230B	219
G63-CB	264	GA800S-2S	959	GAI-6S-4N	147	GAV8LM	130	GDML2011-LED-24-B	219
G63-OB	264	GA800S-34	959	GAI-6S-4RG	147	GAV8LR	130	GDML2011-LED-24HH	219
G63-PM	264	GA800S-34S	959	GAI-8L-2RG	147	GAV8SM	130	GDML2011-LED-48HH	219
G63-PM-RHOMB	264	GAI-10L-2RG	147	GAI-8L-4N	147	GAV8SR	130	GDOR	1477
G6-UL	151	GAI-10L-4N	147	GAI-8L-4RG	147	GB-1	1107	GE-10L-1/2UNF	147
G6-US	151	GAI-10L-4RG	147	GAI-8L-6RG	147	GB16-1	1099	GE-10L-10MEO	144
G72	596	GAI-10L-6N	147	GAI-8L-8RG	147	GB16-112	1099	GE-10L-10MPB	145
G73	596	GAI-10L-6RG	147	GAI-8S-4N	147	GB16-114	1099	GE-10L-12EO	144
G76	596	GAI-10L-8N	147	GAI-8S-4RG	147	GB16-12	1099	GE-10L-12MEO	144
G76028	1513	GAI-10L-8RG	147	GAI-8S-6RG	147	GB16-2	1099	GE-10L-12MPB	145
G76048	1513	GAI-10S-6N	147	GAI-8S-8RG	147	GB16-212	1099	GE-10L-12N	146
G76056	1513	GAI-10S-6RG	147	GAS 10 LR	133	GB16-3	1099	GE-10L-12RP	145
G76072	1513	GAI-10S-8RG	147	GAS 10 SR	133	GB16-34	1099	GE-10L-14MEO	144
G76088	1513	GAI-12L-4N	147	GAS 12 LR	133	GB16-4	1099	GE-10L-14MPB	145
G76104	1513	GAI-12L-4RG	147	GAS 12 LR 1/4	133	GB16-5	1099	GE-10L-16MEO	144
G76128	1513	GAI-12L-6N	147	GAS 12 SR	133	GB16-6	1099	GE-10L-16MPB	145
G76152	1513	GAI-12L-6RG	147	GAS 14 SR	133	GB16-8	1111	GE-10L-18MEO	144
G76188	1513	GAI-12L-8N	147	GAS 15 LR	133	GBP-1	1142	GE-10L-18MPB	145
G76216	1513	GAI-12L-8RG	147	GAS 16 SR	133	GBP-114	1142	GE-10L-22MEO	144
G76248	1513	GAI-12S-4RG	147	GAS 18 LR	133	GBP-2	1142	GE-10L-22MPB	145
G76280	1513	GAI-12S-6N	147	GAS 20 SR	133	GBP-34	1142	GE-10L-2EO	144
G76344	1513	GAI-12S-6RG	147	GAS 22 LR	133	GBR-110	1105	GE-10L-2N	146
G77	596	GAI-12S-8N	147	GAS 25 SR	133	GBR-25	1105	GE-10L-2RP	145
G79	596	GAI-12S-8RG	147	GAS 28 LR	133	GBR-32	1105	GE-10L-2RT	146
G7H	596	GAI-14S-6RG	147	GAS 30 SR	133	GBR-40	1105	GE-10L-3/4UNF	147
G7J	596	GAI-14S-8N	147	GAS 35 LR	133	GBR-50	1105	GE-10L-4EO	144
G7K	596	GAI-14S-8RG	147	GAS 38 SR	133	GBR-63	1105	GE-10L-4N	146
G8-UL	151	GAI-15L-12RG	147	GAS 42 LR	133	GBR-75	1105	GE-10L-4RP	145
G8-US	151	GAI-15L-6RG	147	GAS 6 LR	133	GBR-90	1105	GE-10L-4RT	146
G93	596	GAI-15L-8N	147	GAS 6 SR	133	GBV-1	975	GE-10L-6EO	144
GA 12/16	510	GAI-15L-8RG	147	GAS 8 LR	133	GBV100/06	415	GE-10L-6N	146
GA 160/200	510	GAI-16S-6N	147	GAS 8 SR	133	GBV100/06D	412	GE-10L-6RP	145
GA 20	510	GAI-16S-6RG	147	GASOILA2	1391	GBV-112	975	GE-10L-6RT	146
GA 25/32	510	GAI-16S-8N	147	GAV10LM	130	GBV-114	975	GE-10L-7/16UNF	147
GA 40	510	GAI-16S-8RG	147	GAV10LR	130	GBV-12	975	GE-10L-8EO	144
GA 41 125	510	GAI-18L-12RG	147	GAV10SM	130	GBV-2	975	GE-10L-8N	146
GA 50/63	510	GAI-18L-6RG	147	GAV10SR	130	GBV-34	975	GE-10L-8RP	145
GA 8/10	510	GAI-18L-8N	147	GAV12LM	130	GBV63/04	415	GE-10L-8RT	146
GA 80/100	510	GAI-18L-8RG	147	GAV12LR	130	GBV63/04D	412	GE-10L-9/16UNF	147
GA04/04	1154	GAI-20S-12N	147	GAV12LR1/4	130	GBVMF-3434	941	GE-10S-12EO	144
GA06/04	1154	GAI-20S-12RG	147	GAV12SM	130	GCPM4010	411	GE-10S-12N	146
GA06/05	1154	GAI-20S-8RG	147	GAV12SR	130	GCPM4014	411	GE-10S-12RP	145
GA06/06	1154	GAI-22L-12N	147	GAV14SM	130	GCPM402	411	GE-10S-14MEO	144
GA800C-1	959	GAI-22L-12RG	147	GAV14SR	130	GCPM4020	411	GE-10S-16MEO	144
GA800C-112	959	GAI-22L-8RG	147	GAV15LM	130	GCPM404	411	GE-10S-16MPB	145
GA800C-112S	959	GAI-25S-12RG	147	GAV15LR	130	GCPM407	411	GE-10S-18MEO	144
GA800C-114	959	GAI-25S-16N	147	GAV16SM	130	GCPM5010	411	GE-10S-18MPB	145
GA800C-114S	959	GAI-25S-16RG	147	GAV16SR	130	GCPM5014	411	GE-10S-2EO	144
GA800C-12	959	GAI-28L-16N	147	GAV18LM	130	GCPM502	411	GE-10S-2N	146
GA800C-12S	959	GAI-28L-16RG	147	GAV18LR	130	GCPM504	411	GE-10S-2RP	145
GA800C-1S	959	GAI-30S-20N	147	GAV20SM	130	GCPM507	411	GE-10S-3/4UNF	147
GA800C-2	959	GAI-30S-20RG	147	GAV20SR	130	GCV100/06	415	GE-10S-4EO	144
GA800C-2S	959	GAI-35L-20N	147	GAV22LM	130	GCV100/06D	412	GE-10S-4N	146
GA800C-34	959	GAI-35L-20RG	147	GAV22LR	130	GCV63/04	415	GE-10S-4RP	145
GA800C-34S	959	GAI-38S-24N	147	GAV25SR	130	GCV63/04D	412	GE-10S-4RT	146
GA800S-1	959	GAI-38S-24RG	147	GAV28LR	130	GCVPM40/02	411	GE-10S-6EO	144
GA800S-112	959	GAI-42L-24N	147	GAV30SR	130	GCVPM50/02	411	GE-10S-6N	146

GE-10S-6RP	145	GE-12S-9/16UNF	147	GE-16S-8N	146	GE-22L-26MEO	144	GE-30S-20RP	145
GE-10S-6RT	146	GE-14S-12EO	144	GE-16S-8RP	145	GE-22L-26MPB	145	GE-30S-20RT	146
GE-10S-8EO	144	GE-14S-12N	146	GE-16S-8RT	146	GE-22L-3/4UNF	147	GE-30S-24EO	144
GE-10S-8N	146	GE-14S-12RP	145	GE-18L-11/16UNF	147	GE-22L-6EO	144	GE-30S-24N	146
GE-10S-8RP	145	GE-14S-20MEO	144	GE-18L-12EO	144	GE-22L-6N	146	GE-30S-24RP	145
GE-12L-12EO	144	GE-14S-20MPB	145	GE-18L-12N	146	GE-22L-6RP	145	GE-30S-42MEO	144
GE-12L-12MEO	144	GE-14S-22MEO	144	GE-18L-12RP	145	GE-22L-6RT	146	GE-30S-42MPB	145
GE-12L-12MPB	145	GE-14S-3/4UNF	147	GE-18L-12RT	146	GE-22L-7/8UNF	147	GE-35L-12EO	144
GE-12L-12N	146	GE-14S-4RP	145	GE-18L-16EO	144	GE-22L-8EO	144	GE-35L-12RP	145
GE-12L-12RP	145	GE-14S-6EO	144	GE-18L-16N	146	GE-22L-8N	146	GE-35L-15/16UNF	147
GE-12L-12RT	146	GE-14S-6N	146	GE-18L-16RP	145	GE-22L-8RP	145	GE-35L-15/8UNF	147
GE-12L-14MEO	144	GE-14S-6RP	145	GE-18L-18MEO	144	GE-22L-8RT	146	GE-35L-16EO	144
GE-12L-14MPB	145	GE-14S-6RT	146	GE-18L-18MPB	145	GE-25S-11/16UNF	147	GE-35L-16N	146
GE-12L-16MEO	144	GE-14S-8EO	144	GE-18L-22MEO	144	GE-25S-12EO	144	GE-35L-16RP	145
GE-12L-16MPB	145	GE-14S-8N	146	GE-18L-22MPB	145	GE-25S-12N	146	GE-35L-16RT	146
GE-12L-18MEO	144	GE-14S-8RP	145	GE-18L-26MEO	144	GE-25S-12RP	145	GE-35L-20EO	144
GE-12L-18MPB	145	GE-14S-8RT	146	GE-18L-26MPB	145	GE-25S-12RT	146	GE-35L-20N	146
GE-12L-22MEO	144	GE-15L-12EO	144	GE-18L-3/4UNF	147	GE-25S-15/16UNF	147	GE-35L-20RP	145
GE-12L-22MPB	145	GE-15L-12N	146	GE-18L-6EO	144	GE-25S-16EO	144	GE-35L-20RT	146
GE-12L-2EO	144	GE-15L-12RP	145	GE-18L-6N	146	GE-25S-16N	146	GE-35L-24EO	144
GE-12L-2N	146	GE-15L-12RT	146	GE-18L-6N	146	GE-25S-16N	146	GE-35L-24EO	144
GE-12L-2RP	145	GE-15L-16EO	144	GE-18L-6RP	145	GE-25S-16RP	145	GE-35L-24N	146
GE-12L-2RT	146	GE-15L-16MEO	144	GE-18L-6RT	146	GE-25S-16RT	146	GE-35L-24RP	145
GE-12L-3/4UNF	147	GE-15L-16MPB	145	GE-18L-7/8UNF	147	GE-25S-20EO	144	GE-35L-24RT	146
GE-12L-4EO	144	GE-15L-18MEO	144	GE-18L-8EO	144	GE-25S-20N	146	GE-35L-42MEO	144
GE-12L-4N	146	GE-15L-18MPB	145	GE-18L-8N	146	GE-25S-20RP	145	GE-35L-42MPB	145
GE-12L-4RP	145	GE-15L-22MEO	144	GE-18L-8RP	145	GE-25S-33MEO	144	GE-38S-15/8UNF	147
GE-12L-4RT	146	GE-15L-22MEO	144	GE-18L-8RT	146	GE-25S-33MPB	145	GE-38S-16EO	144
GE-12L-6EO	144	GE-15L-22MPB	145	GE-20S-11/16UNF	147	GE-25S-8EO	144	GE-38S-16N	146
GE-12L-6N	146	GE-15L-3/4UNF	147	GE-20S-12EO	144	GE-25S-8N	146	GE-38S-16RP	145
GE-12L-6N	146	GE-15L-4EO	144	GE-20S-12N	146	GE-25S-8RP	145	GE-38S-17/8UNF	147
GE-12L-6RP	145	GE-15L-4N	146	GE-20S-12RP	145	GE-28L-11/16UNF	147	GE-38S-20EO	144
GE-12L-6RT	146	GE-15L-4RP	145	GE-20S-12RT	146	GE-28L-12EO	144	GE-38S-20N	146
GE-12L-7/8UNF	147	GE-15L-4RT	146	GE-20S-15/16UNF	147	GE-28L-12N	146	GE-38S-20RP	145
GE-12L-8EO	144	GE-15L-6EO	144	GE-20S-16EO	144	GE-28L-12RP	145	GE-38S-24EO	144
GE-12L-8N	146	GE-15L-6N	146	GE-20S-16N	146	GE-28L-12RT	146	GE-38S-24N	146
GE-12L-8RP	145	GE-15L-6N	146	GE-20S-16N	146	GE-28L-12RT	146	GE-38S-24N	146
GE-12L-8RP	145	GE-15L-6RP	145	GE-20S-16RP	145	GE-28L-15/16UNF	147	GE-38S-24RP	145
GE-12L-8RT	146	GE-15L-6RT	146	GE-20S-20EO	144	GE-28L-15/8UNF	147	GE-38S-24RT	146
GE-12L-9/16UNF	147	GE-15L-7/8UNF	147	GE-20S-20EO	144	GE-28L-16EO	144	GE-38S-24RT	146
GE-12S-12EO	144	GE-15L-8EO	144	GE-20S-20N	146	GE-28L-16EO	144	GE-38S-48MEO	144
GE-12S-12N	146	GE-15L-8N	146	GE-20S-20RP	145	GE-28L-16N	146	GE-38S-48MPB	145
GE-12S-12RP	145	GE-15L-8N	146	GE-20S-27MEO	144	GE-28L-16RP	145	GE-42L-15/8UNF	147
GE-12S-12RP	145	GE-15L-8RP	145	GE-20S-27MPB	145	GE-28L-16RP	145	GE-42L-16EO	144
GE-12S-14MEO	144	GE-15L-8RT	146	GE-20S-3/4UNF	147	GE-28L-16RT	146	GE-42L-16EO	144
GE-12S-14MPB	145	GE-15L-9/16UNF	147	GE-20S-6EO	144	GE-28L-20EO	144	GE-42L-16N	146
GE-12S-16MEO	144	GE-16S-11/16UNF	147	GE-20S-6N	146	GE-28L-20N	146	GE-42L-16RP	145
GE-12S-16MPB	145	GE-16S-12EO	144	GE-20S-6N	146	GE-28L-20RP	145	GE-42L-17/8UNF	147
GE-12S-18MEO	144	GE-16S-12N	146	GE-20S-6RP	145	GE-28L-20RT	146	GE-42L-20EO	144
GE-12S-18MPB	145	GE-16S-12N	146	GE-20S-7/8UNF	147	GE-28L-24EO	144	GE-42L-20EO	144
GE-12S-20MEO	144	GE-16S-12RP	145	GE-20S-8EO	144	GE-28L-24EO	144	GE-42L-20N	146
GE-12S-20MEO	144	GE-16S-12RT	146	GE-20S-8EO	144	GE-28L-24RP	145	GE-42L-20RP	145
GE-12S-22MEO	144	GE-16S-16EO	144	GE-20S-8RP	145	GE-28L-33MEO	144	GE-42L-20RT	146
GE-12S-22MPB	145	GE-16S-16EO	144	GE-20S-8RT	146	GE-28L-33MPB	145	GE-42L-20RT	146
GE-12S-3/4UNF	147	GE-16S-16N	146	GE-22L-11/16UNF	147	GE-28L-8EO	144	GE-42L-24EO	144
GE-12S-4EO	144	GE-16S-16RP	145	GE-22L-12EO	144	GE-28L-8EO	144	GE-42L-24N	146
GE-12S-4N	146	GE-16S-18MEO	144	GE-22L-12N	146	GE-28L-8N	146	GE-42L-24RP	145
GE-12S-4N	146	GE-16S-18MPB	145	GE-22L-12N	146	GE-28L-8N	146	GE-42L-24RT	146
GE-12S-4RP	145	GE-16S-22MEO	144	GE-22L-12RP	145	GE-28L-8RP	145	GE-42L-32EO	144
GE-12S-4RT	146	GE-16S-22MEO	144	GE-22L-12RP	145	GE-28L-8RT	146	GE-42L-32EO	144
GE-12S-6EO	144	GE-16S-22MPB	145	GE-22L-12RT	146	GE-30S-11/16UNF	147	GE-42L-48MEO	144
GE-12S-6EO	144	GE-16S-22MPB	145	GE-22L-12RT	146	GE-30S-12EO	144	GE-42L-48MPB	145
GE-12S-6N	146	GE-16S-3/4UNF	147	GE-22L-15/16UNF	147	GE-30S-12EO	144	GE-6L-1/2UNF	147
GE-12S-6N	146	GE-16S-4EO	144	GE-22L-16EO	144	GE-30S-12N	146	GE-6L-10MEO	144
GE-12S-6RP	145	GE-16S-4EO	144	GE-22L-16N	146	GE-30S-12RP	145	GE-6L-10MEO	144
GE-12S-6RP	145	GE-16S-4RP	145	GE-22L-16N	146	GE-30S-12RP	145	GE-6L-10MPB	145
GE-12S-6RT	146	GE-16S-6EO	144	GE-22L-16N	146	GE-30S-15/16UNF	147	GE-6L-12MEO	144
GE-12S-7/8UNF	147	GE-16S-6EO	144	GE-22L-16RP	145	GE-30S-15/8UNF	147	GE-6L-12MEO	144
GE-12S-7/8UNF	147	GE-16S-6N	146	GE-22L-16RT	146	GE-30S-16EO	144	GE-6L-12MPB	145
GE-12S-8EO	144	GE-16S-6N	146	GE-22L-20EO	144	GE-30S-16EO	144	GE-6L-14MEO	144
GE-12S-8EO	144	GE-16S-6N	146	GE-22L-20EO	144	GE-30S-16N	146	GE-6L-14MEO	144
GE-12S-8N	146	GE-16S-6RP	145	GE-22L-20N	146	GE-30S-16N	146	GE-6L-14MPB	145
GE-12S-8N	146	GE-16S-6RT	146	GE-22L-20N	146	GE-30S-16N	146	GE-6L-14MPB	145
GE-12S-8RP	145	GE-16S-6RT	146	GE-22L-20RP	145	GE-30S-16RP	145	GE-6L-2EO	144
GE-12S-8RP	145	GE-16S-7/8UNF	147	GE-22L-22MEO	144	GE-30S-20EO	144	GE-6L-2EO	144
GE-12S-8RT	146	GE-16S-8EO	144	GE-22L-22MPB	145	GE-30S-20N	146	GE-6L-2N	146

GE-6L2RP	145	GE-8L9/16UNF	147	GES 22 LR 1/2	132	GES38 SR 1FOA	132	GEV12S1/2NPT	121
GE-6L2RT	146	GE-8S-1/2UNF	147	GES 22 LR-WD	132	GES6 LR 1/4FOA	132	GEV12S1/4NPT	121
GE-6L4EO	144	GE-8S-12MEO	144	GES 25 SR	132	GES6 LR 3/8FOA	132	GEV12S3/4-16UNF	121
GE-6L4N	146	GE-8S-14MEO	144	GES 25 SR 3/4	132	GES6 LRFOA	132	GEV12S3/8NPT	121
GE-6L4RP	145	GE-8S-14MPB	145	GES 25 SR 3/4-WD	132	GES8 LR 1/8FOA	132	GEV12SM	119
GE-6L4RT	146	GE-8S-16MEO	144	GES 25 SR-WD	132	GES8 LR 3/8FOA	132	GEV12SMWD	120
GE-6L6EO	144	GE-8S-2EO	144	GES 28 LR	132	GES8 LRFOA	132	GEV12SR	120
GE-6L6N	146	GE-8S-2N	146	GES 28 LR 3/4	132	GES8 SRFOA	132	GEV12SR1/2	120
GE-6L6RP	145	GE-8S-2RP	145	GES 28 LR-WD	132	GEV10L1/4NPT	121	GEV12SR1/2FOA	119
GE-6L6RT	146	GE-8S-2RT	146	GES 30 SR	132	GEV10L3/8NPT	121	GEV12SR1/2WD	120
GE-6L7/16UNF	147	GE-8S-4EO	144	GES 30 SR-WD	132	GEV10L7/16-20UNF	121	GEV12SR1/4	120
GE-6L8EO	144	GE-8S-4N	146	GES 35 LR	132	GEV10L9/16-18UNF	121	GEV12SR1/4FOA	119
GE-6L8N	146	GE-8S-4RP	145	GES 35 LR-WD	132	GEV10LM	119	GEV12SR1/4WD	120
GE-6L8RP	145	GE-8S-4RT	146	GES 38 SR	132	GEV10LM16X1.5	119	GEV12SRFOA	119
GE-6L8RT	146	GE-8S-6EO	144	GES 38 SR 1.1/4	132	GEV10LM18X1.5	119	GEV12SRWD	120
GE-6L9/16UNF	147	GE-8S-6N	146	GES 38 SR-WD	132	GEV10LM22X1.5	119	GEV14S1/2NPT	121
GE-6S-12MEO	144	GE-8S-6RP	145	GES 42 LR	132	GEV10LMWD	120	GEV14SM	119
GE-6S-12MPB	145	GE-8S-6RT	146	GES 42 LR-WD	132	GEV10LR	120	GEV14SMWD	120
GE-6S-14MEO	144	GE-8S-7/16UNF	147	GES 6 LR	132	GEV10LR1/2	120	GEV14SR	120
GE-6S-14MPB	145	GE-8S-8EO	144	GES 6 LR 1/4	132	GEV10LR1/2FOA	119	GEV14SR3/8	120
GE-6S-2EO	144	GE-8S-8N	146	GES 6 LR 1/4-WD	132	GEV10LR1/2WD	120	GEV14SRFOA	119
GE-6S-2N	146	GE-8S-8RP	145	GES 6 LR-WD	132	GEV10LR3/8	120	GEV14SRWD	120
GE-6S-2RP	145	GE-8S-9/16UNF	147	GES 6 SR	132	GEV10LR3/8FOA	119	GEV15L1/2NPT	121
GE-6S-2RT	146	GES 10 LR	132	GES 6 SR-WD	132	GEV10LR3/8K	119	GEV15L3/4-16UNF	121
GE-6S-4EO	144	GES 10 LR 1/2	132	GES 8 LR	132	GEV10LR3/8WD	120	GEV15L7/8-14UNF	121
GE-6S-4N	146	GES 10 LR 1/2-WD	132	GES 8 LR 1/8	132	GEV10LRFOA	119	GEV15LM	119
GE-6S-4RP	145	GES 10 LR 3/8	132	GES 8 LR 1/8-WD	132	GEV10LRK	119	GEV15LM22X1.5	119
GE-6S-4RT	146	GES 10 LR 3/8-WD	132	GES 8 LR 3/8	132	GEV10LRWD	120	GEV15LM22X1.5WD	120
GE-6S-6EO	144	GES 10 LR-WD	132	GES 8 LR 3/8-WD	132	GEV10S1/4NPT	121	GEV15LMD	120
GE-6S-6N	146	GES 10 SR	132	GES 8 LR-WD	132	GEV10S3/8NPT	121	GEV15LR	120
GE-6S-6RP	145	GES 10 SR 1/2	132	GES 8 SR	132	GEV10S9/16-18UNF	121	GEV15LR3/4	120
GE-6S-6RT	146	GES 10 SR 1/2-WD	132	GES 8 SR 3/8	132	GEV10SM	119	GEV15LR3/8	120
GE-6S-7/16UNF	147	GES 10 SR 1/4	132	GES 8 SR 3/8-WD	132	GEV10SMWD	120	GEV15LR3/8FOA	119
GE-6S-8EO	144	GES 10 SR 1/4-WD	132	GES 8 SR-WD	132	GEV10SR	120	GEV15LR3/8WD	120
GE-6S-8N	146	GES 10 SR-WD	132	GES10 LR 1/2FOA	132	GEV10SR1/2	120	GEV15LRFOA	119
GE-6S-8RP	145	GES 12 LR	132	GES10 LR 3/8FOA	132	GEV10SR1/2WD	120	GEV15LRK	119
GE-8L1/2UNF	147	GES 12 LR 1/2	132	GES10 LRFOA	132	GEV10SR1/4	120	GEV15LRWD	120
GE-8L10MEO	144	GES 12 LR 1/2-WD	132	GES10 SR 1/4FOA	132	GEV10SR1/4FOA	119	GEV16S1/2NPT	121
GE-8L10MPB	145	GES 12 LR 1/4	132	GES10 SRFOA	132	GEV10SR1/4WD	120	GEV16S3/4-16UNF	121
GE-8L12MEO	144	GES 12 LR 1/4-WD	132	GES12 LR 1/2FOA	132	GEV10SRFOA	119	GEV16S7/8-14UNF	121
GE-8L12MPB	145	GES 12 LR-WD	132	GES12 LR 1/4FOA	132	GEV10SRWD	120	GEV16SM	119
GE-8L14MEO	144	GES 12 SR	132	GES12 LRFOA	132	GEV12L1/2NPT	121	GEV16SM18X1.5	119
GE-8L14MPB	145	GES 12 SR 1/2	132	GES12 SR 1/2FOA	132	GEV12L1/4NPT	121	GEV16SMWD	120
GE-8L16MEO	144	GES 12 SR 1/2-WD	132	GES12 SR 1/4FOA	132	GEV12L3/4-16UNF	121	GEV16SR	120
GE-8L16MPB	145	GES 12 SR 1/4	132	GES12 SRFOA	132	GEV12L3/8NPT	121	GEV16SR3/4	120
GE-8L18MEO	144	GES 12 SR 1/4-WD	132	GES14 SRFOA	132	GEV12L7/8-14UNF	121	GEV16SR3/4FOA	119
GE-8L18MPB	145	GES 12 SR-WD	132	GES15 LR 3/8FOA	132	GEV12L9/16-18UNF	121	GEV16SR3/4WD	120
GE-8L2EO	144	GES 14 SR	132	GES15 LRFOA	132	GEV12LM	119	GEV16SR3/8	120
GE-8L2N	146	GES 14 SR-WD	132	GES16 SR 3/4FOA	132	GEV12LM18X1.5	119	GEV16SR3/8FOA	119
GE-8L2RP	145	GES 15 LR	132	GES16 SR 3/8FOA	132	GEV12LM18X1.5WD	120	GEV16SR3/8WD	120
GE-8L2RT	146	GES 15 LR 3/4	132	GES16 SRFOA	132	GEV12LM22X1.5	119	GEV16SRFOA	119
GE-8L4EO	144	GES 15 LR-WD	132	GES18 LR 3/4FOA	132	GEV12LM22X1.5WD	120	GEV16SRWD	120
GE-8L4N	146	GES 16 SR	132	GES18 LRFOA	132	GEV12LMWD	120	GEV18L1/2NPT	121
GE-8L4RP	145	GES 16 SR 3/4	132	GES20 SR 1/2FOA	132	GEV12LR	120	GEV18L3/4-16UNF	121
GE-8L4RT	146	GES 16 SR 3/4-WD	132	GES20 SRFOA	132	GEV12LR1/2	120	GEV18L7/8-14UNF	121
GE-8L6EO	144	GES 16 SR 3/8	132	GES22 LR 1/2FOA	132	GEV12LR1/2FOA	119	GEV18LM	119
GE-8L6N	146	GES 16 SR 3/8-WD	132	GES22 LRFOA	132	GEV12LR1/2WD	120	GEV18LM18X1.5	119
GE-8L6RP	145	GES 16 SR-WD	132	GES25 SR 3/4FOA	132	GEV12LR1/4	120	GEV18LM18X1.5WD	120
GE-8L6RT	146	GES 18 LR	132	GES25 SRFOA	132	GEV12LR1/4FOA	119	GEV18LMWD	120
GE-8L7/16UNF	147	GES 18 LR-WD	132	GES28 LR 3/4FOA	132	GEV12LR1/4K	119	GEV18LR	120
GE-8L8EO	144	GES 20 SR	132	GES28 LRFOA	132	GEV12LR1/4WD	120	GEV18LR3/4	120
GE-8L8N	146	GES 20 SR 1/2	132	GES30 SR 1FOA	132	GEV12LRFOA	119	GEV18LR3/4FOA	119
GE-8L8RP	145	GES 20 SR-WD	132	GES35 LRFOA	132	GEV12LRK	119	GEV18LR3/4WD	120
GE-8L8RT	146	GES 22 LR	132	GES38 SR 11/4FOA	132	GEV12LRWD	120	GEV18LR3/8	120

**B**

GEV18LRFOA	119	GEV38SR11/4	120	GF1-14	1356	GF130-112-1N	1360	GF130-2-1-2	1361
GEV18LRWD	120	GEV38SR11/4FOA	119	GF1-14N	1356	GF130-1-12-1N	1361	GF130-212-1	1360
GEV20S11/16-12UN	121	GEV38SR1FOA	119	GF1-1N	1356	GF130-112-2	1360	GF130-212-112	1360
GEV20S3/4-16UNF	121	GEV38SRFOA	119	GF1-2	1356	GF130-112-2N	1360	GF130-212-112212	1361
GEV20S7/8-14UNF	121	GEV38SRWD	120	GF120-1	1359	GF130-112-34	1360	GF130-212112212N	1361
GEV20SM	119	GEV42L11/2NPT	121	GF120-112	1359	GF130-112-34N	1360	GF130-212-112N	1360
GEV20SMWD	120	GEV42LM	119	GF120-112N	1359	GF130-112N	1360	GF130-212-114	1360
GEV20SR	120	GEV42LR	120	GF120-114	1359	GF130-1-12N	1360	GF130-212-114N	1360
GEV20SR1	120	GEV42LRWD	120	GF120-114N	1359	GF130-114	1360	GF130-212-12	1360
GEV20SR1/2	120	GEV4LL1/8NPT	121	GF120-12	1359	GF130-114-1	1360	GF130-212-12N	1360
GEV20SR1/2FOA	119	GEV4LLRK	119	GF120-12N	1359	GF130-114-1-1	1361	GF130-212-1N	1360
GEV20SRFOA	119	GEV6L1/4NPT	121	GF120-1N	1359	GF130-114-1-114	1361	GF130-212-2	1360
GEV20SRWD	120	GEV6L1/8NPT	121	GF120-2	1359	GF130-114-1-114N	1361	GF130-2-12-2	1361
GEV22L11/16-12UN	121	GEV6LL1/8NPT	121	GF120-212N	1359	GF130-114-1-12	1361	GF130-212-2-2	1361
GEV22L3/4NPT	121	GEV6LLRK	119	GF120-2N	1359	GF130-114-1-12N	1361	GF130-212-2-2N	1361
GEV22L7/8-14UNF	121	GEV6LM12X1.5	119	GF120-3	1359	GF130-114-1-1N	1361	GF130-212-2N	1360
GEV22LM	119	GEV6LMWD	120	GF120-34	1359	GF130-114-12	1360	GF130-2-12-2N	1361
GEV22LMWD	120	GEV6LR	120	GF120-34N	1359	GF130-114-12-114	1361	GF130-212-34	1360
GEV22LR	120	GEV6LR1/4	120	GF120-3N	1359	GF130-114-12114N	1361	GF130-212-34N	1360
GEV22LR1	120	GEV6LR1/4FOA	119	GF121-1	1359	GF130-114-12N	1360	GF130-212N	1360
GEV22LR1/2	120	GEV6LR1/4WD	120	GF121-112	1359	GF130-114-1-34	1361	GF130-2-12N	1360
GEV22LR1/2FOA	119	GEV6LR3/8	120	GF121-112N	1359	GF130-114-1-34N	1361	GF130-2-1-2N	1361
GEV22LRFOA	119	GEV6LR3/8FOA	119	GF121-114	1359	GF130-114-1N	1360	GF130-2-1N	1360
GEV22LRWD	120	GEV6LRFOA	119	GF121-114N	1359	GF130-114-34	1360	GF130-2-212	1360
GEV25S1NPT	121	GEV6LRWD	120	GF121-12	1359	GF130-114-34N	1360	GF130-2-212N	1360
GEV25SM	119	GEV6SM	119	GF121-12N	1359	GF130-114N	1360	GF130-2-34	1360
GEV25SMWD	120	GEV6SMWD	120	GF121-1N	1359	GF130-12	1360	GF130-2-34-2	1361
GEV25SR	120	GEV6SR	120	GF121-2	1359	GF130-12-14	1360	GF130-2-34-2N	1361
GEV25SR3/4	120	GEV6SRWD	120	GF1-212	1356	GF130-12-14N	1360	GF130-2-34N	1360
GEV25SR3/4FOA	119	GEV8L1/4NPT	121	GF121-212	1359	GF130-12-34	1360	GF130-2N	1360
GEV25SR3/4WD	120	GEV8L7/16-20UNF	121	GF121-2N	1359	GF130-12-34N	1360	GF130-3	1360
GEV25SRFOA	119	GEV8L9/16-18UNF	121	GF1-212N	1356	GF130-12-38	1360	GF130-3-1	1360
GEV25SRWD	120	GEV8LL1/8NPT	121	GF121-3	1359	GF130-12-38-38	1361	GF130-3-112	1360
GEV28L15/16-12UN	121	GEV8LLRK	119	GF121-34	1359	GF130-12-38-38N	1361	GF130-3-112N	1360
GEV28L1NPT	121	GEV8LM	119	GF121-34N	1359	GF130-12-38N	1360	GF130-3-114	1360
GEV28L7/8-14UNF	121	GEV8LM16X1.5	119	GF121-38	1359	GF130-12N	1360	GF130-3-114N	1360
GEV28LM	119	GEV8LMWD	120	GF121-38N	1359	GF130-1-34	1360	GF130-3-1N	1360
GEV28LMWD	120	GEV8LR	120	GF1-2N	1356	GF130-1-34-1	1361	GF130-3-2	1360
GEV28LR	120	GEV8LR1/2	120	GF1-3	1356	GF130-1-34-12	1361	GF130-3-212	1360
GEV28LR3/4	120	GEV8LR1/8	120	GF130-1	1360	GF130-1-34-12N	1361	GF130-3-212N	1360
GEV28LR3/4FOA	119	GEV8LR1/8FOA	119	GF130-1-112	1360	GF130-1-34-1N	1361	GF130-3-2-2	1361
GEV28LRFOA	119	GEV8LR1/8WD	120	GF130-1-112N	1360	GF130-1-34-34	1361	GF130-3-2N	1360
GEV28LRWD	120	GEV8LR3/8	120	GF130-1-114	1360	GF130-1-34-34N	1361	GF130-3-34	1360
GEV30S15/8-12UN	121	GEV8LR3/8FOA	119	GF130-1-114N	1360	GF130-1-34N	1360	GF130-3-34N	1360
GEV30SM	119	GEV8LR3/8WD	120	GF130-112	1360	GF130-1-38	1360	GF130-34	1360
GEV30SMWD	120	GEV8LRFOA	119	GF130-1-12	1360	GF130-1-38N	1360	GF130-34-1	1360
GEV30SR	120	GEV8LRK	119	GF130-112-1	1360	GF130-14	1360	GF130-34-12	1360
GEV30SR1	120	GEV8LRWD	120	GF130-1-12-1	1361	GF130-14N	1360	GF130-34-12-12	1361
GEV30SR11/4FOA	119	GEV8S1/4NPT	121	GF130-112-1-1	1361	GF130-1N	1360	GF130-34-12-12N	1361
GEV30SR1FOA	119	GEV8SM	119	GF130-112-1-112	1361	GF130-2	1360	GF130-34-12-34	1361
GEV30SR3/4	120	GEV8SMWD	120	GF130-112-1-112N	1361	GF130-2-1	1360	GF130-34-12-34N	1361
GEV30SRWD	120	GEV8SR	120	GF130-112-114	1360	GF130-2-112	1360	GF130-34-12N	1360
GEV35L11/4NPT	121	GEV8SR1/2	120	GF130-112-114-1	1361	GF130-2-112-1	1361	GF130-34-14	1360
GEV35L15/16-12UN	121	GEV8SR3/8	120	GF130-112-114114	1361	GF130-2-112-112N	1361	GF130-34-14N	1360
GEV35L15/8-12UN	121	GEV8SR3/8WD	120	GF130-112114114N	1361	GF130-2-112-114	1361	GF130-34-1N	1360
GEV35LM	119	GEV8SRFOA	119	GF130-112-11412	1361	GF130-2-112-114N	1361	GF130-34-38	1360
GEV35LMWD	120	GEV8SRWD	120	GF130-112-11412N	1361	GF130-2-112-1N	1361	GF130-34-38N	1360
GEV35LR1	120	GF1-1	1356	GF130-112-114-1N	1361	GF130-2-112-2	1361	GF130-34N	1360
GEV35LRFOA	119	GF1-112	1356	GF130-112-114N	1360	GF130-2-112-2N	1361	GF130-38	1360
GEV35LRWD	120	GF1-112N	1356	GF130-112-1-1N	1361	GF130-2-112N	1360	GF130-38-14	1360
GEV38S11/2NPT	121	GF1-114	1356	GF130-112-12	1360	GF130-2-114	1360	GF130-38-14N	1360
GEV38SM	119	GF1-114N	1356	GF130-112-12-112	1361	GF130-2-114N	1360	GF130-38N	1360
GEV38SMWD	120	GF1-12	1356	GF130-112-12112N	1361	GF130-212	1360	GF130-3N	1360
GEV38SR	120	GF1-12N	1356	GF130-112-12N	1360	GF130-2-12	1360	GF130-4-1	1360

GF130-4-112	1360	GF132-112N	1362	GF2-1N	1356	GF241-1-12	1364	GF241-34-14N	1364
GF130-4-112N	1360	GF132-114	1362	GF2-2	1356	GF241-112-1	1364	GF241-34-38	1364
GF130-4-1N	1360	GF132-114N	1362	GF2-212	1356	GF241-112-114	1364	GF241-34-38N	1364
GF130-4-2	1360	GF132-12	1362	GF2-212N	1356	GF241-112-114N	1364	GF241-38-14	1364
GF130-4-212N	1360	GF132-12N	1362	GF2-2N	1356	GF241-112-12	1364	GF241-38-14N	1364
GF130-4-2N	1360	GF132-1N	1362	GF2-3	1356	GF241-112-12N	1364	GF241-38-18	1364
GF130-4-3	1360	GF132-2	1362	GF2-34	1356	GF241-112-1N	1364	GF241-38-18N	1364
GF130-4-3N	1360	GF132-2N	1362	GF2-34N	1356	GF241-112-34	1364	GF241-4-2	1364
GF130-4N	1360	GF132-34	1362	GF2-38	1356	GF241-112-34N	1364	GF241-4-212	1364
GF130-5	1360	GF132-34N	1362	GF2-38N	1356	GF241-112-38	1364	GF241-4-212N	1364
GF130-5N	1360	GF1-34	1356	GF2-3N	1356	GF241-112-38N	1364	GF241-4-2N	1364
GF130-6N	1360	GF1-34N	1356	GF240-1-12	1363	GF241-1-12N	1364	GF241-4-3	1364
GF131-1	1361	GF1-38	1356	GF240-112-1	1363	GF241-1-14	1364	GF241-4-3N	1364
GF131-112	1361	GF1-38N	1356	GF240-112-114	1363	GF241-114-1	1364	GF241-6-4N	1364
GF131-1-12	1362	GF1-3N	1356	GF240-112-114N	1363	GF241-114-12	1364	GF245-1-12	1364
GF131-112-1	1362	GF1-4N	1356	GF240-112-12	1363	GF241-114-12N	1364	GF245-112-1	1364
GF131-112-114	1362	GF180-1	1362	GF240-112-12N	1363	GF241-114-1N	1364	GF245-112-114	1364
GF131-112-114N	1362	GF180-112	1362	GF240-112-1N	1363	GF241-114-34	1364	GF245-112-114N	1364
GF131-112-1N	1362	GF180-112N	1362	GF240-112-34	1363	GF241-114-34N	1364	GF245-112-1N	1364
GF131-112-34	1362	GF180-114	1362	GF240-112-34N	1363	GF241-114-38	1364	GF245-1-12N	1364
GF131-112-34N	1362	GF180-114N	1362	GF240-1-12N	1363	GF241-114-38N	1364	GF245-114-1	1364
GF131-112N	1361	GF180-12	1362	GF240-114-1	1363	GF241-1-14N	1364	GF245-114-1N	1364
GF131-1-12N	1362	GF180-12N	1362	GF240-114-12	1363	GF241-12-14	1364	GF245-114-34	1364
GF131-114	1361	GF180-1N	1362	GF240-114-12N	1363	GF241-12-14N	1364	GF245-114-34N	1364
GF131-114-1	1362	GF180-2	1362	GF240-114-1N	1363	GF241-12-18	1364	GF245-12-14	1364
GF131-114-12	1362	GF180-212	1362	GF240-114-34	1363	GF241-12-18N	1364	GF245-12-14N	1364
GF131-114-12N	1362	GF180-212N	1362	GF240-114-34N	1363	GF241-12-38	1364	GF245-12-38	1364
GF131-114-1N	1362	GF180-2N	1362	GF240-12-14	1363	GF241-12-38N	1364	GF245-12-38N	1364
GF131-114-34	1362	GF180-3	1362	GF240-12-14N	1363	GF241-1-34	1364	GF245-1-34	1364
GF131-114-34N	1362	GF180-34	1362	GF240-12-38N	1363	GF241-1-34N	1364	GF245-1-34N	1364
GF131-114N	1361	GF180-34N	1362	GF240-1-34	1363	GF241-1-38	1364	GF245-14-18	1364
GF131-12	1361	GF180-3N	1362	GF240-1-34N	1363	GF241-1-38N	1364	GF245-14-18N	1364
GF131-12N	1361	GF180-4	1362	GF240-14-18	1363	GF241-14-18	1364	GF245-2-1	1364
GF131-1-34	1362	GF180-4N	1362	GF240-14-18N	1363	GF241-14-18N	1364	GF245-2-112	1364
GF131-1-34-34	1362	GF1A-1	1356	GF240-2-1	1363	GF241-2-1	1364	GF245-2-112N	1364
GF131-1-34-34N	1362	GF1A-112	1356	GF240-2-112	1363	GF241-2-112	1364	GF245-2-114	1364
GF131-1-34N	1362	GF1A-112N	1356	GF240-2-112N	1363	GF241-2-112N	1364	GF245-2-114N	1364
GF131-1N	1361	GF1A-114	1356	GF240-2-114	1363	GF241-2-114	1364	GF245-2-1N	1364
GF131-2	1361	GF1A-114N	1356	GF240-2-114N	1363	GF241-2-114N	1364	GF245-3-2N	1364
GF131-2-1	1362	GF1A-12	1356	GF240-212-112	1363	GF241-2-12	1364	GF245-34-12	1364
GF131-2-112	1362	GF1A-12N	1356	GF240-212-112N	1363	GF241-212-1	1364	GF245-34-12N	1364
GF131-2-112N	1362	GF1A-14	1356	GF240-212-2	1363	GF241-212-112N	1364	GF245-34-38	1364
GF131-2-114	1362	GF1A-14N	1356	GF240-212-2N	1363	GF241-212-114	1364	GF245-34-38N	1364
GF131-2-114N	1362	GF1A-1N	1356	GF240-2-1N	1363	GF241-212-114N	1364	GF245-38-14	1364
GF131-212	1361	GF1A-2	1356	GF240-2-34	1363	GF241-212-1N	1364	GF245-38-14N	1364
GF131-212-114	1362	GF1A-212N	1356	GF240-2-34N	1363	GF241-212-2	1364	GF246-114-1	1365
GF131-212N	1361	GF1A-2N	1356	GF240-3-112	1363	GF241-212-2N	1364	GF246-114-1N	1365
GF131-2-1N	1362	GF1A-3	1356	GF240-3-112N	1363	GF241-2-12N	1364	GF246-1-34	1365
GF131-2-34	1362	GF1A-34	1356	GF240-3-2	1363	GF241-2-1N	1364	GF246-1-34N	1365
GF131-2-34N	1362	GF1A-34N	1356	GF240-3-212	1363	GF241-2-34	1364	GF246-34-12N	1365
GF131-2N	1361	GF1A-38	1356	GF240-3-212N	1363	GF241-2-34N	1364	GF2-4N	1356
GF131-3	1361	GF1A-38N	1356	GF240-3-2N	1363	GF241-3-1	1364	GF260-1-12	1365
GF131-3-2	1362	GF1A-3N	1356	GF240-34-12	1363	GF241-3-112	1364	GF260-112-1	1365
GF131-3-2N	1362	GF1A-4	1356	GF240-34-12N	1363	GF241-3-112N	1364	GF260-112-114	1365
GF131-34	1361	GF1A-4N	1356	GF240-34-38	1363	GF241-3-114	1364	GF260-112-114N	1365
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GF131-34-12N	1362	GF2-114	1356	GF240-4-2	1363	GF241-3-212	1364	GF260-114-12	1365
GF131-34N	1361	GF2-114N	1356	GF240-4-212	1363	GF241-3-212N	1364	GF260-114-12N	1365
GF131-3N	1361	GF2-12	1356	GF240-4-212N	1363	GF241-3-2N	1364	GF260-114-1N	1365
GF131-4N	1361	GF2-12N	1356	GF240-4-2N	1363	GF241-34-12	1364	GF260-114-34	1365
GF132-1	1362	GF2-14	1356	GF240-4-3	1363	GF241-34-12N	1364	GF260-114-34N	1365
GF132-112	1362	GF2-14N	1356	GF240-4-3N	1363	GF241-34-14	1364	GF260-1-34	1365

GF260-1-34N	1365	GF290-12	1366	GF2A-3N	1357	GF330-1N	1368	GF342A-12	1369
GF260-2-1	1365	GF290-12N	1366	GF2A-4	1357	GF330-2	1368	GF342A-12N	1369
GF260-2-112	1365	GF290-14	1366	GF2A-4N	1357	GF330-2N	1368	GF342A-1N	1369
GF260-2-112N	1365	GF290-14N	1366	GF300-1	1367	GF330-34	1368	GF342A-2	1369
GF260-2-114	1365	GF290-1N	1366	GF300-112	1367	GF330-34N	1368	GF342A-2N	1369
GF260-2-114N	1365	GF290-2	1366	GF300-112N	1367	GF3-34	1357	GF342A-34	1369
GF260-2-12	1365	GF290-2N	1366	GF300-114	1367	GF3-34N	1357	GF342A-34N	1369
GF260-2-12N	1365	GF290-34	1366	GF300-114N	1367	GF340-1	1368	GF346-1	1369
GF260-2-1N	1365	GF290-34N	1366	GF300-12	1367	GF340-112	1368	GF346-112	1369
GF260-34-12	1365	GF290-38	1366	GF300-12N	1367	GF340-112N	1368	GF346-112N	1369
GF260-34-12N	1365	GF290-38N	1366	GF300-14	1367	GF340-114	1368	GF346-114	1369
GF270-1	1365	GF291-1	1366	GF300-14N	1367	GF340-114N	1368	GF346-114N	1369
GF270-112	1365	GF291-112	1366	GF300-1N	1367	GF340-12	1368	GF346-12	1369
GF270-112N	1365	GF291-112N	1366	GF300-2	1367	GF340-12N	1368	GF346-12N	1369
GF270-114	1365	GF291-114	1366	GF300-212	1367	GF340-14	1368	GF346-1N	1369
GF270-114N	1365	GF291-114N	1366	GF300-212N	1367	GF340-14N	1368	GF346-2	1369
GF270-12	1365	GF291-12	1366	GF300-2N	1367	GF340-1N	1368	GF346-2N	1369
GF270-12N	1365	GF291-12N	1366	GF300-3	1367	GF340-2	1368	GF346-34	1369
GF270-14	1365	GF291-1N	1366	GF300-34	1367	GF340-212	1368	GF346-34N	1369
GF270-14N	1365	GF291-2	1366	GF300-34N	1367	GF340-212N	1368	GF40-1	1357
GF270-18	1365	GF291-212	1366	GF300-38N	1367	GF340-2N	1368	GF40-112	1357
GF270-18N	1365	GF291-212N	1366	GF300-3N	1367	GF340-3	1368	GF40-112N	1357
GF270-1N	1365	GF291-2N	1366	GF300-4	1367	GF340-34	1368	GF40-114	1357
GF270-2	1365	GF291-3	1366	GF300-4N	1367	GF340-34N	1368	GF40-114N	1357
GF270-212	1365	GF291-34	1366	GF3-1	1357	GF340-38	1368	GF40-12	1357
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GF270-2N	1365	GF291-3N	1366	GF3-112N	1357	GF340-4	1368	GF40-1N	1357
GF270-3	1365	GF291-4	1366	GF3-114	1357	GF340-4N	1368	GF40-2	1357
GF270-34	1365	GF291-4N	1366	GF3-114N	1357	GF341-1	1368	GF40-2N	1357
GF270-34N	1365	GF291S-1	1367	GF3-12	1357	GF341-112	1368	GF40-34	1357
GF270-38	1365	GF291S-112	1367	GF312-1	1367	GF341-112N	1368	GF40-34N	1357
GF270-38N	1365	GF291S-112N	1367	GF312-112	1367	GF341-114	1368	GF596-1	1368
GF270-3N	1365	GF291S-114	1367	GF312-112N	1367	GF341-114N	1368	GF596-112	1368
GF270-4	1365	GF291S-114N	1367	GF312-114	1367	GF341-12	1368	GF596-112N	1368
GF270-4N	1365	GF291S-12	1367	GF312-114N	1367	GF341-12N	1368	GF596-114	1368
GF280-1	1366	GF291S-12N	1367	GF312-12	1367	GF341-14	1368	GF596-114N	1368
GF280-112	1366	GF291S-14	1367	GF312-12N	1367	GF341-14N	1368	GF596-12	1368
GF280-112N	1366	GF291S-14N	1367	GF312-14N	1367	GF341-1N	1368	GF596-12N	1368
GF280-114	1366	GF291S-18N	1367	GF312-1N	1367	GF341-2	1368	GF596-14	1368
GF280-114N	1366	GF291S-1N	1367	GF312-2	1367	GF341-212	1368	GF596-14N	1368
GF280-12	1366	GF291S-2	1367	GF312-2N	1367	GF341-2N	1368	GF596-1N	1368
GF280-12N	1366	GF291S-2N	1367	GF312-34	1367	GF341-3	1368	GF596-2N	1368
GF280-14	1366	GF291S-34	1367	GF312-34N	1367	GF341-34	1368	GF596-34	1368
GF280-14N	1366	GF291S-34N	1367	GF312-38	1367	GF341-34N	1368	GF596-34N	1368
GF280-18	1366	GF291S-38	1367	GF3-12N	1357	GF341-38	1368	GF596-38	1368
GF280-18N	1366	GF2A-1	1357	GF3-1N	1357	GF341-38N	1368	GF596-38N	1368
GF280-1N	1366	GF2A-112	1357	GF3-2	1357	GF341-3N	1368	GF60-1	1357
GF280-2	1366	GF2A-112N	1357	GF321-1	1367	GF342-1	1369	GF60-112	1357
GF280-212	1366	GF2A-114	1357	GF321-112	1367	GF342-112	1369	GF60-112N	1357
GF280-212N	1366	GF2A-114N	1357	GF321-112N	1367	GF342-112N	1369	GF60-114	1357
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GF280-34	1366	GF2A-14	1357	GF321-12N	1367	GF342-12	1369	GF60-1N	1357
GF280-34N	1366	GF2A-14N	1357	GF321-1N	1367	GF342-12N	1369	GF60-2	1357
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GF280-38N	1366	GF2A-2	1357	GF321-2N	1367	GF342-1N	1369	GF60-2N	1357
GF280-3N	1366	GF2A-212	1357	GF321-34	1367	GF342-2	1369	GF60-34	1357
GF280-4	1366	GF2A-212N	1357	GF3-2N	1357	GF342-2N	1369	GF60-34N	1357
GF280-4N	1366	GF2A-2N	1357	GF330-1	1368	GF342-34	1369	GF90-1	1358
GF290-1	1366	GF2A-3	1357	GF330-112	1368	GF342-34N	1369	GF90-10-12	1358
GF290-112	1366	GF2A-3N	1357	GF330-112N	1368	GF342A-1	1369	GF90-10-12N	1358
GF290-112N	1366	GF2A-34	1357	GF330-114	1368	GF342A-112	1369	GF90-112	1358
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GF290-114N	1366	GF2A-38N	1357	GF330-12N	1368	GF342A-114N	1369	GF90-114-1	1358

GF90-114-1N	1358	GF96-112	1359	GFS104SU-A38	105	GFS401SU-A20	105	GH19-100	1422
GF90-114N	1358	GF96-112N	1359	GFS106GM	104	GFS402GM	104	GH19-50	1422
GF90-12	1358	GF96-114	1359	GFS106GM-114	104	GFS402GM-012	104	GH203	755
GF90-12-14	1358	GF96-114N	1359	GFS106GU	104	GFS402GU	104	GH25	1422
GF90-12-14N	1358	GF96-12	1359	GFS106GU-114	104	GFS402GU-012	104	GH25-100	1422
GF90-12-38	1358	GF96-12N	1359	GFS106SM	105	GFS402SM	105	GH252	755
GF90-12-38N	1358	GF96-12N	1359	GFS106SM-A50	105	GFS402SM-A25	105	GH253	755
GF90-12N	1358	GF96-1N	1359	GFS106STM	107	GFS402STM	107	GH25-50	1422
GF90-1-34	1358	GF96-2	1359	GFS106STU	107	GFS402STU	107	GH302	755
GF90-1-34N	1358	GF96-2N	1359	GFS106SU	105	GFS402SU	105	GHL302	755
GF90-14	1358	GF96-34	1359	GFS106SU-A50	105	GFS402SU-A25	105	GI1414	249
GF90-14N	1358	GF96-34N	1359	GFS108GM	104	GFS403GM	104	GJS-1	1481
GF90-18	1358	GF98-1	1359	GFS108GM-112	104	GFS403GU	104	GJS-112	1481
GF90-18N	1358	GF98-112	1359	GFS108GM-112	104	GFS403GU	104	GJS-112	1481
GF90-18N	1358	GF98-112N	1359	GFS108GU	104	GFS403SM	105	GJS-114	1481
GF90-1N	1358	GF98-114	1359	GFS108GU-112	104	GFS403SM-A30	105	GJS-12	1481
GF90-2	1358	GF98-114N	1359	GFS108S	105	GFS403STM	107	GJS-2	1481
GF90-212	1358	GF98-12	1359	GFS108STM	107	GFS403STU	107	GJS-34	1481
GF90-212N	1358	GF98-12N	1359	GFS108STU	107	GFS403SU	105	GK 125	510
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GF90-38	1358	GFS080GU-038	104	GFS110STM	107	GFS404SM-A38	105	GKA10	1479
GF90-38-14N	1358	GFS080SM	105	GFS110STU	107	GFS404STM	107	GKA12	1479
GF90-38N	1358	GFS080SM-038	105	GFS110SU	105	GFS404STU	107	GKA14	1479
GF90-3N	1358	GFS080SM-A20	105	GFS112GM	104	GFS404SU	105	GKA15	1479
GF90-4	1358	GFS080STM	107	GFS112GM-212	104	GFS404SU-A38	105	GKA34	1479
GF90-4N	1358	GFS080STM-038	107	GFS112GU	104	GFS405GM	104	GKA38	1479
GF90-5	1358	GFS080STU	107	GFS112GU-212	104	GFS405GM-114	104	GKA54	1479
GF90-5N	1358	GFS080STU-038	107	GFS112SM	105	GFS405GU	105	GK-AW21	1475
GF92-1	1358	GFS080SU	105	GFS112STM	107	GFS405GU-114	104	GK-AW26	1475
GF92-112	1358	GFS080SU-038	105	GFS112STU	107	GFS405SM	105	GK-AW33	1475
GF92-112N	1358	GFS080SU-A20	105	GFS112SU	105	GFS405SM-A50	105	GK-AW42	1475
GF92-114	1358	GFS100GM	104	GFS114GM	104	GFS405STM	107	GK-AW50	1475
GF92-114N	1358	GFS100GM-012	104	GFS114GM-300	104	GFS405STU	107	GK-BC	1475
GF92-12	1358	GFS100GU	104	GFS114GU	104	GFS405SU	105	GKD2	1389
GF92-12N	1358	GFS100GU-012	104	GFS114GU-300	104	GFS405SU-A50	105	GKD3	1389
GF92-1-34	1358	GFS100SM	105	GFS114SM	105	GFS406GM	104	GK-GASKET	1475
GF92-1-34N	1358	GFS100SM-A25	105	GFS114STM	107	GFS406GM-112	104	GKI10	1479
GF92-14	1358	GFS100STM	107	GFS114STU	107	GFS406GU	104	GKI12	1479
GF92-14N	1358	GFS100STU	107	GFS114SU	105	GFS406GU-112	104	GKI14	1479
GF92-18	1358	GFS100SU	105	GFS116GM	104	GFS406SM	105	GKI15	1479
GF92-18N	1358	GFS100SU-A25	105	GFS116GM-312	104	GFS406STM	107	GKI34	1479
GF92-1N	1358	GFS102GM	104	GFS116GU	104	GFS406STU	107	GKI38	1479
GF92-2	1358	GFS102GM-034	104	GFS116GU-312	104	GFS406SU	105	GKI54	1479
GF92-212	1358	GFS102GU	104	GFS116SM	105	GFS407SM	105	GKIBCNP162	1389
GF92-212N	1358	GFS102GU-034	104	GFS116STM	107	GFV10L35	135	GKIBCNP163	1389
GF92-2N	1358	GFS102SM	105	GFS116STU	107	GFV12L35	135	GKIBCNP164	1389
GF92-3	1358	GFS102SM-A30	105	GFS116SU	105	GFV15L35	135	GKIBCNP166	1389
GF92-34	1358	GFS102STM	107	GFS401GM-012	104	GFV15L40	135	GK-IW21	1475
GF92-34-12	1358	GFS102STU	107	GFS401GM-038	104	GFV16L35	135	GK-IW26	1475
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GF92-34N	1358	GFS102SU-A30	105	GFS401GU-038	104	GFV20S55	135	GK-IW42	1475
GF92-38	1358	GFS104GM	104	GFS401SM-012	105	GFV22L40	135	GK-IW50	1475
GF92-38N	1358	GFS104GM-100	104	GFS401SM-038	105	GFV28L40	135	GKNP163	1389
GF92-3N	1358	GFS104GU	104	GFS401SM-A20	105	GG08B3C25050	475	GKNP166	1389
GF92-4N	1358	GFS104GU-100	104	GFS401STM-012	107	GGWH-1/4-25	1418	GKO	1479
GF94-1	1359	GFS104SM	105	GFS401STM-038	107	GGWH-3/8-25	1418	GKOR	1479
GF94-1N	1359	GFS104SM-A38	105	GFS401STU-012	107	GH12	1422	GK-SP34	1475
GF94-34	1359	GFS104STM	107	GFS401STU-038	107	GH12-100	1422	GK-TF13	1475
GF94-34N	1359	GFS104STU	107	GFS401SU-012	105	GH12-50	1422	GK-TF19	1475
GF96-1	1359	GFS104SU	105	GFS401SU-038	105	GH19	1422	GK-TF25	1475



	GK-TF31	1475	GMF321-112-10	248	GP-090-0430N	1553	GR-22L18L	151	GRI-2-4RG	148
	GK-TF38	1475	GMF4110QIVPKG324	248	GP-090-0530B	1553	GR-22L8L	151	GRI-2-6RG	148
	GL800C-1	976	GMF411-2-10	248	GP-090-0530N	1553	GR-25S-10S	151	GRI-32-12RG	148
	GL800C-112	976	GMF4210QIVPKG324	248	GP60015PP	1134	GR-25S-12S	151	GRI-32-16RG	148
	GL800C-112S	976	GMS-1	1481	GP60022PP	1134	GR-25S-14S	151	GRI-32-20RG	148
	GL800C-114	976	GMS-112	1481	GP60028PP	1134	GR-25S-16S	151	GRI-32-24RG	148
	GL800C-114S	976	GMS-114	1481	GP60035PP	1134	GR-25S-20S	151	GRI-32-8RG	148
	GL800C-12	976	GMS-12	1481	GP60042PP	1134	GR-25S-8S	151	GRI-4-12RG	148
	GL800C-12S	976	GMS-2	1481	GP60054PP	1134	GR-28L10L	151	GRI-4-2RG	148
	GL800C-1S	976	GMS-34	1481	GP73ME31.000	1054	GR-28L12L	151	GRI-4-6RG	148
	GL800C-2	976	GN0245N	1644	GP73PE31.000	1054	GR-28L15L	151	GRI-4-8RG	148
	GL800C-2S	976	GN0290N	1644	GPE1-12	230	GR-28L18L	151	GRI-6-12RG	148
	GL800C-34	976	GN02N	1644	GPE1-38	230	GR-28L22L	151	GRI-6-16RG	148
	GL800C-34S	976	GN0445N	1644	GPE2-12	230	GR-30S-10S	151	GRI-6-2RG	148
	GL800S-1	976	GN0490N	1644	GPE2-34	230	GR-30S-12S	151	GRI-6-4RG	148
	GL800S-112	976	GN04N	1644	GPOR	1477	GR-30S-14S	151	GRI-6-8RG	148
	GL800S-112S	976	GN172AHHS	700	GR.AGUNC	1642	GR-30S-16S	151	GRI-8-12RG	148
	GL800S-114	976	GN174BHHS	700	GR.AM12.5C	1642	GR-30S-20S	151	GRI-8-16RG	148
	GL800S-114S	976	GNM6	1644	GR.AM50C	1642	GR-30S-25S	151	GRI-8-20RG	148
	GL800S-12	976	GNM645	1644	GR.ASWIVC	1642	GR-35L15L	151	GRI-8-2RG	148
	GL800S-12S	976	GNM690	1644	GR.ASWIVS	1642	GR-35L18L	151	GRI-8-4RG	148
	GL800S-1S	976	GNM8	1644	GR.BFILL.L	1642	GR-35L22L	151	GRI-8-6RG	148
	GL800S-2	976	GNM845	1644	GR.FU	1642	GR-35L28L	151	GRIBCNP162	1389
	GL800S-2S	976	GNM890	1644	GR.G3HV	1642	GR-38S-10S	151	GRIBCNP163	1389
	GL800S-34	976	GNTH02N	1644	GR.G6HV	1642	GR-38S-12S	151	GRIBCNP164	1389
	GL800S-34S	976	GNTH04N	1644	GR.GGFILL.L	1642	GR-38S-14S	151	GRIBCNP166	1389
	GM-27	648	GNU04	1644	GR.H12.L	1642	GR-38S-16S	151	GRIBCNP168	1389
	GM38	1475	GNU0445	1644	GR.PGS	1642	GR-38S-20S	151	GRNP162	1389
	GMAMF1122	1490	GNU0490	1644	GR-10L6L	151	GR-38S-25S	151	GRNP163	1389
	GMAMF112212	1490	GO04/04	1154	GR-10L8L	151	GR-38S-30S	151	GRNP164	1389
	GMAMF1123	1490	GO06/04	1154	GR-10S-6S	151	GR-42L15L	151	GRNP166	1389
	GMAMF2112	1490	GO06/05	1154	GR-10S-8S	151	GR-42L18L	151	GRNP168	1389
	GMAMF2122	1490	GO06/06	1154	GR-12L10L	151	GR-42L22L	151	GS 10 L	133
	GMAMF212212	1490	GOER	1477	GR-12L6L	151	GR-42L28L	151	GS 10 S	133
	GMAMF2123	1490	GOOR	1476	GR-12L8L	151	GR-42L35L	151	GS 12 L	133
	GMAMF2212	1490	GP-025-0100B	1553	GR-12S-10S	151	GR-8L6L	151	GS 12 S	133
	GMAMF23	1490	GP-025-0100N	1553	GR-12S-6S	151	GR-8S-6S	151	GS 14 S	133
	GMAMF32	1490	GP-025-0200B	1553	GR-12S-8S	151	GRD2	1389	GS 15 L	133
	GMAMF3212	1490	GP-025-0200N	1553	GR-14S-10S	151	GRD3	1389	GS 16 S	133
	GMAMF33	1490	GP-036-0140B	1553	GR-14S-12S	151	GRD4	1389	GS 18 L	133
	GMAMF34	1490	GP-036-0140N	1553	GR-14S-6S	151	GRD6	1389	GS 20 S	133
	GMAMF43	1490	GP-036-0200B	1553	GR-14S-8S	151	GRD8	1389	GS 22 L	133
	GMAMFURTURT34	1490	GP-036-0200N	1553	GR-15L10L	151	GRI-12-16RG	148	GS 25 S	133
	GMAMM212212	1490	GP-036-0300B	1553	GR-15L12L	151	GRI-12-20RG	148	GS 28 L	133
	GMAMM22	1490	GP-036-0300N	1553	GR-15L6L	151	GRI-12-24RG	148	GS 30 S	133
	GMAMM33	1490	GP-048-0120B	1553	GR-15L8L	151	GRI-12-2RG	148	GS 35 L	133
	GMAMMBSPURT33	1490	GP-048-0120N	1553	GR-16S-10S	151	GRI-12-4RG	148	GS 38 S	133
	GMBCC112	1489	GP-048-0160B	1553	GR-16S-12S	151	GRI-12-6RG	148	GS 42 L	133
	GMBCC2	1489	GP-048-0160N	1553	GR-16S-14S	151	GRI-12-8RG	148	GS 6 L	133
	GMBCC212	1489	GP-048-0200B	1553	GR-16S-6S	151	GRI-16-12RG	148	GS 6 S	133
	GMBCCBSP3	1489	GP-048-0200N	1553	GR-16S-8S	151	GRI-16-20RG	148	GS 8 L	133
	GMBCCBSP4	1489	GP-048-0300B	1553	GR-18L10L	151	GRI-16-24RG	148	GS 8 S	133
	GMBCCURT3	1489	GP-048-0300N	1553	GR-18L12L	151	GRI-16-4RG	148	GS112-150	1390
	GMCT3URT	1488	GP-048-0368B	1553	GR-18L15L	151	GRI-16-6RG	148	GS112-300	1390
	GMCT4URT	1488	GP-048-0368N	1553	GR-18L8L	151	GRI-16-8RG	148	GS114-150	1390
	GMDSLLC2-6M	1427	GP-076-0200B	1553	GR-20S-10S	151	GRI-20-12RG	148	GS1-150	1390
	GMDSLLC3312-6M	1427	GP-076-0200N	1553	GR-20S-12S	151	GRI-20-16RG	148	GS12-150	1390
	GMDSLLC4-6M	1427	GP-076-0240B	1553	GR-20S-14S	151	GRI-20-24RG	148	GS12-300	1390
	GMDSLLC6-6M	1427	GP-076-0240N	1553	GR-20S-16S	151	GRI-20-6RG	148	GS1-300	1390
	GMDSLLC8-6M	1427	GP-076-0300B	1553	GR-20S-6S	151	GRI-20-8RG	148	GS203	755
	GMF2110QIVPKG164	248	GP-076-0300N	1553	GR-20S-8S	151	GRI-24-12RG	148	GS212-150	1390
	GMF2210QIVPKG164	248	GP-076-0368B	1553	GR-22L10L	151	GRI-24-16RG	148	GS2-150	1390
	GMF3110QIVPKG244	248	GP-076-0368N	1553	GR-22L12L	151	GRI-24-20RG	148	GS252	755
	GMF3210QIVPKG244	248	GP-090-0430B	1553	GR-22L15L	151	GRI-24-8RG	148	GS253	755

GS302	755	GSS 12 S	133	GT13/06	1142	GT23/16K	1141	GTB-12-10	261
GS3-150	1390	GSS 14 S	133	GT13/06K	1141	GT25	626	GTB-12-25	261
GS3-300	1390	GSS 15 L	133	GT13/06KNP	1141	GT26/06	1142	GTB-20-10	261
GS34-150	1390	GSS 16 S	133	GT13/08	1142	GT26/06K	1141	GTB-20-25	261
GS-40	648	GSS 18 L	133	GT13/08K	1141	GT26/08	1142	GTLC1	1475
GS4-150	1390	GSS 20 S	133	GT13/08KNP	1141	GT26/08K	1141	GTLC12	1475
GS-50	648	GSS 22 L	133	GT13/09	1142	GT26/09K	1141	GTLC34	1475
GSE-102	1434	GSS 25 S	133	GT13/09K	1141	GT26/09KNP	1141	GV10/6L	125
GSE-102-10	1434	GSS 28 L	133	GT13/09KNP	1141	GT26/10	1142	GV10/8L	125
GSE-152	1434	GSS 30 S	133	GT13/13	1142	GT26/13	1142	GV-10L	125
GSE-152-10	1434	GSS 35 L	133	GT13/13K	1141	GT26/13K	1141	GV10S	125
GSE-51	1434	GSS 38 S	133	GT13/13KNP	1141	GT26/13KNP	1141	GV12/10L	125
GSE-51-10	1434	GSS 42 L	133	GT13/16K	1141	GT26/16	1142	GV12/6L	125
GSE-63	1434	GSS 6 L	133	GT13/16KNP	1141	GT26/16K	1141	GV12/8L	125
GSE-63-10	1434	GSS 6 S	133	GT13/19K	1141	GT26/16KNP	1141	GV12-1	957
GSE-76	1434	GSS 8 L	133	GT16	626	GT26/19	1142	GV12-112	957
GSE-76-10	1434	GSS 8 S	133	GT17/05K	1141	GT26/19K	1141	GV12-114	957
GSFF112-150	1390	GSV10L	125	GT17/05KNP	1141	GT26/19KNP	1141	GV12-12	957
GSFF114-150	1390	GSV10S	125	GT17/06	1142	GT26/25	1142	GV12-2	957
GSFF1-150	1390	GSV12L	125	GT17/06K	1141	GT26/25K	1141	GV12-212	957
GSFF12-150	1390	GSV12S	125	GT17/06KNP	1141	GT26/25KNP	1141	GV12-3	957
GSFF1-300	1390	GSV14S	125	GT17/08	1142	GT26/31K	1141	GV12-34	957
GSFF16-1	1390	GSV15L	125	GT17/08K	1141	GT30	626	GV12-38	957
GSFF16-112	1390	GSV16S	125	GT17/08KNP	1141	GT33/13	1142	GV12-4	957
GSFF16-114	1390	GSV18L	125	GT17/09	1142	GT33/13K	1141	GV-12L	125
GSFF16-12	1390	GSV20S	125	GT17/09K	1141	GT33/13KNP	1141	GV12S	125
GSFF16-2	1390	GSV22L	125	GT17/09KNP	1141	GT33/16K	1141	GV14S	125
GSFF16-212	1390	GSV25S	125	GT17/13	1142	GT33/19	1142	GV15/10L	125
GSFF16-3	1390	GSV28L	125	GT17/13K	1141	GT33/19K	1141	GV15/12L	125
GSFF16-4	1390	GSV30S	125	GT17/13KNP	1141	GT33/19KNP	1141	GV157-1	957
GSFF212-150	1390	GSV35L	125	GT17/16	1142	GT33/25	1142	GV157-112	957
GSFF2-150	1390	GSV38S	125	GT17/16K	1141	GT33/25K	1141	GV157-114	957
GSFF2-300	1390	GSV42L	125	GT17/16KNP	1141	GT33/25KNP	1141	GV157-12	957
GSFF3-150	1390	GSV6L	125	GT17/19	1142	GT33/31K	1141	GV157-2	957
GSFF40-1	1390	GSV6S	125	GT17/19K	1141	GT33/31KNP	1141	GV157-212	957
GSFF40-112	1390	GSV8L	125	GT17/19KNP	1141	GT33/32	1142	GV157-3	957
GSFF40-2	1390	GSV8S	125	GT171BHH	700	GT33/38K	1141	GV157-34	957
GSFF40-4	1390	GT05/03	1142	GT172BHH	700	GT33/38KNP	1141	GV157-38	957
GSK10	1479	GT05/04	1142	GT172BHHS	700	GT38	1475	GV-15L	125
GSK13	1479	GT06/04	1142	GT173BHH	700	GT4	626	GV16/12S	125
GSK16	1479	GT10	626	GT173BHHS	700	GT42/19K	1141	GV16S	125
GSK19	1479	GT10/04	1142	GT20	626	GT42/25	1142	GV18/10L	125
GSK25	1479	GT10/04K	1141	GT21/05K	1141	GT42/25K	1141	GV18/12L	125
GSK32	1479	GT10/04KNP	1141	GT21/06	1142	GT42/25KNP	1141	GV18/15L	125
GSK38	1479	GT10/05	1142	GT21/06K	1141	GT42/31K	1141	GV-18L	125
GSL302	755	GT10/05K	1141	GT21/06KNP	1141	GT42/31KNP	1141	GV20/16S	125
GSP-1	1481	GT10/05KNP	1141	GT21/08	1142	GT42/32	1142	GV20S	125
GSP-112	1481	GT10/06	1142	GT21/08K	1141	GT42/38	1142	GV22/15L	125
GSP-114	1481	GT10/06K	1141	GT21/08KNP	1141	GT48/31K	1141	GV22/18L	125
GSP-2	1481	GT10/06KNP	1141	GT21/09	1142	GT48/38	1142	GV-22L	125
GSP-34	1481	GT10/08	1142	GT21/09K	1141	GT48/38K	1141	GV25/16S	125
GSPN16-1	1390	GT10/08K	1141	GT21/09KNP	1141	GT48/38KNP	1141	GV25/20S	125
GSPN16-112	1390	GT10/08KNP	1141	GT21/13	1142	GT48/50K	1141	GV25S	125
GSPN16-114	1390	GT10/09	1142	GT21/13K	1141	GT48/50KNP	1141	GV-28L	125
GSPN16-2	1390	GT10/09K	1141	GT21/13KNP	1141	GT52/38K	1141	GV30S	125
GSPN16-212	1390	GT10/09KNP	1141	GT21/16	1142	GT52/38KNP	1141	GV-35L	125
GSPN16-3	1390	GT10/13K	1141	GT21/16K	1141	GT52/50	1142	GV38S	125
GSPN16-34	1390	GT13	626	GT21/16KNP	1141	GT52/50K	1141	GV-42L	125
GSPN16-4	1390	GT13/04	1142	GT21/19	1142	GT52/50KNP	1141	GV4LL	125
GSPN40-2	1390	GT13/04K	1141	GT21/19K	1141	GT56/53K	1141	GV6/4LL	125
GSPN40-3	1390	GT13/04KNP	1141	GT21/19KNP	1141	GT58	1475	GV-6L	125
GSS 10 L	133	GT13/05	1142	GT21/25	1142	GT6	626	GV6LL	125
GSS 10 S	133	GT13/05K	1141	GT21/25K	1141	GT60/58K	1141	GV6S	125
GSS 12 L	133	GT13/05KNP	1141	GT21/25KNP	1141	GT8	626	GV8/6L	125



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	GV-8L	125	GVR-DKO-18L/15L	160	H 41 40	511	H2856-114	1059	H8540 6-V	874
	GV8LL	125	GVR-DKO-18L/16S	160	H 41 50	511	H2856-12	1059	H8540 8-V	874
	GV8S	125	GVR-DKO-20S/12S	160	H 60 63	511	H2856-2	1059	H8550 10-V	874
	GVBZ375LS-1	958	GVR-DKO-20S/14S	160	H0076	1710	H2856-212	1059	H8550 12-V	874
	GVBZ375LS-112	958	GVR-DKO-20S/16S	160	H0077	1710	H2856-34	1059	H8550 14-V	874
	GVBZ375LS-114	958	GVR-DKO-20S/18L	160	H0503	275	H3-62-BSPP	310	H8550 4-V	874
	GVBZ375LS-12	958	GVR-DKO-22L/12L	160	H0505	275	H3-63-BSPP	310	H8550 6-V	874
	GVBZ375LS-2	958	GVR-DKO-22L/15L	160	H0507	275	H3-65	310	H8550 8-V	874
	GVBZ375LS-34	958	GVR-DKO-22L/18L	160	H0509	275	H3-65M	310	H8580 10-V	874
	GV-DKOL-06	160	GVR-DKO-22L/20S	160	H10 1021-14	1005	H3-66	310	H8580 12-V	874
	GV-DKOL-08	160	GVR-DKO-25S/16S	160	H10 1021-38	1005	H3-66M	310	H8580 14-V	874
	GV-DKOL-10	160	GVR-DKO-25S/18L	160	H10 1070-12	1006	H4-62-BSPP	310	H8580 4-V	874
	GV-DKOL-12	160	GVR-DKO-25S/20S	160	H10 1070-14	1006	H4-63-BSPP	310	H8580 6-V	874
	GV-DKOL-15	160	GVR-DKO-25S/22L	160	H10 1070-34	1006	H4-65	310	H8580 8-V	874
	GV-DKOL-18	160	GVR-DKO-28L/15L	160	H10 1070-38	1006	H4-65M	310	H8-62-BSPP	310
	GV-DKOL-22	160	GVR-DKO-28L/18L	160	H10 1071-12	1006	H4-66	310	H8-63-BSPP	310
	GV-DKOL-28	160	GVR-DKO-28L/22L	160	H10 1071-14	1006	H4-66M	310	H8-65	310
	GV-DKOL-35	160	GVR-DKO-28L/25S	160	H10 1071-34	1006	H5502	275	H8-65M	310
	GV-DKOL-42	160	GVR-DKO-30S/16S	160	H10 1071-38	1006	H5504	275	H8-66	310
	GV-DKOS-06	160	GVR-DKO-30S/20S	160	H10 6400-1	1005	H5506	275	H8-66M	310
B	GV-DKOS-08	160	GVR-DKO-30S/25S	160	H10 6400-114	1005	H5510	275	H940070-1	1547
	GV-DKOS-10	160	GVR-DKO-30S/28L	160	H10 6400-12	1005	H5513	275	H940090-1	1547
	GV-DKOS-12	160	GVR-DKO-35L/18L	160	H10 6400-34	1005	H6-62-BSPP	310	H940130-1	1547
	GV-DKOS-14	160	GVR-DKO-35L/22L	160	H1001	275	H6-63-BSPP	310	H940155-1	1547
	GV-DKOS-16	160	GVR-DKO-35L/28L	160	H1002	275	H6-65	310	H940190-1	1547
	GV-DKOS-20	160	GVR-DKO-35L/30S	160	H1004	275	H6-65M	310	H940230-1	1547
	GV-DKOS-25	160	GVR-DKO-38S/20S	160	H1006	275	H6-66	310	H940260-1	1547
	GV-DKOS-30	160	GVR-DKO-38S/25S	160	H1008	275	H6-66M	310	H940285-1	1547
	GV-DKOS-38	160	GVR-DKO-38S/30S	160	H1010	275	H8512 10-1/2-V	874	H940310-1	1547
	GVOR	1477	GVR-DKO-38S/35L	160	H1012	275	H8512 10-1/4-V	874	HANDYFIT-4	823
	GVR-DKO-06L/06S	160	GVR-DKO-42L/22L	160	H1014	275	H8512 10-1/8-V	874	HANDYFIT-6	823
	GVR-DKO-08L/06L	160	GVR-DKO-42L/28L	160	H1501	275	H8512 10-3/8-V	874	HANDYFIT-6/8	823
	GVR-DKO-08L/06S	160	GVR-DKO-42L/35L	160	H1502	275	H8512 12-1/2-V	874	HANDYFIT-8	823
	GVR-DKO-08L/08S	160	GVR-DKO-42L/38S	160	H1504	275	H8512 12-1/4-V	874	HANG.P	1620
	GVR-DKO-08S/06S	160	GWH-1/4-10	1418	H1506	275	H8512 12-3/8-V	874	HBBVSS-1	242
	GVR-DKO-10L/06L	160	GWH-1/4-100B	1418	H1508	275	H8512 14-1/2-V	874	HBBVSS-12	242
	GVR-DKO-10L/08L	160	GWH-1/4-100R	1418	H1510	275	H8512 14-3/8-V	874	HBBVSS-12-LK	242
	GVR-DKO-10L/10S	160	GWH-1/4-15	1418	H1512	275	H8512 16-1/2-V	874	HBBVSS-14	242
	GVR-DKO-10S/06S	160	GWH-1/4-250	1418	H1514	275	H8512 16-3/8-V	874	HBBVSS-14-LK	242
	GVR-DKO-10S/08L	160	GWH-1/4-25B	1418	H1-62-BSPP	310	H8512 4-1/8-V	874	HBBVSS-1-LK	242
	GVR-DKO-10S/08S	160	GWH-1/4-25R	1418	H1-63-BSPP	310	H8512 6-1/4-V	874	HBBVSS-34	242
	GVR-DKO-12L/06L	160	GWH-1/4-50-TWIN	1418	H1-65	310	H8512 6-1/8-V	874	HBBVSS-34-LK	242
	GVR-DKO-12L/08L	160	GWH-3/8-10	1418	H1-65M	310	H8512 8-1/4-V	874	HBBVSS-38	242
	GVR-DKO-12L/10L	160	GWH-3/8-100B	1418	H1-66	310	H8512 8-1/8-V	874	HBBVSS-38-LK	242
	GVR-DKO-12L/10S	160	GWH-3/8-100R	1418	H1-66M	310	H8512 8-3/8-V	874	HBC-1	1184
	GVR-DKO-12L/12S	160	GWH-3/8-15	1418	H2501	275	H8522 10-1/2-V	874	HBC-112	1184
	GVR-DKO-12S/06S	160	GWH-3/8-250	1418	H2502	275	H8522 10-1/4-V	874	HBC-114	1184
	GVR-DKO-12S/08L	160	GWH-3/8-25B	1418	H2504	275	H8522 10-1/8-V	874	HBC-12	1184
	GVR-DKO-12S/08S	160	GWH-3/8-25R	1418	H2506	275	H8522 10-3/8-V	874	HBC-14	1184
	GVR-DKO-12S/10L	160	GWH-3/8-50-TWIN	1418	H2508	275	H8522 12-1/2-V	874	HBC-18	1184
	GVR-DKO-12S/10S	160	GWH-5/16-10	1418	H2510	275	H8522 12-1/4-V	874	HBC-2	1184
	GVR-DKO-15L/08L	160	GWH-5/16-100B	1418	H2512	275	H8522 12-3/8-V	874	HBC-212	1184
	GVR-DKO-15L/10L	160	GWH-5/16-100R	1418	H2514	275	H8522 14-1/2-V	874	HBC-3	1184
	GVR-DKO-15L/12L	160	GWH-5/16-15	1418	H2-62-BSPP	310	H8522 14-3/8-V	874	HBC-34	1184
	GVR-DKO-15L/12S	160	GWH-5/16-250	1418	H2-63-BSPP	310	H8522 4-1/8-V	874	HBC-38	1184
	GVR-DKO-15L/14S	160	GWH-5/16-25B	1418	H2-65	310	H8522 6-1/4 -V	874	HBC-4	1184
	GVR-DKO-16S/10L	160	GWH-5/16-25R	1418	H2-65M	310	H8522 6-1/8-V	874	HBN1-100	1380
	GVR-DKO-16S/10S	160	GWH-5/16-50-TWIN	1418	H2-66	310	H8522 8-1/4-V	874	HBN1-120	1380
	GVR-DKO-16S/12L	160	GY 32	510	H2-66M	310	H8522 8-1/8-V	874	HBN112-100	1380
	GVR-DKO-16S/12S	160	GY 40	510	H2852 110	1059	H8522 8-3/8-V	874	HBN112-120	1380
	GVR-DKO-16S/14S	160	GY 50 63	510	H2852 160	1059	H8540 10-V	874	HBN112-150	1380
	GVR-DKO-16S/15L	160	GY 80 100	510	H2852 200	1059	H8540 12-V	874	HBN112-180	1380
	GVR-DKO-18L/10L	160	H		H2856-1	1059	H8540 14-V	874	HBN112-200	1380
	GVR-DKO-18L/12L	160	H 41 32	511	H2856-112	1059	H8540 4-V	874	HBN112-300	1380

HBN112-80	1380	HBN34-80	1380	HCMINI-KIT-MS	1516	HDA 2006SD-112	994	HDA 2013KMD-3	996
HBN114-100	1380	HBN38-100	1380	HCMINI-KIT-SS	1516	HDA 2006SD-114	994	HDA 2013KMD-34	996
HBN114-120	1380	HBN38-120	1380	HCP143	1520	HDA 2006SD-12	994	HDA 2013KMD-34C	996
HBN114-150	1380	HBN38-150	1380	HCP143SS	1520	HDA 2006SD-14	994	HDA 2013KMD-3C	996
HBN114-200	1380	HBN38-180	1380	HCP143SS316	1520	HDA 2006SD-2	994	HDA 2013ND-1	995
HBN114-250	1380	HBN38-200	1380	HCS12	1513	HDA 2006SD-34	994	HDA 2013ND-112	995
HBN114-300	1380	HBN38-40	1380	HCS16	1513	HDA 2006SD-38	994	HDA 2013ND-114	995
HBN114-80	1380	HBN38-50	1380	HCS20	1513	HDA 2011KMD-1	996	HDA 2013ND-12	995
HBN1-150	1380	HBN38-60	1380	HCS25	1513	HDA 2011KMD-112	996	HDA 2013ND-14	995
HBN1-180	1380	HBN38-70	1380	HCS32	1513	HDA 2011KMD-114	996	HDA 2013ND-2	995
HBN1-200	1380	HBN38-80	1380	HCS40	1513	HDA 2011KMD-12	996	HDA 2013ND-212	995
HBN12-100	1380	HBN4-100	1380	HCS50	1513	HDA 2011KMD-2	996	HDA 2013ND-3	995
HBN12-120	1380	HBN4-200	1380	HCS60	1513	HDA 2011KMD-34	996	HDA 2013ND-34	995
HBN12-150	1380	HBN4-300	1380	HCS70	1513	HDA 2011ND-1	995	HDA 2013ND-38	995
HBN12-180	1380	HBVC04	245	HCVSS-1	242	HDA 2011ND-112	995	HDA 2013ND-4	995
HBN12-200	1380	HBVC06	245	HCVSS-1/2	242	HDA 2011ND-114	995	HDA 2014LA 08	1003
HBN12-250	1380	HBVC08	245	HCVSS-3/4	242	HDA 2011ND-12	995	HDA 2014LA 09	1003
HBN12-30	1380	HBVC12	245	HCVSS-3/8	242	HDA 2011ND-2	995	HDA 2014LA 10	1003
HBN12-300	1380	HBVF04	245	HD.000	1480	HDA 2011ND-212	995	HDA 2014LA 11	1003
HBN12-40	1380	HBVF06	245	HD.001	1480	HDA 2011ND-3	995	HDA 2014LA 12	1003
HBN12-50	1380	HBVF08	245	HD.002	1480	HDA 2011ND-34	995	HDA 2014LA 13	1003
HBN12-60	1380	HBVF12	245	HD.003	1480	HDA 2011ND-4	995	HDA 2014LA 14	1003
HBN12-80	1380	HBVF16	245	HD.004	1480	HDA 2012CD-1	998	HDA 2014LA 16	1003
HBN1-300	1380	HBVMF04	245	HD.005	1480	HDA 2012CD-112	998	HDA 2014LA 18	1003
HBN14-100	1380	HBVMF06	245	HD.006	1480	HDA 2012CD-12	998	HDA 2014LA 20	1003
HBN14-120	1380	HBVMF08	245	HD.007	1480	HDA 2012CD-2	998	HDA 2014LB 08	1003
HBN14-150	1380	HBVMF12	245	HD.1	1480	HDA 2012CD-212	998	HDA 2014LB 09	1003
HBN14-180	1380	HBVMF16	245	HD.2	1480	HDA 2012CD-3	998	HDA 2014LB 10	1003
HBN14-200	1380	HBVSS-1	242	HD.3	1480	HDA 2012CD-34	998	HDA 2014LB 11	1003
HBN14-250	1380	HBVSS-12	242	HD.5	1480	HDA 2012CD-4	998	HDA 2014LB 12	1003
HBN14-300	1380	HBVSS-14	242	HD.6	1480	HDA 2012KMD-1	996	HDA 2014LB 13	1003
HBN14-40	1380	HBVSS-34	242	HD.7	1480	HDA 2012KMD-112	996	HDA 2014LB 14	1003
HBN14-60	1380	HBVSS-38	242	HD.9	1480	HDA 2012KMD-12	996	HDA 2014LB 16	1003
HBN14-80	1380	HC0100A-00-17	227	HDA 1021-14	993	HDA 2012KMD-2	996	HDA 2014LB 18	1003
HBN1-50	1380	HC0200A-00-17	227	HDA 1021-38	993	HDA 2012KMD-34	996	HDA 2014LB 20	1003
HBN1-60	1380	HC0400A-00-17	227	HDA 1070-1	994	HDA 2012ND-1	995	HDA 2014WA 08	1002
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HDA 2040-114	997	HDA 6400-2	993	HDSHS-6063	1515	HFL345-16-20CF	24	HFSSFC7312-V	290
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HDA 2040-14	997	HDAWH12	1422	HDSHS-6873	1515	HFL345-20-24CF	24	HFSSFC7334-V	290
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HDA 2040-212	997	HDOP-100	280	HDSHS-8085	1515	HFL345-24-32CF	24	HFSSFP7310-V	290
HDA 2040-34	997	HDPVC1	1405	HDSHS-8691	1515	HFL345-32-32CF	24	HFSSFP7312-V	290
HDA 2040-38	997	HDPVC112	1405	HDSHS-9297	1515	HFL390-08-08CF	24	HFSSFP7314-V	290
HDA 2041-1	997	HDPVC114	1405	HDSHS-98103	1515	HFL390-08-12CF	24	HFSSFP7334-V	290
HDA 2041-112	997	HDPVC12	1405	HELD	1625	HFL390-12-12CF	24	HFSSFP7338-V	290
HDA 2041-114	997	HDPVC12B	1405	HELD.500	1625	HFL390-12-16CF	24	HG100-002B	267
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HG100-100B	267	HKP02SS-V	291	HKPA32CS-V	290	HKSA12SS-NPT	290	HMFL08-45-M26CF	20
HG100-100G	267	HKP04B	291	HKPFF04CS	292	HKSA16CS	290	HMFL0890-M22CF	20
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HHP-02	229	HKPA06CS-NPT	290	HKS12SS-NPT	291	HMFL04-45-M12CF	20	HMFS05-M18CF	21
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HMFS1290-M30CF	21	HN-18	1183	HOSE97/10MM/10M	1409	HPS25	1632	HSA 1071-38	994
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HMFS20-M52CF	21	HN50-5050-UPVC	1107	HPSUC17	1634	HR5-320B	1454	HSA 150HIT 16	1000
HMFS24-45-M52CF	21	HN50-6060-UPVC	1107	HPSUC2	1634	HR8-315B	1454	HSA 2006SD-1	994
HMFS2490-M52CF	21	HN63-112-UPVC	1111	HP/SUC6	1634	HRCT12	1144	HSA 2006SD-112	994
HMFS24-M52CF	21	HN63-114-UPVC	1111	HP/SB4/6	1748	HRO15.12C	1460	HSA 2006SD-114	994
HMML03-M12CF	20	HN63-12-UPVC	1111	HP-1	1184	HRO8.25	1460	HSA 2006SD-12	994
HMML04-M12CF	20	HN63-1-UPVC	1111	HP100MS	1519	HS-1	1185	HSA 2006SD-14	994
HMML04-M14CF	20	HN63-2-UPVC	1111	HP100SS	1519	HS-112	1185	HSA 2006SD-2	994
HMML04-M16CF	20	HN63-34-UPVC	1111	HP-112	1184	HS-114	1185	HSA 2006SD-34	994
HMML04-M18CF	20	HN64-11230-UPVC	1111	HP-114	1184	HS-12	1185	HSA 2006SD-38	994
HMML05-M14CF	20	HN64-11425-UPVC	1111	HP-12	1184	HS-14	1185	HSA 2011KMD-1	996
HMML05-M16CF	20	HN64-120-UPVC	1111	HP-14	1184	HS-18	1185	HSA 2011KMD-112	996
HMML05-M18CF	20	HN64-21450-UPVC	1111	HP-18	1184	HS-2	1185	HSA 2011KMD-114	996
HMML05-M22CF	20	HN64-23460-UPVC	1111	HP-2	1184	HS-212	1185	HSA 2011KMD-12	996
HMML06-M16CF	20	HN64-240-UPVC	1111	HP-212	1184	HS2T-10-N-50	45	HSA 2011KMD-2	996
HMML06-M18CF	20	HN64-3416-UPVC	1111	HP-3	1184	HS2T-10-R-50	45	HSA 2011KMD-34	996
HMML06-M22CF	20	HNRV-1	243	HP-34	1184	HS2T-13-N-50	45	HSA 2011ND-1	995
HMML08-M18CF	20	HNRV-12	243	HP-38	1184	HS2T-13-R-50	45	HSA 2011ND-112	995
HMML08-M22CF	20	HNRV-14	243	HPA1619100	250	HS2T-16-N-50	45	HSA 2011ND-114	995
HMML08-M26CF	20	HNRV-34	243	HPA1719100	250	HS2T-16-R-50	45	HSA 2011ND-12	995
HMML10-M22CF	20	HNRV-38	243	HPA1819100	250	HS2T-19-N-50	45	HSA 2011ND-2	995
HMML10-M26CF	20	HOA200	1459	HPBVLD-1	242	HS2T-19-R-50	45	HSA 2011ND-212	995
HMML10-M30CF	20	HOP200	1459	HPBVLD-2	242	HS2T-25-N-30	45	HSA 2011ND-3	995
HMML12-M26CF	20	HOSE17/06MM/10M	1409	HPBVLD-3	242	HS2T-25-R-30	45	HSA 2011ND-34	995
HMML12-M30CF	20	HOSE17/06MM/3M	1409	HGPO	1634	HS2T-38-N-30	45	HSA 2011ND-38	995
HMML16-M36CF	20	HOSE17/06MM/5M	1409	HPLFH1-10	1425	HS2T-38-R-30	45	HSA 2011ND-4	995
HMML20-M45CF	20	HOSE17/10MM/10M	1409	HPLFH1-100	1425	HS2T-51-N-30	45	HSA 2012CD-1	998
HMML24-M45CF	20	HOSE17/10MM/3M	1409	HPLFH112-10	1425	HS2T-51-R-30	45	HSA 2012CD-112	998
HMML24-M52CF	20	HOSE17/10MM/5M	1409	HPLFH112-100	1425	HS2T-6-N-50	45	HSA 2012CD-12	998
HMMS03-M16CF	21	HOSE17/12MM/10M	1409	HPLFH114-10	1425	HS2T-6-R-50	45	HSA 2012CD-2	998
HMMS04-M14CF	21	HOSE17/12MM/3M	1409	HPLFH114-100	1425	HS2T-8-N-50	45	HSA 2012CD-212	998
HMMS04-M16CF	21	HOSE17/12MM/5M	1409	HPLFH2-10	1425	HS2T-8-R-50	45	HSA 2012CD-3	998
HMMS04-M18CF	21	HOSE19/06MM/10M	1409	HPLFH2-100	1425	HS-3	1185	HSA 2012CD-34	998
HMMS05-M18CF	21	HOSE19/06MM/3M	1409	HPLFH212-10	1425	HS-34	1185	HSA 2012CD-4	998
HMMS05-M20CF	21	HOSE19/06MM/5M	1409	HPLFH212-100	1425	HS-38	1185	HSA 2012KMD-1	996
HMMS06-M18CF	21	HOSE19/10MM/10M	1409	HPLFH3-10	1425	HS-4	1185	HSA 2012KMD-112	996
HMMS06-M20CF	21	HOSE19/10MM/3M	1409	HPLFH3-100	1425	HSA 1021-14	993	HSA 2012KMD-12	996
HMMS06-M22CF	21	HOSE19/10MM/5M	1409	HPLFH4-10	1425	HSA 1021-38	993	HSA 2012KMD-2	996
HMMS06-M24CF	21	HOSE19/12MM/10M	1409	HPLFH4-100	1425	HSA 1070-1	994	HSA 2012KMD-34	996
HMMS08-M24CF	21	HOSE19/12MM/3M	1409	HPLP	1637	HSA 1070-112	994	HSA 2012ND-1	995
HMMS10-M30CF	21	HOSE19/12MM/5M	1409	HPPFF00608CS	293	HSA 1070-114	994	HSA 2012ND-112	995
HMMS12-M30CF	21	HOSE25/06MM/10M	1409	HPPFF01212CS	293	HSA 1070-12	994	HSA 2012ND-114	995
HMMS12-M36CF	21	HOSE25/06MM/3M	1409	HPPFF04CS	293	HSA 1070-14	994	HSA 2012ND-12	995
HMMS16-M36CF	21	HOSE25/06MM/5M	1409	HPPFF06CS	293	HSA 1070-2	994	HSA 2012ND-2	995
HMMS16-M42CF	21	HOSE25/10MM/10M	1409	HPPFF08CS	293	HSA 1070-34	994	HSA 2012ND-212	995
HMMS20-M42CF	21	HOSE25/10MM/3M	1409	HPPFF12CS	293	HSA 1070-38	994	HSA 2012ND-3	995
HMMS20-M52CF	21	HOSE25/10MM/5M	1409	HPPFF1616CS	293	HSA 1071-1	994	HSA 2012ND-34	995
HMMS24-M52CF	21	HOSE25/12MM/10M	1409	HPPFF16CS	293	HSA 1071-112	994	HSA 2012ND-4	995
HN-1	1183	HOSE25/12MM/3M	1409	HPPFF2016CS	293	HSA 1071-114	994	HSA 2013CD-1	998
HN-112	1183	HOSE25/12MM/5M	1409	HPR1619	250	HSA 1071-12	994	HSA 2013CD-112	998
HN-114	1183	HOSE97/06MM/10M	1409	HPR1719	250	HSA 1071-14	994	HSA 2013CD-12	998

HSA 2013CD-2	998	HSA 2014WB 10	1002	HSA 2040-14	997	HSBVCE-1	952	HSSP08-45-14CF	21
HSA 2013CD-212	998	HSA 2014WB 11	1002	HSA 2040-2	997	HSBVCE-2	952	HSSP08-45-16CF	21
HSA 2013CD-3	998	HSA 2014WB 12	1002	HSA 2040-212	997	HSBVWE-112	952	HSSP08-90-16CF	21
HSA 2013CD-34	998	HSA 2014WB 13	1002	HSA 2040-34	997	HSBVWE-12	952	HSSP10-18CF	20
HSA 2013CD-4	998	HSA 2014WB 14	1002	HSA 2040-38	997	HSBVWE-2	952	HSSP10-20CF	21
HSA 2013KMD-1	996	HSA 2014WB 16	1002	HSA 2041-1	997	HS-G1/2	34	HSSP10-22CF	20
HSA 2013KMD-112	996	HSA 2014WB 18	1002	HSA 2041-112	997	HS-G1/4	34	HSSP10-45-16CF	21
HSA 2013KMD-112C	996	HSA 2014WB 20	1002	HSA 2041-114	997	HS-G1/8	34	HSSP10-45-20CF	21
HSA 2013KMD-114	996	HSA 2014WC 09	1002	HSA 2041-12	997	HS-G3/4	34	HSSP10-90-20CF	21
HSA 2013KMD-114C	996	HSA 2014WC 10	1002	HSA 2041-14	997	HS-G3/8	34	HSSP12-20CF	21
HSA 2013KMD-12	996	HSA 2014WC 11	1002	HSA 2041-2	997	HS-M10X1	34	HSSP12-22CF	20
HSA 2013KMD-12C	996	HSA 2014WC 12	1002	HSA 2041-212	997	HS-M12X1.5	34	HSSP12-25CF	21
HSA 2013KMD-1C	996	HSA 2014WC 13	1002	HSA 2041-34	997	HS-M14X1.5	34	HSSP12-45-20CF	21
HSA 2013KMD-2	996	HSA 2014WC 14	1002	HSA 2041-38	997	HS-M16X1.5	34	HSSP12-45-25CF	21
HSA 2013KMD-212	996	HSA 2014WC 16	1002	HSA 2057CBL1	998	HS-M18X1.5	34	HSSP12-90-20CF	21
HSA 2013KMD-212C	996	HSA 2014WC 18	1002	HSA 2057CBL-112	998	HS-M22X1.5	34	HSSP12-90-25CF	21
HSA 2013KMD-2C	996	HSA 2014WC 20	1002	HSA 2057CBL-12	998	HS-M26X1.5	34	HSSP16-25CF	21
HSA 2013KMD-3	996	HSA 2014WVD 09	1002	HSA 2057CBL2	998	HSP04-45-06CF	20	HSSP16-28CF	20
HSA 2013KMD-34	996	HSA 2014WVD 10	1002	HSA 2057CBL-212	998	HSP04-90-06CF	20	HSSP16-30CF	21
HSA 2013KMD-34C	996	HSA 2014WVD 11	1002	HSA 2057CBL3	998	HSP04-90-08CF	20	HSSP16-45-25CF	21
HSA 2013KMD-3C	996	HSA 2014WVD 12	1002	HSA 2057CBL4	998	HSP05-45-08CF	20	HSSP16-45-30CF	21
HSA 2013ND-1	995	HSA 2014WVD 13	1002	HSA 2057CBT-1	998	HSP05-45-10CF	20	HSSP16-45-38CF	21
HSA 2013ND-112	995	HSA 2014WVD 14	1002	HSA 2057CBT-112	998	HSP06-45-08CF	20	HSSP16-90-25CF	21
HSA 2013ND-114	995	HSA 2014WVD 16	1002	HSA 2057CBT-12	998	HSP06-45-10CF	20	HSSP16-90-30CF	21
HSA 2013ND-12	995	HSA 2014WVD 18	1002	HSA 2057CBT-2	998	HSP06-45-12CF	20	HSSP20-35CF	20
HSA 2013ND-14	995	HSA 2014WVD 20	1002	HSA 2057CBT-212	998	HSP06-45-15CF	20	HSSP20-38CF	21
HSA 2013ND-2	995	HSA 2014WVP 09	1003	HSA 2057CBT-3	998	HSP06-90-10CF	20	HSSP20-45-30CF	21
HSA 2013ND-212	995	HSA 2014WVP 10	1003	HSA 2057CBT-4	998	HSP06-90-12CF	20	HSSP20-45-38CF	21
HSA 2013ND-3	995	HSA 2014WVP 11	1003	HSA 2059DL150 04	1001	HSP08-45-15CF	20	HSSP24-42CF	20
HSA 2013ND-34	995	HSA 2014WVP 12	1003	HSA 2059DL150 06	1001	HSP08-45-18CF	20	HST1.1/2X16G-3M	182
HSA 2013ND-38	995	HSA 2014WVP 13	1003	HSA 2059DL150 08	1001	HSP08-90-15CF	20	HST1.1/2X16G-6M	182
HSA 2013ND-4	995	HSA 2014WVP 14	1003	HSA 2059DL150 09	1001	HSP08-90-18CF	20	HST1.1/4X16G-3M	182
HSA 2014LA 08	1003	HSA 2014WVP 16	1003	HSA 2059DL150 11	1001	HSP10-45-18CF	20	HST1.1/4X16G-6M	182
HSA 2014LA 09	1003	HSA 2014WVP 18	1003	HSA 2059DL150 12	1001	HSP10-45-22CF	20	HST1/2X16G-3M	182
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HSA 2014LA 11	1003	HSA 2019D 04	999	HSA 2059DL16 04	1001	HSP12-45-22CF	20	HST1/4X16G-3M	182
HSA 2014LA 12	1003	HSA 2019D 05	999	HSA 2059DL16 06	1001	HSP12-90-22CF	20	HST1/4X16G-6M	182
HSA 2014LA 13	1003	HSA 2019D 06	999	HSA 2059DL16 08	1001	HSP16-45-28CF	20	HST10X1.0-C6F	181
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HSA 2014LB 08	1003	HSA 2019D 11	999	HSA 2059DL16 14	1001	HSRS-30	199	HST10X2.0-C6F-6M	181
HSA 2014LB 09	1003	HSA 2019D 12	999	HSA 2059DT150 04	1001	HSRS-35	199	HST12X1.0-C6F	181
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HSA 2014LB 11	1003	HSA 2019D 14	999	HSA 2059DT150 08	1001	HSRS-42	199	HST12X1.5-C6F	181
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HSA 2014LB 13	1003	HSA 2019D4 10	999	HSA 2059DT150 11	1001	HSSP04-08CF	20	HST12X2.0-C6F	181
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HSA 2014LB 16	1003	HSA 2019D4 12	999	HSA 2059DT150 14	1001	HSSP04-45-08CF	21	HST12X2.5	180
HSA 2014LB 18	1003	HSA 2020D 04	1000	HSA 2059DT16 04	1001	HSSP04-45-10CF	21	HST12X2.5-6M	180
HSA 2014LB 20	1003	HSA 2020D 05	1000	HSA 2059DT16 06	1001	HSSP04-45-12CF	21	HST14X1.5	180
HSA 2014WA 08	1002	HSA 2020D 06	1000	HSA 2059DT16 08	1001	HSSP04-90-08CF	21	HST14X1.5-6M	180
HSA 2014WA 09	1002	HSA 2020D 07	1000	HSA 2059DT16 09	1001	HSSP04-90-10CF	21	HST14X1.5-C6F	181
HSA 2014WA 10	1002	HSA 2020D 08	1000	HSA 2059DT16 10	1001	HSSP05-45-12CF	21	HST14X1.5-C6F-6M	181
HSA 2014WA 11	1002	HSA 2020D 09	1000	HSA 2059DT16 11	1001	HSSP06-10CF	20	HST14X2.0	180
HSA 2014WA 12	1002	HSA 2020D 10	1000	HSA 2059DT16 12	1001	HSSP06-12CF	20	HST14X2.0-6M	180
HSA 2014WA 13	1002	HSA 2020D 11	1000	HSA 2059DT16 14	1001	HSSP06-14CF	21	HST14X2.0-C6F	181
HSA 2014WA 14	1002	HSA 2020D 12	1000	HSA 6400-1	993	HSSP06-15CF	20	HST14X2.0-C6F-6M	181
HSA 2014WA 16	1002	HSA 2020D 14	1000	HSA 6400-112	993	HSSP06-45-14CF	21	HST15X1.5-C6F	181
HSA 2014WA 18	1002	HSA 2040-1	997	HSA 6400-114	993	HSSP06-90-14CF	21	HST15X1.5-C6F-6M	181
HSA 2014WA 20	1002	HSA 2040-112	997	HSA 6400-12	993	HSSP08-15CF	20	HST15X2.0-C6F	181
HSA 2014WB 08	1002	HSA 2040-114	997	HSA 6400-2	993	HSSP08-16CF	21	HST15X2.0-C6F-6M	181
HSA 2014WB 09	1002	HSA 2040-12	997	HSA 6400-34	993	HSSP08-18CF	20	HST16X1.5-C6F	181

	HST16X1.5-C6F-6M	181	HST25X4.0-C6F-6M	181	HST4X1.0-C6F-6M	181	HT180SS316	1518	HTD-160	1015
	HST16X2.0-C6F	181	HST28X1.5	180	HST5/8X16G-3M	182	HT-2	1181	HTD-190	1015
	HST16X2.0-C6F-6M	181	HST28X1.5-6M	180	HST5/8X16G-6M	182	HT200	1533	HTD-210	1015
	HST16X2.5	180	HST28X1.5-C6F	181	HST50X3.0-C6F	181	HT200SS316	1518	HTD-240	1015
	HST16X2.5-6M	180	HST28X1.5-C6F-6M	181	HST50X3.0-C6F-6M	181	HT-212	1181	HTD534	1761
	HST16X2.5-C6F	181	HST28X2.0-C6F	181	HST50X5.0-C6F	181	HT220	1533	HTS-040-2	1015
	HST16X2.5-C6F-6M	181	HST28X2.0-C6F-6M	181	HST50X5.0-C6F-6M	181	HT220SS316	1518	HTS-052-12	1015
	HST16X3.0-C6F	181	HST28X2.5	180	HST50X6.0-C6F	181	HT24	1761	HTS-063-12	1015
	HST16X3.0-C6F-6M	181	HST28X2.5-6M	180	HST50X6.0-C6F-6M	181	HT240	1533	HTS-075-12	1015
	HST18X1.5-C6F	181	HST28X2.5-C6F	181	HST6X1.0	180	HT240SS316	1518	HTS-083-12	1015
	HST18X1.5-C6F-6M	181	HST28X2.5-C6F-6M	181	HST6X1.0-6M	180	HT260	1533	HTS-092-12	1015
	HST18X2.0	180	HST28X3.0	180	HST6X1.0-C6F	181	HT260SS316	1518	HTS-105-12	1015
	HST18X2.0-6M	180	HST28X3.0-6M	180	HST6X1.0-C6F-6M	181	HT27	1533	HTS-125-12	1015
	HST18X2.0-C6F	181	HST28X3.0-C6F	181	HST6X1.5	180	HT280	1533	HTS-140-12	1015
	HST18X2.0-C6F-6M	181	HST28X3.0-C6F-6M	181	HST6X1.5-6M	180	HT280SS316	1518	HTS-160-12	1015
	HST18X2.5	180	HST3/4X16G-3M	182	HST6X1.5-C6F	181	HT-3	1181	HTS-190-12	1015
	HST18X2.5-6M	180	HST3/4X16G-6M	182	HST6X1.5-C6F-6M	181	HT30	1533	HTS-210-12	1015
	HST18X2.5-C6F	181	HST3/8X16G-3M	182	HST6X2.0	180	HT300SS316	1518	HTS-240-12	1015
	HST18X2.5-C6F-6M	181	HST3/8X16G-6M	182	HST6X2.0-6M	180	HT320	1533	HU-1	1184
	HST1X16G-3M	182	HST30X2.5	180	HST6X2.0-C6F	181	HT320SS316	1518	HU-112	1184
	HST1X16G-6M	182	HST30X2.5-6M	180	HST6X2.0-C6F-6M	181	HT-34	1181	HU-114	1184
	HST20X2.0-C6F	181	HST30X2.5-C6F	181	HST8X1.0-C6F	181	HT340	1533	HU-12	1184
	HST20X2.0-C6F-6M	181	HST30X2.5-C6F-6M	181	HST8X1.0-C6F-6M	181	HT340SS316	1518	HU-14	1184
	HST20X2.5	180	HST30X3.0-C6F	181	HST8X1.5-C6F	181	HT-34-13	1181	HU-18	1184
	HST20X2.5-6M	180	HST30X3.0-C6F-6M	181	HST8X1.5-C6F-6M	181	HT35	1533	HU-2	1184
	HST20X2.5-C6F	181	HST30X4.0	180	HST8X2.0	180	HT360	1533	HU-212	1184
	HST20X2.5-C6F-6M	181	HST30X4.0-6M	180	HST8X2.0-6M	180	HT360SS316	1518	HU-3	1184
	HST20X3.0	180	HST30X4.0-C6F	181	HST8X2.0-C6F	181	HT-38	1181	HU-34	1184
	HST20X3.0-6M	180	HST30X4.0-C6F-6M	181	HST8X2.0-C6F-6M	181	HT380	1533	HU-38	1184
	HST20X3.0-C6F	181	HST35X2.0	180	HT035SS316	1518	HT-38-08	1181	HU-4	1184
	HST20X3.0-C6F-6M	181	HST35X2.0-6M	180	HT040SS316	1518	HT380SS316	1518	HUK5153W 09	965
	HST20X3.5	180	HST35X2.0-C6F	181	HT045SS316	1518	HT-38-13	1181	HUK5153W 10	965
	HST20X3.5-6M	180	HST35X2.0-C6F-6M	181	HT050SS316	1518	HT-4	1181	HUK5153W 11	965
	HST20X3.5-C6F	181	HST35X2.5	180	HT055SS316	1518	HT40	1533	HUK5153W 12	965
	HST20X3.5-C6F-6M	181	HST35X2.5-6M	180	HT060SS316	1518	HT400	1533	HUK5153W 14	965
	HST20X4.0-C6F	181	HST35X2.5-C6F	181	HT065SS316	1518	HT400SS316	1518	HUK5153W 16	965
	HST20X4.0-C6F-6M	181	HST35X2.5-C6F-6M	181	HT070SS316	1518	HT420	1533	HUK5153W 18	965
	HST22X1.5	180	HST35X3.0	180	HT080SS316	1518	HT420SS316	1518	HUK5153W 20	965
	HST22X1.5-6M	180	HST35X3.0-6M	180	HT095SS316	1518	HT440	1533	HUK5163 09	957
	HST22X1.5-C6F	181	HST35X3.0-C6F	181	HT-1	1181	HT440SS316	1518	HUK5163 10	957
	HST22X1.5-C6F-6M	181	HST35X3.0-C6F-6M	181	HT100	1533	HT45	1533	HUK5163 11	957
	HST22X2.0	180	HST35X5.0	180	HT100SS316	1518	HT460	1533	HUK5163 12	957
	HST22X2.0-6M	180	HST35X5.0-6M	180	HT-112	1181	HT460SS316	1518	HUK5163 14	957
	HST22X2.0-C6F	181	HST35X5.0-C6F	181	HT-114	1181	HT480	1533	HUK5163 16	957
	HST22X2.0-C6F-6M	181	HST35X5.0-C6F-6M	181	HT-1-19	1181	HT480SS316	1518	HUK5163 18	957
	HST22X2.5-C6F	181	HST38X3.0	180	HT-12	1181	HT50	1533	HUK5163 20	957
	HST22X2.5-C6F-6M	181	HST38X3.0-6M	180	HT120	1533	HT500	1533	HUK5163CT 12	957
	HST25X1.5	180	HST38X3.0-C6F	181	HT-12-06	1181	HT500SS316	1518	HUK5163CT 14	957
	HST25X1.5-6M	180	HST38X3.0-C6F-6M	181	HT120SS316	1518	HT520SS316	1518	HUKDCV-1	960
	HST25X1.5-C6F	181	HST38X4.0-C6F	181	HT-12-10	1181	HT60	1533	HUKDCV-112	960
	HST25X1.5-C6F-6M	181	HST38X4.0-C6F-6M	181	HT-12-16	1181	HT65	1533	HUKDCV-114	960
	HST25X2.0	180	HST38X5.0	180	HT-12-19	1181	HT70	1533	HUKDCV-12	960
	HST25X2.0-6M	180	HST38X5.0-6M	180	HT-12-25	1181	HT80	1533	HUKDCV-2	960
	HST25X2.0-C6F	181	HST42X3.0	180	HT-1-31	1181	HT90	1533	HUKDCV-34	960
	HST25X2.0-C6F-6M	181	HST42X3.0-6M	180	HT-14	1181	HT95	1533	HUKDPC 09W	965
	HST25X2.5	180	HST42X3.0-C6F	181	HT140	1533	HTD-032	1015	HUKDPC 10W	965
	HST25X2.5-6M	180	HST42X3.0-C6F-6M	181	HT-14-08	1181	HTD-052	1015	HUKDPC 11W	965
	HST25X2.5-C6F	181	HST42X4.0	180	HT140SS316	1518	HTD-063	1015	HUKDPC 12W	965
	HST25X2.5-C6F-6M	181	HST42X4.0-6M	180	HT-14-10	1181	HTD-075	1015	HUKDPC 13W	965
	HST25X3.0	180	HST42X4.0-C6F	181	HT-14-13	1181	HTD-083	1015	HUKDPC 14W	965
	HST25X3.0-6M	180	HST42X4.0-C6F-6M	181	HT160	1533	HTD-092	1015	HUKDPC 16W	965
	HST25X3.0-C6F	181	HST4X1.0	180	HT160SS316	1518	HTD-105	1015	HUKDPC 18W	965
	HST25X3.0-C6F-6M	181	HST4X1.0-6M	180	HT180	1533	HTD-125	1015	HUKDPC 20W	965
	HST25X4.0-C6F	181	HST4X1.0-C6F	181	HT-18-06	1181	HTD-140	1015	HUKNAM110VAC	1020

HUKNAM230VAC	1020		IF1VE1/A-M8	437	IPPCLIP-114	1113	IT068-14	940	
HUKNAM24VAC	1020	I 12/16	511	IF2V3/A-M6	438	IPPCLIP-12	1113	IT068-34	940
HUKNAM24VDC	1020	I 20/25	511	IF2V3/A-M7	438	IPPCLIP-2	1113	IT068-38	940
HUKSBOX	1022	IBCA2NPS	1491	IF2V3/A-M8	438	IPPCLIP-212	1113	IT069-1	940
HUKTP-12	978	IBCAS10083	1491	IF2VE3/A-M6	437	IPPCLIP-3	1113	IT069-12	940
HUKTP-14B	978	IBCAS6061	1491	IF2VE3/A-M8	437	IPPCLIP-34	1113	IT069-14	940
HUKTP-14R	978	IBCAS606112	1491	IF3V6/A-M6	438	IPPCLIP-4	1113	IT069-34	940
HUKYS 09W	974	IBCAS6062	1491	IF3V6/A-M7	438	IPPCLIP-5	1113	IT069-38	940
HUKYS 10W	974	IBCC21	1491	IF3V6/A-M8	438	IPPSB-1	1113	IT070-1	940
HUKYS 11W	974	IBCC2112	1491	IF3VE6/A-M6	437	IPPSB-2	1113	IT070-112	940
HUKYS 12W	974	IBCC2114	1491	IF3VE6/A-M7	437	IPSS4	1761	IT070-114	940
HUKYS 13W	974	IBCC22	1491	IF3VE6/A-M8	437	IS-A0/A1	192	IT070-12	940
HUKYS 14W	974	IBCC33	1491	IF4V16/A-M6	438	IS-A2	192	IT070-2	940
HUKYS 16W	974	IBCD112112BSP	1491	IF4V16/A-M7	438	IS-A3	192	IT070-34	940
HUKYS 18W	974	IBCD22BSP	1491	IF4V16/A-M8	438	IS-A4	192	IT071-1	940
HUKYS 20W	974	IBCDC112	1491	IF4VE16/A-M6	437	IS-A5	192	IT071-112	940
HV29BKR	1752	IBCDC2	1491	IF4VE16/A-M7	437	IS-A6	192	IT071-114	940
HVFF06-06	773	IBCDC3	1491	IF4VE16/A-M8	437	IS-B1	194	IT071-12	940
HVFF08-06	773	IBCDP112	1491	IF5V60/A-M6	438	IS-B2	194	IT071-2	940
HVFF08-08	773	IBCDP2	1491	IF5V60/A-M7	438	IS-B3	194	IT071-34	940
HVFF10-10	773	IBCD6062	1491	IF5V60/A-M8	438	IS-B5	194	IT072-1	940
HVFF12-10	773	IBCHAS10083	1491	IF5VE60/A-M6	437	IS-C1	197	IT072-12	940
HVFF12-12	773	IBCHAS606112BSP	1491	IF5VE60/A-M7	437	IS-C2	197	IT072-34	940
HVFS6-01	773	IBCHAS6061BSP	1491	IF5VE60/A-M8	437	IS-C3	197	IT073-1	940
HVFS6-02	773	IBCHAS6062BSP	1491	IFE0.5R2.5	437	IS-C4	197	IT073-12	940
HVFS6-03	773	IBCHAS6062BSPCWS	1491	IFE1R3	437	IS-C5	197	IT073-34	940
HVFS6-08	773	IBCHAS6062NPS	1491	IFE2R9	437	ISCT-12	1215	IT090-1	929
HVFS8-01	773	IBCHAS606NPSM2	1491	IFE3R18	437	ISCT-14	1215	IT090-112	929
HVFS8-02	773	IBCHAS606S1008	1491	IFE4R24	437	ISCT-38	1215	IT090-114	929
HVFS8-03	773	IBCHAS60X34BSP	1491	IFE5R35	437	ISO 46	283	IT090-12	929
HVIS06-100	1408	IBCHCS6061	1491	IFE6R60	437	ISOADC-12	290	IT090-14	929
HVIS06-30	1408	IBCHCS606112	1491	IG400	1721	ISOADC-16	290	IT090-2	929
HVIS06-50	1408	IBCHCS606114	1491	IL1151	251	ISOADC-4	290	IT090-212	929
HVIS08-100	1408	IBCHCS6062	1491	IL1251	251	ISOADC-6	290	IT090-3	929
HVIS08-30	1408	IBCHDS606112BSP	1491	ILF-14	656	ISOADC-8	290	IT090-34	929
HVIS08-50	1408	IBCHDS6062BSP	1491	ILF-38	656	ISOADP-12	290	IT090-38	929
HVIS10-100	1408	IBCHDS6062NPS	1491	ILFE-1-10	255	ISOADP-16	290	IT090-4	929
HVIS10-30	1408	IBC-SEAL	1491	ILFE-1-25	255	ISOADP-4	290	IT091-1	929
HVIS10-50	1408	IBR10-50	903	ILFE-2-10	255	ISOADP-6	290	IT091-112	929
HVIS12-100	1408	IBR10-75	903	ILFE-2-25	255	ISOADP-8	290	IT091-114	929
HVIS12-30	1408	IBR12-50	903	ILFE-3-10	255	ISOBDP-12	291	IT091-12	929
HVIS12-50	1408	IBR12-75	903	ILFE-3-25	255	ISOBDP-16	291	IT091-14	929
HVSS-01-01	773	ICT-12	1213	ILR-14	656	ISOBDP-4	291	IT091-2	929
HVSS-02-01	773	ICT-12/30	1213	ILRF1-08-10	255	ISOBDP-6	291	IT091-34	929
HVSS-02-02	773	ICT-12/30-18SWG	1213	ILRF1-08-25	255	ISOBDP-8	291	IT091-38	929
HVSS-02-03	773	ICT-14	1213	ILRF2-12-10	255	IT060-12	940	IT092-1	930
HVSS-03-03	773	ICT-14/30	1213	ILRF2-12-25	255	IT066-1	940	IT092-12	930
HVSS-04-03	773	ICT-14/30-20SWG	1213	ILRF2-16-10	255	IT066-112	940	IT092-14	930
HVSS-04-04	773	ICT-18	1213	ILRF2-16-25	255	IT066-114	940	IT092-34	930
HW100	1458	ICT-18/30	1213	ILRF3-20-10	255	IT066-12	940	IT092-38	930
HYD.ELG	1627	ICT-316	1213	ILRF3-20-25	255	IT066-14	940	IT093-1	930
HYD.GK	1627	ICT-316/30	1213	ILRF3-24-10	255	IT066-2	940	IT093-12	930
HYDB	1496	ICT-38	1213	ILRF3-24-25	255	IT066-34	940	IT093-14	930
HYDK	1496	ICT-38/30	1213	IMC38-10	1207	IT066-38	940	IT093-34	930
HYDKB	1496	ICT-38/30-18SWG	1213	INV-1	243	IT067-1	940	IT093-38	930
HYD-KIT1	272	ICT-516	1213	INV-12	243	IT067-112	940	IT098-1	930
HYD-KIT2	272	ICT-516/30	1213	INV-14	243	IT067-114	940	IT098-112	930
HYD-KIT3	272	ICT-58	1213	INV-34	243	IT067-12	940	IT098-114	930
HYD-KIT4	272	ICT-58/30	1213	INV-38	243	IT067-14	940	IT098-12	930
HYD-KIT5	272	IF-14	656	IOK-1	112	IT067-2	940	IT098-2	930
HYD-KIT6	272	IF1V1/A-M6	438	IPGM	1761	IT067-34	940	IT098-34	930
HYGWASH-GUN	1658	IF1V1/A-M7	438	IPGP	1761	IT067-38	940	IT099-1	929
HYGWASH-GUNG	1658	IF1VE1/A-M8	438	IPPCLIP-1	1113	IT068-1	940	IT099-112	929
HYGWASH-GUNR	1658	IF1VE1/A-M7	437	IPPCLIP-112	1113	IT068-12	940	IT099-114	929

IT099-12	929	IT115-12	929	IT174-34	931	ITS-1-18SWG	1213	J4CSBSR1	1019
IT099-2	929	IT115-2	929	IT192-1	973	ITS-12	1213	J4CSBSR2	1019
IT099-34	929	IT115-34	929	IT192-112	973	ITS-12-10SWG	1213	J4CSDPS1	1019
IT100-1	962	IT125-12	927	IT192-114	973	ITS-12-16SWG	1213	J4CSDPS2	1019
IT100-112	962	IT125-12N	927	IT192-12	973	ITS-12-18SWG	1213	J500S	1636
IT100-114	962	IT125-14	927	IT192-14	973	ITS-14	1213	J7502	1656
IT100-12	962	IT125-14N	927	IT192-2	973	ITS-18	1213	J8055/12SE	1656
IT100-2	962	IT125-34	927	IT192-212	973	ITS-316	1213	J8055/6	1656
IT100-212	962	IT125-34N	927	IT192-3	973	ITS-34	1213	J8055/9	1656
IT100-3	962	IT125-38	927	IT192-34	973	ITS-34-18SWG	1213	J8057/1N	1656
IT100-34	962	IT125-38N	927	IT192-38	973	ITS-38	1213	J8057/2N	1656
IT100-38	962	IT126-12	927	IT192-4	973	ITS-516	1213	J8057/3N	1656
IT100-4	962	IT126-12N	927	IT193-1	973	ITS-58	1213	J8057/5N	1656
IT101-1	962	IT126-14	927	IT193-112	973	ITS-78-16SWG	1213	J9023SE	1632
IT101-112	962	IT126-14N	927	IT193-114	973	J		J9130/80	1643
IT101-114	962	IT126-34	927	IT193-12	973	J0002	1656	J9131/80	1643
IT101-12	962	IT126-34N	927	IT193-14	973	J0250	1656	J9CPG1603	1055
IT101-2	962	IT126-38	927	IT193-2	973	J0312	1656	J9CPG1604	1055
IT101-34	962	IT126-38N	927	IT193-34	973	J0437	1656	J9CPG1605	1055
IT102-1	962	IT128-112L	930	IT193-38	973	J0787	1656	J9CPG1806	1055
IT102-112	962	IT128-112T	930	IT216-1	929	J100	1636	JA-01	1621
IT102-114	962	IT128-114L	930	IT216-112	929	J100TDG	1637	JA165	1520
IT102-12	962	IT128-114T	930	IT216-114	929	J10302504	1624	JA165SS	1520
IT102-2	962	IT128-12L	930	IT216-12	929	J10304022	1637	JALL112	1497
IT102-212	962	IT128-12T	930	IT216-14	929	J10304024	1637	JALL114	1497
IT102-3	962	IT128-14L	930	IT216-2	929	J1181	1656	JALL2	1497
IT102-34	962	IT128-14T	930	IT216-34	929	J13060	278	JALL212	1497
IT102-38	962	IT128-1L	930	IT216-38	929	J13120	278	JALL3	1497
IT102-4	962	IT128-1T	930	IT217-1	929	J13200	278	JALL4	1497
IT103-1	962	IT128-2L	930	IT217-112	929	J13300	278	JDA-01	1621
IT103-112	962	IT128-2T	930	IT217-114	929	J1373	1656	JETW007G	1741
IT103-114	962	IT128-34L	930	IT217-12	929	J1500450	1637	JETW007R	1741
IT103-12	962	IT128-34T	930	IT217-14	929	J1500451	1637	JETW007Y	1741
IT103-2	962	IT128-38L	930	IT217-2	929	J1574	1656	JF0403CF	19
IT103-212	962	IT128-38T	930	IT217-34	929	J1581400	1626	JF0404CF	19
IT103-3	962	IT1300-112M	962	IT217-38	929	J1703001	1637	JF0406CF	19
IT103-34	962	IT1300-114M	962	IT243-1	980	J1708001	1638	JF044503CF	19
IT103-38	962	IT1300-12M	962	IT243-112	980	J1708003	1638	JF044504CF	19
IT103-4	962	IT1300-1M	962	IT243-114	980	J17210241	1624	JF049003CF	19
IT104-1	962	IT1300-2M	962	IT243-12	980	J1786004	1640	JF049004CF	19
IT104-112	962	IT1300-34M	962	IT243-2	980	J1786501	1640	JF0490K04CF	19
IT104-114	962	IT132-1	931	IT243-34	980	J1789022-1	1621	JF0503CF	19
IT104-12	962	IT132-12	931	IT266-1	940	J1789023-1	1621	JF0504CF	19
IT104-2	962	IT132-34	931	IT266-112	940	J18128003	1621	JF0505CF	19
IT104-34	962	IT132-38	931	IT266-114	940	J18133512	1621	JF0506CF	19
IT104-38	962	IT134-1	931	IT266-12	940	J18312002-1	1621	JF054504CF	19
IT107-1	962	IT134-12	931	IT266-14	940	J1968	1656	JF054505CF	19
IT107-12	962	IT134-34	931	IT266-2	940	J2	1641	JF054506CF	19
IT107-2	962	IT134-38	931	IT266-34	940	J2362	1656	JF059003CF	19
IT107-34	962	IT139-12	930	IT266-38	940	J2653	1632	JF059004CF	19
IT108-1	962	IT139-34	930	IT267-1	940	J2H10	1018	JF059005CF	19
IT108-112	962	IT139-38	930	IT267-112	940	J2L10	1018	JF059006CF	19
IT108-114	962	IT144-12	931	IT267-114	940	J300S	1636	JF0604CF	19
IT108-12	962	IT144-34	931	IT267-12	940	J4175	1632	JF0605CF	19
IT108-2	962	IT156-1	958	IT267-14	940	J4177	1632	JF0606CF	19
IT108-212	962	IT156-112	958	IT267-2	940	J4CPG1604	1055	JF064504CF	19
IT108-3	962	IT156-114	958	IT267-34	940	J4CPG1605	1055	JF064505CF	19
IT108-34	962	IT156-12	958	IT267-38	940	J4CPG1806	1055	JF064506CF	19
IT108-38	962	IT156-2	958	IT298-1	930	J4CS140	1018	JF069004CF	19
IT108-4	962	IT156-212	958	IT298-12	930	J4CS20	1018	JF069005CF	19
IT110-1	930	IT156-3	958	IT298-34	930	J4CS300	1018	JF069006CF	19
IT115-1	929	IT156-34	958	ITS-1-16SWG	1213	J4CS35	1018	JF0690K04CF	19
IT115-112	929	IT156-4	958	ITS-118-16SWG	1213	J4CS55	1018	JF0690K06CF	19
IT115-114	929	IT174-12	931	ITS-118-18SWG	1213	J4CS85	1018	JF0805CF	19

JF0806CF	19	JG-50	1642	JMBSPF90-16-16CF	25	JMJICF45-21-12CF	25	JPC018MS	1541
JF0808CF	19	JG603B	883	JMBSPF90-20-16CF	25	JMJICF45-21-16CF	25	JPC018SS	1541
JF084506CF	19	JG-BS15	884	JMBSPM-12-12CF	25	JMJICF45-26-16CF	25	JPC018SS316	1541
JF084508CF	19	JG-HDC	882	JMBSPM-16-12CF	25	JMJICF90-17-12CF	25	JPC019MS	1541
JF089005CF	19	JG-LWSK	1092	JMBSPM-16-16CF	25	JMJICF90-21-12CF	25	JPC019SS	1541
JF089006CF	19	JG-TSP	905	JMBSPM-20-16CF	25	JMJICF90-21-16CF	25	JPC019SS316	1541
JF089008CF	19	JGWALLBOX 1/2	1092	JMCAT12-12CF	27	JMJICF90-26-16CF	25	JPC020MS	1541
JF0890K06CF	19	JGWALLBOX 3/4	1092	JMCAT16-12CF	27	JMJICM-21-16CF	25	JPC020SS	1541
JF0890K08CF	19	JHT100	1518	JMCAT16-16CF	27	JMJICMM-17-12CF	25	JPC020SS316	1541
JF1006CF	19	JHT120	1518	JMCAT20-16CF	27	JMJICMM-21-12CF	25	JPC021MS	1541
JF1008CF	19	JHT140	1518	JMCAT4512-12CF	27	JMJICMM-21-16CF	25	JPC021SS	1541
JF1010CF	19	JHT160	1518	JMCAT4516-12CF	27	JMJICMM-26-16CF	25	JPC021SS316	1541
JF1012CF	19	JHT180	1518	JMCAT4516-16CF	27	JMORFSF1212CF	26	JPC022MS	1541
JF104506CF	19	JHT200	1518	JMCAT4520-16CF	27	JMORFSF1616CF	26	JPC022SS	1541
JF104508CF	19	JHT220	1518	JMCAT9012-12CF	27	JMORFSF451212CF	26	JPC022SS316	1541
JF104510CF	19	JHT240	1518	JMCAT9016-12CF	27	JMORFSF451616CF	26	JPC025MS	1541
JF104512CF	19	JHT260	1518	JMCAT9016-16CF	27	JMORFSF901212CF	26	JPC025SS	1541
JF109006CF	19	JHT280	1518	JMCAT9020-16CF	27	JMORFSF901616CF	26	JPC025SS316	1541
JF109008CF	19	JHT300	1518	JMDKOS45-36-12CF	26	JMPOCF-12-12CF	26	JPC027MS	1541
JF109010CF	19	JHT320	1518	JMDKOS45-42-16CF	26	JMPOCF-16-16CF	26	JPC027SS316	1541
JF109012CF	19	JHT340	1518	JMDKOS90-26-12CF	26	JMPOCM-12-12CF	26	JPC028MS	1541
JF1090K08CF	19	JHT35	1518	JMDKOS90-42-16CF	26	JMPOCM-16-16CF	26	JPC028SS	1541
JF1090K10CF	19	JHT360	1518	JMDKOSF-36-12CF	26	JMT10	625	JPC028SS316	1541
JF1208CF	19	JHT380	1518	JMDKOSF-42-16CF	26	JMT13	625	JPC029MS	1541
JF1210CF	19	JHT40	1518	JMDKOSM-26-12CF	26	JMT16	625	JPC029SS316	1541
JF1212CF	19	JHT400	1518	JMDKOSM-42-16CF	26	JMT20	625	JPC030MS	1541
JF1216CF	19	JHT420	1518	JMF4SH-12CF	16	JMT25	625	JPC030SS	1541
JF124508CF	19	JHT440	1518	JMF4SH-16CF	16	JMT30	625	JPC030SS316	1541
JF124510CF	19	JHT45	1518	JMF57-06CF	16	JMT36	625	JPC032SS316	1541
JF124512CF	19	JHT480	1518	JMF57-08CF	16	JMT8	625	JPC035MS	1541
JF124516CF	19	JHT50	1518	JMF57-10CF	16	JOS100	1638	JPC035SS	1541
JF129008CF	19	JHT500	1518	JMF57-12CF	16	JOS200	1638	JPC035SS316	1541
JF129010CF	19	JHT70	1518	JMF57-16CF	16	JPC005MS	1541	JPC040MS	1541
JF129012CF	19	JHT80	1518	JMF57-20CF	16	JPC005SS	1541	JPC040SS	1541
JF129016CF	19	JHT95	1518	JMF57-24CF	16	JPC005SS316	1541	JPC040SS316	1541
JF1290K12CF	19	JK120	1741	JMF57-32CF	16	JPC006MS	1541	JPC044MS	1541
JF1412CF	19	JLN07	79	JMFL3-12-12CF	27	JPC006SS	1541	JPC044SS	1541
JF1416CF	19	JLN08	79	JMFL3-16-12CF	27	JPC006SS316	1541	JPC044SS316	1541
JF144512CF	19	JLN09	79	JMFL3-16-16CF	27	JPC008MS	1541	JPC048SS316	1541
JF144516CF	19	JLN12	79	JMFL3-20-16CF	27	JPC008SS	1541	JPC052SS316	1541
JF149012CF	19	JLN14	79	JMFL345-12-12CF	27	JPC008SS316	1541	JPCK110MS	1541
JF149016CF	19	JLN17	79	JMFL345-16-12CF	27	JPC009SS	1541	JPCK110SS	1541
JF1612CF	19	JLN21	79	JMFL345-16-16CF	27	JPC009SS316	1541	JPOD030	1638
JF1616CF	19	JLN26	79	JMFL345-20-12CF	27	JPC010MS	1541	JPOD065	1638
JF164512CF	19	JLN30	79	JMFL390-12-12CF	27	JPC010SS	1541	JS201	1555
JF164516CF	19	JM-01	1621	JMFL390-16-12CF	27	JPC010SS316	1541	JS202	1555
JF169012CF	19	JM10	625	JMFL390-16-16CF	27	JPC012MS	1541	JS203	1555
JF169016CF	19	JM13	625	JMFL390-20-16CF	27	JPC012SS	1541	JS204	1555
JF1690K16CF	19	JM16	625	JMFL6-12-12CF	27	JPC012SS316	1541	JS205	1555
JF2016CF	19	JM20	625	JMFL6-16-12CF	27	JPC013MS	1541	JS206	1555
JF2020CF	19	JM25	625	JMFL6-16-16CF	27	JPC013SS	1541	JS207	1555
JF204516CF	19	JM30	625	JMFL6-20-16CF	27	JPC013SS316	1541	JS208	1555
JF204520CF	19	JM36	625	JMFL645-12-12CF	27	JPC014MS	1541	JS209	1555
JF209016CF	19	JM8	625	JMFL645-16-12CF	27	JPC014SS	1541	JS210	1555
JF209020CF	19	JMBSPF-12-12CF	25	JMFL645-16-16CF	27	JPC014SS316	1541	JS211	1555
JF2420CF	19	JMBSPF-16-12CF	25	JMFL645-20-12CF	27	JPC015MS	1541	JS212	1555
JF2424CF	19	JMBSPF-16-16CF	25	JMFL690-12-12CF	27	JPC015SS	1541	JS213	1555
JF244524CF	19	JMBSPF-20-16CF	25	JMFL690-16-12CF	27	JPC015SS316	1541	JS214	1555
JF249020CF	19	JMBSPF45-12-12CF	25	JMFL690-16-16CF	27	JPC016MS	1541	JS215	1555
JF249024CF	19	JMBSPF45-16-12CF	25	JMFL690-20-16CF	27	JPC016SS	1541	JS216	1555
JF3232CF	19	JMBSPF45-16-16CF	25	JMJICF-17-12CF	25	JPC016SS316	1541	JS227	1555
JF324532CF	19	JMBSPF45-20-16CF	25	JMJICF-21-12CF	25	JPC017MS	1541	JS230	1555
JF329032CF	19	JMBSPF90-12-12CF	25	JMJICF-26-16CF	25	JPC017SS	1541	JS236	1555
JG-12	1642	JMBSPF90-16-12CF	25	JMJICF45-17-12CF	25	JPC017SS316	1541	JS240	1555

JSC241	1555	JSC35SS304	1521	K10-UCL	153	K225-12-230AC-NC	1027	K2W-08-12DC	1029
JSC242	1555	JSC35SS316	1521	K10-UCS	153	K225-12-230AC-NO	1028	K2W-08-230/50AC	1029
JSC243	1555	JSC39	1521	K-110AC	577	K225-12-24AC-NC	1027	K2W-08-24/50AC	1029
JSC244	1555	JSC39SS304	1521	K-12DC	577	K225-12-24AC-NO	1028	K2W-08-24DC	1029
JSC245	1555	JSC39SS316	1521	K12-UCL	153	K225-12-24DC-NC	1027	K2WH012-06-110AC	1029
JSC246	1555	JSC43	1521	K12-UCS	153	K225-12-24DC-NO	1028	K2WH012-06-12DC	1029
JSC252	1555	JSC43SS304	1521	K13	626	K225-12DC-NC	1027	K2WH012-06-230AC	1029
JSC253	1555	JSC43SS316	1521	K145AA	430	K225-12DC-NO	1028	K2WH012-06-24AC	1029
JSC255	1555	JSC47	1521	K145AO	430	K225-14-110AC-NC	1027	K2WH012-06-24DC	1029
JSC256	1555	JSC47SS304	1521	K14-UCS	153	K225-14-110AC-NO	1028	K2WH012-08-110AC	1029
JSC257	1555	JSC47SS316	1521	K15-UCL	153	K225-14-12DC-NC	1027	K2WH012-08-12DC	1029
JSC259	1555	JSC51	1521	K16	626	K225-14-12DC-NO	1028	K2WH012-08-230AC	1029
JSC103	1521	JSC51SS304	1521	K16-UCS	153	K225-14-230AC-NC	1027	K2WH012-08-24AC	1029
JSC103SS304	1521	JSC51SS316	1521	K18-UCL	153	K225-14-230AC-NO	1028	K2WH012-08-24DC	1029
JSC103SS316	1521	JSC55	1521	K20	626	K225-14-24AC-NC	1027	K2WH020-10-110AC	1029
JSC112	1521	JSC55SS304	1521	K200-08	549	K225-14-24AC-NO	1028	K2WH020-10-12DC	1029
JSC112SS304	1521	JSC55SS316	1521	K20-UCS	153	K225-14-24DC-NC	1027	K2WH020-10-230AC	1029
JSC112SS316	1521	JSC59	1521	K-220AC	577	K225-14-24DC-NO	1028	K2WH020-10-24AC	1029
JSC121	1521	JSC59SS304	1521	K225-03-110AC-NC	1027	K225-20-110AC-NC	1027	K2WH020-10-24DC	1029
JSC121SS304	1521	JSC59SS316	1521	K225-03-110AC-NO	1028	K225-20-110AC-NO	1028	K30	626
JSC121SS316	1521	JSC63	1521	K225-03-12DC-NC	1027	K225-20-12DC-NC	1027	K300-10	549
JSC130	1521	JSC63SS304	1521	K225-03-12DC-NO	1028	K225-20-12DC-NO	1028	K300-15	549
JSC130SS304	1521	JSC63SS316	1521	K225-03-230AC-NC	1027	K225-20-230AC-NC	1027	K30-UCS	153
JSC130SS316	1521	JSC67	1521	K225-03-230AC-NO	1028	K225-20-230AC-NO	1028	K32	1641
JSC139	1521	JSC67SS304	1521	K225-03-24AC-NC	1027	K225-20-24AC-NC	1027	K35-UCL	153
JSC139SS304	1521	JSC67SS316	1521	K225-03-24AC-NO	1028	K225-20-24AC-NO	1028	K36	626
JSC139SS316	1521	JSC73	1521	K225-03-24DC-NC	1027	K225-20-24DC-NC	1027	K38-UCS	153
JSC148	1521	JSC73SS304	1521	K225-03-24DC-NO	1028	K225-20-24DC-NO	1028	K3M3B-05	545
JSC148SS304	1521	JSC73SS316	1521	K225-04-110AC-NC	1027	K225-230/50AC-NC	1027	K3M3B-06	545
JSC148SS316	1521	JSC79	1521	K225-04-110AC-NO	1028	K225-230/50AC-NO	1028	K3M3B-08	545
JSC161	1521	JSC79SS304	1521	K225-04-12DC-NC	1027	K225-24/50AC-NC	1027	K3M3HS05	546
JSC161SS304	1521	JSC79SS316	1521	K225-04-12DC-NO	1028	K225-24/50AC-NO	1028	K3M3HS06	546
JSC161SS316	1521	JSC85	1521	K225-04-230AC-NC	1027	K225-24DC-NC	1027	K3M3HS08	546
JSC174	1521	JSC85SS304	1521	K225-04-230AC-NO	1028	K225-24DC-NO	1028	K3M3L05	545
JSC174SS304	1521	JSC85SS316	1521	K225-04-24AC-NC	1027	K22-UCL	153	K3M3L06	545
JSC174SS316	1521	JSC91	1521	K225-04-24AC-NO	1028	K24	1626	K3M3L08	545
JSC187	1521	JSC91SS304	1521	K225-04-24DC-NC	1027	K24.AB	1626	K3M3PF-05-B	546
JSC187SS304	1521	JSC91SS316	1521	K225-04-24DC-NO	1028	K24.BATTERY	1626	K3M3PF-05-G	546
JSC187SS316	1521	JSC97	1521	K225-06-110AC-NC	1027	K-24AC	577	K3M3PF-05-R	546
JSC19	1521	JSC97SS304	1521	K225-06-110AC-NO	1028	K-24DC	577	K3M3PF-06-B	546
JSC19SS304	1521	JSC97SS316	1521	K225-06-12DC-NC	1027	K25	626	K3M3PF-06-G	546
JSC19SS316	1521	JSS1	1497	K225-06-12DC-NO	1028	K25-UCS	153	K3M3PF-06-R	546
JSC200	1521	JSS112	1497	K225-06-230AC-NC	1027	K28-UCL	153	K3M3PF-08-B	546
JSC200SS304	1521	JSS114	1497	K225-06-230AC-NO	1028	K2W025-06-110AC	1029	K3M3PF-08-G	546
JSC213SS304	1521	JSS2	1497	K225-06-24AC-NC	1027	K2W025-06-12DC	1029	K3M3PF-08-R	546
JSC213SS316	1521	JSS3	1497	K225-06-24AC-NO	1028	K2W025-06-230AC	1029	K3M3PL-05-R	546
JSC22	1521	JSS34	1497	K225-06-24DC-NC	1027	K2W025-06-24AC	1029	K3M3PL-06-R	546
JSC226	1521	JSS4	1497	K225-06-24DC-NO	1028	K2W025-06-24DC	1029	K3M3PL-08-R	546
JSC226SS304	1521	JT04	1761	K225-08-110AC-NC	1027	K2W025-08-110AC	1029	K3M3PM-05-B	546
JSC226SS316	1521	JTD202	1761	K225-08-110AC-NO	1028	K2W025-08-12DC	1029	K3M3PM-05-G	546
JSC22SS304	1521	JWF-22-04	1678	K225-08-12DC-NC	1027	K2W025-08-230AC	1029	K3M3PM-05-R	546
JSC22SS316	1521	JWF-22-05	1678	K225-08-12DC-NO	1028	K2W025-08-24AC	1029	K3M3PM-06-B	546
JSC239	1521	JWF-22-06	1678	K225-08-230AC-NC	1027	K2W025-08-24DC	1029	K3M3PM-06-G	546
JSC239SS304	1521	JWM-04	1678	K225-08-230AC-NO	1028	K2W040-10-110AC	1029	K3M3PM-06-R	546
JSC25	1521	JWM-05	1678	K225-08-24AC-NC	1027	K2W040-10-12DC	1029	K3M3PM-08-B	546
JSC25SS304	1521	JWM-06	1678	K225-08-24AC-NO	1028	K2W040-10-230AC	1029	K3M3PM-08-G	546
JSC25SS316	1521	JXPP-5422B	1741	K225-08-24DC-NC	1027	K2W040-10-24AC	1029	K3M3PM-08-R	546
JSC28	1521	K		K225-08-24DC-NO	1028	K2W040-10-24DC	1029	K3M3PP-05-B	546
JSC28SS304	1521	K006AC	430	K225-110/50AC-NC	1027	K2W-040-110/50AC	1029	K3M3PP-05-G	546
JSC28SS316	1521	K009AA	430	K225-110/50AC-NO	1028	K2W-040-12DC	1029	K3M3PP-05-R	546
JSC31	1521	K030AA	430	K225-12-110AC-NC	1027	K2W-040-230/50AC	1029	K3M3PP-06-B	546
JSC31SS304	1521	K030AO	430	K225-12-110AC-NO	1028	K2W-040-24/50AC	1029	K3M3PP-06-G	546
JSC31SS316	1521	K10	626	K225-12-12DC-NC	1027	K2W-040-24DC	1029	K3M3PP-06-R	546
JSC35	1521	K100-06	549	K225-12-12DC-NO	1028	K2W-08-110/50AC	1029	K3M3PP-08-B	546

K3M3PP-08-G	546	K562630012	262	KA-12X10-S-CA	453	KA-8X60-S-CA	453	KASV-SSP-38-NO	1049
K3M3PP-08-R	546	K562636034	262	KA-12X125-S-CA	453	KA-8X75-S-CA	453	KASV-SSSS-112-NC	1049
K3M3R-05	545	K562642100	262	KA-12X150-S-CA	453	KA-8X80-S-CA	453	KASV-SSSS-114-NC	1049
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K3M3R-08	545	K56341361615	262	KA-12X175-S-CA	453	KA-92-15-50	1680	KASV-SSSS-12-NO	1049
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K3M3Y-08	545	K5634152100	262	KA-12X40-S-CA	453	CAA 34 BSP	1476	KASV-SSSS-34-NC	1049
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K42-UCL	153	K5634163114	262	KA-12X60-S-CA	453	CAA 38 BSP	1476	KASV-SSSS-38-NC	1049
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K56001127	261	K56342361615	262	KA-12X80-S-CA	453	KAG12	1477	KB132000B9	596
K56002076	261	K5634241012	262	KA132000A9	596	KAG14	1477	KB132V54T9	596
K56002127	261	K56342411815	262	KA132000B9	596	KAG34	1477	KB132V55T9	596
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K56041201415	260	K5634247034	262	KA132V55T9	596	KAG54	1477	KB-16X100-S-CA	453
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K56041221615	260	K5634263112	262	KA-15-00-07F	1679	KASS-16X10-S-CA	459	KB-16X125-S-CA	453
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K5604222038	260	K564024038	262	KA300-10	645	KASS-20X100-S-CA	459	KB-16X300-S-CA	453
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K5604235034	260	K5654236038	262	KA-35-25-05	1057	KASS-20X250-S-CA	459	KB-16X75-S-CA	453
K5604243100	260	K5654241012	262	KA-35-25-12	1057	KASS-20X25-S-CA	459	KB-16X80-S-CA	453
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K5604258112	260	K5654247034	262	KA-35-40-18	1057	KASS-20X50-S-CA	459	KB-20X10-S-CA	453
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K56063026	260	K6-UCL	153	KA-36-00-40	1057	KASS-25X10-S-CA	459	KB-20X15-S-CA	453
K56063632	260	K6-UCS	153	KA-39-00-10	1057	KASS-25X125-S-CA	459	KB-20X160-S-CA	453
K56064238	260	K8	626	KA-39-10-10	1057	KASS-25X160-S-CA	459	KB-20X175-S-CA	453
K56064440	260	K8-UCL	153	KA400-10	645	KASS-25X200-S-CA	459	KB-20X200-S-CA	453
K560822038	260	K8-UCS	153	KA400-15	645	KASS-25X250-S-CA	459	KB-20X20-S-CA	453
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K560842100	260	KA-10X100-S-CA	453	KA-59-00-10	1680	KASS-25X50-S-CA	459	KB-20X300-S-CA	453
K561020014	260	KA-10X10-S-CA	453	KA600-20	645	KASS-25X80-S-CA	459	KB-20X30-S-CA	453
K561024038	260	KA-10X125-S-CA	453	KA600-25	645	KASV-SSP-112-NC	1049	KB-20X350-S-CA	453
K561029012	260	KA-10X150-S-CA	453	KA-60-04-23-40	1680	KASV-SSP-112-NO	1049	KB-20X400-S-CA	453
K5618012	262	KA-10X15-S-CA	453	KA600U-P1	645	KASV-SSP-114-NC	1049	KB-20X40-S-CA	453
K5618014	262	KA-10X160-S-CA	453	KA601-P1	645	KASV-SSP-114-NO	1049	KB-20X450-S-CA	453
K5618018	262	KA-10X175-S-CA	453	KA-62-33-00	1680	KASV-SSP-12-NC	1049	KB-20X500-S-CA	453
K5618034	262	KA-10X200-S-CA	453	KA-68-25-05	1680	KASV-SSP-12-NO	1049	KB-20X50-S-CA	453
K5618038	262	KA-10X20-S-CA	453	KA-8X100-S-CA	453	KASV-SSP-1-NC	1049	KB-20X60-S-CA	453
K5618100	262	KA-10X25-S-CA	453	KA-8X125-S-CA	453	KASV-SSP-1-NO	1049	KB-20X75-S-CA	453
K562213020	262	KA-10X30-S-CA	453	KA-8X150-S-CA	453	KASV-SSP-212-NC	1049	KB-20X80-S-CA	453
K562213030	262	KA-10X40-S-CA	453	KA-8X15-S-CA	453	KASV-SSP-212-NO	1049	KB-25X100-S-CA	453
K562223018	262	KA-10X50-S-CA	453	KA-8X20-S-CA	453	KASV-SSP-2-NC	1049	KB-25X10-S-CA	453
K562323020	262	KA-10X60-S-CA	453	KA-8X25-S-CA	453	KASV-SSP-2-NO	1049	KB-25X125-S-CA	453
K562423026	262	KA-10X75-S-CA	453	KA-8X30-S-CA	453	KASV-SSP-34-NC	1049	KB-25X150-S-CA	453
K562621014	262	KA-10X80-S-CA	453	KA-8X40-S-CA	453	KASV-SSP-34-NO	1049	KB-25X15-S-CA	453
K562624038	262	KA-12X100-S-CA	453	KA-8X50-S-CA	453	KASV-SSP-38-NC	1049	KB-25X160-S-CA	454

KB-25X175-S-CA	454	KC-10X15-S-CA	452	KC-32X60-S-CM	452	KDS1-HL-N-020	542	KFRS300-15-A-F-3	639
KB-25X200-S-CA	454	KC-10X20-S-CA	452	KC-32X75-S-CM	452	KDS1-HL-N-030	542	KFRS300-15-F-3	639
KB-25X20-S-CA	453	KC-10X25-S-CA	452	KC-32X80-S-CM	452	KDS1-HL-N-050	542	KFRS400-10-A-F-3	639
KB-25X250-S-CA	454	KC-10X30-S-CA	452	KC400-10	644	KDS1-HL-N-C08	542	KFRS400-10-F-3	639
KB-25X25-S-CA	453	KC-10X40-S-CA	452	KC400-15	644	KDS1-HLP-020	542	KFRS400-15-A-F-3	639
KB-25X300-S-CA	454	KC-10X50-S-CA	452	KC-40X100-S-CM	452	KDS1-HLP-030	542	KFRS400-15-F-3	639
KB-25X30-S-CA	453	KC-12X10-S-CA	452	KC-40X10-S-CM	452	KDS1-HLP-050	542	KFRS600-20-A-F-3	639
KB-25X350-S-CA	454	KC-12X15-S-CA	452	KC-40X125-S-CM	452	KDS1-HLP-C08	542	KFRS600-20-F-3	639
KB-25X400-S-CA	454	KC-12X20-S-CA	452	KC-40X150-S-CM	452	KDS1-H-N-020	542	KFRS600-25-A-F-3	639
KB-25X40-S-CA	453	KC-12X25-S-CA	452	KC-40X15-S-CM	452	KDS1-H-N-030	542	KFRS600-25-F-3	639
KB-25X450-S-CA	454	KC-12X30-S-CA	452	KC-40X20-S-CM	452	KDS1-H-N-050	542	KFS200-06	642
KB-25X500-S-CA	454	KC-12X40-S-CA	452	KC-40X25-S-CM	452	KDS1-H-N-C08	542	KFS200-08	642
KB-25X50-S-CA	453	KC-12X50-S-CA	452	KC-40X30-S-CM	452	KDS1-H-P-020	542	KFS300-08	642
KB-25X600-S-CA	454	KC-16X100-S-CA	452	KC-40X40-S-CM	452	KDS1-H-P-030	542	KFS300-08-A	642
KB-25X60-S-CA	453	KC-16X10-S-CA	452	KC-40X50-S-CM	452	KDS1-H-P-050	542	KFS300-10	642
KB-25X75-S-CA	453	KC-16X15-S-CA	452	KC-40X60-S-CM	452	KDS1-H-P-C08	542	KFS300-10-A	642
KB-25X80-S-CA	453	KC-16X20-S-CA	452	KC-40X75-S-CM	452	KEY2	1488	KFS300-15	642
KB-32X100-S-CM	454	KC-16X25-S-CA	452	KC-40X80-S-CM	452	KEY3	1488	KFS300-15-A	642
KB-32X10-S-CM	454	KC-16X30-S-CA	452	KC-8X10-S-CA	452	KEY4	1488	KFS400-10	642
KB-32X125-S-CM	454	KC-16X40-S-CA	452	KC-8X15-S-CA	452	KF200-004-1	646	KFS400-10-A	642
KB-32X150-S-CM	454	KC-16X50-S-CA	452	KC-8X20-S-CA	452	KF200-004-2	646	KFS400-15	642
KB-32X15-S-CM	454	KC-16X60-S-CA	452	KC-8X25-S-CA	452	KF200-P3	646	KFS400-15-A	642
KB-32X160-S-CM	454	KC-16X75-S-CA	452	KC-8X30-S-CA	452	KF200-P6	646	KFS600-20	642
KB-32X175-S-CM	454	KC-16X80-S-CA	452	KC-8X40-S-CA	452	KF300-004-1	646	KFS600-20-A	642
KB-32X200-S-CM	454	KC200-06	644	KC-8X50-S-CA	452	KF300-004-2	646	KFS600-25	642
KB-32X20-S-CM	454	KC200-08	644	KCAS300-15-A-F-3	643	KF300-P4	646	KFS600-25-A	642
KB-32X250-S-CM	454	KC-20X100-S-CA	452	KCAS300-15-F-3	643	KF300-P5	646	KG3043.20	498
KB-32X25-S-CM	454	KC-20X10-S-CA	452	KCAS400-15-A-F-3	643	KF300-P6	646	KG3043.32	498
KB-32X300-S-CM	454	KC-20X125-S-CA	452	KCAS400-15-F-3	643	KF400-004-1	646	KG3043.40	498
KB-32X30-S-CM	454	KC-20X150-S-CA	452	KCB-06	548	KF400-004-2	646	KG3043.50	498
KB-32X350-S-CM	454	KC-20X15-S-CA	452	KCS200-06-F-3	637	KF400-P10	646	KG3043.63	498
KB-32X400-S-CM	454	KC-20X20-S-CA	452	KCS200-08-F-3	637	KF400-P11	646	KG40-10R	646
KB-32X40-S-CM	454	KC-20X25-S-CA	452	KCS300-08-A-F-3	637	KF400-P9	646	KG50-10R	646
KB-32X450-S-CM	454	KC-20X30-S-CA	452	KCS300-08-F-3	637	KF600-004-1	646	KGA-1/4	646
KB-32X500-S-CM	454	KC-20X40-S-CA	452	KCS300-10-A-F-3	637	KF600-004-2	646	KGA-1/8	646
KB-32X50-S-CM	454	KC-20X50-S-CA	452	KCS300-10-F-3	637	KF600-P1	646	KH3KV10LLPORT	137
KB-32X600-S-CM	454	KC-20X60-S-CA	452	KCS300-15-A-F-3	637	KF600-P2	646	KH3KV10LTPORT	137
KB-32X60-S-CM	454	KC-20X75-S-CA	452	KCS300-15-F-3	637	KF600-P3	646	KH3KV12LLPORT	137
KB-32X75-S-CM	454	KC-20X80-S-CA	452	KCS400-10-A-F-3	637	KFCS200-06-F-3	638	KH3KV12LTPORT	137
KB-32X80-S-CM	454	KC-25X100-S-CA	452	KCS400-10-F-3	637	KFCS200-08-F-3	638	KH3KV15LLPORT	137
KB-40X100-S-CM	454	KC-25X10-S-CA	452	KCS400-15-A-F-3	637	KFCS300-08-A-F-3	638	KH3KV15LTPORT	137
KB-40X10-S-CM	454	KC-25X125-S-CA	452	KCS400-15-F-3	637	KFCS300-08-F-3	638	KH3KV8LLPORT	137
KB-40X125-S-CM	454	KC-25X150-S-CA	452	KCS600-20-A-F-3	637	KFCS300-10-A-F-3	638	KHB-10L	238
KB-40X150-S-CM	454	KC-25X20-S-CA	452	KCS600-20-F-3	637	KFCS300-10-F-3	638	KHB-10LLK	239
KB-40X15-S-CM	454	KC-25X25-S-CA	452	KCS600-25-A-F-3	637	KFCS300-15-A-F-3	638	KHB-10S	238
KB-40X160-S-CM	454	KC-25X30-S-CA	452	KCS600-25-F-3	637	KFCS300-15-F-3	638	KHB-10S-LK	239
KB-40X175-S-CM	454	KC-25X40-S-CA	452	KCV1-06-A	575	KFCS400-10-A-F-3	638	KHB-12L	238
KB-40X200-S-CM	454	KC-25X50-S-CA	452	KCV1-06-B	575	KFCS400-10-F-3	638	KHB-12LLK	239
KB-40X20-S-CM	454	KC-25X60-S-CA	452	KCV1-06-C	575	KFCS400-15-A-F-3	638	KHB-12S	238
KB-40X250-S-CM	454	KC-25X75-S-CA	452	KCV1-M5-A	575	KFCS400-15-F-3	638	KHB-12S-LK	239
KB-40X25-S-CM	454	KC-25X80-S-CA	452	KCV1-M5-B	575	KFCS600-20-A-F-3	638	KHB-15L	238
KB-40X300-S-CM	454	KC300-08	644	KCV1-M5-C	575	KFCS600-20-F-3	638	KHB-15LLK	239
KB-40X30-S-CM	454	KC300-10	644	KCV1-P30	575	KFCS600-25-A-F-3	638	KHB-16S	238
KB-40X350-S-CM	454	KC300-15	644	KCV1-P31	575	KFCS600-25-F-3	638	KHB-16S-LK	239
KB-40X400-S-CM	454	KC-32X100-S-CM	452	KCV1-P32	575	KFP-12-M	625	KHB-20S	238
KB-40X40-S-CM	454	KC-32X10-S-CM	452	KD-12	1596	KFP-18-M	625	KHB-20S-LK	239
KB-40X450-S-CM	454	KC-32X125-S-CM	452	KDS1-H-020	542	KFP-25-M	625	KHB-22L	238
KB-40X500-S-CM	454	KC-32X150-S-CM	452	KDS1-H-030	542	KFP-35-M	625	KHB-22LLK	239
KB-40X50-S-CM	454	KC-32X15-S-CM	452	KDS1-H-050	542	KFRS200-06-F-3	639	KHB-25S	238
KB-40X600-S-CM	454	KC-32X20-S-CM	452	KDS1-H-C08	542	KFRS200-08-F-3	639	KHB-25S-LK	239
KB-40X60-S-CM	454	KC-32X25-S-CM	452	KDS1-HL-020	542	KFRS300-08-A-F-3	639	KHB-28L	238
KB-40X75-S-CM	454	KC-32X30-S-CM	452	KDS1-HL-030	542	KFRS300-08-F-3	639	KHB-28LLK	239
KB-40X80-S-CM	454	KC-32X40-S-CM	452	KDS1-HL-050	542	KFRS300-10-A-F-3	639	KHB-30S	238
KC-10X10-S-CA	452	KC-32X50-S-CM	452	KDS1-HL-C08	542	KFRS300-10-F-3	639	KHB-30S-LK	239

KHB3K-G1	240	KHB-G3/4-LK	239	KI-100BX25-S-G	483	KI-125X300-S-G	481	KI-40X125-S-G	480
KHB3K-G1/2	240	KHB-G3/8	238	KI-100BX300-S-G	483	KI-125X350-S-G	481	KI-40X150-S-G	480
KHB3K-G1/2-LK	240	KHB-G3/8-LK	239	KI-100BX350-S-G	483	KI-125X400-S-G	481	KI-40X160-S-G	480
KHB3K-G1/4	240	KHBHANDLE-114-2	240	KI-100BX400-S-G	483	KI-125X450-S-G	481	KI-40X175-S-G	480
KHB3K-G1/4-LK	240	KHBHANDLE-14-12	240	KI-100BX450-S-G	483	KI-125X500-S-G	481	KI-40X200-S-G	480
KHB3K-G11/2	240	KHBHANDLE-34-1	240	KI-100BX500-S-G	483	KI-125X50-S-G	481	KI-40X250-S-G	480
KHB3K-G11/2-LK	240	KHBSM-G1	238	KI-100BX50-S-G	483	KI-125X600-S-G	481	KI-40X25-S-G	480
KHB3K-G11/4	240	KHBSM-G1/2	238	KI-100BX600-S-G	483	KI-125X700-S-G	481	KI-40X300-S-G	480
KHB3K-G11/4-LK	240	KHBSM-G1/2-LK	239	KI-100BX700-S-G	483	KI-125X75-S-G	481	KI-40X350-S-G	480
KHB3K-G1-LK	240	KHBSM-G1/4	238	KI-100BX75-S-G	483	KI-125X800-S-G	481	KI-40X400-S-G	480
KHB3K-G3/4	240	KHBSM-G1/4-LK	239	KI-100BX800-S-G	483	KI-125X80-S-G	481	KI-40X450-S-G	480
KHB3K-G3/4-LK	240	KHBSM-G11/2	238	KI-100BX80-S-G	483	KI-125X900-S-G	481	KI-40X500-S-G	480
KHB3K-G3/8	240	KHBSM-G11/2-LK	239	KI-100BX900-S-G	483	KI-32BX100-S-G	482	KI-40X50-S-G	480
KHB3K-G3/8-LK	240	KHBSM-G11/4	238	KI-100X1000-S-G	481	KI-32BX125-S-G	482	KI-40X600-S-G	480
KHB3TG1	240	KHBSM-G11/4-LK	239	KI-100X100-S-G	481	KI-32BX150-S-G	482	KI-40X700-S-G	480
KHB3TG1/2	240	KHBSM-G1-LK	239	KI-100X125-S-G	481	KI-32BX160-S-G	482	KI-40X75-S-G	480
KHB3TG1/2-LK	240	KHBSM-G3/4	238	KI-100X150-S-G	481	KI-32BX175-S-G	482	KI-40X800-S-G	480
KHB3TG1/4	240	KHBSM-G3/4-LK	239	KI-100X160-S-G	481	KI-32BX200-S-G	482	KI-40X80-S-G	480
KHB3TG1/4-LK	240	KHBSM-G3/8	238	KI-100X175-S-G	481	KI-32BX250-S-G	482	KI-50BX1000-S-G	482
KHB3TG11/2	240	KHBSM-G3/8-LK	239	KI-100X200-S-G	481	KI-32BX25-S-G	482	KI-50BX100-S-G	482
KHB3TG11/2-LK	240	KHBTM-G1	238	KI-100X250-S-G	481	KI-32BX300-S-G	482	KI-50BX125-S-G	482
KHB3TG11/4	240	KHBTM-G1/2	238	KI-100X25-S-G	481	KI-32BX350-S-G	482	KI-50BX150-S-G	482
KHB3TG11/4-LK	240	KHBTM-G1/4	238	KI-100X300-S-G	481	KI-32BX400-S-G	482	KI-50BX160-S-G	482
KHB3TG1-LK	240	KHBTM-G11/2	238	KI-100X350-S-G	481	KI-32BX450-S-G	482	KI-50BX175-S-G	482
KHB3TG3/4	240	KHBTM-G11/4	238	KI-100X400-S-G	481	KI-32BX500-S-G	482	KI-50BX200-S-G	482
KHB3TG3/4-LK	240	KHBTM-G3/4	238	KI-100X450-S-G	481	KI-32BX50-S-G	482	KI-50BX250-S-G	482
KHB3TG3/8	240	KHBTM-G3/8	238	KI-100X500-S-G	481	KI-32BX75-S-G	482	KI-50BX25-S-G	482
KHB3TG3/8-LK	240	KHFY10	542	KI-100X50-S-G	481	KI-32BX80-S-G	482	KI-50BX300-S-G	482
KHB-8L	238	KHFY16	542	KI-100X600-S-G	481	KI-32X100-S-G	480	KI-50BX350-S-G	482
KHB-8LLK	239	KHFY20	542	KI-100X700-S-G	481	KI-32X125-S-G	480	KI-50BX400-S-G	482
KHBF3-1	238	KHFY25	542	KI-100X75-S-G	481	KI-32X150-S-G	480	KI-50BX450-S-G	482
KHBF3-1.1/2	238	KHFY32	542	KI-100X800-S-G	481	KI-32X160-S-G	480	KI-50BX500-S-G	482
KHBF3-1.1/2-LK	239	KHFY6	542	KI-100X80-S-G	481	KI-32X175-S-G	480	KI-50BX50-S-G	482
KHBF3-1.1/4	238	KHFZ10	542	KI-100X900-S-G	481	KI-32X200-S-G	480	KI-50BX600-S-G	482
KHBF3-1.1/4-LK	239	KHFZ16	542	KI-125BX1000-S-G	483	KI-32X250-S-G	480	KI-50BX700-S-G	482
KHBF3-1/2	238	KHFZ20	542	KI-125BX100-S-G	483	KI-32X25-S-G	480	KI-50BX75-S-G	482
KHBF3-1/2-LK	239	KHFZ25	542	KI-125BX125-S-G	483	KI-32X300-S-G	480	KI-50BX800-S-G	482
KHBF3-1-LK	239	KHV10L	137	KI-125BX150-S-G	483	KI-32X350-S-G	480	KI-50BX80-S-G	482
KHBF3-2	238	KHV10S	137	KI-125BX160-S-G	483	KI-32X400-S-G	480	KI-50BX900-S-G	482
KHBF3-2-LK	239	KHV12L	137	KI-125BX175-S-G	483	KI-32X450-S-G	480	KI-50X1000-S-G	480
KHBF3-3/4	238	KHV12S	137	KI-125BX200-S-G	483	KI-32X500-S-G	480	KI-50X100-S-G	480
KHBF3-3/4-LK	239	KHV14S	137	KI-125BX250-S-G	483	KI-32X50-S-G	480	KI-50X125-S-G	480
KHBF6-1	238	KHV15L	137	KI-125BX25-S-G	483	KI-32X75-S-G	480	KI-50X150-S-G	480
KHBF6-1.1/2	238	KHV16S	137	KI-125BX300-S-G	483	KI-32X80-S-G	480	KI-50X160-S-G	480
KHBF6-1.1/2-LK	239	KHV18L	137	KI-125BX350-S-G	483	KI-40BX100-S-G	482	KI-50X175-S-G	480
KHBF6-1.1/4	238	KHV20S	137	KI-125BX400-S-G	483	KI-40BX125-S-G	482	KI-50X200-S-G	480
KHBF6-1.1/4-LK	239	KHV22L	137	KI-125BX450-S-G	483	KI-40BX150-S-G	482	KI-50X250-S-G	480
KHBF6-1/2	238	KHV25S	137	KI-125BX500-S-G	483	KI-40BX160-S-G	482	KI-50X25-S-G	480
KHBF6-1/2-LK	239	KHV28L	137	KI-125BX50-S-G	483	KI-40BX175-S-G	482	KI-50X300-S-G	480
KHBF6-1-LK	239	KHV30S	137	KI-125BX600-S-G	483	KI-40BX200-S-G	482	KI-50X350-S-G	480
KHBF6-2-LK	239	KHV35L	137	KI-125BX700-S-G	483	KI-40BX250-S-G	482	KI-50X400-S-G	480
KHBF6-3/4	238	KHV38S	137	KI-125BX75-S-G	483	KI-40BX25-S-G	482	KI-50X450-S-G	480
KHBF6-6/4-LK	239	KHV42L	137	KI-125BX800-S-G	483	KI-40BX300-S-G	482	KI-50X500-S-G	480
KHB-G1	238	KHV6L	137	KI-125BX80-S-G	483	KI-40BX350-S-G	482	KI-50X50-S-G	480
KHB-G1/2	238	KHV8L	137	KI-125BX900-S-G	483	KI-40BX400-S-G	482	KI-50X600-S-G	480
KHB-G1/2-LK	239	KHV8S	137	KI-125X1000-S-G	481	KI-40BX450-S-G	482	KI-50X700-S-G	480
KHB-G1/4	238	KI-100BX1000-S-G	483	KI-125X100-S-G	481	KI-40BX500-S-G	482	KI-50X75-S-G	480
KHB-G1/4-LK	239	KI-100BX100-S-G	483	KI-125X125-S-G	481	KI-40BX50-S-G	482	KI-50X800-S-G	480
KHB-G11/2	238	KI-100BX125-S-G	483	KI-125X150-S-G	481	KI-40BX600-S-G	482	KI-50X80-S-G	480
KHB-G11/2-LK	239	KI-100BX150-S-G	483	KI-125X160-S-G	481	KI-40BX700-S-G	482	KI-50X900-S-G	480
KHB-G11/4	238	KI-100BX160-S-G	483	KI-125X175-S-G	481	KI-40BX75-S-G	482	KI-63BX1000-S-G	482
KHB-G11/4-LK	239	KI-100BX175-S-G	483	KI-125X200-S-G	481	KI-40BX800-S-G	482	KI-63BX100-S-G	482
KHB-G1-LK	239	KI-100BX200-S-G	483	KI-125X250-S-G	481	KI-40BX80-S-G	482	KI-63BX125-S-G	482
KHB-G3/4	238	KI-100BX250-S-G	483	KI-125X25-S-G	481	KI-40X100-S-G	480	KI-63BX150-S-G	482



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KI-63BX160-S-G	482	KI-80X175-S-G	480	KKS-16X50	518	KKS-50X100	518	KLS200-08	641
KI-63BX175-S-G	482	KI-80X200-S-G	480	KKS-16X55	518	KKS-50X125	519	KLS300-08	641
KI-63BX200-S-G	482	KI-80X250-S-G	480	KKS-16X60	518	KKS-50X15	518	KLS300-10	641
KI-63BX250-S-G	482	KI-80X25-S-G	480	KKS-20X10	518	KKS-50X150	519	KLS300-15	641
KI-63BX25-S-G	482	KI-80X300-S-G	480	KKS-20X100	518	KKS-50X20	518	KLS400-10	641
KI-63BX300-S-G	482	KI-80X350-S-G	480	KKS-20X15	518	KKS-50X25	518	KLS400-15	641
KI-63BX350-S-G	482	KI-80X400-S-G	480	KKS-20X20	518	KKS-50X250	519	KLS600-20	641
KI-63BX400-S-G	482	KI-80X450-S-G	481	KKS-20X25	518	KKS-50X30	518	KLS600-25	641
KI-63BX450-S-G	482	KI-80X500-S-G	481	KKS-20X30	518	KKS-50X40	518	KLS-820M	1022
KI-63BX500-S-G	482	KI-80X50-S-G	480	KKS-20X40	518	KKS-50X45	518	KM10WN	1175
KI-63BX50-S-G	482	KI-80X600-S-G	481	KKS-20X45	518	KKS-50X50	518	KM13VWN	1175
KI-63BX600-S-G	482	KI-80X700-S-G	481	KKS-20X5	518	KKS-50X60	518	KM17WN	1175
KI-63BX700-S-G	482	KI-80X75-S-G	480	KKS-20X50	518	KKS-50X70	518	KM21WN	1175
KI-63BX75-S-G	482	KI-80X800-S-G	481	KKS-20X70	518	KKS-50X75	518	KM26WN	1175
KI-63BX800-S-G	482	KI-80X80-S-G	480	KKS-20X80	518	KKS-50X80	518	KMDS-1/2	1220
KI-63BX80-S-G	482	KI-80X900-S-G	481	KKS-20X90	518	KKS-50X90	518	KMDS-1/4	1220
KI-63BX900-S-G	482	KIA 10	1476	KKS-25X10	518	KKS-63X100	519	KMDS-1/8	1220
KI-63X1000-S-G	480	KIA 10 BSP	1476	KKS-25X100	518	KKS-63X125	519	KMDS-3/8	1220
KI-63X100-S-G	480	KIA 12	1476	KKS-25X15	518	KKS-63X15	519	K-MI120-1	1350
KI-63X125-S-G	480	KIA 12 BSP	1476	KKS-25X20	518	KKS-63X150	519	K-MI120-112	1350
KI-63X150-S-G	480	KIA 34	1476	KKS-25X25	518	KKS-63X20	519	K-MI120-112N	1350
KI-63X160-S-G	480	KIA 34 BSP	1476	KKS-25X30	518	KKS-63X25	519	K-MI120-114	1350
KI-63X175-S-G	480	KIA 38	1476	KKS-25X35	518	KKS-63X250	519	K-MI120-114N	1350
KI-63X200-S-G	480	KIA 38 BSP	1476	KKS-25X40	518	KKS-63X30	519	K-MI120-12	1350
KI-63X250-S-G	480	KIG10	1477	KKS-25X45	518	KKS-63X35	519	K-MI120-12N	1350
KI-63X25-S-G	480	KIG12	1477	KKS-25X5	518	KKS-63X5	519	K-MI120-1N	1350
KI-63X300-S-G	480	KIG14	1477	KKS-25X50	518	KKS-63X50	519	K-MI120-2	1350
KI-63X350-S-G	480	KIG34	1477	KKS-25X60	518	KKS-63X60	519	K-MI120-2N	1350
KI-63X400-S-G	480	KIG38	1477	KKS-25X70	518	KKS-63X75	519	K-MI120-34	1350
KI-63X450-S-G	480	KIG54	1477	KKS-25X75	518	KKS-63X80	519	K-MI120-34N	1350
KI-63X500-S-G	480	KKS-100X10	519	KKS-25X80	518	KKS-80X10	518	K-MI120-38	1350
KI-63X50-S-G	480	KKS-100X100	519	KKS-25X90	518	KKS-80X100	519	K-MI120-38N	1350
KI-63X600-S-G	480	KKS-100X125	519	KKS-32X10	518	KKS-80X125	519	K-MI121-1	1350
KI-63X700-S-G	480	KKS-100X15	519	KKS-32X100	518	KKS-80X15	519	K-MI121-112	1350
KI-63X75-S-G	480	KKS-100X150	519	KKS-32X125	518	KKS-80X150	519	K-MI121-112N	1350
KI-63X800-S-G	480	KKS-100X175	519	KKS-32X15	518	KKS-80X175	519	K-MI121-114	1350
KI-63X80-S-G	480	KKS-100X20	519	KKS-32X150	518	KKS-80X20	519	K-MI121-114N	1350
KI-63X900-S-G	480	KKS-100X200	519	KKS-32X20	518	KKS-80X200	519	K-MI121-12	1350
KI-80BX1000-S-G	483	KKS-100X25	519	KKS-32X25	518	KKS-80X25	519	K-MI121-12N	1350
KI-80BX100-S-G	482	KKS-100X250	519	KKS-32X30	518	KKS-80X250	519	K-MI121-1N	1350
KI-80BX125-S-G	482	KKS-100X30	519	KKS-32X35	518	KKS-80X30	519	K-MI121-2	1350
KI-80BX150-S-G	482	KKS-100X35	519	KKS-32X40	518	KKS-80X35	519	K-MI121-2N	1350
KI-80BX160-S-G	482	KKS-100X40	519	KKS-32X45	518	KKS-80X40	519	K-MI121-34	1350
KI-80BX175-S-G	482	KKS-100X45	519	KKS-32X5	518	KKS-80X45	519	K-MI121-34N	1350
KI-80BX200-S-G	482	KKS-100X5	519	KKS-32X50	518	KKS-80X5	519	K-MI121-38	1350
KI-80BX250-S-G	482	KKS-100X50	519	KKS-32X60	518	KKS-80X50	519	K-MI121-38N	1350
KI-80BX25-S-G	482	KKS-100X60	519	KKS-32X70	518	KKS-80X60	519	K-MI130-1	1351
KI-80BX300-S-G	482	KKS-100X70	519	KKS-32X75	518	KKS-80X70	519	K-MI130-112	1351
KI-80BX350-S-G	482	KKS-100X75	519	KKS-32X80	518	KKS-80X75	519	K-MI130-1-12	1352
KI-80BX400-S-G	482	KKS-100X80	519	KKS-40X10	518	KKS-80X80	519	K-MI130-112-1	1352
KI-80BX450-S-G	483	KKS-100X90	519	KKS-40X100	518	KKS-80X90	519	K-MI130-112-114	1352
KI-80BX500-S-G	483	KKS-12X10	518	KKS-40X125	518	KKS-80X12	520	K-MI130-112-114N	1352
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KI-80BX700-S-G	483	KKS-12X30	518	KKS-40X25	518	KKS-80X20	520	K-MI130-112-1N	1352
KI-80BX75-S-G	482	KKS-12X40	518	KKS-40X30	518	KKS-80X20-V	520	K-MI130-112-34	1352
KI-80BX800-S-G	483	KKS-12X5	518	KKS-40X35	518	KKS-80X25	520	K-MI130-112-34N	1352
KI-80BX80-S-G	482	KKS-12X50	518	KKS-40X40	518	KKS-80X32	520	K-MI130-112N	1351
KI-80BX900-S-G	483	KKS-16X10	518	KKS-40X45	518	KKS-80X40	520	K-MI130-1-12N	1352
KI-80X1000-S-G	481	KKS-16X15	518	KKS-40X5	518	KKS-80X50	520	K-MI130-114	1351
KI-80X100-S-G	480	KKS-16X25	518	KKS-40X50	518	KKS-80X60-V	520	K-MI130-114-1	1352
KI-80X125-S-G	480	KKS-16X30	518	KKS-40X60	518	KKS-80X63	520	K-MI130-114-12	1352
KI-80X150-S-G	480	KKS-16X35	518	KKS-40X75	518	KKS-80X80	520	K-MI130-114-12N	1352
KI-80X160-S-G	480	KKS-16X5	518	KKS-50X10	518	KLS200-06	641	K-MI130-114-1N	1352

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K-MI310-1	1354	K-MI90-112	1350	K-MI90-3-112N	1351	KOR-16S-10S	154	KOR-42L-18L	154
K-MI310-112N	1354	K-MI90-1-12	1351	K-MI90-3-114	1351	KOR-16S-12S	154	KOR-42L-22L	154
K-MI310-114	1354	K-MI90-112-1	1351	K-MI90-3-114N	1351	KOR-16S-14S	154	KOR-42L-28L	154
K-MI310-114N	1354	K-MI90-112-114N	1351	K-MI90-3-1N	1351	KOR-16S-6S	154	KOR-42L-35L	154
K-MI310-12	1354	K-MI90-112-12	1351	K-MI90-3-2	1351	KOR-16S-8S	154	KOR-8L-6L	154
K-MI310-12N	1354	K-MI90-112-12N	1351	K-MI90-3-212	1351	KOR-18L-10L	154	KOR-8S-6S	154
K-MI310-14N	1354	K-MI90-112-1N	1351	K-MI90-3-212N	1351	KOR-18L-12L	154	KP000744	616
K-MI310-2	1354	K-MI90-112-34	1351	K-MI90-3-2N	1351	KOR-18L-15L	154	KP010444	615
K-MI310-212	1354	K-MI90-112-34N	1351	K-MI90-3-34	1351	KOR-18L-6L	154	KP010464	615
K-MI310-212N	1354	K-MI90-112N	1350	K-MI90-3-34N	1351	KOR-18L-8L	154	KP040034	611
K-MI310-2N	1354	K-MI90-1-12N	1351	K-MI90-34	1350	KOR-20S-10S	154	KP05BKR	1759
K-MI310-3	1354	K-MI90-114	1350	K-MI90-34-12	1351	KOR-20S-12S	154	KP080214	611
K-MI310-34	1354	K-MI90-1-14	1351	K-MI90-34-12N	1351	KOR-20S-14S	154	KP080254	611
K-MI310-34N	1354	K-MI90-114-1	1351	K-MI90-34-14	1351	KOR-20S-16S	154	KP080394	611
K-MI310-38	1354	K-MI90-114-12	1351	K-MI90-34-14N	1351	KOR-20S-6S	154	KP080494	611
K-MI310-38N	1354	K-MI90-114-12N	1351	K-MI90-34-38	1351	KOR-20S-8S	154	KP081564	616
K-MI310-3N	1354	K-MI90-114-1N	1351	K-MI90-34-38N	1351	KOR-22L-10L	154	KP100014	615
K-MI310-4	1354	K-MI90-114-34	1351	K-MI90-34N	1350	KOR-22L-12L	154	KP100094	615
K-MI310-4N	1354	K-MI90-114-34N	1351	K-MI90-38	1350	KOR-22L-15L	154	KP100354	615
K-MI330-1	1355	K-MI90-114-38	1351	K-MI90-38-14	1351	KOR-22L-18L	154	KP2005	616
K-MI330-112	1355	K-MI90-114-38N	1351	K-MI90-38-14N	1351	KOR-22L-6L	154	KP30BKR	1759
K-MI330-112N	1355	K-MI90-114N	1350	K-MI90-38N	1350	KOR-22L-8L	154	KP40BKR	1759
K-MI330-114	1355	K-MI90-1-14N	1351	K-MI90-3N	1350	KOR-25S-10S	154	KPBU081564	616
K-MI330-114N	1355	K-MI90-12	1350	K-MI90-4	1350	KOR-25S-12S	154	KPMB40R	410
K-MI330-12	1355	K-MI90-12-14	1351	K-MI90-4-112	1351	KOR-25S-14S	154	KPMB50R	410
K-MI330-12N	1355	K-MI90-12-14N	1351	K-MI90-4-112N	1351	KOR-25S-16S	154	K-PR010B-P1	646
K-MI330-1N	1355	K-MI90-12-38	1351	K-MI90-4-114	1351	KOR-25S-20S	154	KR10-12SSAR	84
K-MI330-2	1355	K-MI90-12-38N	1351	K-MI90-4-114N	1351	KOR-25S-6S	154	KR10-6SSAR	84
K-MI330-212	1355	K-MI90-12N	1350	K-MI90-4-2	1351	KOR-25S-8S	154	KR10-8SSAR	84
K-MI330-212N	1355	K-MI90-1-34N	1351	K-MI90-4-212	1351	KOR-28L-10L	154	KR12-12SSAR	84
K-MI330-2N	1355	K-MI90-1-38	1351	K-MI90-4-212N	1351	KOR-28L-12L	154	KR12-8SSAR	84
K-MI330-3	1355	K-MI90-1-38N	1351	K-MI90-4-2N	1351	KOR-28L-15L	154	KR14-12SSAR	84
K-MI330-34	1355	K-MI90-14	1350	K-MI90-4-3	1351	KOR-28L-18L	154	KR14-16SSAR	84
K-MI330-34N	1355	K-MI90-14N	1350	K-MI90-4-3N	1351	KOR-28L-22L	154	KR14-8SSAR	84
K-MI330-38	1355	K-MI90-1N	1350	K-MI90-4N	1350	KOR-28L-6L	154	KR16-12SSAR	84
K-MI330-38N	1355	K-MI90-2	1350	K-MI92-1	1350	KOR-28L-8L	154	KR16-16SSAR	84
K-MI330-3N	1355	K-MI90-2-1	1351	K-MI92-112	1350	KOR-30S-10S	154	KR200-010-4490	140
K-MI330-4	1355	K-MI90-2-112	1351	K-MI92-114	1350	KOR-30S-12S	154	KR200-010-9790	140
K-MI330-4N	1355	K-MI90-2-112N	1351	K-MI92-12	1350	KOR-30S-14S	154	KR200-011-4490	140
K-MI331-1	1355	K-MI90-2-114	1351	K-MI92-14	1350	KOR-30S-16S	154	KR200-011-9790	140
K-MI331-112	1355	K-MI90-2-114N	1351	K-MI92-2	1350	KOR-30S-20S	154	KR200-114-4490	140
K-MI331-112N	1355	K-MI90-212	1350	K-MI92-212	1350	KOR-30S-25S	154	KR200-114-9790	140

KR200-211-4490	140	KRAM12BPR	138	KRAM30BPR	138	KREFE4	83	KRF-100X400-1	486
KR200-211-9790	140	KRAM12CR	138	KRAM30CR	138	KREFE6	83	KRF-100X50-0	486
KR200-212-4490	140	KRAM12ER	138	KRAM30ER	138	KREFE8	83	KRF-100X500-0	486
KR200-212-9790	140	KRAM12-M10RNR	140	KRAM30-M16ROTR	138	KREFT12	83	KRF-100X500-1	486
KR200-214-4490	140	KRAM12-M8RNR	140	KRAM30-M25RNR	140	KREFT16	83	KRF-100X50-1	486
KR200-214-9790	140	KRAM12-M8ROTR	138	KRAM30TR	138	KREFT2	83	KRF-16X100-0	456
KR200-217-4490	140	KRAM12TR	138	KRAM38-16MSCR	139	KREFT20	83	KRF-16X100-1	456
KR200-217-9790	140	KRAM16-12MSCR	139	KRAM38-20BHR	139	KREFT24	83	KRF-16X160-0	456
KR200-222-4490	140	KRAM16-6MSCR	139	KRAM38-20FOTR	139	KREFT32	83	KRF-16X160-1	456
KR200-222-9790	140	KRAM16-8BHR	139	KRAM38-20MSCR	139	KREFT4	83	KRF-16X200-0	456
KR200-613-4490	140	KRAM16-8BJR	139	KRAM38-24BHR	139	KREFT6	83	KRF-16X200-1	456
KR200-613-9790	140	KRAM16-8FOTR	139	KRAM38-24BJR	139	KREFT8	83	KRF-16X250-0	456
KR200-614-4490	140	KRAM16-8FSCR	139	KRAM38-24FOTR	139	KREME12	83	KRF-16X250-1	456
KR200-614-9790	140	KRAM16-8MSCR	139	KRAM38-24FSCR	139	KREME16	83	KRF-16X320-0	456
KR20-12SSAR	84	KRAM16BCR	139	KRAM38-24MSCR	139	KREME20	83	KRF-16X320-1	456
KR20-16SSAR	84	KRAM16BPR	138	KRAM38BCR	139	KREME24	83	KRF-16X400-0	456
KR20-20SSAR	84	KRAM16CR	138	KRAM38BPR	138	KREME4	83	KRF-16X400-1	456
KR207-071-4490	140	KRAM16ER	138	KRAM38CR	138	KREME6	83	KRF-16X50-0	456
KR207-071-9790	140	KRAM16-M12RNR	140	KRAM38ER	138	KREME8	83	KRF-16X500-0	456
KR32-24SSAR	84	KRAM16-M8RNR	140	KRAM38-M20RNR	140	KREU10	82	KRF-16X500-1	456
KR32-32SSAR	84	KRAM16-M8ROTR	138	KRAM38-M20ROTR	138	KREU12	82	KRF-16X50-1	456
KR4-2SSAR	84	KRAM16TR	138	KRAM38-M25RNR	140	KREU16	82	KRF-20X100-0	456
KR4-4SSAR	84	KRAM20-12BHR	139	KRAM38-M30RNR	140	KREU2	82	KRF-20X100-1	456
KR5-2SSAR	84	KRAM20-12BJR	139	KRAM38TR	138	KREU20	82	KRF-20X160-0	456
KR5-4SSAR	84	KRAM20-12FSCR	139	KRAM50-20MSCR	139	KREU24	82	KRF-20X160-1	456
KR5-6SSAR	84	KRAM20-12MSCR	139	KRAM50-24FOTR	139	KREU32	82	KRF-20X200-0	456
KR6-4SSAR	84	KRAM20-16MSCR	139	KRAM50-24MSCR	139	KREU4	82	KRF-20X200-1	456
KR6-6SSAR	84	KRAM20-8MSCR	139	KRAM50-32FSCR	139	KREU6	82	KRF-20X250-0	456
KR8-4SSAR	84	KRAM20BCR	139	KRAM50-32MSCR	139	KREU8	82	KRF-20X250-1	456
KR8-6SSAR	84	KRAM20BPR	138	KRAM50BCR	139	KREUBH10	82	KRF-20X320-0	456
KR8-8SSAR	84	KRAM20CR	138	KRAM50BPR	138	KREUBH12	82	KRF-20X320-1	456
KRA12-12BJ	84	KRAM20ER	138	KRAM50CR	138	KREUBH16	82	KRF-20X400-0	456
KRA4-4BJ	84	KRAM20-M10RNR	140	KRAM50ER	138	KREUBH20	82	KRF-20X400-1	456
KRA6-6BJ	84	KRAM20-M12RNR	140	KRAM50-M25RNR	140	KREUBH24	82	KRF-20X50-0	456
KRA8-8BJ	84	KRAM20-M16RNR	140	KRAM50-M30RNR	140	KREUBH4	82	KRF-20X500-0	456
KRAB12T-12	83	KRAM20-M8ROTR	138	KRAM50-M38RNR	140	KREUBH6	82	KRF-20X500-1	456
KRAB16T-16	83	KRAM20TR	138	KRAM50TR	138	KREUBH8	82	KRF-20X50-1	456
KRAB24T-24	83	KRAM22BCR	139	KRAM6-2MSCR	139	KREUPAT12	82	KRF-25X100-0	456
KRAB4T-4	83	KRAM22BPR	138	KRAM6-4BJR	139	KREUPAT16	82	KRF-25X100-1	456
KRAB6T-4	83	KRAM22CR	138	KRAM6-4FSCR	139	KREUPAT2	82	KRF-25X160-0	456
KRAB6T-6	83	KRAM22ER	138	KRAM6-4MSCR	139	KREUPAT20	82	KRF-25X160-1	456
KRAB8T-8	83	KRAM22TR	138	KRAM6-6MSCR	139	KREUPAT4	82	KRF-25X200-0	456
KRAM10-4MSCR	139	KRAM25-12MSCR	139	KRAM6BPR	138	KREUPAT6	82	KRF-25X200-1	456
KRAM10-6BHR	139	KRAM25-16BHR	139	KRAM6CR	138	KREUPAT8	82	KRF-25X250-0	456
KRAM10-6BJR	139	KRAM25-16BJR	139	KRAM6ER	138	KREUPT12	82	KRF-25X250-1	456
KRAM10-6FOTR	139	KRAM25-16FSCR	139	KRAM6TR	138	KREUPT16	82	KRF-25X320-0	456
KRAM10-6MSCR	139	KRAM25-16MSCR	139	KRAM8-2MSCR	139	KREUPT2	82	KRF-25X320-1	456
KRAM10-8MSCR	139	KRAM25-20MSCR	139	KRAM8-4BHR	139	KREUPT20	82	KRF-25X400-0	456
KRAM10BCR	139	KRAM25BCR	139	KRAM8-4BJR	139	KREUPT24	82	KRF-25X400-1	456
KRAM10BPR	138	KRAM25BPR	138	KRAM8-4MSCR	139	KREUPT32	82	KRF-25X50-0	456
KRAM10CR	138	KRAM25CR	138	KRAM8-6FSCR	139	KREUPT4	82	KRF-25X500-0	456
KRAM10ER	138	KRAM25ER	138	KRAM8-6MSCR	139	KREUPT6	82	KRF-25X500-1	456
KRAM10-M6RNR	140	KRAM25-M12RNR	140	KRAM8BCR	139	KREUPT8	82	KRF-25X50-1	456
KRAM10-M8RNR	140	KRAM25-M12ROTR	138	KRAM8BPR	138	KRF-100X100-0	486	KRF-32X100-0	486
KRAM10TR	138	KRAM25-M16RNR	140	KRAM8CR	138	KRF-100X100-1	486	KRF-32X100-1	486
KRAM12-12MSCR	139	KRAM25-M16ROTR	138	KRAM8ER	138	KRF-100X160-0	486	KRF-32X160-0	486
KRAM12-4MSCR	139	KRAM25-M20RNR	140	KRAM8TR	138	KRF-100X160-1	486	KRF-32X160-1	486
KRAM12-6BHR	139	KRAM25TR	138	KRBV2	82	KRF-100X200-0	486	KRF-32X200-0	486
KRAM12-6BJR	139	KRAM30-16MSCR	139	KREFE12	83	KRF-100X200-1	486	KRF-32X200-1	486
KRAM12-6FOTR	139	KRAM30-20BJR	139	KREFE16	83	KRF-100X250-0	486	KRF-32X250-0	486
KRAM12-6FSCR	139	KRAM30-20FOTR	139	KREFE2	83	KRF-100X250-1	486	KRF-32X250-1	486
KRAM12-6MSCR	139	KRAM30-20FSCR	139	KREFE20	83	KRF-100X320-0	486	KRF-32X320-0	486
KRAM12-8MSCR	139	KRAM30-20MSCR	139	KREFE24	83	KRF-100X320-1	486	KRF-32X320-1	486
KRAM12BCR	139	KRAM30BCR	139	KREFE32	83	KRF-100X400-0	486	KRF-32X400-0	486

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	KRF-32X400-1	486	KRF-80X400-1	486	KRM30-12SSAR	84	KRRB24-12	82	KSS-12-LB	520
	KRF-32X50-0	486	KRF-80X50-0	486	KRM30-16SSAR	84	KRRB24-16	82	KSS-16-FAFB	520
	KRF-32X500-0	486	KRF-80X500-0	486	KRM30-20SSAR	84	KRRB24-20	82	KSS1-G	520
	KRF-32X500-1	486	KRF-80X500-1	486	KRM30BPGR	140	KRRB24-8	82	KSS-20-CB	520
	KRF-32X50-1	486	KRF-80X50-1	486	KRM30NCR	140	KRRB32-16	82	KSS-20-FAFB	520
	KRF-40X100-0	486	KRFA12-12	83	KRM30R	140	KRRB32-20	82	KSS-20-LB	520
	KRF-40X100-1	486	KRFA16-16	83	KRM30W	140	KRRB32-24	82	KSS-20-LBS-P1	520
	KRF-40X160-0	486	KRFA20-20	83	KRM38-16SSAR	84	KRRB4-2	82	KSS-25-FAFB	520
	KRF-40X160-1	486	KRFA4-2	83	KRM38-20SSAR	84	KRRB6-2	82	KSS-25-LB	520
	KRF-40X200-0	486	KRFA4-4	83	KRM38-24SSAR	84	KRRB6-4	82	KSS-25-LBS-P1	520
	KRF-40X200-1	486	KRFA6-2	83	KRM38BPGR	140	KRRB8-2	82	KSS-32-CB	520
	KRF-40X250-0	486	KRFA6-4	83	KRM38NCR	140	KRRB8-4	82	KSS-32-FAFB	520
	KRF-40X250-1	486	KRFA6-6	83	KRM38R	140	KRRB8-6	82	KSS-32-LB	520
	KRF-40X320-0	486	KRFA8-2	83	KRM38W	140	KRS-2.5	460	KSS-40-CB	520
	KRF-40X320-1	486	KRFA8-4	83	KRM50-24SSAR	84	KRS200-06	640	KSS-40-FAFB	520
	KRF-40X400-0	486	KRFA8-6	83	KRM50-32SSAR	84	KRS200-06-F3	640	KSS-40-LB	520
	KRF-40X400-1	486	KRFA8-8	83	KRM50BPGR	140	KRS200-08	640	KSS-50-CB	520
	KRF-40X50-0	486	KRFOMT12	83	KRM50NCR	140	KRS200-08-F3	640	KSS-50-FAFB	520
	KRF-40X500-0	486	KRFOMT16	83	KRM50R	140	KRS300-08-F3	640	KSS-50-LB	520
	KRF-40X500-1	486	KRFOMT20	83	KRM50W	140	KRS300-10-F3	640	KSS-50-LBS-P1	520
	KRF-40X50-1	486	KRFOMT24	83	KRM6-2SSAR	84	KRS300-15-F3	640	KSS-63-CB	520
	KRF-50X100-0	486	KRFOMT4	83	KRM6-4SSAR	84	KRS400-10-F3	640	KSS-63-FAFB	520
	KRF-50X100-1	486	KRFOMT6	83	KRM6BPGR	140	KRS400-15-F3	640	KSS-63-LB	520
	KRF-50X160-0	486	KRFOMT8	83	KRM6NCR	140	KRS600-20-F3	640	KSS-80-CB	520
	KRF-50X160-1	486	KRGA4-4	84	KRM6R	140	KRS600-25-F3	640	KSS-80-FAFB	520
	KRF-50X200-0	486	KRGA6-4	84	KRM6W	140	KRUU10-4	82	KSV-06	549
	KRF-50X200-1	486	KRGA8-4	84	KRM8-2SSAR	84	KRUU10-6	82	KSV-08	549
	KRF-50X250-0	486	KRM10-4SSAR	84	KRM8-4SSAR	84	KRUU10-8	82	KSV-10	549
	KRF-50X250-1	486	KRM10-6SSAR	84	KRM8-6SSAR	84	KRUU12-10	82	KSV-15	549
	KRF-50X320-0	486	KRM10BPGR	140	KRM8BPGR	140	KRUU12-6	82	KSV-20	549
	KRF-50X320-1	486	KRM10NCR	140	KRM8NCR	140	KRUU12-8	82	KSV-25	549
	KRF-50X400-0	486	KRM10R	140	KRM8R	140	KRUU16-10	82	KSY-06	547
	KRF-50X400-1	486	KRM10W	140	KRM8W	140	KRUU16-12	82	KTC-1	905
	KRF-50X50-0	486	KRM12-4SSAR	84	KRP10	84	KRUU16-14	82	KU-33.006	537
	KRF-50X500-0	486	KRM12-6SSAR	84	KRP12	84	KRUU16-8	82	KU-33.21.326	537
	KRF-50X500-1	486	KRM12-8SSAR	84	KRP16	84	KRUU20-12	82	KU-40.100	537
	KRF-50X50-1	486	KRM12NCR	140	KRP2	84	KRUU20-16	82	KU-50.670	614
	KRF-63X100-0	486	KRM12R	140	KRP20	84	KRUU24-16	82	KU-50.680	614
	KRF-63X100-1	486	KRM12W	140	KRP24	84	KRUU24-20	82	KU-51.020.03.00	614
	KRF-63X160-0	486	KRM16-12SSAR	84	KRP2AB	84	KRUU32-16	82	KU-51.020.30.00	614
	KRF-63X160-1	486	KRM16-6SSAR	84	KRP32	84	KRUU32-20	82	KU-54.022	614
	KRF-63X200-0	486	KRM16-8SSAR	84	KRP4	84	KRUU32-24	82	KU-54.023	614
	KRF-63X200-1	486	KRM16NCR	140	KRP6	84	KRUU4-2	82	KU-54.024	614
	KRF-63X250-0	486	KRM16R	140	KRP8	84	KRUU6-4	82	KUNL100/108	198
	KRF-63X250-1	486	KRM16W	140	KRPT12	84	KRUU8-4	82	KUNL100/114.3	198
	KRF-63X320-0	486	KRM20-12SSAR	84	KRPT16	84	KRUU8-6	82	KUNL20/25	198
	KRF-63X320-1	486	KRM20-8SSAR	84	KRPT2	84	KSCHS-06-B	547	KUNL20/26.9	198
	KRF-63X400-0	486	KRM20BPGR	140	KRPT20	84	KSCHS-06-G	547	KUNL25/30	198
	KRF-63X400-1	486	KRM20NCR	140	KRPT4	84	KSCHS-06-R	547	KUNL25/33.7	198
	KRF-63X50-0	486	KRM20R	140	KRPT6	84	KSCL-06	548	KUNL32/38	198
	KRF-63X500-0	486	KRM20W	140	KRPT8	84	KSCPF-06-B	547	KUNL40/44.5	198
	KRF-63X500-1	486	KRM22-12SSAR	84	KRRB10-8	82	KSCPF-06-G	547	KUNL40/48.3	198
	KRF-63X50-1	486	KRM22-16SSAR	84	KRRB12-4	82	KSCPF-06-R	547	KUNL50/57	198
	KRF-80X100-0	486	KRM22-8SSAR	84	KRRB12-6	82	KSCPL-06-R	547	KUNL50/60.3	198
	KRF-80X100-1	486	KRM22BPGR	140	KRRB12-8	82	KSCPM-06-B	547	KUNL65/76.1	198
	KRF-80X160-0	486	KRM22NCR	140	KRRB16-12	82	KSCPM-06-G	547	KUNL80/88.9	198
	KRF-80X160-1	486	KRM22R	140	KRRB16-4	82	KSCPM-06-R	547	KUPL100/108	198
	KRF-80X200-0	486	KRM22W	140	KRRB16-6	82	KSCPP-06-B	547	KUPL100/114.3	198
	KRF-80X200-1	486	KRM25-12SSAR	84	KRRB16-8	82	KSCPP-06-G	547	KUPL15/17.2	198
	KRF-80X250-0	486	KRM25-16SSAR	84	KRRB20-12	82	KSCPP-06-R	547	KUPL15/21.3	198
	KRF-80X250-1	486	KRM25BPGR	140	KRRB20-16	82	KSCR-06	548	KUPL20/25	198
	KRF-80X320-0	486	KRM25NCR	140	KRRB20-4	82	KSCV-06	548	KUPL20/26.9	198
	KRF-80X320-1	486	KRM25R	140	KRRB20-6	82	KSS-100-LB	520	KUPL25/30	198
	KRF-80X400-0	486	KRM25W	140	KRRB20-8	82	KSS-12-FAFB	520	KUPL25/33.7	198

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KUPL32/42.4	198	L133B06-1-24	1033	L182V09-1-24	1031	L633.4/010X10	1433	LDSRAH06X0.6	1411
KUPL40/44.5	198	L133B06-1-2450	1033	L182V09-1-2450	1031	L633.4/010X40	1433	LDSRAH10X0.6	1411
KUPL40/48.3	198	L133B07-34-110	1033	L182V09-34-11050	1031	L633.4/013X10	1433	LDSRAH10X0.6-19	1411
KUPL50/57	198	L133B07-34-230	1033	L182V09-34-23050	1031	L633.4/013X40	1433	LDSRAH10X0.6-XF	1411
KUPL50/60.3	198	L133B07-34-24	1033	L182V09-34-24	1031	L633.4/016X10	1433	LDSRAH13X0.6	1411
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L 41 63	510	L182D01-38-2450	1032	L282V09-1-2450	1031	LD40-1	1595	LE-0483 06 13	934
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L10 1071-14	1006	L182D48-2-230	1032	L321B02C-14-230	1033	LDF42/42K	1169	LE-0677 00 10	631
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L10 6400-34	1005	L182V09-12-24	1031	L633.4/006X40	1433	LDP08/060	909	LE-1010P04 00M07	917
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LE-7822 00 13	628	LE-7996 08 00	807	LF2100	253	LHC-5	273	LLF33123URTF	1506
LE-7822 00 17	628	LE-7996 10 00	807	LF2220	253	LHC-6	273	LLF333URTF	1506
LE-7822 00 21	628	LE-7996 12 00	807	LF250-N-12F	736	LL30B2	1508	LLF44URTF	1506
LE-7880 06 10	806	LE-9086 23 13	389	LF250-S-12F	736	LL30B3	1508	LLF44URTM	1506
LE-7880 06 13	806	LE-9086 23 21	389	LF250-WS-12F	736	LL30B33	1508	LLFBSP112	1506

LM1FA250-T60	441	LN08NP	1176	LOC-267452	1569	LR080MS	1518	LU-1500	1646
LM1FA250-T70	441	LN-1	1184	LOC-268	1584	LR080SS	1518	LU-1510	1646
LM1FA250-T80	441	LN-112	1184	LOC-270153	1391	LR090MS	1518	LU-1520	1646
LM1FA300-T40	441	LN-114	1184	LOC-272597	1585	LR090SS	1518	LU-1530	1646
LM1FA300-T50	441	LN12	1201	LOC-272602	1585	LR100MS	1518	LU-1540	1646
LM1FA300-T60	441	LN-12	1184	LOC-297328	1586	LR100SS	1518	LU-1550	1646
LM1FA300-T70	441	LN12NP	1176	LOC-298392	1586	LR110MS	1518	LU-1560	1646
LM1FA300-T80	441	LN-14	1184	LOC-3	273	LR110SS	1518	LU-1570	1646
LM1FA350-T40	441	LN16	1201	LOC-399422	1569	LR120MS	1518	LU-1580	1646
LM1FA350-T50	441	LN16NP	1176	LOC-4	273	LR120SS	1518	LU-1590	1646
LM1FA350-T60	441	LN-18	1184	LOC-483283	1391	LR130MS	1518	LU-1600	1646
LM1FA350-T70	441	LN-2	1184	LOC-5	273	LR140MS	1518	LU-1610	1646
LM1FA350-T80	441	LN-212	1184	LOC-504219	1586	LR140SS	1518	LU-1620	1646
LM1FA400-T40	441	LN-3	1184	LOC-561	1584	LR150MS	1518	LU-1630	1646
LM1FA400-T50	441	LN-34	1184	LOC-6	273	LR150SS	1518	LU-1640	1646
LM1FA400-T60	441	LN-38	1184	LOC-760225	1569	LR160MS	1518	LU-1650	1646
LM1FA400-T70	441	LN-4	1184	LOC-8065	1584	LR160SS	1518	LU-1670	1646
LM1FA400-T80	441	LNM15NP	1176	LOC-871787	1587	LU-1000	1645	LU-1680	1646
LM1FA450-T40	441	LNM20NP	1176	LOK007-L	1763	LU-1010	1645	LU-1690	1646
LM1FA450-T50	441	LNM24NP	1176	LOK008-L	1763	LU-1020	1645	LU-1700	1646
LM1FA450-T60	441	LNM26NP	1176	LOK009-L	1763	LU-1030	1645	LU-1710	1647
LM1FA450-T70	441	LNM28NP	1176	LOK010-L	1763	LU-1040	1645	LU-1720	1647
LM1FA450-T80	441	LOC-1	273	LOK011-L	1763	LU-1050	1645	LU-1730	1647
LM1FA500-T40	441	LOC-1266117	1584	LOK014	1762	LU-1060	1645	LU-1740	1647
LM1FA500-T50	441	LOC-135278	1584	LOK020-L	1762	LU-1070	1645	LU-1750	1647
LM1FA500-T60	441	LOC-135279	1584	LOK023	1763	LU-1080	1645	LU-1760SS	1647
LM1FA500-T70	441	LOC-135280	1585	LOK024	1763	LU-1090SS	1645	LU-1780	1647
LM1FA500-T80	441	LOC-135428	1587	LOK030	1762	LU-1100SS	1645	LU-1790	1647
LM1TB-0500	441	LOC-135483	1584	LOK043	1762	LU-1120SS	1645	LU-1800	1647
LM1TB-1000	441	LOC-135522	1585	LOK068	1763	LU-1130	1645	LU-1810	1647
LM2FA100	441	LOC-1379599	1587	LOK073	1763	LU-1140	1645	LU-1820SS	1647
LM2FA150	441	LOC-142517	1587	LOK116	1762	LU-1150	1645	LU-1830SS	1647
LM2FA200	441	LOC-1545634	1585	LOK172	1762	LU-1160	1645	LUE-GTI 20-50 SS	1484
LM2FA250	441	LOC-1546952	1586	LOK173	1762	LU-1170	1645	LUE-GTI 30-75 SS	1484
LM2FA300	441	LOC-1546964	1585	LOK229	1762	LU-1180	1645	LUE-KSA 36-39	1484
LM2FA350	441	LOC-1684617	1586	LOK230	1762	LU-1190	1645	LUE-KSA 63-67	1484
LM2FA400	441	LOC-1778011	1587	LOL1	262	LU-1200	1645	LUE-SKD-SEAL	1483
LM2FA450	441	LOC-1808110	1586	LPH-12.5	1556	LU-1210	1645	LUE-USC-1	1483
LM2FA500	441	LOC-195678	1587	LPH-13.5	1556	LU-1220SS	1645	M	
LMBV-1	923	LOC-195814	1569	LPH-14.5	1556	LU-1230SS	1645	M/1511	635
LMBV-112	923	LOC-2	273	LPH-16	1556	LU-1240SS	1645	M/1512	635
LMBV-114	923	LOC-2237457	1587	LPH-18	1556	LU-1250SS	1645	M/1514	635
LMBV-12	923	LOC-229342	1584	LPH-19	1556	LU-1260	1645	M/1516	635
LMBV-2	923	LOC-229360	1585	LPH-19.5	1556	LU-1270	1645	M/1518	635
LMBV-34	923	LOC-229873	1585	LPH-22	1556	LU-1290SS	1645	M/1525/125	506
LMC-1	1424	LOC-229875	1585	LPH-23	1556	LU-1300	1645	M/1525/200	506
LMC-1000-1312SE	166	LOC-232515	1584	LPH-28	1556	LU-1310	1645	M/1525/75	506
LMC-112	1424	LOC-233695	1587	LPH-30	1556	LU-1320	1645	M/1540/125	506
LMC-114	1424	LOC-233733	1586	LPH-33	1556	LU-1330	1645	M/1540/200	506
LMC-2	1424	LOC-234228	1569	LPH-38	1556	LU-1340SS	1645	M/1540/75	506
LMC-212	1424	LOC-234258	1569	LPH-41	1556	LU-1360	1646	M/1553/14	557
LMC-250-437SE	166	LOC-234458	1586	LR022MS	1518	LU-1370	1646	M/1553/8	557
LMC-3	1424	LOC-234573	1585	LR022SS	1518	LU-1380	1646	M/48/MAZ13J	591
LMC-312-500SE	166	LOC-234795	1585	LR032MS	1518	LU-1390	1646	M/48/MAZ19J	591
LMC-375-562SE	166	LOC-234853	1584	LR032SS	1518	LU-1400	1646	M/49/MAZ13J	591
LMC-4	1424	LOC-235330	1569	LR040MS	1518	LU-1410	1646	M/49/MAZ14J	591
LMC-5	1424	LOC-248	1584	LR040SS	1518	LU-1420	1646	M/49/MAZ18J	591
LMC-500-750SE	166	LOC-260499	1585	LR045SS	1518	LU-1430	1646	M/49/MAZ19J	591
LMC-625-875SE	166	LOC-265628	1586	LR050MS	1518	LU-1440	1646	M/50/LSU/10V	506
LMC-750-1062SE	166	LOC-267380	1584	LR050SS	1518	LU-1450	1646	M/50/LSU/2V	506
LMC-875-1187SE	166	LOC-267431	1584	LR060MS	1518	LU-1460	1646	M/50/LSU/5V	506
LN02NP	1176	LOC-267432	1584	LR060SS	1518	LU-1470	1646	M/58301/01	749
LN04NP	1176	LOC-267437	1585	LR070MS	1518	LU-1480	1646	M/58303/01	749
LN06NP	1176	LOC-267442	1585	LR070SS	1518	LU-1490	1646	M/58304/01	749

M/58305/01	749	M1TS2VL3	1045	M-44X4	111	MAN-151.02	1221	MAV6SR	130
M/58306/01	749	M20S	117	M-4X2	111	MAN-151.03	1221	MAV8LR	130
M/58307/01	749	M20S-1.4571AGP	164	M53004L-10A	565	MAN-151.04	1221	MAV8SR	130
M/58403/01	749	M-20S-FT	159	M-5X2	111	MAN-151.05	1221	MB001B	635
M/58405/01	749	M20X110	108	M-6L	117	MAN-151.06	1221	MB002B	635
M/58408/01	749	M-20X3	111	M-6LFT	159	MAN-151.22	1221	MB003B	635
M/58410/01	749	M20X60	108	M6S	117	MAN-151.33	1221	MB004B	635
M/P1501/60	541	M20X65	108	M-6S-FT	159	MAN-151.44	1221	MB006B	635
M/P1501/89	541	M20X70	108	M-6X2	111	MAN-151.55	1221	MB008B	635
M/P1501/90	541	M2-14	1220	M700WHI1212	1391	MAN-152.02	1221	MB02/04	1222
M/P19063	591	M-22L	117	M-7X2	111	MAN-152.03	1221	MB02/06	1222
M/P35598/1	590	M22L-1.4571AGP	164	M8090	1632	MAN-152.04	1221	MB02/08	1222
M/P35598/10	590	M-22L-FT	159	M837	635	MAN-152.05	1221	MB04/02	1222
M/P35598/2	590	M-22X3	111	M-8L	117	MAN-152.06	1221	MB04/04	1222
M/P35598/3	590	M24SBLA4850	1391	M-8L-FT	159	MAN-152.22	1221	MB04/06	1222
M/P35598/4	590	M24SSIL4850	1391	M8S	117	MAN-152.33	1221	MB04/08	1222
M/P35598/5	590	M24SSIL7250	1391	M-8S-FT	159	MAN-152.44	1221	MB04/10	1222
M/P35598/6	590	M24SSIL9650	1391	M-8X2	111	MAN-152.55	1221	MB06/04	1222
M/P35598/8	590	M24SWHI4850	1391	M8X25	108	MAN-153.03	1221	MB06/04/04	1222
M/P35598/9	590	M-24X3	111	M8X30	108	MAN-153.04	1221	MB06/04/06	1222
M/S1	635	M25S	117	M9311	1720	MAN-153.05	1221	MB06/04/08	1222
M/S2	635	M25S-1.4571AGP	164	M9312	1720	MAN-153.06	1221	MB06/06	1222
M/S3	635	M-25S-FT	159	M9313	1720	MAN-153.33	1221	MB06/08	1222
M/S4	635	M-25X3	111	M9320	1720	MAN-153.44	1221	MB08/04	1222
M-10L	117	M-27X3	111	M9321	1720	MAN-153.55	1221	MB08/06	1222
M-10L-FT	159	M-28L	117	M9322	1720	MAN-154.02	1221	MB08/08	1222
M10S	117	M28L-1.4571AGP	164	M9323	1720	MAN-154.03	1221	MB1	1167
M-10S-FT	159	M-28L-FT	159	M9336	1720	MAN-154.04	1221	MB112	1167
M-10X2	111	M-28X3	111	M9337	1720	MAN-154.05	1221	MB114	1167
M-10X2.5	111	M293GAS5025	1391	M9338	1720	MAN-154.06	1221	MB12	1167
M10X30	108	M2NS2000	1046	M9339	1720	MAN-154.22	1221	MB12/04	1222
M10X35	108	M2TS2VL1	1046	M9340	1720	MAN-154.33	1221	MB12/06	1222
M10X40	108	M2TS2VL2	1046	MA001B	635	MAN-154.44	1221	MB12/08/04	1222
M10X45	108	M2TS2VL3	1046	MA002B	635	MAN-154.55	1221	MB14	1167
M-11X2.5	111	M30S	117	MA003B	635	MAN-155.02	1221	MB15-10BX	1420
M-12L	117	M30S-1.4571AGP	164	MA004B	635	MAN-155.06	1221	MB15-13BX	1420
M-12L-FT	159	M-30S-FT	159	MA006B	635	MAN-155.22	1221	MB1601	1552
M12S	117	M-30X3	111	MA010C	635	MAN-156.02	1221	MB1603	1552
M-12S-FT	159	M3122	757	MA012C	635	MAN-156.03	1221	MB1705	1552
M-12X2.5	111	M3123	757	MA016C	635	MAN-156.04	1221	MB1708	1552
M12X35	108	M3124	757	MA634V54PA05100	1043	MAN-156.05	1221	MB18	1167
M12X45	108	M3132	757	MA634V54PA05300	1043	MAN-156.06	1221	MB1802	1552
M12X50	108	M3133	757	MA634V54PA05500	1043	MAN-156.44	1221	MB1803	1552
M12X70	108	M3134	757	MA634V55PA05100	1043	MAN-156.55	1221	MB1804	1552
M14S	117	M3-14	1220	MA634V55PA05300	1043	MAN-157.02	1221	MB1806	1552
M-14S-FT	159	M3-19	338	MA634V55PA05500	1043	MAN-157.03	1221	MB2	1167
M-14X2.5	111	M3-25	354	MA634V56PA05100	1043	MAN-157.04	1221	MB22-13BX	1420
M14X45	108	M-32X3	111	MA634V56PA05300	1043	MAN-157.05	1221	MB22-19BX	1420
M14X50	108	M-33X3	111	MA634V56PA05500	1043	MAN-157.22	1221	MB34	1167
M-15L	117	M-35L	117	MAG 10/25	1492	MAN-157.33	1221	MB38	1167
M-15L-FT	159	M35L-1.4571AGP	164	MAG 20/50	1492	MAN-157.44	1221	MB4	599
M16S	117	M-35L-FT	159	MAL1/2-75-IMP	918	MAN-157.55	1221	MB5	599
M-16S-FT	159	M-35X3	111	MAL1/4-25-IMP	918	MAN20	1496	MB56	599
M-16X2.5	111	M-36X3	111	MAL1/4-75-IMP	918	MAN24	1496	MB57	599
M16X55	108	M38S	117	MAL10-25	918	MAN6	1496	MB58	599
M-17X2.5	111	M38S-1.4571AGP	164	MAL12-25	918	MAS-G1/2-WD	270	MB635V54PA05100	1043
M-18L	117	M-38S-FT	159	MAL3/8-75-IMP	918	MAS-G1/4-WD	270	MB635V54PA05300	1043
M18L-1.4571AGP	164	M-38X3	111	MAL6-25	918	MAS-G1/8-WD	270	MB635V54PA05500	1043
M-18L-FT	159	M-38X4	111	MAL8-25	918	MAS-G3/8-WD	270	MB635V55PA05100	1043
M-19X2.5	111	M3-TA	329	MAN12	1496	MAV10LR	130	MB635V55PA05300	1043
M-19X3	111	M-3X2	111	MAN-145.2	1221	MAV10SR	130	MB635V55PA05500	1043
M1NS2000	620	M-41X4	111	MAN-145.3	1221	MAV12LR	130	MB635V56PA05100	1043
M1TS2VL1	1045	M-42L	117	MAN-145.4	1221	MAV12SR	130	MB635V56PA05300	1043
M1TS2VL2	1045	M-42L-FT	159	MAN-145.8	1221	MAV6LR	130	MB635V56PA05500	1043

MB9	599	MBV38S	926	MC-12-250N	173	MC-20-750N	173	MC-25-750N	173
MB-D200	654	MBVM12	926	MC-12-250RS	173	MC-20-750RS	173	MC-25-750RS	173
MB-D400	654	MBVM12S	926	MC-12-250RT	173	MC-20-750RT	173	MC-25-750RT	173
MB-D600	654	MBVM14	926	MC-12-375N	173	MC20A1-40	758	MC25A1-40	758
MBM1	1167	MBVM14S	926	MC-12-375RS	173	MC20A1-60	758	MC25A1-60	758
MBM12	1167	MBVM18	926	MC-12-375RT	173	MC20A2-40	758	MC25A2-40	758
MBM14	1167	MBVM18S	926	MC1-25	1145	MC20A2-60	758	MC25A2-60	758
MBM18	1167	MBVM34	926	MC-12-500N	173	MC20B1-40	758	MC25B1-40	758
MBM34	1167	MBVM34S	926	MC-12-500RS	173	MC20B1-60	758	MC25B1-60	758
MBM38	1167	MBVM38	926	MC-12-500RT	173	MC20B2-40	758	MC25B2-40	758
MBT-10-250N	175	MBVM38S	926	MC-125-125N	166	MC20B2-60	758	MC25B2-60	758
MBT-12-250N	175	MC1/2-10	1420	MC-125-125RS	167	MC20C1-40	759	MC25C1-40	759
MBT-12-375N	175	MC1/2-13	1420	MC-125-125RT	166	MC20C1-60	759	MC25C1-60	759
MBT-12-500N	175	MC1/2-16	1420	MC-125-250N	166	MC20C2-40	759	MC25C2-40	759
MBT-125-125N	168	MC1/4-6	1420	MC-125-250RS	167	MC20C2-60	759	MC25C2-60	759
MBT-125-250N	168	MC1/4-8	1420	MC-125-250RT	166	MC20D1-40	759	MC3/4-13	1420
MBT-16-500N	175	MC1/8-6	1420	MC-125-312SE	166	MC20D1-60	759	MC3/4-19	1145
MBT-187-125N	168	MC-1000-1000N	166	MC-125-375N	166	MC20D2-40	759	MC3/8-10	1420
MBT-250-125N	168	MC-1000-1000RS	167	MC-125-375RS	167	MC20D2-60	759	MC3/8-13	1420
MBT-250-250N	168	MC-1000-1000RT	166	MC-125-500N	166	MC-22-1000N	173	MC3/8-8	1420
MBT-312-125N	168	MC-1000-1062SE	166	MC-125-562SE	166	MC-22-1000RS	173	MC-312-125N	166
MBT-375-250N	168	MC-1000-1312SE	166	MC-12-750N	173	MC-22-1000RT	173	MC-312-125RT	166
MBT-375-375N	168	MC-1000-500N	166	MC-12-750RS	173	MC-22-750N	173	MC-312-250N	166
MBT-500-375N	168	MC-1000-500RS	167	MC-12-750RT	173	MC-22-750RS	173	MC-312-250RT	166
MBT-500-500N	168	MC-1000-750N	166	MC12-8	141	MC-22-750RT	173	MC-312-375N	166
MBT-6-125N	175	MC101	201	MC12-8T	142	MC23A1-40	758	MC-312-500N	166
MBT-6-250N	175	MC10-12	141	MC14-12	141	MC23A1-60	758	MC-312-500SE	166
MBT-625-500N	168	MC-10-125N	173	MC-14-250N	173	MC23A2-40	758	MC-3-125N	173
MBT-750-750N	168	MC-10-125RT	173	MC-14-375N	173	MC23A2-60	758	MC-3-125RS	173
MBT-8-125N	175	MC1016	201	MC-14-500N	173	MC23B1-40	758	MC-3-125RT	173
MBT-8-250N	175	MC102	201	MC-15-500N	173	MC23B1-60	758	MC321	201
MBTP-1000-1000PR	168	MC-10-250N	173	MC-15-500RT	173	MC23B2-40	758	MC3216	201
MBTP-1000-1312SE	168	MC-10-250RS	173	MC161	201	MC23B2-60	758	MC322	201
MBTP-10-250PR	175	MC-10-250RT	173	MC1612	201	MC23C1-40	759	MC-3-250N	173
MBTP-12-375PR	175	MC-10-375N	173	MC16-12	141	MC23C1-60	759	MC-3-250RS	173
MBTP-12-500PR	175	MC-10-375RS	173	MC16-12T	142	MC23C2-40	759	MC-3-250RT	173
MBTP-250-125PR	168	MC-10-375RT	173	MC16-16	141	MC23C2-60	759	MC-375-125N	166
MBTP-250-250PR	168	MC-10-500N	173	MC16-16T	142	MC23D1-40	759	MC-375-125RT	166
MBTP-250-437SE	168	MC-10-500RS	173	MC162	201	MC23D1-60	759	MC-375-250N	166
MBTP-375-250PR	168	MC-10-500RT	173	MC16-20	141	MC23D2-40	759	MC-375-250RS	167
MBTP-375-562SE	168	MC-10-750N	173	MC-16-250RT	173	MC23D2-60	759	MC-375-250RT	166
MBTP-500-375PR	168	MC10-8	141	MC-16-375N	173	MC24-20	141	MC-375-375N	166
MBTP-500-500PR	168	MC10-8T	142	MC-16-375RS	173	MC24-24	141	MC-375-375RS	167
MBTP-500-750SE	168	MC10A1-20	758	MC-16-375RT	173	MC24-24T	142	MC-375-375RT	166
MBTP-6-125PR	175	MC10A1-40	758	MC-16-500N	173	MC-250-125N	166	MC-375-437SE	166
MBTP-6-250PR	175	MC10A2-20	758	MC-16-500RS	173	MC-250-125RS	167	MC-375-500N	166
MBTP-625-500PR	168	MC10A2-40	758	MC-16-500RT	173	MC-250-125RT	166	MC-375-500RS	167
MBTP-750-1062SE	168	MC10B1-20	758	MC-16-750N	173	MC-250-250N	166	MC-375-500RT	166
MBTP-750-500PR	168	MC10B1-40	758	MC-16-750RT	173	MC-250-250RS	167	MC-375-562SE	166
MBTP-750-750PR	168	MC10B2-20	758	MC-18-500N	173	MC-250-250RT	166	MC-375-750N	166
MBTP-8-125PR	175	MC10B2-40	758	MC-18-500RS	173	MC-250-375N	166	MC-375-750SE	166
MBTP-8-250PR	175	MC10C1-20	759	MC-18-500RT	173	MC-250-375RS	167	MC-375-875SE	166
MBU-1	1113	MC10C1-40	759	MC-187-125N	166	MC-250-375RT	166	MC-4-125N	173
MBU-112-ABS	1098	MC10C2-20	759	MC-187-250N	166	MC-250-437SE	166	MC-4-125RS	173
MBU-1-ABS	1098	MC10C2-40	759	MC-18-750N	173	MC-250-500N	166	MC-4-125RT	173
MBV12	926	MC10D1-20	759	MC-18-750RS	173	MC-250-500RS	167	MC4-2	141
MBV12S	926	MC10D1-40	759	MC-18-750RT	173	MC-250-500RT	166	MC-4-250N	173
MBV14	926	MC10D2-20	759	MC20-16	141	MC-250-750N	166	MC-4-250RT	173
MBV14S	926	MC10D2-40	759	MC20-16T	142	MC-250-750SE	166	MC4-4	141
MBV18	926	MC11/4-32	1420	MC20-20	141	MC-250-875SE	166	MC4-4T	142
MBV18S	926	MC12-12	141	MC20-24	141	MC-25-1000N	173	MC4-6	141
MBV34	926	MC-12-125N	173	MC-20-500N	173	MC-25-1000RS	173	MC-500-1000N	166
MBV34S	926	MC-12-125RT	173	MC-20-500RS	173	MC-25-1000RT	173	MC-500-1062SE	166
MBV38	926	MC12-12T	142	MC-20-500RT	173	MC-25-500N	173	MC-500-125N	166

MC-500-250N	166	MC8-8	141	MD1-000016-1/8	696	MDS212-30	1427	ME-25-1000RT	176
MC-500-250RS	167	MC8-8T	142	MD1-000016-10	696	MDS2-30	1427	ME-25-750N	176
MC-500-250RT	166	MCG1010	201	MD1-000016-3/8	696	MDS3-10	1427	ME-25-750RT	176
MC-500-375N	166	MCG1012	201	MD1-000016-6	696	MDS312-10	1427	ME-312-125N	169
MC-500-375RS	167	MCG105	201	MD1-000016-8	696	MDS312-30	1427	ME-312-250N	169
MC-500-375RT	166	MCG106	201	MD1-A-1/4	698	MDS3-30	1427	ME-312-250RT	169
MC-500-500N	166	MCG108	201	MD1-A-1/8	698	MDS34-30	1427	ME-312-375N	169
MC-500-500RS	167	MCG1610	201	MD1-A-10	698	MDS4-10	1427	ME-3-125RT	176
MC-500-500RT	166	MCG1612	201	MD1-A-3/8	698	MDS4-30	1427	ME-3-250N	176
MC-500-562SE	166	MCG1614	201	MD1-A-6	698	MDS6-10	1427	ME-3-250RT	176
MC-500-750N	166	MCG1616	201	MD1-A-8	698	MDS6-30	1427	ME-375-125N	169
MC-500-750RT	166	MCG1618	201	MD1-AV	698	MDS6-6	1427	ME-375-250N	169
MC-500-750SE	166	MCG164	201	MD1-B	698	ME-1000-1000N	169	ME-375-250RT	169
MC-500-875SE	166	MCG166	201	MD1-B00	698	ME-1000-750N	169	ME-375-375N	169
MC-6-125N	173	MCG168	201	MD1-C	698	ME-10-250N	176	ME-375-375RT	169
MC-6-125RS	173	MCG3210	201	MD1-F000	697	ME-10-250RT	176	ME-375-500N	169
MC-6-125RT	173	MCG3212	201	MD1-F001	697	ME-10-375N	176	ME-375-750N	169
MC-6-250N	173	MCG3214	201	MD1-F050	697	ME-10-375RT	176	ME-4-125N	176
MC-6-250RS	173	MCG3218	201	MD1-F051	697	ME-10-500N	176	ME-4-125RT	176
MC-6-250RT	173	MCG3220	201	MD1-F100	697	ME-10-500RT	176	ME4-2	142
MC-625-375N	166	MCG3224	201	MD1-F101	697	ME10-8	142	ME-4-250N	176
MC-625-500N	166	MCG3226	201	MD1-F150	697	ME12-12	142	ME-4-250RT	176
MC-625-750N	166	MCG3232	201	MD1-F151	697	ME-12-250N	176	ME4-2T	142
MC-625-750SE	166	MCG326	201	MD1-FC000	697	ME-12-250RT	176	ME4-4	142
MC-625-875SE	166	MCG328	201	MD1-FC001	697	ME-12-375N	176	ME4-4T	142
MC-6-375N	173	MCGL100	1641	MD1-FC050	697	ME-12-375RT	176	ME-500-250N	169
MC-6-375RS	173	MCGL220	1641	MD1-FC051	697	ME-12-500N	176	ME-500-375N	169
MC-6-375RT	173	MCH1	701	MD1-FC100	697	ME-12-500RT	176	ME-500-500N	169
MC6-4	141	MCN10	201	MD1-FC101	697	ME-125-125N	169	ME-500-750N	169
MC6-4T	142	MCN16	201	MD1-FC150	697	ME-125-250N	169	ME-6-125N	176
MC-6-500N	173	MCN32	201	MD1-FC151	697	ME-12-750N	176	ME-6-125RT	176
MC-6-500RS	173	MCS10	201	MD1-FCA0	697	ME-12-750RT	176	ME-6-250N	176
MC-6-500RT	173	MCS32	201	MD1-FCA1	697	ME12-8	142	ME-6-250RT	176
MC6-6	141	MCSB10	201	MD1-FR0000	697	ME12-8T	142	ME-625-375N	169
MC6-6T	142	MCSB32	201	MD1-FR0500	697	ME-15-500N	176	ME-625-500N	169
MC6-8	141	MCT-10	1213	MD1-FR0800	697	ME16-12T	142	ME-625-750N	169
MC-750-1000N	166	MCT-10/30	1213	MD1-L00	698	ME16-16T	142	ME-6-375N	176
MC-750-1062SE	166	MCT-12	1213	MD1-R000	697	ME-16-375N	176	ME-6-375RT	176
MC-750-500N	166	MCT-12/30	1213	MD1-R010	697	ME-16-375RT	176	ME6-4T	142
MC-750-500RS	167	MCT-15/30	1213	MD1-R200	697	ME-16-500N	176	ME-6-500N	176
MC-750-750N	166	MCT-4	1213	MD1-R210	697	ME-16-500RT	176	ME-6-500RT	176
MC-750-750RS	167	MCT-4/30	1213	MD1-R400	697	ME-16-750N	176	ME6-6T	142
MC-750-750RT	166	MCT-5	1213	MD1-R410	697	ME-18-500N	176	ME-750-500N	169
MC-750-750SE	166	MCT-6	1213	MD1-R700	697	ME-18-500RT	176	ME-750-750N	169
MC8-12	141	MCT6/30	1213	MD1-R710	697	ME-187-125N	169	ME-8-125N	176
MC-8-125N	173	MCT6-4/30	1213	MD1-ST/1	698	ME-187-250N	169	ME-8-125RT	176
MC-8-125RS	173	MCT-8	1213	MD1-V01	698	ME-18-750N	176	ME-8-250N	176
MC-8-125RT	173	MCT-8/30	1213	MD1-V36	698	ME-18-750RT	176	ME-8-250RT	176
MC-8-250N	173	MCWP10	201	MD-2	1220	ME-20-500N	176	ME-8-375N	176
MC-8-250RS	173	MCWP32	201	MD-3	1220	ME-20-500RT	176	ME-8-375RT	176
MC-8-250RT	173	MCZAB1	1531	MD-4	1220	ME-20-750RT	176	ME-8-500N	176
MC-8-375N	173	MD1-000014-1/4	696	MD-5	1220	ME-20-1000N	176	ME-8-500RT	176
MC-8-375RS	173	MD1-000014-1/8	696	MDB500-BLUE	1749	ME-22-1000RT	176	ME8-6	142
MC-8-375RT	173	MD1-000014-10	696	MDB500-RED	1749	ME-22-750N	176	ME8-6T	142
MC8-4	141	MD1-000014-3/8	696	MDC03	284	ME-22-750RT	176	ME-875-750N	169
MC8-4T	142	MD1-000014-6	696	MDPT40.2R.A	706	ME-250-125N	169	ME8-8	142
MC-8-500N	173	MD1-000014-8	696	MDS1-10	1427	ME-250-125RT	169	M-EF45E-22	1219
MC-8-500RS	173	MD1-000015-1/4	696	MDS112-10	1427	ME-250-250N	169	M-EF45E-42	1219
MC-8-500RT	173	MD1-000015-1/8	696	MDS112-30	1427	ME-250-250RT	169	M-EF90E-10	1219
MC8-6	141	MD1-000015-10	696	MDS114-10	1427	ME-250-375N	169	M-EF90E-15	1219
MC8-6T	142	MD1-000015-3/8	696	MDS114-30	1427	ME-250-375RT	169	M-EF90E-22	1219
MC-875-1000N	166	MD1-000015-6	696	MDS1-30	1427	ME-250-500N	169	M-EFCOP-15	1219
MC-875-1187SE	166	MD1-000015-8	696	MDS2-10	1427	ME-250-500RT	169	M-EFET-10	1219
MC-875-750N	166	MD1-000016-1/4	696	MDS212-10	1427	ME-25-1000N	176	M-EFET-15	1219

M-EFET-35	1219	MF57	599	MIB-112X150N	1379	MIB-14X250N	1379	MIB-34X150N	1379
M-EFET-42	1219	MF58	599	MIB-112X180	1378	MIB-14X300	1378	MIB-34X180	1378
M-EFET-54	1219	MFA1-112-ABS	1098	MIB-112X180N	1379	MIB-14X300N	1379	MIB-34X180N	1379
M-EFET-8	1219	MFA1-1-ABS	1098	MIB-112X200	1378	MIB-14X40	1378	MIB-34X200	1378
M-EFRBT-22-15	1219	MFA1-2-ABS	1098	MIB-112X200N	1379	MIB-14X40N	1379	MIB-34X200N	1379
M-EFRBT-28-22	1219	MFA1-34-ABS	1098	MIB-112X250	1378	MIB-14X60	1378	MIB-34X250	1378
M-EFRBT-35-15	1219	MFA2-12-ABS	1098	MIB-112X250N	1379	MIB-14X60N	1379	MIB-34X250N	1379
M-EFRBT-35-22	1219	MFA2-1-ABS	1098	MIB-112X300	1378	MIB-14X80	1378	MIB-34X30	1378
M-EFRBT-35-28	1219	MFA2-2-ABS	1098	MIB-112X300N	1379	MIB-14X80N	1379	MIB-34X300	1378
M-EFRBT-42-15	1219	MFA2-34-ABS	1098	MIB-112X60N	1379	MIB-18X60	1378	MIB-34X300N	1379
M-EFRBT-42-22	1219	MFA2-3-ABS	1098	MIB-112X80	1378	MIB-18X80	1378	MIB-34X40	1378
M-EFRBT-42-28	1219	MFCB-02	1719	MIB-112X80N	1379	MIB-1X100	1378	MIB-34X40N	1379
M-EFRBT-42-35	1219	MFCB-04	1719	MIB-114X100	1378	MIB-1X100N	1379	MIB-34X60	1378
M-EFRBT-54-28	1219	MFCB-06	1719	MIB-114X100N	1379	MIB-1X120	1378	MIB-34X60N	1379
M-EFRBT-54-35	1219	MFCB-08	1719	MIB-114X120	1378	MIB-1X120N	1379	MIB-34X70	1378
M-EFRBT-54-42	1219	MFCN-02	1719	MIB-114X120N	1379	MIB-1X150	1378	MIB-34X80	1378
M-EFSC-28	1219	MFCN-04	1719	MIB-114X125	1378	MIB-1X150N	1379	MIB-34X80N	1379
M-EFSC-35	1219	MFCN-06	1719	MIB-114X150	1378	MIB-1X180	1378	MIB-38X100	1378
M-EFSC-42	1219	MFCN-08	1719	MIB-114X150N	1379	MIB-1X180N	1379	MIB-38X100N	1379
M-EFSC-54	1219	MFL02	1168	MIB-114X180	1378	MIB-1X200	1378	MIB-38X120	1378
M-EFTC-22	1219	MFL04	1168	MIB-114X180N	1379	MIB-1X200N	1379	MIB-38X120N	1379
M-EFTC-28	1219	MFL06	1168	MIB-114X200	1378	MIB-1X250	1378	MIB-38X150	1378
M-EFTC-8	1219	MFL08	1168	MIB-114X200N	1379	MIB-1X250N	1379	MIB-38X150N	1379
M-EFTCB-15-12	1219	MFL12	1168	MIB-114X250	1378	MIB-1X30	1378	MIB-38X180	1378
M-EFTCB-15-34	1219	MFL16	1168	MIB-114X250N	1379	MIB-1X300	1378	MIB-38X180N	1379
M-EFTCB-22-34	1219	MFL20	1168	MIB-114X300	1378	MIB-1X300N	1379	MIB-38X200	1378
M-EFTCS-15-12	1219	MFL24	1168	MIB-114X300N	1379	MIB-1X40	1378	MIB-38X200N	1379
M-EFTCS-22-34	1219	MFL32	1168	MIB-114X60N	1379	MIB-1X40N	1379	MIB-38X250	1378
MEK-TIN	1100	MFS10-N1-2	442	MIB-114X80	1378	MIB-1X50	1378	MIB-38X250N	1379
MEP-1000-1000PR	169	MFS17-C-2	442	MIB-114X80N	1379	MIB-1X60	1378	MIB-38X300	1378
MEP-1000-1312SE	169	MFTA-50-112-UPVC	1107	MIB-12X100	1378	MIB-1X60N	1379	MIB-38X300N	1379
MEP-1000-750PR	169	MFU-1	1184	MIB-12X100N	1379	MIB-1X70	1378	MIB-38X30N	1379
MEP-10-250PR	176	MFU-112	1184	MIB-12X120	1378	MIB-1X80	1378	MIB-38X40	1378
MEP-10-375PR	176	MFU-114	1184	MIB-12X120N	1379	MIB-1X80N	1379	MIB-38X40N	1379
MEP-12-250PR	176	MFU-12	1184	MIB-12X150	1378	MIB-212X100N	1379	MIB-38X50	1378
MEP-12-375PR	176	MFU-14	1184	MIB-12X150N	1379	MIB-212X120N	1379	MIB-38X60	1378
MEP-12-500PR	176	MFU-2	1184	MIB-12X180	1378	MIB-212X150N	1379	MIB-38X60N	1379
MEP-12-750PR	176	MFU-34	1184	MIB-12X180N	1379	MIB-212X180N	1379	MIB-38X80	1378
MEP-250-125PR	169	MFU-38	1184	MIB-12X200	1378	MIB-212X200N	1379	MIB-38X80N	1379
MEP-250-250PR	169	MFU-4	1184	MIB-12X200N	1379	MIB-212X250N	1379	MIB-3X100N	1379
MEP-250-437SE	169	MH04/04S	1146	MIB-12X250	1378	MIB-212X300N	1379	MIB-3X120N	1379
MEP-250-562SE	169	MHA-34-ABS	1098	MIB-12X250N	1379	MIB-2X100	1378	MIB-3X150N	1379
MEP-312-500SE	169	MHM10/04	1142	MIB-12X30	1378	MIB-2X100N	1379	MIB-3X180N	1379
MEP-375-250PR	169	MHM10/05	1142	MIB-12X300	1378	MIB-2X120	1378	MIB-3X200N	1379
MEP-375-375PR	169	MHM10/06	1142	MIB-12X300N	1379	MIB-2X120N	1379	MIB-3X250N	1379
MEP-375-562SE	169	MHM12/04	1142	MIB-12X30N	1379	MIB-2X150	1378	MIB-3X300N	1379
MEP-375-750SE	169	MHM12/05	1142	MIB-12X40	1378	MIB-2X150N	1379	MIB-4X100N	1379
MEP-500-250PR	169	MHM12/06	1142	MIB-12X40N	1379	MIB-2X180	1378	MIB-4X120N	1379
MEP-500-375PR	169	MHM14/06	1142	MIB-12X50	1378	MIB-2X180N	1379	MIB-4X150N	1379
MEP-500-500PR	169	MHM16/06	1142	MIB-12X60	1378	MIB-2X200	1378	MIB-4X180N	1379
MEP-500-750SE	169	MHM16/08	1142	MIB-12X60N	1379	MIB-2X200N	1379	MIB-4X200N	1379
MEP-6-125PR	176	MHM18/06	1142	MIB-12X80	1378	MIB-2X250	1378	MIB-4X250N	1379
MEP-6-250PR	176	MHM18/08	1142	MIB-12X80N	1379	MIB-2X250N	1379	MIB-4X300N	1379
MEP-625-500PR	169	MHM22/08	1142	MIB-14X100	1378	MIB-2X300	1378	MIBOSSW400	1391
MEP-625-875SE	169	MHM22/12	1142	MIB-14X100N	1379	MIB-2X300N	1379	MIBPB4-M5	1155
MEP-750-1062SE	169	MHM5/03	1142	MIB-14X120	1378	MIB-2X80	1378	MIBPM10	1385
MEP-750-500PR	169	MHM5/04	1142	MIB-14X120N	1379	MIB-2X80N	1379	MIBPM10N	1385
MEP-750-750PR	169	MHM6/04	1142	MIB-14X150	1378	MIB-34X100	1378	MIBPM12	1385
MEP-8-125PR	176	MHM8/04	1142	MIB-14X150N	1379	MIB-34X1000	1378	MIBPM12N	1385
MEP-8-250PR	176	MIB-112X100	1378	MIB-14X180	1378	MIB-34X100N	1379	MICT112	1487
MEP-875-1187SE	169	MIB-112X100N	1379	MIB-14X180N	1379	MIB-34X120	1378	MICT2	1487
MF4	599	MIB-112X120	1378	MIB-14X200	1378	MIB-34X120N	1379	MICT212	1487
MF5	599	MIB-112X120N	1379	MIB-14X200N	1379	MIB-34X150	1378	MICT3	1487
MF56	599	MIB-112X150	1378	MIB-14X250	1378	MIB-34X1500	1378	MICT4	1487



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MIDTP1	1385	MISB4	1384	MM052206N	1091	MPB8-G04	846	MPCJ10-G04	846
MIDTP112	1385	MISDM10	1385	MM052228N	1091	MPC10-02	845	MPCJ12-G02	846
MIDTP114	1385	MISDM10X1.0/3M	1385	MM052818N	1091	MPC10-03	845	MPCJ12-G03	846
MIDTP12	1385	MISDM12X1.0	1385	MM052828N	1091	MPC10-04	845	MPCJ12-G04	846
MIDTP14	1385	MISDM8	1385	MM501514N	1091	MPC10-G02	845	MPCJ4-G01	846
MIDTP2	1385	MISTP1	1385	MM502216N	1091	MPC10-G03	845	MPCJ4-G02	846
MIDTP34	1385	MISTP112	1385	MML16	1167	MPC10-G04	845	MPCJ6-G01	846
MIEHT3-M3	1155	MISTP114	1385	MNSE10-G02	846	MPC12-02	845	MPCJ6-G02	846
MIEHT3-M5	1155	MISTP114N	1385	MNSE10-G03	846	MPC12-03	845	MPCJ8-G02	846
MIEHT4-M3	1155	MISTP12	1385	MNSE10-G04	846	MPC12-04	845	MPCJ8-G03	846
MIEHT4-M5	1155	MISTP12N	1385	MNSE12-G02	846	MPC12-G02	845	MPCJ8-G04	846
MIEHT6-M5	1155	MISTP14N	1385	MNSE12-G03	846	MPC12-G03	845	MPCS10-G02	845
MIFF-M5	1155	MISTP1N	1385	MNSE12-G04	846	MPC12-G04	845	MPCS10-G03	845
MIFT-M5	1155	MISTP2	1385	MNSE4-G01	846	MPC14-G03	845	MPCS10-G04	845
MIG 10/25	1492	MISTP2N	1385	MNSE4-G02	846	MPC14-G04	845	MPCS12-G02	845
MIG 15/35	1492	MISTP34	1385	MNSE4-M5	846	MPC4-01	845	MPCS12-G03	845
MIG 20/50	1492	MISTP34N	1385	MNSE6-G01	846	MPC4-02	845	MPCS12-G04	845
MIGCM10	1384	MISTP38	1385	MNSE6-G02	846	MPC4-G01	845	MPCS14-G03	845
MIGCM12	1384	MISTP38N	1385	MNSE8-G01	846	MPC4-G02	845	MPCS14-G04	845
MIGCM8	1384	MIUT-M5	1155	MNSE8-G02	846	MPC4-M5	845	MPCS4-01	845
MIMF-M5	1155	MIWRSB-112N	1385	MNSE8-G03	846	MPC4-M6	845	MPCS4-G01	845
MIMHT2-M3	1155	MIWRSB-114N	1385	MNSF04	846	MPC6-01	845	MPCS4-G02	845
MIMHT3-M5	1155	MIWRSB-12N	1385	MNSF06	846	MPC6-02	845	MPCS4-M5	845
MIMHT4-M3	1155	MIWRSB-14N	1385	MNSF08	846	MPC6-G01	845	MPCS6-01	845
MIMHT4-M5	1155	MIWRSB-18N	1385	MNSF10	846	MPC6-G02	845	MPCS6-02	845
MIMHT6-M5	1155	MIWRSB-1N	1385	MNSF12	846	MPC6-G03	845	MPCS6-G01	845
MIMM-M5	1155	MIWRSB-212N	1385	MO-14	656	MPC6-G04	845	MPCS6-G02	845
MIMT112	1487	MIWRSB-2N	1385	MOBI-KIT	49	MPC6-M5	845	MPCS6-G03	845
MIMT2	1487	MIWRSB-34N	1385	MOK-1	112	MPC6-M6	845	MPCS6-G04	845
MIMT212	1487	MIWRSB-38N	1385	MOO-MS	1517	MPC8-01	845	MPCS6-M5	845
MIMT3	1487	MIWRSB-3N	1385	MOO-MS-BOX	1517	MPC8-02	845	MPCS8-01	845
MIMT4	1487	MIWRSB-4N	1385	MOO-SS	1517	MPC8-03	845	MPCS8-02	845
MIPC3-M5	1155	MIWRSB-6N	1385	MP12-3-M5	820	MPC8-G01	845	MPCS8-G01	845
MIPC4-M3	1155	MIWRSB-1	1385	MP1-2-M3	820	MPC8-G02	845	MPCS8-G02	845
MIPC4-M5	1155	MIWRSB-112	1385	MP1-2-M5	820	MPC8-G03	845	MPCS8-G03	845
MIPC4-M6	1155	MIWRSB-114	1385	MP1-3-M3	820	MPC8-G04	845	MPCS8-G04	845
MIPC5-M5	1155	MIWRSB-12	1385	MP1-3-M5	820	MPCF10-G02	845	MPG10-8	846
MIPC6-M6	1155	MIWRSB-14	1385	MP7-2-M3	820	MPCF10-G03	845	MPG12-10	846
MIPL4-M3	1155	MIWRSB-18	1385	MP7-2-M5	820	MPCF10-G04	845	MPG6-4	846
MIPL4-M5	1155	MIWRSB-2	1385	MP7-3-M3	820	MPCF12-G02	845	MPG8-6	846
MIPL5-M6	1155	MIWRSB-212	1385	MP7-3-M5	820	MPCF12-G03	845	MPH4-G01	846
MIPP-M5	1155	MIWRSB-3	1385	MPAOW-04-100	1435	MPCF12-G04	845	MPH4-M5	846
MIRB18-M5	1155	MIWRSB-34	1385	MPAOW-05-100	1435	MPCF4-G01	845	MPH6-G01	846
MIRC-1	1385	MIWRSB-38	1385	MPAOW-06-100	1435	MPCF4-G02	845	MPH8-G01	846
MIRC-112	1385	MIWRSB-4	1385	MPAOW-08-100	1435	MPCF6-G01	845	MPH8-G02	846
MIRC-12	1385	MK150HIT-1	936	MPAOW-10-50	1435	MPCF6-G02	845	MPJG10-4	846
MIRC-2	1385	MK150HIT-2	936	MPAOW-12-100	1435	MPCF8-G01	845	MPJG10-6	846
MIRC-34	1385	MK150HIT-3	936	MPAOW-16-100	1435	MPCF8-G02	845	MPJG10-8	846
MISB1	1384	MK150HIT-4	936	MPB10-G02	846	MPCF8-G03	845	MPJG12-10	846
MISB112	1384	MK150HIT-5	936	MPB10-G03	846	MPCFJ10-G02	846	MPJG12-8	846
MISB112N	1384	MK150HIT-6	936	MPB10-G04	846	MPCFJ10-G03	846	MPJG6-4	846
MISB114	1384	MLN12	70	MPB12-G03	846	MPCFJ10-G04	846	MPJG8-4	846
MISB12	1384	MLN14	70	MPB12-G04	846	MPCFJ12-G02	846	MPJG8-6	846
MISB12N	1384	MLN16	70	MPB14-G03	846	MPCFJ12-G03	846	MPL10-02	846
MISB14	1384	MLN18	70	MPB14-G04	846	MPCFJ12-G04	846	MPL10-03	846
MISB14N	1384	MLN20	70	MPB4-G01	846	MPCFJ4-G01	846	MPL10-04	846
MISB1N	1384	MLN22	70	MPB4-G02	846	MPCFJ4-G02	846	MPL10-G02	846
MISB2	1384	MLN24	70	MPB4-M5	846	MPCFJ6-G01	846	MPL10-G03	846
MISB212	1384	MM010411	836	MPB6-G01	846	MPCFJ6-G02	846	MPL10-G04	846
MISB2N	1384	MM010611	836	MPB6-G02	846	MPCFJ8-G02	846	MPL12-02	846
MISB34	1384	MM011504N	1091	MPB6-M5	846	MPCFJ8-G03	846	MPL12-03	846
MISB34N	1384	MM012206N	1091	MPB8-G01	846	MPCFJ8-G04	846	MPL12-04	846
MISB38	1384	MM012808N	1091	MPB8-G02	846	MPCJ10-G02	846	MPL12-G02	846
MISB38N	1384	MM051504N	1091	MPB8-G03	846	MPCJ10-G03	846	MPL12-G03	846

MPL12-G04	846	MPP033	49	MRTP-500-500PR	169	MS2SC-BNT14K	424	M-SR45EL-15	1218
MPL14-G03	846	MPP035	49	MRTP-500-750SE	169	MS40-A	760	M-SR45EL-22	1218
MPL14-G04	846	MPP040	49	MRTP-6-125PR	175	MS40-B	760	M-SR45EL-35	1218
MPL4-01	846	MPP045	49	MRTP-6-250PR	175	MS40-C	760	M-SR45EL45	1218
MPL4-G01	846	MPP050	49	MRTP-625-500PR	169	MS40-D	760	MSR516-14	1208
MPL4-G02	846	MPP055	49	MRTP-750-1062SE	169	MS50SC-BNT14K	424	M-SR90-10	1218
MPL4-M5	846	MPP060	49	MRTP-750-500PR	169	MS60-A	760	M-SR90-15	1218
MPL6-01	846	MPUC-10	846	MRTP-750-750PR	169	MS60-B	760	M-SR90-22	1218
MPL6-02	846	MPUC-12	846	MRTP-8-125PR	175	MS60-C	760	M-SR90-28	1218
MPL6-G01	846	MPUC-14	846	MRTP-8-250PR	175	MS60-D	760	M-SR90-35	1218
MPL6-G02	846	MPUC-4	846	MS100SC-BNT14K	424	MSB12-12	1207	M-SR90-42	1218
MPL6-M5	846	MPUC-6	846	MS10SC-BNT14K	424	MSB14-14	1207	M-SR90-54	1218
MPL8-01	846	MPUC-8	846	MS1901	1523	MSB14-18	1207	M-SR90-8	1218
MPL8-02	846	MPUL-10	846	MS1902	1523	MSB38-14	1207	M-SRBTC-15-12	1218
MPL8-03	846	MPUL-12	846	MS1903	1523	MSB38-38	1207	M-SREC-15	1218
MPL8-04	846	MPUL-14	846	MS1904	1523	MSCT-10	1215	M-SREC-22	1218
MPL8-G01	846	MPUL-4	846	MS1905	1523	MSCT-12	1215	M-SRET-10	1218
MPL8-G02	846	MPUL-6	846	MS1906	1523	MSCT-6	1215	M-SRET-15	1218
MPL8-G03	846	MPUL-8	846	MS1907	1523	MSCT-8	1215	M-SRET-22	1218
MPL8-G04	846	MPUT-10	846	MS1908	1523	MSE12-12	1208	M-SRET-28	1218
MPLF10-G02	845	MPUT-12	846	MS1909	1523	MSE12-14	1208	M-SRET-42	1218
MPLF4-G01	845	MPUT-14	846	MS1910	1523	MSE12-38	1208	M-SRRB-22-15	1218
MPLF6-G01	845	MPUT-4	846	MS1911	1523	MSE14-14	1208	M-SRRB-28-15	1218
MPLF6-G02	845	MPUT-6	846	MS1912	1523	MSE14-18	1208	M-SRRB-28-22	1218
MPLF8-G02	845	MPUT-8	846	MS1913	1523	MSE14-38	1208	M-SRRB-42-15	1218
MPLF8-G04	845	MPY-6	846	MS1914	1523	MSE18-18	1208	M-SRRB-42-22	1218
MPLL10-G02	846	MPY-8	846	MS1915	1523	MSE316-14	1208	M-SRRB-42-28	1218
MPLL10-G03	846	MR74	1761	MS1916	1523	MSE316-18	1208	M-SRRB-42-35	1218
MPLL10-G04	846	MRD522	1761	MS1917	1523	MSE34-34	1208	M-SRRB-54-15	1218
MPLL12-G02	846	MRDP-1	1634	MS1918	1523	MSE38-14	1208	M-SRRB-54-22	1218
MPLL12-G03	846	MRDP-2	1634	MS1919	1523	MSE38-18	1208	M-SRRB-54-28	1218
MPLL12-G04	846	MRDP-3	1634	MS1920	1523	MSE38-38	1208	M-SRRB-54-35	1218
MPLL4-G01	846	MRDP-4	1634	MS1921	1523	MSE516-14	1208	M-SRRB-54-42	1218
MPLL6-G01	846	MRDP-5	1634	MS1922	1523	MSE516-18	1208	M-SRRC-10-8	1218
MPLL6-G02	846	MRT-12-250N	175	MS1923	1523	MSHAR2AT-04-100	10	M-SRRC-15-10	1218
MPLL8-G01	846	MRT-12-375N	175	MS1924	1523	MSHAR2AT-06-100	10	M-SRRC-22-15	1218
MPLL8-G02	846	MRT-12-500N	175	MS1925	1523	MSHAR2AT-08-100	10	M-SRRC-28-22	1218
MPLL8-G03	846	MRT-125-125N	168	MS1926	1523	MSHAR2AT-12-50	10	M-SRRF-22-15	1218
MPM-10	846	MRT-125-250N	168	MS1927	1523	MSHAR2AT-16-50	10	M-SRRF-28-15	1218
MPM-12	846	MRT-16-500N	175	MS1928	1523	MSP1-1	1207	M-SRRF-28-22	1218
MPM303X10	756	MRT-187-125N	168	MS1929	1523	MSP12-12	1207	M-SRRF-35-22	1218
MPM303X12	756	MRT-250-125N	168	MS1930	1523	MSP12-34	1207	M-SRRF-35-28	1218
MPM303X14	756	MRT-250-250N	168	MS1931	1523	MSP12-38	1207	M-SRRF-42-15	1218
MPM303X16	756	MRT-312-125N	168	MS1932	1523	MSP14-14	1207	M-SRRF-42-28	1218
MPM303X6	756	MRT-375-250N	168	MS1933	1523	MSP14-18	1207	M-SRRF-42-35	1218
MPM303X8	756	MRT-375-375N	168	MS1934	1523	MSP14-38	1207	M-SRRF-54-22	1218
MPM-4	846	MRT-500-375N	168	MS1935	1523	MSP18-14	1207	M-SRRF-54-35	1218
MPM-6	846	MRT-500-500N	168	MS1936	1523	MSP18-18	1207	M-SRRF-54-42	1218
MPM-8	846	MRT-6-125N	175	MS1937	1523	MSP316-14	1207	M-SRSC10	1218
MPMF6-G01	845	MRT-6-250N	175	MS1938	1523	MSP316-18	1207	M-SRSC-22	1218
MPMF6-G02	845	MRT-625-500N	168	MS1939	1523	MSP316-38	1207	M-SRSC-28	1218
MPP007	49	MRT-750-750N	168	MS1940	1523	MSP34-12	1207	M-SRSC-35	1218
MPP008	49	MRT-8-250N	175	MS1941	1523	MSP34-34	1207	M-SRSC-42	1218
MPP010	49	MRTP-1000-1000PR	169	MS1942	1523	MSP38-12	1207	M-SRSC-54	1218
MPP012	49	MRTP-1000-1312SE	169	MS1943	1523	MSP38-14	1207	M-SRST90-15	1218
MPP014	49	MRTP-10-250PR	175	MS1944	1523	MSP38-18	1207	M-SRST90-22	1218
MPP016	49	MRTP-12-375PR	175	MS1945	1523	MSP38-38	1207	M-SRST90-28	1218
MPP018	49	MRTP-12-500PR	175	MS1946	1523	MSP516-12	1207	M-SRTC-15-12	1218
MPP020	49	MRTP-250-125PR	169	MS1947	1523	MSP516-14	1207	M-SRTC-15-34	1218
MPP022	49	MRTP-250-250PR	169	MS1948	1523	MSP516-18	1207	M-SRTC-22-34	1218
MPP024	49	MRTP-250-437SE	169	MS20-A	760	MSP516-38	1207	MSS.AB	1624
MPP026	49	MRTP-375-250PR	169	MS20-B	760	MSR14-14	1208	MSSPVC	1633
MPP028	49	MRTP-375-562SE	169	MS20-C	760	MSR14-18	1208	MST 38/35	1492
MPP030	49	MRTP-500-375PR	169	MS20-D	760	MSR38-38	1208	MST 50	1492

MST12-12	1207	MTS-4	1213	MW012206N	883	MX2-3/4-FCA	693	N-12	178
MST12-14	1207	MTS-6	1213	MW012808N	883	MX2-3/4-FL	694	N-125-FT	172
MST12-38	1207	MTS-8	1213	MW012818N	883	MX2-3/4-L00	693	N12C1008010MB	916
MST14-12	1207	MU05	1172	MW052206N	883	MX2-3/4-R004	691	N12C1008010MR	916
MST14-14	1207	MU05/10	1172	MW052818N	883	MX2-3/4-R014	691	N12C1008015MB	916
MST14-18	1207	MU10	1172	MW502216N	883	MX2-3/4-V01	693	N12C1008015MR	916
MST14-38	1207	MU10/13	1172	MWC-1000-1000	171	MX2-3/4-V16	693	N12C100802.5MB	916
MST18-14	1207	MU10/17	1172	MWC-10-250	177	MX2-3/4-V36	694	N12C100802.5MR	916
MST18-18	1207	MU10/21	1172	MWC-10-500	177	MX2-3/8-AV	694	N12C100805MB	916
MST316-14	1207	MU13	1172	MWC-12-250	177	MX2-3/8-F00	692	N12C100805MR	916
MST316-18	1207	MU13/17	1172	MWC-12-375	177	MX2-3/8-F03	692	N12C1209010MB	916
MST34-12	1207	MU13/21	1172	MWC-12-500	177	MX2-3/8-FC00	692	N12C1209010MB12	916
MST34-34	1207	MU17	1172	MWC-125-125	171	MX2-3/8-FC03	692	N12C1209010MR	916
MST38-12	1207	MU17/21	1172	MWC-14-375	177	MX2-3/8-FCA	693	N12C1209010MR12	916
MST38-14	1207	MU17/26	1172	MWC-15-500	177	MX2-3/8-FL	694	N12C1209015MB	916
MST38-18	1207	MU21	1172	MWC-16-500	177	MX2-3/8-L00	693	N12C1209015MB12	916
MST38-38	1207	MU21/26	1172	MWC-18-500	177	MX2-3/8-R004	691	N12C1209015MR	916
MST516-14	1207	MU21/33	1172	MWC-187-125	171	MX2-3/8-R014	691	N12C1209015MR12	916
MST516-18	1207	MU26	1172	MWC-250-125	171	MX2-3/8-V01	693	N12C120902.5MB	916
MST516-38	1207	MU26/33	1172	MWC-250-250	171	MX2-3/8-V16	693	N12C120902.5MB12	916
MT77724	1588	MU33	1172	MWC-312-125	171	MX2-3/8-V36	694	N12C120902.5MR	916
MT77748	1588	MV-10L4N	157	MWC-312-250	171	MX2-S	694	N12C120902.5MR12	916
MTA-110-3-UPVC	1104	MV-10L4RG	157	MWC-3-125	177	MX2-X	695	N12C120905MB	916
MTA-110-4-UPVC	1104	MV-10L8N	157	MWC-375-250	171	MX2-Y	695	N12C120905MB12	916
MTA-110-5-UPVC	1104	MV-10L8RG	157	MWC-375-375	171	MX3-1-AV	694	N12C120905MR	916
MTA-12-38-UPVC	1104	MV-10S-4RG	157	MWC-375-500	171	MX3-1-B00	694	N12C120905MR12	916
MTA-16-12-UPVC	1104	MV-10S-8N	157	MWC-375-750	171	MX3-1-F00	692	N12C604010MB	916
MTA-16-38-UPVC	1104	MV-10S-8RG	157	MWC-4-125	177	MX3-1-F03	692	N12C604010MR	916
MTA-20-12-UPVC	1104	MV-12L4N	157	MWC-500-375	171	MX3-1-FC00	692	N12C604015MB	916
MTA-20-34-UPVC	1104	MV-12L4RG	157	MWC-500-500	171	MX3-1-FC03	692	N12C604015MR	916
MTA-20-38-UPVC	1104	MV-12L8N	157	MWC-500-750	171	MX3-1-FCA	693	N12C60402.5MB	916
MTA-25-12-UPVC	1104	MV-12L8RG	157	MWC-6-125	177	MX3-1-FL	694	N12C60402.5MR	916
MTA-25-1-UPVC	1104	MV-12S-4RG	157	MWC-6-250	177	MX3-1-L00	693	N12C60405MB	916
MTA-25-34-UPVC	1104	MV-12S-8N	157	MWC-625-500	171	MX3-1-R004	691	N12C60405MR	916
MTA-32-114-UPVC	1104	MV-12S-8RG	157	MWC-750-750	171	MX3-1-R014	691	N12C806010MB	916
MTA-32-1-UPVC	1104	MV-6L4N	157	MWC-8-125	177	MX3-1-V01	693	N12C806010MR	916
MTA-32-34UPVC	1104	MV-6L4RG	157	MWC-8-250	177	MX3-1-V16	693	N12C806015MB	916
MTA-40-112-UPVC	1104	MV-6L8N	157	MWC-8-500	177	MX3-1-V36	694	N12C806015MR	916
MTA-40-114-UPVC	1104	MV-6L8RG	157	MWE-250-125	171	MX3-3/4-AV	694	N12C80602.5MB	916
MTA-40-1-UPVC	1104	MV-6S-8N	157	MWE-250-250	171	MX3-3/4-F00	692	N12C80602.5MR	916
MTA-50-112-UPVC	1104	MV-6S-8RG	157	MWE-375-250	171	MX3-3/4-F03	692	N12C80605MB	916
MTA-50-114-UPVC	1104	MV-8L4N	157	MWE-500-500	171	MX3-3/4-FC00	692	N12C80605MR	916
MTA-50-2-UPVC	1104	MV-8L4RG	157	MWE-750-750	171	MX3-3/4-FC03	692	N14	141
MTA-63-112-UPVC	1104	MV-8L8N	157	MX1518410X4	250	MX3-3/4-FCA	693	N-15	178
MTA-63-212-UPVC	1104	MV-8L8RG	157	MX1591.4.10X4	250	MX3-3/4-FL	694	N16	141
MTA-63-2-UPVC	1104	MV-8S-4RG	157	MX2-1/2-AV	694	MX3-3/4-L00	693	N-16	178
MTA-75-212-UPVC	1104	MV-8S-8N	157	MX2-1/2-B00	694	MX3-3/4-R004	691	N171AEBD	700
MTA-75-2-UPVC	1104	MV-8S-8RG	157	MX2-1/2-F00	692	MX3-3/4-R014	691	N171AEMBD	700
MTA-75-3-UPVC	1104	MVC04	246	MX2-1/2-F03	692	MX3-3/4-V01	693	N171AEPBDA	701
MTA-90-212-UPVC	1104	MVC06	246	MX2-1/2-FC00	692	MX3-3/4-V16	693	N174BEBD	700
MTA-90-3-UPVC	1104	MVC08	246	MX2-1/2-FC03	692	MX3-3/4-V36	694	N174BEMBD	700
MTA-90-4-UPVC	1104	MVC12	246	MX2-1/2-FCA	693	MX3-S	694	N174BEPBDA	701
MTC-300	260	MVC16	246	MX2-1/2-FL	694	MX3-X	695	N174BL	701
MTC-450	260	MVC20	246	MX2-1/2-L00	693	MX3-Y	695	N174BRMA	701
MTC-525	260	MVC24	246	MX2-1/2-R004	691	MXA9511424	250	N174BRMD	701
MTC-600	260	MVC32	246	MX2-1/2-R014	691	MXA9551424	250	N-18	178
MTP/B02-M16/2S	71	MVS-12	926	MX2-1/2-V01	693	MXR8550	250	N-187	172
MTS-10	1213	MVS-14	926	MX2-1/2-V16	693	MXR9550	250	N20	141
MTS-12	1213	MVS-38	926	MX2-1/2-V36	694	MXR9560	250	N-20	178
MTS-15	1213	MVSM-12	926	MX2-3/4-AV	694	N		N-25	178
MTS-16	1213	MVSM-14	926	MX2-3/4-F00	692	N10	141	N-250	172
MTS-18	1213	MVSM-18	926	MX2-3/4-F03	692	N-10	178	N-3	178
MTS-22	1213	MVSM-38	926	MX2-3/4-FC00	692	N-1000	172	N-312	172
MTS-28	1213	MW011504N	883	MX2-3/4-FC03	692	N12	141	N-375	172

N4	141	NCSNPT3	1497	NFC8-12	141	NO9-12	1536	NOR-05917302233	1534
N-4	178	NCSNPT34	1497	NFC8-6	141	NOR-05738400026	1557	NOR-05917302246	1534
N-500	172	NCSNPT4	1497	NFC8-8	141	NOR-05738400033	1557	NOR-1	1534
N6	141	NCSNPT6	1497	NFV-2	1436	NOR-05738400042	1557	NOR-1A	1534
N-6	178	NC-TUBE1	1383	NFV-3	1436	NOR-05738400048	1557	NOR-2	1534
N-625	172	NC-TUBE112	1383	NFV-4	1436	NOR-05738400060	1557	NOR-2A	1534
N-750	172	NC-TUBE112-6.5	1383	NFV-6	1436	NOR-05738400076	1557	NOR-2X	1534
N8	141	NC-TUBE112N	1383	NHP-1	1483	NOR-05738400088	1557	NOR-3	1534
N-8	178	NC-TUBE112N-6.5	1383	NHP-34	1483	NOR-05738400114	1557	NOR-3X	1534
N-875	172	NC-TUBE114	1383	NMC12-12	142	NOR-05738400139	1557	NOR-4	1534
NB0709	1519	NC-TUBE114-6.5	1383	NMC12-12T	142	NOR-05738400168	1557	NOR-4X	1534
NB0810	1519	NC-TUBE114N	1383	NMC12-16T	142	NOR-05738400180	1557	NOR-5	1534
NB0911	1519	NC-TUBE114N-6.5	1383	NMC16-12	142	NOR-05738400193	1557	NOR-8880000003	1544
NB1012	1519	NC-TUBE12	1383	NMC16-16	142	NOR-05738400206	1557	NOR-8880000080	1544
NB1113	1519	NC-TUBE12-6.5	1383	NMC16-16T	142	NOR-05738400219	1557	NOR-COBRA10	1535
NB1214	1519	NC-TUBE12N	1383	NMC16-20	142	NOR-05738400267	1557	NOR-COBRA105	1535
NB1315	1519	NC-TUBE12N-6.5	1383	NMC20-16	142	NOR-05738400355	1557	NOR-COBRA11	1535
NB1416	1519	NC-TUBE1-6.5	1383	NMC20-20	142	NOR-05738400406	1557	NOR-COBRA115	1535
NB1517	1519	NC-TUBE1N	1383	NMC20-20T	142	NOR-05738400508	1557	NOR-COBRA12	1535
NB1618	1519	NC-TUBE1N-6.5	1383	NMC24-24	142	NOR-05738400609	1557	NOR-COBRA13	1535
NBJ2-2	143	NC-TUBE2	1383	NMC24-24T	142	NOR-05778400219	1557	NOR-COBRA14	1535
NBJ8-8	143	NC-TUBE212	1383	NMC4-4	142	NOR-05788400026	1557	NOR-COBRA15	1535
NBM1050	1480	NC-TUBE212-6.5	1383	NMC4-4T	142	NOR-05788400033	1557	NOR-COBRA16	1535
NBM1060	1480	NC-TUBE212N	1383	NMC4-6	142	NOR-05788400048	1557	NOR-COBRA17	1535
NBM840	1480	NC-TUBE212N-6.5	1383	NMC4-8T	142	NOR-05788400060	1557	NOR-COBRA18	1535
NBP12	143	NC-TUBE2-6.5	1383	NMC6-4	142	NOR-05788400076	1557	NOR-COBRA19	1535
NBP4	143	NC-TUBE2N	1383	NMC6-6	142	NOR-05788400088	1557	NOR-COBRA20	1535
NBP6	143	NC-TUBE2N-6.5	1383	NMC6-6T	142	NOR-05788400114	1557	NOR-COBRA21	1535
NBP8	143	NC-TUBE3	1383	NMC8-12	142	NOR-05788400139	1557	NOR-COBRA24	1535
NC2239	883	NC-TUBE34	1383	NMC8-12T	142	NOR-05788400168	1557	NOR-COBRA26	1535
NC448	883	NC-TUBE34-6.5	1383	NMC8-16	142	NOR-05917182018	1534	NOR-COBRA27	1535
NC471	883	NC-TUBE34N	1383	NMC8-6	142	NOR-05917182020	1534	NOR-COBRA28	1535
NC473	883	NC-TUBE34N-6.5	1383	NMC8-6T	142	NOR-05917182022	1534	NOR-COBRA29	1535
NCG-22	1547	NC-TUBE3-6.5	1383	NMC8-8	142	NOR-05917182024	1534	NOR-COBRA75	1535
NC-HTUBE1	1383	NC-TUBE3N	1383	NMC8-8T	142	NOR-05917182026	1534	NOR-COBRA8	1535
NC-HTUBE112	1383	NC-TUBE3N-6.5	1383	NME4-4T	143	NOR-05917182028	1534	NOR-COBRA9	1535
NC-HTUBE112-6.5	1383	NC-TUBE4	1383	NME4-6T	143	NOR-05917182030	1534	NOR-FGRR1029	1557
NC-HTUBE112N-6.5	1383	NC-TUBE4-6.5	1383	NME6-6	143	NOR-05917182033	1534	NOR-FGRR106	1557
NC-HTUBE114	1383	NC-TUBE4N	1383	NME6-6T	143	NOR-05917182036	1534	NOR-FGRR111	1557
NC-HTUBE114-6.5	1383	NC-TUBE4N-6.5	1383	NME8-8	142	NOR-05917182039	1534	NOR-FGRR1154	1557
NC-HTUBE114N	1383	NCV-1	243	NN12	141	NOR-05917182042	1534	NOR-FGRR156	1557
NC-HTUBE114N-6.5	1383	NCV-12	243	NN16	141	NOR-05917202045	1534	NOR-FGRR170	1557
NC-HTUBE12	1383	NCV-14	243	NN20	141	NOR-05917202049	1534	NOR-FGRR355	1557
NC-HTUBE12-6.5	1383	NCV-34	243	NN4	141	NOR-05917202053	1534	NOR-FGRR429	1557
NC-HTUBE12N	1383	NCV-38	243	NN6	141	NOR-05917202057	1534	NOR-FGRR45	1557
NC-HTUBE12N-6.5	1383	NCW-15	1547	NN8	141	NOR-05917202061	1534	NOR-FGRR488	1557
NC-HTUBE1-6.5	1383	NCW-22	1547	NO11-13	1536	NOR-05917202066	1534	NOR-FGRR549	1557
NC-HTUBE1N	1383	NCW-28	1547	NO13-15	1536	NOR-05917252071	1534	NOR-FGRR576	1557
NC-HTUBE1N-6.5	1383	NE12	143	NO14-17	1536	NOR-05917252076	1534	NOR-FGRR609	1557
NC-HTUBE2	1383	NE16	143	NO15-18	1536	NOR-05917252082	1534	NOR-FGRR74	1557
NC-HTUBE2-6.5	1383	NE20	143	NO17-20	1536	NOR-05917252088	1534	NOR-FGRR769	1557
NC-HTUBE2N	1383	NE4	143	NO19-22	1536	NOR-05917252094	1534	NOR-FGRR85	1557
NC-HTUBE2N-6.5	1383	NE6	143	NO20-23	1536	NOR-05917252101	1534	NOR-FGRR896	1557
NC-HTUBE34	1383	NE8	143	NO22-25	1536	NOR-05917252108	1534	NOR-GES10R14	1153
NC-HTUBE34-6.5	1383	NF12	141	NO23-27	1536	NOR-05917252117	1534	NOR-GES10R38	1153
NC-HTUBE34N	1383	NF16	141	NO25-28	1536	NOR-05917252126	1534	NOR-GES12R12	1153
NC-HTUBE34N-6.5	1383	NF20	141	NO28-31	1536	NOR-05917302135	1534	NOR-GES12R38	1153
NCLNPT6	1497	NF4	141	NO31-34	1536	NOR-05917302145	1534	NOR-GES14R12	1153
NCSNPT1	1497	NF6	141	NO34-37	1536	NOR-05917302156	1534	NOR-GES16R12	1153
NCSNPT112	1497	NF8	141	NO37-40	1536	NOR-05917302168	1534	NOR-GES16R34	1153
NCSNPT114	1497	NFC16-16	141	NO40-43	1536	NOR-05917302181	1534	NOR-GES19R34	1153
NCSNPT12	1497	NFC4-2	141	NO5-7	1536	NOR-05917302194	1534	NOR-GES25R1	1153
NCSNPT2	1497	NFC4-8	141	NO7-9	1536	NOR-05917302207	1534	NOR-GES4R14	1153
NCSNPT212	1497	NFC6-8	141	NO9-11	1536	NOR-05917302220	1534	NOR-GES4R18	1153

NOR-GES5R14	1153	NOR-RSGUP-10	1544	NOR-TS16	1153	NPT62004848	1183	NSA16-16	143
NOR-GES6R14	1153	NOR-RSGUP-12	1544	NOR-TS19	1153	NPT62006060	1183	NSA16-20	143
NOR-GES6R18	1153	NOR-RSGUP-13	1544	NOR-TS25	1153	NPT62007676	1183	NSA20-16	143
NOR-GES6R38	1153	NOR-RSGUP-16	1544	NOR-TS3	1153	NPT62008989	1183	NSA20-20	143
NOR-GES8R12	1153	NOR-RSGUP-19	1544	NOR-TS4	1153	NPT62041310	1184	NSA4-4	143
NOR-GES8R14	1153	NOR-RSGUP-21	1544	NOR-TS5	1153	NPT62041713	1184	NSA6-4	143
NOR-GES8R38	1153	NOR-RSGUP-22	1544	NOR-TS6	1153	NPT62042117	1184	NSA6-6	143
NOR-GRS10-6	1153	NOR-RSGUP-25	1544	NOR-TS7	1153	NPT62042721	1184	NSA8-6	143
NOR-GRS10-8	1153	NOR-RSGUP-28	1544	NOR-TS8	1153	NPT62043227	1184	NSA8-8	143
NOR-GRS12-10	1153	NOR-RSGUP-30	1544	NOR-WES10R14	1153	NPT62044232	1184	NSC12	141
NOR-GRS12-8	1153	NOR-RSGUP-32	1544	NOR-WES10R38	1153	NPT62044842	1184	NSC16	141
NOR-GRS4-3	1153	NOR-RSGUP-35	1544	NOR-WES12R12	1153	NPT62046048	1184	NSC24	141
NOR-GRS5-4	1153	NOR-RSGUP-6	1544	NOR-WES12R38	1153	NPT62047660	1184	NSC4	141
NOR-GRS6-4	1153	NOR-RSGUP-8	1544	NOR-WES19R34	1153	NPT62048976	1184	NSC6	141
NOR-GRS8-4	1153	NOR-RSGUU-12	1544	NOR-WES25R1	1153	NPT62060114	1185	NSC8	141
NOR-GRS8-6	1153	NOR-RSGUU-13	1544	NOR-WES4R14	1153	NPT62061010	1185	NSE1/4-U10C	791
NOR-GS10	1153	NOR-RSGUU-16	1544	NOR-WES4R18	1153	NPT62061313	1185	NSE1/8-U10C	791
NOR-GS12	1153	NOR-RSGUU-19	1544	NOR-WES6R14	1153	NPT62061717	1185	NSE5/32-U10C	791
NOR-GS13	1153	NOR-RSGUU-21	1544	NOR-WES6R18	1153	NPT62062121	1185	NSP007	49
NOR-GS14	1153	NOR-RSGUU-22	1544	NOR-WES6R38	1153	NPT62062727	1185	NSP008	49
NOR-GS16	1153	NOR-RSGUU-25	1544	NOR-WES8R12	1153	NPT62063232	1185	NSP010	49
NOR-GS19	1153	NOR-RSGUU-28	1544	NOR-WES8R14	1153	NPT62064242	1185	NSP012	49
NOR-GS25	1153	NOR-RSGUU-30	1544	NOR-WS10	1153	NPT62064848	1185	NSP014	49
NOR-GS3	1153	NOR-RSGUU-35	1544	NOR-WS12	1153	NPT62066060	1185	NSP016	49
NOR-GS4	1153	NOR-RSGUU-6	1544	NOR-WS13	1153	NPT62067676	1185	NSP018	49
NOR-GS5	1153	NOR-SS-1	1534	NOR-WS16	1153	NPT62068989	1185	NSP020	49
NOR-GS6	1153	NOR-SS-1A	1534	NOR-WS19	1153	NPT62181000	1184	NSP022	49
NOR-GS8	1153	NOR-SS-1X	1534	NOR-WS25	1153	NPT62181300	1184	NSP024	49
NOR-HD118	1534	NOR-SS-2	1534	NOR-WS3	1153	NPT62181700	1184	NSP026	49
NOR-HD130	1534	NOR-SS-2A	1534	NOR-WS4	1153	NPT62182100	1184	NSP028	49
NOR-HD143	1534	NOR-SS-2X	1534	NOR-WS5	1153	NPT62182700	1184	NSP030	49
NOR-HD168	1534	NOR-SS-3	1534	NOR-WS6	1153	NPT62183200	1184	NSP033	49
NOR-HD181	1534	NOR-SS-3X	1534	NOR-WS8	1153	NPT62184200	1184	NSP035	49
NOR-HD194	1534	NOR-SS-4	1534	NOR-YRS4-6-4	1153	NPT62184800	1184	NSP040	49
NOR-HD45	1534	NOR-SS-4X	1534	NOR-YRS6-8-6	1153	NPT62186000	1184	NSP045	49
NOR-HD54	1534	NOR-SS-5	1534	NOR-YS10	1153	NPT62187600	1184	NSP050	49
NOR-HD67	1534	NOR-SS-75-12	1534	NOR-YS12	1153	NPT62188900	1184	NSP055	49
NOR-HD79	1534	NOR-SS-75-16	1534	NOR-YS13	1153	NPTM0203CF	23	NSP060	49
NOR-HD92	1534	NOR-SS-75-18	1534	NOR-YS14	1153	NPTM0204CF	23	NT12	143
NOR-KS12	1153	NOR-SS-MOO	1534	NOR-YS16	1153	NPTM0403CF	23	NT20	143
NOR-KS4	1153	NOR-SS-O	1534	NOR-YS19	1153	NPTM0404CF	23	NT24	143
NOR-KS5	1153	NOR-SS-OO	1534	NOR-YS3	1153	NPTM0405CF	23	NT4	143
NOR-KS6	1153	NOR-SS-OOO	1534	NOR-YS4	1153	NPTM0406CF	23	NT6	143
NOR-MOO	1534	NOR-TES10R38	1153	NOR-YS5	1153	NPTM0604CF	23	NT8	143
NOR-O	1534	NOR-TES6R18	1153	NOR-YS6	1153	NPTM0605CF	23	NTA1	1497
NOR-OO	1534	NOR-TES8R14	1153	NOR-YS8	1153	NPTM0606CF	23	NTA112	1497
NOR-OOO	1534	NOR-TRS10-13-10	1153	NOZ.C	1620	NPTM0608CF	23	NTA114	1497
NOR-RLGUP-10	1544	NOR-TRS10-6-10	1153	NOZ.S3000	1620	NPTM0805CF	23	NTA2	1497
NOR-RLGUP-12	1544	NOR-TRS10-8-10	1153	NOZA.120S	1620	NPTM0806CF	23	NTB100BA	421
NOR-RLGUP-13	1544	NOR-TRS12-10-12	1153	NOZA.250S	1620	NPTM0808CF	23	NTB100CA	421
NOR-RLGUP-16	1544	NOR-TRS12-6-12	1153	NOZA.60S	1620	NPTM0810CF	23	NTB105BA	421
NOR-RLGUP-19	1544	NOR-TRS12-8-12	1153	NOZA.SS	1620	NPTM0812CF	23	NTB105CA	421
NOR-RLGUP-22	1544	NOR-TRS15-6-15	1153	NOZA.X	1620	NPTM1208CF	23	NTB25BA	421
NOR-RLGUP-25	1544	NOR-TRS15-8-15	1153	NOZA.X25	1620	NPTM1210CF	23	NTB25CA	421
NOR-RLGUP-28	1544	NOR-TRS18-10-18	1153	NOZ-MAB	1623	NPTM1212CF	23	NTB31BA	421
NOR-RLGUP-29	1544	NOR-TRS4-6-4	1153	NPC15	884	NPTM1616CF	23	NTB31CA	421
NOR-RLGUP-32	1544	NOR-TRS6-4-6	1153	NPT62000114	1183	NPTM1620CF	23	NTB38BA	421
NOR-RLGUP-35	1544	NOR-TRS8-4-8	1153	NPT62001010	1183	NPTM2016CF	23	NTB38CA	421
NOR-RLGUP-40	1544	NOR-TRS8-6-8	1153	NPT62001313	1183	NPTM2020CF	23	NTB47BA	421
NOR-RLGUP-44	1544	NOR-TS10	1153	NPT62001717	1183	NPTM2424CF	23	NTB47CA	421
NOR-RLGUP-5	1544	NOR-TS12	1153	NPT62002121	1183	NPTM3232CF	23	NTB60BA	421
NOR-RLGUP-6	1544	NOR-TS13	1153	NPT62002727	1183	NSA12-12	143	NTB60CA	421
NOR-RLGUP-8	1544	NOR-TS14	1153	NPT62003232	1183	NSA12-16	143	NTB70BA	421
NOR-RLGUP-9	1544	NOR-TS15	1153	NPT62004242	1183	NSA12-8	143	NTB70CA	421

NTB80BA	421	NTM08/055	913	ODT316LW-H-1.0	1192	OM12	1197	ORFSF0605CF	22
NTB80CA	421	NTM08/055N	913	ODT316LW-H-1.5	1192	OM15	1197	ORFSF0605SS	34
NTB90BA	421	NTM08/060	913	ODT316LW-H-2	1192	OM16	1197	ORFSF0606CF	22
NTB90CA	421	NTM08/060-100	913	ODT316LW-H-2.5	1192	OM18	1197	ORFSF0606SS	34
NTC1	1497	NTM08/060B	913	ODT316LW-H-3	1192	OM22	1197	ORFSF064504CF	22
NTC112	1497	NTM08/060B-100	913	ODT316LW-H-4	1192	OM28	1197	ORFSF064504SS	34
NTC114	1497	NTM08/060G	913	OE-1	1183	OMB04	1197	ORFSF064505CF	22
NTC12	1497	NTM08/060N	913	OE-112	1183	OMB05	1197	ORFSF064505SS	34
NTC2	1497	NTM08/060N-100	913	OE-114	1183	OMB06	1197	ORFSF064506CF	22
NTC34	1497	NTM08/060R	913	OE-12	1183	OMB08	1197	ORFSF064506SS	34
NTI1/813	914	NTM08/060Y	913	OE-14	1183	OMB10	1197	ORFSF069004CF	22
NTI12/375	914	NTM10/070	913	OE-18	1183	OMB12	1197	ORFSF069004SS	34
NTI12/375B	914	NTM10/070B	913	OE-2	1183	OMB15	1197	ORFSF069005CF	22
NTI12/375G	914	NTM10/070G	913	OE-212	1183	OMB16	1197	ORFSF069005SS	34
NTI12/375N	914	NTM10/070N	913	OE-3	1183	OMC-1000-1312SE	166	ORFSF069006CF	22
NTI12/375R	914	NTM10/070R	913	OE-34	1183	OMC-10-250EO	173	ORFSF069006SS	34
NTI12/375Y	914	NTM10/070Y	913	OE-38	1183	OMC-10-375EO	173	ORFSF0806CF	22
NTI14/170	914	NTM10/080	913	OE-4	1183	OMC-10-500EO	173	ORFSF0806SS	34
NTI14/170B	914	NTM10/080-100	913	OEMC14	1419	OMC-12-250EO	173	ORFSF0808CF	22
NTI14/170G	914	NTM10/080B	913	OEMC38	1419	OMC-12-375EO	173	ORFSF0808SS	34
NTI14/170N	914	NTM10/080B-100	913	OEMC3814	1419	OMC-12-500EO	173	ORFSF084506CF	22
NTI14/170R	914	NTM10/080G	913	OET0041	1538	OMC-125-312SE	166	ORFSF084506SS	34
NTI14/170Y	914	NTM10/080N	913	OET0045	1538	OMC-187-375SE	166	ORFSF084508CF	22
NTI18/075	914	NTM10/080N-100	913	OET0305	1538	OMC-250-250EO	166	ORFSF084508SS	34
NTI316/117	914	NTM10/080R	913	OET0507	1538	OMC-250-437SE	166	ORFSF089006CF	22
NTI316/117N	914	NTM10/080Y	913	OET0709	1538	OMC-250-500EO	166	ORFSF089006SS	34
NTI34/594	914	NTM12/090	913	OET0811	1538	OMC-312-500SE	166	ORFSF089008CF	22
NTI38/250	914	NTM12/090B	913	OET0911	1538	OMC-375-375EO	166	ORFSF089008SS	34
NTI38/250B	914	NTM12/090G	913	OET1113	1538	OMC-375-562SE	166	ORFSF1008CF	22
NTI38/250G	914	NTM12/090N	913	OET1315	1538	OMC-500-250EO	166	ORFSF1008SS	34
NTI38/250N	914	NTM12/090R	913	OET1517	1538	OMC-500-375EO	166	ORFSF1010CF	22
NTI38/250R	914	NTM12/090Y	913	OET1518	1538	OMC-500-500EO	166	ORFSF1010SS	34
NTI38/250Y	914	NTM12/100	913	OET1619	1538	OMC-500-750SE	166	ORFSF1012CF	22
NTI516/212	914	NTM12/100N	913	OET1720	1538	OMC-6-125EO	173	ORFSF1012SS	34
NTI516/212B	914	NTM12/100R	913	OET1922	1538	OMC-6-250EO	173	ORFSF104508CF	22
NTI516/212N	914	NTM14/110	913	OET2023	1538	OMC-6-375EO	173	ORFSF104510CF	22
NTI516/212R	914	NTM14/110N	913	OET2225	1538	OMC-6-500EO	173	ORFSF104510SS	34
NTI532/096	914	NTM15/120	913	OET2327	1538	OMC-750-1062SE	166	ORFSF104512CF	22
NTI58/500	914	NTM16/130	913	OET2528	1538	OMC-750-750EO	166	ORFSF104512SS	34
NTM04/025	913	NTM18/140	913	OET2731	1538	O-MS	1517	ORFSF109008CF	22
NTM04/025B	913	NTM22/170	913	OET2831	1538	O-MS-BOX	1517	ORFSF109010CF	22
NTM04/025G	913	NTSWC112	1497	OET3134	1538	ON14	1419	ORFSF109010SS	34
NTM04/025N	913	NTSWC2	1497	OET3437	1538	ON38	1419	ORFSF109012CF	22
NTM04/025R	913	NU-1000-1000AN	170	OET3740	1538	OO-MS	1517	ORFSF109012SS	34
NTM04/025Y	913	NU-125-125AN	170	OET4043	1538	OO-MS-BOX	1517	ORFSF1208CF	22
NTM04/030	913	NU-125-250AN	170	OG50-010	412	OOO-MS	1517	ORFSF1208SS	34
NTM05/030	913	NU-250-250AN	170	OG50-050	412	OOO-MS-BOX	1517	ORFSF1210CF	22
NTM05/030B	913	NU-312-312AN	170	Oi02	1200	OOO-SS	1517	ORFSF1210SS	34
NTM05/030G	913	NU-375-250AN	170	Oi04	1200	OO-SS	1517	ORFSF1212CF	22
NTM05/030N	913	NU-375-375AN	170	Oi05	1200	OP1	1536	ORFSF1212SS	34
NTM05/030R	913	NU-500-500AN	170	Oi06	1200	OPAN14	1655	ORFSF124508CF	22
NTM05/030Y	913	NU-750-750AN	170	Oi08	1200	OPAN6	1655	ORFSF124510CF	22
NTM06/040	913	NV6000-1	983	Oi10	1200	OPS-15	1547	ORFSF124512CF	22
NTM06/040-100	913	NV6000-12	983	Oi12	1200	OPS-22	1547	ORFSF124512SS	34
NTM06/040B	913	NV6000-14	983	OiB02	1200	OPS-28	1547	ORFSF129008CF	22
NTM06/040B-100	913	NV6000-18	983	OiB03	1200	OR-2-40	280	ORFSF129010CF	22
NTM06/040G	913	NV6000-34	983	OiB04	1200	ORFSF0404CF	22	ORFSF129012CF	22
NTM06/040G-100	913	NV6000-38	983	OiB05	1200	ORFSF0404SS	34	ORFSF129012SS	34
NTM06/040N	913	O		OiB06	1200	ORFSF044504CF	22	ORFSF1612CF	22
NTM06/040N-100	913	OC-KIT-MS	1536	OiB08	1200	ORFSF044504SS	34	ORFSF1612SS	34
NTM06/040R	913	ODSCV1414	1419	OM04	1197	ORFSF049004CF	22	ORFSF1616CF	22
NTM06/040R-100	913	ODSCV1438	1419	OM06	1197	ORFSF049004SS	34	ORFSF1616SS	34
NTM06/040Y	913	ODSCV3838	1419	OM08	1197	ORFSF0604CF	22	ORFSF164512CF	22
NTM06/040Y-100	913	ODSCV51638	1419	OM10	1197	ORFSF0604SS	34	ORFSF164516CF	22

ORFSF164516SS	34	ORING-BS116V	111	P11-14-1/2	853	P17-4-1/8	855	P2-10-1/4	852
ORFSF169012CF	22	ORING-BS210N	111	P11-14-3/8	853	P17-4-M5	855	P2-10-3/8	852
ORFSF169012SS	34	ORING-BS211N	111	P1-12-1/2	852	P17-6-1/4	855	P21-10	854
ORFSF169016CF	22	ORING-BS211V	111	P1-12-1/4	852	P17-6-1/8	855	P2-12-1/2	852
ORFSF169016SS	34	ORING-BS212N	111	P1-12-3/8	852	P17-6-M5	855	P2-12-1/4	852
ORFSF2020CF	22	ORING-BS212V	111	P1-14-1/2	852	P17-8-1/4	855	P2-12-3/8	852
ORFSF2020SS	34	ORING-BS213N	111	P1-14-3/8	852	P17-8-1/8	855	P21-3	854
ORFSF204520CF	22	ORING-BS214N	111	P11-5-1/8	853	P17-8-3/8	855	P21-4	854
ORFSF204520SS	34	ORING-BS215N	111	P11-6-1/4	853	P17-N6	760	P2-14-1/2	852
ORFSF204524SS	34	ORING-BS216N	111	P11-6-1/8	853	P17-S3	760	P2-14-3/8	852
ORFSF209016CF	22	ORING-BS217N	111	P11-8-1/2	853	P17-W3	760	P21-5	854
ORFSF209020CF	22	ORING-BS218N	111	P11-8-1/4	853	P-18	178	P21-6	854
ORFSF209020SS	34	ORING-BS218V	111	P11-8-1/8	853	P1-8-1/2	852	P21-8	854
ORFSF209024SS	34	ORING-BS219N	111	P11-8-3/8	853	P1-8-1/4	852	P-22	178
ORFSF2424CF	22	ORING-BS220N	111	P-12	178	P1-8-1/8	852	P22-10-1/4	855
ORFSF2424SS	34	ORING-BS221N	111	P12-10-1/2	853	P1-8-3/8	852	P22-10-3/8	855
ORFSF244524CF	22	ORING-BS221V	111	P12-10-1/4	853	P-187	172	P22-12-3/8	855
ORFSF249024CF	22	ORING-BS222N	111	P12-10-3/8	853	P1C-4KMB	513	P22-4-1/8	855
ORFS-KIT01	112	ORING-BS325N	111	P12-12-1/2	853	P1C-4KMCA	513	P22-4-M5	855
ORFSM0404CF	22	ORING-BS326N	111	P12-12-3/8	853	P1C-4KMD	513	P22-5-1/8	855
ORFSM0404SS	34	ORING-BS327N	111	P12-14-1/2	853	P1C-4KME	513	P22-5-M5	855
ORFSM0604CF	22	OSC-12	406	P12-14-3/8	853	P1C-4LME	513	P22-6-1/4	855
ORFSM0605CF	22	OSG	1634	P12-4-1/8	853	P1C-4LMF	513	P22-6-1/8	855
ORFSM0606CF	22	O-SS	1517	P12-4-M5	853	P1C-4LMT	513	P22-6-M5	855
ORFSM0606SS	34	OT1414	1419	P-125	172	P1C-4NME	513	P22-8-1/4	855
ORFSM0806CF	22	OT1438	1419	P12-5-1/8	853	P1C-4NMT	513	P22-8-1/8	855
ORFSM0808CF	22	OT38	1419	P12-5-M5	853	P1D-6KRN	513	P22-8-3/8	855
ORFSM0808SS	34	OT516	1419	P12-6-1/4	853	P1D-6LRN	513	P2301M	276
ORFSM1008CF	22	OTR445-10NL-08	1416	P12-6-1/8	853	P1D-6MRN	513	P23-10-1/4	855
ORFSM1010CF	22	OTR445-10NL-10	1416	P12-6-M5	853	P1D-6NRN	513	P23-12-3/8	855
ORFSM1010SS	34	OX-MS	1517	P12-8-1/2	853	P1D-6PRN	513	P23-4-1/8	855
ORFSM1208CF	22	OX-MS-BOX	1517	P12-8-1/4	853	P1D-6RRN	513	P23-6-1/4	855
ORFSM1210CF	22	OX-SS	1517	P12-8-1/8	853	P1F-S032MS-0050	512	P23-6-1/8	855
ORFSM1212CF	22	OXYBV-1	932	P12-8-3/8	853	P1F-S032MS-0080	512	P23-8-1/4	855
ORFSM1212SS	34	OXYBV-112	932	P1-4-1/4	852	P1F-S032MS-0100	512	P23-8-1/8	855
ORFSM1612CF	22	OXYBV-114	932	P1-4-1/8	852	P1F-S032MS-0125	512	P23-8-3/8	855
ORFSM1616CF	22	OXYBV-12	932	P14-4-14	853	P1F-S032MS-0160	512	P2-3-M5	852
ORFSM1616SS	34	OXYBV-14	932	P14-4-18	853	P1F-S040MS-0050	512	P2-4-1/4	852
ORFSM2020CF	22	OXYBV-2	932	P14-6-14	853	P1F-S040MS-0125	512	P2-4-1/8	852
ORFSM2020SS	34	OXYBV-34	932	P14-6-18	853	P1F-S050MS-0080	512	P24-6-1/4	855
ORFSM2424CF	22	OXYBV-38	932	P14-8-14	853	P1F-S050MS-0100	512	P24-6-1/8	855
ORFSM2424SS	34	P		P14-8-18	853	P1F-S063MS-0100	512	P24-8-1/4	855
ORING-BS006N	111	P-10	178	P14-8-38	853	P1F-S063MS-0200	512	P2-4-M5	852
ORING-BS006V	111	P1000	276	P-15	178	P1F-S063MS-0500	512	P-25	178
ORING-BS007N	111	P-1000	172	P1-5-1/4	852	P1F-S080MS-0100	512	P-250	172
ORING-BS008N	111	P100WHR	1755	P1-5-1/8	852	P1F-S080MS-0200	512	P250WHR	1755
ORING-BS008V	111	P10-10-1/4	853	P15-N6	760	P1F-S100MS-0025	512	P2-5-1/8	852
ORING-BS009N	111	P10-12-1/4	853	P15-S3	760	P1F-S100MS-0200	512	P251WHR	1755
ORING-BS009V	111	P10-12-3/8	853	P15-W3	760	P1F-S125MS-0250	512	P2-5-M5	852
ORING-BS010N	111	P101WHR	1755	P-16	178	P1NZ3000	1046	P2-6-1/2	852
ORING-BS010V	111	P10-4-1/8	853	P1-6-1/2	852	P-20	178	P2-6-1/4	852
ORING-BS011N	111	P10-5-1/8	853	P1-6-1/4	852	P201WHR	1755	P2-6-1/8	852
ORING-BS011V	111	P10-6-1/8	853	P1-6-1/8	852	P20-3-M5	852	P2-6-3/8	852
ORING-BS012N	111	P10-8-1/4	853	P16-10	854	P20-4-1/8	852	P26-6-1/4	855
ORING-BS012V	111	P10-8-1/8	853	P16-12	854	P20-4-M5	852	P26-8-1/4	855
ORING-BS110N	111	P1099	1536	P16-14	854	P20-6-1/4	852	P2-6-M5	852
ORING-BS110V	111	P1-10-1/2	852	P16-3	854	P20-6-1/8	852	P27-8-1/4	855
ORING-BS111N	111	P1-10-1/4	852	P1-6-3/8	852	P20-6-M5	852	P27-N6	760
ORING-BS112N	111	P1-10-3/8	852	P16-4	854	P20-8-1/4	852	P27-S3	760
ORING-BS112V	111	P11-10-1/2	853	P16-5	854	P20-8-1/8	852	P27-W3	760
ORING-BS113N	111	P11-10-1/4	853	P16-6	854	P20-N6	760	P2-8-1/2	852
ORING-BS114N	111	P11-10-3/8	853	P16-8	854	P20-S3	760	P2-8-1/4	852
ORING-BS115N	111	P11-12-1/2	853	P17-10-1/4	855	P20-W3	760	P2-8-1/8	852
ORING-BS116N	111	P11-12-3/8	853	P17-12-3/8	855	P2-10-1/2	852	P28-10-1/4	855

P2-8-3/8	852	P32-N6	760	P45-6-M5	854	P7-8-1/4	853	PA20C1G5R032S	1051
P28-4-1/8	855	P32-S3	760	P45-8-1/4	854	P7-8-1/8	853	PA20C2G5R032S	1051
P28-4-M5	855	P32-W3	760	P45-8-1/8	854	P7-8-3/8	853	PA20S	1016
P28-5-1/4	855	P3-3-M5	852	P4-6	854	P-8	178	PA20S1G5R050A	1051
P28-5-1/8	855	P3-4-1/4	852	P4-6-4	854	P8-10-1/2	853	PA20S1G5R050S	1051
P28-5-M5	855	P3-4-1/8	852	P4-8	854	P8-10-1/4	853	PA20S2G5R050S	1051
P28-6-1/4	855	P3-4-M5	852	P4-8-6	854	P8-10-3/8	853	PA20SAG5R050A	1051
P28-6-1/8	855	P350	276	P48-N6	760	P8-12-1/2	853	PA20SAG5R050S	1051
P28-6-M5	855	P350WHR	1755	P48-S3	760	P8-12-1/4	853	PA25	1016
P28-8-1/4	855	P3-5-1/8	852	P48-W3	760	P8-12-3/8	853	PA25S	1016
P28-8-1/8	855	P3-6-1/4	852	P-500	172	P8-14-1/2	853	PA25S1G6R050S	1051
P29-4-1/8	855	P3-6-1/8	852	P500BKR	1755	P8-14-3/8	853	PA25S1G6R063S	1051
P29-6-1/8	855	P-375	172	P50-10-38	852	P8-3-M5	853	PA25S2G6R063S	1051
P2E-KV32B2	597	P3-8-1/4	852	P50-4-18	852	P8-4-1/4	853	PA25SAG6R063A	1051
P2E-KV32C2	597	P3-8-1/8	852	P50-6-14	852	P8-4-1/8	853	PA25SAG6R063S	1051
P2FCB449	597	P3-8-3/8	852	P50-6-18	852	P8-4-M5	853	PA30	1016
P2FCB453	597	P39-4-1/8	855	P50-8-14	852	P8-5-1/8	853	PA30S	1016
P2FCB457	597	P39-6-1/4	855	P50-8-18	852	P8-5-M5	853	PA32S1G7R063S	1051
P2LAX511VS	566	P39-6-1/8	855	P5-10	854	P85-S3	760	PA32S2G7R063S	1051
P2LAX511VV	566	P39-8-1/4	855	P5-12	854	P8-6-1/4	853	PA32SAG7R080S	1051
P2LAZ511ESNDCN	597	P-3-FT	178	P51-6-14	852	P8-6-1/8	853	PA50	1016
P2LBX61211	566	P3LCA12PESNGLNW	699	P51-6-18	852	P8-6-3/8	853	PA50S	1016
P2LBX61222	566	P3LEA12EPSBNNP	699	P51-8-14	852	P8-6-M5	853	PA60	1016
P2LBX81211	566	P3LFA12APPN	699	P51-8-38	852	P-875	172	PA60S	1016
P2LBZ312ESNDCN	597	P3LFA12CPPN	699	P5-3	854	P8-8-1/2	853	PA70	1016
P2LBZ512EENDCN	597	P3LFA12EPSN	699	P5-4	854	P8-8-1/4	853	PA70S	1016
P2LBZ512ESNDCN	597	P3LKA00CB1	699	P5-5	854	P8-8-1/8	853	PAMFURTURT34	1490
P2LDX314PS	608	P3LKA00CB2	699	P5-6	854	P8-8-3/8	853	PAV1.0606.002	296
P2LDX514ESNXXX	608	P3LKA00CB3	699	P5-8	854	P8C-D	597	PAV1.0606.002 V	296
P2LDX514VS	566	P3LKA00CB4	699	P6	1641	P8S-GPFLX	513	PAV1.0606.003	296
P2N-EM512MD	608	P3LKA00MM	699	P601S	276	P8S-GPMHX	513	PAV1.0606.003 V	296
P2VM-SS-8-R	981	P3LKA00MP	699	P60-N6	760	P8S-GSFLX	513	PAV1.0606.012	296
P2VM-SS-8-RM	981	P3LKA00MR	699	P60-S3	760	P9-10	854	PAV1.0606.013	296
P3	1641	P3LKA00MW	699	P60-W3	760	P9-12	854	PAV1.1010.002	296
P30-10-1/4	854	P3LLA12LPNN	699	P6-10-1/4	852	P9-14	854	PAV1.1010.002 V	296
P30-10-3/8	854	P3LMA12020C	699	P6-10-3/8	852	P9-3	854	PAV1.1010.003	296
P30-12-1/4	854	P3LRA12BNNP	699	P6-12-1/4	852	P9-4	854	PAV1.1010.003 V	296
P30-12-3/8	854	P3LRX12BNNP	699	P6-12-3/8	852	P9-5	854	PAV1.1010.012	296
P30-4-1/8	854	P3VM-SS-8-R	981	P-625	172	P9-6	854	PAV1.1010.013	296
P30-4-M5	854	P-4	178	P6320/019	1416	P9-8	854	PAV1.1313.002	296
P304WHR	1755	P40	1016	P6320/025	1416	PA00	1016	PAV1.1313.002 V	296
P30-5-1/4	854	P40S	1016	P6-4-1/8	852	PA00S	1016	PAV1.1313.003	296
P30-5-1/8	854	P4-10	854	P64F-NNC-PZN	685	PA01WHR	1754	PAV1.1313.003 V	296
P30-5-M5	854	P4-12	854	P6-4-M5	852	PA05	1016	PAV1.1313.012	296
P30-6-1/4	854	P4-14	854	P6-5-1/8	852	PA05S	1016	PAV1.1313.013	296
P30-6-1/8	854	P421GRRM/L	1755	P6-6-1/4	852	PA10	1016	PAV1.2019.002	296
P30-6-M5	854	P421GRRS/M	1755	P6-6-1/8	852	PA10C1G3R032S	1051	PAV1.2019.002 V	296
P30-8-1/4	854	P43	855	P6-8-1/4	852	PA10C2G3R032S	1051	PAV1.2019.003	296
P30-8-1/8	854	P4-3	854	P6-8-1/8	852	PA10S	1016	PAV1.2019.003 V	296
P30-8-3/8	854	P431BLUM/L	1755	P-6-FT	178	PA10S1G3R050S	1051	PAV1.2019.012	296
P3-10-1/2	852	P431BLUS/M	1755	P7-10-1/2	853	PA10S2G3R050S	1051	PAV1.2019.013	296
P3-10-1/4	852	P4-4	854	P7-10-1/4	853	PA10SAG3R050S	1051	PAV1.2525.002	296
P3-10-3/8	852	P44-10-3/8	854	P7-10-3/8	853	PA15	1016	PAV1.2525.002 V	296
P-312	172	P44-12-3/8	854	P7-12-1/2	853	PA1500	276	PAV1.2525.003	296
P3-12-1/2	852	P44-4-1/8	854	P7-12-3/8	853	PA15C1G4R032S	1051	PAV1.2525.003 V	296
P3-12-3/8	852	P44-6-1/4	854	P7-14-1/2	853	PA15C2G4R032S	1051	PAV1.2525.012	296
P32-10-8	854	P44-6-1/8	854	P7-14-3/8	853	PA15S	1016	PAV1.2525.013	296
P32-12-10	854	P44-8-1/4	854	P7-4-1/4	853	PA15S1G4R040S	1051	PAV1.3031.002	296
P32-12-8	854	P44-8-1/8	854	P7-4-1/8	853	PA15S1G4R050A	1051	PAV1.3031.002 V	296
P32-4-3	854	P4-5	854	P-750	172	PA15S1G4R050S	1051	PAV1.3031.003	296
P32-5-4	854	P45-4-M5	854	P7-5-1/8	853	PA15S2G4R050S	1051	PAV1.3031.003 V	296
P32-6-4	854	P45-5-1/8	854	P7-6-1/4	853	PA15SAG4R050A	1051	PAV1.3031.012	296
P32-6-5	854	P45-6-1/4	854	P7-6-1/8	853	PA15SAG4R050S	1051	PAV1.3031.013	296
P32-8-6	854	P45-6-1/8	854	P7-8-1/2	853	PA20	1016	PAV1.3939.002	296



B

PAV1.3939.002 V	296	PBT02SNP	1176	PBVX.5051.002	297	PC-8	177	PCLAMPS-119-4	1393
PAV1.3939.003	296	PBT-04	89	PBVX.5051.003	297	PC8-10	1536	PCLAMPS-119-5	1393
PAV1.3939.003 V	296	PBT04SNP	1176	PC03-M3C	788	PCF03-M3C	788	PCLAMPS-125-1	1393
PAV1.3939.012	296	PBT-06	89	PC03-M5C	788	PCF03-M5C	788	PCLAMPS-125-2	1393
PAV1.3939.013	296	PBT06SNP	1176	PC03-M6C	788	PCF03-M6C	788	PCLAMPS-125-3	1393
PAV1.5051.002	296	PBT-08	89	PC04-01C	788	PCF04-01C	788	PCLAMPS-125-4	1393
PAV1.5051.002 V	296	PBV1.0404.002	300	PC04-G01C	788	PCF04-G01C	788	PCLAMPS-125-5	1393
PAV1.5051.003	296	PBV1.0404.003	300	PC04-M3C	788	PCF04-M3C	788	PCLAMPS-125H-3	1393
PAV1.5051.003 V	296	PBV1.0606.002	300	PC04-M5C	788	PCF04-M5C	788	PCLAMPS-125H-4	1393
PAV1.5051.012	296	PBV1.0606.003	300	PC04-M6C	788	PCF04-M6C	788	PCLAMPS-128-1	1393
PAV1.5051.013	296	PBV1.1010.002	300	PC06-01C	788	PCF06-01C	788	PCLAMPS-128-2	1393
PAVX.0606.002	297	PBV1.1010.003	300	PC06-G01C	788	PCF06-G01C	788	PCLAMPS-128-3	1393
PAVX.0606.003	297	PBV1.1313.002	300	PC06-M5C	788	PCF06-M5C	788	PCLAMPS-128-4	1393
PAVX.1010.002	297	PBV1.1313.003	300	PC06-M6C	788	PCF06-M6C	788	PCLAMPS-129-2	1393
PAVX.1010.003	297	PBV1.2019.002	300	PC1/2-03	777	PCF1/2-03	777	PCLAMPS-129-3	1393
PAVX.1313.002	297	PBV1.2019.003	300	PC1/2-04	777	PCF1/2-04	777	PCLAMPS-129-4	1393
PAVX.1313.003	297	PBV1.2525.002	300	PC1/4-01	777	PCF1/4-01	777	PCLAMPS-130-2	1393
PAVX.2019.002	297	PBV1.2525.003	300	PC1/4-02	777	PCF1/4-02	777	PCLAMPS-130-3	1393
PAVX.2019.003	297	PBV1.3931.002	300	PC1/4-N00C	790	PCF1/4-N00C	790	PCLAMPS-131-1	1394
PAVX.2525.002	297	PBV1.3931.003	300	PC1/4-N01C	790	PCF1/4-N01C	790	PCLAMPS-131-2	1394
PAVX.2525.003	297	PBV1.3939.002	300	PC1/4-U10C	790	PCF1/4-U10C	790	PCLAMPS-131-3	1394
PAVX.3031.002	297	PBV1.3939.003	300	PC1/8-N00C	790	PCF1/8-N01C	790	PCLAMPS-131-4	1394
PAVX.3031.003	297	PBV1.5051.002	300	PC1/8-N01C	790	PCF1/8-U10C	790	PCLAMPS-131-5	1394
PAVX.3939.002	297	PBV1.5051.003	300	PC1/8-U10C	790	PCF3/8-02	777	PCLAMPS-132-1	1394
PAVX.3939.003	297	PBV-2-S-02-FF	956	PC-10	177	PCF3/8-04	777	PCLAMPS-132-2	1394
PAVX.5051.002	297	PBV-2-S-04-FF	956	PC-1000	171	PCF5/32-N00C	790	PCLAMPS-132-3	1394
PAVX.5051.003	297	PBV-2-S-06-FF	956	PC10-12	1536	PCF5/32-N01C	790	PCLAMPS-132-4	1394
PAW	1016	PBV-2-S-08-FF	956	PC11-13	1536	PCF5/32-U10C	790	PCLAMPS-132-5	1394
PAWS-F04	1016	PBV-2-S-12-FF	956	PC-125	171	PCFF01-01	792	PCLAMPS-133-1	1394
PB1/2-02	777	PBV-2-S-16-FF	956	PC-12-FT	177	PCFF02-02	792	PCLAMPS-133-2	1394
PB1/4-01	777	PBVM.0404.002	300	PC13-15	1536	PCFF03-03	792	PCLAMPS-133-3	1394
PB1/4-02	777	PBVM.0404.003	300	PC14-16	1536	PCFF04-04	792	PCLAMPS-133-4	1394
PB1/4-N02	777	PBVM.0606.002	300	PC15-17	1536	PCJ5.0606.002	305	PCLAMPS-133-5	1394
PB1/8-N01	777	PBVM.0606.003	300	PC15E	1092	PCJ5.0606.003	305	PCLAMPS-134-2	1394
PB3/8-02	777	PBVM.1010.002	300	PC-15-FT	177	PCJ5.0606.012	305	PCLAMPS-134-3	1394
PBBLH-3/8	1594	PBVM.1010.003	300	PC15W	884	PCJ5.0606.013	305	PCLAMPS-134-4	1394
PBCCURT3	1489	PBVM.1313.002	300	PC-16	177	PCJ5.0610.002	305	PCLAMPS-135-2	1394
PBCCURT4	1489	PBVM.1313.003	300	PC16-18	1536	PCJ5.0610.003	305	PCLAMPS-135-3	1394
PBCWOC112	1489	PBVM.2019.002	300	PC17-19	1536	PCJ5.0610.012	305	PCLAMPS-135-4	1394
PBCWOC2	1489	PBVM.2019.003	300	PC18-20	1536	PCJ5.0610.013	305	PCLAMPS-138-1	1394
PBCWOC212	1489	PBVM.2525.002	300	PC-18-FT	177	PCJ6.0606.002	305	PCLAMPS-138-2	1394
PBCWOCBSP3	1489	PBVM.2525.003	300	PC-20	177	PCJ6.0606.003	305	PCLAMPS-138-3	1394
PBCWOCBSP4	1489	PBVM.3931.002	300	PC21-23	1536	PCJ6.0606.012	305	PCLAMPS-138-4	1394
PBCWOCURT3	1489	PBVM.3931.003	300	PC22E	1092	PCJ6.0606.013	305	PCLAMPS-140-1	1394
PBCWOCURT4	1489	PBVM.3939.002	300	PC22W	884	PCLAMPS-101-1	1393	PCLAMPS-140-2	1394
PBFA13	944	PBVM.3939.003	300	PC23-25	1536	PCLAMPS-101-2	1393	PCLAMPS-140-3	1394
PBFA16	944	PBVM.5051.002	300	PC-25	177	PCLAMPS-101-3	1393	PCLAMPS-143-1	1394
PBFA19	944	PBVM.5051.003	300	PC-250	171	PCLAMPS-101-4	1393	PCLAMPS-143-2	1394
PBFA20	944	PBVX.0404.002	297	PC26-28	1536	PCLAMPS-101-4/3	1393	PCLAMPS-143-3	1394
PBFG13	944	PBVX.0404.003	297	PC28E	1092	PCLAMPS-101-5	1393	PCLAMPS-143-4	1394
PBFG16	944	PBVX.0606.002	297	PC28W	884	PCLAMPS-101-5/4	1393	PCLAMPS-144-2	1394
PBFG19	944	PBVX.0606.003	297	PC-3	177	PCLAMPS-104-1	1393	PCLAMPS-144-3	1394
PBFG20	944	PBVX.1010.002	297	PC3/8-01	777	PCLAMPS-104-2	1393	PCLAMPS-144-4	1394
PBP02SNP	1176	PBVX.1010.003	297	PC3/8-02	777	PCLAMPS-104-3	1393	PCLAMPS-145-2	1394
PBP06SNP	1176	PBVX.1313.002	297	PC3/8-04	777	PCLAMPS-104-4	1393	PCLAMPS-145-3	1394
PBP08SNP	1176	PBVX.1313.003	297	PC30-32	1536	PCLAMPS-104-5	1393	PCLAMPS-145-4	1394
PBPWOC112	1489	PBVX.2019.002	297	PC-312	171	PCLAMPS-116-1	1393	PCLAMPS-146-2	1394
PBPWOC2	1489	PBVX.2019.003	297	PC-375	171	PCLAMPS-116-2	1393	PCLAMPS-146-3	1394
PBPWOC212	1489	PBVX.2525.002	297	PC5/32-N00C	790	PCLAMPS-116-3	1393	PCLAMPS-146-4	1394
PBPWOCBSP3	1489	PBVX.2525.003	297	PC5/32-N01C	790	PCLAMPS-116-4	1393	PCLAMPS-147-2	1394
PBPWOCURT3	1489	PBVX.3931.002	297	PC5/32-U10C	790	PCLAMPS-116-5	1393	PCLAMPS-147-3	1394
PBPWOCURT4	1489	PBVX.3931.003	297	PC-500	171	PCLAMPS-119-1	1393	PCLAMPS-147-4	1394
PBR205	1749	PBVX.3939.002	297	PC-6	177	PCLAMPS-119-2	1393	PCLAMPS-148-1	1395
PBT02	89	PBVX.3939.003	297	PC-750	171	PCLAMPS-119-3	1393	PCLAMPS-148-2	1395

PCLAMPS-148-3	1395	PCLAMPS-176-3	1397	PCU35	1134	PE-141030UM	1096	PE-704.039	1093
PCLAMPS-148-4	1395	PCLAMPS-176-4	1397	PCU42	1134	PE-141031CU	1096	PE-704.040	1093
PCLAMPS-149-1	1395	PCLAMPS-176-5	1397	PCU54	1134	PE-141031UM	1096	PE-704.041	1093
PCLAMPS-149-2	1395	PCLAMPS-179-1	1397	PCU67	1134	PE-141032C	1096	PE-704.049	1093
PCLAMPS-149-3	1395	PCLAMPS-179-2	1397	PCV-02-SS-FF	963	PE-141032UM	1096	PE-704.050	1093
PCLAMPS-149-4	1395	PCLAMPS-179-3	1397	PCV-04-SS-FF	963	PE-141040C	1096	PE-704.051	1093
PCLAMPS-149-5	1395	PCLAMPS-179-4	1397	PCV-06-SS-FF	963	PE-141040CU	1096	PE-704.063	1093
PCLAMPS-150-2	1395	PCLAMPS-182-2	1397	PCV-08-SS-FF	963	PE-141041UM	1096	PE-704.074	1093
PCLAMPS-150-3	1395	PCLAMPS-182-3	1397	PCV-12-SS-FF	963	PE-141050C	1096	PE-704.075	1093
PCLAMPS-150-4	1395	PCLAMPS-182-4	1397	PCV-16-SS-FF	963	PE-141063C	1096	PE-704.090	1093
PCLAMPS-158-2	1395	PCLAMPS-184-2	1397	PCVC04-01	792	PE-142020C	1096	PE-705.020	1093
PCLAMPS-158-3	1395	PCLAMPS-184-4	1397	PCVC04-02	792	PE-142024UM	1096	PE-705.025	1093
PCLAMPS-158-4	1395	PCLAMPS-198-2	1397	PCVC06-01	792	PE-142025C	1096	PE-705.032	1093
PCLAMPS-160-2	1395	PCLAMPS-198-3	1397	PCVC06-02	792	PE-142025UM	1096	PE-705.050	1093
PCLAMPS-160-3	1395	PCLAMPS-198-4	1397	PCVC08-01	792	PE-142030UM	1096	PE-705.063	1093
PCLAMPS-160-4	1395	PCLAMPS-199-3	1397	PCVC08-02	792	PE-142031UM	1096	PE-706.016	1093
PCLAMPS-160-5	1395	PCLAMPS-199-4	1397	PCVC10-02	792	PE-142032C	1096	PE-706.020	1093
PCLAMPS-161-1	1395	PCLAMPS-201-2	1397	PCVC10-03	792	PE-142032UM	1096	PE-706.025	1093
PCLAMPS-161-2	1395	PCLAMPS-201-4	1397	PCVC12-02	792	PE-142040C	1096	PE-706.032	1093
PCLAMPS-161-3	1395	PCLAMPS-204-2	1397	PCVC12-03	792	PE-142040UM	1096	PE-706.040	1093
PCLAMPS-161-3/2	1395	PCLAMPS-204-4	1397	PCVF01-01	792	PE-142041UM	1096	PE-706.050	1093
PCLAMPS-161-4	1395	PCLAMPS-219-2	1397	PCVF02-02	792	PE-142050C	1096	PE-706.063	1093
PCLAMPS-161-4/2	1395	PCLAMPS-219-4	1397	PCVF03-03	792	PE-142063C	1096	PE-706.090	1093
PCLAMPS-165-1	1395	PCLAMPS-224-2	1397	PCVF04-04	792	PE3/8	777	PE-707.020	1093
PCLAMPS-165-3	1395	PCLAMPS-224-3	1397	PCVU04	792	PE-701.016	1093	PE-707.024	1093
PCLAMPS-165-5	1395	PCLAMPS-224-4	1397	PCVU06	792	PE-701.020	1093	PE-707.025	1093
PCLAMPS-167-1	1396	PCLAMPS-225-2	1397	PCVU08	792	PE-701.025	1093	PE-707.031	1093
PCLAMPS-167-2	1396	PCLAMPS-225-4	1397	PCVU10	792	PE-701.032	1093	PE-707.032	1093
PCLAMPS-167-3	1396	PCLAMPS-233	1398	PCZRAB1	1543	PE-701.040	1093	PE-707.050	1093
PCLAMPS-167-4	1396	PCLAMPS-235-1-2	1398	PDCP-4	318	PE-701.050	1093	PE-707.063	1093
PCLAMPS-167-5	1396	PCLAMPS-2353-4-5	1398	PDCP-6	318	PE-701.063	1093	PE-708.020	1093
PCLAMPS-167M-3	1396	PCLAMPS-GS3-1-2	1398	PE-000.715	1095	PE-701.075	1093	PE-708.024	1093
PCLAMPS-167M-4	1396	PCLAMPS-GS3-4-5	1398	PE-04025-0100M-B	918	PE-701.110	1093	PE-708.025	1093
PCLAMPS-168-2	1396	PCLAMP-TUBE1-325	1395	PE-04025-0100M-E	918	PE-702.020	1093	PE-708.031	1093
PCLAMPS-168-3	1396	PCLAMP-TUBE1-6.5	1395	PE-04025-0100M-N	918	PE-702.025	1093	PE-708.032	1093
PCLAMPS-168-4	1396	PCLAMP-TUBE2-325	1395	PE-0604-0100M-B	918	PE-702.031	1093	PE-708.050	1093
PCLAMPS-168M-4	1396	PCLAMP-TUBE2-6.5	1395	PE-0604-0100M-E	918	PE-702.032	1093	PE-708.063	1093
PCLAMPS-169-1	1396	PCLAMP-TUBE3-325	1395	PE-0604-0100M-N	918	PE-702.040	1093	PE-709.020	1094
PCLAMPS-169-2	1396	PCLAMP-TUBE3-6.5	1395	PE-0604-0100M-R	918	PE-702.049	1093	PE-709.025	1094
PCLAMPS-169-3	1396	PCLAMP-TUBE4-325	1395	PE-0806-100M-B	918	PE-702.063	1093	PE-709.032	1094
PCLAMPS-169-4	1396	PCLAMP-TUBE4-6.5	1395	PE-0806-100M-E	918	PE-703.016	1093	PE-709.040	1094
PCLAMPS-169M	1396	PCLAMP-TUBE5-325	1395	PE-0806-100M-N	918	PE-703.020	1093	PE-709.050	1094
PCLAMPS-170-1	1396	PCLAMP-TUBE5-6.5	1395	PE1/2	777	PE-703.022	1093	PE-709.063	1094
PCLAMPS-170-2	1396	PCLIP-KIT-MS	1543	PE1/4	777	PE-703.024	1093	PE-709.075	1094
PCLAMPS-170-3	1396	PCLIP-KIT-SS	1543	PE1/8	777	PE-703.025	1093	PE-710.020	1094
PCLAMPS-170-4	1396	PCP-02	89	PE-1007-100M-B	918	PE-703.027	1093	PE-710.024	1094
PCLAMPS-170-5	1396	PCP-04	89	PE-1007-100M-E	918	PE-703.031	1093	PE-710.025	1094
PCLAMPS-171-1	1396	PCP-06	89	PE-1007-100M-N	918	PE-703.032	1093	PE-710.031	1094
PCLAMPS-171-2	1396	PCP-08	89	PE-1007-100M-R	918	PE-703.039	1093	PE-710.032	1094
PCLAMPS-171-3	1396	PCP-12	89	PE-1209-100M-B	918	PE-703.040	1093	PE-710.040	1094
PCLAMPS-171-4	1396	PCP-16	89	PE-1209-100M-E	918	PE-703.050	1093	PE-710.050	1094
PCLAMPS-171-5	1396	PCSE	1092	PE-1209-100M-R	918	PE-703.063	1093	PE-710.090	1094
PCLAMPS-173-2	1396	PCS-RAB1	1543	PE-140020CX	1096	PE-703.075	1093	PE-711.020	1094
PCLAMPS-173-3	1396	PCSW	884	PE-140025CX	1096	PE-703.090	1093	PE-711.025	1094
PCLAMPS-173-4	1396	PCT112	1487	PE-140025U	1096	PE-703.110	1093	PE-711.032	1094
PCLAMPS-173F-1	1396	PCT2	1487	PE-140031U	1096	PE-704.016	1093	PE-711.050	1094
PCLAMPS-173F-2	1396	PCT212	1487	PE-140032CX	1096	PE-704.020	1093	PE-711.063	1094
PCLAMPS-173F-3	1396	PCT3BSP	1487	PE-140040CX	1096	PE-704.021	1093	PE-712.020	1094
PCLAMPS-173F-5	1396	PCT3URT	1488	PE-140040U	1096	PE-704.024	1093	PE-712.025	1094
PCLAMPS-173M-2	1397	PCT4BSP	1487	PE-140050CX	1096	PE-704.025	1093	PE-713.025	1094
PCLAMPS-173M-3	1397	PCT4URT	1488	PE-140063CX	1096	PE-704.026	1093	PE-713.032	1094
PCLAMPS-173M-4	1397	PCU15	1134	PE-141020C	1096	PE-704.031	1093	PE-713.063	1094
PCLAMPS-173M-5	1397	PCU22	1134	PE-141024CU	1096	PE-704.032	1093	PE-714.050	1094
PCLAMPS-176-2	1397	PCU28	1134	PE-141025C	1096	PE-704.033	1093	PE-714.063	1094

PE-714.075	1094	PE-724007	1096	PEN112-112	1177	PG63-004RG	264	PGBU061014	411
PE-714.090	1094	PE-724008	1096	PEN114-114	1177	PG63-006BG	264	PGR050114	410
PE-715.020	1095	PE-724010	1096	PEN12-12	1177	PG63-006RG	264	PGR050314	410
PE-715.025	1095	PE-724011	1096	PEN2-2	1177	PG63-012BG	264	PGR050414	410
PE-715.032	1095	PE-724012	1096	PEN3-3	1177	PG63-012RG	264	PGR050614	410
PE-716016	1095	PE-724013	1096	PEN34-34	1177	PG63-014BG	264	PGR051014	410
PE-716020	1095	PE-724014	1096	PES1-1	1177	PG63-020BG	264	PGR051214	410
PE-716025	1095	PE-724016	1096	PES112-112	1177	PG63-020RG	264	PGR052014	410
PE-716032	1095	PE-724120	1096	PES114-114	1177	PG63-025BG	264	PGR060114	410
PE-716040	1095	PE-724121	1096	PES12-12	1177	PG63-025RG	264	PGR061014	410
PE-717020	1095	PE-724125	1096	PES2-2	1177	PG63-040BG	264	PGR061214	410
PE-717025	1095	PE-724126	1096	PES3-3	1177	PG63-040RG	264	PGR062014	410
PE-717032	1095	PE-724132	1096	PES34-34	1177	PG63-060BG	264	PH12.1	1625
PE-717040	1095	PE-724133	1096	PF0406-14	902	PG63-060RG	264	PH12.3/4	1625
PE-717050	1095	PE-724221	1096	PF0406-14-NG	902	PG63-120BG	264	PH20.1	1625
PE-718025	1095	PE-724226	1096	PF0508-14	902	PG63-120RG	264	PH20.3/4	1625
PE-718032	1095	PE-724233	1096	PF0508-14-NG	902	PG63-200BG	264	PHC-02	88
PE-718040	1095	PE-725020	1094	PF0610-14	902	PG63-200RG	264	PHC-04	88
PE-718050	1095	PE-725025	1094	PF0610-14-NG	902	PG63-250BG	264	PHC-06	88
PE-718063	1095	PE-725032	1094	PF0812-14	902	PG63-250RG	264	PHC-08	88
PE-719032	1095	PE-725050	1094	PF0812-14-NG	902	PG63-400BG	264	PHC-12	88
PE-719040	1095	PE-725075	1094	PF0812-38	902	PG63-400RG	264	PHC12-12RP	318
PE-719050	1095	PE-776001	1094	PF0812-38-NG	902	PG63-600BG	264	PHC-16	88
PE-719063	1095	PE-776002	1094	PFFN-1/4	1611	PG63-600RG	264	PHC16-16RP	318
PE-720020	1095	PE-776003	1094	PFS-1315L	1457	PGA-04-04	88	PHC20-20RP	318
PE-720021	1095	PE-776004	1094	PFS-1315M	1457	PGA-06-06	88	PHC4-4RP	318
PE-720022	1095	PE-780020	1094	PFS-1320L	1457	PGA-08-08	88	PHC6-6RP	318
PE-720026	1095	PE-780025	1094	PFS-1320M	1457	PGB050114	411	PHC8-8RP	318
PE-720032	1095	PE-780032	1094	PFS-615H	1457	PGB050118	411	PHN-01	88
PE-720033	1095	PEM0210W	880	PFS-915H	1457	PGB050314	411	PHN-02	88
PE-720041	1095	PEM0228W	880	PFS-915L	1457	PGB050318	411	PHN-04	88
PE-721020	1095	PEM0310W	880	PFS-915M	1457	PGB050414	411	PHN-06	88
PE-721021	1095	PEM03228W	880	PFS-920L	1457	PGB050418	411	PHN-08	88
PE-721022	1095	PEM0410W	880	PFS-920M	1457	PGB050614	411	PHN-12	88
PE-721025	1095	PEM0428W	880	PFT-02	89	PGB050618	411	PHN12-12RP	318
PE-721026	1095	PEM061510W	881	PFT-04	89	PGB051014	411	PHN-16	88
PE-721027	1095	PEM062215W	881	PFT-06	89	PGB051018	411	PHN16-16RP	318
PE-721032	1095	PEM062815W	881	PFT-08	89	PGB051214	411	PHN4-4RP	318
PE-721033	1095	PEM062822W	881	PFT1.1310.002	306	PGB051414	411	PHN6-6RP	318
PE-721034	1095	PEM221010W	880	PFT1.1313.002	306	PGB051418	411	PHN8-8RP	318
PE-721040	1095	PEM3015AW	880	PFT1.1318.102	306	PGB052014	411	PHNL02-L1.5	88
PE-721041	1095	PEM3015BW	880	PFT-12	89	PGB052018	411	PHNL02-L2	88
PE-721042	1095	PEM302210AW	880	PFT-16	89	PGB060114	411	PHNL02-L3	88
PE-722020	1095	PEM3022BW	880	PFT3.1313.213	306	PGB060314	411	PHNL02-L4	88
PE-722025	1095	PEM3028AW	880	PFT3.1318.503	306	PGB060414	411	PHNL02-L6	88
PE-722032	1095	PEM3028DW	880	PFT3.1322.503	306	PGB061014	411	PHNL04-L1.5	88
PE-722040	1095	PEM3201W	880	PG001-VB-1/4	695	PGB061214	411	PHNL04-L2	88
PE-723020	1095	PEM3202W	880	PG001-VB-1/8	695	PGB062014	411	PHNL04-L3	88
PE-723021	1095	PEM3203W	880	PG010-PB-1/4	695	PGB100138	411	PHNL04-L4	88
PE-723025	1095	PEM3210W	880	PG010-PB-1/8	695	PGB100338	411	PHNL04-L6	88
PE-723026	1095	PEM532210W	883	PG1/2-3/8	777	PGB100438	411	PHNL06-L1.5	88
PE-723033	1095	PEM532215W	883	PG205CTW00	1052	PGB100638	411	PHNL06-L2	88
PE-723121	1095	PEM571515W	883	PG205STW00	1052	PGB101038	411	PHNL06-L3	88
PE-723132	1095	PEM572222W	883	PG206CTX00	1052	PGB101238	411	PHNL06-L4	88
PE-723221	1095	PEMBTC1514	883	PG206STX00	1052	PGB102038	411	PHNL06-L6	88
PE-723226	1095	PE-MDPE20BLK	1094	PG207STY00	1052	PGBP040418	411	PHNL08-L1.5	88
PE-723232	1095	PE-MDPE20BLU	1094	PG208STZ00	1052	PGBP040618	411	PHNL08-L2	88
PE-723233	1095	PE-MDPE25BLK	1094	PG209STK00	1052	PGBP041018	411	PHNL08-L3	88
PE-724001	1096	PE-MDPE25BLU	1094	PG210STJ00	1052	PGBP041218	411	PHNL08-L4	88
PE-724002	1096	PE-MDPE32BLK	1094	PG63-001BG	264	PGBP060414	411	PHNL08-L6	88
PE-724003	1096	PE-MDPE32BLU	1094	PG63-001RG	264	PGBP060614	411	PHNL12-L2	88
PE-724004	1096	PE-MDPE63BLK	1094	PG63-002BG	264	PGBP061014	411	PHNL12-L3	88
PE-724005	1096	PE-MDPE63BLU	1094	PG63-002RG	264	PGBP061214	411	PHNL12-L4	88
PE-724006	1096	PEN1-1	1177	PG63-004BG	264	PGBU040418	411	PHNL12-L6	88

PHNL16-L1.5	88	PI0808S	841	PI251616S	842	PL04-M6C	788	PLS1.2019.112	299
PHNL16-L2	88	PI0812S	841	PI290808S	842	PL06-01C	788	PLS1.2019.113	299
PHNL16-L3	88	PI0816S	841	PI290810S	842	PL06-G01C	788	PLS1.2525.112	299
PHNL16-L4	88	PI090621S	841	PI291008S	842	PL06-M5C	788	PLS1.2525.113	299
PHNL16-L6	88	PI090801S	841	PI291208S	842	PL06-M6C	788	PLS1.2531.112	299
PI00	1016	PI090802S	841	PI291210S	842	PL1/2-03	777	PLS1.2531.113	299
PI00S	1016	PI090822S	841	PI30	1016	PL1/2-04	777	PLSX.0606.112	299
PI010601S	840	PI091202S	841	PI301208S	840	PL1/4-01	777	PLSX.0606.113	299
PI010621S	840	PI091203S	841	PI301612S	840	PL1/4-02	777	PLSX.1010.112	299
PI010801S	840	PI091603S	841	PI30S	1016	PL1/4-N00C	790	PLSX.1010.113	299
PI010802S	840	PI091604S	841	PI40	1016	PL1/4-N01C	790	PLSX.1013.112	299
PI010812S	840	PI091623S	841	PI40S	1016	PL1/4-U10C	790	PLSX.1013.113	299
PI010821S	840	PI091624S	841	PI450822S	841	PL1/8-N00C	790	PLSX.1313.112	299
PI010822S	840	PI10	1016	PI451014FS	841	PL1/8-N01C	790	PLSX.1313.113	299
PI010823S	840	PI100802S	840	PI451213S	841	PL1/8-U10C	790	PLSX.2019.112	299
PI011202S	840	PI10S	1016	PI451214FS	841	PL3/8-01	777	PLSX.2019.113	299
PI011203S	840	PI1206S	840	PI451222S	841	PL3/8-02	777	PLSX.2525.112	299
PI011212S	840	PI1208S	840	PI451613S	841	PL5/32-N00C	790	PLSX.2525.113	299
PI011221S	840	PI121208S	840	PI4608S	842	PL5/32-N01C	790	PLSX.2531.112	299
PI011222S	840	PI1212S	840	PI4612S	842	PL5/32-U10C	790	PLSX.2531.113	299
PI011223S	840	PI1216S	840	PI4712S	842	PLK4.0606.113	301	PLT.006.802	302
PI011224S	840	PI131012S	842	PI480821S	841	PLK4.1310.113	301	PLT.006.803	303
PI011603S	840	PI131216S	842	PI480822S	841	PLK4.1313.113	301	PLT.006.812	302
PI011604S	840	PI1908S	842	PI480823S	841	PLK4.2013.113	301	PLT.006.813	303
PI011623S	840	PI1916S	842	PI481022S	841	PLK4.2019.113	301	PLT.006.822	302
PI011624S	840	PI20	1016	PI481023S	841	PLK4.2519.113	301	PLT.006.832	302
PI012026S	840	PI200806S	842	PI481222S	841	PLK4.2525.113	301	PLT.006.833	303
PI0206S	840	PI201006S	842	PI481223S	841	PLK4.3025.113	301	PLT.006.852	302
PI0208S	840	PI201008S	842	PI482024S	841	PLK4.3031.113	301	PLT.006.853	303
PI0212S	840	PI201206S	842	PI491612S	842	PLK4.3939.113	301	PLT.006.862	302
PI0216S	840	PI201208S	842	PIC1808R	842	PLK4.5051.113	301	PLT.006.863	303
PI0306S	841	PI201210S	842	PIC1812R	842	PLL03-M3C	788	PLT.006.873	303
PI0308S	841	PI201610S	842	PINCH-AP6252	627	PLL03-M5C	788	PLT.006.882	302
PI0312S	841	PI201612S	842	PINCH-AP6304	627	PLL03-M6C	788	PLT.006.883	303
PI0316S	841	PI20S	1016	PINCH-AP6372	627	PLL04-01C	788	PLT.006.892	302
PI0406S	840	PI211006S	841	PINS	1474	PLL04-M3C	788	PLT.006.893	303
PI0408S	840	PI211008S	841	PISV0412S	884	PLL04-M5C	788	PLT.013.802	302
PI0412S	840	PI211206S	841	PISV0416S	884	PLL04-M6C	788	PLT.013.812	302
PI0416S	840	PI211208S	841	PIUB16S	842	PLL06-01C	788	PLT.013.822	302
PI050621S	840	PI211210S	841	PKM0215W	880	PLL06-G01C	788	PLT.013.832	302
PI050801S	840	PI211610S	841	PKM0222W	880	PLL06-M5C	788	PLT.013.852	302
PI050802S	840	PI211612S	841	PKM0315W	880	PLL06-M6C	788	PLT.013.862	302
PI050821S	840	PI220606S	841	PKM0322W	880	PLL1/4-N00C	790	PLT.013.872	302
PI050822S	840	PI220808S	841	PKM0415W	880	PLL1/4-N01C	790	PLT.013.882	302
PI050823S	840	PI221206S	841	PKM0422W	880	PLL1/4-U10C	790	PLT.013.892	302
PI051202S	840	PI221208S	841	PKM201510W	880	PLL1/8-N00C	790	PLT.019.802	302
PI051203S	840	PI221210S	841	PKM202215W	880	PLL1/8-N01C	790	PLT.019.803	303
PI051212S	840	PI221212S	841	PKM221515W	880	PLL1/8-U10C	790	PLT.019.812	302
PI051213S	840	PI221616S	841	PKM222222W	880	PLL5/32-N00C	790	PLT.019.813	303
PI051222S	840	PI2308S	842	PKM3022AW	880	PLL5/32-N01C	790	PLT.019.822	302
PI051223S	840	PI2312S	842	PKM3022CW	880	PLL5/32-U10C	790	PLT.019.823	303
PI051603S	840	PI2316S	842	PKM3022DW	880	PLM04C	789	PLT.019.832	302
PI051604S	840	PI241210S	842	PKM4615W	880	PLM06C	789	PLT.019.833	303
PI051623S	840	PI250806S	842	PKM4622W	880	PLM1/4C	791	PLT.019.852	302
PI051624S	840	PI250808S	842	PKMSTC1514	881	PLM1/8C	791	PLT.019.853	303
PI060605S	841	PI250810S	842	PKMSTC1516	881	PLM5/32C	791	PLT.019.862	302
PI061006S	841	PI251006S	842	PKMSTC2216	881	PLS1.0606.112	299	PLT.019.863	303
PI061008S	841	PI251008S	842	PL03-M3C	788	PLS1.0606.113	299	PLT.019.872	302
PI061206S	841	PI251012S	842	PL03-M5C	788	PLS1.1010.112	299	PLT.019.873	303
PI061208S	841	PI251208S	842	PL03-M6C	788	PLS1.1010.113	299	PLT.019.882	302
PI061210S	841	PI251210S	842	PL04-01C	788	PLS1.1013.112	299	PLT.019.883	303
PI061610S	841	PI251212S	842	PL04-G01C	788	PLS1.1013.113	299	PLT.019.892	302
PI061612S	841	PI251216S	842	PL04-M3C	788	PLS1.1313.112	299	PLT.019.893	303
PI0806S	841	PI251612S	842	PL04-M5C	788	PLS1.1313.113	299	PLT.025.802	302

PLT.025.803	303	PLT4.2519.113	301	PM011014E	836	PM050811E	837	PM090801S	841
PLT.025.812	302	PLT4.2525.112	301	PM011203E	836	PM050812E	837	PM090802E	838
PLT.025.813	303	PLT4.2525.113	301	PM011204E	836	PM050813E	837	PM090803E	838
PLT.025.822	302	PLT4.3025.112	301	PM011213E	836	PM050821S	840	PM090803S	841
PLT.025.823	303	PLT4.3025.113	301	PM011214E	1090	PM050822S	840	PM090811E	838
PLT.025.832	302	PLT4.3031.112	301	PM011514E	836	PM050823S	840	PM090812E	838
PLT.025.833	303	PLT4.3031.113	301	PM011516E	1090	PM051002E	837	PM090813E	838
PLT.025.842	302	PLTX.0606.112	299	PM011814E	1090	PM051003E	837	PM091002E	838
PLT.025.843	303	PLTX.0606.113	299	PM012216E	1090	PM051004E	837	PM091003E	838
PLT.025.872	302	PLTX.1310.112	299	PM0204E	836	PM051012E	837	PM091004E	838
PLT.025.873	303	PLTX.1310.113	299	PM0204S	840	PM051013E	837	PM091012E	838
PLT.030.802	302	PLTX.1313.112	299	PM0205E	836	PM051014E	837	PM091013E	838
PLT.030.803	303	PLTX.1313.113	299	PM0206E	836	PM051203E	837	PM091014E	838
PLT.030.812	302	PLTX.2013.112	299	PM0208E	836	PM051204E	837	PM091203E	838
PLT.030.813	303	PLTX.2013.113	299	PM0208S	840	PM051213E	837	PM091204E	838
PLT.030.822	302	PLTX.2019.112	299	PM0210E	836	PM051214E	837	PM091213E	838
PLT.030.823	303	PLTX.2019.113	299	PM0212E	836	PM051513E	1090	PM091214E	838
PLT.030.832	302	PLTX.2519.112	299	PM0215E	836	PM051514E	1090	PM100401E	839
PLT.030.833	303	PLTX.2519.113	299	PM0218E	1090	PM051814E	1090	PM100402E	839
PLT.030.843	303	PLTX.2525.112	299	PM0222E	1090	PM052214E	1090	PM100411E	839
PLT.030.872	302	PLTX.2525.113	299	PM03018AE	1090	PM052216E	1090	PM100412E	839
PLT.030.873	303	PLTX.3031.112	299	PM0304E	836	PM060504E	838	PM100502E	839
PLT.613.803	303	PLTX.3031.113	299	PM0304S	841	PM060604E	838	PM100511E	839
PLT.613.813	303	PLTX.3939.112	299	PM0305E	836	PM060605E	838	PM100512E	839
PLT.613.823	303	PLTX.3939.113	299	PM0306E	836	PM060804E	838	PM100601E	839
PLT.613.833	303	PLTX.5051.112	299	PM0308E	836	PM060805E	838	PM100602E	839
PLT.613.843	303	PLTX.5051.113	299	PM0308S	841	PM060806E	838	PM100611E	839
PLT.613.853	303	PLUGTITE-MAX-4	51	PM0310E	836	PM061006E	838	PM100612E	839
PLT.613.873	303	PLUGTITE-MINI-20	51	PM0312E	836	PM061008E	838	PM100801E	839
PLT.613.893	303	PLUGTITE-MIX-9	51	PM0315E	836	PM061208E	838	PM100802E	839
PLT1.0606.002	301	PLUGTITE-STD-10	51	PM0318E	1090	PM061210E	838	PM100803E	839
PLT1.0606.003	301	PM010401E	836	PM0322E	1090	PM061510E	838	PM100811E	839
PLT1.1310.002	301	PM010401S	840	PM0328E	1090	PM061512E	1091	PM100812E	839
PLT1.1310.003	301	PM010402E	836	PM0404E	837	PM061815E	1091	PM100813E	839
PLT1.1313.002	301	PM010402S	840	PM0404S	840	PM062215E	1091	PM101002E	839
PLT1.1313.003	301	PM010411E	836	PM0405E	837	PM062218E	1091	PM101003E	839
PLT1.2013.002	301	PM010412E	836	PM0406E	837	PM062815E	1091	PM101004E	839
PLT1.2013.003	301	PM010421S	840	PM0408E	837	PM0804R	838	PM101012E	839
PLT1.2019.002	301	PM010422S	840	PM0408S	840	PM0804S	841	PM101013E	839
PLT1.2019.003	301	PM010501E	836	PM0410E	837	PM0805R	838	PM101014E	839
PLT1.2519.002	301	PM010502E	836	PM0412E	1091	PM0806R	838	PM101203E	839
PLT1.2519.003	301	PM010511E	836	PM0415E	1091	PM0808R	838	PM101204E	839
PLT1.2525.002	301	PM010512E	836	PM0418E	1091	PM0808S	841	PM101213E	839
PLT1.2525.003	301	PM010601E	836	PM0422E	1091	PM0810R	838	PM101214E	839
PLT1.3031.002	301	PM010602E	836	PM0428E	1091	PM0812R	838	PM110411E	837
PLT1.3031.003	301	PM010611E	836	PM050401E	837	PM0815E	1091	PM110511E	837
PLT1.3939.002	301	PM010612E	836	PM050402E	837	PM0815R	838	PM110512E	837
PLT1.3939.003	301	PM010801E	836	PM050411E	837	PM0818E	1091	PM110601E	837
PLT1.5051.112	301	PM010801S	840	PM050412E	837	PM0822E	1091	PM110611E	837
PLT4.0606.112	301	PM010802E	836	PM050421S	840	PM0828E	1091	PM110612E	837
PLT4.0606.113	301	PM010802S	840	PM050422S	840	PM090401E	838	PM110801S	840
PLT4.1310.112	301	PM010803E	836	PM050501E	837	PM090402E	838	PM110802E	837
PLT4.1310.113	301	PM010803S	840	PM050502E	837	PM090411E	838	PM110811E	837
PLT4.1313.112	301	PM010811E	836	PM050511E	837	PM090412E	838	PM110812E	837
PLT4.1313.113	301	PM010812E	836	PM050512E	837	PM090421S	841	PM110813E	837
PLT4.1319.032	301	PM010813E	836	PM050601E	837	PM090501E	838	PM111003E	837
PLT4.1319.033	301	PM010821S	840	PM050602E	837	PM090502E	838	PM111012E	837
PLT4.2013.112	301	PM010822S	840	PM050611E	837	PM090511E	838	PM111013E	837
PLT4.2013.113	301	PM010823S	840	PM050612E	837	PM090512E	838	PM111014E	837
PLT4.2019.112	301	PM011002E	836	PM050801E	837	PM090601E	838	PM111203E	837
PLT4.2019.113	301	PM011003E	836	PM050801S	840	PM090602E	838	PM111204E	837
PLT4.2027.032	301	PM011004E	836	PM050802E	837	PM090611E	838	PM111213E	837
PLT4.2027.033	301	PM011012E	836	PM050802S	840	PM090612E	838	PM111214E	837
PLT4.2519.112	301	PM011013E	836	PM050803E	837	PM090801E	838	PM1-12	1165

PM112-114	1165	PM251008E	839	PMTT22E	1092	PN15-5-18	1150	PN19-19-16	1150
PM114-1	1165	PM2608S	842	PMUB15E	1090	PN15-6-12	1150	PN19-5-4	1150
PM1-1FF	1165	PM2610S	842	PMV-H-S-4-FF-V	983	PN15-6-14	1150	PN19-6-4	1150
PM1204E	838	PM290808S	842	PMV-H-S-4-MF-V	983	PN15-6-18	1150	PN19-6-5	1150
PM1206E	838	PM3/8	777	PN10-12	1178	PN15-6-34	1150	PN19-8-5	1150
PM1208E	838	PM3022AE	1090	PN10-14	1178	PN15-6-38	1150	PN19-8-6	1150
PM1208S	840	PM303X1	756	PN10-18	1178	PN15-8-12	1150	PN20-10	1150
PM1210E	838	PM303X2	756	PN10-38	1178	PN15-8-14	1150	PN20-12	1150
PM12-12	1165	PM303X3	756	PN11-14-18	1178	PN15-8-18	1150	PN20-14	1150
PM1212E	838	PM303X4	756	PN1-12-14	1178	PN15-8-38	1150	PN20-16	1150
PM12-12FF	1165	PM34-12	1165	PN1-12-38	1178	PN16-10-12	1151	PN20-19	1150
PM12-38	1165	PM34-34	1165	PN11-38-14	1178	PN16-10-14	1151	PN20-4	1150
PM1-34	1165	PM34-34FF	1165	PN1-14-18	1178	PN16-10-34	1151	PN20-5	1150
PM1-38	1165	PM34-38	1165	PN12-12	1150	PN16-10-38	1151	PN20-6	1150
PM14-14	1165	PM38-14	1165	PN12-14	1150	PN16-12-12	1151	PN20-8	1150
PM14-14FF	1165	PM38-18	1165	PN12-18	1150	PN16-12-14	1151	PN21-10	1151
PM14-18	1165	PM38-38FF	1165	PN12-34	1150	PN16-12-34	1151	PN2-12	1178
PM15WB	1091	PM450411E	837	PN12-38	1150	PN16-12-38	1151	PN21-4	1151
PM18-18	1165	PM450611E	837	PN13-12	1150	PN16-14-12	1151	PN2-14	1178
PM18-18FF	1165	PM450612E	837	PN13-14	1150	PN16-14-34	1151	PN21-6	1151
PM1904E	839	PM450812E	837	PN13-18	1150	PN16-14-38	1151	PN21-8	1151
PM1904S	842	PM451015FE	837	PN13-34	1150	PN16-16-12	1151	PN2-18	1178
PM1905E	839	PM4612E	1092	PN13-38	1150	PN16-16-34	1151	PN22-10-12	1151
PM1908S	842	PM4615E	1092	PN1-38-14	1178	PN16-19-12	1151	PN22-10-14	1151
PM1910E	839	PM4622E	1092	PN14-10-12	1150	PN16-19-34	1151	PN22-10-38	1151
PM1912E	839	PMC10	423	PN14-10-34	1150	PN16-4-14	1151	PN22-12-12	1151
PM1915B	884	PMC1815R	839	PN14-10-38	1150	PN16-4-18	1151	PN22-12-14	1151
PM1915E	839	PMC2	423	PN14-12-12	1150	PN16-5-12	1151	PN22-12-34	1151
PM1922E	839	PMC25	423	PN14-12-34	1150	PN16-5-14	1151	PN22-12-38	1151
PM200604E	837	PMC5	423	PN14-14-12	1150	PN16-5-18	1151	PN22-14-38	1151
PM200804E	837	PMC80	423	PN14-14-34	1150	PN16-6-12	1151	PN22-16-12	1151
PM200804S	842	PMM1/4C	791	PN14-16-34	1150	PN16-6-14	1151	PN22-16-34	1151
PM200806E	837	PMM1/8C	791	PN14-19-34	1150	PN16-6-18	1151	PN22-19-12	1151
PM201004E	837	PMM5/32C	791	PN14-4-14	1150	PN16-6-38	1151	PN22-19-34	1151
PM201006E	837	PMN10A-BN14K	423	PN14-4-18	1150	PN16-8-12	1151	PN22-4-14	1151
PM201008E	837	PMN10C-BN14K	423	PN14-5-14	1150	PN16-8-14	1151	PN22-4-18	1151
PM201208E	837	PMN150A-FN14K	423	PN14-5-18	1150	PN16-8-18	1151	PN22-5-14	1151
PM201210E	837	PMN150C-FN14K	423	PN14-5-38	1150	PN16-8-38	1151	PN22-5-18	1151
PM210604E	836	PMN1A-BN14K	423	PN14-6-12	1150	PN17-10-6	1151	PN22-6-12	1151
PM210804E	836	PMN1C-BN14K	423	PN14-6-14	1150	PN17-10-8	1151	PN22-6-14	1151
PM210804S	841	PMN20C-BN14K	423	PN14-6-38	1150	PN17-12-10	1151	PN22-6-18	1151
PM210806E	836	PMN250A-FN14K	423	PN14-8-12	1150	PN17-16-14	1151	PN22-6-38	1151
PM211004E	836	PMN250C-FN14K	423	PN14-8-14	1150	PN17-19-16	1151	PN22-8-14	1151
PM211006E	836	PMN2A-BN14K	423	PN14-8-38	1150	PN17-5-4	1151	PN22-8-18	1151
PM211008E	836	PMN2C-BN14K	423	PN15-10-12	1150	PN17-6-5	1151	PN22-8-38	1151
PM211208E	836	PMN300A-FN14K	423	PN15-10-14	1150	PN17-8-6	1151	PN23-10	1151
PM211210E	836	PMN300C-FN14K	423	PN15-10-34	1150	PN18-10	1151	PN23-12	1151
PM220404E	837	PMN50A-BN14K	423	PN15-10-38	1150	PN18-12	1151	PN23-14	1151
PM220404S	841	PMN50C-BN14K	423	PN15-12-12	1150	PN18-14	1151	PN23-16	1151
PM220505E	837	PMN5A-BN14K	423	PN15-12-14	1150	PN18-16	1151	PN23-19	1151
PM220606E	837	PMN5C-BN14K	423	PN15-12-34	1150	PN18-19	1151	PN23-4	1151
PM220808E	837	PMN80A-BN14K	423	PN15-12-38	1150	PN18-4	1151	PN23-5	1151
PM220808S	841	PMN80C-BN14K	423	PN15-14-12	1150	PN18-5	1151	PN23-6	1151
PM221010E	837	PMT-02	89	PN15-14-34	1150	PN18-6	1151	PN23-8	1151
PM221212E	837	PMT-04	89	PN15-14-38	1150	PN18-8	1151	PN2-38	1178
PM221515E	837	PMT-06	89	PN15-16-12	1150	PN19-10-6	1150	PN24-10-8	1151
PM221818E	1090	PMT-08	89	PN15-16-34	1150	PN19-10-8	1150	PN24-12-10	1151
PM222222E	1090	PMT112	1487	PN15-19-1	1150	PN19-12-10	1150	PN24-16-14	1151
PM22VVB	1091	PMT2	1487	PN15-19-12	1150	PN19-12-8	1150	PN24-19-16	1151
PM2304E	837	PMT212	1487	PN15-19-34	1150	PN19-14-10	1150	PN24-5-4	1151
PM2310E	837	PMT3BSP	1487	PN15-25-34	1150	PN19-14-12	1150	PN24-6-5	1151
PM250604E	839	PMT3URT	1487	PN15-4-14	1150	PN19-16-12	1150	PN24-8-6	1151
PM250806E	839	PMT4BSP	1487	PN15-4-18	1150	PN19-16-14	1150	PN25-10-12	1150
PM250808S	842	PMT4URT	1487	PN15-5-14	1150	PN19-19-14	1150	PN25-12-12	1150

**B**

PN25-14-12	1150	PNV-IB-S-2-MF	983	PP1-6-18	1163	PPF1/2	777	PPV16-19-12	1152
PN25-19-12	1150	PNV-IB-S-4-FF	983	PP1-8-14	1163	PPFE-02	89	PPV16-19-34	1152
PN25-5-18	1150	PNV-IB-S-4-MF	983	PP1-8-18	1163	PPFE-04	89	PPV16-4-14	1152
PN25-6-18	1150	PNV-IB-S-6-FF	983	PP20	1016	PPFE-06	89	PPV16-4-18	1152
PN25-8-12	1150	PNV-IB-S-6-MF	983	PP20S	1016	PPFE-08	89	PPV16-5-14	1152
PN3-12-12	1178	PNV-IB-S-8-FF	983	PP2-6-14	1163	PPFE-12	89	PPV16-5-18	1152
PN3-12-14	1178	PNV-IB-S-8-MF	983	PP2-6-18	1163	PPFE-16	89	PPV16-6-12	1152
PN3-12-38	1178	POC03-M3C	788	PP2-8-14	1163	PPME-02	89	PPV16-6-14	1152
PN3-14-14	1178	POC03-M5C	788	PP3/8	777	PPME-04	89	PPV16-6-18	1152
PN3-14-18	1178	POC03-M6C	788	PP3-12	1163	PPME-06	89	PPV16-6-38	1152
PN3-14-38	1178	POC04-01C	788	PP3-6	1163	PPME-08	89	PPV16-8-12	1152
PN3-18-12	1178	POC04-G01C	788	PP3-8	1163	PP-MS	1519	PPV16-8-14	1152
PN3-18-14	1178	POC04-M3C	788	PP4-8-6	1163	PPMSV040606W	884	PPV16-8-18	1152
PN3-38-12	1178	POC04-M5C	788	PP5-12	1163	PPMSV041010W	884	PPV16-8-38	1152
PN3-38-14	1178	POC04-M6C	788	PP5-6	1163	PPRO03	944	PPV1-8-14	1164
PN3-38-18	1178	POC06-01C	788	PP5-8	1163	PPRO06	944	PPV22-10-14	1152
PN3-38-38	1178	POC06-G01C	788	PP6-12-12	1163	PPRO09	944	PPV22-12-12	1152
PN4-12-14	1178	POC06-M5C	788	PP6-12-14	1163	PP-SS	1519	PPV22-12-14	1152
PN4-12-38	1178	POC06-M6C	788	PP6-12-38	1163	PPSV010822W	884	PPV22-12-38	1152
PN4-14-18	1178	POC1/4-N00C	790	PP6-6-14	1163	PPSV011223W	884	PPV22-16-34	1152
PN4-34-12	1178	POC1/4-N01C	790	PP6-6-18	1163	PPSV040808W	884	PPV22-19-34	1152
PN4-34-14	1178	POC1/4-U10C	790	PP6-8-14	1163	PPSV041212W	884	PPV22-6-14	1152
PN4-34-38	1178	POC1/8-N00C	790	PP6-8-18	1163	PPSV500822W	884	PPV22-6-18	1152
PN4-38-14	1178	POC1/8-N01C	790	PP6-8-38	1163	PPV1-12-38	1164	PPV22-8-14	1152
PN4-38-18	1178	POC1/8-U10C	790	PP7-12-12	1163	PPV14-10-12	1152	PPV2-6-14	1164
PN5-12	1178	POC5/32-N00C	790	PP7-12-14	1163	PPV14-12-12	1152	PPV2-6-18	1164
PN5-14	1178	POC5/32-N01C	790	PP7-12-38	1163	PPV14-5-14	1152	PPV2-8-14	1164
PN5-18	1178	POC5/32-U10C	790	PP7-6-14	1163	PPV14-5-18	1152	PPV3.0606.112	298
PN5-38	1178	POC0V04	244	PP7-8-14	1163	PPV14-5-38	1152	PPV3.0606.113	298
PN6-12-14	1178	POC0V06	244	PP8-12-12	1163	PPV14-6-12	1152	PPV3.1010.112	298
PN6-12-38	1178	POC0V08	244	PP8-12-14	1163	PPV14-6-14	1152	PPV3.1010.113	298
PN6-14-18	1178	POLY15X13	1215	PP8-6-14	1163	PPV14-6-38	1152	PPV3.1012.302	298
PN6-34-14	1178	POLY15X19	1215	PP9-12	1163	PPV14-8-14	1152	PPV3.1012.303	298
PN6-38-14	1178	POLY15X25	1215	PP9-6	1163	PPV14-8-38	1152	PPV3.1012.502	298
PN6-38-18	1178	POLY15X9	1215	PP9-8	1163	PPV15-10-12	1152	PPV3.1012.503	298
PN7-12	1178	POLY22X13	1215	PPA-02	88	PPV15-10-14	1152	PPV3.1014.302	298
PN7-14	1178	POLY22X19	1215	PPA-04	88	PPV15-10-34	1152	PPV3.1014.303	298
PN7-38	1178	POLY22X25	1215	PPA-06	88	PPV15-10-38	1152	PPV3.1014.502	298
PNFG-110	1105	POLY22X9	1215	PPA-08	88	PPV15-12-12	1152	PPV3.1014.503	298
PNFG-20	1105	POLY28X13	1215	PPA-12	88	PPV15-12-34	1152	PPV3.1016.302	298
PNFG-25	1105	POLY28X19	1215	PPA-16	88	PPV15-12-38	1152	PPV3.1016.303	298
PNFG-32	1105	POLY28X25	1215	PPAUTO	1519	PPV15-16-12	1152	PPV3.1016.402	298
PNFG-40	1105	POLY28X9	1215	PPC-02	89	PPV15-19-12	1152	PPV3.1016.403	298
PNFG-50	1105	POLY-STATION	284	PPC-04	89	PPV15-19-34	1152	PPV3.1016.502	298
PNFG-63	1105	PP00	1016	PPC-06	89	PPV15-4-18	1152	PPV3.1016.503	298
PNFG-75	1105	PP00S	1016	PPC-08	89	PPV15-5-14	1152	PPV3.1016.603	298
PNFG-90	1105	PP-01	89	PPC-12	89	PPV15-6-12	1152	PPV3.1018.302	298
PNR	1643	PP-02	89	PPC150	423	PPV15-6-14	1152	PPV3.1018.303	298
PNV-HP-S-12-MF	983	PP-04	89	PPC-16	89	PPV15-6-18	1152	PPV3.1018.402	298
PNV-HP-S-16-FF	983	PP-06	89	PPC300	423	PPV15-6-38	1152	PPV3.1018.403	298
PNV-HP-S-16-MF	983	PP-08	89	PPCF150	423	PPV15-8-12	1152	PPV3.1018.502	298
PNV-HP-S-2-FF	983	PP1/2	777	PPCF300	423	PPV15-8-14	1152	PPV3.1018.503	298
PNV-HP-S-2-MF	983	PP1/4	777	PPCLIP-110	1106	PPV15-8-38	1152	PPV3.1018.603	298
PNV-HP-S-4-FF	983	PP1/8	777	PPCLIP-16	1106	PPV16-10-12	1152	PPV3.1020.402	298
PNV-HP-S-4-MF	983	PP10	1016	PPCLIP-160	1106	PPV16-10-14	1152	PPV3.1020.403	298
PNV-HP-S-6-FF	983	PP10-8-8-18	1163	PPCLIP-20	1106	PPV16-10-34	1152	PPV3.1020.603	298
PNV-HP-S-6-MF	983	PP10S	1016	PPCLIP-225	1106	PPV16-10-38	1152	PPV3.1313.112	298
PNV-HP-S-8-FF	983	PP1-12-12	1163	PPCLIP-25	1106	PPV16-12-12	1152	PPV3.1313.113	298
PNV-HP-S-8-MF	983	PP1-12-14	1163	PPCLIP-32	1106	PPV16-12-14	1152	PPV3.1314.302	298
PNV-IB-S-12-FF	983	PP1-12-38	1163	PPCLIP-40	1106	PPV16-12-34	1152	PPV3.1314.303	298
PNV-IB-S-12-MF	983	PP-12	89	PPCLIP-50	1106	PPV16-12-38	1152	PPV3.1314.503	298
PNV-IB-S-16-FF	983	PP13-14	1163	PPCLIP-63	1106	PPV16-16-12	1152	PPV3.1316.302	298
PNV-IB-S-16-MF	983	PP-16	89	PPCLIP-75	1106	PPV16-16-34	1152	PPV3.1316.303	298
PNV-IB-S-2-FF	983	PP1-6-14	1163	PPCLIP-90	1106	PPV1-6-18	1164	PPV3.1316.503	298

PPV3.1318.302	298	PRA/802032/M/160	505	PRB112-114	1177	PR-M 14 S	117	PS10CLR	1754
PPV3.1318.303	298	PRA/802032/M/200	505	PRB112-34	1177	PR-M 15 L	117	PS10SKR	1754
PPV3.1318.402	298	PRA/802032/M/25	505	PRB114-1	1177	PR-M 16 S	117	PS-12	630
PPV3.1318.403	298	PRA/802032/M/250	505	PRB114-12	1177	PR-M 18 L	117	PS-14	630
PPV3.1318.503	298	PRA/802032/M/320	505	PRB114-34	1177	PR-M 20 S	117	PS150SC-FNT14K	424
PPV3.1318.603	298	PRA/802032/M/50	505	PRB-12-04	89	PR-M 22 L	117	PS-18	630
PPV3.1320.402	298	PRA/802032/M/80	505	PRB-12-06	89	PR-M 25 S	117	PS20CLR	1754
PPV3.1320.403	298	PRA/802040/M/100	505	PRB-12-08	89	PR-M 28 L	117	PS20SKR	1754
PPV3.1320.603	298	PRA/802040/M/160	505	PRB1-34	1177	PR-M 30 S	117	PS24CLR	1754
PPV3.1322.302	298	PRA/802040/M/200	505	PRB-16-04	89	PR-M 35 L	117	PS300SC-FNT14K	424
PPV3.1322.303	298	PRA/802040/M/50	505	PRB-16-06	89	PR-M 38 S	117	PS32AMR	1754
PPV3.1322.402	298	PRA/802040/M/80	505	PRB-16-08	89	PR-M 42 L	117	PS32CLR	1754
PPV3.1322.403	298	PRA/802050/M/100	505	PRB-16-12	89	PR-M 6 L	117	PS32MIR	1754
PPV3.1322.503	298	PRA/802050/M/125	505	PRB2-1	1177	PR-M 6 S	117	PS32SKR	1754
PPV3.1322.603	298	PRA/802050/M/160	505	PRB2-112	1177	PR-M 8 L	117	PS-34	630
PPV3.1324.402	298	PRA/802050/M/200	505	PRB2-114	1177	PR-M 8 S	117	PS-38	630
PPV3.1324.403	298	PRA/802050/M/25	505	PRB212-2	1177	PRN112-114	1177	PS44BKR	1753
PPV3.1324.603	298	PRA/802050/M/250	505	PRB2-34	1177	PRN114-1	1177	PS46GRR	1753
PPV3.1326.302	298	PRA/802050/M/320	505	PRB3-2	1177	PRN1-34	1177	PS53BKR	1752
PPV3.1326.303	298	PRA/802050/M/50	505	PRB3-212	1177	PRN2-112	1177	PS53ORR	1752
PPV3.1326.503	298	PRA/802050/M/80	505	PRB34-12	1177	PRN212-2	1177	PS53RBR	1752
PPV3.1330.402	298	PRA/802063/M/100	505	PRC-04-02	88	PRN34-12	1177	PS53WHR	1752
PPV3.1330.403	298	PRA/802063/M/125	505	PRC-06-04	88	PROG12	1647	PS53YER	1752
PPV3.1330.603	298	PRA/802063/M/160	505	PRC-08-02	88	PRS112-114	1177	PS57ORR	1752
PPV3.2019.112	298	PRA/802063/M/200	505	PRC-08-04	88	PRS114-1	1177	PS57RBR	1752
PPV3.2019.113	298	PRA/802063/M/25	505	PRC-08-06	88	PRS1-34	1177	PS57RER	1752
PPV3.2525.112	298	PRA/802063/M/250	505	PRC-12-04	88	PRS2-112	1177	PS57WHR	1752
PPV3.2525.113	298	PRA/802063/M/320	505	PRC-12-08	88	PRS34-12	1177	PS57YER	1752
PPV3-12	1164	PRA/802063/M/50	505	PRC-16-08	88	P-RSTV10LM-WD	126	PS73ORR	1752
PPV3-6	1164	PRA/802063/M/80	505	PRE1-12	1177	P-RSTV10LR-WD	126	PS73RBR	1752
PPV3-8	1164	PRA/802080/M/160	505	PRE112-114	1177	P-RSTV10SR-WD	126	PS73RER	1752
PPV5-12	1164	PRA/802080/M/200	505	PRE114-1	1177	P-RSTV12LM-WD	126	PS73WHR	1752
PPV5-6	1164	PRA/802080/M/25	505	PRE12-38	1177	P-RSTV12LR-WD	126	PS73YER	1752
PPV5-8	1164	PRA/802080/M/250	505	PRE1-34	1177	P-RSTV12SR-WD	126	PS79BKR	1752
PPV6-12-38	1164	PRA/802080/M/50	505	PRE2-112	1177	P-RSTV15LM-WD	126	PS79NAR	1752
PPV6-6-18	1164	PRA/802080/M/80	505	PRE34-12	1177	P-RSTV15LR-WD	126	PS79ORR	1752
PPV6-8-14	1164	PRA/802100/M/100	505	PREDV06	244	P-RSTV16SM-WD	126	PS79YER	1752
PPV9-12	1164	PRA/802100/M/125	505	PREDV08	244	P-RSTV16SR-WD	126	PSBF0404CF	40
PPV9-6	1164	PRA/802100/M/160	505	PRESSURE-L15500V	1666	P-RSTV18LM-WD	126	PSBF044504CF	40
PPV9-8	1164	PRA/802100/M/250	505	PRESSURE-L15635V	1666	P-RSTV18LR-WD	126	PSBF049004CF	40
PPW	1016	PRA/802100/M/320	505	PRESSURE-L15760V	1666	P-RSTV20SM-WD	126	PSBF0606CF	40
PPWS	1016	PRA/802100/M/50	505	PRESSURE-L15900V	1666	P-RSTV20SR-WD	126	PSBF064506CF	40
PR030103P1	420	PRA-02-01	88	PRESSURE-L500V	1666	P-RSTV22LM-WD	126	PSBF069006CF	40
PR030103P2	420	PRA-04-02	88	PRESSURE-L635V	1666	P-RSTV25SM-WD	126	PSBF0808CF	40
PR030203P1	420	PRA-06-02	88	PRESSURE-L760V	1666	P-RSTV25SR-WD	126	PSBF084508CF	40
PR030203P2	420	PRA-06-04	88	PRESSURE-L900V	1666	P-RSTV28LM-WD	126	PSBF089008CF	40
PR030505P1	420	PRA-08-02	88	PRESSURE-LANCE	1666	P-RSTV30SM-WD	126	PSBF1212CF	40
PR030505P2	420	PRA-08-04	88	PRESSURE-LANCE15	1666	P-RSTV30SR-WD	126	PSBF124512CF	40
PR032007P1	420	PRA-08-06	88	PRESSURE-LANCESH	1666	P-RSTV35LM-WD	126	PSBF129012CF	40
PR032007P2	420	PRA-12-04	88	PRHN-02-01	88	P-RSTV35LR-WD	126	PSBF1616CF	40
PR03B01	420	PRA-12-06	88	PRHN-04-02	88	P-RSTV38SM-WD	126	PSBF164516CF	40
PR03B05	420	PRA-12-08	88	PRHN-06-02	88	P-RSTV38SR-WD	126	PSBF169016CF	40
PR03B20	420	PRA-16-04	88	PRHN-06-04	88	P-RSTV42LR-WD	126	PSE-01	89
PR04/04	1612	PRA-16-08	88	PRHN-08-02	88	P-RSTV6LM-WD	126	PSE-02	89
PR101-01	655	PRA-16-12	88	PRHN-08-04	88	P-RSTV6LR-WD	126	PSE-04	89
PR102-01	655	PRB-02-01	89	PRHN-08-06	88	P-RSTV6SM-WD	126	PSE-06	89
PR104-M02	695	PRB-04-02	89	PRHN-12-06	88	P-RSTV6SR-WD	126	PSE-08	89
PR104-M04	695	PRB-06-02	89	PRHN-12-08	88	P-RSTV8LM-WD	126	PSE-12	89
PR104-M07	695	PRB-06-04	89	PRHN-16-08	88	P-RSTV8LR-WD	126	PSE-16	89
PR200-02	655	PRB-08-02	89	PRHN-16-12	88	P-RSTV8SM-WD	126	PSE4610W	880
PR201-02	655	PRB-08-04	89	PR-M 10 L	117	P-RSTV8SR-WD	126	PSJF0404CF	40
PR302-04	655	PRB-08-06	89	PR-M 10 S	117	PS/666/1/G	557	PSJF044504CF	40
PRA/802032/M/100	505	PRB1-12	1177	PR-M 12 L	117	PS/666/1/N	557	PSJF049004CF	40
PRA/802032/M/125	505	PRB112-1	1177	PR-M 12 S	117	PS/666/1/R	557	PSJF0606CF	40

PUC6/2-14	902	PUL06C	789	PV10-12	1179	PVC1	1115	PVEP45-34	1109
PUC6/2-18	902	PUL1/4C	791	PV10-38	1179	PVC10	1407	PVEP45-4	1109
PUC6/2B	902	PUL1/8C	791	PV1-12-14	1179	PVC112	1115	PVHTM1	1111
PUC6/2CB	902	PUL5/32C	791	PV1-12-38	1179	PVC114	1115	PVHTM1-114	1111
PUC6/3	902	PURLW-100	1438	PV1-14-18	1179	PVC12	1407	PVHTM112-2	1111
PUC6/3-14	902	PURLW-115	1438	PV12-12	1179	PVC12-CAP	1115	PVHTM114-112	1111
PUC6/3-18	902	PURLW-120	1438	PV12-14	1179	PVC12HD	1407	PVHTM12	1111
PUC6/3B	902	PURLW-125	1438	PV12-18	1179	PVC16	1407	PVHTM12-34	1111
PUC6/3CB	902	PURLW-130	1438	PV12-38	1179	PVC19	1407	PVHTM14-12	1111
PUC8/2	902	PURLW-140	1438	PV13-12	1179	PVC2	1115	PVHTM2-212	1111
PUC8/2-14	902	PURLW-150	1438	PV13-14	1179	PVC212	1115	PVHTM34	1111
PUC8/2-38	902	PURLW-160	1438	PV13-38	1179	PVC25	1407	PVHTM34-1	1111
PUC8/2B	902	PURLW-180	1438	PV1-38-14	1179	PVC250	1107	PVHTM38-58	1111
PUC8/2CB	902	PURLW-200	1438	PV17-10-8	1152	PVC3	1115	PVLN1	1113
PUC8/3	902	PURLW-225	1438	PV17-12-10	1152	PVC32	1407	PVLN112	1115
PUC8/3-14	902	PURLW-250	1438	PV17-6-5	1152	PVC34	1115	PVLN114	1113
PUC8/3B	902	PURLW-38	1438	PV17-8-6	1152	PVC38	1407	PVLN12	1113
PUC8/3CB	902	PURLW-50	1438	PV18-10	1152	PVC38-CAP	1115	PVLN2	1115
PUC8/5	902	PURLW-60	1438	PV18-12	1152	PVC4	1115	PVLN212	1115
PUC8/5-14	902	PURLW-65	1438	PV18-5	1152	PVC50	1407	PVLN3	1115
PUC8/5B	902	PURLW-75	1438	PV18-8	1152	PVC50RW008	1590	PVLN34	1115
PUC8/5CB	902	PURLW-80	1438	PV20-10	1152	PVE1	1115	PVLN38	1115
PUET04/025-100	900	PURLW-90	1438	PV20-12	1152	PVE1.2019.002	307	PVLN4	1115
PUET04/025-25	900	PURMW-100	1438	PV20-5	1152	PVE1.2019.003	307	PVN1	1113
PUET04/025B-100	900	PURMW-115	1438	PV20-6	1152	PVE1.2525.002	307	PVN112	1114
PUET04/025B-25	900	PURMW-120	1438	PV2-12	1179	PVE1.2525.003	307	PVN114	1114
PUET04/025CB-100	900	PURMW-125	1438	PV2-14	1179	PVE112	1115	PVN12	1114
PUET04/025CB-25	900	PURMW-130	1438	PV2-18	1179	PVE114	1115	PVN2	1113
PUET04/025N-100	900	PURMW-140	1438	PV23-10	1152	PVE112	1115	PVN212	1114
PUET04/025N-25	900	PURMW-150	1438	PV23-12	1152	PVE2	1115	PVN34	1114
PUET05/030-25	900	PURMW-160	1438	PV23-5	1152	PVE212	1115	PVN38	1114
PUET05/030B-25	900	PURMW-180	1438	PV23-6	1152	PVE3	1115	PVN4	1114
PUET05/030CB-25	900	PURMW-200	1438	PV23-8	1152	PVE34	1115	PVP1	1115
PUET05/030N-25	900	PURMW-225	1438	PV2-38	1179	PVE45-1	1115	PVP112	1115
PUET06/040-100	900	PURMW-250	1438	PV3/8	777	PVE45-112	1115	PVP12	1115
PUET06/040-25	900	PURMW-300	1438	PV3-12-14	1179	PVE45-114	1115	PVP2	1115
PUET06/040B-100	900	PURMW-350	1438	PV3-14-14	1179	PVE45-12	1115	PVP212	1115
PUET06/040B-25	900	PURMW-38	1438	PV3-14-18	1179	PVE45-2	1115	PVP3	1115
PUET06/040CB-100	900	PURMW-400	1438	PV3-14-38	1179	PVE45-212	1115	PVP34	1115
PUET06/040CB-25	900	PURMW-50	1438	PV3-18-38	1179	PVE45-3	1115	PVP38	1115
PUET06/040N-100	900	PURMW-60	1438	PV3-38-12	1179	PVE45-34	1115	PVP4	1115
PUET06/040N-25	900	PURMW-65	1438	PV3-38-14	1179	PVE45-38	1115	PVR1-12	1114
PUET08/055-100	900	PURMW-75	1438	PV3-38-18	1179	PVE45-4	1115	PVR112-1	1113
PUET08/055-25	900	PURMW-80	1438	PV4-12-14	1179	PVEN1-114	1114	PVR112-34	1114
PUET08/055B-100	900	PURMW-90	1438	PV4-12-18	1179	PVEN112-2	1114	PVR114-1	1114
PUET08/055B-25	900	PUSB-102-10	1438	PV4-12-38	1179	PVEN114-112	1114	PVR114-12	1114
PUET08/055CB-100	900	PUSB-102-20	1438	PV4-14-18	1179	PVEN12-34	1114	PVR114-34	1114
PUET08/055CB-25	900	PUSB-127-10	1438	PV4-38-14	1179	PVEN212-3	1114	PVR12-38	1114
PUET08/055N-100	900	PUSB-127-20	1438	PV4-38-18	1179	PVEN2-212	1114	PVR1-34	1114
PUET08/055N-25	900	PUSB-152-10	1438	PV5-12	1179	PVEN3-4	1114	PVR1-38	1114
PUET10/070-100	900	PUSB-203-10	1438	PV5-14	1179	PVEN34-1	1114	PVR2-1	1113
PUET10/070-25	900	PUSB-25-10	1438	PV5-18	1179	PVEN38-12	1114	PVR2-112	1114
PUET10/070B-100	900	PUSB-25-20	1438	PV5-38	1179	PVEP1	1109	PVR2-114	1114
PUET10/070B-25	900	PUSB-38-10	1438	PV60BLU	1752	PVEP112	1109	PVR212-112	1113
PUET10/070CB-100	900	PUSB-38-20	1438	PV60GNR	1752	PVEP114	1109	PVR212-2	1114
PUET10/070CB-25	900	PUSB-51-10	1438	PV60ORR	1752	PVEP12	1109	PVR3-112	1114
PUET10/070N-100	900	PUSB-51-20	1438	PV60SKR	1752	PVEP2	1109	PVR3-2	1114
PUET10/070N-25	900	PUSB76-10	1438	PV60YER	1752	PVEP212	1109	PVR3-212	1114
PUET12/080-100	900	PUSB76-20	1438	PV6-12-14	1179	PVEP3	1109	PVR34-12	1114
PUET12/080-25	900	PUT03C	789	PV6-14-18	1179	PVEP34	1109	PVR34-38	1114
PUET12/080B-100	900	PUT04C	789	PV6-38-14	1179	PVEP4	1109	PVR4-2	1114
PUET12/080B-25	900	PUT06C	789	PV7-14	1179	PVEP45-1	1109	PVR4-212	1114
PUET12/080CB-100	900	PUT1/4C	791	PV7-18	1179	PVEP45-112	1109	PVR4-3	1114
PUET12/080CB-25	900	PUT1/8C	791	PVC	1107	PVEP45-114	1109	PVRB112-114	1113
PUET12/080N-100	900	PUT5/32C	791	PVC03	1407	PVEP45-12	1109	PVRB114-1	1113
PUET12/080N-25	900	PV1/2	777	PVC05	1407	PVEP45-2	1109	PVRB1-34	1113
PUL03C	789	PV1/4	777	PVC06	1407	PVEP45-212	1109	PVRB2-112	1113
PUL04C	789	PV1/8	777	PVC08	1407	PVEP45-3	1109	PVRB212-2	1114



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	PVRB3-212	1114	PVUPM2	1110	PWO-10	273	QA/8063/23	506	QHPA54-D7X6-C	311
	PVRB34-12	1113	PVUPM2-112	1110	PWO-11	273	QA/8080/21	506	QHPA54-F4B4-C	311
	PVRB4-3	1114	PVV3.0606.112	304	PWO-2	273	QA/8080/22	535	QHPA56-D6X6-C	311
	PVRN112-114	1113	PVV3.0606.113	304	PWO-3	273	QA/8080/23	506	QHPA56-D6X7-C	311
	PVRN114-1	1114	PVV3.1010.112	304	PWO-4	273	QA/8100/00	506	QHPA56-D7X7-C	311
	PVRN1-34	1113	PVV3.1010.113	304	PWO-5	273	QA/8100/21	506	QLCAAL020	1076
	PVRN212-2	1114	PVV3.1313.112	304	PWO-6	273	QA/8100/22	535	QLCAAL025	1076
	PVRN3-212	1114	PVV3.1313.113	304	PWO-7	273	QA/8100/23	506	QLCAAL032	1076
	PVRN34-12	1114	PVV3.2019.112	304	PWO-8	273	QAC11	1474	QLCAAL040	1076
	PVRN4-3	1114	PVV3.2019.113	304	PWO-9	273	QAC112	1474	QLCAAL050	1076
	PVRS112-114	1114	PVV3.2525.112	304	PWQRC-38	1659	QAC134	1474	QLCAAL063	1076
	PVRS114-1	1114	PVV3.2525.113 T	304	PWQRP-38	1659	QAC138	1474	QLCAAL080	1076
	PVRS12-38	1114	PVV3.3031.112	304	PXB-B4131BA2	564	QAC21	1474	QLCAAL168	1077
	PVRS1-34	1114	PVV3.3031.113 T	304	PXB-B4131BC2	564	QAC212	1474	QLCAPA016	1072
	PVRS2-112	1114	PVV3.3039.112	304	PXB-B4131BD2	564	QAC234	1474	QLCAPA020	1072
	PVRS3-212	1114	PVV3.3039.113 T	304	PXB-B4131BT4	564	QAC31	1474	QLCAPA025	1072
	PVRS34-12	1114	PW26CLR	1754	PXB-B4931	565	QAC312	1474	QLCAPA032	1072
	PVRS4-3	1114	PW29NAR	1752	PXC10	884	QAC334	1474	QLCAPA040	1072
	PVS1	1114	PW48RER	1753	PXC-M121	565	QAC412	1474	QLCAPA050	1072
	PVS1.0606.013	306	PW48YER	1753	PXC-M521	565	QAC434	1474	QLCAPA063	1072
	PVS1.1006.013	306	PW68BGR	1754	PXC-M601A110	565	QAY11	1474	QLCLE16020	1072
	PVS1.1010.013	306	PW72GGN	1753	PY04C	789	QAY112	1474	QLCLE25032	1072
	PVS112	1114	PW73GYR	1753	PY06C	789	QAY134	1474	QLCLE40050	1072
	PVS114	1114	PW78GOR	1753	PY1/4C	791	QAY138	1474	QLCLE63	1072
	PVS12	1114	PWAA-12F	1673	PY5/32C	791	QAY21	1474	QLCLEAL020025	1076
	PVS2	1114	PWAA-14F	1673	Q		QAY212	1474	QLCLEAL032040	1076
	PVS3.0606.022	306	PWAA-14M	1673	Q19SDLP34	1473	QAY234	1474	QLCLEAL050	1076
	PVS3.1006.022	306	PWAA-22F	1673	Q1DLP1	1473	QAY238	1474	QLCLEAL063	1076
	PVS3.1010.022	306	PWAA-38F	1673	Q1DLP114	1473	QAY31	1474	QLCLEAL080	1076
	PVS34	1114	PWAA-38M	1673	Q1DLP12	1473	QAY312	1474	QLDERAL025020	1076
	PVT1	1115	PWAB-12M	1673	Q1DLP14	1473	QAY334	1474	QLDERAL032020	1076
	PVT112	1115	PWAB-14F	1673	Q1DLP38	1473	QAY338	1474	QLDERAL040020	1076
	PVT114	1115	PWAB-14M	1673	Q1DLP58	1473	QAY41	1474	QLDERAL040025	1076
	PVT12	1115	PWAB-22FF	1673	Q2DLP1	1473	QAY412	1474	QLDERAL050020	1076
	PVT2	1115	PWAB-22MM	1673	Q2DLP114	1473	QAY434	1474	QLDERAL050025	1076
	PVT3	1115	PWAB-38F	1673	Q2DLP12	1473	QAYBE	1474	QLDERAL063020	1076
	PVT34	1115	PWAB-38M	1673	Q2DLP14	1473	QAYR	1474	QLDERAL063025	1076
	PVT38	1115	PWBLACK-04-100R1	1676	Q2DLP34	1473	QC11	1473	QLDERAL063032	1076
	PVT4	1115	PWBLACK-04-100R2	1676	Q2DLP38	1473	QC112	1473	QLDERAL080020	1076
	PVTP1	1109	PWBLACK-04-10-R1	1676	Q3DLP1	1473	QC134	1473	QLDERAL080025	1076
	PVTP112	1109	PWBLACK-04-25-R1	1676	Q3DLP114	1473	QC21	1473	QLDERAL080032	1076
	PVTP114	1109	PWBLACK-05-100R2	1676	Q3DLP12	1473	QC212	1473	QLDERAL110020	1076
	PVTP12	1109	PWBLACK-05-10-R1	1676	Q3DLP14	1473	QC234	1473	QLDERAL110025	1076
	PVTP2	1109	PWBLACK-05-25-R1	1676	Q3DLP34	1473	QC2GM34	1473	QLDERAL110032	1076
	PVTP212	1109	PWBLACK-06-100R2	1676	Q3DLP38	1473	QC31	1473	QLDERPA025016	1072
	PVTP3	1109	PWBLACK-06-10-R1	1676	Q4	1473	QC312	1473	QLDERPA025020	1072
	PVTP34	1109	PWBLACK-06-25-R1	1676	QA/192020/22	535	QC334	1473	QLDERPA032016	1072
	PVTP4	1109	PWBLUE-04-100-R2	1676	QA/192025/22	535	QCR	1473	QLDERPA032020	1072
	PVU1	1115	PWBLUE-04-10-R1	1676	QA/192032/21	535	QHPA13-D6X2-C	311	QLDERPA040016	1072
	PVU112	1115	PWBLUE-04-25-R1	1676	QA/192040/21	535	QHPA13-D6X3-C	311	QLDERPA040020	1072
	PVU114	1115	PWBLUE-05-10-R1	1676	QA/192050/21	535	QHPA13-D7X3-C	311	QLDERPA040025	1072
	PVU12	1115	PWBLUE-05-25-R1	1676	QA/192063/21	535	QHPA13-D7X4-C	311	QLDERPA050016	1072
	PVU2	1115	PWBLUE-06-100-R2	1676	QA/192080/21	535	QHPA13-F4B3-C	311	QLDERPA050020	1072
	PVU212	1115	PWBLUE-06-10-R1	1676	QA/192100/21	535	QHPA14-D6X4-C	311	QLDERPA050025	1072
	PVU3	1115	PWBLUE-06-10-R2	1676	QA/8032/00	506	QHPA14-D7X5-C	311	QLDERPA063020	1072
	PVU34	1115	PWBLUE-06-25-R1	1676	QA/8032/21	506	QHPA14-D7X6-C	311	QLDERPA063025	1072
	PVU38	1115	PWFC-20	1675	QA/8032/22	535	QHPA14-F4B4-C	311	QLDERPA063032	1072
	PVU4	1115	PWLA1	1667	QA/8032/23	506	QHPA16-D6X6-C	311	QLDERPA080020	1072
	PVUPF1	1110	PWLA10	1667	QA/8040/00	506	QHPA16-D6X7-C	311	QLDERPA080025	1072
	PVUPF112	1110	PWLA2	1667	QA/8040/22	535	QHPA16-D7X7-C	311	QLDERPA080032	1072
	PVUPF114	1110	PWLA3	1667	QA/8040/23	506	QHPA53-D6X2-C	311	QLDERPA110025	1072
	PVUPF12	1110	PWLA4	1667	QA/8050/00	506	QHPA53-D6X3-C	311	QLDERPA110032	1072
	PVUPF2	1110	PWLA5	1667	QA/8050/21	506	QHPA53-D7X3-C	311	QLFLA168480DIN	1077
	PVUPF212	1110	PWLA6	1667	QA/8050/22	535	QHPA53-D7X4-C	311	QLFLEX020	1079
	PVUPF3	1110	PWLA7	1667	QA/8050/23	506	QHPA53-F4B3-C	311	QLFLEX025	1079
	PVUPF34	1110	PWLA8	1667	QA/8063/00	506	QHPA54-D6X4-C	311	QLFLEX032	1079
	PVUPF4	1110	PWLA9	1667	QA/8063/21	506	QHPA54-D6X5-C	311	QLFLEX040	1079
	PVUPM112	1110	PWO-1	273	QA/8063/22	535	QHPA54-D7X5-C	311	QLFLEX063	1079

QLGO45AL020	1075	QLMNMAL025088	1075	QLTEAL110	1076	QLTUMLST016	1069	R	
QLGO45AL025	1075	QLMNMAL032108	1075	QLTEAL168	1077	QLTUMLST020	1069	R 41 100	511
QLGO45AL032	1075	QLMNMAL040128	1075	QLTEPA016	1072	QLTUMLST025	1069	R 41 125	511
QLGO45AL040	1075	QLMNMAL050168	1075	QLTEPA020	1072	QLVAF016048	1073	R 41 32	511
QLGO45AL168	1077	QLMNMAL063168	1075	QLTEPA025	1072	QLVAF020048AL	1073	R 41 40	511
QLGO45FAL020048	1075	QLMNMAL063208	1075	QLTEPA032	1072	QLVAF025068AL	1073	R 41 50	511
QLGO45FAL025048	1075	QLMNMAL080208	1075	QLTEPA040	1072	QLVAINOX025	1073	R 41 63	511
QLGO45FAL025068	1075	QLMNMAL080248	1075	QLTEPA050	1072	QLVAINOX032	1073	R 41 80	511
QLGO45PA020	1071	QLMNPAP016048	1071	QLTEPA063	1072	QLVAINOX040	1073	R07-100-RNKG	689
QLGO45PA025	1071	QLMNPAP020048	1071	QLTFLAL110328DIN	1076	QLVAINOX050	1073	R07-200-RNKG	689
QLGO45PA032	1071	QLMNPAP020068	1071	QLTFLAL80248DIN	1076	QLVAINOX063	1073	R-10-12	177
QLGO45PA040	1071	QLMNPAP025048	1071	QLTPAL020048	1076	QLVAINOX080	1073	R-10-15	177
QLGO45PA050	1071	QLMNPAP025068	1071	QLTPAL025068	1076	QLVAINOXMF025088	1073	R-10-18	177
QLGO45PA063	1071	QLMNPAP025088	1071	QLTPAL032088	1076	QLVAINOXMF032128	1073	R-10-375	177
QLGO90AL020	1075	QLMNPAP032088	1071	QLTPAL040108	1076	QLVAINOXMF040128	1073	R1-04SS	41
QLGO90AL025	1075	QLMNPAP032108	1071	QLTPAL050128	1076	QLVAINOXMF050168	1073	R-10-500	177
QLGO90AL032	1075	QLMNPAP040088	1071	QLTPAL063168	1076	QLVAINOXMF063168	1073	R-10-6	177
QLGO90AL040	1075	QLMNPAP040108	1071	QLTPAL080208	1076	QLVAINOXMF080248	1073	R1-06SS	41
QLGO90AL050	1075	QLMNPAP040128	1071	QLTPAL110248	1076	QLVALFAR110	1073	R1-08SS	41
QLGO90AL063	1075	QLMNPAP050128	1071	QLTPPA020048	1072	QLVALFAR168	1077	R1-16SS	41
QLGO90AL080	1075	QLMNPAP050168	1071	QLTPPA025048	1072	QLVAM016048	1073	R-12-10	177
QLGO90AL110	1075	QLMNPAP063168	1071	QLTRAL025020	1076	QLVAM020048AL	1073	R-12-16	177
QLGO90AL168	1077	QLMNPAL020048	1075	QLTRAL032020	1076	QLVAM025068AL	1073	R-12-18	177
QLGO90MAL020048	1075	QLMPPMAL020068	1075	QLTRAL040020	1076	QM/192020/21	535	R-12-20	177
QLGO90MAL025048	1075	QLMPPMAL025068	1075	QLTRAL040025	1076	QM/192025/21	535	R-12-22	177
QLGO90MAL025068	1075	QLMPPMAL025088	1075	QLTRPA020016	1072	QM/33/032/22	541	R-12-25	177
QLGO90PA016	1071	QLMPPMAL032108	1075	QLTRPA025016	1072	QM/33/040/22	541	R-12-500	177
QLGO90PA020	1071	QLMPPMAL040128	1075	QLTRPA025020	1072	QM/48/13J/21	591	R-125-125	171
QLGO90PA025	1071	QLMPPMAL050168	1075	QLTRPA032020	1072	QM/48/14J/21	591	R-125-187	171
QLGO90PA032	1071	QLMPPMAL063208	1075	QLTRPA032025	1072	QM/48/18J/21	591	R-125-250	171
QLGO90PA040	1071	QLPUNM016038	1079	QLTRPA040020	1072	QM/48/19J/21	591	R-125-375	171
QLGO90PA050	1071	QLPUNM020048	1079	QLTRPA040025	1072	QM/57016/25	541	R-125-500	171
QLGO90PA063	1071	QLPUNM020068	1079	QLTRPA040032	1072	QM/57020/25	541	R-12-6	177
QLGO90PM020048	1071	QLPUNM025088	1079	QLTRPA050020	1072	QM/57025/24	541	R-12-750	177
QLGO90PM025048	1071	QLPUNM032108	1079	QLTRPA050025	1072	QM/57025/25	541	R-12-8	177
QLGO90PM025068	1071	QLPUNM040128	1079	QLTRPA050032	1072	QM/57032/25	541	R-16-12	177
QLMAAL020	1075	QLPUNM050168	1079	QLTRPA050040	1072	QM/57040/24	541	R16-200-R30G	690
QLMAAL025	1075	QLPUNM063168	1079	QLTRPA063020	1072	QM/57063/25	534	R-18-12	177
QLMAAL032	1075	QLPUNM080248	1079	QLTRPA063025	1072	QM/8010/25	474	R-18-16	177
QLMAAL040	1075	QLRIDPA025020	1071	QLTRPA063040	1072	QM/8010/32	474	R-18-20	177
QLMAAL050	1075	QLRIDPA032025	1071	QLTRPA063050	1072	QM/8012/24	474	R-18-22	177
QLMAAL063	1075	QLRIDPA040025	1071	QLTUAL020S	1069	QM/8012/25	474	R-18-25	177
QLMAAL080	1075	QLRIDPA040032	1071	QLTUAL025S	1069	QM/8012/32	474	R-187-125	171
QLMAAL110	1075	QLRIDPA050040	1071	QLTUAL032S	1069	QM/8020/24	474	R-187-250	171
QLMAAL168	1077	QLRIDTU025020	1079	QLTUAL040S	1069	QM/8020/25	474	R-18-750	177
QLMAPA016	1071	QLRIDTU032020	1079	QLTUAL050S	1069	QM/8020/32	474	R18-B00-RNXD	689
QLMAPA020	1071	QLRIDTU032025	1079	QLTUAL063S	1069	QM/8025/25	474	R18-C00-RNXD	689
QLMAPA025	1071	QLRIDTU040025	1079	QLTUAL080S	1069	QM/8025/32	474	R-20-16	177
QLMAPA032	1071	QLRIDTU040032	1079	QLTUAL110S	1069	QM/8032/35	535	R-20-22	177
QLMAPA040	1071	QLRIDTU050032	1079	QLTUAL168S	1077	QM/8040/25	535	R-20-25	177
QLMAPA050	1071	QLRIDTU050040	1079	QLTUAL4016S	1069	QM/8040/32	541	R-22-18	177
QLMAPA063	1071	QLRIDTU063040	1079	QLTUAL4020S	1069	QM/8050/25	506	R-22-20	177
QLMASAL032	1075	QLRIDTU063050	1079	QLTUAL4025S	1069	QM/8050/32	506	R-22-25	177
QLMASAL040	1075	QLRIDTU080050	1079	QLTUAL4032S	1069	QM/8080/25	506	R-250-125	171
QLMASAL050	1075	QLRIDTU080063	1079	QLTUAL4040S	1069	QM/8080/32	506	R-250-187	171
QLMASAL063	1075	QLRIDTU110050	1079	QLTUAL4050S	1069	QM/90016/22	534	R-250-250	171
QLMASAL080	1075	QLRIDTU110063	1079	QLTUAL4063S	1069	QM/90025/22	534	R-250-312	171
QLMASPA032	1071	QLRIDTU110080	1079	QLTUALG020S	1069	QM/90040/22	534	R-250-375	171
QLMASPA040	1071	QLSCI016	1069	QLTUALG025S	1069	QM/90050/22	534	R-250-500	171
QLMASPA050	1071	QLSCI020	1069	QLTUALG040S	1069	QM/90063/22	534	R-250-625	171
QLMASPA063	1071	QLSCI025	1069	QLTUALG063S	1069	QM/90080/22	534	R-250-750	171
QLMFLAL080248DIN	1076	QLTEAL020	1076	QLTUALGY020S	1069	QM/90100/22	534	R-25-1000	177
QLMFLAL110328DIN	1076	QLTEAL025	1076	QLTUALGY025S	1069	QM/946	541	R-25-18	177
QLMIS016080	1072	QLTEAL032	1076	QLTUALGY032S	1069	QM/947	474	R-25-20	177
QLMISAL020110	1076	QLTEAL040	1076	QLTUALGY040S	1069	QR	1473	R-3-10	177
QLMNMAL020048	1075	QLTEAL050	1076	QLTUALGY050S	1069	QRNIT	1473	R-312-375	171
QLMNMAL020068	1075	QLTEAL063	1076	QLTUALGY063S	1069	QSC-250	1107	R-3-125	177
QLMNMAL025068	1075	QLTEAL080	1076	QLTUALGY080S	1069			R-312-500	171
								R-3-250	177



R-3-4	177	RA/192032/MX/50	535	RA/802080/M/50	505	RANG-426.9	189	RAPG-430	188
R-3-6	177	RA/192032/MX/60	535	RA/802080/M/80	505	RANG-428	189	RAPG-532	188
R-375-250	171	RA/192032/MX/80	535	RA100	1456	RANG-430	189	RAPG-533.7	188
R-375-375	171	RA/192040/MX/10	535	RA200	1456	RANG-532	189	RAPG-535	188
R-375-500	171	RA/192040/MX/15	535	RA65.50.04	1065	RANG-533.7	189	RAPG-538	188
R-375-625	171	RA/192040/MX/20	535	RA65.50.08	1065	RANG-535	189	RAPG-540	188
R-375-750	171	RA/192040/MX/25	535	RA69.50.25	1065	RANG-538	189	RAPG-542	188
R-4-250	177	RA/192040/MX/30	535	RAAR-106	189	RANG-540	189	RAPG-644.5	188
R-4-6	177	RA/192040/MX/40	535	RAAR-106.4	189	RANG-542	189	RAPG-645	188
R4F2-12	16	RA/192040/MX/50	535	RAAR-108	189	RANG-644.5	189	RAPG-648	188
R4F2-16	16	RA/192050/MX/10	535	RAAR-109.5	189	RANG-645	189	RAPG-650	188
R4F2-20	16	RA/192050/MX/15	535	RAAR-110	189	RANG-648	189	RAPG-650.8	188
R4F2-24	16	RA/192050/MX/20	535	RAAR-112	189	RANG-650	189	RAPG-652	188
R4F2-32	16	RA/192050/MX/25	535	RAAR-212.7	189	RANG-650.8	189	RAPG-655	188
R-500-1000	171	RA/192050/MX/30	535	RAAR-213.5	189	RANG-652	189	RAPG-657	188
R-500-250	171	RA/192050/MX/40	535	RAAR-214	189	RANG-655	189	RAPR-006	188
R-500-375	171	RA/192050/MX/50	535	RAAR-215	189	RANG-657	189	RAPR-006.4	188
R-500-500	171	RA/192050/MX/60	535	RAAR-216	189	RANR-006	189	RAPR-008	188
R-500-625	171	RA/192063/M/15	535	RAAR-2172	189	RANR-008	189	RAPR-009.5	188
R-500-750	171	RA/192063/M/25	535	RAAR-218	189	RANR-009.5	189	RAPR-010	188
R-6-10	177	RA/192063/M/40	535	RAAR-319	189	RANR-012	189	RAPR-012	188
R-6-12	177	RA/192063/M/50	535	RAAR-320	189	RANR-106	189	RAPR-106	188
R-6-125	177	RA/192063/M/60	535	RAAR-321.3	189	RANR-106.4	189	RAPR-106.4	188
R-6-18	177	RA/192063/M/80	535	RAAR-322	189	RANR-110	189	RAPR-108	188
R-6-250	177	RA/192080/M/15	535	RAAR-323	189	RANR-112	189	RAPR-109.5	188
R-625-1000	171	RA/192080/M/25	535	RAAR-325	189	RANR-212.7	189	RAPR-110	188
R-625-750	171	RA/192080/M/40	535	RAAR-426.9	189	RANR-214	189	RAPR-112	188
R-625-875	171	RA/192080/M/50	535	RAAR-430	189	RANR-215	189	RAPR-212.7	188
R-6-3	177	RA/192080/M/60	535	RAAR-532	189	RANR-216	189	RAPR-213.5	188
R-6-312	177	RA/192080/M/80	535	RAAR-533.7	189	RANR-2172	189	RAPR-214	188
R-6-375	177	RA/192100/M/15	535	RAAR-535	189	RANR-218	189	RAPR-215	188
R64G-4GK-RMN	684	RA/192100/M/25	535	RAAR-538	189	RANR-320	189	RAPR-216	188
R64G-NNK-RMN	684	RA/192100/M/40	535	RAAR-540	189	RANR-321.3	189	RAPR-2172	188
R-6-500	177	RA/192100/M/50	535	RAAR-542	189	RANR-325	189	RAPR-218	188
R-6-8	177	RA/192100/M/60	535	RAAR-648	189	RANR-426.9	189	RAPR3-006	186
R68G-NNK-RLN	684	RA/192100/M/80	535	RAAR-650	189	RANR-532	189	RAPR3-006.4	186
R-750-1000	171	RA/802032/M/100	505	RAD-90-10	1417	RANR-533.7	189	RAPR3-008	186
R-750-500	171	RA/802032/M/125	505	RAD-90-13	1417	RANR-538	189	RAPR3-009.5	186
R76115	251	RA/802032/M/160	505	RAD-90-16	1417	RANR-540	189	RAPR3-010	186
R76125	251	RA/802032/M/200	505	RAD-90-19	1417	RANR-542	189	RAPR3-012	186
R-8-10	177	RA/802032/M/25	505	RAD-90-22	1417	RANR-644.5	189	RAPR3-106	186
R-8-12	177	RA/802032/M/250	505	RAD-90-25	1417	RANR-650.8	189	RAPR3-106.4	186
R82G-2GK-RMG	687	RA/802032/M/320	505	RAD-90-28	1417	RANS-540	190	RAPR3-108	186
R-8-375	177	RA/802032/M/50	505	RAD-90-32	1417	RAPAE-6	187	RAPR3-109.5	186
R84G-3GK-RMG	687	RA/802032/M/80	505	RAD-90-35	1417	RAPE-4	187	RAPR3-110	186
R84G-4GK-RMG	687	RA/802040/M/100	505	RAD-90-38	1417	RAPE-5	187	RAPR3-112	186
R-8-500	177	RA/802040/M/125	505	RAD-90-51	1417	RAPE-6	187	RAPR-319	188
R-8-6	177	RA/802040/M/200	505	RAD-90-63	1417	RAPG-106	188	RAPR-320	188
RA/192020/MX/10	535	RA/802040/M/25	505	RAD-90-76	1417	RAPG-106.4	188	RAPR-321.3	188
RA/192020/MX/15	535	RA/802040/M/250	505	RANG-106	189	RAPG-108	188	RAPR3-212.7	186
RA/192020/MX/20	535	RA/802040/M/320	505	RANG-106.4	189	RAPG-109.5	188	RAPR3-213.5	186
RA/192020/MX/25	535	RA/802040/M/50	505	RANG-108	189	RAPG-110	188	RAPR3-214	186
RA/192020/MX/30	535	RA/802040/M/80	505	RANG-109.5	189	RAPG-112	188	RAPR3-215	186
RA/192020/MX/40	535	RA/802050/M/160	505	RANG-110	189	RAPG-212.7	188	RAPR3-216	186
RA/192020/MX/50	535	RA/802050/M/200	505	RANG-112	189	RAPG-213.5	188	RAPR3-2172	186
RA/192025/MX/10	535	RA/802050/M/25	505	RANG-212.7	189	RAPG-214	188	RAPR3-218	186
RA/192025/MX/15	535	RA/802050/M/250	505	RANG-213.5	189	RAPG-215	188	RAPR-322	188
RA/192025/MX/20	535	RA/802050/M/50	505	RANG-214	189	RAPG-216	188	RAPR-323	188
RA/192025/MX/25	535	RA/802050/M/80	505	RANG-215	189	RAPG-2172	188	RAPR-325	188
RA/192025/MX/30	535	RA/802063/M/100	505	RANG-216	189	RAPG-218	188	RAPR3-319	186
RA/192025/MX/40	535	RA/802063/M/25	505	RANG-2172	189	RAPG-319	188	RAPR3-320	186
RA/192025/MX/50	535	RA/802063/M/250	505	RANG-218	189	RAPG-320	188	RAPR3-321.3	186
RA/192032/MX/10	535	RA/802063/M/320	505	RANG-319	189	RAPG-321.3	188	RAPR3-322	186
RA/192032/MX/15	535	RA/802063/M/50	505	RANG-320	189	RAPG-322	188	RAPR3-323	186
RA/192032/MX/20	535	RA/802080/M/100	505	RANG-321.3	189	RAPG-323	188	RAPR3-325	186
RA/192032/MX/25	535	RA/802080/M/160	505	RANG-322	189	RAPG-325	188	RAPR3-426.9	186
RA/192032/MX/30	535	RA/802080/M/200	505	RANG-323	189	RAPG-426.9	188	RAPR3-428	186
RA/192032/MX/40	535	RA/802080/M/25	505	RANG-325	189	RAPG-428	188	RAPR3-430	186

RAPR3-532	186	RB-11075-UPVC	1101	RB-4020-UPVC	1101	RBNG-212.7	193	RBPR1-109.5	186
RAPR3-533.7	186	RB-11090-UPVC	1101	RB-4025-UPVC	1101	RBNG-213.5	193	RBPR1-110	186
RAPR3-535	186	RB-1-12	1184	RB-4032-UPVC	1101	RBNG-214	193	RBPR1-112	186
RAPR3-538	186	RB-112-1	1184	RB-4-3	1184	RBNG-215	193	RBPR-112	193
RAPR3-540	186	RB-112-114	1184	RB-5025-UPVC	1101	RBNG-216	193	RBPR1-212.7	186
RAPR3-542	186	RB-112-12	1184	RB-5032-UPVC	1101	RBNG-217.2	193	RBPR1-213.5	186
RAPR3-644.5	186	RB-112-34	1184	RB-5040-UPVC	1101	RBNG-218	193	RBPR1-214	186
RAPR3-645	186	RB-1-14	1184	RB-6325-UPVC	1101	RBNG-319	193	RBPR1-215	186
RAPR3-648	186	RB-114-1	1184	RB-6332-UPVC	1101	RBNG-320	193	RBPR1-216	186
RAPR3-650	186	RB-114-12	1184	RB-6340-UPVC	1101	RBNG-321.3	193	RBPR1-217.2	186
RAPR3-650.8	186	RB-114-34	1184	RB-6350-UPVC	1101	RBNG-322	193	RBPR1-218	186
RAPR3-652	186	RB-12-14	1184	RB-7532-UPVC	1101	RBNG-325	193	RBPR1-319	186
RAPR3-655	186	RB-12-18	1184	RB-7540-UPVC	1101	RBNG-426.9	193	RBPR1-320	186
RAPR3-657	186	RB-12-38	1184	RB-7550-UPVC	1101	RBNG-428	193	RBPR1-321.3	186
RAPR-426.9	188	RB-125110-UPVC	1101	RB-7563-UPVC	1101	RBNG-430	193	RBPR1-322	186
RAPR-428	188	RB-12575-UPVC	1101	RB-9050-UPVC	1101	RBNG-532	193	RBPR1-325	186
RAPR-430	188	RB-12590-UPVC	1101	RB-9063-UPVC	1101	RBNG-533.7	193	RBPR1-426.9	186
RAPR-532	188	RB-1-34	1184	RB-9075-UPVC	1101	RBNG-535	193	RBPR1-428	186
RAPR-533.7	188	RB-1-38	1184	RB93-112114-ABS	1097	RBNG-538	193	RBPR1-430	186
RAPR-535	188	RB-140110-UPVC	1101	RB93-112114-UPVC	1108	RBNG-542	193	RBPR1-532	186
RAPR-538	188	RB-140125-UPVC	1101	RB93-1121-ABS	1097	RBNR-106.4	193	RBPR1-533.7	186
RAPR-540	188	RB-14090-UPVC	1101	RB93-1121-UPVC	1108	RBNR-109.5	193	RBPR1-535	186
RAPR-542	188	RB-14-18	1184	RB93-11234-ABS	1097	RBNR-212.7	193	RBPR1-538	186
RAPR-644.5	188	RB-160110-UPVC	1101	RB93-11234-UPVC	1108	RBNR-213.5	193	RBPR1-540	186
RAPR-645	188	RB-160125-UPVC	1101	RB93-112-ABS	1097	RBNR-214	193	RBPR1-542	186
RAPR-648	188	RB-160140-UPVC	1101	RB93-112-UPVC	1108	RBNR-215	193	RBPR-212.7	193
RAPR-650	188	RB-180125-UPVC	1101	RB93-11412-ABS	1097	RBNR-218	193	RBPR-213.5	193
RAPR-650.8	188	RB-180140-UPVC	1101	RB93-11412-UPVC	1108	RBNR-320	193	RBPR-214	193
RAPR-652	188	RB-180160-UPVC	1101	RB93-1141-ABS	1097	RBNR-322	193	RBPR-215	193
RAPR-655	188	RB-200160-UPVC	1101	RB93-1141-UPVC	1108	RBNR-325	193	RBPR-216	193
RAPR-657	188	RB-200180-UPVC	1101	RB93-11434-ABS	1097	RBNR-428	193	RBPR-217.2	193
RAPS-540	190	RB-2016-UPVC	1101	RB93-11434-UPVC	1108	RBNR-533.7	193	RBPR-218	193
RAVG-106	189	RB-2-1	1184	RB93-134-ABS	1097	RBNR-535	193	RBPR-319	193
RAVG-108	189	RB-2-112	1184	RB93-134-UPVC	1108	RBPG-106	193	RBPR-320	193
RAVG-109.5	189	RB-2-114	1184	RB93-2112-ABS	1097	RBPG-106.4	193	RBPR-321.3	193
RAVG-110	189	RB-212-1	1184	RB93-2112-UPVC	1108	RBPG-108	193	RBPR-322	193
RAVG-112	189	RB-212-112	1184	RB93-2114-ABS	1097	RBPG-109.5	193	RBPR-325	193
RAVG-212.7	189	RB-212-114	1184	RB93-2114-UPVC	1108	RBPG-110	193	RBPR-426.9	193
RAVG-213.5	189	RB-212-2	1184	RB93-212112-UPVC	1108	RBPG-112	193	RBPR-428	193
RAVG-214	189	RB-225160-UPVC	1101	RB93-2122-ABS	1097	RBPG-212.7	193	RBPR-430	193
RAVG-215	189	RB-225200-UPVC	1101	RB93-2122-UPVC	1108	RBPG-213.5	193	RBPR-532	193
RAVG-216	189	RB-2-34	1184	RB93-21-ABS	1097	RBPG-214	193	RBPR-533.7	193
RAVG-217.2	189	RB-2516-UPVC	1101	RB93-21-UPVC	1108	RBPG-215	193	RBPR-535	193
RAVG-218	189	RB-2520-UPVC	1101	RB93-3112-ABS	1097	RBPG-216	193	RBPR-538	193
RAVG-319	189	RB30-1121-UPVC	1108	RB93-3112-UPVC	1108	RBPG-217.2	193	RBPR-540	193
RAVG-320	189	RB30-112-UPVC	1108	RB93-3212-ABS	1097	RBPG-218	193	RBPR-542	193
RAVG-321.3	189	RB30-11434-UPVC	1108	RB93-3212-UPVC	1108	RBPG-319	193	RBT-PN16-10EPDM	1388
RAVG-322	189	RB30-1214-UPVC	1108	RB93-32-ABS	1097	RBPG-320	193	RBT-PN16-10NBR	1388
RAVG-323	189	RB30-1238-UPVC	1108	RB93-32-UPVC	1108	RBPG-321.3	193	RBT-PN16-112EPDM	1388
RAVG-325	189	RB30-2114-UPVC	1108	RB93-3412-ABS	1097	RBPG-322	193	RBT-PN16-112NBR	1388
RAVG-426.9	189	RB30-212112-UPVC	1108	RB93-3412-UPVC	1108	RBPG-325	193	RBT-PN16-114EPDM	1388
RAVG-428	189	RB30-3212-UPVC	1108	RB93-4212-ABS	1097	RBPG-426.9	193	RBT-PN16-114NBR	1388
RAVG-430	189	RB30-3438-UPVC	1108	RB93-4212-UPVC	1108	RBPG-428	193	RBT-PN16-12EPDM	1388
RAVG-532	189	RB30-3814-UPVC	1108	RB93-42-ABS	1097	RBPG-430	193	RBT-PN16-12NBR	1388
RAVG-533.7	189	RB30-43-UPVC	1108	RB93-42-UPVC	1108	RBPG-532	193	RBT-PN16-212EPDM	1388
RAVG-535	189	RB-3-1	1184	RB93-43-ABS	1097	RBPG-533.7	193	RBT-PN16-212NBR	1388
RAVG-538	189	RB-3-112	1184	RB93-43-UPVC	1108	RBPG-535	193	RBT-PN16-2EPDM	1388
RAVG-540	189	RB-3-2	1184	RB93-53-UPVC	1108	RBPG-538	193	RBT-PN16-2NBR	1388
RAVG-542	189	RB-3-212	1184	RB93-54-ABS	1097	RBPG-540	193	RBT-PN16-3EPDM	1388
RAVG-644.5	189	RB-3216-UPVC	1101	RB93-54-UPVC	1108	RBPG-542	193	RBT-PN16-3NBR	1388
RAVG-645	189	RB-3220-UPVC	1101	RB93-64-UPVC	1108	RBPR-106	193	RBT-PN16-4EPDM	1388
RAVG-648	189	RB-3225-UPVC	1101	RB93-86-UPVC	1108	RBPR-106.4	193	RBT-PN16-4NBR	1388
RAVG-650	189	RB-34-12	1184	RBNG-106	193	RBPR-108	193	RBT-PN16-5EPDM	1388
RAVG-650.8	189	RB-34-14	1184	RBNG-106.4	193	RBPR-109.5	193	RBT-PN16-5NBR	1388
RAVG-652	189	RB-34-18	1184	RBNG-108	193	RBPR-110	193	RBT-PN16-6EPDM	1388
RAVG-655	189	RB-34-38	1184	RBNG-109.5	193	RBPR1-106	186	RBT-PN16-6NBR	1388
RAVG-657	189	RB-38-14	1184	RBNG-110	193	RBPR1-106.4	186	RBT-PN16-8EPDM	1388
RB-11063-UPVC	1101	RB-38-18	1184	RBNG-112	193	RBPR1-108	186	RBT-PN16-8NBR	1388

	RBU-250-125	170	RCNR-112	195	RCPG-333.7	196	RCPR-330	195	RCPR-7140	195
	RBU-375-250	170	RCNR-112.7	195	RCPG-335	196	RCPR-332	195	RCPR-7168.3	195
	RBU-500-250	170	RCNR-113.5	195	RCPG-338	196	RCPR-333.7	195	RD-10S	158
	RBVG-106	194	RCNR-114	195	RCPG-340	196	RCPR3-330	186	RD12.A	432
	RBVG-106.4	194	RCNR-115	195	RCPG-342	196	RCPR3-332	186	RD-12S	158
	RBVG-108	194	RCNR-116	195	RCPG-438	196	RCPR3-333.7	186	RD-14S	158
	RBVG-109.5	194	RCNR-117.2	195	RCPG-440	196	RCPR3-335	186	RD-16S	158
	RBVG-110	194	RCNR-118	195	RCPG-442	196	RCPR3-338	186	RD18.A	432
	RBVG-112	194	RCNR-220	195	RCPG-445	196	RCPR3-340	186	RD-20S	158
	RBVG-212.7	194	RCNR-221.3	195	RCPG-448.3	196	RCPR3-342	186	RD25.A	432
	RBVG-213.5	194	RCNR-222	195	RCPG-450	196	RCPR-335	195	RD-25S	158
	RBVG-214	194	RCNR-223	195	RCPG-452	196	RCPR-338	195	RD-30S	158
	RBVG-215	194	RCNR-225	195	RCPG-455	196	RCPR-340	195	RD32.A	432
	RBVG-216	194	RCNR-226.9	195	RCPG-457	196	RCPR-342	195	RD-38S	158
	RBVG-217.2	194	RCNR-228	195	RCPG-460.3	196	RCPR3-438	186	RD43.A	432
	RBVG-218	194	RCNR-230	195	RCPG-465	196	RCPR3-440	186	RD52.A	432
	RBVG-319	194	RCNR-330	195	RCPG-470	196	RCPR3-442	186	RD6.A	432
	RBVG-320	194	RCNR-332	195	RCPG-560.3	196	RCPR3-445	186	RD63.A	432
	RBVG-321.3	194	RCNR-333.7	195	RCPG-573	196	RCPR3-448.3	186	RD-6S	158
	RBVG-322	194	RCNR-335	195	RCPG-576.1	196	RCPR3-450	186	RD80.A	432
	RBVG-325	194	RCNR-338	195	RCPG-580	196	RCPR3-451	186	RD-8S	158
	RBVG-426.9	194	RCNR-340	195	RCPG-588.9	196	RCPR3-452	186	RD9.A	432
	RBVG-428	194	RCNR-342	195	RCPG-6100	196	RCPR3-455	186	RDC12-14	1207
	RBVG-430	194	RCNR-438	195	RCPG-6101.6	196	RCPR3-457	186	RDC12-38	1207
	RBVG-532	194	RCNR-440	195	RCPG-6114.3	196	RCPR3-460.3	186	RDC12-516	1207
	RBVG-533.7	194	RCNR-442	195	RCPG-7108	196	RCPR3-463	186	RDC14-18	1207
	RBVG-535	194	RCNR-445	195	RCPG-7168.3	196	RCPR3-465	186	RDC14-316	1207
	RBVG-538	194	RCNR-448.3	195	RCPG-8168.3	196	RCPR3-470	186	RDC316-18	1207
	RBVG-542	194	RCNR-450	195	RCPR-106	195	RCPR3-570	186	RDC38-14	1207
	RC-1	1185	RCNR-451	195	RCPR-108	195	RCPR3-573	186	RDC38-516	1207
	RC-112	1185	RCNR-452	195	RCPR-110	195	RCPR3-575	186	RDC516-14	1207
	RC-114	1185	RCNR-455	195	RCPR-112	195	RCPR3-576.1	186	RDC516-316	1207
	RC-12	1185	RCNR-457	195	RCPR-112.7	195	RCPR3-580	186	RED-DKOL08/06	162
	RC-14	1185	RCNR-460.3	195	RCPR-113.5	195	RCPR3-582.5	186	RED-DKOL10/06	162
	RC-18	1185	RCNR-463	195	RCPR-114	195	RCPR3-588.9	186	RED-DKOL10/08	162
	RC-2	1185	RCNR-465	195	RCPR-115	195	RCPR3-590	186	RED-DKOL12/06	162
	RC-212	1185	RCNR-470	195	RCPR-116	195	RCPR3-6101.6	186	RED-DKOL12/08	162
	RC-3	1185	RCNR-570	195	RCPR-117.2	195	RCPR3-6114.3	186	RED-DKOL12/10	162
	RC-34	1185	RCNR-573	195	RCPR-118	195	RCPR3-6127	186	RED-DKOL15/06	162
	RC-38	1185	RCNR-575	195	RCPR-219	195	RCPR3-7130	186	RED-DKOL15/08	162
	RCAR-110	195	RCNR-576.1	195	RCPR-220	195	RCPR3-7140	186	RED-DKOL15/10	162
	RCAR-220	195	RCNR-580	195	RCPR-221.3	195	RCPR3-7168.3	186	RED-DKOL15/12	162
	RCAR-221.3	195	RCNR-582.5	195	RCPR-222	195	RCPR-438	195	RED-DKOL18/06	162
	RCAR-222	195	RCNR-588.9	195	RCPR-223	195	RCPR-440	195	RED-DKOL18/08	162
	RCAR-226.9	195	RCNR-590	195	RCPR-225	195	RCPR-442	195	RED-DKOL18/10	162
	RCAR-230	195	RCPE-2	187	RCPR-226.9	195	RCPR-445	195	RED-DKOL18/12	162
	RCAR-330	195	RCPE-3	187	RCPR-228	195	RCPR-448.3	195	RED-DKOL18/15	162
	RCAR-332	195	RCPE-4	187	RCPR-230	195	RCPR-450	195	RED-DKOL22/06	162
	RCAR-333.7	195	RCPE-5	187	RCPR3-106	186	RCPR-451	195	RED-DKOL22/08	162
	RCAR-338	195	RCPG-106	196	RCPR3-108	186	RCPR-452	195	RED-DKOL22/10	162
	RCAR-340	195	RCPG-108	196	RCPR3-110	186	RCPR-455	195	RED-DKOL22/12	162
	RCAR-448.3	195	RCPG-110	196	RCPR3-112	186	RCPR-457	195	RED-DKOL22/15	162
	RCAR-450	195	RCPG-112	196	RCPR3-112.7	186	RCPR-460.3	195	RED-DKOL22/18	162
	RCAR-455	195	RCPG-112.7	196	RCPR3-113.5	186	RCPR-463	195	RED-DKOL28/06	162
	RCAR-460.3	195	RCPG-114	196	RCPR3-114	186	RCPR-465	195	RED-DKOL28/08	162
	RCAR-470	195	RCPG-115	196	RCPR3-115	186	RCPR-470	195	RED-DKOL28/10	162
	RCG205CTW00	1053	RCPG-116	196	RCPR3-116	186	RCPR-570	195	RED-DKOL28/12	162
	RCG205STW00	1053	RCPG-117.2	196	RCPR3-117.2	186	RCPR-573	195	RED-DKOL28/15	162
	RCG206CTX00	1053	RCPG-118	196	RCPR3-118	186	RCPR-575	195	RED-DKOL28/18	162
	RCG206STX00	1053	RCPG-219	196	RCPR3-219	186	RCPR-576.1	195	RED-DKOL28/22	162
	RCG207CTY00	1053	RCPG-220	196	RCPR3-220	186	RCPR-580	195	RED-DKOL35/06	162
	RCG207STY00	1053	RCPG-221.3	196	RCPR3-221.3	186	RCPR-582.5	195	RED-DKOL35/08	162
	RCG208STZ00	1053	RCPG-222	196	RCPR3-222	186	RCPR-588.9	195	RED-DKOL35/10	162
	RCG209STK00	1053	RCPG-225	196	RCPR3-223	186	RCPR-590	195	RED-DKOL35/12	162
	RCG210STJ00	1053	RCPG-226.9	196	RCPR3-225	186	RCPR-6101.6	195	RED-DKOL35/15	162
	RCNR-106	195	RCPG-230	196	RCPR3-226.9	186	RCPR-6114.3	195	RED-DKOL35/18	162
	RCNR-108	195	RCPG-330	196	RCPR3-228	186	RCPR-6127	195	RED-DKOL35/22	162
	RCNR-110	195	RCPG-332	196	RCPR3-230	186	RCPR-7130	195	RED-DKOL35/28	162

RED-DKOL-42/06	162	REDR11/2X3/4	122	REDVDN28/15L	131	REDWV25S-8S	123	RH-1916	1416
RED-DKOL-42/08	162	REDR11/4X1	122	REDVDN28/18L	131	REDWV28L-10L	123	RH-2	1416
RED-DKOL-42/10	162	REDR11/4X1/2	122	REDVDN28/22L	131	REDWV28L-12L	123	RH-212	1416
RED-DKOL-42/12	162	REDR11/4X11/2	122	REDVDN30/12S	131	REDWV28L-15L	123	RH-214	1416
RED-DKOL-42/15	162	REDR11/4X3/4	122	REDVDN30/14S	131	REDWV28L-18L	123	RH-238	1416
RED-DKOL-42/18	162	REDR1X1/2	122	REDVDN30/16S	131	REDWV28L-22L	123	RH-3	1416
RED-DKOL-42/22	162	REDR1X1/4	122	REDVDN30/20S	131	REDWV30S-12S	123	RH-4	1416
RED-DKOL-42/28	162	REDR1X11/2	122	REDVDN30/25S	131	REDWV30S-14S	123	RH-78	1416
RED-DKOL-42/35	162	REDR1X11/4	122	REDVDN35/15L	131	REDWV30S-16S	123	RHN-1-12	1185
RED-DKOS-08/06	162	REDR1X3/4	122	REDVDN35/18L	131	REDWV30S-20S	123	RHN-112-1	1185
RED-DKOS-10/06	162	REDR1X3/8	122	REDVDN35/22L	131	REDWV30S-25S	123	RHN-112-114	1185
RED-DKOS-10/08	162	REDR3/4X1	122	REDVDN35/28L	131	REDWV35-28L	123	RHN-112-12	1185
RED-DKOS-12/06	162	REDR3/4X1/2	122	REDVDN38/10S	131	REDWV35L-15L	123	RHN-112-34	1185
RED-DKOS-12/08	162	REDR3/4X1/4	122	REDVDN38/16S	131	REDWV35L-18L	123	RHN-1-14	1185
RED-DKOS-12/10	162	REDR3/4X11/2	122	REDVDN38/20S	131	REDWV35L-22L	123	RHN-114-1	1185
RED-DKOS-14/06	162	REDR3/4X11/4	122	REDVDN38/25S	131	REDWV38S-10S	123	RHN-114-12	1185
RED-DKOS-14/08	162	REDR3/4X3/8	122	REDVDN38/30S	131	REDWV38S-16S	123	RHN-114-34	1185
RED-DKOS-14/10	162	REDR3/8X1/2	122	REDVDN42/15L	131	REDWV38S-20S	123	RHN-12-14	1185
RED-DKOS-14/12	162	REDR3/8X1/4	122	REDVDN42/18L	131	REDWV38S-25S	123	RHN-12-18	1185
RED-DKOS-16/06	162	REDR3/8X1/8	122	REDVDN42/22L	131	REDWV38S-30S	123	RHN-12-38	1185
RED-DKOS-16/08	162	REDR3/8X3/4	122	REDVDN42/35L	131	REDWV42L-15L	123	RHN-1-34	1185
RED-DKOS-16/10	162	REDVDN10/6L	131	REDVDN8/6L	131	REDWV42L-18L	123	RHN-1-38	1185
RED-DKOS-16/12	162	REDVDN10/6S	131	REDVDN8/6S	131	REDWV42L-22L	123	RHN-14-18	1185
RED-DKOS-16/14	162	REDVDN10/8L	131	REDWASH-GUN	1657	REDWV42L-35L	123	RHN-2-1	1185
RED-DKOS-20/06	162	REDVDN10/8S	131	REDWV10L-6L	123	REDWV8L-6L	123	RHN-2-112	1185
RED-DKOS-20/08	162	REDVDN12/10L	131	REDWV10L-8L	123	REDWV8S-6S	123	RHN-2-114	1185
RED-DKOS-20/10	162	REDVDN12/10S	131	REDWV10S-6S	123	REFBKY50	1588	RHN-2-12	1185
RED-DKOS-20/12	162	REDVDN12/6L	131	REDWV10S-8S	123	REFRW50	1588	RHN-2-34	1185
RED-DKOS-20/14	162	REDVDN12/6S	131	REDWV12L-10L	123	RF104	1606	RHN-3-2	1185
RED-DKOS-20/16	162	REDVDN12/8L	131	REDWV12L-6L	123	RFO 344	636	RHN-34-12	1185
RED-DKOS-25/06	162	REDVDN12/8S	131	REDWV12L-8L	123	RFO 346	636	RHN-34-14	1185
RED-DKOS-25/08	162	REDVDN14/10S	131	REDWV12S-10S	123	RFO 352	636	RHN-34-18	1185
RED-DKOS-25/10	162	REDVDN14/12S	131	REDWV12S-6S	123	RFO 382	636	RHN-34-38	1185
RED-DKOS-25/12	162	REDVDN14/6S	131	REDWV12S-8S	123	RFO 383	636	RHN-38-14	1185
RED-DKOS-25/14	162	REDVDN14/8S	131	REDWV14S-10S	123	RFS-12P-2-SUS304	442	RHN-38-18	1185
RED-DKOS-25/16	162	REDVDN15/10L	131	REDWV14S-12S	123	RFU 429	636	RHO-FIG-170300-1	436
RED-DKOS-25/20	162	REDVDN15/12L	131	REDWV14S-6S	123	RFU 444	636	RHO-FIG-170300-2	436
RED-DKOS-30/06	162	REDVDN15/6L	131	REDWV14S-8S	123	RFU 446	636	RHO-FIG-170305-1	436
RED-DKOS-30/08	162	REDVDN15/8L	131	REDWV15L-10L	123	RFU 452	636	RHO-FIG-170305-2	436
RED-DKOS-30/10	162	REDVDN16/10S	131	REDWV15L-12L	123	RFU 482	636	RHO-FIG-170310-1	436
RED-DKOS-30/12	162	REDVDN16/12S	131	REDWV15L-6L	123	RFU 483	636	RHO-FIG-170310-2	436
RED-DKOS-30/14	162	REDVDN16/14S	131	REDWV15L-8L	123	RGN-1/2-DN10	34	RHO-FIG-170315-1	436
RED-DKOS-30/16	162	REDVDN16/6S	131	REDWV16S-10S	123	RGN-1/2-DN12	34	RHO-FIG-170315-2	436
RED-DKOS-30/20	162	REDVDN16/8S	131	REDWV16S-12S	123	RGN-1/4-DN06	34	RHO-FIG-170320-1	436
RED-DKOS-30/25	162	REDVDN18/10L	131	REDWV16S-14S	123	RGN-10-DN06	34	RHO-FIG-170320-2	436
RED-DKOS-38/06	162	REDVDN18/12L	131	REDWV16S-6S	123	RGN-10-DN08	34	RHO-FIG-176600-1	436
RED-DKOS-38/08	162	REDVDN18/15L	131	REDWV16S-8S	123	RGN-12-DN06	34	RHO-FIG-176600-2	436
RED-DKOS-38/10	162	REDVDN18/6L	131	REDWV18L-10L	123	RGN-12-DN08	34	RHO-FIG-176605-1	436
RED-DKOS-38/12	162	REDVDN18/8L	131	REDWV18L-12L	123	RGN-14-DN06	34	RHO-FIG-176610-1	436
RED-DKOS-38/14	162	REDVDN20/10S	131	REDWV18L-15L	123	RGN-14-DN08	34	RHO-FIG-176610-2	436
RED-DKOS-38/16	162	REDVDN20/12S	131	REDWV18L-6L	123	RGN-14-DN10	34	RHO-FIG-176615-1	436
RED-DKOS-38/20	162	REDVDN20/14S	131	REDWV18L-8L	123	RGN-16-DN08	34	RHO-FIG-176615-2	436
RED-DKOS-38/25	162	REDVDN20/16S	131	REDWV20S-10S	123	RGN-16-DN10	34	RHO-FIG-176615-3	436
RED-DKOS-38/30	162	REDVDN20/6S	131	REDWV20S-12S	123	RGN-16-DN12	34	RHO-FIG-176620-1	436
REDR1/2X1	122	REDVDN20/8S	131	REDWV20S-14S	123	RGN-18-DN10	34	RHO-FIG-176620-2	436
REDR1/2X1/4	122	REDVDN22/10L	131	REDWV20S-16S	123	RGN-18-DN12	34	RHO-FIS-140300-1	436
REDR1/2X1/8	122	REDVDN22/12L	131	REDWV20S-6S	123	RGN-22-DN12	34	RHO-FIS-140305-1	436
REDR1/2X3/4	122	REDVDN22/15L	131	REDWV20S-8S	123	RGN-22-DN16	34	RHO-FIS-140305-2	436
REDR1/2X3/8	122	REDVDN22/18L	131	REDWV22L-10L	123	RGN-26-DN19	34	RHO-FIS-140310-1	436
REDR1/4X1/2	122	REDVDN22/8L	131	REDWV22L-12L	123	RH-1	1416	RHO-FIS-140310-2	436
REDR1/4X1/8	122	REDVDN25/10S	131	REDWV22L-15L	123	RH-112	1416	RHO-FIS-140315-1	436
REDR1/4X3/4	122	REDVDN25/12S	131	REDWV22L-18L	123	RH-114	1416	RHO-FIS-140320-1	436
REDR1/4X3/8	122	REDVDN25/14S	131	REDWV22L-8L	123	RH-118	1416	RHO-FIS-146410-1	436
REDR1/8X1/4	122	REDVDN25/16S	131	REDWV25S-10S	123	RH-1316	1416	RHO-FIS-146510-1	436
REDR1/8X3/8	122	REDVDN25/20S	131	REDWV25S-12S	123	RH-134	1416	RHO-FIS-146510-2	436
REDR11/2X1	122	REDVDN25/8S	131	REDWV25S-14S	123	RH-138	1416	RHO-FIS-146515-2	436
REDR11/2X1/2	122	REDVDN28/10L	131	REDWV25S-16S	123	RH-158	1416	RJ-14	1224
REDR11/2X11/4	122	REDVDN28/12L	131	REDWV25S-20S	123	RH-178	1416	RJTA1	1194

RJTA112	1194	RK33/42	1172	RM/28010/M/10	474	RM/92063/M/40	534	RM2306E	837
RJTA3	1194	RK33/42K	1172	RM/28010/M/25	474	RM/92080/M/25	534	RM2308E	837
RJTBL1	1194	RK33/50K	1172	RM/28010/M/50	474	RM/92080/M/40	534	RON-106	200
RJTBL112	1194	RK33/55K	1172	RM/28020/M/10	474	RM/92080/M/50	534	RON-106.4	200
RJTBL2	1194	RK42/50	1172	RM/28020/M/25	474	RM/92080/M/60	534	RON-108	200
RJTBL212	1194	RK42/55	1172	RM/28020/M/50	474	RM/92080/M/80	534	RON-208	200
RJTBL3	1194	RK42/55K	1172	RM/28025/M/10	474	RM/92100/M/30	534	RON-209.5	200
RJTD2	1194	RK50/55	1172	RM/28025/M/25	474	RM/92100/M/50	534	RON-210	200
RJTHL1	1194	RK50/55K	1172	RM/28025/M/50	474	RM/925/100	506	RON-212	200
RJTHL112	1194	RL05/05	1171	RM/8010/M/100	474	RM/925/150	506	RON-212.7	200
RJTHL2	1194	RL05/05X	1171	RM/8010/M/25	474	RM/925/75	506	RON-312	200
RJTHL212	1194	RL05/10	1171	RM/8010/M/50	474	RM/930/100	506	RON-312.7	200
RJTHL3	1194	RL10/10	1171	RM/8010/M/80	474	RM/930/150	506	RON-313.5	200
RJTN1	1194	RL10/10K	1171	RM/8012/M/25	474	RM/930/300	506	RON-314	200
RJTN112	1194	RL10/10KN	1171	RM/8012/M/50	474	RM/930/75	506	RON-315	200
RJTN2	1194	RL10/10N	1171	RM/8016/M/100	474	RM/940/100	506	RON-316	200
RJTN3	1194	RL10/10X	1171	RM/8016/M/25	474	RM/940/150	506	RON-414	200
RJTRWL2112	1194	RL10/10Y	1171	RM/8016/M/50	474	RM/940/300	506	RON-415	200
RJTS1	1194	RL10/13	1171	RM/8020/M/100	474	RM010411	836	RON-416	200
RJTS112	1194	RL10/13K	1171	RM/8020/M/25	474	RM0104M5	836	RON-417.2	200
RJTS2	1194	RL10/17	1171	RM/8020/M/50	474	RM010511	836	RON-418	200
RJTS3	1194	RL10/17K	1171	RM/8020/M/80	474	RM010512	836	RON-419	200
RJF-SPANNER-1.0	1192	RL13/13	1171	RM/8025/M/100	474	RM010611	836	RON-420	200
RJF-SPANNER-1.5	1192	RL13/13K	1171	RM/8025/M/25	474	RM010612	836	RON-421.3	200
RJF-SPANNER-2	1192	RL13/13KN	1171	RM/8025/M/50	474	RM0106M5	836	RON-422	200
RJF-SPANNER-2.5	1192	RL13/13N	1171	RM/8025/M/80	474	RM010811	836	ROND-106	200
RJF-SPANNER-3	1192	RL13/13X	1171	RM/91032/M/25	534	RM010812	836	ROND-106.4	200
RJF-SPANNER-4	1192	RL13/13Y	1171	RM/91040/M/25	534	RM010813	836	ROND-108	200
RJTWL1	1194	RL13/17	1171	RM/92012/M/10	534	RM011012	836	ROND-208	200
RJTWL112	1194	RL13/17K	1171	RM/92016/M/10	534	RM011013	836	ROND-209.5	200
RJTWL2	1194	RL13/21	1171	RM/92016/M/15	534	RM011014	836	ROND-210	200
RJTWL212	1194	RL13/21K	1171	RM/92016/M/20	534	RM011213	836	ROND-212	200
RJTWL3	1194	RL17/17	1171	RM/92020/M/10	534	RM011214	836	ROND-212.7	200
RJTWM1	1194	RL17/17K	1171	RM/92020/M/15	534	RM050411	837	ROND-310	200
RJTWM112	1194	RL17/17KN	1171	RM/92020/M/25	534	RM050412	837	ROND-312	200
RJTWM2	1194	RL17/17N	1171	RM/92020/M/30	534	RM0504M5	837	ROND-312.7	200
RJTWM3	1194	RL17/17X	1171	RM/92020/M/40	534	RM050512	837	ROND-313.5	200
RK05/10	1172	RL17/21	1171	RM/92020/M/50	534	RM050611	837	ROND-314	200
RK05/10K	1172	RL17/21K	1171	RM/92025/M/10	534	RM050612	837	ROND-315	200
RK05/13	1172	RL17/26	1171	RM/92025/M/20	534	RM0506M5	837	ROND-316	200
RK10/13	1172	RL17/26K	1171	RM/92025/M/25	534	RM051013	837	ROND-414	200
RK10/13K	1172	RL21/21	1171	RM/92025/M/30	534	RM051014	837	ROND-415	200
RK10/17	1172	RL21/21K	1171	RM/92025/M/40	534	RM051213	837	ROND-416	200
RK10/17K	1172	RL21/21N	1171	RM/92025/M/50	534	RM070612	837	ROND-417.2	200
RK10/21	1172	RL21/21X	1171	RM/92032/M/10	534	RM090412	838	ROND-418	200
RK10/21K	1172	RL21/26	1171	RM/92032/M/15	534	RM0904M5	838	ROND-419	200
RK13/17	1172	RL21/26K	1171	RM/92032/M/20	534	RM0905M5	838	ROND-420	200
RK13/17K	1172	RL21/33	1171	RM/92032/M/25	534	RM090611	838	ROND-421.3	200
RK13/21	1172	RL21/33K	1171	RM/92032/M/30	534	RM090612	838	ROND-422	200
RK13/21K	1172	RL26/26	1171	RM/92032/M/40	534	RM0906M5	838	ROP-106	200
RK13/26	1172	RL26/26K	1171	RM/92032/M/50	534	RM090811	838	ROP-106.4	200
RK13/26K	1172	RL26/26X	1171	RM/92032/M/60	534	RM090812	838	ROP-108	200
RK13/33K	1172	RL26/33	1171	RM/92032/M/80	534	RM091013	838	ROP-208	200
RK17/21	1172	RL26/33K	1171	RM/92040/M/10	534	RM091213	838	ROP-209.5	200
RK17/21K	1172	RL33/33	1171	RM/92040/M/20	534	RM091214	838	ROP-210	200
RK17/26	1172	RL33/33K	1171	RM/92040/M/25	534	RM100611	839	ROP-212	200
RK17/26K	1172	RL33/33X	1171	RM/92040/M/30	534	RM100612	839	ROP-212.7	200
RK17/33	1172	RLC125/130	1548	RM/92040/M/5	534	RM150411E	838	ROP-310	200
RK17/33K	1172	RLC148/152	1548	RM/92040/M/50	534	RM150511E	838	ROP-312	200
RK1C	883	RLD-12	255	RM/92050/M/10	534	RM150811E	838	ROP-312.7	200
RK21/26	1172	RLD-16	255	RM/92050/M/100	534	RM151013E	838	ROP-313.5	200
RK21/26K	1172	RLD-20	255	RM/92050/M/20	534	RM151214E	838	ROP-314	200
RK21/33	1172	RLD-24	255	RM/92050/M/25	534	RM1611	838	ROP-315	200
RK21/33K	1172	RLD-32	255	RM/92050/M/30	534	RM1614	838	ROP-316	200
RK21/42K	1172	RLD-40	255	RM/92050/M/40	534	RM1711	838	ROP-415	200
RK26/33	1172	RLD-48	255	RM/92050/M/50	534	RM1712	838	ROP-416	200
RK26/33K	1172	RLP-16	198	RM/92063/M/15	534	RM1713	838	ROP-417.2	200
RK26/42K	1172	RLP-22	198	RM/92063/M/25	534	RM1714	838	ROP-418	200

ROP-419	200	RPG208STZ00	1052	RS13-112114-ABS	1097	RSO-9063-UPVC	1101	RT/57232/M/80	541
ROP-420	200	RPG209STK00	1052	RS13-1141-ABS	1097	RSO-9075-UPVC	1101	RT/57240/M/100	541
ROP-421.3	200	RPG210STJ00	1052	RS13-1141-UPVC	1108	RSWV10LM	126	RT/57240/M/50	541
ROP-422	200	RPVC1	1404	RS13-134-ABS	1097	RSWV10LR	126	RT/57240/M/80	541
ROPD-106	200	RPVC1-100	1405	RS13-134-UPVC	1108	RSWV10SM	126	RT/57240/MF/80	541
ROPD-106.4	200	RPVC112	1404	RS13-2112-ABS	1097	RSWV10SR	126	RT12-14	1208
ROPD-108	200	RPVC112-15	1404	RS13-2112-UPVC	1108	RSWV12LM	126	RT12-38	1208
ROPD-208	200	RPVC114	1404	RS13-2122-UPVC	1108	RSWV12LM18X1.5	126	RT14-316	1208
ROPD-209.5	200	RPVC114-15	1404	RS13-3212-ABS	1097	RSWV12LR	126	RT24BK	1588
ROPD-210	200	RPVC12	1404	RS13-3212-UPVC	1108	RSWV12SM	126	RT24C	1588
ROPD-212	200	RPVC12-100	1405	RS13-3412-ABS	1097	RSWV12SR	126	RT38-14	1208
ROPD-212.7	200	RPVC12-15	1404	RS13-3412-UPVC	1108	RSWV14SM	126	RT38-516	1208
ROPD-310	200	RPVC12B	1404	RS13-43-ABS	1097	RSWV14SR	126	RT516-14	1208
ROPD-312	200	RPVC12B-100	1405	RS13-43-UPVC	1108	RSWV15LM	126	RTDH-1-10	1622
ROPD-312.7	200	RPVC12G	1404	RS-14	630	RSWV15LR	126	RTDH-1-12	1622
ROPD-313.5	200	RPVC12N	1404	RS-18	630	RSWV16SM	126	RTDH-1-3	1622
ROPD-314	200	RPVC12N-100	1405	RS-38	630	RSWV16SR	126	RTDH-1-4	1622
ROPD-315	200	RPVC12R	1404	RSG-10	48	RSWV18LM	126	RTDH-1-5	1622
ROPD-316	200	RPVC12R-100	1405	RSG-12	48	RSWV18LR	126	RTDH-1-6	1622
ROPD-414	200	RPVC12Y	1404	RSG-16	48	RSWV20SM	126	RTDH-1-8	1622
ROPD-415	200	RPVC12Y-100	1405	RSG-20	48	RSWV20SR	126	RTDH-34-3	1622
ROPD-416	200	RPVC14	1404	RSG-25	48	RSWV22LM	126	RTDH-34-4	1622
ROPD-417.2	200	RPVC14-100	1405	RSG-32	48	RSWV22LR	126	RTDH-34-5	1622
ROPD-418	200	RPVC14B	1404	RSG-42	48	RSWV25SM	126	RTDH-34-6	1622
ROPD-419	200	RPVC14B-100	1405	RSG-50	48	RSWV25SR	126	RTH-3/4-15M	1413
ROPD-420	200	RPVC14G	1404	RSG-60	48	RSWV28LM	126	RTH-3/4-15SAFETY	1413
ROPD-421.3	200	RPVC14G-100	1405	RSJ-1	1482	RSWV28LR	126	RU0404FSS	41
ROPD-422	200	RPVC14N	1404	RSJ-3/4	1482	RSWV30SM	126	RU0606FSS	41
ROV-10L	158	RPVC14N-100	1405	RSJN-2-045	1674	RSWV30SR	126	RU0808FSS	41
ROV-10S	158	RPVC14R	1404	RSJN-2-050	1674	RSWV35LM	126	RU-1000-500	168
ROV-12L	158	RPVC14R-100	1405	RSJN-2-055	1674	RSWV35LR	126	RU-1000-750	168
ROV-12S	158	RPVC14Y	1404	RSJN-4-045	1674	RSWV38SM	126	RU-10-6	175
ROV-14S	158	RPVC14Y-100	1405	RSJN-4-050	1674	RSWV38SR	126	RU-10-8	175
ROV-15L	158	RPVC1N	1404	RSJN-4-055	1674	RSWV42LM	126	RU-12-10	175
ROV-16S	158	RPVC2	1404	RSJN-6-045	1674	RSWV42LR	126	RU-12-6	175
ROV-18L	158	RPVC2-15	1404	RSJN-6-050	1674	RSWV6LM	126	RU-12-8	175
ROV-20S	158	RPVC316	1404	RSMC16	460	RSWV6LR	126	RU-16-10	175
ROV-22L	158	RPVC316N	1404	RSMC20	460	RSWV6SM	126	RU-16-12	175
ROV-25S	158	RPVC34	1404	RSMC25	460	RSWV6SR	126	RU1616FSS	41
ROV-28L	158	RPVC34-100	1405	RSO-11050-UPVC	1101	RSWV8LM	126	RU-18-12	175
ROV-30S	158	RPVC34-15	1404	RSO-11063-UPVC	1101	RSWV8LR	126	RU-187-125	168
ROV-35L	158	RPVC34B	1404	RSO-11075-UPVC	1101	RSWV8SM	126	RU-203010.05	1561
ROV-38S	158	RPVC34N	1404	RSO-11090-UPVC	1101	RSWV8SR	126	RU-203012.10	1561
ROV-42L	158	RPVC34R	1404	RSO-125110-UPVC	1101	RT/57116/M/25	541	RU-250-125	168
ROV-6L	158	RPVC38	1404	RSO-12590-UPVC	1101	RT/57116/MC/25	541	RU-250-187	168
ROV-6S	158	RPVC38-100	1405	RSO-140110-UPVC	1101	RT/57120/M/25	541	RU-25-18	175
ROV-8L	158	RPVC38B	1404	RSO-140125-UPVC	1101	RT/57125/M/25	541	RU-25-20	175
ROV-8S	158	RPVC38B-100	1405	RSO-14090-UPVC	1101	RT/57125/M/50	541	RU-2901.5	1561
RPC-1000-500	171	RPVC38G	1404	RSO-160110-UPVC	1101	RT/57132/M/50	541	RU-312-125	168
RPC-1000-750	171	RPVC38N	1404	RSO-160140-UPVC	1101	RT/57140/M/50	541	RU-312-250	168
RPC-10-6	177	RPVC38N-100	1405	RSO-2016-UPVC	1101	RT/57216/M/25	541	RU-375-125	168
RPC-10-8	177	RPVC38R	1404	RSO-2516-UPVC	1101	RT/57216/M/80	541	RU-375-250	168
RPC-12-10	177	RPVC38R-100	1405	RSO-2520-UPVC	1101	RT/57216/MF/10	541	RU-375-312	168
RPC-12-6	177	RPVC38Y	1404	RSO-3220-UPVC	1101	RT/57220/M/10	541	RU-500-125	168
RPC-12-8	177	RPVC38Y-100	1405	RSO-3225-UPVC	1101	RT/57220/M/100	541	RU-500-250	168
RPC-16-12	177	RPVC516	1404	RSO-4020-UPVC	1101	RT/57220/M/25	541	RU-500-375	168
RPC-250-125	171	RPVC516-100	1405	RSO-4025-UPVC	1101	RT/57220/MF/50	541	RU-625-375	168
RPC-375-125	171	RPVC516B	1404	RSO-4032-UPVC	1101	RT/57225/M/100	541	RU-625-500	168
RPC-375-250	171	RPVC516B-100	1405	RSO-5025-UPVC	1101	RT/57225/M/160	541	RU-6-3	175
RPC-500-250	171	RPVC516G	1404	RSO-5032-UPVC	1101	RT/57225/M/25	541	RU-6-4	175
RPC-6-3	177	RPVC516N	1404	RSO-5040-UPVC	1101	RT/57225/M/50	541	RU-750-250	168
RPC-750-500	171	RPVC516N-100	1405	RSO-6340-UPVC	1101	RT/57225/M/80	541	RU-750-375	168
RPC-8-6	177	RPVC516R	1404	RSO-6350-UPVC	1101	RT/57225/MF/25	541	RU-750-500	168
RPG205CTW00	1052	RPVC516R-100	1405	RSO-7540-UPVC	1101	RT/57225/MF/50	541	RU-750-625	168
RPG205STW00	1052	RPVC58	1404	RSO-7550-UPVC	1101	RT/57232/M/100	541	RU-8-6	175
RPG206CTX00	1052	RPVC58N	1404	RSO-7563-UPVC	1101	RT/57232/M/160	541	RUB14-25	1414
RPG206STX00	1052	RS-12	630	RSO-9040-UPVC	1101	RT/57232/M/25	541	RUB14-25ASG	1414
RPG207STY00	1052	RS13-112112-UPVC	1108	RSO-9050-UPVC	1101	RT/57232/M/50	541	RUB14-25BG5	1414

RUB14-50	1414	RUS-1611	1568	RUS-3380-2.5L	1567	RUS-7379	1566	RV-38S-24RG	158
RUB14-50ASG	1414	RUS-1612	1568	RUS-3410	1564	RUS-7379-2.5L	1566	RV42L	136
RUB38-25	1414	RUS-1613	1568	RUS-3478	1564	RUS-7381	1566	RV-42L-24RG	158
RUB38-25ASG	1414	RUS-1615	1568	RUS-3490	1564	RUS-7381-2.5L	1566	RV6L	136
RUB38-25BG5	1414	RUS-1617	1568	RUS-5150.1	1561	RUS-7382	1566	RV-6L-2RG	158
RUB38-25BG718	1414	RUS-2111	1564	RUS-5150.2	1561	RUS-7382-2.5L	1566	RV6S	136
RUB38-50	1414	RUS-2114	1565	RUS-5180.2.5	1561	RUS-7384-2.5L	1567	RV-6S-2RG	158
RUB38-50BG5	1414	RUS-2115	1564	RUS-5180.5.0	1561	RUS-7386	1566	RV8L	136
RUB38-50BG718	1414	RUS-2116	1564	RUS-5410.25	1561	RUS-7386-2.5L	1566	RV-8L-4RG	158
RUBLS-100/120	198	RUS-2117	1563	RUS-6136.5	1562	RUS-7388	1567	RV8S	136
RUBLS-125/148	198	RUS-2120	1563	RUS-6143.5	1562	RUS-7388-2.5L	1567	RV-8S-4RG	158
RUBLS-15/24	198	RUS-2123	1565	RUS-6168.5	1562	RUS-7390-2.5L	1567	RVV10LRWD	136
RUBLS-20/30	198	RUS-2124	1565	RUS-6181.5	1562	RUS-7392	1566	RVV10SRWD	136
RUBLS-25/38	198	RUS-2125	1565	RUS-6183.5	1562	RUS-7392-2.5L	1566	RVV12LRWD	136
RUBLS-32/46	198	RUS-2126	1565	RUS-6192.5	1562	RUS-7394-2.5L	1567	RVV12SRWD	136
RUBLS-50/64	198	RUS-2127	1565	RUS-7110NS	1562	RUS-7715	1564	RVV14SRWD	136
RUBLS-65/82	198	RUS-2128	1565	RUS-7124	1562	RUS-7778	1564	RVV15LRWD	136
RUBLS-80/94	198	RUS-2133	1565	RUS-7137	1562	RUS-AAR5	1562	RVV16SRWD	136
RUBLZ-100/120	198	RUS-2134	1565	RUS-7144	1562	RUS-AFP5BLU	1562	RVV18LRWD	136
RUBLZ-125/148	198	RUS-2135	1565	RUS-7144NS	1562	RUS-AFP5BUF	1562	RVV20SRWD	136
RUBLZ-20/30	198	RUS-2136	1565	RUS-7168	1562	RUS-AFP5DGY	1562	RVV22LRWD	136
RUBLZ-32/46	198	RUS-2137	1565	RUS-7179	1562	RUS-AFP5GRN	1562	RVV25SRWD	136
RUBLZ-50/64	198	RUS-2138	1565	RUS-7179NS	1562	RUS-AFP5LGY	1562	RVV28LRWD	136
RUBLZ-65/82	198	RUS-2141	1565	RUS-7181	1562	RUS-AFP5MGY	1562	RVV30SRWD	136
RUBLZ-80/94	198	RUS-2142	1565	RUS-7181NS	1562	RUS-AFP5WHI	1562	RVV35LRWD	136
RUBS-100/120	198	RUS-2143	1565	RUS-7182NS	1562	RUS-AXPSP25	1561	RVV38SRWD	136
RUBS-125/148	198	RUS-2144	1565	RUS-7192	1562	RUS-AXSS25	1561	RVV42LRWD	136
RUBS-15/24	198	RUS-2145	1565	RUS-7301.1	1567	RUT-1000-375	170	RVV6LRWD	136
RUBS-150/176	198	RUS-2146	1565	RUS-7314	1566	RUT-1000-500	170	RVV6SRWD	136
RUBS-20/30	198	RUS-2147	1565	RUS-7315	1566	RUT-1000-750	170	RVV8LRWD	136
RUBS-25/38	198	RUS-2148	1565	RUS-7315-2.5L	1566	RUT-375-250	170	RVV8SRWD	136
RUBS-32/46	198	RUS-2149	1565	RUS-7321-2.5L	1567	RUT-500-250	170	RVZ10LMWD	136
RUBS-40/52	198	RUS-2151	1565	RUS-7322-2.5L	1566	RUT-500-375	170	RVZ10LRWD	136
RUBS-50/64	198	RUS-2152	1565	RUS-7323	1566	RUT-625-375	170	RVZ10SMWD	136
RUBS-65/82	198	RUS-2154	1565	RUS-7326	1566	RUT-750-375	170	RVZ10SRWD	136
RUBS-80/94	198	RUS-2163	1565	RUS-7326-2.5L	1566	RUT-750-500	170	RVZ12LMWD	136
RUBZ-100/120	198	RUS-2165	1565	RUS-7328	1566	RV06/180	244	RVZ12LRWD	136
RUBZ-15/24	198	RUS-2166	1565	RUS-7328-2.5L	1566	RV08/180	244	RVZ12SMWD	136
RUBZ-150/176	198	RUS-2169	1563	RUS-7329	1566	RV10L	136	RVZ12SRWD	136
RUBZ-175/202	198	RUS-2174	1565	RUS-7332-2.5L	1567	RV-10L-4RG	158	RVZ14SMWD	136
RUBZ-20/30	198	RUS-2176	1565	RUS-7335-2.5L	1566	RV10S	136	RVZ14SRWD	136
RUBZ-25/38	198	RUS-2178	1565	RUS-7336-2.5L	1566	RV-10S-4RG	158	RVZ15LMWD	136
RUBZ-250/282	198	RUS-2179	1565	RUS-7337-2.5L	1566	RV12/180	244	RVZ15LRWD	136
RUBZ-32/46	198	RUS-2180	1563	RUS-7338	1567	RV12L	136	RVZ16SMWD	136
RUBZ-40/52	198	RUS-2181	1565	RUS-7339	1566	RV-12L-6RG	158	RVZ16SRWD	136
RUBZ-50/64	198	RUS-2182	1563	RUS-7342	1566	RV12S	136	RVZ18LMWD	136
RUBZ-65/82	198	RUS-2184	1565	RUS-7342-2.5L	1566	RV-12S-6RG	158	RVZ18LRWD	136
RUBZ-80/94	198	RUS-2185	1563	RUS-7343	1566	RV14S	136	RVZ20SMWD	136
RUE-1000-500	170	RUS-2186	1565	RUS-7345	1567	RV-14S-8RG	158	RVZ20SRWD	136
RUE-1000-750	170	RUS-2187	1565	RUS-7346-2.5L	1566	RV15L	136	RVZ22LMWD	136
RUE-187-125	170	RUS-2189	1565	RUS-7348	1566	RV-15L-8RG	158	RVZ22LRWD	136
RUE-250-125	170	RUS-2190	1565	RUS-7348-2.5L	1566	RV16S	136	RVZ25SMWD	136
RUE-312-125	170	RUS-2192	1565	RUS-7349	1566	RV-16S-8RG	158	RVZ25SRWD	136
RUE-312-250	170	RUS-2193	1565	RUS-7349-2.5L	1566	RV18L	136	RVZ28LMWD	136
RUE-375-125	170	RUS-2194	1565	RUS-7354-2.5L	1566	RV-18L-8RG	158	RVZ28LRWD	136
RUE-375-250	170	RUS-2222	1564	RUS-7362	1567	RV20S	136	RVZ30SMWD	136
RUE-375-312	170	RUS-2242	1564	RUS-7365	1566	RV-20S-12RG	158	RVZ30SRWD	136
RUE-500-250	170	RUS-2255	1564	RUS-7365-2.5L	1566	RV22L	136	RVZ35LMWD	136
RUE-500-312	170	RUS-2264	1564	RUS-7366	1566	RV-22L-12RG	158	RVZ35LRWD	136
RUE-500-375	170	RUS-2358	1564	RUS-7366-2.5L	1566	RV25S	136	RVZ38SMWD	136
RUE-625-375	170	RUS-2391	1564	RUS-7374	1567	RV-25S-16RG	158	RVZ38SRWD	136
RUE-625-500	170	RUS-2410	1564	RUS-7375	1567	RV28L	136	RVZ42LMWD	136
RUE-750-250	170	RUS-2444	1564	RUS-7375-2.5L	1567	RV-28L-16RG	158	RVZ42LRWD	136
RUE-750-375	170	RUS-2479	1564	RUS-7376-2.5L	1567	RV30S	136	RVZ6LMWD	136
RUE-750-500	170	RUS-2500	1565	RUS-7377	1566	RV-30S-20RG	158	RVZ6LRWD	136
RUE-875-250	170	RUS-3369	1567	RUS-7377-2.5L	1566	RV35L	136	RVZ6SRWD	136
RUS-1017.1	1563	RUS-3369-2.5L	1567	RUS-7378	1567	RV-35L-20RG	158	RVZ8LMWD	136
RUS-1085.1	1563	RUS-3380	1567	RUS-7378-2.5L	1567	RV38S	136	RVZ8LRWD	136

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RZ-10S-4RG	158	S140 2019D4 12	1011	S20 2014LA 09	1014	S300 2014LA 16	1014	S55 2012ND-212	1008
RZ-12L-6RG	158	S140 2057CBL-3	1010	S20 2014LA 10	1014	S300 2014LB 16	1014	S55 2013CD-212	1010
RZ-12S-6RG	158	S140 2057CBL-4	1010	S20 2014LB 08	1014	S300 2014WA 16	1013	S55 2013CD-3	1010
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RZ-15L-8RG	158	S140 2057CBT-4	1010	S20 2014LB 10	1014	S300 2014WC 16	1013	S55 2013KMD-2C	1009
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RZ-18L-8RG	158	S140 2059DT16 10	1012	S20 2014WA 09	1013	S300 2059DL16 11	1012	S55 2013ND-212	1008
RZ-20S-12RG	158	S20 1070-1	1007	S20 2014WA 10	1013	S300 2059DL16 12	1012	S55 2014LA 12	1014
RZ-22L-12RG	158	S20 1070-114	1007	S20 2014WB 08	1013	S300 2059DT16 11	1012	S55 2014LB 12	1014
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RZ-6L-2RG	158	S20 1071-12	1007	S20 2019D 04C	1011	S35 2012CD-2	1010	S55 2019D 11	1011
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RZ-8L-4RG	158	S20 1071-34	1007	S20 2019D 05C	1011	S35 2012ND-112	1008	S55 2019D4 10	1011
RZ-8S-4RG	158	S20 1071-38	1007	S20 2019D 06	1011	S35 2013CD-2	1010	S55 2019D4 11	1011
RZMB0402BS	67	S20 150HIT 04	1012	S20 2019D 06C	1011	S35 2013KMD-112	1009	S55 2020D 10	1011
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S 160 200	511	S20 2011KMD-114	1009	S20 2040-12	1009	S35 2019D 09C	1011	S604050MY	904
S 22	1476	S20 2011KMD-12	1009	S20 2040-14	1009	S35 2020D 08	1011	S6430 10 1/4	871
S 32	511	S20 2011KMD-34	1009	S20 2040-34	1009	S35 2020D 08C	1011	S6430 10 3/8	871
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S6520 4 1/8	870	SA2	1480	SB-04B	261	SBC4447	1523	SCR-5	1514
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SE-150-25-20	256	SEE22500P	444	SEE29700	443	SEE84500	443	SEE95300	444
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SE-2	1183	SEE22550P12	444	SEE29850	443	SEE84650	443	SEE95400	444
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SEHC7	1536	SF75-UPVC	1105	SFI38-2	30	SFPTFE-12	29	SFS6-2-45-DN38	36
SEHC8	1536	SF90-UPVC	1105	SFI51-2	30	SFPTFE-16	29	SFS6-2-45-DN51	36
SEHC8.7	1536	SFB-3-40	261	SFL3-1/2-45-DN12	36	SFPTFE-20	29	SFS6-2-90-DN38	36
SEHC9.5	1536	SFB-6-40	261	SFL3-1/2-45-DN16	36	SFPTFE-25	29	SFS6-2-90-DN51	36
SEI05-14	30	SFB-6-40-HN	261	SFL3-1/2-90-DN12	36	SFR1-05	29	SFS6-2-DN38	36
SEI05-18	30	SFB-6-40-SM	261	SFL3-1/2-90-DN16	36	SFR1-06	29	SFS6-2-DN51	36
SEI06-14	30	SFBV-1	941	SFL3-1/2-DN12	36	SFR1-06SC	29	SFS6-3/4-45-DN12	36
SEI06-18	30	SFBV-112	941	SFL3-1/2-DN16	36	SFR1-08	29	SFS6-3/4-45-DN16	36
SEI06-38	30	SFBV-114	941	SFL3-11/2-DN31	36	SFR1-08SC	29	SFS6-3/4-45-DN19	36
SEI08-14	30	SFBV-12	941	SFL3-11/2-DN38	36	SFR1-10	29	SFS6-3/4-90-DN12	36
SEI08-38	30	SFBV-2	941	SFL3-11/4-DN25	36	SFR1-10SC	29	SFS6-3/4-90-DN16	36
SEI10-12	30	SFBV-34	941	SFL3-11/4-DN31	36	SFR1-12	29	SFS6-3/4-90-DN19	36
SEI10-14	30	SFBVT-1	941	SFL3-112-45-DN31	36	SFR1-12SC	29	SFS6-3/4-DN12	36
SEI10-38	30	SFBVT-12	941	SFL3-112-45-DN38	36	SFR1-16	29	SFS6-3/4-DN16	36
SEI12-12	30	SFBVT34	941	SFL3-112-90-DN31	36	SFR1-20	29	SFS6-3/4-DN19	36
SEI12-38	30	S-FCCC404FPS502	1699	SFL3-112-90-DN38	36	SFR1-25	29	SFT	1748
SEI12-58	30	S-FCDC404FPS503	1699	SFL3-114-45-DN25	36	SFR1-31	29	SG01L	1715
SEI16-12	30	SFD0610	246	SFL3-114-45-DN31	36	SFR1-38	29	SG01P	1715
SEI16-34	30	SFD0620	246	SFL3-114-90-DN25	36	SFR1-51	29	SG02L	1715
SEI16-58	30	SFD0840	246	SFL3-114-90-DN31	36	SFR2-05	29	SG02P	1715
SEI20-1	30	SFD0860	246	SFL3-1-45-DN19	36	SFR2-06	29	SG-12	260
SEI20-34	30	SFG-110	1105	SFL3-1-45-DN25	36	SFR2-06SC	29	SG-16	260
SEI25-1	30	SFG-20	1105	SFL3-1-90-DN19	36	SFR2-08	29	SG-20	260
SEI25-114	30	SFG-32	1105	SFL3-1-90-DN25	36	SFR2-08SC	29	SG-24	260
SEI31-112	30	SFG-40	1105	SFL3-1-DN19	36	SFR2-10	29	SG50-112-ABS	1099
SEI31-114	30	SFG-50	1105	SFL3-1-DN25	36	SFR2-10SC	29	SG50-114-ABS	1099
SEI38-112	30	SFG-63	1105	SFL3-2-45-DN38	36	SFR2-12	29	SG50-1-ABS	1099
SEI38-2	30	SFG-75	1105	SFL3-2-45-DN51	36	SFR2-12SC	29	SG50-212-ABS	1099
SEI51-2	30	SFG-90	1105	SFL3-2-90-DN38	36	SFR2-16	29	SG50-2-ABS	1099
SEMI0	1633	SFHT10/06	1181	SFL3-2-90-DN51	36	SFR2-16SC	29	SG50-3-ABS	1099
SEMI1	1633	SFHT13/06	1181	SFL3-2-DN38	36	SFR2-20	29	SG50-4-ABS	1099
SEMI2	1633	SFHT13/09	1181	SFL3-2-DN51	36	SFR2-20SC	29	SG50-5-ABS	1099
SEMI3	1633	SFHT17/10	1181	SFL3-3/4-45-DN12	36	SFR2-25	29	SGK-30	282
SET20100	1631	SFHT21/13	1181	SFL3-3/4-45-DN16	36	SFR2-25SC	29	SGK-30-REFILL	282
SET20200	1631	SFHT26/19	1181	SFL3-3/4-45-DN19	36	SFR2-31	29	SGK-50	281
SET20250	1631	SFHT33/25	1181	SFL3-3/4-90-DN12	36	SFR2-38	29	SGK-50-REFILL	282
SET20300	1631	SFHT42/32	1181	SFL3-3/4-90-DN16	36	SFR2-51	29	SGOR-N	1477
SET20400	1631	SFHT48/38	1181	SFL3-3/4-90-DN19	36	SFR3-06	29	SGP-200	280
SF10	1172	SFHT52/51	1181	SFL3-3/4-DN12	36	SFR3-08	29	SGR-2-40	280
SF10-1	1099	SFI05-14	30	SFL3-3/4-DN16	36	SFR3-10	29	SGS-20	280
SF10-112	1099	SFI05-18	30	SFL3-3/4-DN19	36	SFR3-12	29	SH2-62	310
SF10-114	1099	SFI06-12	30	SFM512210S	883	SFR3-16	29	SH2-62-BSPP	310
SF10-12	1099	SFI06-14	30	SFM522210S	883	SFR3-20	29	SH2-63	310
SF10-2	1099	SFI06-18	30	SFM522215S	883	SFR3-25	29	SH3-62	310
SF10-212	1099	SFI06-38	30	SFMDS1-10	1428	SFS6-1/2-45-DN12	36	SH3-62-BSPP	310
SF10-3	1099	SFI08-12	30	SFMDS112-10	1428	SFS6-1/2-45-DN16	36	SH3-63	310
SF10-34	1099	SFI08-14	30	SFMDS112-30	1428	SFS6-1/2-90-DN12	36	SH4-62	310
SF10-4	1099	SFI08-38	30	SFMDS114-10	1428	SFS6-1/2-90-DN16	36	SH4-62-BSPP	310
SF10-6	1099	SFI10-12	30	SFMDS114-30	1428	SFS6-1/2-DN12	36	SH4-63	310
SF-110-UPVC	1105	SFI10-14	30	SFMDS1-30	1428	SFS6-1/2-DN16	36	SH6-62	310
SF13	1172	SFI10-38	30	SFMDS2-10	1428	SFS6-11/2-DN31	36	SH6-62-BSPP	310
SF16-1	1099	SFI12-12	30	SFMDS212-10	1428	SFS6-11/2-DN38	36	SH6-63	310
SF16-112	1099	SFI12-38	30	SFMDS212-30	1428	SFS6-11/4-DN25	36	SH8-62	310
SF16-114	1099	SFI12-58	30	SFMDS2-30	1428	SFS6-11/4-DN31	36	SH8-62-BSPP	310
SF16-12	1099	SFI16-12	30	SFMDS3-10	1428	SFS6-112-45-DN31	36	SH8-63	310
SF16-2	1099	SFI16-34	30	SFMDS312-10	1428	SFS6-112-45-DN38	36	SHBPT50X66	1589
SF16-3	1099	SFI16-58	30	SFMDS312-30	1428	SFS6-112-90-DN31	36	SHBPT50X66BOX	1589
SF16-34	1099	SFI20-1	30	SFMDS3-30	1428	SFS6-112-90-DN38	36	SHBTB/Y-75X500	1589
SF16-4	1099	SFI20-114	30	SFMDS34-10	1428	SFS6-114-45-DN25	36	SHBTR/W-75X500	1589
SF16-6	1099	SFI20-12	30	SFMDS34-30	1428	SFS6-114-45-DN31	36	SHC104-112	1515
SF17	1172	SFI20-34	30	SFMDS4-10	1428	SFS6-114-90-DN25	36	SHC113-121	1515
SF-20-UPVC	1105	SFI25-1	30	SFMDS4-30	1428	SFS6-114-90-DN31	36	SHC122-130	1515
SF21	1172	SFI25-114	30	SFMDS6-10	1428	SFS6-1-45-DN19	36	SHC131-139	1515
SF-25-UPVC	1105	SFI25-34	30	SFMDS6-30	1428	SFS6-1-45-DN25	36	SHC140-148	1515
SF-32-UPVC	1105	SFI31-1	30	SFPTFE-05	29	SFS6-1-90-DN19	36	SHC149-161	1515

SHC162-174	1515	SHM-10	1497	SIL-362	1612	SKA-2014	156	SLS250	630
SHC17-19	1515	SHM-112	1497	SIL-364	1612	SKA-2015	156	SMF04U/02	1645
SHC175-187	1515	SHM-114	1497	SIL-366	1612	SKA-2016	156	SMFM6/02	1645
SHC188-200	1515	SHM-12	1497	SIL-392	1612	SKA-2515	156	SMFM8/02	1645
SHC201-213	1515	SHM-2	1497	SIL-394	1612	SKA-2517	156	SMH01-01	1146
SHC20-22	1515	SHM-212	1497	SIL-396	1612	SKA-2519	156	SMH12-12	1146
SHC214-226	1515	SHM-3	1497	SIL-5001	1608	SKAR-10-6	156	SMH12-34	1146
SHC227-239	1515	SHM-34	1497	SIL-5003	1608	SKAR-10-8	156	SMH12-38	1146
SHC23-25	1515	SHM-38	1497	SIL-500-L	1608	SKAR-12-10	156	SMH14-12	1146
SHC240-252	1515	SHM-4	1497	SIL-500-L-1000	1608	SKAR-12-8	156	SMH14-38	1146
SHC26-28	1515	SHM-5	1497	SIL-500-L-250	1608	SKAR-16-12	156	SMH18-14	1146
SHC29-31	1515	SHM-6	1497	SIL-500-L-800	1608	SKAR-20-12	156	SMH34-12	1146
SHC32-35	1515	SHM-8	1497	SIL-500-Z	1607	SKAR-20-16	156	SMH34-34	1146
SHC36-39	1515	SHMT25X50	1589	SIL-500-Z-250	1607	SKAR-25-15	156	SMH38-14	1146
SHC40-43	1515	SHMT50X50	1589	SIL-500-Z-400	1607	SKAR-25-16	156	SMI05-14	30
SHC44-47	1515	SHOT3101	1483	SIL-500-Z-600	1607	SKAR-25-20	156	SMI06-12	30
SHC48-51	1515	SHOT3102	1483	SIL-500-Z-800	1607	SKB13	1477	SMI06-14	30
SHC52-55	1515	SHOT3103	1483	SIL-501-L	1608	SKB19	1477	SMI06-18	30
SHC56-59	1515	SHOT3104	1483	SIL-511	1608	SKB25	1477	SMI06-38	30
SHC60-63	1515	SHOT3110	1483	SIL-512	1608	SKG10	1477	SMI08-12	30
SHC64-67	1515	SHOT3111	1483	SIL-5920	1608	SKG13	1477	SMI08-14	30
SHC68-73	1515	SHOTCFP	1483	SIL-705	1612	SKG15	1477	SMI08-38	30
SHC74-79	1515	SHOTCQP1	1483	SIL-755-L	1608	SKG19	1477	SMI10-12	30
SHC80-85	1515	SHOTCQP2	1483	SIL-9002WV	1612	SKG25	1477	SMI10-14	30
SHC86-91	1515	SHOTCQP4	1483	SIL-920A	1612	SKG32	1477	SMI10-38	30
SHC92-97	1515	SHOTRSDKD	1483	SIL-920B	1612	SKG6	1477	SMI12-12	30
SHC98-103	1515	SHOTRSDR2	1483	SIL-921	1612	SL 115	1476	SMI12-34	30
SHCT25X50	1589	SHOTRSDR3	1483	SIL-961	1612	SL 145	1476	SMI12-38	30
SHCT50X50	1589	SHOTS	1483	SIL-973	1612	SL 29	1476	SMI16-12	30
SHF-10	1556	SHRC04/04	1146	SIL-973F	1612	SL 34	1476	SMI16-34	30
SHF-12	1556	SHRC05/05	1146	SIL-OSH	1612	SL 400	1476	SMI16-58	30
SHF-13	1556	SHW-13	1435	SIL-PRO-ONE	1607	SL 49	1476	SMI20-1	30
SHF-14	1556	SHW-13-10	1435	SJN-2-045	1674	SL 525	1476	SMI20-34	30
SHF-15	1556	SHW-19	1435	SJN-2-050	1674	SL 550	1476	SMI25-1	30
SHF-16	1556	SHW-19-10	1435	SJN-2-055	1674	SL 600	1476	SMI25-114	30
SHF-17	1556	SHW-25	1435	SJN-4-045	1674	SL 675	1476	SMI25-34	30
SHF-18	1556	SHW-25-10	1435	SJN-4-050	1674	SL 72	1476	SMI31-112	30
SHF-19	1556	SI4	762	SJN-4-055	1674	SL 769	1476	SMI31-114	30
SHF-20	1556	SI5	762	SJN-6-045	1674	SL 875	1476	SMI38-112	30
SHF-28	1556	SI6	762	SJN-6-050	1674	SL 94	1476	SMI51-2	30
SHG100-002BG	267	SI8	762	SJN-6-055	1674	SL 988	1476	SN02/03	1144
SHG100-006BG	267	SIL007-L	1607	SK12S	384	SL-11	1672	SN04/04	1144
SHG100-016BG	267	SIL007-L-1000	1607	SK23S	384	SL-13	1672	SN04/05	1144
SHG100-040BG	267	SIL007-L-250	1607	SK29-CLAMP	1478	SL-2	1672	SN06/06	1144
SHG100-100BG	267	SIL007-L-400	1607	SK34	1480	SL-3	1672	SN08/08	1144
SHG100-250BG	267	SIL007-L-600	1607	SK34-CLAMP	1478	SL-4	1672	SN10X1.5	127
SHG100-600BG	267	SIL007-L-800	1607	SK39	1480	SL-5	1672	SN10X2	127
SHG-18	45	SIL007-Z	1607	SK44	1480	SL-7	1672	SN12/12	1144
SHG-20	45	SIL007-Z-1000	1607	SK51	1480	SL-8	1672	SN12X2.5	127
SHG-22	45	SIL007-Z-250	1607	SK60	1478	SLA0/A1	192	SN16X2	127
SHG-24	45	SIL007-Z-400	1607	SK73	1480	SLA2	192	SN16X3	127
SHG-25	45	SIL007-Z-600	1607	SKA 10	1476	SLA3	192	S-N1AT905FPS085	1701
SHG-26	45	SIL007-Z-800	1607	SKA 11	1476	SLA4	192	S-N1NN905FPS019	1700
SHG-29	45	SIL2005	1608	SKA 13	1476	SLA5	192	S-N1TT905FPS086	1701
SHG-31	45	SIL2055-A	1608	SKA 19	1476	SLA6	192	SN20X3	127
SHG-33	45	SIL2055-A-1000	1608	SKA 25	1476	SLD050	630	SN25X3	127
SHG-37	45	SIL2055-A-500	1608	SKA 34	1476	SLD075	630	SN25X4	127
SHG-41	45	SIL208	1612	SKA-106	156	SLD150	630	SN30X4	127
SHG-43	45	SIL209	1612	SKA-107	156	SLD200	630	SN30X5	127
SHG-45	45	SIL210	1612	SKA-108	156	SLE 13	1476	SN38X4	127
SHG-49	45	SIL211	1612	SKA-127	156	SLE 19	1476	SN38X5	127
SHG-51	45	SIL215	1612	SKA-128	156	SLE 25	1476	SN38X6	127
SHG-54	45	SIL216	1612	SKA-129	156	SLS050	630	S-N5AT701FPS081	1701
SHG-56	45	SIL218	1612	SKA-1610	156	SLS075	630	S-N5NT701FPS083	1701
SHG-60	45	SIL221-L	1612	SKA-1611	156	SLS100	630	S-N5NY701FPS070	1701
SHG-63	45	SIL231-L	1612	SKA-1612	156	SLS125	630	S-N7AT801FPS082	1701
SHG-70	45	SIL241-L	1612	SKA-1613	156	SLS150	630	S-N7LN701FPS044	1700
SHM-1	1497	SIL251-L	1612	SKA-2012	156	SLS200	630	S-N7NN801FPS018	1700

S-N7NT801FPS084	1701	SNV42/28L	129	SP160P	1764	SPHN4-4RP	320	SPS20-10-200	256
SN8X2	127	SNV42/35L	129	SP162P	1764	SPHN6-6RP	320	SPS20-25-150	256
SNO12JET	1495	SNV42L	128	SP-18	1185	SPHN8-8RP	320	SPS20-25-200	256
SNO34JET	1495	SNV42L/38S	129	SP-2	1185	SPLICING-KIT01	112	SPST.06202	304
SNO58JET	1495	SNV6L	128	SP-212	1185	SPLT.06002	299	SPST.06203	304
SNV10/6L	129	SNV6L/6S	129	SP24L	1764	SPLT.06003	299	SPST.13202	304
SNV10/6S	129	SNV6S	128	SP26L	1764	SPLT.13002	299	SPST.13203	304
SNV10/8L	129	SNV8/6L	129	SP-3	1185	SPLT.13003	299	SPST.20202	304
SNV10/8S	129	SNV8/6S	129	SP-34	1185	SPLT.13302	299	SPST.20203	304
SNV10L	128	SNV8L	128	SP-38	1185	SPLT.13342	299	SPST.25202	304
SNV10L/10S	129	SNV8L/8S	129	SPAV.06002	296	SPLT.20002	299	SPST.25203	304
SNV10S	128	SNV8S	128	SPAV.06003	296	SPLT.20003	299	SPST.30202	304
SNV12/10L	129	SO-110-UPVC	1101	SPAV.10002	296	SPLT.25002	299	SPST.30203	304
SNV12/10S	129	SO-125-UPVC	1101	SPAV.10003	296	SPLT.25003	299	SPST.39202	304
SNV12/6L	129	SO13-112-ABS	1097	SPAV.13002	296	SPLT.30003	299	SPST.39203	304
SNV12/6S	129	SO13-112-UPVC	1108	SPAV.13003	296	SPN0006	432	SPT100A	1636
SNV12/8L	129	SO13-114-ABS	1097	SPAV.20002	296	SPN0009	432	SPT60A	1636
SNV12/8S	129	SO13-114-UPVC	1108	SPAV.20003	296	SPN0012	432	SPT80A	1636
SNV12L	128	SO13-12-ABS	1097	SPAV.25002	296	SPN0018	432	SPU06	792
SNV12L/12S	129	SO13-12-UPVC	1108	SPAV.25003	296	SPN0024	432	SPU08	792
SNV12S	128	SO13-1-ABS	1097	SPB-08B	261	SPN0036	432	SPU10	792
SNV14S	128	SO13-1-UPVC	1108	SPB-12B	261	SPN0048	432	SPU12	792
SNV15/10L	129	SO13-212-ABS	1097	SPBV.06002	300	SPN0063	432	SPVE.20202	307
SNV15/12L	129	SO13-212-UPVC	1108	SPBV.06003	300	SPPV.13302	299	SPVE.20203	307
SNV15/8L	129	SO13-2-ABS	1097	SPBV.10002	300	SPPV.13312	299	SPVE.25202	307
SNV15L	128	SO13-2-UPVC	1108	SPBV.10003	300	SPPV.13322	299	SPVE.25203	307
SNV16/10S	129	SO13-34-ABS	1097	SPBV.13002	300	SPPV.13342	299	SPVS.06100	306
SNV16/12S	129	SO13-34-UPVC	1108	SPBV.13003	300	SPR08-10-100	256	SPVS.06101	306
SNV16S	128	SO13-3-ABS	1097	SPBV.20002	300	SPR08-10-35	256	SPVS.10100 C	306
SNV16S/15L	129	SO13-3-UPVC	1108	SPBV.20003	300	SPR08-10-70	256	SPVS.10103 C	306
SNV18/10L	129	SO13-4-ABS	1097	SPBV.25002	300	SPR08-25-100	256	SPVV.06002	304
SNV18/12L	129	SO13-4-UPVC	1108	SPBV.25003	300	SPR08-25-35	256	SPVV.06003	304
SNV18/15L	129	SO13-5-UPVC	1108	SPC06-02	792	SPR08-25-70	256	SPVV.10002	304
SNV18L	128	SO13-6-UPVC	1108	SPC08-02	792	SPR12-10-100	256	SPVV.10003	304
SNV18L/16S	129	SO13-8-UPVC	1108	SPC08-03	792	SPR12-10-35	256	SPVV.10202	304
SNV20/12S	129	SO14-1104-UPVC	1108	SP-C1	197	SPR12-10-70	256	SPVV.10203	304
SNV20/16S	129	SO14-321-UPVC	1108	SPC10-02	792	SPR12-25-100	256	SPVV.13002	304
SNV20S	128	SO14-3534-UPVC	1108	SPC10-03	792	SPR12-25-35	256	SPVV.13003	304
SNV20S/18L	129	SO14-40114-UPVC	1108	SPC10-04	792	SPR12-25-70	256	SPVV.13202	304
SNV22/12L	129	SO14-50112-UPVC	1108	SPC12-03	792	SPR16-10-100	256	SPVV.13203	304
SNV22/15L	129	SO14-632-UPVC	1108	SPC12-04	792	SPR16-10-35	256	SPVV.20002	304
SNV22L	128	SO14-903-UPVC	1108	SP-C1-SS	197	SPR16-10-70	256	SPVV.20003	304
SNV22L/20S	129	SO-160-UPVC	1101	SP-C2	197	SPR16-25-100	256	SPVV.20202	304
SNV25/16S	129	SO-16-UPVC	1101	SP-C2-SS	197	SPR16-25-35	256	SPVV.20203	304
SNV25/20S	129	SO-200-UPVC	1101	SP-C3	197	SPR16-25-70	256	SPVV.25002	304
SNV25S	128	SO-20-UPVC	1101	SP-C3-SS	197	SPR20-10-150	256	SPVV.25003	304
SNV25S/22L	129	SO-225-UPVC	1101	SP-C4	197	SPR20-10-200	256	SPVV.25202	304
SNV28/15L	129	SO-25-UPVC	1101	SP-C4-SS	197	SPR20-25-150	256	SPVV.25203	304
SNV28/18L	129	SO-32-UPVC	1101	SP-C5	197	SPR20-25-200	256	SPVV.30002	304
SNV28/22L	129	SO-40-UPVC	1101	SP-C5-SS	197	SPS08-10-100	256	SPVV.30003	304
SNV28L	128	SO-50-UPVC	1101	SP-C6-SS	197	SPS08-10-35	256	SPVV.30202	304
SNV28L/25S	129	SO-63-UPVC	1101	SP-C7-SS	197	SPS08-10-70	256	SPVV.30203	304
SNV30/16S	129	SO-75-UPVC	1101	SP-C8-SS	197	SPS08-25-100	256	SR100-05	1460
SNV30/20S	129	SO-90-UPVC	1101	SPCJ.06002	305	SPS08-25-35	256	SR100-06	1460
SNV30/25S	129	SOCV06	244	SPCJ.06003	305	SPS08-25-70	256	SR101-01	1459
SNV30S	128	SOCV08	244	SPCJ.06042	305	SPS12-10-100	256	SRAH06-10	1411
SNV30S/28L	129	SOCV12	244	SPCJ.06043	305	SPS12-10-35	256	SRAH06-15	1411
SNV35/18L	129	SOK-30	282	SPE12	1208	SPS12-10-70	256	SRAH06-20	1411
SNV35/22L	129	SOK-30-REFILL	282	SPE38	1208	SPS12-25-100	256	SRAH06-5	1411
SNV35/28L	129	SOK-50	281	SPE516	1208	SPS12-25-35	256	SRAH06X	1410
SNV35L	128	SOK-50-REFILL	282	SPHC12-12RP	320	SPS12-25-70	256	SRAH06X-100	1410
SNV35L/30S	129	SOP-200	280	SPHC4-4RP	320	SPS16-10-100	256	SRAH08-10	1411
SNV38/20S	129	SOS-20	280	SPHC6-6RP	320	SPS16-10-35	256	SRAH08-15	1411
SNV38/25S	129	SP-1	1185	SPHC8-8RP	320	SPS16-10-70	256	SRAH08-20	1411
SNV38/30S	129	SP-112	1185	SPHN12-12RP	320	SPS16-25-100	256	SRAH08-5	1411
SNV38S	128	SP-114	1185	SPHN16-16RP	320	SPS16-25-35	256	SRAH08X	1410
SNV38S/35L	129	SP-12	1185	SPHN24-24RP	320	SPS16-25-70	256	SRAH08X1/4X19-10	1411
SNV42/22L	129	SP-14	1185	SPHN32-32RP	320	SPS20-10-150	256	SRAH08X1/4X19-20	1411

SRAH08X-100	1410	SRN516	917	SS1348	1524	SS-C5	197	SSG63-400BG	267
SRAH1/2X100-10	1411	SRN58	917	SS200-24	255	SSC-5000-UPVC	1107	SSGA10	1477
SRAH1/2X100-20	1411	SRN6	917	SS200-32	255	SS-C5-SS	197	SSGA12	1477
SRAH100/13-10	1411	SRN8	917	SS21	1474	SSC6	1472	SSGA34	1477
SRAH100/13-15	1411	SR-S-06/2 K-SPH	163	SS212	1474	SS-C6	197	SSGA38	1477
SRAH100/13-20	1411	SR-S-08/2 K-SPH	163	SS234	1474	SS-C7	197	SSG110	1477
SRAH100/13-30	1411	SR-S-10/2 K-SPH	163	SS300-40	255	SSCT1	1487	SSG112	1477
SRAH10-10	1411	SR-S-12/2 K-SPH	163	SS31	1474	SSCT112	1487	SSG134	1477
SRAH10-15	1411	SR-S-16/2 K-SPH	163	SS312	1474	SSCT114	1487	SSGI38	1477
SRAH10-20	1411	SR-S-20/2 K-SPH	163	SS334	1474	SSCT2	1487	SSGN02	1643
SRAH10-5	1411	SR-S-25/2 K-SPH	163	SS4	762	SSCT212	1487	SSGN0245	1643
SRAH10X	1410	SR-S-30/2 K-SPH	163	SS400-48	255	SSCT3URT	1488	SSGN0245N	1643
SRAH10X1/4X19-10	1411	SR-S-38/2 K-SPH	163	SS5	762	SSFBA-1	1195	SSGN0290	1643
SRAH10X1/4X19-20	1411	SS020-08	255	SS6	762	SSFBA-12	1195	SSGN0290N	1643
SRAH10X-100	1410	SS030-12	255	SS60015BH	1126	SSFBA-2	1195	SSGN02N	1643
SRAH13-10	1411	SS040-16	255	SS60015YH	1126	SSFBA-3	1195	SSGN04	1643
SRAH13-15	1411	SS080-20	255	SS60022BH	1126	SSFBA-34	1195	SSGN0445	1643
SRAH13-20	1411	SS11	1474	SS60022YH	1126	SSFBB-12	1195	SSGN0490	1643
SRAH13-5	1411	SS112	1474	SS60028BH	1126	SSFBB-2	1195	SSGN04N	1643
SRAH13X	1410	SS120-24	255	SS60028YH	1126	SSFBB-3	1195	SSGNM6	1643
SRAH13X-100	1410	SS1301	1524	SS60035BH	1126	SSFBSB-1	1195	SSGNM645	1643
SRAH19/10-10	1411	SS1302	1524	SS60035YH	1126	SSFBSB-112	1195	SSGNM690	1643
SRAH19/10-15	1411	SS1303	1524	SS60042BH	1126	SSFBSB-114	1195	SSGNM8	1643
SRAH19/10-20	1411	SS1304	1524	SS60042YH	1126	SSFBSB-34	1195	SSGNM845	1643
SRAH19/10-5	1411	SS1305	1524	SS60054BH	1126	SSFH-08	256	SSGNM890	1643
SRAH19/8-10	1411	SS1306	1524	SS60054YH	1126	SSFH-12	256	SSGNU04	1643
SRAH19/8-15	1411	SS1307	1524	SS8	762	SSFH-16	256	SSGNU0445	1643
SRAH19/8-20	1411	SS1308	1524	SSA020-08	255	SSFH-20	256	SSGNU0490	1643
SRAH19/8-5	1411	SS1309	1524	SSA028-12	255	SSFSA-1	1195	SSHR-12-SB	1453
SRAH19X	1410	SS1310	1524	SSA040-16	255	SSFSA-112	1195	SSHR-15-12SB106F	1453
SRAH19X-100	1410	SS1311	1524	SSA060-20	255	SSFSA-12	1195	SSHR-15-12SHV06T	1453
SRAH25/10-10	1411	SS1312	1524	SSA080-24	255	SSFSA-2	1195	SSHR-15-12SHV08T	1453
SRAH25/10-15	1411	SS1313	1524	SSA120-24	255	SSFSA-1	1195	SSHR-15-12SWD08T	1453
SRAH25/10-20	1411	SS1314	1524	SSA160-32	255	SSFSA-112	1195	SSHR-15N-12	1453
SRAH25/10-5	1411	SS1315	1524	SSA200-32	255	SSFSA-12	1195	SSLA0/A1	192
SRAH25X	1410	SS1316	1524	SSA300-40	255	SSFSA-2	1195	SSLA0/A1-SS	192
SRAH25X-100	1410	SS1317	1524	SSA400-40	255	SSFSA-12	1195	SSLA2	192
SRFH-08	256	SS1318	1524	SS-B1	194	SSFSA-3	1195	SSLA2-SS	192
SRFH-12	256	SS1319	1524	SSB112-S	1546	SSFSA-34	1195	SSLA3	192
SRFH-16	256	SS1320	1524	SSB114-S	1546	SSFVA-2	1195	SSLA3-SS	192
SRFH-20	256	SS1321	1524	SSB12-S	1546	SSFVA-3	1195	SSLA4	192
SRG2A.KIT	1633	SS1322	1524	SSB1-S	1546	SSFVA-34	1195	SSLA4-SS	192
SR-L06/2 K-SPH	163	SS1323	1524	SS-B1-SS	194	SSG10	1477	SSLA5	192
SR-L08/2 K-SPH	163	SS1324	1524	SS-B2	194	SSG10S	1477	SSLA5-SS	192
SR-L10/2 K-SPH	163	SS1325	1524	SSB2-S	1546	SSG13	1477	SSLA6	192
SR-L12/2 K-SPH	163	SS1326	1524	SS-B2-SS	194	SSG13S	1477	SSLA6-SS	192
SR-L15/2 K-SPH	163	SS1327	1524	SS-B3	194	SSG15	1477	SSLA7	192
SR-L18/2 K-SPH	163	SS1328	1524	SSB34-S	1546	SSG15S	1477	SSNSE10-G02	876
SR-L22/2 K-SPH	163	SS1329	1524	SS-B3-SS	194	SSG19	1477	SSNSE10-G03	876
SR-L28/2 K-SPH	163	SS1330	1524	SS-B4	194	SSG19PH	1477	SSNSE10-G04	876
SR-L35/2 K-SPH	163	SS1331	1524	SS-B5	194	SSG19S	1477	SSNSE12-G04	876
SR-L42/2 K-SPH	163	SS1332	1524	SSBSM04N	110	SSG25	1477	SSNSE4-G01	876
SR-LL04/1 K-SPH	163	SS1333	1524	SSBSM06N	110	SSG25S	1477	SSNSE6-G01	876
SR-LL06/1 K-SPH	163	SS1334	1524	SSBSM08N	110	SSG32	1477	SSNSE6-G02	876
SR-LL08/1 K-SPH	163	SS1335	1524	SSBSM10N	110	SSG63-001B	412	SSNSE8-G01	876
SR-M 4 LL	117	SS1336	1524	SSBSM12N	110	SSG63-001BG	267	SSNSE8-G02	876
SR-M 6 LL	117	SS1337	1524	SSBSM14N	110	SSG63-004B	412	SSNSE8-G03	876
SR-M 8 LL	117	SS1338	1524	SSBSM16N	110	SSG63-004BG	267	SSPB10-G02	876
SRN10	917	SS1339	1524	SSBSM20N	110	SSG63-012B	412	SSPB10-G03	876
SRN1012	917	SS134	1474	SS-C1	197	SSG63-012BG	267	SSPB12-G03	876
SRN12	917	SS1340	1524	SSC12	1472	SSG63-025B	412	SSPB12-G04	876
SRN14	917	SS1341	1524	SS-C1-SS	197	SSG63-025BG	267	SSPB4-G01	876
SRN15	917	SS1342	1524	SS-C2	197	SSG63-060B	412	SSPB6-G01	876
SRN18	917	SS1343	1524	SS-C2-SS	197	SSG63-060BG	267	SSPB6-G02	876
SRN316	917	SS1344	1524	SS-C3	197	SSG63-200B	412	SSPB8-G01	876
SRN38	917	SS1345	1524	SS-C3-SS	197	SSG63-200BG	267	SSPB8-G02	876
SRN4	917	SS1346	1524	SS-C4	197	SSG63-250BG	415	SSPC10-02	876
SRN5	917	SS1347	1524	SS-C4-SS	197	SSG63-400B	412	SSPC10-03	876

SSPC10-G02	876	SSPP-12	877	ST40WHRM	1760	STOPFA11115	43	STOPFUJIC64	43
SSPC10-G03	876	SSPP-4	877	ST40WHR	1760	STOPFA12125	43	STOPFUSAE085	43
SSPC12-04	876	SSPP-6	877	ST40WHRXL	1760	STOPFA13135	43	STOPFUSAE105	43
SSPC12-G04	876	SSPP-8	877	ST40WHRXXL	1760	STOPFA1415	43	STOPFUSAE125	43
SSPC4-01	876	SSPUC-10	877	ST40WHRXXXL	1760	STOPFA1617	43	STOPFUSAE145	43
SSPC4-G01	876	SSPUC-12	877	ST43WHR	1760	STOPFA1718	43	STOPFUSAE165	43
SSPC6-01	876	SSPUC-4	877	ST44WHR	1760	STOPFA1819	43	STOPFUSAE205	43
SSPC6-02	876	SSPUC-6	877	ST-5	1670	STOPFA2021	43	STOPFUVARIE	43
SSPC6-G01	876	SSPUC-8	877	ST60	284	STOPFA2122	43	STOPFUVARIES	43
SSPC6-G02	876	SSPUL-10	877	ST-7	1670	STOPFA2223	43	STS15	884
SSPC8-01	876	SSPUL-12	877	ST900	1670	STOPFA2425	43	STS22	884
SSPC8-02	876	SSPUL-4	877	STAGA	1391	STOPFA2526	43	STS28	884
SSPC8-G01	876	SSPUL-6	877	STAGB	1391	STOPFA2627	43	STW-201L	1553
SSPC8-G02	876	SSPUL-8	877	STANDB	1496	STOPFA2728	43	STW-362L	1553
SSPCF10-G02	876	SSPUT-10	877	STANDBG	1496	STOPFA2829	43	STW-838H	1553
SSPCF10-G03	876	SSPUT-12	877	STANDC	1496	STOPFA3031	43	SUBV-32-UPVC	1107
SSPCF12-G03	876	SSPUT-4	877	STANDDS	1496	STOPFA3233	43	SV04	245
SSPCF12-G04	876	SSPUT-6	877	STANDS	1496	STOPFA3435	43	SV06	245
SSPCF4-G01	876	SSPUT-8	877	STANDSP	1496	STOPFA3637	43	SV08	245
SSPCF6-G01	876	SSPY-10	877	STANDW	1496	STOPFA3839	43	SV-10L	155
SSPCF6-G02	876	SSPY-12	877	STCAS-1	1488	STOPFA3940	43	SV10R	1497
SSPCF8-G01	876	SSPY-4	877	STCAS-112	1488	STOPFA4041	43	SV-10S	155
SSPCF8-G02	876	SSPY-6	877	STCAS-1-12	1488	STOPFA4243	43	SV12	245
SSPG10-6	877	SSPY-8	877	STCAS-112-114	1488	STOPFA4344	43	SV-12L	155
SSPG10-8	877	SSTLH	1672	STCAS-114	1488	STOPFA4445	43	SV-12S	155
SSPG12-10	877	SSTLTC	1672	STCAS-114-1	1488	STOPFA4547	43	SV13R	1497
SSPG12-8	877	SSV-12	406	STCAS-12	1488	STOPFA4850	43	SV13R/S	1497
SSPG6-4	877	SSVC-12	406	STCAS-1-34	1488	STOPFA5153	43	SV-14S	155
SSPG8-4	877	S-SXDL504FPS504	1699	STCAS-2	1488	STOPFA5354	43	SV-15L	155
SSPG8-6	877	ST10	1593	STCAS-3	1488	STOPFA5456	43	SV15R	1497
SSPGJ10-6	877	ST100	284	STCAS-34	1488	STOPFA5759	43	SV15R/S	1497
SSPGJ10-8	877	ST11	1593	STCAS-4	1488	STOPFA6062	43	SV-16S	155
SSPGJ12-10	877	ST20	284	STCC-1	1488	STOPFA6365	43	SV-18L	155
SSPGJ12-8	877	ST203	1593	STCC-112	1488	STOPFA6668	43	SV19R	1497
SSPGJ6-4	877	ST206	1593	STCC-114	1488	STOPFA6971	43	SV19R/S	1497
SSPGJ8-4	877	ST208	1593	STCC-12	1488	STOPFA7274	43	SV-20S	155
SSPGJ8-6	877	ST210	1593	STCC-2	1488	STOPFA7577	43	SV-22L	155
SSPL10-02	876	ST212	1593	STCC-3	1488	STOPFA7880	43	SV25R	1497
SSPL10-03	876	ST216	1593	STCC-34	1488	STOPFA8183	43	SV25R/S	1497
SSPL10-G02	876	ST218	1593	STCC-4	1488	STOPFA8486	43	SV-25S	155
SSPL10-G03	876	ST2238	1588	STCL-1	1488	STOPFA8789	43	SV-28L	155
SSPL12-04	876	ST224	1593	STCL-112	1488	STOPFA9092	43	SV-30S	155
SSPL12-G04	876	ST230	1593	STCL-1-12	1488	STOPFA9395	43	SV32R	1497
SSPL4-01	876	ST23-112-ABS	1099	STCL-112-114	1488	STOPFUDIN145	43	SV32R/S	1497
SSPL4-G01	876	ST23-112-UPVC	1111	STCL-114	1488	STOPFUDIN17	43	SV-35L	155
SSPL6-01	876	ST23-114-UPVC	1111	STCL-114-1	1488	STOPFUDIN185	43	SV38R	1497
SSPL6-02	876	ST23-12-UPVC	1111	STCL-12	1488	STOPFUDIN205	43	SV38R/S	1497
SSPL6-G01	876	ST23-1-ABS	1099	STCL-1-34	1488	STOPFUDIN225	43	SV-38S	155
SSPL6-G02	876	ST23-1-UPVC	1111	STCL-2	1488	STOPFUDIN245	43	SV-42L	155
SSPL8-01	876	ST23-212-ABS	1099	STCL-3	1488	STOPFUDIN265	43	SV50R	1497
SSPL8-02	876	ST23-212-UPVC	1111	STCL-34	1488	STOPFUDIN305	43	SV50R/S	1497
SSPL8-G01	876	ST23-2-ABS	1099	STCL-4	1488	STOPFUDIN34	43	SV-6L	155
SSPL8-G02	876	ST23-2-UPVC	1111	STCM-1	1488	STOPFUDIN365	43	SV-6S	155
SSPLF10-G02	876	ST23-34-ABS	1099	STCM-112	1488	STOPFUDIN425	43	SV75R/S	1497
SSPLF10-G03	876	ST23-34-UPVC	1111	STCM-114	1488	STOPFUDIN455	43	SV-8L	155
SSPLF12-G03	876	ST23-3-ABS	1099	STCM-12	1488	STOPFUDIN49	43	SV-8S	155
SSPLF12-G04	876	ST23-3-UPVC	1111	STCM-2	1488	STOPFUDIN525	43	SVHC12-12RP	320
SSPLF4-G01	876	ST23-4-ABS	1099	STCM-3	1488	STOPFUDIN60	43	SVHC16-16RP	320
SSPLF6-G01	876	ST23-4-UPVC	1111	STCM-34	1488	STOPFUJIC115	43	SVHC24-24RP	320
SSPLF6-G02	876	ST23-5-ABS	1099	STCM-4	1488	STOPFUJIC132	43	SVHC32-32RP	320
SSPLF8-G01	876	ST23-5-UPVC	1111	STF-11	1556	STOPFUJIC148	43	SVHC4-4RP	320
SSPLF8-G02	876	ST236	1593	STF-12	1556	STOPFUJIC195	43	SVHC6-6RP	320
SSPM-10	877	ST23-6-ABS	1099	STF-13	1556	STOPFUJIC228	43	SVHC8-8RP	320
SSPM-12	877	ST23-6-UPVC	1111	STF-14	1556	STOPFUJIC275	43	SVHN12-12RP	320
SSPM-4	877	ST23-8-UPVC	1111	STF-15	1556	STOPFUJIC307	43	SVHN16-16RP	320
SSPM-6	877	ST30	284	STF-17	1556	STOPFUJIC34	43	SVHN20-20RP	320
SSPM-8	877	ST40	284	STF-18	1556	STOPFUJIC415	43	SVHN24-24RP	320
SSPP-10	877	ST40WHRL	1760	STF-22	1556	STOPFUJIC48	43	SVHN32-32RP	320

SVHN4-4RP	320	SZ-12-133110-10	1485	SZ-35-115089-10	1486	T172BL	701	T228.52.6.25	572
SVHN6-6RP	320	SZ-12-160150-10	1485	SZ-35-160133-10	1486	T172BRMA	701	T228.52.6.27	572
SVHN8-8RP	320	SZ-12-160150-19	1485	SZ-71-031031-50	1486	T172BRMB	701	T228.52.6.28	572
SVMC-10	884	SZ-12-220205-10	1485	SZ-71-081051-50	1486	T172BRMC	701	T228.52.9.1/3	572
SW14530PBK	1588	SZ-13-089075-10	1485	SZ-71-089066-20	1486	T172BRMD	701	T228.52.9/1	572
SWCLT-2	1514	SZ-13-166050-10	1485	SZ-71-133066-20	1486	T172BVEB2	702	T228.52.9/2	572
SWCLT-3	1514	SZ-13-800050-10	1486	SZ-91-002031-00	1486	T172X	702	T228.53.31.9/2	574
SWCLT-4	1514	SZ-13-800075-10	1486	SZ-91-002031-02	1486	T173BEBD	700	T228.53.32.9.1/1	574
SWCLT-5	1514	SZ-13-800100-10	1486	SZ-91-002044-00	1486	T173BEMBD	700	T228.53.32.9.1/2	574
SWCLT-6	1514	SZ-21-031050-10	1485	SZ-91-002044-02	1486	T173BEPBDA	701	T228.53.32.9/2	574
SWCRT-2	1514	SZ-21-031075-10	1485	SZ-91-002051-00	1486	T173BFB	702	T22-UTL	153
SWCRT-3	1514	SZ-21-031100-10	1485	SZ-91-002051-02	1486	T173BL	701	T24	142
SWCRT-4	1514	SZ-21-031100-30	1485	SZ-91-002066-00	1486	T173BRMA	701	T25-UPVC	1103
SWCRT-5	1514	SZ-21-044100-10	1485	SZ-91-002066-02	1486	T173BRMC	701	T25-UTS	153
SWCRT-6	1514	SZ-21-044125-10	1485	SZ-91-002066-03	1486	T173BRMD	701	T28-UTL	153
SWE-1000	170	SZ-21-051150-10	1485	SZ-91-002081-00	1486	T173BVEB2	702	T2S-15-303	405
SWE-250	170	SZ-21-051200-10	1485	SZ-91-002081-02	1486	T173Y	702	T2S-16-303	405
SWE-375	170	SZ-21-051200-30	1485	SZ-91-002089-00	1486	T1740.01	706	T2T-15-303	405
SWE-500	170	SZ-21-066100-15	1485	SZ-91-002089-02	1486	T18-UTL	153	T2T-16	405
SWE-750	170	SZ-21-066150-15	1485	SZ-91-002115-02	1486	T1S-11-303	405	T3010-1	978
SWH	190	SZ-21-066200-15	1485	SZ-91-002133-00	1486	T1T-10	405	T3010-112	978
SWHR-15-38	1452	SZ-21-066200-35	1485	SZ-91-002133-02	1486	T1T-10-303	405	T3010-114	978
SWHR-15-38SB122K	1452	SZ-21-066250-15	1485	SZ-91-002148-00	1486	T200-UPVC	1103	T3010-12	978
SWHR-15N-38	1452	SZ-21-066250-30	1485	SZ-91-002160-00	1486	T20C1800	633	T3010-2	978
SWHR-30-38	1452	SZ-21-081200-10	1485	SZ-91-002220-00	1486	T20C2800	633	T3010-34	978
SWHR-30-38MB222K	1452	SZ-21-081200-30	1485	T		T20C3800	633	T3020 09	978
SWHR-30N-38	1452	SZ-21-081250-10	1485	T1000C1800	634	T20C4800	633	T30-UTS	153
SWIV.13A	1625	SZ-21-089200-15	1485	T1000C2800	634	T20M0500	633	T32-UPVC	1103
SWIV.15A	1625	SZ-21-089250-15	1485	T1000C3800	634	T20-UPVC	1103	T35-UTL	153
SWIV.1A	1625	SZ-21-089300-15	1485	T1000C4800	634	T20-UTS	153	T38-UTS	153
SWIV.31A	1625	SZ-21-105300-10	1485	T1000M0500	634	T224.32.11.1	609	T3S-20-303	405
SWIV.3A	1625	SZ-21-115400-10	1485	T10-UTL	153	T224.32.11.11	609	T3T-21	405
SW-ST4	1670	SZ-21-133400-10	1485	T10-UTS	153	T224.32.8.1	569	T4	142
SW-ST6	1670	SZ-21-133450-10	1485	T1100C1800	634	T224.32.9.1/2	569	T401A215A	418
SWU-1000	170	SZ-21-220800-10	1485	T1100C2800	634	T224.32.9/2	569	T401A251A	418
SWU-125	170	SZ-22-031100-10	1485	T110-UPVC	1103	T224.32.9/3	569	T401A251C	418
SWU-250	170	SZ-22-044100-10	1485	T12	142	T224.52.11.1	610	T401F215A	418
SWU-375	170	SZ-22-051150-10	1485	T125-UPVC	1103	T224.52.11.11	610	T401F215C	418
SWU-500	170	SZ-22-066125-15	1485	T12-UTL	153	T224.52.9.1/2	572	T401F251A	418
SWU-750	170	SZ-22-066150-15	1485	T12-UTS	153	T224.52.9/1	572	T401F251C	418
SZ-12-031025-10	1485	SZ-22-066200-15	1485	T140-UPVC	1103	T224.52.9/2	572	T40-UPVC	1103
SZ-12-031025-30	1485	SZ-22-066200-30	1485	T14-UTS	153	T224.52.9/3	572	T424.00	599
SZ-12-044019-10	1485	SZ-22-081250-10	1485	T15-UTL	153	T224.53.31.11.11	610	T424.01	599
SZ-12-044025-10	1485	SZ-22-089250-15	1485	T16	142	T224.53.31.9.1/2	574	T424.52.0.1.E.M2	598
SZ-12-044032-10	1485	SZ-22-089300-15	1485	T160-UPVC	1103	T224.53.31.9.1/3	574	T42-UTL	153
SZ-12-051038-10	1485	SZ-22-133400-10	1485	T16-UPVC	1103	T224.53.31.9/2	574	T488.01	599
SZ-12-066025-10	1485	SZ-27-066200-10	1485	T16-UTS	153	T224.53.31.9/3	574	T488.32.11.1	609
SZ-12-066025-30	1485	SZ-27-089300-10	1485	T17150	702	T224.53.32.11.11	610	T488.32.11.11	609
SZ-12-066032-10	1485	SZ-27-133400-10	1485	T171BEBD	700	T224.53.32.9.1/2	574	T488.52.0.0.M2	598
SZ-12-066045-10	1485	SZ-27-148500-10	1485	T171BEMBD	700	T224.53.32.9/2	574	T488.52.0.1.M2	598
SZ-12-066045-19	1485	SZ-27-160600-10	1485	T171BFB	702	T225-UPVC	1103	T488.52.0.12E.M2	598
SZ-12-066045-30	1485	SZ-31-031000-10	1486	T171BL	701	T228.32.0.1	569	T488.52.0.1E.M2	598
SZ-12-066052-10	1485	SZ-31-031000-30	1486	T171BPA	702	T228.32.11.1	609	T488.52.11.1	610
SZ-12-066052-19	1485	SZ-31-044000-10	1486	T171BPP	702	T228.32.11.11	609	T488.52.11.11	610
SZ-12-066052-30	1485	SZ-31-051000-10	1486	T171BRMA	701	T228.32.2.1	569	T488.53.31.11.11	610
SZ-12-066060-10	1485	SZ-31-066000-10	1486	T171BRMB	701	T228.32.2.1/1	569	T4T-25	405
SZ-12-081065-10	1485	SZ-31-066000-30	1486	T171BRMC	701	T228.32.2.1/2	569	T5	142
SZ-12-081065-19	1485	SZ-31-081000-10	1486	T171BRMD	701	T228.32.6.1/2	569	T50P0004	864
SZ-12-089065-10	1485	SZ-31-089000-10	1486	T171BVEB2	702	T228.32.6.1/3	569	T50P0006	864
SZ-12-089065-19	1485	SZ-31-105000-10	1486	T171X	702	T228.32.6.25	569	T50P0008	864
SZ-12-089070-10	1485	SZ-31-115000-10	1486	T171Y	702	T228.32.6.27	569	T50P0010	864
SZ-12-089075-10	1485	SZ-31-133000-10	1486	T17250	702	T228.32.6.28	569	T50P0012	864
SZ-12-089075-19	1485	SZ-31-148000-10	1486	T172BAP	702	T228.32.9/2	569	T50-UPVC	1103
SZ-12-089080-10	1485	SZ-31-160000-10	1486	T172BEBD	700	T228.52.1.1	572	T6	142
SZ-12-105090-10	1485	SZ-31-500089-10	1486	T172BEMBB	700	T228.52.11.1	610	T60C2890	633
SZ-12-115100-10	1485	SZ-31-500133-10	1486	T172BEMBD	700	T228.52.11.11	610	T60C3890	633
SZ-12-115100-19	1485	SZ-35-066044-10	1486	T172BEPBDA	701	T228.52.2.1/2	572	T60C4890	633
SZ-12-133100-10	1485	SZ-35-081066-10	1486	T172BFB	702	T228.52.55/2	572	T60C6890	633



T60C8890	633	TAC516HT	329	TBF-EVO35-C12	421	TCUT0101	905	TE-2516	316
T633.4/025X10	1433	TACSD0065	1729	TBF-EVO35-C38	421	TD10	1173	TE-2520	313
T633.4/025X40	1433	TACSD0195	1729	TBF-EVO45-C12	421	TD13	1173	TE-2520 RV	313
T633.4/032X40	1433	TACSD30136	1736	TBF-EVO45-C38	421	TD17	1173	TE-2520 UV	313
T633.4/038X10	1433	TACSD30186	1736	TBF-EVO50-C12	421	TD21	1173	TE-2520 V	313
T633.4/038X40	1433	TACSD30256	1736	TBF-EVO50-C38	421	TD26	1173	TE-2526	316
T63-UPVC	1103	TACSD30266	1736	TBF-EVO55-C12	421	TD33	1173	TE316	1207
T64T-4GB-P1N	685	TACSD30336	1736	TBF-EVO55-C38	421	TDG16C05	1725	TE34	1207
T65C1800	633	TACSD3091	1734	TBF-EVO60-C12	421	TE-1000	312	TE38	1207
T65C2800	633	TACSD3165	1729	TBF-EVO60-C38	421	TE-1000 RF	312	TE-3800-PSN	316
T68C-6GB-B2N	685	TACSD5051	1729	TBF-EVO65-C12	421	TE-10000-PSN	316	TE-3800-PSV	316
T6T-31	405	TACSE0051	1734	TBF-EVO65-C38	421	TE-10000-PSV	316	TE-3810	314
T6-UTL	153	TACSH1121	1730	TBF-EVO70-C12	421	TE-10010	315	TE-3810 H	314
T6-UTS	153	TAP14F	329	TBF-EVO70-C38	421	TE-10010 V	315	TE-3810 HV	314
T70C1800	634	TAP14HT	329	TBF-EVO75-C12	421	TE-10011	315	TE-3810 RV	314
T70C2800	634	TAP14M	329	TBF-EVO75-C38	421	TE-10016	316	TE-3810 UV	314
T70C3800	634	TAP38F	329	TBF-EVO80-C12	421	TE-10020	315	TE-3810 V	314
T70C4800	634	TAP38HT	329	TBF-EVO80-C38	421	TE-10020 RV	315	TE-3811	314
T-75-UPVC	1103	TAP38M	329	TBF-EVO85-C12	421	TE-10020 UV	315	TE-3811 V	314
T8	142	TAP516HT	329	TBF-EVO85-C38	421	TE-10020 V	315	TE-3816	316
T82T-2GA-B1N	687	TAPE	1391	TBF-EVO90-C12	421	TE-10021	315	TE-3820	314
T84T-3GA-B1N	687	TAPS14F	329	TBF-EVO90-C38	421	TE-10026	316	TE-3820 RUV	314
T84T-4GA-B1N	687	TAPS14HT	329	TBF-EVO95-C12	421	TE-1100	386	TE-3820 RV	314
T850-175	1513	TAPS14M	329	TBF-EVO95-C38	421	TE-1100 A	386	TE-3820 UV	314
T850-200	1513	TAPS38F	329	TC10	1173	TE-11006	386	TE-3820 V	314
T850-250	1513	TAPS38HT	329	TC-10-114-UPVC	1107	TE-11410	386	TE-3821	314
T850-300	1513	TAPS38M	329	TC13	1173	TE12	1207	TE-3821 RV	314
T850-350	1513	TAPS516HT	329	TC17	1173	TE-125	316	TE-3821 V	314
T850-400	1513	TB05	1173	TC21	1173	TE-1300	387	TE-3826	316
T850-500	1513	TB10	1173	TC26	1173	TE-1300 A	387	TE43-112-ABS	1097
T850-550	1513	TB13	1173	TC-32-1-UPVC	1107	TE-1300 B	387	TE43-112-UPVC	1109
T850-600	1513	TB17	1173	TC33	1173	TE-1300 V	387	TE43-114-ABS	1097
T850-650	1513	TB1S-10	405	TC93-112-ABS	1098	TE-13010	387	TE43-114-UPVC	1109
T850-800	1513	TB1S-11	405	TC93-112-UPVC	1111	TE-13210	387	TE43-12-ABS	1097
T850-850	1513	TB1T-10	405	TC93-114-ABS	1098	TE-1325	387	TE43-12-UPVC	1109
T8-UTL	153	TB1T-11	405	TC93-114-UPVC	1111	TE-13410	387	TE43-1-ABS	1097
T8-UTS	153	TB21	1173	TC93-12-ABS	1098	TE14	1207	TE43-1-UPVC	1109
T90-UPVC	1103	TB26	1173	TC93-12-UPVC	1111	TE-15010	316	TE43-212-ABS	1097
TA10	1173	TB2S-15	405	TC93-1-ABS	1098	TE-15010 UV	316	TE43-212-UPVC	1109
TA13	1173	TB2S-16	405	TC93-1-UPVC	1111	TE-15010 V	316	TE43-2-ABS	1097
TA17	1173	TB2T-15	405	TC93-212-ABS	1098	TE-15010 VUV	316	TE43-2-UPVC	1109
TA21	1173	TB2T-16	405	TC93-212-UPVC	1111	TE-15020	316	TE43-34-ABS	1097
TA26	1173	TB33	1173	TC93-2-ABS	1098	TE-15020 UV	316	TE43-34-UPVC	1109
TA33	1173	TB3S-20	405	TC93-2-UPVC	1111	TE-15020 V	316	TE43-3-ABS	1097
TABLE-D-112	1195	TB3S-21	405	TC93-34-ABS	1098	TE18	1207	TE43-3-UPVC	1109
TABLE-D-4	1195	TB3T-20	405	TC93-34-UPVC	1111	TE-1800	388	TE43-4-ABS	1097
TABLE-E-1	1195	TB3T-21	405	TC93-3-ABS	1098	TE-1800 A	388	TE43-4-UPVC	1109
TABLE-E-112	1195	TB4S-25	405	TC93-3-UPVC	1111	TE-1800 B	388	TE43-5-ABS	1097
TABLE-E-2	1195	TB4S-26	405	TC93-4-ABS	1098	TE-1800 C	388	TE43-5-UPVC	1109
TABLE-E-3	1195	TB4T-25	405	TC93-4-UPVC	1111	TE-18008	388	TE43-6-ABS	1097
TAC110401	1729	TB4T-26	405	TCM5	1173	TE-18110	388	TE43-6-UPVC	1109
TAC110601	1729	TB6S-30	405	TCS100	435	TE-18210	388	TE43-8-UPVC	1109
TAC111001	1729	TB6S-31	405	TCS100-KIT	435	TE-18220	388	TE-45-110-UPVC	1102
TAC111201	1729	TB6T-30	405	TCS60	435	TE-18405	388	TE-45-16-UPVC	1102
TAC111301	1729	TB6T-31	405	TCSBSP112	1436	TE-18410	388	TE-45-20-UPVC	1102
TAC14F	329	TBAR2	1480	TCSBSP2	1436	TE-18420	388	TE-45-25-UPVC	1102
TAC14HT	329	TBAR3	1480	TCSBSP3	1436	TE-2310	313	TE-45-32-UPVC	1102
TAC14M	329	TBAR4	1480	TCSBSP4	1436	TE-2310 UV	313	TE-45-40-UPVC	1102
TAC16HL133	1734	TBF-EVO100-C12	421	TCSHT1	1436	TE-2310 V	313	TE-45-50-UPVC	1102
TAC190501	1729	TBF-EVO100-C38	421	TCSHT112	1436	TE-2320	313	TE-45-63-UPVC	1102
TAC2131151	1729	TBF-EVO105-C12	421	TCSHT114	1436	TE-2320 UV	313	TE-45-75-UPVC	1102
TAC31041	1729	TBF-EVO105-C38	421	TCSHT2	1436	TE-2320 V	313	TE-500	312
TAC32041	1729	TBF-EVO110-C12	421	TCSHT212	1436	TE-250	312	TE-500 B	312
TAC38F	329	TBF-EVO110-C38	421	TCSHT3	1436	TE-2500-PSN	316	TE-5000-PSN	316
TAC38HT	329	TBF-EVO125-C12	421	TCSHT4	1436	TE-2510	313	TE-5000-PSV	316
TAC38M	329	TBF-EVO125-C38	421	TCSHT6	1436	TE-2510 RV	313	TE-5010	314
TAC51051	1730	TBF-EVO25-C12	421	TCSHT8	1436	TE-2510 UV	313	TE-5010 RV	314
TAC51118B	1730	TBF-EVO25-C38	421	TCUT0001	905	TE-2510 V	313	TE-5010 UV	314

TE-5010 V	314	TE-TIF2520	313	THT1023121	1739	THT290801	1733	TI17	1173
TE-5011	314	TE-TIF3810	313	THT102386	1739	THT2K0301S	1733	TI21	1173
TE-5011 RV	314	TE-TIF3810-50	313	THT1024121	1739	THT32105	1730	TI26	1173
TE-5011 V	314	TE-TIF3811	313	THT102486	1739	THT41K0401	1732	TI33	1173
TE-5016	316	TE-TIF3820	313	THT102RK061	1739	THT421441	1738	TIGERTAIL-51-15	1415
TE-5020	314	TE-TIF3820-50	313	THT10309328	1734	THT431482	1732	TIM5	1173
TE-5020 RV	314	TE-TIF3821	313	THT106126	1738	THT5	1144	TKL05	1173
TE-5020 UV	314	TE-TIF5010	313	THT106146	1738	THT513613	1731	TKL10	1173
TE-5020 V	314	TE-TIF5010 75	313	THT1061826	1737	THT522106	1731	TKL13	1173
TE-5021	314	TE-TIF5011	313	THT1061836	1737	THT523106	1731	TKL17	1173
TE-5021 RV	314	TE-TIF5020	313	THT106191	1737	THT53321	1731	TKL21	1173
TE-5021 V	314	TE-TIF5020 75	313	THT106291	1737	THT53351	1731	TKL26	1173
TE-5026	316	TE-TIF5021	313	THT106292	1737	THT53422	1731	TKL33	1173
TE516	1207	TF1010QLBP2HG24A	251	THT106386	1738	THT54106	1730	TM-A	190
TE-750	312	TF310QLBP2EG121	251	THT106391	1737	THT54166	1730	TM-A/B1	190
TE-750 RF	312	TF610QLBP2EG203	251	THT10701	1740	THT55206D	1730	TM-A/B1SSVISITEC	192
TE-7500-PSN	316	TF810QLBP2EG243	251	THT111051	1741	THT59126	1730	TM-A/B1VISITEC	192
TE-7500-PSV	316	TFM01VG10	439	THT113146	1732	THT59126B	1730	TM-B2	190
TE-7510	315	TFM01VL4	439	THT113246	1732	THT6	1144	TM-B2-SS	190
TE-7510 RV	315	TFM02VG16	439	THT113426	1731	THT6146	1740	TM-C1	190
TE-7510 UV	315	TFM02VL7	439	THT11386	1732	THT6186	1740	TM-C1-SS	190
TE-7510 V	315	TFM03VG40	439	THT115102	1731	THT7143166	1732	TM-C4	190
TE-7510 VUV	315	TFM03VL18	439	THT115242	1731	THT715006	1732	TM-C4-SS	190
TE-7511	315	TFM04VG60	439	THT115362	1731	THT7215006	1732	TMT126031	1739
TE-7511 V	315	TFM05VG160	439	THT11561	1731	THT74246	1732	TMT126052	1739
TE-7516	316	TFM05VL70	439	THT121251	1738	THT750416	1732	TMT126101	1739
TE-7520	315	TFM06VG250	439	THT-13	1144	THT761616	1732	TMT20605M	1740
TE-7520 S	315	TFM07VG350	439	THT13141	1740	THT77406	1732	TMT21005M	1740
TE-7520 UV	315	TFM07VL150	439	THT13161	1740	THT79021	1732	TMT321501	1739
TE-7520 V	315	TFM08VG250	439	THT1320502	1740	THT-8	1144	TMT322001	1739
TE-7521	315	TFM09VG350	439	THT1320801	1740	THT91462	1730	TNI02	1200
TE-7521 V	315	TFM10VG400	439	THT1321401	1740	THT918516	1730	TNI03	1200
TE-7526	316	TFM10VL220	439	THT141451	1738	THT92102	1730	TNI04	1200
TE-90-16-UPVC	1102	TFM11VG500	439	THT15101	1733	THTGTS8200	1735	TNI05	1200
TE-90-20-UPVC	1102	TFM11VL300	439	THT16241	1741	THTIS4100	1736	TNI06	1200
TE-90-25-UPVC	1102	TFM12VG600	439	THT16P1011	1741	THTIS5125	1736	TNI08	1200
TE-90-32-UPVC	1102	TFM12VL360	439	THT16P2031	1741	THTIS566	1736	TNI10	1200
TE-90-40-UPVC	1102	TFM13VG850	439	THT170806	1734	THTST12131	1738	TNI12	1200
TE-90-50-UPVC	1102	TFM13VL450	439	THT171102	1734	THTST12211	1738	TNM04	1197
TE-90-63-UPVC	1102	TFM14VG1200	439	THT171142	1734	THTST12321	1738	TNM05	1197
TE-90-75-UPVC	1102	TFM14VL550	439	THT171186	1734	THV-06L-2EO-WDS	163	TNM06	1197
TEMBVFF-1/2	927	TFM15VG1400	439	THT171206	1734	THV-06S-4EO-WDS	163	TNM08	1197
TEMBVFF-1/4	927	TFM15VL750	439	THT171246	1734	THV-08L-4EO-WDS	163	TNM10	1197
TEMBVFF-3/8	927	TG04BOX	1763	THT171366	1734	THV-08S-4EO-WDS	163	TNM12	1197
TEMBVMF-1/2	927	TG-3	1721	THT171486	1734	THV-10L-4EO-WDS	163	TNM15	1197
TEMBVMF-1/4	927	TG-4	1721	THT172011	1734	THV-10S-4EO-WDS	163	TNM16	1197
TEMBVMF-3/8	927	TG5121806	1731	THT172021	1734	THV-10S-6EO-WDS	163	TNM22	1197
TERR-80.06-2	1558	TG5126101	1731	THT191001	1733	THV-12L-4EO-WDS	163	TNM28	1197
TERR-80.10-2	1558	THKTAC01120	1738	THT191002	1733	THV-12L-6EO-WDS	163	TO06NP	1174
TERR-80.13-2	1558	THKTHP21426	1737	THT210706S	1733	THV-12S-6EO-WDS	163	TOOL-196506	1679
TERR-80.16-2	1558	THL013AAA2	1740	THT210806	1733	THV-14S-8EO-WDS	163	TOOL-196536	1714
TERR-80.19-2	1558	THMFK0156	1731	THT210906S	1733	THV-15L-8EO-WDS	163	TOOL-244973	1679
TERR-80.25-2	1558	THP10104132	316	THT220606	1733	THV-16S-8EO-WDS	163	TOOL-371756	1679
TERR-80.28-2	1558	THP10104172	316	THT220806S	1733	THV-18L-8EO-WDS	163	TOOL-394989	1679
TERR-80.38-3	1558	THP1020413	316	THT22386	1734	THV-20S-12EO-WDS	163	TOOL-580420	1714
TERR-81.06-2	1558	THP1020417	316	THT230706	1733	THV-22L-12EO-WDS	163	TOOL-598438	1679
TERR-81.10-2	1558	THP15104132	316	THT24616	1733	THV-25S-16EO-WDS	163	TOOL-630070	1683
TERR-81.16-2	1558	THP1520413	316	THT250201	1735	THV-28L-16EO-WDS	163	TOOL-633595	1683
TERR-81.19-2	1558	THP16	316	THT250606	1735	THV-30S-20EO-WDS	163	TOOL-656601	1679
TERR-81.25-2	1558	THPTCS71621	1738	THT250608	1735	THV-35L-20EO-WDS	163	TOOL-675108	1683
TERR-81.38-3	1558	THT-10	1144	THT250610	1735	THV-38S-24EO-WDS	163	TOOL-719788	1683
TERR-90.02-2	1558	THT101066	1734	THT250618	1735	THV-42L-24EO-WDS	163	TOOL-763556	1714
TE-TFF10021	312	THT101086	1734	THT250726	1735	THV-44L-2EO-WDS	163	TOOL-783124	1714
TE-TFF5010	312	THT101106	1734	THT25616	1731	THV-6LL-2EO-WDS	163	TOOL-793753	1679
TE-TFF5020	312	THT101126	1734	THT260606	1733	THV-8LL-2EO-WDS	163	TOOL-868552	1680
TE-TFF7510	312	THT1022121	1739	THT281006	1733	THWS010901	1679	TOOL-868573	1679
TE-TFF7520	312	THT1022122	1739	THT28101	1733	TI10	1173	TOOL-868593	1683
TE-TIF2510	313	THT102286	1739	THT2881	1733	TI13	1173	TPG1H07	1725

TPG3H07	1725	TR-18-12-18L	155	TR-7540-UPVC	1103	TSM 1	954	TV10/10/6L	124
TPG4H01	1725	TR-18-15-18L	155	TR-7550-UPVC	1103	TSM 2	954	TV10/10/6S	124
TPM12T	889	TR-18-18-10L	155	TR-7563-UPVC	1103	TSM 3	954	TV10/10/8L	124
TPM16T	889	TR-20-10-20S	155	TR-8-10-8L	155	TSM 4	954	TV10/10/8S	124
TPM22T	889	TR-20-12-20S	155	TR-8-12-8L	155	TSM 5	954	TV10L	124
TPR110QLBP2EG12E	251	TR-20-14-20S	155	TR-8-6-8L	155	TSM10N	880	TV10S	124
TPR510QLBP2E2G20	251	TR-20-16-20S	155	TR-8-6-8S	155	TSM15N	880	TV12/12/10L	124
TPR710QLBP2E2G24	251	TR-2016-UPVC	1103	TR-9040-UPVC	1103	TSM22N	880	TV12/12/10S	124
TPTFE-04/025-10M	909	TR-20-25-20S	155	TR-9050-UPVC	1103	TSM28N	880	TV12/12/15L	124
TPTFE-04/025-30M	909	TR-20-8-20S	155	TR-9063-UPVC	1103	TSO-110-4-UPVC	1101	TV12/12/6L	124
TPTFE-06/040-10M	909	TR-22-10-22L	155	TR-9075-UPVC	1103	TSO-125-5-UPVC	1101	TV12/12/6S	124
TPTFE-06/040-30M	909	TR-22-12-22L	155	TRI-092856	1432	TSO-16-38-UPVC	1101	TV12/12/8L	124
TPTFE-08/060-10M	909	TR-22-15-15L	155	TRI-092872	1432	TSO-20-12-UPVC	1101	TV12/12/8S	124
TPTFE-08/060-30M	909	TR-22-15-22L	155	TRI-100236	1432	TSO-25-34-UPVC	1101	TV12L	124
TPTFE-10/080-10M	909	TR-22-18-18L	155	TRI-100284	1432	TSO-32-1-UPVC	1101	TV12S	124
TPTFE-10/080-30M	909	TR-22-18-22L	155	TRI-145571	1432	TSO-40-114-UPVC	1101	TV14/14/10S	124
TPTFE-12/010-10M	909	TR-22-22-18L	155	TRI-145597	1432	TSO-50-112-UPVC	1101	TV14/14/12S	124
TPTFE-12/010-30M	909	TR-25-10-25S	155	TRI-145655	1432	TSO-63-2-UPVC	1101	TV14/14/6S	124
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TR-10-15-10L	155	TR-25-16-25S	155	TRICO12-100M	1422	TSP06CS	293	TV15/12/12L	124
TR-10-6-10L	155	TR-2516-UPVC	1103	TRICO19	1422	TSP06CS-V	293	TV15/15/10L	124
TR-10-6-10S	155	TR-25-20-25S	155	TRICO19-100	1422	TSP08CS	293	TV15/15/12L	124
TR-10-8-10L	155	TR-2520-UPVC	1103	TRICO25	1422	TSP08CS-V	293	TV15/15/6L	124
TR-10-8-10S	155	TR-25-30-25S	155	TRICO25-100	1422	TSP12101	1741	TV15/15/8L	124
TR-11050-UPVC	1103	TR-28-10-28L	155	TS 10 L	133	TSP12CS	293	TV15L	124
TR-11075-UPVC	1103	TR-28-12-28L	155	TS 10 S	133	TSP12CS-V	293	TV16/16/10S	124
TR-11090-UPVC	1103	TR-28-15-28L	155	TS 12 L	133	TSP16CS	293	TV16/16/12S	124
TR-12-10-10L	155	TR-28-18-28L	155	TS 12 S	133	TSP16CS-V	293	TV16/16/14S	124
TR-12-10-12L	155	TR-28-22-22L	155	TS 14 S	133	TST-04/020	909	TV16/16/6S	124
TR-12-10-12S	155	TR-28-22-28L	155	TS 15 L	133	TST-06/040	909	TV16/16/8S	124
TR-12-12-10L	155	TR-28-35-28L	155	TS 16 S	133	TST-08/050	909	TV16S	124
TR-12-15-12L	155	TR-30-12-30S	155	TS 18 L	133	TST-10/080	909	TV18/18/10L	124
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TR-12-18-12L	155	TR-30-20-30S	155	TS 22 L	133	TT1	1169	TV18/18/15L	124
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TR-12563-UPVC	1103	TR-30-38-30S	155	TS 28 L	133	TT14	1169	TV18/18/8L	124
TR-12575-UPVC	1103	TR-3216-UPVC	1103	TS 30 S	133	TT18	1169	TV18L	124
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TR-12-8-12L	155	TR-35-15-35L	155	TS 6 L	133	TTE-08-10	255	TV20/20/16S	124
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TR-140125-UPVC	1103	TR-38-16-38S	155	TS11-A/B1-SS	190	TTE-12-25	255	TV22/22/12L	124
TR-14075-UPVC	1103	TR-38-20-38S	155	TS11-A/B2	190	TTE-16-10	255	TV22/22/15L	124
TR-14090-UPVC	1103	TR-38-25-38S	155	TS11-A/B2-SS	190	TTE-16-10-A	255	TV22/22/18L	124
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TR-14-8-14S	155	TR-4016-UPVC	1103	TS14-A/B1-SS	190	TTE-20-10	255	TV22L	124
TR-15-10-15L	155	TR-4025-UPVC	1103	TS14-A/B2	190	TTE-20-10-A	255	TV25/25/10S	124
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TR-15-15-12L	155	TR-42-22-42L	155	TSC06CS-V	293	TTF-08B-25	255	TV25/25/16S	124
TR-15-6-15L	155	TR-42-28-42L	155	TSC08CS	293	TTF-12B-10	255	TV25/25/20S	124
TR-160110-UPVC	1103	TR-42-35-42L	155	TSC08CS-V	293	TTF-12B-25	255	TV25/25/8S	124
TR-160125-UPVC	1103	TR-5020-UPVC	1103	TS-C1	190	TTF-16B-10	255	TV25S	124
TR-160140-UPVC	1103	TR-5025-UPVC	1103	TSC12CS	293	TTF-16B-25	255	TV28/28/10L	124
TR-16090-UPVC	1103	TR-5032-UPVC	1103	TSC12CS-V	293	TTF-20B-10	255	TV28/28/12L	124
TR-16-10-16S	155	TR-5040-UPVC	1103	TSC16CS	293	TTF-20B-25	255	TV28/28/15L	124
TR-16-12-16S	155	TR-6-10-6L	155	TSC16CS-V	293	TTF-SK-08	255	TV28/28/18L	124
TR-16-14-16S	155	TR-6325-UPVC	1103	TS-C1-SS	190	TTF-SK-12	255	TV28/28/22L	124
TR-16-20-16S	155	TR-6332-UPVC	1103	TS-C2	190	TTF-SK-16	255	TV28L	124
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TV30S	124	U-10-375	168	U780350	1514	UE-3	176	UN83-3-UPVC	1110
TV35/35/15L	124	U-110-UPVC	1104	U780380	1514	UE-312	170	UN83-4-ABS	1098
TV35/35/18L	124	U-12	175	U780410	1514	UE-375	170	UN83-4-UPVC	1110
TV35/35/22L	124	U-12-312	168	U780430	1514	UE-4	176	UNC1/2X11/2	108
TV35/35/28L	124	U-12-375	168	U780450	1514	UE-500	170	UNC1/2X13/4	108
TV35L	124	U-125	168	U780480	1514	UE-6	176	UNC3/4X21/2	108
TV38/38/10S	124	U-12-500	168	U780510	1514	UE-625	170	UNC3/8X11/2	108
TV38/38/16S	124	U-15	175	U780540	1514	UE-750	170	UNC3/8X11/4	108
TV38/38/20S	124	U-15-500	168	U780580	1514	UE-8	176	UNC5/16X11/4	108
TV38/38/25S	124	U-16	175	U780600	1514	UE-875	170	UNC5/8X2	108
TV38/38/30S	124	U-16-UPVC	1104	U780640	1514	UFA4	1484	UNC7/16X11/2	108
TV38S	124	U-18	175	U780670	1514	UGU020-0100	498	UNC7/16X13/4	108
TV42/42/15L	124	U-187	168	U780700	1514	UGU020-0200	498	UNH	190
TV42/42/18L	124	U-18-750	168	U780750	1514	UGU020-0320	498	UNITOP	1654
TV42/42/22L	124	U-20-1000	168	U780770	1514	UGU020-0400	498	UNR3	1484
TV42/42/35L	124	U-20-500	168	U780790	1514	UGU020-0500	498	UNR4	1484
TV42L	124	U-20-FT	175	U780800	1514	UGU032-0100	498	UP10-14	1168
TV4LL	124	U-20-UPVC	1104	U780890	1514	UGU032-0200	498	UP10-18	1168
TV6L	124	U-22	175	U780920	1514	UGU032-0250	498	UP10-38	1168
TV6LL	124	U-25	175	U780950	1514	UGU032-0320	498	UP1-1	1165
TV6S	124	U-250	168	U781000	1514	UGU032-0400	498	UP11-112F	1168
TV8/8/6L	124	U-25-1000	168	U781020	1514	UGU032-0500	498	UP11-114F	1168
TV8/8/6S	124	U25-N6	760	U781100	1514	UGU040-0100	498	UP11-112	1165
TV8L	124	U25-S3	760	U781200	1514	UGU040-0200	498	UP11-12F	1168
TV8LL	124	U-25-UPVC	1104	U781250	1514	UGU040-0250	498	UP11-14	1169
TV8S	124	U25-W3	760	U7H	596	UGU040-0320	498	UP1-114	1165
TVI-2	1113	U-3	175	U7J	596	UGU040-0400	498	UP11-18	1169
TVR-20B	435	U30-N6	760	U7K	596	UGU040-0500	498	UP1-12	1165
TWIN10656RY	899	U30-S3	760	U-8	175	UGU050-0100	498	UP11-2F	1168
TWIN12806RY	899	U30-W3	760	U-8-250	168	UGU050-0200	498	UP11-34F	1168
TWIN80505RY	899	U-312	168	U-8-375	168	UGU050-0250	498	UP1-14	1165
TWV10L	136	U-3-125	168	U-875	168	UGU050-0320	498	UP1-18	1165
TWV12L	136	U-32-UPVC	1104	U-90-UPVC	1104	UGU050-0400	498	UP1-2	1165
TWV8L	136	U-375	168	UBE3	1484	UGU050-0500	498	UP12-1	1169
TY-16-UPVC	1103	U-4	175	UBE4	1484	UGU063-0100	498	UP12-112	1169
TY-20-UPVC	1103	U-40-UPVC	1104	UC-10	176	UGU063-0200	498	UP12-112F	1169
TY-25-UPVC	1103	U-4-125	168	UC-1000	170	UGU063-0250	498	UP12-114	1169
TY-32-UPVC	1103	U-4-250	168	UC-12	176	UGU063-0320	498	UP12-114F	1169
TY-40-UPVC	1103	U45-N6	760	UC-125	170	UGU063-0400	498	UP12-12	1169
TY43-112-UPVC	1109	U45-S3	760	UC-16	176	UGU063-0500	498	UP12-12F	1169
TY43-114-ABS	1097	U45-W3	760	UC-18	176	UIJ3	1484	UP12-14	1169
TY43-114-UPVC	1109	U-500	168	UC-20	176	UIJ4	1484	UP12-18	1169
TY43-12-ABS	1097	U-50-UPVC	1104	UC-25	176	UIJ6	1484	UP12-1F	1169
TY43-12-UPVC	1109	U55-N6	760	UC-250	170	ULC159/166	1548	UP12-32	1169
TY43-1-ABS	1097	U55-S3	760	UC-3	176	ULC38/43	1548	UP12-34	1169
TY43-1-UPVC	1109	U55-W3	760	UC-312	170	ULC47/51	1548	UP12-34F	1169
TY43-2-ABS	1097	U-6	175	UC-375	170	UN12	1208	UP12-38	1169
TY43-2-UPVC	1109	U-6-125	168	UC-500	170	UN14	1208	UP12-38F	1169
TY43-34-ABS	1097	U-625	168	UC-6	176	UN18	1208	UP12-58	1169
TY43-34-UPVC	1109	U-6-250	168	UC-750	170	UN316	1208	UP12-78	1169
TY-50-UPVC	1103	U-6-312	168	UC-8	176	UN34	1208	UP12-MM10	1169
TY63-UPVC	1103	U-63-UPVC	1104	UDM	1476	UN38	1208	UP12-MM12	1169
TZLD100	435	U65-N6	760	UDR4	1484	UN516	1208	UP12-MM14	1169
TZLD300	435	U65-S3	760	UDR5	1484	UN83-112-ABS	1098	UP12-MM14.1	1169
U		U65-W3	760	UDR6	1484	UN83-112-UPVC	1110	UP12-MM15	1169
U 12/16	510	U71	596	UE-10	176	UN83-114-ABS	1098	UP12-MM16	1169
U 160/200	510	U72	596	UE-1000	170	UN83-114-UPVC	1110	UP12-MM18	1169
U 20	510	U73	596	UE-12	176	UN83-12-ABS	1098	UP12-MM20	1169
U 25/32	510	U74	596	UE-125	170	UN83-12-UPVC	1110	UP12-MM22	1169
U 40	510	U-750	168	UE-14	176	UN83-1-ABS	1098	UP12-MM24	1169
U 41 125	510	U75-N6	760	UE-15	176	UN83-1-UPVC	1110	UP12-MM26	1169
U 50/63	510	U75-S3	760	UE-16	176	UN83-212-ABS	1098	UP12-MM28	1169
U 80/100	510	U-75-UPVC	1104	UE-18	176	UN83-212-UPVC	1110	UP12-MM30	1169
U-10	175	U75-W3	760	UE-187	170	UN83-2-ABS	1098	UP12-MM34	1169
U-1000	168	U76	596	UE-20	176	UN83-2-UPVC	1110	UP12-MM38	1169
U-10-125	168	U77	596	UE-22	176	UN83-34-ABS	1098	UP13-1	1167
U-10-250	168	U780280	1514	UE-25	176	UN83-34-UPVC	1110	UP13-12	1167

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UP13-14-12N	1167	UP2-18-14	1165	UP4-12N	1166	UP9-18	1168	UPVCBR-50	1105
UP13-14-12P	1167	UP2-18-14P	1165	UP4-12P	1166	UP9-38	1168	UPVCBR-63	1105
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UP13-M5-M5	1167	UP3-12-34P	1166	UP4-MM26	1166	UPVC/ETUBE-3-112	1112	UT-16-UPVC	1104
UP13-M6-14	1167	UP3-14-1	1166	UP4-MM30	1166	UPVC/ETUBE-3-114	1112	UT-18	176
UP13-M6-18	1167	UP3-14-12	1166	UP5-12	1167	UPVC/ETUBE-3-12	1112	UT-187	170
UP14-12	1168	UP3-14-12N	1166	UP5-12N	1167	UPVC/ETUBE-3-2	1112	UT-20	176
UP14-18	1168	UP3-14-12P	1166	UP5-14	1167	UPVC/ETUBE-3-3	1112	UT-20-UPVC	1104
UP14-38	1168	UP3-14-1N	1166	UP5-14N	1167	UPVC/ETUBE-3-34	1112	UT-22	176
UP15-12	1168	UP3-14-1P	1166	UP5-18	1167	UPVC/ETUBE-3-4	1112	UT-25	176
UP15-14	1168	UP3-14-34	1166	UP5-18N	1167	UPVC/ETUBE-6-1	1112	UT-250	170
UP15-18	1168	UP3-14-34N	1166	UP5-1N	1167	UPVC/ETUBE-6-112	1112	UT-25-UPVC	1104
UP15-38	1168	UP3-14-34P	1166	UP5-34N	1167	UPVC/ETUBE-6-114	1112	UT-3	176
UP16-1	1168	UP3-14-38	1166	UP5-38	1167	UPVC/ETUBE-6-12	1112	UT-312	170
UP16-12	1168	UP3-14-38N	1166	UP6-1	1167	UPVC/ETUBE-6-2	1112	UT-32-UPVC	1104
UP16-14	1168	UP3-14-38P	1166	UP6-114	1167	UPVC/ETUBE-6-3	1112	UT-375	170
UP16-18	1168	UP3-14-M16	1166	UP6-12	1167	UPVC/ETUBE-6-34	1112	UT-4	176
UP16-34	1168	UP3-14-M18	1166	UP6-14	1167	UPVC/ETUBE-6-4	1112	UT-40-UPVC	1104
UP16-38	1168	UP3-14-M20	1166	UP6-14N	1167	UPVC/TUBE-3-110	1106	UT-500	170
UP17-12	1169	UP3-14-M22	1166	UP6-18	1167	UPVC/TUBE-3-140	1106	UT-50-UPVC	1104
UP17-14	1169	UP3-18-12	1166	UP6-34	1167	UPVC/TUBE-3-16	1106	UT-6	176
UP17-18	1169	UP3-18-12N	1166	UP6-34N	1167	UPVC/TUBE-3-160	1106	UT-625	170
UP17-38	1169	UP3-18-12P	1166	UP6-38	1167	UPVC/TUBE-3-20	1106	UT-63-UPVC	1104
UP18-12	1169	UP3-18-14	1166	UP6-M5	1167	UPVC/TUBE-3-225	1106	UT-750	170
UP18-14	1169	UP3-18-14N	1166	UP7-1	1168	UPVC/TUBE-3-25	1106	UT-75-UPVC	1104
UP18-18	1169	UP3-18-14P	1166	UP7-112	1168	UPVC/TUBE-3-32	1106	UT-8	176
UP18-38	1169	UP3-18-38	1166	UP7-114	1168	UPVC/TUBE-3-40	1106	UT-875	170
UP19-14	1169	UP3-18-38N	1166	UP7-12	1168	UPVC/TUBE-3-50	1106	UT-90-UPVC	1104
UP19-38	1169	UP3-18-38P	1166	UP7-12C	1168	UPVC/TUBE-3-63	1106	UV-1688-025D	979
UP20-1	1169	UP3-34-1	1166	UP7-14	1168	UPVC/TUBE-3-75	1106	UV-1688-032D	979
UP20-12	1169	UP3-34-114	1166	UP7-14C	1168	UPVC/TUBE-3-90	1106	UV-1688-050D	979
UP20-14	1169	UP3-34-1N	1166	UP7-18	1168	UPVC/TUBE-6-110	1106	UW4	1484
UP20-34	1169	UP3-34-1P	1166	UP7-18C	1168	UPVC/TUBE-6-140	1106	V	
UP20-38	1169	UP3-38-1	1166	UP7-38	1168	UPVC/TUBE-6-16	1106	V03A286J-B613A	590
UP21-12	1169	UP3-38-12	1166	UP7-38C	1168	UPVC/TUBE-6-160	1106	V03A486J-B613A	590
UP21-14	1169	UP3-38-12N	1166	UP7-MM05	1168	UPVC/TUBE-6-20	1106	V03X286A-Q1213	590
UP2-12-1	1165	UP3-38-12P	1166	UP8-1	1168	UPVC/TUBE-6-225	1106	V03X486J-B613A	590
UP2-12-14P	1165	UP3-38-1P	1166	UP8-112	1168	UPVC/TUBE-6-25	1106	V04A286M-B623A	590
UP2-12-34	1165	UP3-38-34	1166	UP8-114	1168	UPVC/TUBE-6-32	1106	V04A286M-B628A	590
UP2-12-34P	1165	UP3-38-34N	1166	UP8-12	1168	UPVC/TUBE-6-40	1106	V04A286M-B629A	590
UP2-12-38P	1165	UP3-38-34P	1166	UP8-12N	1168	UPVC/TUBE-6-50	1106	V04A386L-B623A	590
UP21-38	1169	UP3-38-M22	1166	UP8-14	1168	UPVC/TUBE-6-63	1106	V04A386L-B628A	590
UP2-14-12	1165	UP3-M16-M20	1166	UP8-14N	1168	UPVC/TUBE-6-75	1106	V04A386L-B629A	590
UP2-14-12P	1165	UP3-M16-M22	1166	UP8-18	1168	UPVC/TUBE-6-90	1106	V04A486L-B623A	590
UP2-14-18P	1165	UP3-M5-18	1166	UP8-18N	1168	UPVCBR-110	1105	V04A486L-B628A	590
UP2-14-34	1165	UP4-1-12P	1166	UP8-34	1168	UPVCBR-20	1105	V04A486L-B629A	590

V04B286M-B423A	590	VB10-WS-FDA	709	VB40-PU	711	VBL15-WS-FDA	719	VCAP17	1170
V04B286M-B428A	590	VB110-A	713	VB40-S	711	VBL20-A	720	VCAP21	1170
V04B286M-B429A	590	VB110B-A	714	VB40-U	711	VBL20-CS	720	VCAP26	1170
V04X286A-Q1228	590	VB110B-CS	714	VB40-WS	711	VBL20-N	720	VCAP33	1170
V04X286A-Q1229	590	VB110B-N	714	VB40-WS-FDA	711	VBL20-S	720	VCAP42	1170
V04X286M-B623A	590	VB110B-S	714	VB50-A	712	VBL20-U	720	VCAP48	1170
V04X386L-B623A	590	VB110B-U	714	VB50-CS	712	VBL20-WS	720	VCN-1988-025	979
V04X386L-B628A	590	VB110B-WVS	714	VB50M-A	715	VBL20-WS-FDA	720	VCN-1988-040	979
V04X386L-B629A	590	VB110B-WS-FDA	714	VB50M-CS	715	VBL30-A	720	VCN-1988-050	979
V04X486L-B623A	590	VB110-CS	713	VB50M-N	715	VBL30-CS	720	VCN2A-BN14K	425
V04X486L-B628A	590	VB110-N	713	VB50M-PU	715	VBL30-N	720	VCN2C-BN14K	425
V04X486L-B629A	590	VB110-S	713	VB50M-S	715	VBL30-S	720	VCS102	756
V05A286M-B633A	590	VB110-U	713	VB50M-U	715	VBL30-U	720	VCS102C	756
V05A386M-B633A	590	VB110-WS	713	VB50M-WS	715	VBL30-WS	720	VD30-A-18F	742
V05A386M-B638A	590	VB110-WS-FDA	713	VB50M-WS-FDA	715	VBL30-WS-FDA	720	VD30-A-M10M	742
V05A386M-B639A	590	VB12-A	709	VB50-N	712	VBL35M-A	721	VD30-A-M8M	742
V05A486M-B633A	590	VB12-CS	709	VB50-PU	712	VBL35M-CS	721	VD30-CS-18F	742
V05A486M-B638A	590	VB12-N	709	VB50-S	712	VBL35M-FDA-30	721	VD30-CS-M10M	742
V05A486M-B639A	590	VB12-S	709	VB50-U	712	VBL35M-FDA-55	721	VD30-CS-M8M	742
V05B286M-B433A	590	VB12-U	709	VB50-WS	712	VBL35M-N	721	VD30-N-18F	742
V05X286A-Q1233	590	VB12-WS	709	VB50-WS-FDA	712	VBL35M-S	721	VD30-N-M10M	742
V05X286A-Q1238	590	VB12-WS-FDA	709	VB5-A	708	VBL35M-U	721	VD30-N-M8M	742
V05X286A-Q1239	590	VB150-A	714	VB5-CS	708	VBL35M-WS	721	VD30-PU-18F	742
V05X286M-B633A	590	VB150-CS	714	VB5-N	708	VBL40-A	721	VD30-PU-M10M	742
V05X286M-B638A	590	VB150-N	714	VB5-S	708	VBL40B-A	722	VD30-PU-M8M	742
V05X386M-B633A	590	VB150-S	714	VB5-U	708	VBL40B-CS	722	VD30-S-18F	742
V05X486M-B633A	590	VB150-U	714	VB5-WS	708	VBL40B-FDA-30	722	VD30-S-M10M	742
V05X486M-B638A	590	VB150-WS	714	VB5-WS-FDA	708	VBL40B-FDA-55	722	VD30-S-M8M	742
V05X486M-B639A	590	VB150-WS-FDA	714	VB6X-A	708	VBL40B-N	722	VD30-U-18F	742
V07-200-NNLG	690	VB15-A	709	VB6X-CS	708	VBL40B-S	722	VD30-U-M10M	742
V10626-A13L	591	VB15-CS	709	VB6X-N	708	VBL40B-U	722	VD30-U-M8M	742
V10626-A18L	591	VB15-N	709	VB6X-S	708	VBL40B-WS	722	VD30-WS-18F	742
V10626-A19L	591	VB15-PU	709	VB6X-U	708	VBL40-CS	721	VD30-WS-FDA-18F	742
V604-M22-S01	894	VB15-S	709	VB6X-WS	708	VBL40-N	721	VD30-WS-FDA-M10M	742
V60A413A-A2000	591	VB15-U	709	VB6X-WS-FDA	708	VBL40-S	721	VD30-WS-FDA-M8M	742
V60A4D7A-XA090	591	VB15-WS	709	VB75-A	712	VBL40-U	721	VD30-WS-M10M	742
V60A511A-A3000	591	VB15-WS-FDA	709	VB75B-A	713	VBL40-WS	721	VD30-WS-M8M	742
V60A513A-A2000	591	VB17-A	710	VB75B-CS	713	VBL40-WS-FDA	721	VD40-A-18F	743
V60A5D7A-XA090	591	VB17-CS	710	VB75B-N	713	VBL50-A	722	VD40-A-M10M	743
V60A5DDA-XA020	591	VB17-N	710	VB75B-S	713	VBL50-CS	722	VD40-A-M8M	743
V61B413A-A2000	591	VB17-S	710	VB75B-U	713	VBL50-N	722	VD40-CS-18F	743
V61B4D7A-XA090	591	VB17-U	710	VB75B-WS	713	VBL50-S	722	VD40-CS-M10M	743
V61B511A-A3000	591	VB17-WS	710	VB75B-WS-FDA	713	VBL50-U	722	VD40-CS-M8M	743
V61B513A-A2000	591	VB17-WS-FDA	710	VB75-CS	712	VBL50-WS	722	VD40-N-18F	743
V61B5D7A-XA090	591	VB20-CS	710	VB75-N	712	VBL50-WS-FDA	722	VD40-N-M10M	743
V61B5DDA-XA020	591	VB20-N	710	VB75-PU	712	VBU35-N	716	VD40-N-M8M	743
V62C413A-A2000	591	VB20-PU	710	VB75-S	712	VBU35-PU	716	VD40-PU-18F	743
V62C4D7A-XA090	591	VB20-S	710	VB75-U	712	VBU35-S	716	VD40-PU-M10M	743
V62C511A-A3000	591	VB20-U	710	VB75-WS	712	VBU35-WS	716	VD40-PU-M8M	743
V62C513A-A2000	591	VB20-WS	710	VB75-WS-FDA	712	VBU35-WS-FDA	716	VD40-S-18F	743
V62C5D7A-XA090	591	VB20-WS-FDA	710	VB8X-A	708	VBU45-N	716	VD40-S-M10M	743
V62C5DDA-XA020	591	VB30-A	711	VB8X-CS	708	VBU45-PU	716	VD40-S-M8M	743
V64H-NND-RMN	685	VB30-CS	711	VB8X-N	708	VBU45-S	716	VD40-U-18F	743
V68H-NND-RMN	685	VB30M-A	715	VB8X-S	708	VBU45-WS	716	VD40-U-M10M	743
V-ACO 12	1747	VB30M-CS	715	VB8X-U	708	VBU45-WS-FDA	716	VD40-U-M8M	743
V-ACO 12 PTL	1747	VB30M-N	715	VB8X-WS	708	VBU55-N	717	VD40-WS-18F	743
V-ACO 18	1747	VB30M-PU	715	VB8X-WS-FDA	708	VBU55-PU	717	VD40-WS-FDA-18F	743
V-ACO 22	1747	VB30M-S	715	VBL10-A	719	VBU55-S	717	VD40-WS-FDA-M10M	743
V-ACO 39	1747	VB30M-U	715	VBL10-CS	719	VBU55-WS	717	VD40-WS-FDA-M8M	743
V-ACO 60	1747	VB30M-WS	715	VBL10-N	719	VBU55-WS-FDA	717	VD40-WS-M10M	743
V-ACO 9B30D	1747	VB30M-WS-FDA	715	VBL10-S	719	VBV-1	925	VD40-WS-M8M	743
V-ACO 9B9D	1747	VB30-N	711	VBL10-U	719	VBV-12	925	VD50-A-18F	744
VAG 10/25	1492	VB30-PU	711	VBL10-WS	719	VBV-14	925	VD50-A-M10M	744
VAG 20/50	1492	VB30-S	711	VBL10-WS-FDA	719	VBV-34	925	VD50-A-M8M	744
VB10-A	709	VB30-U	711	VBL15-A	719	VBV-38	925	VD50-CS-18F	744
VB10-CS	709	VB30-WS	711	VBL15-CS	719	VBX35-PU	718	VD50-CS-M10M	744
VB10-N	709	VB30-WS-FDA	711	VBL15-N	719	VBX45-PU	718	VD50-CS-M8M	744
VB10-S	709	VB40-A	711	VBL15-S	719	VBX55-PU	718	VD50-N-18F	744
VB10-U	709	VB40-CS	711	VBL15-U	719	VCAP10	1170	VD50-N-M10M	744
VB10-WS	709	VB40-N	711	VBL15-WS	719	VCAP13	1170	VD50-N-M8M	744

VD50-PU-18F	744	VD85X-A-18F	747	VEC01733	433	VF50-S	733	VFC75X2-S-M16M	738
VD50-PU-M10M	744	VD85X-CS-18F	747	VEC02139	433	VF50-U	733	VFC75X2-U-M16M	738
VD50-PU-M8M	744	VD85X-N-18F	747	VF110-A	734	VF50-WS	733	VFC75X2-WS-FDA	738
VD50-S-18F	744	VD85X-S-18F	747	VF110-CS	734	VF50-WS-FDA	733	VFC75X2-WS-M16M	738
VD50-S-M10M	744	VD85X-U-18F	747	VF110-N	734	VF50X2-A	733	VFC90-PU	739
VD50-S-M8M	744	VD85X-WS-18F	747	VF110-S	734	VF50X2-CS	733	VFF1.2013.012	307
VD50-U-18F	744	VD85X-WS-FDA-18F	747	VF110-U	734	VF50X2-N	733	VFF1.2013.013	307
VD50-U-M10M	744	VD90F-PU-12F	747	VF110-WS	734	VF50X2-S	733	VFF1.2019.012	307
VD50-U-M8M	744	VD90F-PU-14F	747	VF110-WS-FDA	734	VF50X2-U	733	VFF1.2019.013	307
VD50-WS-18F	744	VD90F-PU-18F	747	VF150-A	734	VF50X2-WS	733	VFF1.2525.012	307
VD50-WS-FDA-18F	744	VD90F-PU-38F	747	VF150-CS	734	VF50X2-WS-FDA	733	VFF1.2525.013	307
VD50-WS-FDA-M10M	744	VD90F-PU-H19	747	VF150-N	734	VF75-A	737	VFF1.3031.012	307
VD50-WS-FDA-M8M	744	VD90F-PU-M10M	747	VF150-S	734	VF75-CS	733	VFF1.3031.013	307
VD50-WS-M10M	744	VDA10003	1055	VF150-U	734	VF75-N	733	VFF1.3939.012	307
VD50-WS-M8M	744	VDA10004	1055	VF150-WS	734	VF75-PU	733	VFF1.3939.013	307
VD60-A-18F	745	VDA10005	1055	VF150-WS-FDA	734	VF75-S	733	VFH1.2019.012	307
VD60-A-M10M	745	VDA10006	1055	VF15-A	731	VF75-U	733	VFH1.2019.013	307
VD60-A-M8M	745	VDA10007	1055	VF15-CS	731	VF75-WS	733	VFH1.2525.012	307
VD60-CS-18F	745	VDA10008	1055	VF15-N	731	VF75-WS-FDA	733	VFH1.2525.013	307
VD60-CS-M10M	745	VDA10009	1055	VF15-S	731	VF90-PU	734	VFH1.3031.012	307
VD60-CS-M8M	745	VDA20003	1055	VF15-U	731	VFC100-A	739	VFH1.3031.013	307
VD60-N-18F	745	VDA20004	1055	VF15-WS	731	VFC100-CS	739	VFH1.3939.012	307
VD60-N-M10M	745	VDA20005	1055	VF15-WS-FDA	731	VFC100-N	739	VFH1.3939.013	307
VD60-N-M8M	745	VDA20006	1055	VF200-A	735	VFC100-PU	739	VFH1.5051.012	307
VD60-PU-18F	745	VDA20007	1055	VF200-CS	735	VFC100-S	739	VFH1.5051.013	307
VD60-PU-M10M	745	VDA20008	1055	VF200-N	735	VFC100-U	739	VFP10	1170
VD60-PU-M8M	745	VDA20009	1055	VF200-S	735	VFC100-WS	739	VFP13	1170
VD60-S-18F	745	VDC-M22-S01	894	VF200-U	735	VFC100-WS-FDA	739	VFP17	1170
VD60-S-M10M	745	VDK10	1084	VF200-WS	735	VFC50-A-1838MF	737	VFP21	1170
VD60-S-M8M	745	VDK138	1084	VF200-WS-FDA	735	VFC50-CS-1838MF	737	VFP26	1170
VD60-U-18F	745	VDK20	1084	VF20-A	731	VFC50-N-1838MF	737	VFP33	1170
VD60-U-M10M	745	VDK21	1084	VF20-CS	731	VFC50-PU-1838MF	737	VFP42	1170
VD60-U-M8M	745	VDK30	1084	VF20-N	731	VFC50-S-1838MF	737	VFP48	1170
VD60-WS-18F	745	VDK31	1084	VF20-S	731	VFC50-U-1838MF	737	VFP52	1170
VD60-WS-FDA-18F	745	VDK34	1084	VF20-U	731	VFC50-WS-1838MF	737	VFU2.E	627
VD60-WS-FDA-M10M	745	VDK35	1084	VF20-WS	731	VFC50-WS-FDA	737	VFU2.V	627
VD60-WS-FDA-M8M	745	VE-32-UPVC	1107	VF20-WS-FDA	731	VFC60-A-1838MF	737	VFU3.E	627
VD60-WS-M10M	745	VEC00478	433	VF25-A	732	VFC60-CS-1838MF	737	VFU3.V	627
VD60-WS-M8M	745	VEC00493	433	VF25-CS	732	VFC60-N-1838MF	737	VFU4.E	627
VD70-PU-18F	745	VEC00511	433	VF25-N	732	VFC60-PU-1838MF	737	VFU4.V	627
VD70-PU-M10M	745	VEC00515	433	VF25-S	732	VFC60-S-1838MF	737	VFU8.E	627
VD70-PU-M8M	745	VEC00518	433	VF25-U	732	VFC60-U-1838MF	737	VFU8.V	627
VD85-A-12F	746	VEC00519	434	VF25-WS	732	VFC60-WS-1838MF	737	VG100-01D	412
VD85-A-18F	746	VEC00525	433	VF25-WS-FDA	732	VFC60-WS-FDA	737	VG100-01T	412
VD85-A-M10M	746	VEC00528	433	VF300-A-34F	735	VFC60X1-A-M10M	737	VG40-01B	412
VD85-A-M8M	746	VEC00529	434	VF300-CS-34F	735	VFC60X1-CS-M10M	737	VG40-01R	412
VD85-CS-12F	746	VEC00534	433	VF300-N-34F	735	VFC60X1-N-M10M	737	VG50-01B	412
VD85-CS-18F	746	VEC00535	433	VF300-S-34F	735	VFC60X1-PU-M10M	737	VG50-01C	412
VD85-CS-M10M	746	VEC00536	434	VF300-U-34F	735	VFC60X1-S-M10M	737	VG50-01R	412
VD85-CS-M8M	746	VEC00644	433	VF300-WS-34F	735	VFC60X1-U-M10M	737	VG50-01T	412
VD85-N-12F	746	VEC00645	433	VF300-WS-FDA-34F	735	VFC60X1-WSA-FDA	737	VG63-01BG	264
VD85-N-18F	746	VEC00680	433	VF30-A	732	VFC60X1-WS-M10M	737	VG63-01C	412
VD85-N-M10M	746	VEC00707	433	VF30-CS	732	VFC75-A-1838MF	738	VG63-01RG	264
VD85-N-M8M	746	VEC00709	433	VF30-N	732	VFC75-CS-1838MF	738	VG63-01T	412
VD85-S-12F	746	VEC00728	433	VF30-S	732	VFC75-N-1838MF	738	VGBP040118	411
VD85-S-18F	746	VEC00739	433	VF30-U	732	VFC75-PU-1838MF	738	VGBP060114	411
VD85-S-M10M	746	VEC00873	433	VF30-WS	732	VFC75-S-1838MF	738	VGBU040118	411
VD85-S-M8M	746	VEC00901	434	VF30-WS-FDA	732	VFC75-U-1838MF	738	VGBU060114	411
VD85-U-12F	746	VEC00906	434	VF40-A	732	VFC75-WS-1838MF	738	VHC12-12RP	318
VD85-U-18F	746	VEC00908	434	VF40-CS	732	VFC75-WS-FDA	738	VHC16-16RP	318
VD85-U-M10M	746	VEC00909	434	VF40-N	732	VFC75X1-A-M10M	738	VHC20-20RP	318
VD85-U-M8M	746	VEC01095	433	VF40-PU	732	VFC75X1-CS-M10M	738	VHC4-4RP	318
VD85-WS-12F	746	VEC01237	433	VF40-S	732	VFC75X1-N-M10M	738	VHC6-6RP	318
VD85-WS-18F	746	VEC01249	433	VF40-U	732	VFC75X1-S-M10M	738	VHC8-8RP	318
VD85-WS-FDA-12F	746	VEC01250	433	VF40-WS	732	VFC75X1-U-M10M	738	VHN12-12RP	318
VD85-WS-FDA-18F	746	VEC01251	433	VF40-WS-FDA	732	VFC75X1-WS-FDA	738	VHN16-16RP	318
VD85-WS-FDA-M10M	746	VEC01294	433	VF50-A	733	VFC75X1-WS-M10M	738	VHN20-20RP	318
VD85-WS-FDA-M8M	746	VEC01295	433	VF50-CS	733	VFC75X2-A-M16M	738	VHN24-24RP	318
VD85-WS-M10M	746	VEC01296	433	VF50-N	733	VFC75X2-CS-M16M	738	VHN4-4RP	318
VD85-WS-M8M	746	VEC01732	433	VF50-PU	733	VFC75X2-N-M16M	738	VHN6-6RP	318

VHN8-8RP	318	VKA-20S	158	VOU4X20-CS	724	VPS1P	1170	VSM303	755
VHP1	1170	VKA-22L	158	VOU4X20-N	724	VPS2	1170	VSM33X2WD	116
VHP112P	1170	VKA-25S	158	VOU4X20-S	724	VPS2N	1170	VSM42X2WD	116
VHP114	1170	VKA-28L	158	VOU4X20-U	724	VPS2P	1170	VSM48X2WD	116
VHP114P	1170	VKA-30S	158	VOU4X20-WS	724	VPS34	1170	VSM8X1.0WD	116
VHP12	1170	VKA-35L	158	VOU4X20-WS-FDA	724	VPS34N	1170	VSO 425 M5	636
VHP12N	1170	VKA-38S	158	VOU6X10-CS	724	VPS34P	1170	VSO 426 04	636
VHP12P	1170	VKA-42L	158	VOU6X10-N	724	VPS38	1170	VSR1/2WD	116
VHP14	1170	VKA-6L	158	VOU6X10-S	724	VPS38N	1170	VSR1/4WD	116
VHP14N	1170	VKA-6S	158	VOU6X10-U	724	VPS38P	1170	VSR1/8WD	116
VHP14P	1170	VKA-8L	158	VOU6X10-WS	724	VPS58	1170	VSR11/2WD	116
VHP18	1170	VKA-8S	158	VOU6X10-WS(FDA)	724	VPS58P	1170	VSR11/4WD	116
VHP18N	1170	VKM	1477	VOU6X20-CS	725	VPS78	1170	VSR1WD	116
VHP18P	1170	VKM-K	1477	VOU6X20-N	725	VR-12	1596	VSR3/4WD	116
VHP1P	1170	VKO	1477	VOU6X20-S	725	VRG	256	VSR3/8WD	116
VHP2N	1170	VMC1N	425	VOU6X20-U	725	VSC 522	636	VST 38/35	1492
VHP2P	1170	VMS 105 M5	563	VOU6X20-WS	725	VSC 544	636	VST 50	1492
VHP34	1170	VMS 112 1/2	563	VOU6X20-WS-FDA	725	VSC 588	636	VSTI-10M	158
VHP34N	1170	VMS 114 1/4	563	VOU8X20-CS	725	VSD 10L/SMMB	116	VSTI-12EO	158
VHP34P	1170	VMS 118 1/8	563	VOU8X20-N	725	VSD 12L/SMMB	116	VSTI-12M	158
VHP38	1170	VMS 134 3/4	563	VOU8X20-S	725	VSD 14SMMB	116	VSTI-14M	158
VHP38N	1170	VMS 138 3/8	563	VOU8X20-U	725	VSD 15LMMB	116	VSTI-16EO	158
VHP38P	1170	VNC10003	1055	VOU8X20-WS	725	VSD 16SMMB	116	VSTI-16M	158
VHP58	1170	VNC10004	1055	VOU8X20-WS-FDA	725	VSD 18LMMB	116	VSTI-18M	158
VHP58P	1170	VNC10005	1055	VOU8X30-CS	725	VSD 20SMMB	116	VSTI-20EO	158
VHPM05	1170	VNC10006	1055	VOU8X30-N	725	VSD 22LMMB	116	VSTI-20M	158
VHPM06	1170	VNC10007	1055	VOU8X30-S	725	VSD 25SMMB	116	VSTI-22M	158
VHPM08	1170	VNC10008	1055	VOU8X30-U	725	VSD 28LMMB	116	VSTI-24EO	158
VHPM14	1170	VNC10009	1055	VOU8X30-WS	725	VSD 30SMMB	116	VSTI-26M	158
VHPM16	1170	VNC20003	1055	VOU8X30-WS-FDA	725	VSD 35LMMB	116	VSTI-27M	158
VHPM18	1170	VNC20004	1055	VP/SB4/5	1748	VSD 38SMMB	116	VSTI-2EO	158
VHPM20	1170	VNC20005	1055	VP/SB7	1748	VSD 42LMMB	116	VSTI-33M	158
VHPM22	1170	VNC20006	1055	VP/SB8	1748	VSD 44LMMB	116	VSTI-42M	158
VHPM24	1170	VNC20007	1055	VP1204BG101Q00	635	VSD 6L/SMMB	116	VSTI-48M	158
VHPM26	1170	VNC20008	1055	VP1204BG401Q00	635	VSD 6LLMMD	116	VSTI-4EO	158
VHPM28	1170	VNC20009	1055	VP1208BG101Q00	635	VSD 8L/SMMB	116	VSTI-6EO	158
VIG 10/25	1492	VNR 1/8	636	VP1208BG401Q00	635	VSD 8LLMMD	116	VSTI-8EO	158
VIG 15/35	1492	VNR 843 07	636	VP5002BJ111H00	635	VSG	256	VT9012525BKHOOK	1588
VIG 20/50	1492	VNR M5	636	VP5002BJ411H00	635	VSK 10L	116	VTC3021-2	757
VIK-297352	1683	VOBL35X90-A	727	VP5006BJ111H00	635	VSK 10S	116	VTC3022-2	757
VIK-297552	1683	VOBL35X90-CS	727	VP5006BJ411H00	635	VSK 12L	116	VTC3031-2	757
VIK-299152	1683	VOBL35X90-FDA	727	VP5008BJ411H00	635	VSK 12S	116	VTC3032-2	757
VIK-475552	1683	VOBL35X90-N	727	VP5010BJ111H00	635	VSK 14S	116	VTC3122-2	757
VIK-475752	1683	VOBL35X90-S	727	VP5010BJ411H00	635	VSK 15L	116	VTC3123-2	757
VIK-524752	1683	VOBL35X90-U	727	VPC-M16-M16	894	VSK 16S	116	VTC3124-2	757
VIK-525452	1683	VOBL35X90-WS	727	VPC-M22-M16	894	VSK 18L	116	VTC3132-2	757
VIK-545252	1683	VOU10X30-CS	726	VPQ1	1170	VSK 20S	116	VTC3133-2	757
VISCO.110	1635	VOU10X30-N	726	VPQ112	1170	VSK 22L	116	VTC3134-2	757
VITON-1	1472	VOU10X30-S	726	VPQ114	1170	VSK 25S	116	VTF01-118	761
VITON-112	1472	VOU10X30-U	726	VPQ12	1170	VSK 28L	116	VTF01-154	761
VITON-114	1472	VOU10X30-WS	726	VPQ14	1170	VSK 30S	116	VTF02-118	761
VITON-12	1472	VOU10X30-WS-FDA	726	VPQ2	1170	VSK 35L	116	VTF02-154	761
VITON-2	1472	VOU15X45-CS	726	VPQ34	1170	VSK 38S	116	VTF-0706	761
VITON-212	1472	VOU15X45-N	726	VPQ38	1170	VSK 42L	116	VTF-1208	761
VITON-3	1472	VOU15X45-S	726	VPS1	1170	VSK 6L	116	VTF12-141	761
VITON-34	1472	VOU15X45-U	726	VPS112	1170	VSK 6S	116	VTF12-96	761
VK10	1175	VOU15X45-WS	726	VPS112N	1170	VSK 8L	116	VTF34-141	761
VK13	1175	VOU15X45-WS(FDA)	726	VPS112P	1170	VSK 8S	116	VTF34-96	761
VK17	1175	VOU20X60-CS	726	VPS114	1170	VSM12X1.5WD	116	VTF38-141	761
VK21	1175	VOU20X60-N	726	VPS114N	1170	VSM14X1.5WD	116	VTF38-96	761
VK26	1175	VOU20X60-S	726	VPS12	1170	VSM16X1.5WD	116	VTFE27.5-39096	761
VK33	1175	VOU20X60-U	726	VPS12N	1170	VSM18X1.5WD	116	VTFE27.5-39141	761
VKA-10L	158	VOU20X60-WS	726	VPS12P	1170	VSM1-BNR14	425	VTFE47.4-62118	761
VKA-10S	158	VOU20X60-WS(FDA)	726	VPS14	1170	VSM202	755	VTFE47.4-62154	761
VKA-12L	158	VOU4X10-CS	724	VPS14N	1170	VSM203	755	VTFE-B110	714
VKA-12S	158	VOU4X10-N	724	VPS14P	1170	VSM20X1.5WD	116	VTFE-B30	714
VKA-14S	158	VOU4X10-S	724	VPS18	1170	VSM22X1.5WD	116	VTFE-B40	714
VKA-15L	158	VOU4X10-U	724	VPS18N	1170	VSM26X1.5WD	116	VTFE-B50	714
VKA-16S	158	VOU4X10-WS	724	VPS18P	1170	VSM27X2WD	116	VTFE-B75	714
VKA-18L	158	VOU4X10-WS(FDA)	724	VPS1N	1170	VSM2-BNR14	425	VTFE-BL20	722

	VTFE-BL30	722	VU8-S	730	W0950080020	470	W0951252008	495	W095X802050	504
	VTFE-BL40	722	VU8-U	730	W0950080025	470	W0951252010	495	W095XA12001	503
	VTFE-BL40B	722	VU8-WS	730	W0950120001	470	W0951252020	495	W095XA12002	504
	VTFE-BL50	722	VU8-WS-FDA	730	W0950120002	470	W0951252025	496	W095XA12003	503
	VTFE-BU35	717	VUP4.EM	627	W0950120005	470	W0951602001	494	W095XA12004	503
	VTFE-BU45	717	VUP4.M	627	W0950120010	470	W0951602002	495	W095XA12007	504
	VTFE-BU55	717	VUP4.VM	627	W0950120011	470	W0951602004	494	W095XA12008	503
	VTFE-BX35	718	VUP8.EM	627	W0950120020	470	W0951602008	495	W095XA12050	504
	VTFE-BX45	718	VUP8.M	627	W0950120025	470	W0951602010	495	W0970512000	831
	VTFE-BX55	718	VUP8.VM	627	W0950200001	470	W0951602020	495	W10-UEL	153
	VTFE-OBL35X90	727	VV1.1010.002	304	W0950200002	470	W0952002001	494	W10-UES	153
	VU1.5X-A	728	VV1.1010.003	304	W0950200005	470	W0952002002	495	W1211600025	493
	VU1.5X-CS	728	VV1.1313.002	304	W0950200010	470	W0952002004	494	W1211600050	493
	VU1.5X-N	728	VV1.1313.003	304	W0950200011	470	W0952002025	496	W1211600080	493
	VU1.5X-S	728	VV1.2019.002	304	W0950200020	470	W0952022180	504	W1211600100	493
	VU1.5X-U	728	VV1.2019.003	304	W0950200025	470	W0952028184	472	W1211600125	493
	VU1.5X-WS	728	VV1.2525.002	304	W0950320002	539	W095X120001	472	W1211600160	493
	VU1.5X-WS(FDA)	728	VV1.2525.003	304	W0950320005	539	W095X120002	472	W1211600200	493
	VU10-A	730	VV1.3031.002	304	W0950320010	539	W095X120005	472	W1211600250	493
	VU10-CS	730	VV1.3031.003	304	W0950322001	494	W095X120010	472	W1211600320	493
	VU10-N	730	VV1.3939.002	304	W0950322002	495	W095X120011	472	W1211600400	493
	VU10-S	730	VV1.3939.003	304	W0950322004	494	W095X120020	472	W1211600500	493
	VU10-U	730	VV1.5051.002	304	W0950322010	470	W095X200001	472	W1212000025	493
	VU10-WS	730	VV1.5051.003	304	W0950322020	470	W095X200002	472	W1212000050	493
	VU10-WS(FDA)	730	VZ05	1175	W0950322025	470	W095X200005	472	W1212000080	493
	VU2-A	728	VZ10	1175	W0950322030	540	W095X200010	472	W1212000100	493
	VU2-CS	728	VZ10K	1175	W0950322108	495	W095X200011	472	W1212000125	493
	VU2-N	728	VZ13	1175	W0950326021	540	W095X200020	472	W1212000160	493
	VU2-S	728	VZ13K	1175	W0950400002	539	W095X322001	503	W1212000200	493
	VU2-U	728	VZ17	1175	W0950400005	539	W095X322002	504	W1212000250	493
	VU2-WS	728	VZ17K	1175	W0950400010	539	W095X322003	503	W1212000320	493
	VU2-WS(FDA)	728	VZ21	1175	W0950402001	494	W095X322004	503	W1212000400	493
	VU2X-A	728	VZ21K	1175	W0950402002	495	W095X322007	504	W1212000500	493
	VU2X-CS	728	VZ26	1175	W0950402004	494	W095X322008	503	W1212500025	493
	VU2X-N	728	VZ26K	1175	W0950402010	495	W095X322011	472	W1212500050	493
	VU2X-S	728	VZ33	1175	W0950402020	495	W095X322020	472	W1212500080	493
	VU2X-U	728	VZ33K	1175	W0950402025	496	W095X322050	504	W1212500100	493
	VU2X-WS	728	W		W0950402030	540	W095X402001	503	W1212500125	493
	VU2X-WS(FDA)	728	W0210010100	620	W0950402108	495	W095X402002	504	W1212500160	493
	VU3-A	729	W0210011100	620	W0950406021	540	W095X402003	503	W1212500200	493
	VU3-CS	729	W0210012100	620	W0950500002	539	W095X402004	503	W1212500250	493
	VU3-N	729	W0210013100	620	W0950500005	539	W095X402007	504	W1212500320	493
	VU3-S	729	W0215000001	589	W0950500010	539	W095X402008	503	W1212500400	493
	VU3-U	729	W0215000011	589	W09505002001	494	W095X402011	504	W1212500500	493
	VU3-WS	729	W0215000021	589	W0950502002	495	W095X402020	504	W1213200025	493
	VU3-WS(FDA)	729	W0215000031	589	W0950502004	494	W095X402050	504	W1213200050	493
	VU4-A	729	W0215000101	589	W0950502010	495	W095X502001	503	W1213200080	493
	VU4-CS	729	W0215000111	589	W0950502020	495	W095X502002	504	W1213200100	493
	VU4-N	729	W0215000121	589	W0950502025	496	W095X502003	503	W1213200125	493
	VU4-S	729	W0215000131	589	W0950502030	540	W095X502004	503	W1213200160	493
	VU4-U	729	W0950000132	540	W0950502108	495	W095X502007	504	W1213200200	493
	VU4-WS	729	W0950000140	540	W0950506021	540	W095X502008	503	W1213200250	493
	VU4-WS-FDA	729	W0950000150	540	W0950632001	494	W095X502011	504	W1213200320	493
	VU4X-A	729	W0950000201	470	W0950632002	495	W095X502020	504	W1213200400	493
	VU4X-CS	729	W0950000510	470	W0950632004	494	W095X502050	504	W1213200500	493
	VU4X-N	729	W0950000512	470	W0950632108	495	W095X632001	503	W12-UEL	153
	VU4X-S	729	W0950000516	470	W0950802001	494	W095X632002	504	W12-UES	153
	VU4X-U	729	W0950000520	470	W0950802002	495	W095X632003	503	W14-UES	153
	VU4X-WS	729	W0950000525	470	W0950802004	494	W095X632004	503	W15-UEL	153
	VU4X-WS-FDA	729	W0950000711	496	W0950802010	495	W095X632007	504	W16-UES	153
	VU6-A	730	W0950000712	496	W0950802020	495	W095X632008	503	W1800160010	471
	VU6-CS	730	W0950000713	496	W0950802025	496	W095X632050	504	W1800160025	471
	VU6-N	730	W0950001100	504	W0950802108	495	W095X802001	503	W1800160050	471
	VU6-S	730	W0950001103	472	W0951002001	494	W095X802002	504	W1800160080	471
	VU6-U	730	W0950060000	496	W0951002002	495	W095X802003	503	W1800160100	471
	VU6-WS	730	W0950080001	470	W0951002004	494	W095X802004	503	W1800160125	471
	VU6-WS-FDA	730	W0950080002	470	W0951002108	495	W095X802007	504	W1800160160	471
	VU8-A	730	W0950080005	470	W0951252001	494	W095X802008	503	W1800160200	471
	VU8-CS	730	W0950080010	470	W0951252002	495	W095X802011	504	W1800160250	471
	VU8-N	730	W0950080011	470	W0951252004	494	W095X802020	504	W1800160320	471

W1800200010	471	W1840800100	502	W6-UEL	153	WDC9	1558	WDHCOO-SS	1533
W1800200025	471	W1840800125	502	W6-UES	153	WDCMOO	1558	WDHCO-SS	1533
W1800200050	471	W1840800160	502	W8-UEL	153	WDCO	1558	WDHCOX	1533
W1800200080	471	W1840800200	502	W8-UES	153	WDCOO	1558	WDHCOX-SS	1533
W1800200100	471	W1840800250	502	W-97	1720	WDCOOO	1558	WE10L-2N	149
W1800200125	471	W1840800320	502	WA10	1173	WDCOX	1558	WE10L-2RT	149
W1800200160	471	W1840800400	502	WA13	1173	WDF-05	1107	WE10L-4N	149
W1800200200	471	W1840800500	502	WA17	1173	WDH-1/2-50	1415	WE10L-4RT	149
W1800200250	471	W1841000025	502	WA21	1173	WDH1-10	1431	WE10L-6RT	149
W1800200320	471	W1841000050	502	WA26	1173	WDH112-10	1431	WE10L-8N	149
W1800200400	471	W1841000080	502	WA2-6M	1430	WDH112-30	1431	WE10L-8RT	149
W1800250010	471	W1841000100	502	WA33	1173	WDH114-10	1431	WE10S-4N	149
W1800250025	471	W1841000125	502	WA3-6M	1430	WDH114-30	1431	WE10S-4RT	149
W1800250050	471	W1841000160	502	WA4-6M	1430	WDH1-30	1431	WE10S-6N	149
W1800250080	471	W1841000200	502	WA6-3M	1430	WDH2-10	1431	WE10S-6RT	149
W1800250100	471	W1841000250	502	WA8-3M	1430	WDH212-10	1431	WE10S-8N	149
W1800250125	471	W1841000320	502	WAL020102	135	WDH212-30	1431	WE10S-8RT	149
W1800250160	471	W1841000400	502	WAL020104	135	WDH2-30	1431	WE12L-2RT	149
W1800250200	471	W1841000500	502	WAL020309	135	WDH3-10	1431	WE12L-4N	149
W1800250250	471	W18-UEL	153	WAL020324	135	WDH3-30	1431	WE12L-4RT	149
W1800250320	471	W20-UES	153	WAL610499	135	WDH34-10	1431	WE12L-6N	149
W1800250400	471	W22-UEL	153	WAL610500	135	WDH34-30	1431	WE12L-6RT	149
W1800250500	471	W25-UES	153	WAL610519	135	WDH4-10	1431	WE12L-8N	149
W1840320025	502	W28-UEL	153	WALLC2-3M	1430	WDH4-30	1431	WE12L-8RT	149
W1840320050	502	W30-UES	153	WALLC2-6M	1430	WDHC1	1533	WE12S-4N	149
W1840320080	502	W3501000100	550	WALLC3312-3M	1430	WDHC180-SS	1533	WE12S-4RT	149
W1840320100	502	W3501000101	550	WALLC3312-6M	1430	WDHC1A	1533	WE12S-6N	149
W1840320125	502	W3501000110	550	WALLC4-3M	1430	WDHC1A-SS	1533	WE12S-6RT	149
W1840320160	502	W3501000111	550	WALLC4-6M	1430	WDHC1-SS	1533	WE12S-8N	149
W1840320200	502	W3501000200	550	WALLC6-3M	1430	WDHC1X	1533	WE12S-8RT	149
W1840320250	502	W3501000201	550	WALLC6-6M	1430	WDHC1X-SS	1533	WE14S-6N	149
W1840320320	502	W3501000210	550	WALL-STATION	284	WDHC2	1533	WE14S-6RT	149
W1840320400	502	W3501000211	550	WAM5	1173	WDHC200	1533	WE14S-8N	149
W1840320500	502	W3501000300	550	WASH-GUN	1657	WDHC200-SS	1533	WE14S-8RT	149
W1840400025	502	W3501000311	550	WATERC1.5D	445	WDHC220	1533	WE15L-12N	149
W1840400050	502	W3501000400	550	WATERC2.5D	445	WDHC220-SS	1533	WE15L-12RT	149
W1840400080	502	W3501000411	550	WCSD-1332	1413	WDHC240	1533	WE15L-4RT	149
W1840400100	502	W3501001100	550	WCSD-3876	1413	WDHC240-SS	1533	WE15L-6N	149
W1840400125	502	W3501001101	550	WD-1/2	159	WDHC260	1533	WE15L-6RT	149
W1840400160	502	W3501001110	550	WD-10X1	159	WDHC260-SS	1533	WE15L-8N	149
W1840400200	502	W3501001111	550	WD-12X1.5	159	WDHC280	1533	WE15L-8RT	149
W1840400250	502	W3501001200	550	WD-14X1.5	159	WDHC2A	1533	WE16S-12N	149
W1840400320	502	W3501001201	550	WD-16X1.5	159	WDHC2A-SS	1533	WE16S-12RT	149
W1840400400	502	W3501001210	550	WD-18X1.5	159	WDHC2-SS	1533	WE16S-6N	149
W1840400500	502	W3501001211	550	WD-20X1.5	159	WDHC2X	1533	WE16S-6RT	149
W1840500025	502	W3501001301	550	WD-22X1.5	159	WDHC2X-SS	1533	WE16S-8N	149
W1840500050	502	W3501001311	550	WD-26X1.5	159	WDHC3	1533	WE16S-8RT	149
W1840500080	502	W3501001401	550	WD-27X2	159	WDHC300	1533	WE18L-12N	149
W1840500100	502	W3501001411	550	WD-3/8	159	WDHC3-SS	1533	WE18L-12RT	149
W1840500125	502	W35-UEL	153	WD-33X2	159	WDHC3X	1533	WE18L-6N	149
W1840500160	502	W3604000001	612	WD-42X2	159	WDHC3X-SS	1533	WE18L-6RT	149
W1840500200	502	W3604000002	612	WD-48X2	159	WDHC4	1533	WE18L-8N	149
W1840500250	502	W3604000003	612	WDC1	1558	WDHC45	1533	WE18L-8RT	149
W1840500320	502	W3604000004	612	WDC10	1558	WDHC45-SS	1533	WE20S-12N	149
W1840500400	502	W3604000005	612	WDC11	1558	WDHC4-SS	1533	WE20S-12RT	149
W1840500500	502	W3604000006	612	WDC12	1558	WDHC4X	1533	WE20S-8N	149
W1840630025	502	W3605000001	624	WDC13	1558	WDHC4X-SS	1533	WE20S-8RT	149
W1840630050	502	W3606000002	623	WDC1A	1558	WDHC5	1533	WE22L-12N	149
W1840630080	502	W3606000004	623	WDC1X	1558	WDHC5-SS	1533	WE22L-12RT	149
W1840630100	502	W38-UES	153	WDC2	1558	WDHC6	1533	WE22L-8N	149
W1840630125	502	W42-UEL	153	WDC2A	1558	WDHC6-SS	1533	WE22L-8RT	149
W1840630160	502	W6001101001	826	WDC2X	1558	WDHC7	1533	WE25S-16N	149
W1840630200	502	W6001101106	826	WDC3	1558	WDHC7-SS	1533	WE28L-12N	149
W1840630250	502	W6001111011	826	WDC3X	1558	WDHC8	1533	WE28L-16N	149
W1840630320	502	W6001111106	826	WDC4	1558	WDHCMOO	1533	WE28L-16RT	149
W1840630400	502	W6001111108	826	WDC4X	1558	WDHCMOO-SS	1533	WE30S-20N	149
W1840630500	502	W6001121021	826	WDC5	1558	WDHCO	1533	WE35L-20N	149
W1840800025	502	W6001121108	826	WDC6	1558	WDHCOO	1533	WE35L-20RT	149
W1840800050	502	W6001121110	826	WDC7	1558	WDHCOOO	1533	WE38S-24N	149
W1840800080	502	W6001131112	826	WDC8	1558	WDHCOOO-SS	1533	WE42L-24N	149

WE6L2N	149	WEV14SRK	122	WF-M 42 L VI	118	WG100-38B-2BAR	413	WG63-14FPM-28BAR	413
WE6L2RT	149	WEV15L1/2NPT	122	WF-M 6 L NBR	118	WG100-38B-40BAR	413	WG63-14FPM-2BAR	413
WE6L4N	149	WEV15LMK	122	WF-M 6 L VI	118	WG100-38B-40G	266	WG63-14FPM-40BAR	413
WE6L4RT	149	WEV15LR3/8K	122	WF-M 6 S NBR	118	WG100-38B-4BAR	413	WG63-14FPM-4BAR	413
WE6L6N	149	WEV15LRK	122	WF-M 6 S VI	118	WG100-38B-4G	266	WG63-14FPM-7BAR	413
WE6L6RT	149	WEV16S1/2NPT	122	WF-M 8 L NBR	118	WG100-38B-6G	266	WG63-14R/30HG	266
WE6L8N	149	WEV16SMK	122	WF-M 8 L VI	118	WG100-38B-7BAR	413	WG63-14R-1.6G	266
WE6L8RT	149	WEV16SRK	122	WF-M 8 S NBR	118	WG100-38R-10G	266	WG63-14R-100G	266
WE6S-2RT	149	WEV18L1/2NPT	122	WF-M 8 S VI	118	WG100-38R-16G	266	WG63-14R-10G	266
WE6S-4N	149	WEV18LMK	122	WV10L35	135	WG100-38R-2.5G	266	WG63-14R-160G	266
WE6S-4RT	149	WEV18LRK	122	WV12L35	135	WG100-38R-40G	266	WG63-14R-16G	266
WE6S-6N	149	WEV20S3/4NPT	122	WV15L35	135	WG100-38R-4G	266	WG63-14R-1G	266
WE6S-6RT	149	WEV22L3/4NPT	122	WV15L40	135	WG100-38R-6G	266	WG63-14R-2.5G	266
WE6S-8N	149	WEV25S1NPT	122	WV16S35	135	WG40-18B-14BAR	413	WG63-14R-250G	266
WE6S-8RT	149	WEV28L1NPT	122	WV18L40	135	WG40-18B-1BAR	413	WG63-14R-25G	266
WE8L2N	149	WEV4LL1/8NPT	122	WV20S35	135	WG40-18B-2BAR	413	WG63-14R-400G	266
WE8L2RT	149	WEV4LLMK	122	WV20S40	135	WG40-18R-1	413	WG63-14R-40G	266
WE8L4N	149	WEV4LLRK	122	WV20S55	135	WG40-18R-10	413	WG63-14R-4G	266
WE8L4RT	149	WEV6L1/8NPT	122	WV22L40	135	WG40-18R-16	413	WG63-14R-600G	266
WE8L6N	149	WEV6LL1/8NPT	122	WV22L55	135	WG40-18R-2.5	413	WG63-14R-60G	266
WE8L6RT	149	WEV6LLMK	122	WV25S55	135	WG40-18R-25	413	WG63-14R-6G	266
WE8L8N	149	WEV6LLRK	122	WV28L40	135	WG40-18R-4	413	WG63-716B-1/9	265
WE8L8RT	149	WEV6LMK	122	WV30S55	135	WG40-18R-6	413	WG-9	1609
WE8S-4N	149	WEV6LR1/4K	122	WV35L40	135	WG50-18B-11BAR	413	WG-900KIT	1609
WE8S-4RT	149	WEV6LRK	122	WV35L55	135	WG50-18B-14BAR	413	WGB-100	413
WE8S-6N	149	WEV6S1/4NPT	122	WV42L55	135	WG50-18B-200BAR	413	WGB-63	413
WE8S-6RT	149	WEV6SMK	122	WF-WD10L/S	118	WG50-18B-20BAR	413	WGS-01	1609
WE8S-8N	149	WEV6SRK	122	WF-WD12L/S	118	WG50-18B-40BAR	413	WGS-02	1609
WE8S-8RT	149	WEV8L1/4NPT	122	WF-WD15L	118	WG50-18B-4BAR	413	WGS-03	1609
WEEV-06L1/8	152	WEV8LL1/8NPT	122	WF-WD16S	118	WG50-18B-70BAR	413	WGS-04	1609
WEEV-08L1/4	152	WEV8LLMK	122	WF-WD16SVI	118	WG50-18B-7BAR	413	WGS-05	1609
WEEV-10L1/4	152	WEV8LLRK	122	WF-WD18L	118	WG50-18R-1	413	WGS-06	1609
WEEV-12L3/8	152	WEV8LMK	122	WF-WD18LVI	118	WG50-18R-10	413	WHV-06L2EO-WDS	163
WEEV-15L1/2	152	WEV8LRK	122	WF-WD20S	118	WG50-18R-16	413	WHV-06S-4EO-WDS	163
WEEV-18L1/2	152	WEV8S1/4NPT	122	WF-WD20SVI	118	WG50-18R-2.5	413	WHV-08L4EO-WDS	163
WEEV-22L3/4	152	WEV8SMK	122	WF-WD22L	118	WG50-18R-25	413	WHV-08S-4EO-WDS	163
WEEV-28L-1	152	WEV8SRK	122	WF-WD22LVI	118	WG50-18R-4	413	WHV-10L4EO-WDS	163
WEEV-35L-114	152	WF-12	260	WF-WD25S	118	WG50-18R-6	413	WHV-10L4RG	157
WEP-12	1183	WF-16	260	WF-WD25SVI	118	WG63-14B/30HG	266	WHV-10L6EO-WDS	163
WES 10 LRK	134	WF-20	260	WF-WD28L	118	WG63-14B-1.6G	266	WHV-10L6G	157
WES 10 LRK 3/8	134	WF-24	260	WF-WD28LVI	118	WG63-14B-100G	266	WHV-10S-4EO-WDS	163
WES 10 SRK	134	WF-M 10 L NBR	118	WF-WD30S	118	WG63-14B-10G	266	WHV-10S-4RG	157
WES 12 LRK	134	WF-M 10 L VI	118	WF-WD30SVI	118	WG63-14B-11BAR	413	WHV-10S-6EO-WDS	163
WES 12 LRK 1/4	134	WF-M 10 S NBR	118	WF-WD35L	118	WG63-14B-140BAR	413	WHV-10S-6G	157
WES 12 SRK	134	WF-M 10 S VI	118	WF-WD35LVI	118	WG63-14B-14BAR	413	WHV-12L4EO-WDS	163
WES 14 SRK	134	WF-M 12 L NBR	118	WF-WD38S	118	WG63-14B-160G	266	WHV-12L4RG	157
WES 15 LRK	134	WF-M 12 L VI	118	WF-WD38SVI	118	WG63-14B-16G	266	WHV-12L6EO-WDS	163
WES 16 SRK	134	WF-M 12 S NBR	118	WF-WD42L	118	WG63-14B-1BAR	413	WHV-12L6RG	157
WES 18 LRK	134	WF-M 12 S VI	118	WF-WD42LVI	118	WG63-14B-1G	266	WHV-12L8EO-WDS	163
WES 6 LRK	134	WF-M 15 L NBR	118	WF-WD6L/S	118	WG63-14B-2.5G	266	WHV-12L8RG	157
WES 6 LRK 1/4	134	WF-M 15 L VI	118	WF-WD8L/S	118	WG63-14B-20BAR	413	WHV-12S-6EO-WDS	163
WES 6 SRK	134	WF-M 16 S NBR	118	WG02	1659	WG63-14B-250G	266	WHV-12S-6RG	157
WES 8 LRK	134	WF-M 16 S VI	118	WG100-12B-100G	266	WG63-14B-25G	266	WHV-14S-8EO-WDS	163
WES 8 SRK	134	WF-M 18 L NBR	118	WG100-12B-160G	266	WG63-14B-28BAR	413	WHV-14S-8RG	157
WEV10L1/4NPT	122	WF-M 18 L VI	118	WG100-12B-250G	266	WG63-14B-2BAR	413	WHV-15L8EO-WDS	163
WEV10LMK	122	WF-M 20 S NBR	118	WG100-12B-400G	266	WG63-14B-400BAR	413	WHV-15L8RG	157
WEV10LR3/8K	122	WF-M 20 S VI	118	WG100-12B-600G	266	WG63-14B-400G	266	WHV-16S-8EO-WDS	163
WEV10LRK	122	WF-M 22 L NBR	118	WG100-12R-100G	266	WG63-14B-40BAR	413	WHV-16S-8RG	157
WEV10S3/8NPT	122	WF-M 22 L VI	118	WG100-12R-160G	266	WG63-14B-40G	266	WHV-18L8EO-WDS	163
WEV10SMK	122	WF-M 25 S NBR	118	WG100-12R-250G	266	WG63-14B-4BAR	413	WHV-18L8RG	157
WEV12L1/4NPT	122	WF-M 25 S VI	118	WG100-12R-400G	266	WG63-14B-4G	266	WHV-20S-12EO-WDS	163
WEV12L3/8NPT	122	WF-M 28 L NBR	118	WG100-12R-600G	266	WG63-14B-600G	266	WHV-20S-12RG	157
WEV12LMK	122	WF-M 28 L VI	118	WG100-38B-10G	266	WG63-14B-60G	266	WHV-22L12EO-WDS	163
WEV12LR1/2K	122	WF-M 30 S NBR	118	WG100-38B-11BAR	413	WG63-14B-6G	266	WHV-22L12RG	157
WEV12LR1/4K	122	WF-M 30 S VI	118	WG100-38B-14BAR	413	WG63-14B-70BAR	413	WHV-25S-16EO-WDS	163
WEV12LRK	122	WF-M 35 L NBR	118	WG100-38B-16G	266	WG63-14B-7BAR	413	WHV-25S-16RG	157
WEV12S3/8NPT	122	WF-M 35 L VI	118	WG100-38B-1BAR	413	WG63-14FPM-11BAR	413	WHV-28L16EO-WDS	163
WEV12SMK	122	WF-M 38 S NBR	118	WG100-38B-2.5G	266	WG63-14FPM-14BAR	413	WHV-28L16RG	157
WEV12SRK	122	WF-M 38 S VI	118	WG100-38B-20BAR	413	WG63-14FPM-1BAR	413	WHV-30S-20EO-WDS	163
WEV14S1/2NPT	122	WF-M 42 L NBR	118	WG100-38B-28BAR	413	WG63-14FPM-20BAR	413	WHV-30S-20RG	157

WHV-35L20EO-WDS	163	WR28LA2M	117	WSV-20S-FT	156	X3044802	558	XBMBF1616	64
WHV-35L20RG	157	WR28LVIA2M	117	WSV22L	123	X3045102	558	XBMBF2020	64
WHV-38S-24EO-WDS	163	WR3	1489	WSV-22LFT	156	X3045502	558	XBMBF2424	64
WHV-38S-24RG	157	WR30SVIA2M	117	WSV25S	123	X3046302	558	XBMBF3232	64
WHV-42L24EO-WDS	163	WR35LA2M	117	WSV-25S-FT	156	X3046402	558	XBMF0402	64
WHV-42L24RG	157	WR35LVIA2M	117	WSV28L	123	X3046502	558	XBMF0404	64
WHV-4LL2EO-WDS	163	WR38SA2M	117	WSV-28LFT	156	X3047202	558	XBMF0406	64
WHV-6L2RG	157	WR38SVIA2M	117	WSV30S	123	X3047702	558	XBMF0604	64
WHV-6LL2EO-WDS	163	WR3URT	1489	WSV-30S-FT	156	X3047802	558	XBMF0606	64
WHV-6S-4RG	157	WR4	1489	WSV35L	123	X3048202	558	XBMF0608	64
WHV-8L4RG	157	WR42LA2M	117	WSV-35LFT	156	X3048402	558	XBMF0612	64
WHV-8LL2EO-WDS	163	WR42LVIA2M	117	WSV38S	123	X3064002	558	XBMF0806	64
WHV-8S-4RG	157	WR4URT	1489	WSV-38S-FT	156	X3064202	558	XBMF0808	64
WI10	1173	WR6LA2M	117	WSV42L	123	X3064402	558	XBMF0812	64
WI13	1173	WR6LVIA2M	117	WSV-42LFT	156	X3065102	558	XBMF0816	64
WI17	1173	WR6SA2M	117	WSV6L	123	X3066502	558	XBMF1212	64
WI21	1173	WR6SVIA2M	117	WSV-6LFT	156	X3067702	558	XBMF1216	64
WI26	1173	WR8LA2M	117	WSV6S	123	X3067802	558	XBMF1612	64
WI33	1173	WR8LVIA2M	117	WSV-6S-FT	156	X3068202	558	XBMF1616	64
WIM5	1173	WR8SVIA2M	117	WSV8L	123	X3068402	558	XBMF2424	64
WL1	1489	WRSLEEVE-100	46	WSV-8LFT	156	X30-N6	760	XBMF3232	64
WL112	1489	WRSLEEVE-125	46	WSV8S	123	X30-S3	760	XBMJF0409	77
WL114	1489	WRSLEEVE-150	46	WSV-8S-FT	156	X30-W3	760	XBMJF0609	77
WL12	1489	WRSLEEVE-175	46	WTC28	1092	X-32-UPVC	1103	XBMJF0612	77
WL14	1489	WRSLEEVE-200	46	WTG100-120	265	X3343702	558	XBMJF0812	77
WL2	1489	WRSLEEVE-25	46	WTG100-200	265	X3343802	558	XBMJF0814	77
WL212	1489	WRSLEEVE-75	46	WTG100-60	265	X3347802	558	XBMJF1014	77
WL3	1489	WS 10 L	133	WTG100-TE-120	417	X3363702	558	XBMJF1217	77
WL34	1489	WS 12 L	133	WTG100-TE-60	417	X3363802	558	XFN0202	65
WL38	1489	WS 12 S	133	WTG160-120	417	X3367802	558	XFN0404	65
WL4	1489	WS 15 L	133	WTG160-60	417	X-40-UPVC	1103	XFN0606	65
WN-1	1185	WS 16 S	133	WTG63-120	265	X45-N6	760	XFN0608	65
WN-112	1185	WS 18 L	133	WTG63160-120	417	X45-S3	760	XFN0808	65
WN-114	1185	WS 20 S	133	WTG63160-60	417	X45-W3	760	XFN1212	65
WN-12	1185	WS 22 L	133	WTG63-200	265	X-50-UPVC	1103	XFN1616	65
WN-14	1185	WS 25 S	133	WTG63-60	265	X55-N6	760	XFN2020	65
WN-18	1185	WS 28 L	133	WV06S	123	X55-S3	760	XFN2424	65
WN-2	1185	WS 30 S	133	WV08S	123	X55-W3	760	XFN3232	65
WN-212	1185	WS 35 L	133	WV10L	123	X65-N6	760	XGNSS	1659
WN-3	1185	WS 38 S	133	WV10S	123	X65-S3	760	XGNSSR	1659
WN-34	1185	WS 42 L	133	WV12L	123	X65-W3	760	XJF0707	76
WN-38	1185	WS 6 L	133	WV12S	123	X75-N6	760	XJF0909	76
WN-4	1185	WS 6 S	133	WV14S	123	X75-S3	760	XJF1212	76
WO_DEP	1627	WS 8 L	133	WV15L	123	X-75-UPVC	1103	XJF1414	76
WO_DEPF	1627	WS 8 S	133	WV16S	123	X75-W3	760	XJF1717	76
WP3URT	1489	WSHOP-STATION	284	WV18L	123	X-90-UPVC	1103	XJF1919	76
WP4URT	1489	WSL10	1173	WV20S	123	XBF0202	64	XJF2121	76
WR10LA2M	117	WSL13	1173	WV22L	123	XBF0204	64	XJMF0707	77
WR10LVIA2M	117	WSL17	1173	WV25S	123	XBF0404	64	XJMF0808	77
WR10SA2M	117	WSL21	1173	WV28L	123	XBF0406	64	XJMF0909	77
WR112	1489	WSL26	1173	WV30S	123	XBF0408	64	XJMF1212	77
WR114	1489	WSL33	1173	WV35L	123	XBF0606	64	XJMF1414	77
WR12LA2M	117	WSLM5	1173	WV38S	123	XBF0608	64	XJMF1717	77
WR12LVIA2M	117	WSV10L	123	WV42L	123	XBF0808	64	XJMF2121	77
WR12SA2M	117	WSV-10LFT	156	WV4LL	123	XBF1010	64	XJMF2626	77
WR12SVIA2M	117	WSV10S	123	WV6L	123	XBF1212	64	XLPECSDH-13-10	1433
WR15LA2M	117	WSV-10S-FT	156	WV6LL	123	XBF1216	64	XLPECSDH-13-40	1433
WR15LVIA2M	117	WSV12L	123	WV8L	123	XBF1616	64	XLPECSDH-19-10	1433
WR16SA2M	117	WSV-12LFT	156	WV8LL	123	XBF2020	64	XLPECSDH-19-40	1433
WR16SVIA2M	117	WSV12S	123	X		XBF2424	64	XLPECSDH-25-10	1433
WR18LA2M	117	WSV-12S-FT	156	X-110-UPVC	1103	XBF3232	64	XLPECSDH-25-40	1433
WR18LVIA2M	117	WSV14S	123	X-16-UPVC	1103	XBMBF0202	64	XLPECSDH-32-10	1433
WR2	1489	WSV-14S-FT	156	X-20-UPVC	1103	XBMBF0404	64	XLPECSDH-32-40	1433
WR20SA2M	117	WSV15L	123	X25-N6	760	XBMBF0604	64	XLPECSDH-38-10	1433
WR20SVIA2M	117	WSV-15LFT	156	X25-S3	760	XBMBF0606	64	XLPECSDH-38-40	1433
WR212	1489	WSV16S	123	X-25-UPVC	1103	XBMBF0806	64	XLPECSDH-51-10	1433
WR22LA2M	117	WSV-16S-FT	156	X25-W3	760	XBMBF0808	64	XLPECSDH-51-40	1433
WR22LVIA2M	117	WSV18L	123	X3039302	558	XBMBF0812	64	XMB0404	63
WR25SA2M	117	WSV-18LFT	156	X3044002	558	XBMBF1010	64	XMB0406	63
WR25SVIA2M	117	WSV20S	123	X3044302	558	XBMBF1212	64	XMB04J07	77

XMB04J08	77	XO-21	1174	YS-34	972	ZFJ21	79	ZMJ21	79
XMB04J09	77	XP73AE61.000	1054	YS-4	972	ZFN34	1621	ZMMFB02	66
XMB04N04	64	XP73CE61.000	1054	YT-1000RDM534S00	1023	ZFNL4ST	1656	ZMMFB04	66
XMB0606	63	XP73DE61.000	1054	YT-1000RDN534S01	1023	ZFNL8	1655	ZMMFB06	66
XMB0608	63	XP73EE61.000	1054	YZ6185/IP65	1460	ZFNL9B	1655	ZMMFB08	66
XMB06J09	77	XP83FE61000	1054	YZ7325	1460	ZFSM1	1655	ZMMFB12	66
XMB06J12	77	XP83GE61000	1054	Z		ZFSM5	1655	ZMMFB16	66
XMB06N06	64	XS2001	1500	Z29100BREATHE	677	ZG77	1640	ZMMFB20	66
XMB0808	63	XS4001	1502	Z4MB02	70	ZGGH01	1648	ZMMFJ07	79
XMB0812	63	XSHC04	557	Z4MB04	70	ZHC203B	1648	ZMMFJ09	79
XMB08J12	77	XY720	1025	Z4MB06	70	ZHC21XL	1648	ZMMFJ12	79
XMB08J14	77	XY790H	1025	Z4MB08	70	ZHCSW3B	1648	ZMMFJ14	79
XMB08N08	64	XY790L	1025	Z4MB10	70	ZMB02BS	67	ZMMFJ17	79
XMB1212	63	Y		Z4MB12	70	ZMB04	67	ZMMFJ26	79
XMB12J14	77	Y64A-4GA-N1N	685	Z4MB16	70	ZMB04BS	67	ZMN02	67
XMB12J17	77	Y64A-4GA-N2N	685	Z4MB20	70	ZMB06	67	ZMN04	67
XMB1616	63	Y68A-6GN-N1N	685	Z4MB24	70	ZMB06BS	67	ZMN06	67
XMB16J17	77	Y68A-6GN-N2N	685	ZA02-9	1449	ZMB08	67	ZMN08	67
XMB16J21	77	Y68A-8GN-N1N	685	ZA04-10B-HIVIS	1449	ZMB08BS	67	ZO-10	1174
XMB20J26	77	Y68A-BGN-N1N	685	ZA05-15-38-HIVIS	1449	ZMB10BS	67	ZO-13	1174
XMB24J30	77	Y68A-BGN-N2N	685	ZA05-15-HIVIS	1449	ZMB12	67	ZO-17	1174
XMB3232	63	YLH-1	1424	ZA05-20B12-HIVIS	1449	ZMB12BS	67	ZO-21	1174
XMBP02T02	63	YLH-1-10	1424	ZA05-20B-HIVIS	1449	ZMB16	67	ZODP15	1655
XMBP04T02	63	YLH-112	1424	ZBKV01N	1637	ZMB16BS	67	ZOLP16	1638
XMBP04T04	63	YLH-112-10	1424	ZBKV34N	1637	ZMB24	67	ZPTLH	1672
XMBP06T06	63	YLH-114	1424	ZBOP60	1624	ZMB24BS	67	ZPTLTC	1672
XMBP08T06	63	YLH-114-10	1424	ZC 100	511	ZMB32	67	ZS 160	511
XMBP08T08	63	YLH-2	1424	ZC 125	511	ZMCJ-06-W	548	ZS 200	511
XMBP12T12	63	YLH-2-10	1424	ZC 32	511	ZMCP-06-W	548	ZS15E1-10L	1030
XMBP16T16	63	YLH2-100M-ASSY	1426	ZC 40	511	ZMCR-06-W	548	ZS15E2-10L	1030
XMB0202	63	YLH2-25M-ASSY	1426	ZC 50	511	ZMFFB02	66	ZS15E4-10L	1030
XMB0402	63	YLH2-50M-ASSY	1426	ZC 63	511	ZMFFB04	66	ZS15E7-10L	1030
XMB0404	63	YLH-3	1424	ZC 80	511	ZMFFB06	66	ZS15VE1-10LS2	1030
XMB0606	63	YLH-3-10	1424	ZDL134N	1654	ZMFFB08	66	ZS15VE2-10LS2	1030
XMB0808	63	YLH3-100M-ASSY	1426	ZFB02	67	ZMFFB10	66	ZS15VE4-10LS2	1030
XMB0812	63	YLH3-25M-ASSY	1426	ZFB04	67	ZMFFB12	66	ZS15VE7-10LS2	1030
XMB0816	63	YLH3-50M-ASSY	1426	ZFB06	67	ZMFFB16	66	ZS20E1	1030
XMB0816	63	YLH-4	1424	ZFB08	67	ZMFFB20	66	ZS20E2	1030
XMB0820	63	YLH-4-10	1424	ZFB10	67	ZMFFJ07	78	ZS20E4	1030
XMJ0909	77	YLH4-100M-ASSY	1426	ZFB12	67	ZMFFJ08	78	ZS20E7	1030
XMJ1212	77	YLH4-25M-ASSY	1426	ZFB16	67	ZMFFJ09	78	ZS20VE1S2	1030
XMJ1414	77	YLH4-50M-ASSY	1426	ZFB20	67	ZMFFJ12	78	ZS20VE2S2	1030
XMJ1717	77	YLH-5	1424	ZFB24	67	ZMFFJ14	78	ZS20VE4S2	1030
XMJ1919	77	YLH-5-10	1424	ZFB32	67	ZMFFJ17	78	ZS20VE7S2	1030
XMJ2121	77	YLH-6	1424	ZFE10	1628	ZMFFJ21	78	ZS25E1-25L	1030
XMJ2626	77	YLH-6-10	1424	ZFEWB	1628	ZMFMB02	66	ZS25E2	1030
XMJ3030	77	YLH6-100M-ASSY	1426	ZFFL02B	1628	ZMFMB04	66	ZS25E4	1030
XMN04	65	YLH6-25M-ASSY	1426	ZFFMB04	66	ZMFMB06	66	ZS25E7	1030
XMN06	65	YLH6-50M-ASSY	1426	ZFFMB06	66	ZMFMB08	66	ZS25VE1S2	1030
XMN08	65	YLH-8	1424	ZFFMB08	66	ZMFMB10	66	ZS25VE2S2	1030
XMN12	65	YLH-8-10	1424	ZFFMB10	66	ZMFMB12	66	ZS25VE4S2	1030
XMN16	65	YLH8-25M-ASSY	1426	ZFFMB12	66	ZMFMB16	66	ZS25VE7S2	1030
XMN20	65	YLH8-50M-ASSY	1426	ZFFMB16	66	ZMFMB20	66	ZSGGR400T	1640
XMN24	65	YPS-1	630	ZFFMB20	66	ZMFMJ07	78	ZTHT01	1648
XMN32	65	YPS-12	630	ZFFMJ07	78	ZMFMJ08	78	ZV-05	1175
XNMF0202	65	YPS-14	630	ZFFMJ08	78	ZMFMJ09	78	ZV-05FKM	1175
XNMF0404	65	YPS-18	630	ZFFMJ09	78	ZMFMJ12	78	ZV-10	1175
XNMF0604	65	YPS-34	630	ZFFMJ12	78	ZMFMJ14	78	ZV-10FKM	1175
XNMF0606	65	YPS-38	630	ZFFMJ14	78	ZMFMJ17	78	ZV-13	1175
XNMF0806	65	YRC25	1459	ZFFMJ17	78	ZMFMJ21	78	ZV-13FKM	1175
XNMF0808	65	YRC50	1459	ZFFMJ21	78	ZMFMJ26	78	ZV-17	1175
XNMF1212	65	YS-1	972	ZFFS10BSP	1628	ZMFMJ30	78	ZV-17FKM	1175
XNMF1616	65	YS-112	972	ZFJ07	79	ZMJ07	79	ZV-21	1175
XNMF2020	65	YS-114	972	ZFJ08	79	ZMJ09	79	ZV-21FKM	1175
XNMF2424	65	YS-12	972	ZFJ09	79	ZMJ12	79	ZV-26	1175
XO-10	1174	YS-2	972	ZFJ12	79	ZMJ14	79	ZV-33	1175
XO-13	1174	YS-212	972	ZFJ14	79	ZMJ17	79		
XO-17	1174	YS-3	972	ZFJ17	79	ZMJ19	79		

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