



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Pneumatic Connectors Handbook



ENGINEERING YOUR SUCCESS.

Selection guide

Application				Working pressure						Tube				Ermeto		Hose								
Pneumatic automation	Pneumatic power	Pneumatic copper tube installations	Industrial fluids	Aggressive environments	Primary vacuum - 0 bar	0 - 10 bar	10 - 16 bar	16 - 18 bar	18 - 25 bar	25 - 40 bar	40 - 60 bar	60 - 100 bar	Polyurethane tube	PEBA tube	Polyethylene tube	Polyamide 11/12 tube	Prestoweld 2 tube	Copper tube	Steel	Stainless Steel	Synthetic rubber	Polyurethane		
•	•				•	•	•	•					•	•	•	•								Prestolok 2
•	•				•	•	•						•	•	•	•								Prestolok Micro
•	•		*	(2)	•	•	•	•	•				•	•	•	•	•	•						Prestolok
•	•		•	•	•	•	•						•	(3)	•	•								Prestolok Stainless Steel
•	•				•								•	•	•	•								Pneu. int. funct. ftgs.
•	•	•	•	*	•	•		•	•	•	•	•			•		•							Metrulok
•	•			•	•	•	•	•	•	•	•		•	•	•	•								PL
•	•	•	•		•	•	•	•	•	•	•				•		•	•	•					Ermeto
•	•	•	•		•	•	•	•	•	•	•		(1)	(1)	(1)	(1)								Brass adaptors
•	•	•	•		•	•	•	•	•	•	•		(1)	(1)	(1)	(1)								Brass adapt. for automotive industry
•	•	•	•		•	•	•	•					(1)	(1)	(1)	(1)								Pneumatic adaptors
•	•	•	•		•	•	•	•	•				(1)	(1)	(1)	(1)		(1)						Ball valves
•	•	•	•		•	•	•	•	•				(1)	(1)	(1)	(1)		(1)						Quick couplings
•	•		•		•	•	•	•													(1)	(1)		Hose and fittings
•	•		•		•	•	•	•	•	•	•	•	•	•	•									Ther. Sing. tub. and Pn.-TU.Bu.

* Chemical nickel plated only.

(1) Available with threaded ends only. Depends on fitting type used to connect to the tube.

(2) Welding sparks.

(3) Min. hardness 98 shore A.

For your safety!

Under certain circumstances, tube fittings can be subjected to extreme loadings such as vibration and uncontrolled pressure peaks.

















Only by using genuine Parker components and following the Parker assembly instructions can you be assured of the reliability and safety of the products and their conformity to the applicable standards.

Failure to follow this rule can adversely affect the functional safety and reliability of products, cause personal injury, property damage, and result in loss of your guarantee rights.

In any case, guarantee is limited only to the Parker products.

For more detailed information, please consult the section corresponding to the selected product from this catalogue.



Design manual	Technical data, pneumatic system calculations, installation guide.		A
Prestolok 2 and Prestolok micro	Thermoplastic push-in fittings for pneumatic applications.		B
Prestolok	Spark resistant push-in fitting for fluid and arduous pneumatic applications.		C
Prestolok stainless steel NEW	Stainless steel push-in fittings for severe environments		D
Pneumatic integrated function fittings	A complete range from flow control to end of stroke pressure sensors.		E
Metrolok	Ready for use brass bite type fitting for use with copper or plastic tubing.		F
PL	A two piece fitting specifically designed for plastic tubing.		G
Ermeto	Bite type fitting for use with metal or plastic tubing.		H
Brass adaptors	A wide range of configurations and thread terminations.		I
Brass adaptors for automotive industry	A wide range of adaptors for air and water cooling circuits for welding applications.		J
Pneumatic adaptors	A wide range of adaptors for pneumatic applications.		K
Ball valves	Brass ball valves for many fluid handling applications.		L
Quick couplings	Brass and steel quick couplings, as well as blow guns for all pneumatic applications.		M
Push-Lok hose and fittings	Low-pressure; self-grip hose without clamps.		N
Thermoplastic single tubes and Pneumo-Tube bundles	Polyamide, Polyethylene, Polyurethane tubing for all pneumatic applications.		O
Accessories	Accessories for pneumatic installations.		P



		Pages
The Parker pneumatic connection system		A 2 - A 3
Thread configurations	BSPP and BSPT pipe threads	A 4
	ISO metric pipe threads	A 5
	UNF threads	A 6
	NPT threads	A 7
The sealing of threaded connections	Parallel threads	A 8
	Taper threads	A 9
Threaded connections and corrosion	Atmospheric corrosion	A 10
	Compatibility of different base metals	A 11
Hose and tubing used in pneumatics	Polyamide tubing / PEBA tubing	A 12
	Polyurethane tubing	A 13
	Hoses	A 13 to A 15
	Copper and steel tube	A 15
Pneumatic system calculations	Power losses	A 16
	Calculation of flow rate	A 17
	Orifice diameter for different cylinders	A 18
	Cylinder response time	A 19
	Air admission time	A 19
	Maximum recommended flow	A 20
	Pressure drop through shaped components	A 20
	Air consumption	A 20 - A 21
	Leakage	A 21
Installation guidelines		A 22 to A 25
Pneumatic control	Cylinders, integrated fittings (flow control valves, check valves, exhaust valves, silencers)	A 26 - A 27
Terms used in pneumatics		A 28 - A 29
Pneumatic symbols		A 30 to A 32
Pneumatic Quick Coupling profiles		A 33

The Parker pneum

The Parker pneumatic connection system

For more than 60 years, Parker has developed and manufactured the most complete range of components to serve hydraulic and pneumatic markets.

The specific range of pneumatic connectors is designed and manufactured in accordance with international standards to meet market requirements.

The objective of this manual is to aid the design engineer in the selection of pneumatic connectors for specific or general applications, dependant upon the individual constraints of the system.

The information enclosed should be considered as a basic guideline only. For further detailed information with regard to pneumatic systems, please contact your Parker sales engineer.

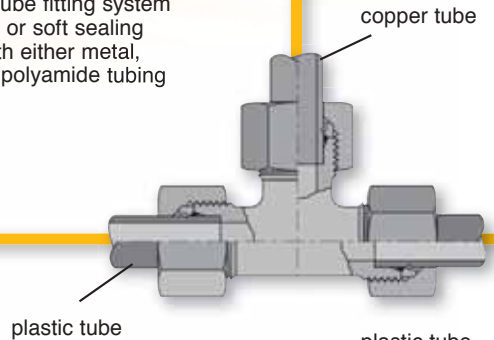
Push-Lok Hose and fittings:

low pressure, self grip hose
Assembly without clamps
or special tools

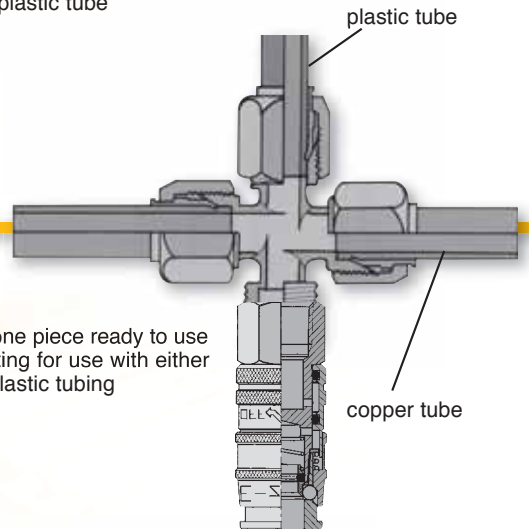


EO Ermeto Original:

Bite type tube fitting system with metal or soft sealing for use with either metal, copper or polyamide tubing



Metrulok: one piece ready to use bite type fitting for use with either copper or plastic tubing



Blow Guns:
with or without
safety valving

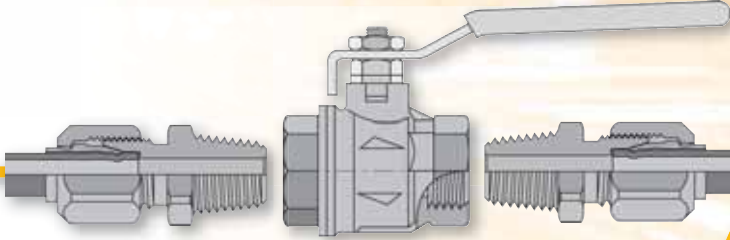


Pneumatic Quick couplings:
flow from 550l/min to 3500 l/min



atic fitting system

A



Ball Valves:
a wide range for many
pneumatic applications

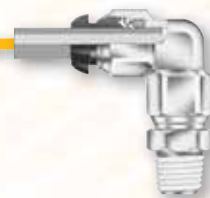
Prestolok Micro:
Miniature push in fitting for polyamide
and polyurethane tubing.



Prestolok 2:
Push-in fitting for polyamide
and polyurethane tubing.



Prestolok:
Spark resistant push-in fitting
for polyamide, polyurethane
and copper tubing

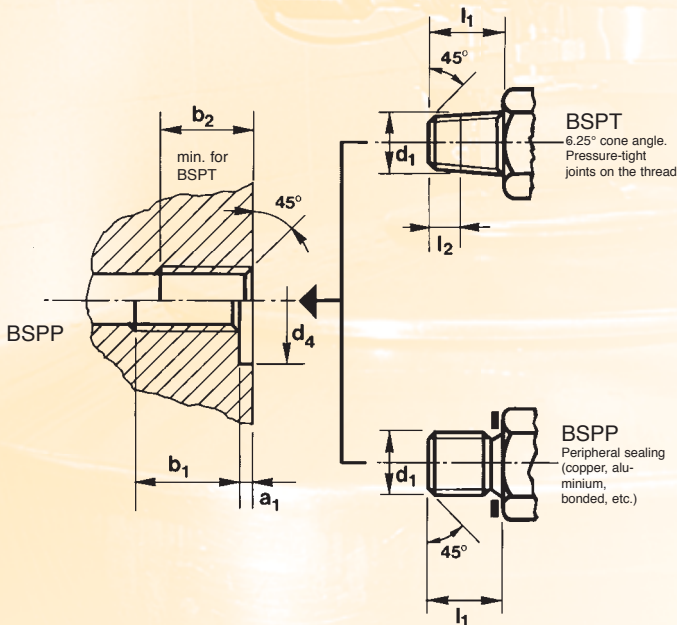


**Thermoplastic
single tubes
and Pneumo
Tube bundles**

PL: two piece fitting for all types
of plastic tubing.



BSP threads



BSPP and BSPT pipe threads

BSPP and BSPT threads have a thread angle of 55° and are the most widely used fastening threads in pneumatic applications.

The spot face surface must be square to the pitch diameter and free from longitudinal and spiral tool marks.

BSPP - British Standard Pipe Parallel threads for tubes and fittings where pressure-tight joints are not made on the thread, i.e., a peripheral seal is used.

BSPT - British Standard Pipe Taper threads for tubes and fittings where pressure-tight joints are made on the threads.

It is accepted practice to fit a BSPT BS 21 male thread into a BSPP female DIN 3852 port tapping for pneumatic applications. In certain exceptional cases the port may also be tapered.

Thread standards

BSPP thread to :
 ISO 228-1
 BS2779
 DIN 3852-2 - Form A,B,E
 NF E 03-005

BSPT thread to :
 ISO 7
 BS 21
 DIN 3852-2 - Form C
 NF E 03-004

Screwed studs and tapped holes to
 DIN 3852, form X, Z

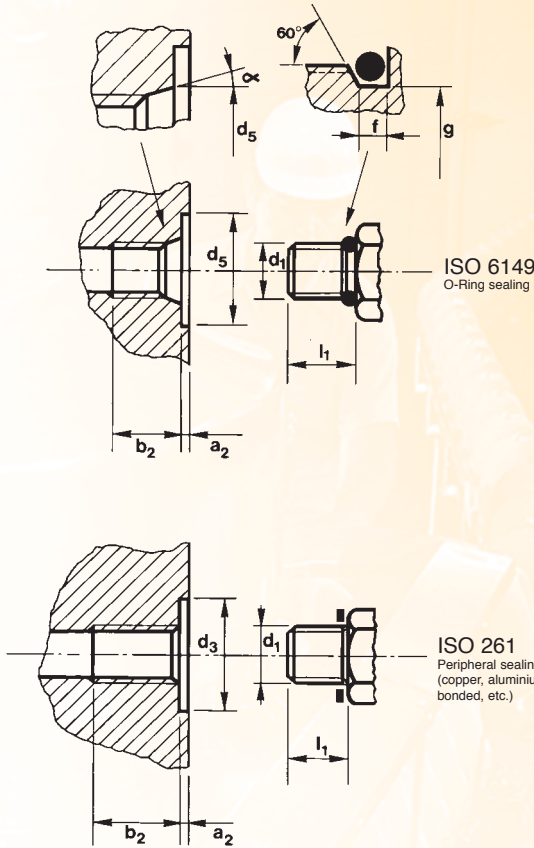
BSPP	BSPT	Threads per inch	d ₁	l ₂ nominal	d ₄ min.	a ₁ max.	l ₁ max.	b ₁ min.	b ₂ min.
Rs 1/8	R 1/8	28	9.73	3.97	15	1	8	8	5.5
Rs 1/4	R 1/4	19	13.16	6.05	19	1.5	12	12	8.5
Rs 3/8	R 3/8	19	16.66	6.35	23	2	12	12	8.5
Rs 1/2	R 1/2	14	20.95	8.16	27	2.5	14	14	10.5
Rs 3/4	R 3/4	14	26.44	9.2	33	2.5	16	16	13.0
Rs 1	R 1	11	33.25	10.39	40	2.5	18	18	-
Rs 1.1/4	R 1.1/4	11	41.91	12.7	50	2.5	20	20	-
Rs 1.1/2	R 1.1/2	11	47.80	12.7	56	2.5	22	22	-

Note

The letters "Rs" are the accepted designation for a BSPP thread and the letter "R" represents a BSPT thread.

ISO metric pipe threads

A



ISO metric pipe threads

ISO metric pipe threads have a thread angle of 60°.

They have mostly been used in miniature pneumatic applications because of the availability of small thread diameters, especially M5 and M3*.

They are also used extensively in the automotive industry.

There are two forms of sealing on metric threads.

1. O-Ring sealing into a profiled port in accordance with ISO 6149
2. Peripheral sealing eg copper or bonded washer in accordance with ISO 261 and 262

Thread standards

O-Ring sealing :
ISO 6149
DIN 3852 - Form F

Peripheral sealing :
ISO R261 and R262
DIN 3852-1 - Form G
NF E03-013

Seals :
DIN 7603
NF E21 - 351

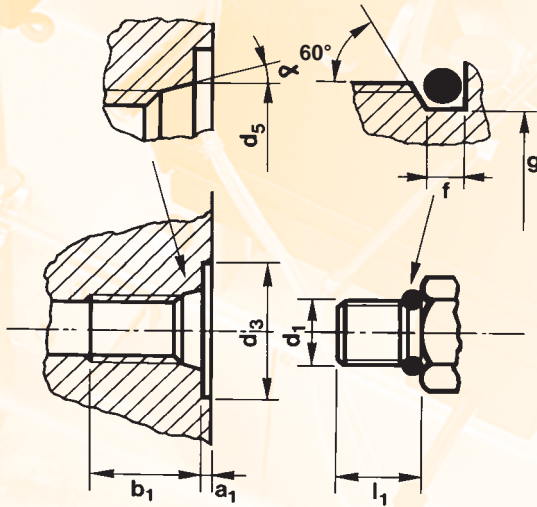
Ports :
DIN 3852 - Part 3

* M3, M5 and M20 threads are not included in the ISO specification

d_1	l_1	f	g	d_3	d_5	α°	b_2	a_2	Seal
M3x0.5**	3.25	-	-	6.5	6.5	-	4.0	1.0	-
M5x0.8**	8.0	1.5	3.80	14	6.35	12	8.0	1.0	3.6x1.5
M8x1	10.0	1.5	6.55	17	9.10	12	10.0	1.0	6.2x1.5
M10x1	10.0	1.5	8.55	20	11.1	12	10.0	1.0	8.2x1.5
M12x1.5	11.5	2.3	9.85	22	13.8	15	11.5	1.5	9.4x2.1
M14x1.5	11.5	2.3	11.85	25	15.8	15	11.5	1.5	11.4x2.1
M16x1.5	13.0	2.3	13.85	27	17.8	15	13.0	1.5	13.4x2.1
M18x1.5	14.5	2.3	15.85	29	19.8	15	14.5	2.0	15.4x2.1
M20x1.5**	14.0	2.3	17.85	32	21.8	15	14.0	2.0	17.4x2.1
M22x1.5	15.5	2.3	19.85	34	23.8	15	15.5	2.0	19.4x2.1

** Not ISO 6149

UNF threads



UNF threads

The Unified thread has a thread angle of 60°, and is normally used in hydraulic applications. It also referred to as the "ISO inch size thread".

UNF - Unified Fine threads for connections where pressure-tight joints are not made on the threads, i.e., a peripheral seal is used.

Reference example : 3/8-24-UNF2B

3/8 = diameter

24 = number of threads per inch

A = external threads

B = internal threads

1 = low precision

2 = general purpose

3 = high precision

Thread standards

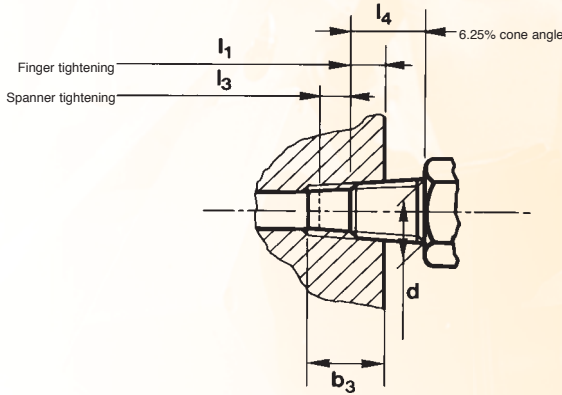
SAEJ514 (male threads)

SAEJ1926 (female port)

Thread size and threads per inch	SAE module		d_1	d_3 min.	d_5	b_1 min.	a_1	f	g	l_1	α°	O-ring	
												ID	Section
5/16-24 UNF	-2	mm	7.94	17	9.1	10	1.6	1.6	6.35	7.54	12	6.07	1.63
		inch	.310	.672	.358	.390	.062	.063	.250	.297		.239	.064
3/8-24 UNF	-3	mm	9.53	19	10.7	10	1.6	1.6	7.95	7.54	12	7.65	1.63
		inch	.380	.750	.421	.390	.062	.063	.313	.297		.301	.064
7/16-20 UNF	-4	mm	11.11	21	12.4	11	1.6	1.9	9.25	9.14	12	8.92	1.83
		inch	.440	.828	.487	.450	.062	.075	.364	.360		.351	.072
1/2-20 UNF	-5	mm	12.7	23	14	11	1.6	1.9	10.85	9.14	12	10.52	1.83
		inch	.500	.906	.550	.450	.062	.075	.427	.360		.414	.072
9/16-18 UNF	-6	mm	14.28	23	15.6	13	1.6	2.1	12.24	9.93	12	11.89	1.98
		inch	.560	.969	.616	.500	.062	.083	.482	.391		.468	.078
3/4-16 UNF	-8	mm	11.05	30	20.6	14	2.4	2.4	16.76	11.13	15	16.36	2.21
		inch	.750	1.188	.811	.560	.940	.094	.660	.438		.644	.087
7/8-14 UNF	-10	mm	22.22	34	23.9	17	2.4	2.7	19.63	12.7	15	19.18	2.46
		inch	.870	1.344	.942	.660	.940	.107	.773	.500		.755	.097
1.1/16-12 UN	-12	mm	26.99	41	29.2	19	2.4	3.2	27.18	15.09	15	23.47	2.95
		inch	1.060	1.625	1.148	.750	.940	.125	.945	.594		.924	.116
1.3/16-12 UN	-14	mm	30.15	45	32.3	19	2.4	3.2	27.18	15.09	15	26.59	2.95
		inch	1.190	1.765	1.273	.750	.940	.125	1.070	.594		1.047	.116
1.5/16-12 UN	-16	mm	33.34	49	35.5	19	3.2	3.2	30.35	15.09	15	29.74	2.95
		inch	1.310	1.910	1.398	.750	.125	.125	1.195	.594		1.171	.116

(8/16 = 1/2 = 12,7 = DN12)

NPT threads



NPT threads

The National Pipe Taper thread has a thread angle of 60°, and is mainly used in the petrochemical and process industries.

NPT - National Pipe Taper threads for connections where pressure-tight joints are made on the threads utilising a thread sealant.

NPTF - National Pipe Taper Fuel threads for connections where pressure-tight joints are made on the threads, without a thread sealant.

Thread standards

SAE J 476 - B2

NF E 03-061

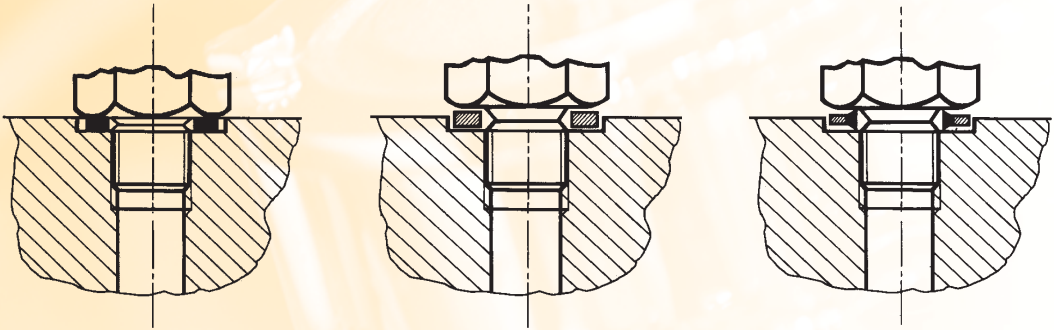
Thread size	Threads per inch	d	l_1	l_3		l_4	b_3
				Threads	mm		
1/8	27	10.48	4.10	3	2.82	9.97	6.92
1/4	18	14.00	5.79	3	4.23	15.10	10.02
3/8	18	17.42	6.10	3	4.23	15.26	10.33
1/2	14	21.71	8.13	3	5.44	19.85	13.57
3/4	14	27.12	8.61	3	5.44	20.15	14.50
1	11 1/2	33.88	10.16	3	6.63	25.01	16.79
1.1/4	11 1/2	42.59	10.67	3	6.63	25.62	17.30
1.1/2	11 1/2	48.66	10.67	3	6.63	26.04	17.30

A

Pneumatic connectors design manual

Peripheral sealing of parallel threads

Pressure-tight joints for screwed connections with parallel threads are achieved by placing a seal between the two machined faces



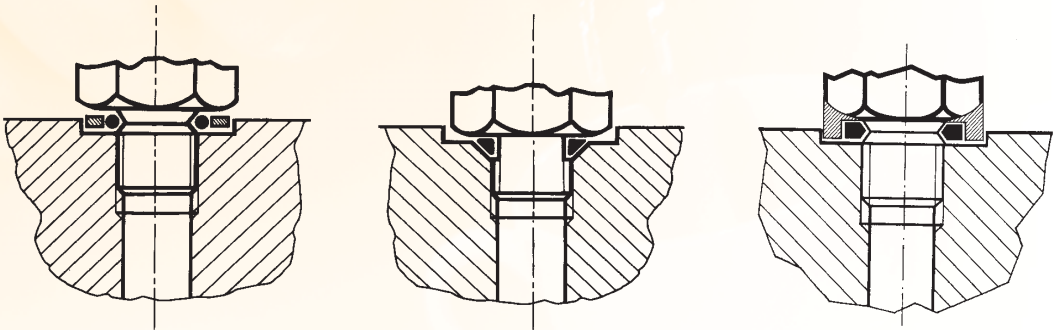
Flat seals

Washers and rings are manufactured in many different materials including copper, aluminium, fibre, plastics, etc.

The tightening torque at assembly must be carefully selected so as to avoid compressing the seal to the point of extrusion. As a general rule, the fitting should be tightened with a spanner 1/4 turn from the fingertight position.

Bonded seals

Elastomer sealing rings bonded into metal washers. Bonded seals are reusable, and cater for a variation in the dimensional tolerances of the machined surfaces.



O-rings

Dependant upon the configuration of the female port or male thread, O-ring seals are fitted with or without back-up washers.

Captive seal

A fully retained O-ring seal is assembled in the fitting. This ensures correct alignment. On metric threads it is possible to use this sealing method on both ISO 261/262 and ISO 6149 ports.

Pneumatic connectors design manual

Interference sealing of taper threads

Pressure-tight sealing of screwed connections with taper threads is achieved by the application of a sealant to the surface of the external male thread.

A



PTFE tape

One or two layers of PTFE tape are wound around the external taper thread, prior to assembly. It is recommended to leave the first two threads uncovered to avoid tape fragments entering the circuit during assembly, causing the possible malfunction of valves, filters, etc.

Sealing compounds and liquid sealants.

Apart from polymer joint compounds and air-drying liquid sealants, the most common thread seal is an anaerobic synthetic resin which cures in the absence of air.

Following assembly and tightening, the curing process is induced by a catalytic reaction between the resin and the metal. Resins that contain PTFE ease disassembly. For applications in food related industries, the thread sealant must be to a specified food-grade. Connections are normally ready for operation after one hour's curing time. Complete curing may take up to 24 hours. Disassembly of the connection destroys the sealing surface.

Parker pre-coated taper threads

Parker taper threads are pre-coated with a solution of PTFE powder carried in an acrylic base. No additional sealant is necessary for an effective seal during assembly. The male pipe thread can be reused up to five times without the use of additional sealing material.

Corrosion within pneumatic circuits and its consequences - piston seizing, leakage, jamming of control valves, reduced efficiency etc., is due to the combined action of atmospheric and electrolytic corrosion, the latter being largely predominant in pneumatic systems. In the electrolytic process, the water contained in the ambient relative humidity of the air plays the role of the electrolyte. The galvanic action is the result of the potential difference:

Fig. 1 - potential difference between metals;

Fig. 2 - electrolyte concentration differential;

Fig. 3 and Fig. 4 - air and oxygen content differentials.

In threaded connections the three forms of electrolytic corrosion can occur in a number of combinations. In order to avoid corrosion two general principles should be applied.

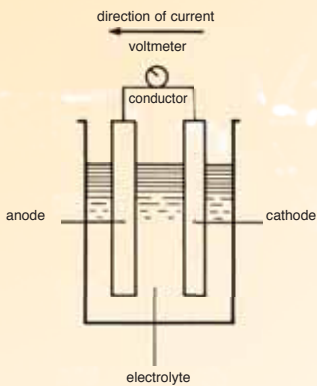


Fig. 1 - Potential difference between metals

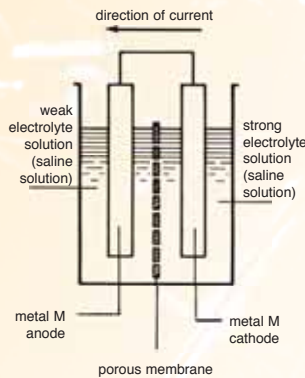


Fig. 2 - Electrolyte concentration differential

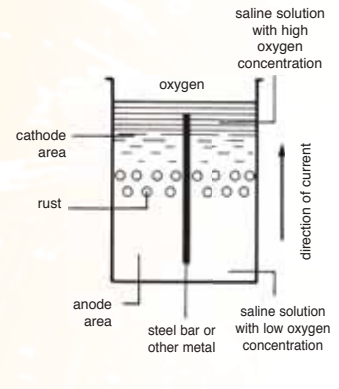


Fig. 3 - Air and oxygen content differentials

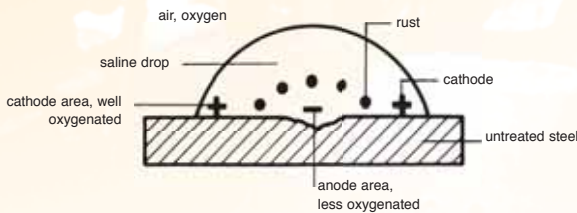


Fig. 4 - Principle of corrosion with different oxygen concentrations.

First rule :
Compatibility of different base metals

The susceptibility of different base metals to corrosion whilst in contact, depends upon the difference between the contact potentials, or the electrolytic decomposition voltages of the metal involved. The greater the potential difference, the greater the tendency for corrosion. The metal with the higher negative potential forms the anode and is corroded.

Examples :

- brass on copper = very slight corrosion
- brass on zinc = heavy corrosion
- steel on zinc = medium corrosion
- steel on copper = heavy corrosion

Non-passivated stainless steel has a decomposition voltage of about 0.70 volts and is attacked vigorously by copper or brass.

Passivated stainless steel has a reduced decomposition voltage of -0.24 volts. Passivation is obtained by the direct oxidation of the chromium compounds contained in the steel. Surface damage from scratches, solder or other contaminants will expose the base metal, and reactivate the higher decomposition voltage.

	Metal	Electropotential volts	
↑ anodes	Magnesium alloy G-A3Z1	- 1.770	↑ corrosion
	Magnesium alloy G-A9	- 1.625	
	Zinc (as galvanized coating)	- 0.975	
	Aluminium alloy A-Z4G (T35)	- 0.905	
	Aluminium alloy A-Z8GU (AZ2 plated)	- 0.900	
	Aluminium	- 0.785	
	Aluminium alloy A-Z5GU (not plated)	- 0.775	
	Aluminium alloy A-G3 (with chrome)	- 0.760	
	Aluminium alloy A-G5 (with chrome)	- 0.755	
	Aluminium alloy A-U4SG	- 0.730	
	Steel XC 18 S	- 0.700	
	Cadmium (AS plating)	- 0.690	
	Aluminium alloy A-U4G	- 0.585	
	Lead	- 0.535	
	Chrome (as plating)	- 0.460	
↓ cathodes	Tin	- 0.425	↓ corrosion free
	Tin solder	- 0.400	
	Brass U-Z15 NS	- 0.360	
	Titanium alloy 65 A	- 0.340 to - 0.285	
	Brass U-Z33	- 0.250	
	Chemical nickel	- 0.292	
	Stainless steel 18/8 (passivated)	- 0.240	
	Copper (99,9%)	- 0.230	
	Nickel	- 0.175	
	Rhodium	- 0.114	
Platinum	0		
Silver	+ 0.150		
Gold	+ 0.400		

A

Second rule :
Dry compressed air

Water acts as an electrolyte, and a close relationship exists between the relative humidity of air and electrolytic corrosion.

The mass of water vapour contained in the air is measured in grams "g" of water vapour, per unit volume (1 m³) of air. The saturation temperature or dew point, is the temperature at which the relative humidity of the air is 100%. The corresponding mass of water vapour has an upper limit which is dependant upon, and increases with, temperature (see table).

Cooling below the saturation temperature causes condensation through the formation of water droplets.

In practice, electrolytic corrosion becomes significant when the relative humidity of the ambient air is in excess of 50%.

Example :

At an ambient temperature of 20°C, with an average 60% relative humidity of the air, a compressor delivering 1 000 Nm³/h of air, at a pressure of 7 bar, draws in 10.3 kg of water per hour.

$$17.14 \times 0.6 = 10.3 \text{ g/m}^3$$

$$1\ 000 \text{ Nm}^3 \times 10.3 \text{ g} = 10.3 \text{ kg/h}$$

This example indicates the importance of arranging for adequate cooling and drying of compressed air.

Mass of water vapour at 100% relative humidity											
Temperature in °C	-30	-20	-10	0	10	20	30	40	50	60	80
Dew point											
Water vapour max. (saturation) g/m³	0.33	0.88	2.15	4.86	9.35	17.14	30.07	50	82.25	129	290

Polyamide tubing

Parker calibrated polyamide tubing is extruded in polyamide (PA11) for use with pneumatic fittings.

This tubing is manufactured within the limits of CETOP RP54P / DIN 73378 recommendations, and is ideal for pneumatic applications.

For continual use at high temperature we recommend tube which is protected against heat and light.

Advantages

- Good vibration/damping properties,
- Tubing available in several colours for easy identification,
- High abrasion resistance,
- Low pressure drop,
- No thermal expansion.

Technical characteristics

Working pressure

The working pressure of polyamide tubing is dependant on the operating temperature. The working pressures shown are based on a design factor of 3:1

Working pressure (bar)												
Temp. °C.	-40	-20	0	20	30	40	50	60	70	80	90	100
3 x 0.60	27	27	27	27	22	19	17	15	14	13	12	10
4 x 0.65	21	21	21	21	18	15	14	12	11	10	9	8
4 x 1	39	39	39	39	32	28	25	22	20	18	17	14
5 x 1	29	29	29	29	24	21	19	17	15	14	13	10
6 x 1	24	24	24	24	20	17	15	13	12	11	10	8
8 x 1	17	17	17	17	14	12	11	10	9	8	8	6
10 x 1	13	13	13	13	11	10	9	8	7	6	6	5
10 x 1.25	18	18	18	18	15	13	11	10	9	8	8	6
10 x 1.5	22	22	22	22	18	16	14	13	11	10	10	8
12 x 1	22	22	22	22	18	16	14	13	11	10	10	8
14 x 1.5	11	11	11	11	9	8	7	6	6	5	5	4
16 x 1.5	15	15	15	15	12	11	10	9	8	7	7	5

Burst pressure (bar)												
Temp. °C.	-40	-20	0	20	30	40	50	60	70	80	90	100
3 x 0.60	81	81	81	81	67	58	52	46	42	38	36	29
4 x 0.65	64	64	64	64	53	46	41	37	33	30	28	23
4 x 1	116	116	116	116	96	83	74	66	60	54	51	42
5 x 1	87	87	87	87	72	63	56	50	45	41	38	31
6 x 1	71	71	71	71	59	51	45	40	37	33	31	25
8 x 1	52	52	52	52	43	37	33	29	27	24	23	19
10 x 1	40	40	40	40	33	29	26	23	21	19	18	15
10 x 1.25	53	53	53	53	44	38	34	30	27	25	23	19
12 x 1	33	33	33	33	27	24	21	19	17	16	15	12
14 x 1.5	45	45	45	45	37	32	29	26	23	21	20	16
16 x 1.5	39	39	39	39	32	28	25	22	20	18	17	14

For chemical compatibility of polyamide tubing, please consult your Parker sales engineer.

PEBA tubing (Polyether Block Amides)

PEBA tubing is manufactured from a compound of soft polyethers and hard polyamides.

The tubing is produced in various grades and can be protected against heat and light with appropriate additives.

Advantages of PEBA tubing

PEBA tubing has additional advantages over polyamide :

- Greater flexibility than PA 12
- Suitable for an operational temperature range of - 40 to + 80°C.
- Excellent resistance to creep under load.

Chemical resistance

Fluid	Test condition	Result
Boiling water	7 days/100°C	A
Oil	7 days/120°C	A
Gasoline premium	7 days/23°C	B
Acetone	7 days/23°C	A
Trichlorethylene	7 days/23°C	B

A = excellent - B = medium

Polyurethane tubing

Parker calibrated polyurethane tubing is obtained by extrusion. Its material hardness is 95 Shore A (slightly higher than 40 Shore D). This tubing is manufactured within the limits of NF E49 101 1994.

Its very high flexibility allows a small minimum bend radius for compact installations.

A dimensional inspection system based on advanced laser technology maintains a tight tolerance on the outside tube diameter.

Advantages

- Extreme flexibility with bend radii up to three times better than polyamide tubing allows for compact installations,
- Tube available in several colours for line identification,
- Good vibration resistance,
- Light weight,
- Reduced fitting time.

Technical characteristics

Working pressure

The working pressure of polyurethane tubing is dependant on the operating temperature. The working pressure shown are based on a design factor of 3:1.

		Working pressure (bar)									
		Temp. °C.									
Tube size	Temp. °C.	-40	-20	0	20	30	40	50	60	70	80
3 x 0.45		10	10	10	10	8	7	6	6	5	5
4 x 0.75		11	11	11	11	9	8	7	6	6	5
5 x 1		12	12	12	12	10	9	8	7	6	6
6 x 1		10	10	10	10	8	7	6	6	5	5
8 x 1.25		9	9	9	9	8	7	6	5	5	4
10 x 1.5		9	9	9	9	7	6	6	5	5	4
12 x 2		10	10	10	10	8	7	6	6	5	5

		Burst pressure (bar)									
		Temp. °C.									
Tube size	Temp. °C.	-40	-20	0	20	30	40	50	60	70	80
3 x 0.45		30	30	30	30	24	22	19	17	15	14
4 x 0.75		33	33	33	33	27	24	21	19	17	15
5 x 1		37	37	37	37	30	26	23	21	19	17
6 x 1		30	30	30	30	24	21	19	17	15	14
8 x 1.25		28	28	28	28	23	20	18	16	14	13
10 x 1.5		26	26	26	26	22	19	17	15	14	12
12 x 2		30	30	30	30	25	22	19	17	16	14

For chemical compatibility of polyurethane tubing, please consult your Parker sales engineer.

Hoses

Pneumatic hoses are typically made up of a liner, a braid reinforcement and a protective cover. The number of braids depends upon the pressure rating of the hose. The protective cover is perforated to prevent blister formation due to air diffusion.

Hose lines are used for the connection of mobile, as well as stationary pneumatic machinery and equipment, eg, hand tools, mobile pneumatic cylinders, compressors, etc.

Conductive and non-conductive braid reinforcement

For applications in hazardous or inflammable conditions eg, air powered hand tools that produce static electricity, or hand tools that may come into accidental contact with live electrical components, connections must be made using a hose with a conductive braid reinforcement. With mobile pneumatic equipment an additional connection to ground may be required if the conductivity of the metal braid is not sufficient.

Conversely, certain types of equipment should be connected using hoses with non-conductive braid reinforcement eg Parker Push-Lok hose, to prevent the propagation of stray electric currents, for example electric welding or electrostatic spray paint equipment.

Parker Push-Lok hose and fittings

The Parker Push-Lok hose system is used for pneumatic applications up to 25 bar working pressure. The hose is assembled to fittings without the use of clamps.

For a twist free installation when the pressure hose is assembled, at least one end should have a swivel type connection.

For transition from copper or plastic tubing to Parker Push-Lok hose lines, the Metrulok FF swivel female end connection can be used.

For chemical compatibility of hoses, please your Parker sales engineer.

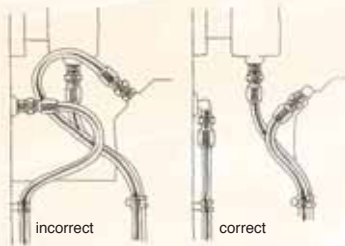
Installation guidelines



Always install hose lines with sufficient dip to compensate for movements during operation. A length variation of + 2 to - 4% is acceptable.

Make sure that the hose is not twisted. The marking on the hose and the use of swivel end fittings facilitate a twist-free installation.

Avoid acute bending of the hose adjacent to the rear of the hose connection. A minimum length of three times the outside diameter of the hose is recommended between the rear of the hose connection and the beginning of the bend radius.



For right angle configurations of the hose line, use elbow fittings to prevent stress on the connection due to the bend of the hose. Avoid sharp edged configurations and protect hoses exposed to heavy chafing with metal spiral sleeves.

If the risk of hose pull off during operation cannot be excluded, the hose line must be secured so as to prevent dangerous "whipping" of the hose following disconnection.

End connection standards

JIC 37° swivel female

These hose nipples are typically used in hydraulic systems of US origin.

Pipe thread UNF. Internal cone 74°. Suitable adaptors are Triple-Lok 37° flared fittings. Pipe threads : UNF - NPTF - metric - BSPT - BSPP.

SAE 45° swivel female

These hose nipples are used in the automotive industry, and in refrigeration engineering for low and medium pressure applications. Body and swivel nuts can be used as JIC 37° and SAE 45° adaptors, except for size -6 and -12 (different nipple).

DIN end connections

24° cone, light and heavy series to DIN standards. Threaded fittings can be used as adaptors.

End connection standards

BSP swivel end connections

BSP swivel end connections are used with BSP adaptors - internal cone 60°.

Metroluk swivel end connections

Metroluk swivel end connections are designed to suit all Metroluk fittings. Consult Metroluk section.

BSPT male end connections

BSPT male end connections are used for direct connection to threaded ports

A

Standard imperial and metric steel and copper tubes

Imperial sized copper tubing conforming to BS2871 Part 2 OD x wall thickness In	Metric sized copper tubing conforming to DIN 1786 - NF A51 120 BS2781 Part 2 ID x OD mm	Metric sized steel tubing conforming to NF A48 001 - DIN 2391C BS7416 ID x OD mm
1/8 x 0.028		
3/16 x 0.028		
1/4 x 0.036	4 x 6	4 x 6
5/16 x 0.036	6 x 8	6 x 8
3/8 x 0.036	8 x 10	8 x 10
1/2 x 0.064	10 x 12	10 x 12
5/8 x 0.064	12 x 14	12 x 14
	14 x 16	14 x 16
3/4 x 0.064	15.6 x 18	16 x 18
	17.6 x 20	17 x 20
	18.8 x 22	19 x 22
1 x 0.080	21.8 x 25	22 x 25
1.1/4x 0.080	28 x 32	27 x 30

Pneumatic connectors design manual

Pressure drop caused by the frictional resistance of the rubber hose bore to the flow of the medium.

(the pressure drop is expressed in bar per 10 m hose length)

Hose bore and corresponding fitting	Pressure bar	Flow through 10 m hose length (Nm ³ /h)									
		10	15	35	70	100	140	200	300	400	500
1/8 dia.5	5	0.1	0.4	-	-	-	-	-	-	-	-
	6	0.08	0.35	-	-	-	-	-	-	-	-
	7	0.07	0.3	-	-	-	-	-	-	-	-
	8	0.05	0.2	-	-	-	-	-	-	-	-
3/16 dia.6	5	0.07	0.18	-	-	-	-	-	-	-	-
	6	0.06	0.15	-	-	-	-	-	-	-	-
	7	0.05	0.10	0.9	-	-	-	-	-	-	-
	8	0.03	0.08	0.7	-	-	-	-	-	-	-
1/4 dia.8	5	-	0.08	0.6	-	-	-	-	-	-	-
	6	-	0.07	0.5	-	-	-	-	-	-	-
	7	-	0.05	0.3	-	-	-	-	-	-	-
	8	-	0.03	0.2	-	-	-	-	-	-	-
5/16 dia.10	5	-	-	0.15	0.4	1.17	-	-	-	-	-
	6	-	-	0.1	0.3	0.85	-	-	-	-	-
	7	-	-	0.08	0.3	0.79	-	-	-	-	-
	8	-	-	0.05	0.2	0.70	-	-	-	-	-
3/8 dia.12	5	-	-	0.02	0.33	0.79	-	-	-	-	-
	6	-	-	0.01	0.18	0.53	-	-	-	-	-
	7	-	-	0.01	0.09	0.47	-	-	-	-	-
	8	-	-	-	0.07	0.39	-	-	-	-	-
1/2 dia.16	5	-	-	-	0.05	0.16	0.33	0.93	-	-	-
	6	-	-	-	0.03	0.11	0.24	0.66	1.82	-	-
	7	-	-	-	0.03	0.10	0.22	0.62	1.71	-	-
	8	-	-	-	0.02	0.10	0.20	0.58	1.61	-	-
3/4 dia.20	5	-	-	-	0.01	0.02	0.04	0.11	0.26	0.50	-
	6	-	-	-	0.01	0.02	0.03	0.06	0.18	0.33	-
	7	-	-	-	-	0.01	0.02	0.06	0.16	0.31	0.52
	8	-	-	-	-	0.01	0.02	0.05	0.15	0.29	0.48
1 dia.26	5	-	-	-	-	0.01	0.01	0.02	0.06	0.12	0.22
	6	-	-	-	-	-	0.01	0.02	0.04	0.08	0.12
	7	-	-	-	-	-	-	0.02	0.04	0.07	0.11
	8	-	-	-	-	-	-	0.01	0.03	0.06	0.10

Recommended data

Power losses in pneumatic circuits

Power loss or pressure drop in pneumatic circuits is the differential pressure Δp bar from inlet to outlet.

For calculating the respective efficiency of pneumatic system components e.g. valves, fittings, tubing, the flow factor Cv is used. The figure corresponds to the volume of water (l) per unit time (min) that flows through a given component, dependent upon the differential pressure, Δp (bar).

The U.S.A. uses the same Cv factor, but expressed as US gallon/min. for a ΔP in psi (Kv France = 14.3 Cv or Cv US = 0.07Kv)

Germany uses a Kv factor which is defined in NI/min.

Note : the air volumes expressed in Nm³/min or NI/min correspond to the relief flow rate at 6 bar delivery pressure.

In pneumatics, the flow rate Q is normally expressed in free air at standard reference atmospheric conditions, symbol ANR. This does not apply to compressor output characteristics, which refer to intake volume and relative delivery pressure.

$Q_{ANR} = Q_{rel} \times P_{abs}$ i.e., manometric pressure + 1 bar atm.

1000 l/min ANR = 100 l/min x (9 bar + 1 bar atm.)

Pneumatic connectors design manual



Cv UK/USA	Kv France	Kv Germany	Δp	Ql/min (ANR)
0.14	2		1	138
			1.5	162
			2	180
			2.5	189
			3	195
		0.125	6	138
0.28	4		1	276
			1.5	324
			2	360
			2.5	378
			3	390
		0.250	6	308
0.49	7		1	483
			1.5	567
			2	630
			2.5	661
			3	682
		0.438	6	482
0.84	12		1	828
			1.5	972
			2	1080
			2.5	1134
			3	1170
		0.751	6	826
2.1	30		1	2070
			1.5	2430
			2	2700
			2.5	2835
			3	2925
		1.878	6	2065
6.3	90		1	6210
			1.5	7290
			2	8100
			2.5	8500
			3	8775
		5.636	6	6200

Calculation of flow rate as a function of Cv / Kv

For upstream gauge pressure of 6 bar.

Flow rate is inversely proportional to pressure.

In a pneumatic cylinder, for example, the pressure increases from the beginning to the end of the stroke, whereas the flow rate decreases from its maximum value at the beginning of the stroke to zero at the end of the stroke.

Considering a pneumatic component with a specified flow factor Cv/Kv, the flow rate Q, corresponding to any differential pressure Δp from inlet to outlet is calculated using the following equation :

$$Q \text{ ANR} = 403.3 \text{ Cv} \sqrt{\Delta p \times P} \text{ abs. downstream}$$

Q = flow rate l/min free air

Cv or Kv = flow factor

Δp = differential pressure in bar

P = abs. pressure downstream = abs. pressure upstream - Δp.

abs. pressure upstream = manometric pressure + 1 bar atm.

Note : this equation is applicable so long as Δp is less than half the upstream pressure.

The figures tabulated on the left are for air at 20°C ambient temperature, 65% rel. humidity and 1013 mbar atmospheric pressure.

Pneumatic connectors design manual

Orifice diameter for different cylinder types and speeds, for an upstream gauge pressure of 6 bar

Valve			Cylinder load	Maximum cylinder speed attainable without braking, for tube length of 1 m (speed in mm/s)																
Fitting thread	Bore diameter mm	Cv		M5 Cylinder fitting				1/8 Cylinder fitting			1/4 Cylinder fitting		3/8 Cylinder fitting		1/2 Cylinder fitting		3/4 Cylinder fitting			
				8	10	12	16	20	25	32	40	50	63	80	100	125	160	200		
M5	3	0.14	346 80%	6920	4380	3062	1721	1102	705	430	275	176								
			405 70%	8100	5127	3584	2015	1290	825	504	322	206								
			441 60%	8820	5582	3903	2194	1404	898	549	351	225								
			463 50%	9260	5861	4097	2303	1475	943	576	369	236								
1/8	5	0.49	1211 80%					3857	2466	1506	964	617	389	241						
			1417 70%					4513	2886	1762	1128	722	455	282						
			1543 60%					4914	3143	1919	1229	786	495	307						
			1620 50%					5159	3299	2015	1290	825	520	322						
1/4	6	0.84	2076 80%								1653	1058	666	413	264	169				
			2430 70%									1935	1238	780	484	310	198			
			2646 60%									2107	1348	849	527	337	216			
			2778 50%									2212	1415	892	553	354	226			
3/8	12	2.1	5190 80%										1666	1033	661	423	258	165		
			6075 70%											1950	1209	774	495	302	193	
			6615 60%											2123	1317	843	539	329	211	
			6945 50%											2229	1382	885	566	346	221	
3/4	20	6.3	15570 80%														775	496		
			18225 70%															907	580	
			19845 60%																988	632
			20835 50%																1037	664

Cylinders must never be subjected to 100% load in order to determine their efficiency (20% approx.)

Notes :

1 - The total displacement time is obtained by taking the travel time and adding the damping time, the response time (table B, page 19) and the time required for air intake into tubing beyond 1 m (table C, page 19).

2 - The speed and response time of a cylinder are not constant, but totally variable dependant on a number of factors such as : the inertia of the masses to be displaced, seating and sticking effect at the start of travel, the type of cylinder construction (seals, load distribution, etc.), the condition of the cylinder (wear, corrosion, etc.), whether the cylinder is mounted horizontally or vertically. The maximum performance values shown are approximate only, and are intended for the purpose of comparison. Depending on the operating conditions, these values could be reduced by half.

Pneumatic connectors design manual

A

Cyl. dia	Fitting thread	Stroke mm	Response time (s)
32	1/8	50	0.04
		100	0.08
		150	0.12
		200	0.16
50	1/4	100	0.07
		150	0.17
		200	0.23
		300	0.34
80	3/8	150	0.17
		200	0.23
		300	0.35
		400	0.46
100	1/2	200	0.13
		300	0.19
		400	0.25
		500	0.31
125	1/2	300	0.29
		400	0.39
		500	0.43
		600	0.59
160	1/2	400	0.64
		500	0.80
		600	0.96
		700	1.13
		800	1.29

Cylinder response time (table B)

for 80% load, gauge pressure 6 bar, tube length 1 m

The average response times shown include an allowance for the time taken to empty the tubes and restore pressure. The values given are approximate only and subject to variation dependent upon the condition of the tubing and the cylinder.

Air intake time for different tube lengths and diameters (table C),
gauge pressure of 6 bar

Hose ID mm	Hose length in metres					
	2	4	5	6	8	10
3	0.022	0.060	0.085	0.110	0.170	0.238
4	0.018	0.045	0.063	0.084	0.130	0.185
6	0.010	0.030	0.045	0.060	0.095	0.133
9	0.018	0.035	0.048	0.060	0.090	0.120

Time in seconds

The temptation to reduce the pressure drop by choosing a large diameter tube should be resisted. Excessive over dimensioning will give an insignificant improvement in pressure drop at the expense of waste air and an increase in response time owing to the need to fill a greater volume.

Pneumatic connectors design manual

Maximum recommended flow through a pipe or hose in Nm³/h

Pressure bar	1.1/2" bore 40	1.1/4" bore 33	1" bore 26	3/4" bore 20	1/2" bore 15	3/8" bore 12	1/4" bore 8	1/8" bore 5
3.5	564	396	192	96	60	31.2	13.8	6.6
4.9	810	540	252	132	84	43.2	19.8	9.0
6.3	960	690	324	168	108	55.8	25.8	11.5
7.0	1140	780	366	204	120	62.4	28.8	12.5
8.7	1380	960	450	240	138	75.0	34.2	15.0

Flow resistance within a fitting expressed as the equivalent length (m) of hose

Type of fitting	Fitting bore diameter in mm										
	2.7	4	6	8	10	12	13	16	18	20	22
90° elbow	0.26	0.39	0.61	0.80	1.00	1.19	1.30	1.61	1.80	2.00	2.19
Tee or cross flow at 90°	0.52	0.78	1.22	1.61	2.00	2.39	2.60	3.21	3.60	3.99	4.38
Tee or cross in line flow	0.18	0.27	0.43	0.56	0.70	0.80	0.91	1.12	1.26	1.40	1.50

Air consumption

A distinction is made between hourly and instant air consumption.

1) Air operated machines

Example : actuating cylinder, diameter 100 mm, stroke length 1 m, one cycle per minute, out stroke 0.8 s, return stroke 15 s.

Hourly air consumption

Cylinder area cm² x stroke cm = 7850 cm³
 Cylinder volume cm³ x (6 bar + 1 atm) x stroke and return = 109 900 cm³ (ANR) during each cycle
 Consumption is 109.9 l x 60 = 6594 l/h (ANR).

Instant air consumption

Cylinder area cm² x stroke cm = 7850 cm³
 Volume cm³ x (6 bar + 1 atm) x 1 stroke = 54 950 cm³ in 0.85.
 Consumption is 54.95 l x 60/0.8 = 4 121 l/mn (ANR).

Note : when calculating the air consumption of actuating cylinders the piston rod area can be disregarded.

The example calculation illustrates that it is often necessary to provide for a pressure equalizing reservoir on the machine.

Line volume

With cylinders of short stroke length, the line volume between the directional control valve and the cylinder must be taken into account when calculating air consumption.

Example : actuating cylinder as before, but with a stroke length of 100 mm, and 4 m connecting line, I.D. 12 mm.

Hourly air consumption

Cylinder area cm² x 10 cm = 785 cm³
 Cylinder volume cm³ x (6 bar + 1 atm) x stroke and return = 10 990 cm³ (ANR) per cycle of one minute, equals 10.99 l x 60 = 660 l/h (ANR).

Line area cm² x 400 cm = 452.16 cm³
 Line volume cm³ x (6 bar + 1 atm) x stroke and return = 6 330 cm³ (ANR) per cycle of one minute, equals 6.33 l x 60 = 380 l/h (ANR).

Instant air consumption

Cylinder area cm² x 10 cm = 785 cm³
 Cylinder volume cm³ x (6 bar + 1 atm) x 1 out stroke = 5 495 cm³ (ANR) in 0.8 s, equals 5495 l x 60/0.8 = 412 l/mn (ANR).
 Line area cm² x 400 = 452.16 cm³
 Line volume cm³ x (6 bar + 1 atm) x 1 out stroke = 3 165 cm³ (ANR) in 0.8 s, equals 3.16 l x 60/0.8 = 237 l/mn (ANR).

This example calculation illustrates that in some cases the line volume accounts for more than half the air consumption. In such cases it is important to mount the valve as close as possible to the cylinder. For low-speed cylinder applications, the use of smaller diameter connecting lines is appropriate.

Pneumatic connectors design manual

Air consumption for different pneumatic tools

Tool	Consumption m ³ / h (ANR)	Duty cycle sec
Shears	24	0.1 to 0.8
Hammer-action wrenches for :		
6mm bolts	17	0.1 to 0.6
12 mm bolts	24	0.1 to 0.6
16 mm bolts	27	0.1 to 0.6
20 mm bolts	45	0.1 to 0.6
33 mm bolts	66	0.1 to 0.3
40 mm bolts	72	0.1 to 0.3
Nibblers	24	0.5 to 0.6
Grinders		
dia. 100 mm	40	0.4 to 0.5
dia. 150 mm	60	0.4 to 0.5
Grinders/cutters		
dia. 180 mm	80	0.4 to 0.5
dia. 235 mm	168	0.4 to 0.5
Drills and nut tappers		
6 to 8 mm	32	0.4 to 0.6
8 to 10 mm	35	0.4 to 0.6
10 to 13 mm	40	0.4 to 0.6
18 mm	45	0.3 to 0.7
22 mm	66	0.3 to 0.7
32 mm	114	0.3 to 0.7
Spray guns	6 to 25	0.6 to 0.9
Sanders		
sander dia. 127	36	0.4 to 0.5
sander dia. 180	60	0.4 to 0.5
Orbital sanders		
with disk	21	0.8 to 0.9
with pad	21	0.8 to 0.9
Bellows (2 mm nozzle)	10	0.1 to 0.2
Screw-driving machines		
6 mm	23	0.1 to 0.6
8 mm	32	0.1 to 0.6
10 mm	35	0.1 to 0.6

2) Pneumatic power units

Air compressors are designed with consideration for the overall operational requirements, together with the air demand of the machines and hand tools.

When calculating the air demand of pneumatic hand tools, their actual working time should be taken into account. For the associated connecting hose the instant air consumption is also determined.

A

Leakage

Leakage is measured as pressure drop in compressed air systems, and pressure increase in vacuum systems. The respective leak rates are calculated as follows.

Units of measurement of leakage

- 1 atm = 1013.10 mbar = 760 Torr
 - 1 atm cm³/s = 0.1 Pascal m³/s = 1
 1 mbar l/s = 0.76 Torr l/s = 760
 Lusec (litre, micron, second)

Calculating leakage in compressed air systems

Tank volume : 1 m³
 Initial pressure : 8 bar.
 Pressure after 12 min 30 s. = 5 bar
 Pressure drop : 8 - 5 = 3 bar
 Leak rate = 1 m³ x 3 bar x 60/12.5
 equals 14.4 Nm³/h (ANR).

Calculating leakage in vacuum systems

Tank volume : 1 m³
 Initial vacuum : 0.012 atm.
 Pressure increase : 0.008 - 0.012 =
 0.068 atm

Leak rate = 1 000 cm³ x 0.068 atm x
 60/8.5 equals 480 atm. cm³/s.
 Vacuum after 8 min 30 s. : 0.08 atm
 Pressure increase : 0.08 - 0.012 =
 0.068 atm
 Leak rate = 1 000 cm³ x 0.068 atm x
 60/8.5 equals 480 atm.cm³/s

Leak detection

Soap bubble method:
 A hole of 2µm at a pressure of 2 bar
 produces a bubble of 1 mm³ per
 minute.
 Spray method :
 Spray type leak testers offer convenience and ease of application.

Pneumatic connectors design manual

Service lines

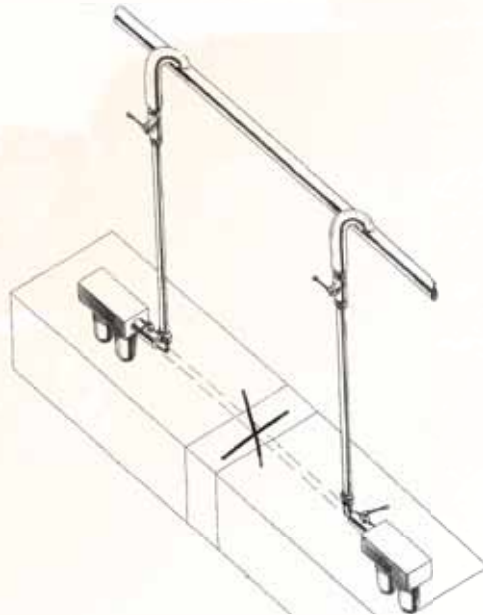
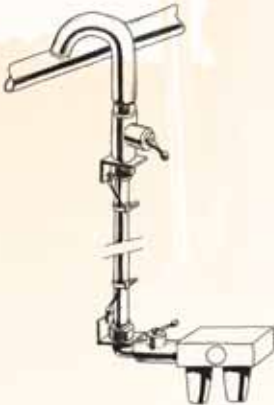
Steel tubing, copper tubing or metal braid reinforced hoses are used for the connection of air operated machines to the supply network. Connecting lines of unsecured plastic tubing is not recommended (accident hazard in the case of pressure line pull off).

Service lines - even copper - must not be used for earthing purposes.

Suspended pressure lines

For suspended pressure lines, the Parker Push-Lok hose system offers easy assembly and alignment, together with a vibration absorbing connection.

If the risk of hose pull-off during operation cannot be excluded, the hose must be secured so as to prevent dangerous whipping.

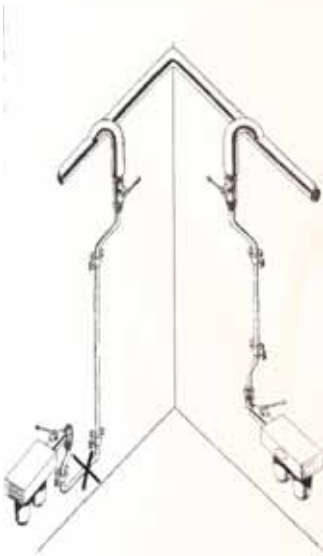


Pneumatic tubes, even if copper, should not be used for earthing purposes.

Avoid problems of alignment and vibration by not linking machines to a joint air supply.

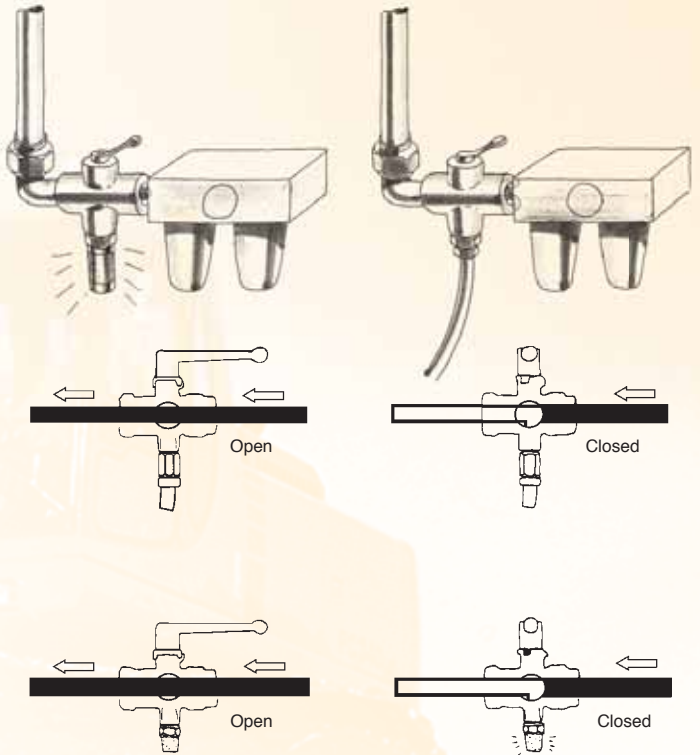
Pneumatic connectors design manual

A



Wall-mounted pressure lines

For wall-mounted connecting lines, copper or steel tubing is preferred to flexible hoses which tend to chafe against the wall. The line is fixed to the wall with tube clamps approx 1 m apart.



Shut-off and unloading valve

A shut-off and unloading valve is "in line" mounted at the inlet of each air operated machine. A silencer and pressure relief device should be mounted on the outlet of the unloading valve.

Parker tube fittings simplify the installation of connections between air operated machinery and supply networks, and facilitate, in particular, transition from copper to plastic tubing or pressure hoses.



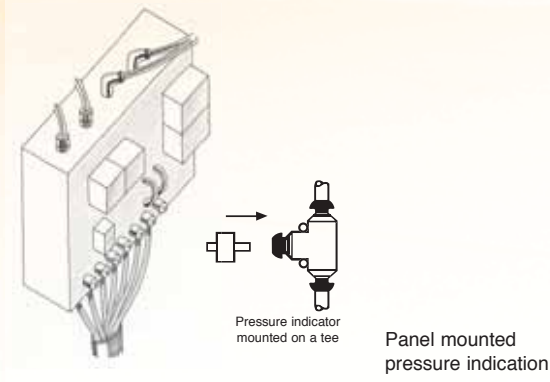
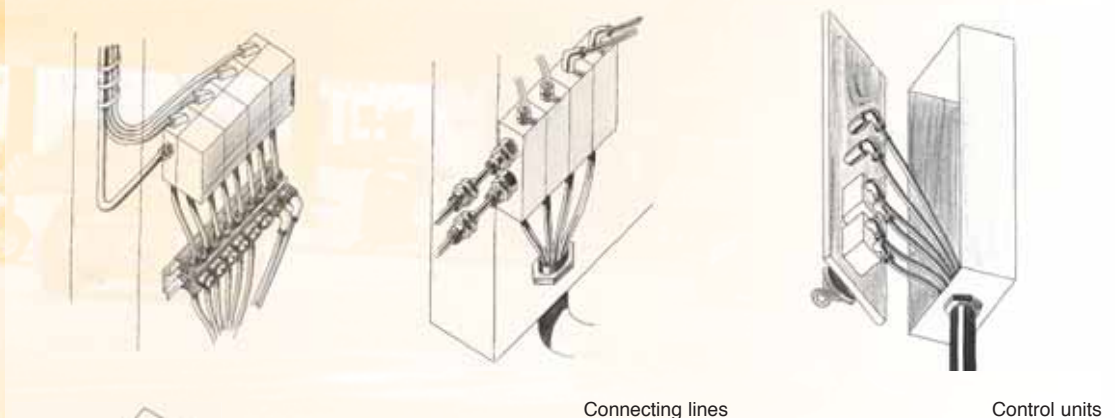
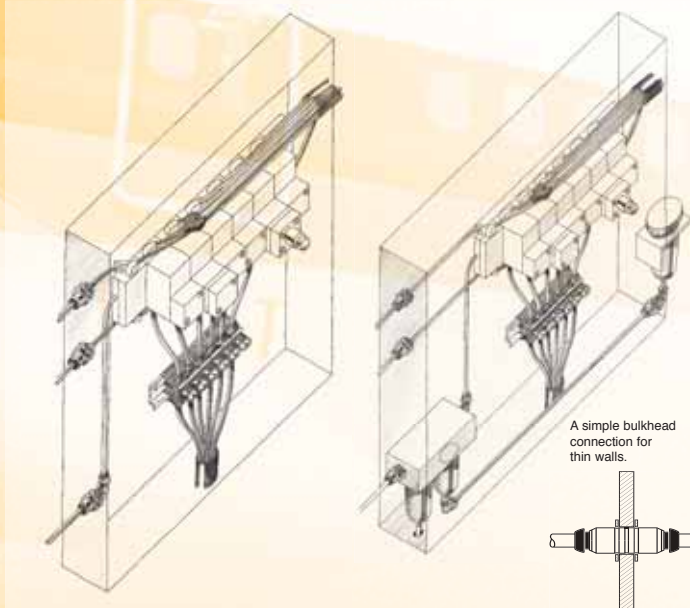
High temperature or high vibration environment

In a high temperature or high vibration environment, the use of hose is recommended.

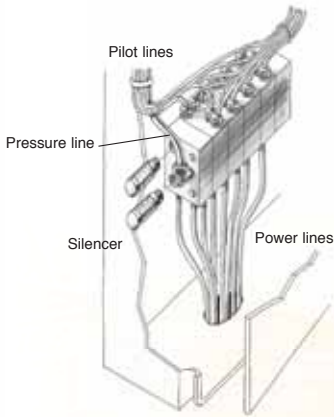
Air preparation equipment

The filter regulator lubricator unit is normally mounted at the inlet of the air operated machine, where the drain and filler plugs are easily accessible for maintenance purposes. Many pneumatic systems use oil-free control air. For the control line a small tube size is sufficient, because the air demand of the control circuit is minimal.

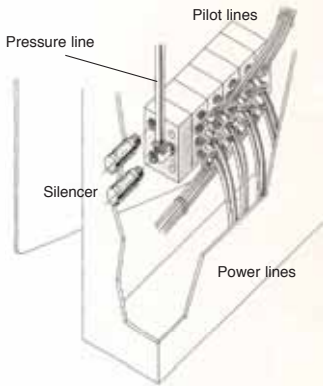
In case of protected control cabinets with built-in air preparation equipment, the end connections for exhaust lines, drainage and, if possible, oil filling, should be located on the outside of the control cabinet.



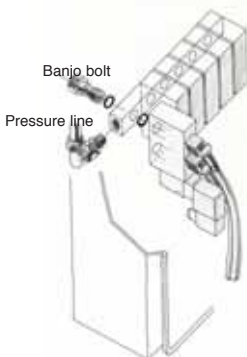
Power circuit piping in a control cabinet



Stackable connection blocks, top and bottom piping



Stackable connection blocks, rear piping



Assembly of non-stackable connection blocks.

(outlets can be linked together using the same assembly method)

Exhaust ports can be connected to collecting lines. Adequate precautions should be made to ensure that any back pressure does not operate another valve or cylinder.

Pneumatic connectors design manual

Pneumatic cylinders



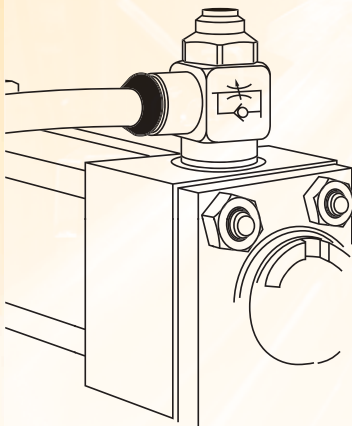
Service lines for pneumatic cylinders are made using fibre-braid reinforced hose (accident protection in case of pull-off during operation) or flexible polyamide or polyurethane tubing. Areas exposed to heavy chafing should be sleeved.

For interconnections between pneumatic cylinders and air-oil reservoirs, polyamide or polyurethane tubing of appropriate pressure rating should be used. Where air-oil intensifiers are used, pipework should be copper (no volume expansion during operational pressure surges).

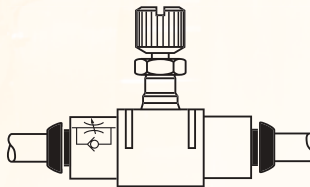
Pneumatic integrated fittings

Flow control valves

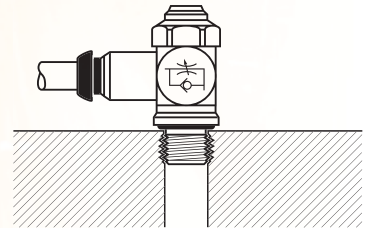
Pneumatic integrated regulators are designed for direct mounting onto cylinder ports, securing accurate control of the exhaust air flow from the cylinder, and precise adjustment of piston-rod speed. Their use permits easier piping and a more compact installation.



Mounting on cylinder



Installation in line or where it is difficult to obtain access to the cylinder for adjustment



For control of inlet air on mini cylinders

Pneumatic connectors design manual

A

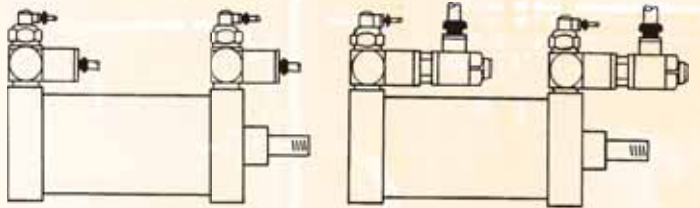
Prestobloc check valves



Pneumatically controlled Prestobloc check valves are designed for direct mounting onto cylinder ports, and assure the quick stopping of the piston-rod by blocking the cylinder supply and exhaust.

The two direction valve is normally open. It closes when the control pressure is cut off, as well as in the event of an air failure.

Prestobloc fittings are used, in particular, as safety stops to prevent descent under load in the event of a power failure, and as safety locks associated with emergency switches.

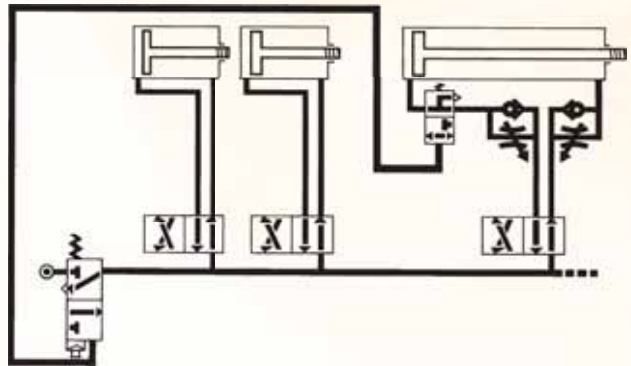


Prestosil silencers and flow control valves



Integrated Prestosil components are designed for direct mounting onto the exhaust port of single acting cylinders and directional control valves.

They provide efficient silencing of exhaust noise and permit precise adjustment of piston-rod speed.



Pneumatic connectors design manual

Absolute pressure	Pressure measured from absolute zero.	Compressor regulator	A device fitted to a compressor which controls the output of the machine.
Absolute temperature	Temperature measured above absolute zero.	Condensate	Liquid formed by the condensation of water vapour in the air, due to a fall in temperature.
Actuator	A pneumatic device which is used to apply power, e.g. a lever, solenoid or cylinder.	Discharge temperature	Temperature at the standard discharge point of a compressor.
Adiabatic expansion	The expansion or compression of a gas without change in heat content.	Displacement	The volume displaced by the compression element in a given time.
Aftercooling	Removal of heat from air after compression is complete.	Dryer	Equipment used to reduce the water vapour content of compressed air.
Air receiver	A pressure vessel in which compressed air is stored.	Fusible plug	Fitted to the hot discharge zone of a compressor for protection against excessively high temperatures.
Ambient temperature	Temperature of the environment.	Gauge pressure	Pressure measured above or below atmospheric pressure.
Atmospheric pressure	The absolute pressure of the atmosphere as measured for a given altitude.	Inlet temperature	Temperature at the standard inlet point of the compressor.
Capacity (compressor)	Actual volume rate of flow, compressed and delivered at the discharge point, at stated inlet conditions.	Intercooling	The cooling of compressed air between compression stages.
Closed loop system	A pneumatic circuit, whereby, air from the actuators is returned as a closed pressurised circuit to the compressor inlet.	Isothermal expansion	Expansion or compression without change of temperature.
Compression ratio	Ratio of final pressure to original pressure.	Multi-stage compression	Two or more stages of compression, with intercooling between them, before the final pressure is reached.
Compressor	A machine which causes a gas to flow against a pressure thus converting mechanical force and motion into pneumatic fluid power.	Lubricator	Equipment used to release a controlled amount of lubricant into the compressed air stream.

Pneumatic connectors design manual



Overall stage ratio	The pressure ratio for any particular pressure stage in a multi-stage compressor.	Separator	A device for removing liquids from compressed air.
Pressure ratio (total)	The ratio between the absolute discharge pressure and the absolute inlet pressure.	Single-stage compression	Initial to final pressure in a single step.
Pressure regulator	A valve or similar device for reducing line pressure to a lower constant value.	Specific energy requirement or power consumption	Input energy requirement per unit of compressed air produced ; or shaft input power per unit of compressor capacity.
Pressure relief valve	A valve used to limit the maximum system pressure, exhausting the compressed air to atmosphere when the required back pressure is exceeded.	Standard reference atmosphere	The agreed atmosphere to which specification, valves and test results are determined in other atmospheres, are corrected.
Pulsation dampener	A chamber fitted at the inlet or discharge of a reciprocating compressor to remove pulsations and to prevent resonance.	Volumetric efficiency	Ratio of capacity to displacement of a compressor or vacuum pump.
Ring main	A compressed air or vacuum main which begins and ends at the compressor, or vacuum pump providing every outlet which two possible sources of supply.		

Pneumatic connectors design manual

For the design of pneumatic systems a range of standard symbols is used to represent the separate components used in the system.

These symbols are defined in ISO 1219, BS 2917 and NFE04 - 057

Valve symbols

Valve type	Normal position	Description of valve	Symbol
2/2	Closed	Two port (2 way) Two position (No exhaust port)	
2/2	Open	Two port (2-way) Two position (No exhaust port)	
3/2	Closed	Three port (3-way) Two position	
3/2	Open	Three port (3-way) Two position	
4/2	1 line, for air inlet 1 line, for exhaust	Four port (4-way) Two position	
4/3	Neutral mid-position (all ports closed)	Four port (4-way) Three position	
5/2	1 line, for air inlet 1 line, for exhaust 2 separate exhausts which can be restricted separately.	Five port (4-way) Two position	
5/3 (X)	Neutral mid-position (all ports closed)	Five port (4-way) Three position	
5/3 (Y)	Negative mid- position inlet, closed cylinder ports, open exhaust ports.	Five port (4-way) Three position	
5/3 (Z)	Positive mid- position cylinder, ports open to air inlet.	Five port (4-way) Three position	

Pneumatic connectors design manual

A

Methods of valve actuation

Description of actuation	Symbol
Muscular actuation : General symbol (without indication of control type) <ul style="list-style-type: none"> - by push button - by lever - by pedal Mechanical actuation : <ul style="list-style-type: none"> - by plunger or tracer - by spring - by roller - by roller, operating in one direction only. 	

Flow Control Valves

Description	Symbol
Throttle valve Simplified symbol (Does not indicate the control method or the state of the valve)	
Flow control valve Valve allows free flow in one direction but restricted flow in the other.	

Non-Return Valves, Shuttle Valves, Quick Exhaust Valves

Description of valves	Symbol
Non-return valve : <ul style="list-style-type: none"> - free Opens if the inlet pressure is higher than the outlet pressure. - spring loaded Opens if the inlet pressure is greater than the outlet pressure plus the spring pressure. 	
Shuttle valve The inlet port connected to the higher pressure is automatically connected to the outlet port while the other inlet port is closed.	
Quick exhaust valve When the inlet port is unloaded the outlet port is freely exhausted.	

Pneumatic connectors design manual

Description		Symbol
Single-acting cylinder - push type - pull type	Cylinder in which the air pressure operates in one direction only.	
Double acting cylinder - with single piston rod - with double-ended piston rod (though rod)	Cylinder in which the air pressure operates alternately in both directions (forward and backward strokes)	
Cylinder with cushion : - with double fixed cushion - with double adjustable cushion		

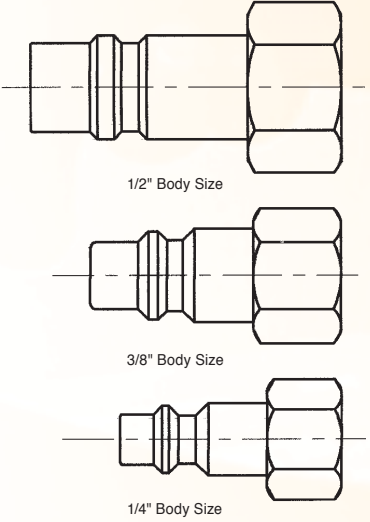
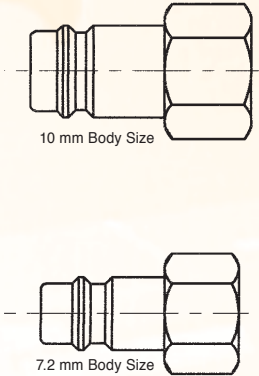
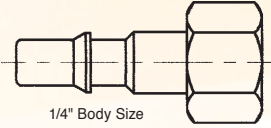
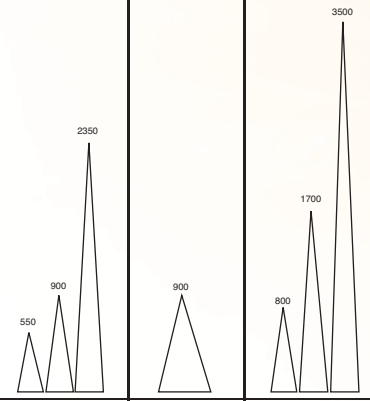
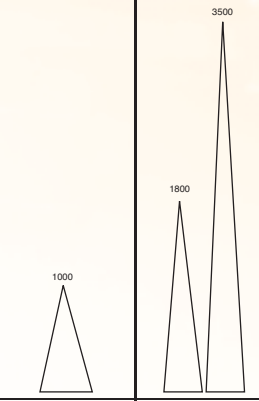
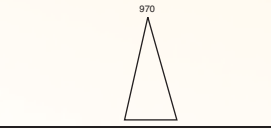
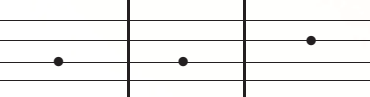
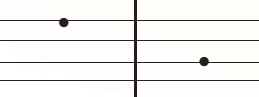
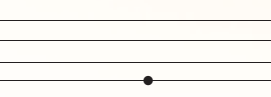
Sources of Energy

Description		Symbol
Pressure source	Simplified general symbol	
Electric motor		
Flow lines and connections Flow line : - working line, return line and feed line - pilot control line - drain or bleed line - flexible pipe - electric line	Flexible hose, usually connecting moving parts	

Pneumatic connectors design manual

Parker's Quick Coupling Division manufactures quick couplings to interchange with popular designs that have become accepted standards in the industry today. The actual size chart below can be used to help select Parker Quick Couplings that will interchange with specific nipple designs sizes and performance data.

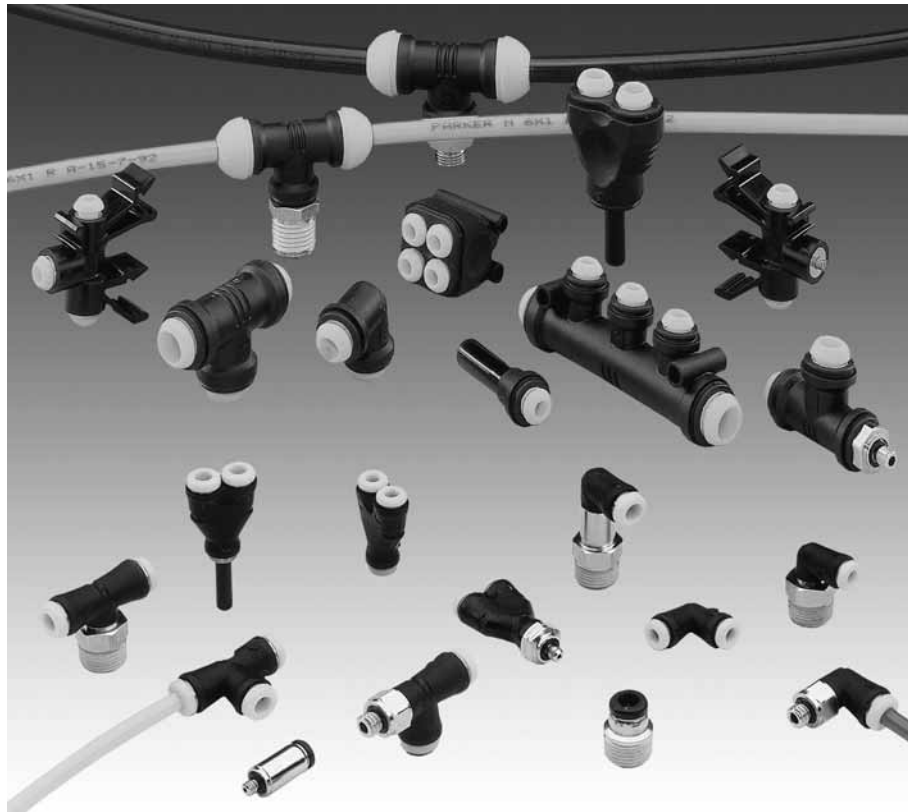
A

STANDARD	ISO 6150-B			EUROPROFILE		ISO 6150-C
SERIES	PB Series 1/4"-3/8"-1/2"	PBF Series 1/4"	EZ Series 1/4"-3/8"-1/2"	PE Series 7.2 mm	PEF Series 7.2 mm - 10 mm	PCF Series 1/4"
MALE TIP ACTUAL SIZE						
FLOW RATE (L/MIN)						
Max. operating pressure (bar)						



Thermoplastic Push-in fittings

Catalogues 3528-2/UK - 3528-3/UK



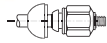
Straight connectors



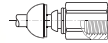
Male - BSPT
F3PB - p. B 8



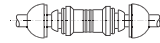
Male - BSPP
F4PB - p. B 8



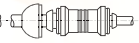
Male - Metric
F8PB - p. B 9



Female - BSPP
G4PB - p. B 9

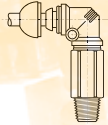


Equal union
HPK - p. B 9

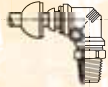


Unequal union
HPK - p. B 9

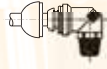
90° elbows



Adjustable extended male - BSPT
C63LPK - p. B 10



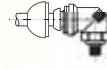
Adjustable male - BSPT
C63PK - p. B 10



Compact adjustable male - BSPT
C63SPK - p. B 10



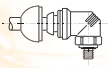
Adjustable male - BSPP
C64PK - p. B 11



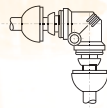
Compact adjustable male - BSPP
C64SPK - p. B 11



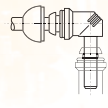
Adjustable male - Metric
C68PK - p. B 11



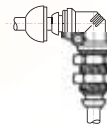
Compact adjustable male - Metric
C68SPK - p. B 11



Union
EPK - p. B 12

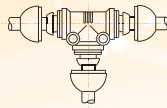


Compact plug-in
T2ESPK - p. B 12

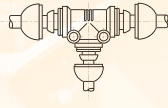


Adjustable bulkhead union
WE6PK - p. B 12

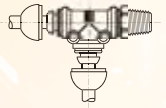
Tees



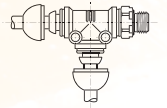
Union
JPK - p. B 12



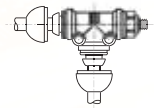
Unequal union
JPK - p. B 13



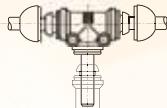
Adjustable male run - BSPT
R63PK - p. B 13



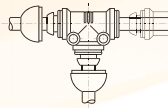
Adjustable male run - BSPP
R64PK - p. B 13



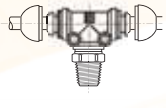
Adjustable male run - Metric
R68PK - p. B 14



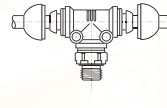
Plug-in branch
T2JPK - p. B 14



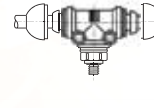
Plug-in run
T2JPK - p. B 14



Adjustable male branch - BSPT
S63PK - p. B 15



Adjustable male branch - BSPP
S64PK - p. B 15

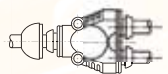


Adjustable male branch - Metric
S68PK - p. B 15

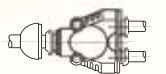
Y connectors



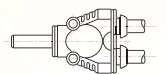
Adjustable male bulkhead
WYJ6PK - p. B 16



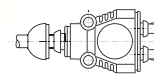
Union
YJPK - p. B 16



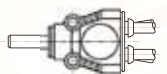
Unequal union
YJPK - p. B 16



Plug-in
YJ2PK - p. B 16



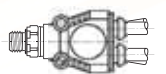
Double union
YJ5PK - p. B 16



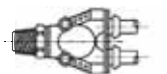
Plug-in double
YJ52PK - p. B 17



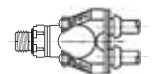
Double union adjustable male - BSPT
YJ563PK - p. B 17



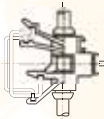
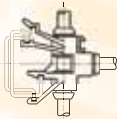
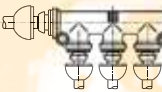
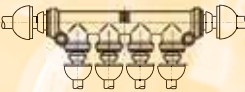
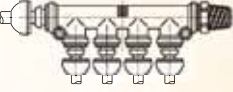







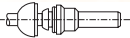
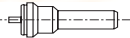
Double union adjustable male - BSPP
YJ564PK - p. B 17



Adjustable male BSPT
YJ63PK - p. B 17



Adjustable male BSPP
YJ64PK - p. B 18

<p>Manifolds</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>2 tubes and pressure indicator HS3PK - p. B 18</p> </div> <div style="text-align: center;">  <p>3 tubes J3PK - p. B 18</p> </div> <div style="text-align: center;">  <p>Multiple tee J5PK - p. B 19</p> </div> <div style="text-align: center;">  <p>Multiple tee J6PK - p. B 19</p> </div> </div> <hr/> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Multiple tee adjustable male - BSPT J663PK - p. B 19</p> </div> <div style="text-align: center;">  <p>Multiple tee adjustable male - BSPP J664PK - p. B 19</p> </div> </div>
<p>Adaptors / Accessories</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Protective cap C - p. B 20</p> </div> <div style="text-align: center;">  <p>Double male union BPK - p. B 21</p> </div> <div style="text-align: center;">  <p>Plug FNPk - p. B 21</p> </div> <div style="text-align: center;">  <p>Tube end male adaptor - BSPT T23FPK - p. B 21</p> </div> <div style="text-align: center;">  <p>Tube end male adaptor - BSPP T24FPK - p. B 21</p> </div> <div style="text-align: center;">  <p>Tube end male adaptor - Metric T28FPK - p. B 22</p> </div> </div> <hr/> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Tube end reducer TR2PK - p. B 22</p> </div> <div style="text-align: center;">  <p>Pressure indicator TS2PK - p. B 22</p> </div> </div>
<p>Complementary parts with brass body</p>	<p>Please consult Prestolok section (C)</p>
<p>Technical tubing</p>	<p>Please consult Thermoplastic single tubes and Pneumo-Tube bundles section (O)</p>

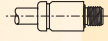
B

Thermoplastic push-in fittings

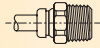
Straight connectors



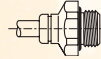
**Male - BSPT
internal hexagon
F23PMB - p. B 23**



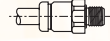
**Male - Metric
internal hexagon
F28PMB - p. B 23**



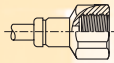
**Male - BSPT
F3PMB - p. B 23**



**Male - BSPP
F4PMB - p. B 23**



**Male - Metric
F8PMB - p. B 24**



**Female - BSPP
G4PMB - p. B 24**



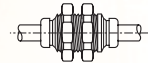
**Female - Metric
G8PMB - p. B 24**



**Equal union
HPMK - p. B 4**

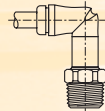


**Unequal union
HPMK - p. B 24**

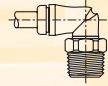


**Equal bulkhead
WPMB - p. B 25**

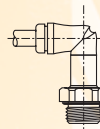
90° elbows



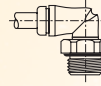
**Adjustable extended
male - BSPT
C63LPMK - p. B 25**



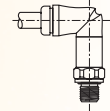
**Adjustable
male - BSPT
C63PMK - p. B 25**



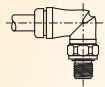
**Adjustable extended
male - BSPP
C64LPMK - p. B 25**



**Adjustable
male - BSPP
C64PMK - p. B 26**



**Adjustable extended
male - Metric
C68LPMK - p. B 26**



**Adjustable
male - Metric
C68PMK - p. B 26**



**Equal union
EPMK - p. B 26**

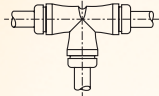


**Equal union
with mounting hole
EPMFK - p. B 27**

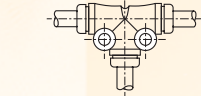


**Compact plug-in
T2ESPMK - p. B 27**

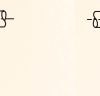
Tees



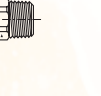
**Equal union
JPMK - p. B 27**



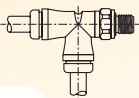
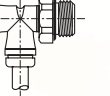
**Equal union
with mounting holes
JPMFK - p. B 27**



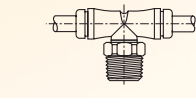
**Adjustable male run
BSPT
R63PMK - p. B 28**



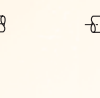
**Adjustable male run
BSPP
R64PMK - p. B 28**



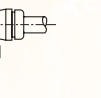
**Adjustable male run
Metric
R68PMK - p. B 28**



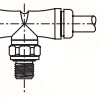
**Adjustable male
branch - BSPT
S63PMK - p. B 28**



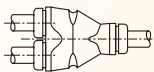
**Adjustable male
branch - BSPP
S64PMK - p. B 29**



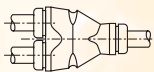
**Adjustable male
branch - Metric
S68PMK - p. B 29**



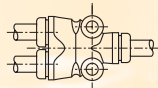
Y connectors



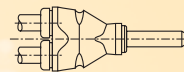
Equal union
YJPMK - p. B 29



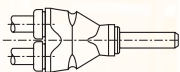
Unequal union
YJPMK - p. B 29



**Equal union
with mounting holes**
YJPMFK - p. B 30



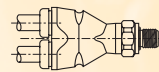
Equal - Plug-in
YJ2PMK - p. B 30



Unequal - Plug-in
YJ2PMK - p. B 30

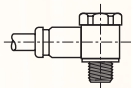


**Adjustable male
BSPT**
YJ63PMK - p. B 30



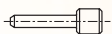
**Adjustable male
Metric**
YJ68PMK - p. B 31

Banjos

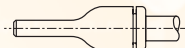


Single assembled
COR8PMB - p. B 31

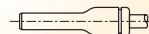
Adaptors /
Accessoires



Plug
FNPMK - p. B 31



Tube end expander
TE2PMK - p. B 31



Tube end reducer
TR2PMK - p. B 32



**Tube end male adaptor
BSPT**
T23FPMB - p. B 32



**Tube end male adaptor
BSPP**
T24FPMB - p. B 32



**Tube end male adaptor
Metric**
T28FPMB - p. B 32

Prestolok TL /
Multiconnector
TL



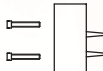
FTL - p. B 33



TLT - p. B 33



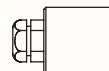
MC7RFBASE
p. B 34



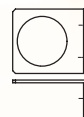
MC7RMBASE
p. B 34



MC7RSACOVER
p. B 34



MC7RLCOVER
p. B 34

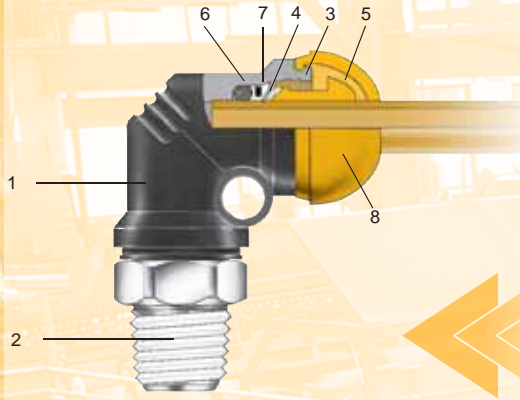


MC7REQ
p. B 34

Technical
tubing

Please consult Thermoplastic single tubes and Pneumo-Tube bundles section (O)

Thermoplastic Push-in fittings



Principle

Thermoplastic push-in fittings can be used with most types of plastic tubing available on the market, offering significant advantages to the user

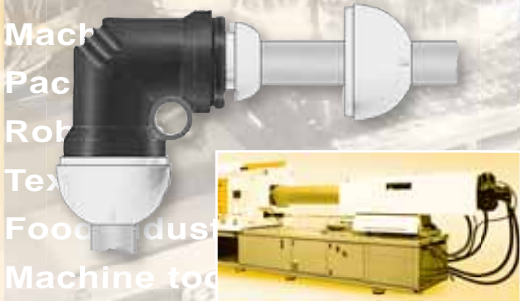
Technical features

1	2	3	4	5	6
Body	Threaded parts	Sleeve	Grab ring	Push button	O-ring
Polyamide HR	Nickel plated brass	Brass	Stainless steel	Polyamide	Nitrile
Polyamide HR	Nickel plated brass	Brass (Npb for straight connec.)	Stainless steel	Polyacetal	Nitrile

Applications Prestolok 2

Perfectly adapted for use with pneumatic systems in a large variety of industries, Prestolok 2 is also designed to handle many other fluids (please consult us) thus covering a wide range of applications.

- Textile
- Food industrie
- Machine tools
- Packaging
- Robotics
- Textile
- Food industrie
- Mach
- Pac
- Rob
- Tex
- Food dust
- Machine too
- Packaging
- Robotics
- Textile



Advantages

- Ready-to-use compact fitting**
- Wide product range covering all applications**
- Full flow capability**

Ready-to-use fitting

- Parallel threads with a fully retained O-ring seal,
- Taper threads with a special PTFE, reusable up to five times.

High resistance polyamide body

- Excellent mechanical characteristics (robustness),
- High corrosion resistance,
- UV resistant polymers guarantee a long service life.

Positive hold by a flexible stainless steel grab ring

- Prevents scratch on the tube,
- Absorbs vibration and pulsating pressure,
- The tube can rotate freely even under pressure.

Positive O-ring sealing

- Unmarked tube is in direct contact with the nitrile O-ring.

Plastic push button

- Instant disconnection of the tube,
- Marked tube sizes for easy identification.

Straight connectors

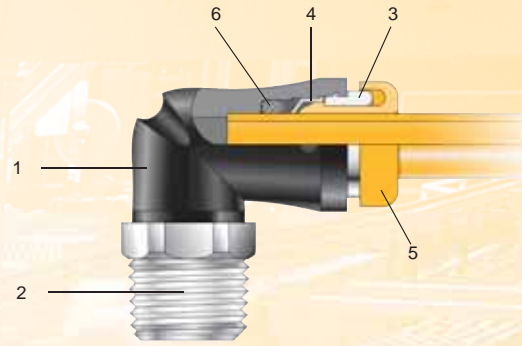
- All straight male connectors have an internal hexagon for use with an Allen key to allow close porting.
- On F23, F28 fittings, the lack of external hexagon enables close mounting to give very compact installations.

Thermoplastic Push-in fittings

(see Thermoplastic single tube and Pneumo-Tube bundles section - O*).

* For other materials, please consult us.

7 Back-up washer	8 Protective cap	bar	Mpa	°C
Brass	Polyacetal	0.01 - 18	0.001 - 1.8	- 25° C
-	-	0.01 - 16	0.001 - 1.6	to + 80° C



Applications Prestolok micro

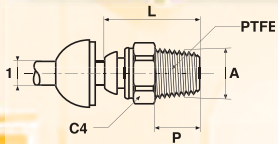
Prestolok micro is designed to reduce space, save weight and time during assembly and bring a cost effective solution for all applications.

- Precision machinery
- Robotics
- Textile
- Automotive
- Food industrie
- Ink marking
- Packaging
- Precision machinery
- Robotics
- Textile
- Automotive
- Food industrie
- Ink marking
- Packaging
- Precision machinery
- Robotics
- Textile



Thermoplastic Push-in fittings

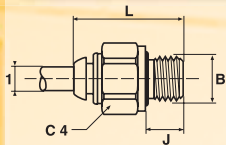
F3PB - Male connector - BSPT



Threads are treated with PTFE sealing material.

1	A	#	C4	L	P	H. Int.	GR
4	1/8	F3PB4-1/8	12	20.5	7.5	3	14
4	1/4	F3PB4-1/4	14	23.0	11.0	3	21
5	1/8	F3PB5-1/8	11	22.5	17.5	4	13
5	1/4	F3PB5-1/4	14	24.0	11.0	4	17
6	1/8	F3PB6-1/8	14	24.0	7.5	4	19
6	1/4	F3PB6-1/4	14	24.0	11.0	4	22
8	1/8	F3PB8-1/8	17	28.0	7.5	4	31
8	1/4	F3PB8-1/4	17	28.5	11.0	4	31
8	3/8	F3PB8-3/8	17	26.5	11.5	6	28
10	1/4	F3PB10-1/4	19	35.5	11.0	6	45
10	3/8	F3PB10-3/8	19	33.0	11.5	8	48
10	1/2	F3PB10-1/2	22	31.0	15.0	8	47
12	1/4	F3PB12-1/4	22	36.5	11.0	6	68
12	3/8	F3PB12-3/8	22	36.0	11.5	10	48
12	1/2	F3PB12-1/2	22	36.0	15.0	10	56
14	3/8	F3PB14-3/8	24	39.0	11.5	10	91
14	1/2	F3PB14-1/2	24	37.0	15.0	11	83

F4PB - Male connector - BSPP



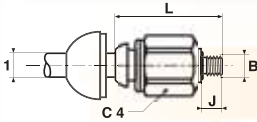
1	B	#	C4	J	L	H. Int.	GR
4	1/8	F4PB4-1/8	13	6	21.7	3	16
4	1/4	F4PB4-1/4	16	9	23.3	3	27
6	1/8	F4PB6-1/8	13	6	25.3	4	17
6	1/4	F4PB6-1/4	16	9	26.0	4	41
8	1/8	F4PB8-1/8	14	6	27.4	4	24
8	1/4	F4PB8-1/4	16	9	27.4	6	29
8	3/8	F4PB8-3/8	20	9	28.0	6	59
10	1/4	F4PB10-1/4	17	9	35.4	6	50
10	3/8	F4PB10-3/8	20	9	31.4	8	39
10	1/2	F4PB10-1/2	24	12	30.3	8	60
12	1/4	F4PB12-1/4	20	9	36.0	6	49
12	3/8	F4PB12-3/8	20	9	35.7	8	49
12	1/2	F4PB12-1/2	24	12	34.1	10	72
14	3/8	F4PB14-3/8	22	9	38.3	8	66
14	1/2	F4PB14-1/2	24	12	37.4	10	81

No protective cap facility

Our fittings are supplied without cap. See page-B20.
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

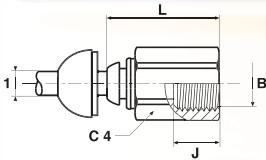
Thermoplastic Push-in fittings

F8PB - Male connector - Metric straight thread



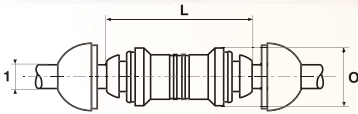
1	B	#	C4	J	L	H. Int.	GR
4	M5x0.8	F8PB4M5	12	5	25.5	2.5	16
4	M10x1	F8PB4M10	14	8	24.0	3.0	17
6	M5x0.8	F8PB6M5	14	5	26.0	2.5	17
6	M10x1	F8PB6M10	14	8	28.0	4.0	17
6	M12x1.5	F8PB6M12	17	10	30.0	4.0	23
8	M12x1.5	F8PB8M12	17	10	30.0	6.0	25
8	M16x1.5	F8PB8M16	22	10	28.0	6.0	34
8	M22x1.5	F8PB8M22	27	12	30.0	6.0	55

G4PB - Female connector - BSPP



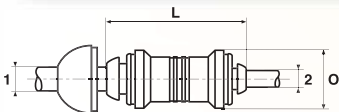
1	B	#	C4	J	L	GR
4	1/8	G4PB4-1/8	14	9.5	26.0	22
6	1/8	G4PB6-1/8	14	9.5	27.5	21
6	1/4	G4PB6-1/4	17	14.0	33.0	22
8	1/8	G4PB8-1/8	17	9.5	29.0	44
8	1/4	G4PB8-1/4	17	14.0	33.0	29

HPK - Equal union



1	#	L	O	GR
4	HPK4	33.5	13	5
6	HPK6	37.0	15	6
8	HPK8	39.0	17	10
10	HPK10	48.0	21	15
12	HPK12	49.0	23	21
14	HPK14	54.0	25	30

HPK - Unequal union



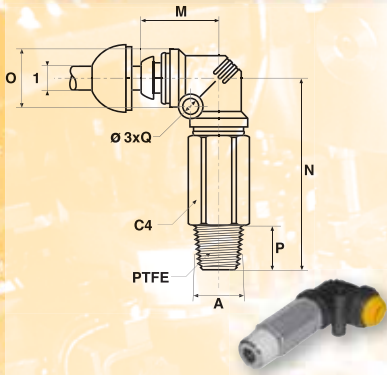
1	2	#	L	O	GR
6	4	HPK6-4	36.0	15	8
8	4	HPK8-4	38.0	17	14
8	6	HPK8-6	39.0	17	12
10	6	HPK10-6	47.0	21	21
10	8	HPK10-8	47.0	21	19
12	10	HPK12-10	49.5	23	26

Our fittings are supplied without cap. See page-B20.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

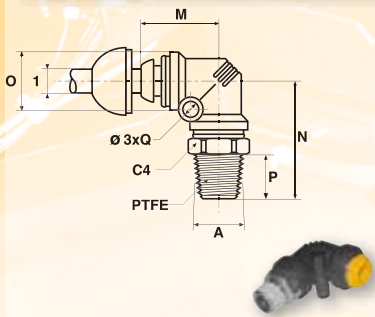
C63LPK - Adjustable extended male elbow - BSPT



1	Ø 3	A	#	C4	M	N	O	P	Width Q	GR
4	3.2	1/8	C63LPK4-1/8	10	18.0	41.0	13	7.5	15	22
4	3.2	1/4	C63LPK4-1/4	14	18.0	45.0	13	11.0	15	46
6	4.2	1/8	C63LPK6-1/8	11	20.5	45.0	15	7.5	17	28
6	4.2	1/4	C63LPK6-1/4	14	20.5	49.0	15	11.0	17	48
8	4.2	1/8	C63LPK8-1/8	14	22.5	49.5	17	7.5	19	46
8	4.2	1/4	C63LPK8-1/4	14	22.5	52.0	17	11.0	19	51

Threads are treated with PTFE sealing material.

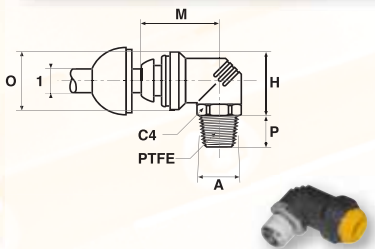
C63PK - Adjustable male elbow - BSPT



1	Ø 3	A	#	C4	M	N	O	P	Width Q	GR
4	3.2	1/8	C63PK4-1/8	10	18.0	25.5	13	7.5	15.0	12
4	3.2	1/4	C63PK4-1/4	14	18.0	29.0	13	11.0	15.0	20
6	4.2	1/8	C63PK6-1/8	11	20.5	27.0	15	7.5	17.0	13
6	4.2	1/4	C63PK6-1/4	14	20.5	30.5	15	11.0	17.0	23
8	4.2	1/8	C63PK8-1/8	14	22.5	29.5	17	7.5	19.0	20
8	4.2	1/4	C63PK8-1/4	14	22.5	32.5	17	11.0	19.0	27
8	4.2	3/8	C63PK8-3/8	17	22.5	34.0	17	11.5	19.0	38
10	4.2	1/4	C63PK10-1/4	17	28.5	40.0	21	11.0	23.5	37
10	4.2	3/8	C63PK10-3/8	17	28.5	39.0	21	11.5	23.5	43
10	4.2	1/2	C63PK10-1/2	22	28.5	42.0	21	15.0	23.5	63
12	4.2	1/4	C63PK12-1/4	19	30.0	41.5	23	11.0	25.5	55
12	4.2	3/8	C63PK12-3/8	19	30.0	41.0	23	11.5	25.5	59
12	4.2	1/2	C63PK12-1/2	22	30.0	44.5	23	15.0	25.5	68
14	4.2	3/8	C63PK14-3/8	22	33.5	45.5	25	11.5	27.5	68
14	4.2	1/2	C63PK14-1/2	22	33.5	48.0	25	15.0	27.5	78

Threads are treated with PTFE sealing material.

C63SPK - Compact adjustable male elbow - BSPT



1	A	#	C4	H	M	O	P	GR
4	1/8	C63SPK4-1/8	10	14.5	20.5	13	6.5	9
4	1/4	C63SPK4-1/4	14	14.5	20.5	13	10.0	18
6	1/8	C63SPK6-1/8	11	16.5	23.0	15	6.5	14
6	1/4	C63SPK6-1/4	14	16.0	23.0	15	10.0	21
8	1/8	C63SPK8-1/8	14	19.5	25.0	17	6.5	15
8	1/4	C63SPK8-1/4	14	18.5	25.0	17	10.0	25
8	3/8	C63SPK8-3/8	17	18.5	25.0	17	10.0	28
10	1/4	C63SPK10-1/4	17	23.0	31.0	21	10.0	30
10	3/8	C63SPK10-3/8	17	22.5	31.0	21	10.0	36
10	1/2	C63SPK10-1/2	22	24.0	31.0	21	12.5	45

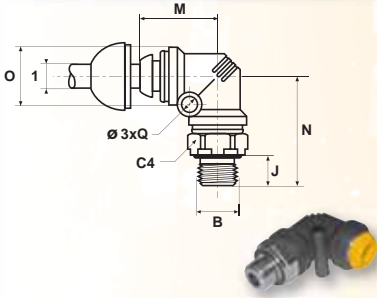
Threads are treated with PTFE sealing material.

Our fittings are supplied without cap. See page-B 20

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

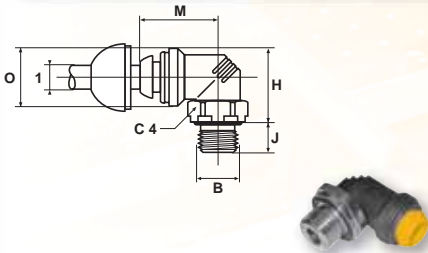
Thermoplastic Push-in fittings

C64PK - Adjustable male elbow - BSPP



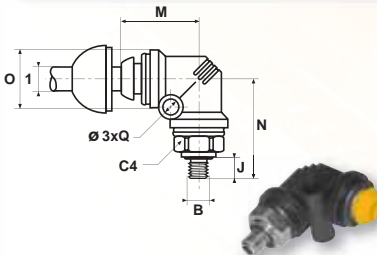
1	Ø 3	B	#	C4	J	M	N	O	Width Q	Gr
4	3.2	1/8	C64PK4-1/8	14	6	18.0	25.5	13	15.0	16
4	3.2	1/4	C64PK4-1/4	19	9	18.0	30.5	13	15.0	31
6	4.2	1/8	C64PK6-1/8	14	6	20.5	27.0	15	17.0	18
6	4.2	1/4	C64PK6-1/4	19	9	20.5	32.0	15	17.0	29
8	4.2	1/8	C64PK8-1/8	14	6	22.5	29.0	17	19.0	22
8	4.2	1/4	C64PK8-1/4	19	9	22.5	34.0	17	19.0	35
8	4.2	3/8	C64PK8-3/8	22	9	22.5	35.0	17	19.0	49
10	4.2	1/4	C64PK10-1/4	19	9	28.5	39.0	21	23.5	45
10	4.2	3/8	C64PK10-3/8	22	9	28.5	40.0	21	23.5	60
12	4.2	1/4	C64PK12-1/4	19	9	30.0	40.5	23	25.5	56
12	4.2	3/8	C64PK12-3/8	22	9	30.0	41.5	23	25.5	60
14	4.2	3/8	C64PK14-3/8	22	9	33.5	45.0	25	27.5	74
14	4.2	1/2	C64PK14-1/2	27	12	33.5	49.5	25	27.5	103

C64SPK - Compact adjustable male elbow - BSPP



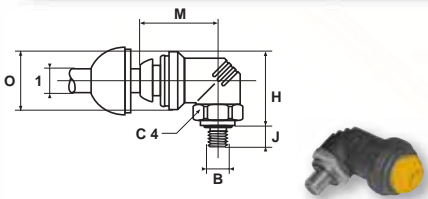
1	B	#	C4	H	J	M	O	Gr
4	1/8	C64SPK4-1/8	14	16.7	6	20.5	13	16
4	1/4	C64SPK4-1/4	19	17.4	9	20.5	13	28
6	1/8	C64SPK6-1/8	14	17.9	6	23.0	15	15
6	1/4	C64SPK6-1/4	19	19.4	9	23.0	15	29
8	1/8	C64SPK8-1/8	14	18.9	6	25.0	17	18
8	1/4	C64SPK8-1/4	19	20.4	9	25.0	17	32
8	3/8	C64SPK8-3/8	22	21.9	9	25.0	17	42

C68PK - Adjustable male elbow - Metric straight thread



1	Ø 3	B	#	C4	J	M	N	O	Width Q	Gr
4	3.2	M3x0.5	C68PK4M3	10	3.5	18.0	22.0	13	15.0	9
4	3.2	M5x0.8	C68PK4M5	10	5.0	18.0	23.5	13	15.0	10
6	4.2	M5x0.8	C68PK6M5	11	5.0	20.5	25.0	15	17.0	12
8	4.2	M12x1.5	C68PK8M12	17	10.0	22.5	35.0	17	19.0	34
8	4.2	M16x1.5	C68PK8M16	22	10.0	22.5	35.0	17	19.0	43
8	4.2	M22x1.5	C68PK8M22	27	12.0	22.5	39.0	17	19.0	91
10	4.2	M12x1.5	C68PK10M12	17	10.0	28.5	40.0	19	23.5	55

C68SPK - Compact adjustable male elbow - Metric straight

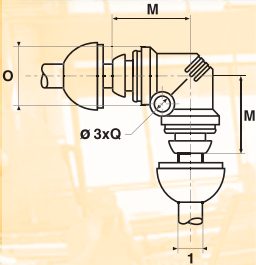


1	B	#	C4	H	J	M	O	Gr
4	M5x0.8	C68SPK4M5	10	15.5	5	20.5	13	6

Our fittings are supplied without cap. See page-B 20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

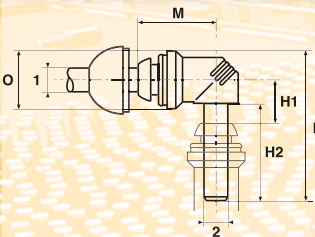
Thermoplastic Push-in fittings

EPK - Equal union elbow



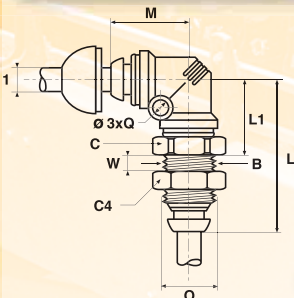
1	Ø 3	#	M	O	Width Q	GR
4	3.2	EPK4	18.0	13	15.0	6
6	4.2	EPK6	20.5	15	17.0	7
8	4.2	EPK8	22.5	17	19.0	10
10	4.2	EPK10	28.5	21	23.5	17
12	4.2	EPK12	30.0	23	25.5	23
14	4.2	EPK14	33.5	25	27.5	31

T2ESPK - Compact plug-in elbow



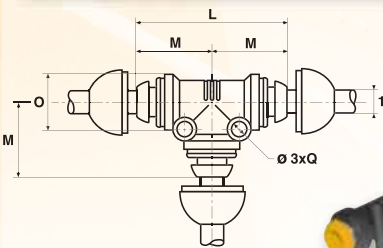
1	2	#	H	H1	H2	M	O	GR
4	4	T2ESPK4	31	8.5	19	20.5	13	4
6	6	T2ESPK6	36	11.5	22	23.0	15	5
4	6	T2ESPK4-6	33	9.5	19	23.0	15	5
8	8	T2ESPK8	38	11.0	22	25.0	17	8

WE6PK - 90° adjustable bulkhead union elbow



1	Ø 3	B	#	C	C4	L	L1	M	O	Width Q	W Max.	GR
4	3.2	M11x0.75	WE6PK4	14	14	37	18.0	18.0	11.5	15.0	6	22
6	4.2	M13x1	WE6PK6	17	17	39	19.5	20.5	13.5	17.0	6	38
8	4.2	M15x1.25	WE6PK8	19	19	43	21.5	22.5	15.5	19.0	6	52
10	4.2	M18x1	WE6PK10	22	22	54	29.0	28.5	18.5	23.5	8	107
12	4.2	M23x1.5	WE6PK12	27	27	59	30.0	30.0	23.5	25.5	10	139

JPK - Equal union tee



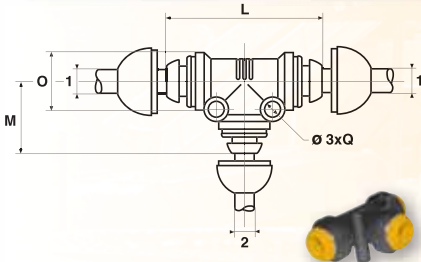
1	Ø 3	Part number	L	M	O	Width Q	GR
4	3.2	JPK4	36	18.0	13	15.0	8
6	4.2	JPK6	41	20.5	15	17.0	9
8	4.2	JPK8	45	22.5	17	19.0	14
10	4.2	JPK10	57	28.5	21	23.5	24
12	4.2	JPK12	60	30.0	23	25.5	33
14	4.2	JPK14	67	33.5	25	27.5	45

Our fittings are supplied without cap. See page-B 20

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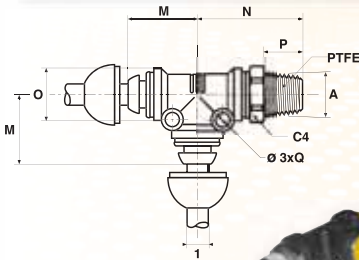
Thermoplastic Push-in fittings

JPK - Unequal union tee



1	2	Ø 3	#	L	M	O	Width Q	CF
6	4	4.2	JPK6-6-4	41	21.5	15	17.0	12
8	6	4.2	JPK8-8-6	45	22.5	17	19.0	18
10	8	4.2	JPK10-10-8	57	28.5	21	23.5	29
12	10	4.2	JPK12-12-10	60	30.0	23	25.5	38
4	6	4.2	JPK4-4-6	43	20.5	15	17.0	17
6	8	4.2	JPK6-6-8	45	22.5	17	19.0	18
8	10	4.2	JPK8-8-10	57	28.5	21	23.5	34
10	12	4.2	JPK10-10-12	61	30.5	23	25.5	43

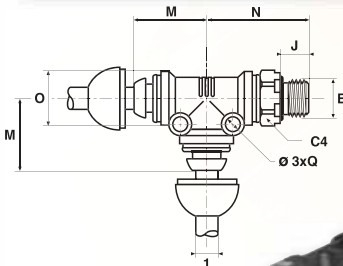
R63PK - Adjustable male run tee - BSPT



Threads are treated with PTFE sealing material

1	Ø 3	A	#	C4	M	N	O	P	Width Q	CF
4	3.2	1/8	R63PK4-1/8	10	18.0	25.5	13	7.5	15.0	15
4	3.2	1/4	R63PK4-1/4	14	18.0	29.0	13	11.0	15.0	23
6	4.2	1/8	R63PK6-1/8	11	20.5	27.0	15	7.5	17.0	16
6	4.2	1/4	R63PK6-1/4	14	20.5	30.5	15	11.0	17.0	26
8	4.2	1/8	R63PK8-1/8	14	22.5	29.5	17	7.5	19.0	24
8	4.2	1/4	R63PK8-1/4	14	22.5	32.5	17	11.0	19.0	31
8	4.2	3/8	R63PK8-3/8	17	22.5	34.0	17	11.5	19.0	42
10	4.2	1/4	R63PK10-1/4	17	28.5	40.0	21	11.0	23.5	44
10	4.2	3/8	R63PK10-3/8	17	28.5	39.0	21	11.5	23.5	51
12	4.2	1/4	R63PK12-1/4	19	30.0	41.5	23	11.0	25.5	65
12	4.2	3/8	R63PK12-3/8	19	30.0	41.0	23	11.5	25.5	69
12	4.2	1/2	R63PK12-1/2	22	30.0	44.5	23	15.0	25.5	78
14	4.2	3/8	R63PK14-3/8	22	33.5	45.5	25	11.5	27.5	82
14	4.2	1/2	R63PK14-1/2	22	33.5	48.0	25	15.0	27.5	92

R64PK - Adjustable male run tee - BSPP

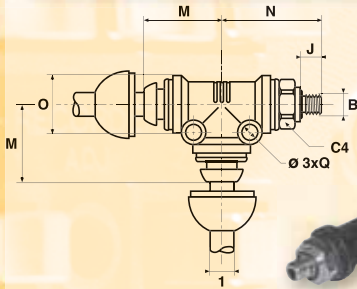


1	Ø 3	B	#	C4	J	M	N	O	Width Q	CF
4	3.2	1/8	R64PK4-1/8	14	6	18.0	25.5	13	15.0	18
4	3.2	1/4	R64PK4-1/4	19	9	18.0	30.5	13	15.0	34
6	4.2	1/8	R64PK6-1/8	14	6	20.5	27.0	15	17.0	21
6	4.2	1/4	R64PK6-1/4	19	9	20.5	32.0	15	17.0	32
8	4.2	1/8	R64PK8-1/8	14	6	22.5	29.0	17	19.0	26
8	4.2	1/4	R64PK8-1/4	19	9	22.5	34.0	17	19.0	38
8	4.2	3/8	R64PK8-3/8	22	9	22.5	35.0	17	19.0	53
10	4.2	1/4	R64PK10-1/4	19	9	28.5	39.0	21	23.5	52
10	4.2	3/8	R64PK10-3/8	22	9	28.5	40.0	21	23.5	68
12	4.2	1/4	R64PK12-1/4	19	9	30.0	40.5	23	25.5	66
12	4.2	3/8	R64PK12-3/8	22	9	30.0	41.5	23	25.5	70
14	4.2	3/8	R64PK14-3/8	22	9	33.5	45.0	25	27.5	88
14	4.2	1/2	R64PK14-1/2	27	12	33.5	49.5	25	27.5	117

Our fittings are supplied without cap. See page-B 20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

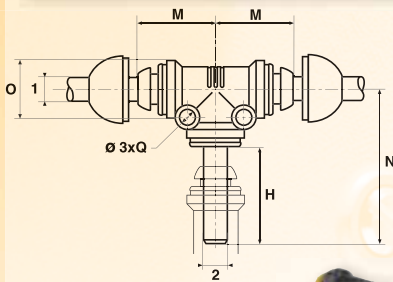
Thermoplastic Push-in fittings

R68PK - Adjustable male run tee - Metric straight thread



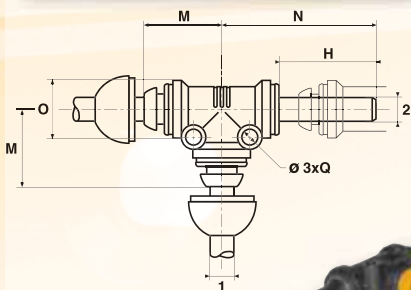
1	Ø 3	B	#	C4	J	M	N	O	Width Q	GR
4	3.2	M3x0.5	R68PK4M3	10	3.5	18.0	22.0	13	15	11
4	3.2	M5x0.8	R68PK4M5	10	5.0	18.0	23.5	13	15	12
6	4.2	M5x0.8	R68PK6M5	11	5.0	20.5	25.0	15	17	15
8	4.2	M12x1.5	R68PK8M12	17	10.0	22.5	35.0	17	19	38

T2JPK - Plug-in branch tee



1	2	Ø 3	#	H	M	N	O	Width Q	GR
4	4	3.2	T2JPK4	19.5	18.0	33.5	13	15	7
6	6	4.2	T2JPK6	21.0	20.5	36.5	15	17	9
8	8	4.2	T2JPK8	22.0	22.5	39.5	17	19	13

T2JPK - Plug-in run tee



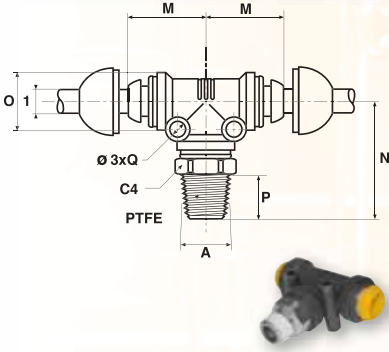
1	2	Ø 3	#	H	M	N	O	Width Q	GR
4	4	3.2	T2JPK4	19.5	18.0	33.5	13	15	7
6	6	4.2	T2JPK6	21.0	20.5	36.5	15	17	9
8	8	4.2	T2JPK8	22.0	22.5	39.5	17	19	13

Our fittings are supplied without cap. See page-B 20

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

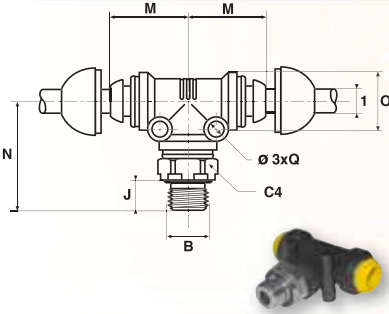
S63PK - Adjustable male branch tee - BSPT



Threads are treated with PTFE sealing material.

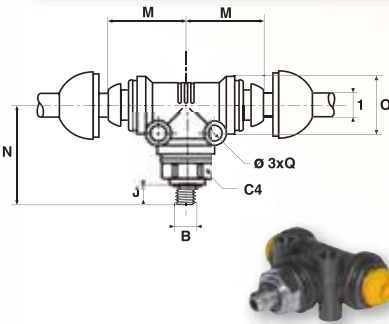
1	Ø 3	A	#	C4	M	N	O	P	Width Q	GR
4	3.2	1/8	S63PK4-1/8	10	18.0	25.5	13	7.5	15.0	15
4	3.2	1/4	S63PK4-1/4	14	18.0	29.0	13	11.0	15.0	23
6	4.2	1/8	S63PK6-1/8	11	20.5	27.0	15	7.5	17.0	16
6	4.2	1/4	S63PK6-1/4	14	20.5	30.5	15	11.0	17.0	26
8	4.2	1/8	S63PK8-1/8	14	22.5	29.5	17	7.5	19.0	24
8	4.2	1/4	S63PK8-1/4	14	22.5	32.5	17	11.0	19.0	31
8	4.2	3/8	S63PK8-3/8	17	22.5	34.0	17	11.5	19.0	42
10	4.2	1/4	S63PK10-1/4	17	28.5	40.0	21	11.0	23.5	44
10	4.2	3/8	S63PK10-3/8	17	28.5	39.0	21	11.5	23.5	51
12	4.2	1/4	S63PK12-1/4	19	30.0	41.5	23	11.0	25.5	65
12	4.2	3/8	S63PK12-3/8	19	30.0	41.0	23	11.5	25.5	69
12	4.2	1/2	S63PK12-1/2	22	30.0	44.5	23	15.0	25.5	78
14	4.2	3/8	S63PK14-3/8	22	33.5	45.5	25	11.5	27.5	82
14	4.2	1/2	S63PK14-1/2	22	33.5	48.0	25	15.0	27.5	92

S64PK - Adjustable male branch tee - BSPP



1	Ø 3	B	#	C4	J	M	N	O	Width Q	GR
4	3.2	1/8	S64PK4-1/8	14	6	18.0	25.5	13	15.0	18
4	3.2	1/4	S64PK4-1/4	19	9	18.0	30.5	13	15.0	34
6	4.2	1/8	S64PK6-1/8	14	6	20.5	27.0	15	17.0	21
6	4.2	1/4	S64PK6-1/4	19	9	20.5	32.0	15	17.0	32
8	4.2	1/8	S64PK8-1/8	14	6	22.5	29.0	17	19.0	26
8	4.2	1/4	S64PK8-1/4	19	9	22.5	34.0	17	19.0	38
8	4.2	3/8	S64PK8-3/8	22	9	22.5	35.0	17	19.0	53
10	4.2	1/4	S64PK10-1/4	19	9	28.5	39.0	21	23.5	52
10	4.2	3/8	S64PK10-3/8	22	9	28.5	40.0	21	23.5	68
12	4.2	1/4	S64PK12-1/4	19	9	30.0	40.5	23	25.5	66
12	4.2	3/8	S64PK12-3/8	22	9	30.0	41.5	23	25.5	70
14	4.2	3/8	S64PK14-3/8	22	9	33.5	45.0	25	27.5	88
14	4.2	1/2	S64PK14-1/2	27	12	33.5	49.5	25	27.5	117

S68PK - Adjustable male branch tee - metric straight thread

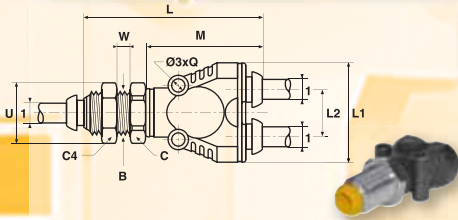


1	Ø 3	B	#	C4	J	M	N	O	Width Q	GR
4	3.2	M3x0.5	S68PK4M3	10	3.5	18.0	22.0	13	15	11
4	3.2	M5x0.8	S68PK4M5	10	5.0	18.0	23.5	13	15	12
6	4.2	M5x0.8	S68PK6M5	11	5.0	20.5	25.0	15	17	15
8	4.2	M12x1.5	S68PK8M12	17	10.0	22.5	35.0	17	19	38
8	4.2	M16x1.5	S68PK8M16	22	10.0	22.5	35.0	17	19	49
8	4.2	M22x1.5	S68PK8M22	27	12.0	22.5	39.0	17	19	91

Our fittings are supplied without cap. See page-B 20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

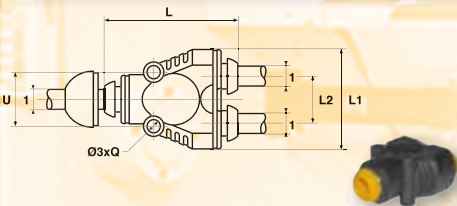
Thermoplastic Push-in fittings

WYJ6PK - Adjustable male bulkhead Y connector



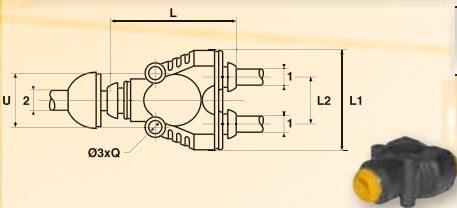
1	B	Ø 3	#	C	C4	L	L1	L2	M	Width Q	U	W Maxi	GR
4	M11x0.75	3.2	WYJ6PK4	14	16	46	22	11.0	27	15	14.4	6	38
6	M13x1	4.2	WYJ6PK6	17	17	54	30	13.5	35	17	17.0	6	21
8	M15x1.25	4.2	WYJ6PK8	19	19	64	30	13.5	35	19	18.4	6	50

YJPK - Union Y connector



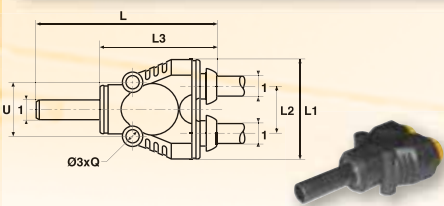
1	Ø 3	#	L	L1	L2	Width Q	U	GR
4	3.2	YJPK4	31	22	11.0	17	17.0	15
6	4.2	YJPK6	40	30	13.5	19	19.0	20
8	4.2	YJPK8	40	39	18.0	24	23.6	40
10	4.2	YJPK10	52	39	18.0	24	19.3	35

YJPK - Unequal union Y connector



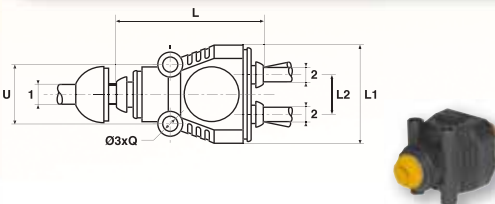
1	2	Ø 3	#	L	L1	L2	Width Q	U	GR
4	6	4.2	YJPK4-4-6	40	30	13.5	17	14.4	19
6	8	4.2	YJPK6-6-8	40	30	13.5	19	17.0	32
8	10	4.2	YJPK8-8-10	40	31	13.6	19	18.4	43

YJ2PK - Plug-in Y connector



1	Ø 3	#	L	L1	L2	L3	Width Q	U	GR
4	3.2	YJ2PK4	46.5	22	11.0	27	15	14.4	11
6	4.2	YJ2PK6	56.0	30	13.5	35	17	17.0	20
8	4.2	YJ2PK8	57.0	30	13.5	35	19	18.4	24
10	4.2	YJ2PK10	73.0	39	18.0	46	24	19.3	40

YJ5PK - Union double Y connector



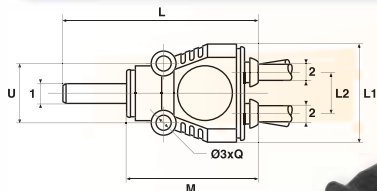
1	2	Ø 3	#	L	L1	L2	Width Q	U	GR
4	4	3.2	YJ5PK4	35	22.5	9.5	24.5	14.4	20
6	4	4.2	YJ5PK6-4	38	22.5	9.5	24.5	17.0	22

Our fittings are supplied without cap. See page-B 20

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

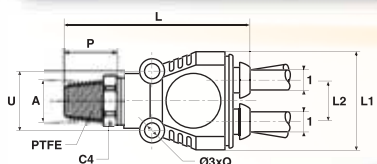
Thermoplastic Push-in fittings

YJ52PK - Plug-in double Y connector



1	2	Ø 3	#	L	L1	L2	M	Width Q	U	GR
6	4	3.2	YJ52PK6-4	52	22.5	9.5	31	24.5	14.4	23

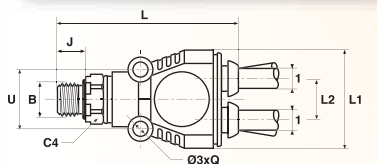
YJ563PK - Union double Y connector adjustable male - BSPT



Threads are treated with PTFE sealing material

1	Ø 3	A	#	C4	L	L1	L2	P	Width Q	U	GR
4	3.2	1/8	YJ563PK4-1/8	10	42.5	22.5	9.5	7.5	24.5	14.4	24

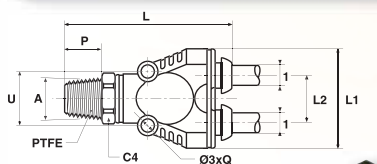
YJ564PK - Union double Y connector adjustable male - BSPP



Threads are treated with PTFE sealing material

1	B	Ø 3	#	C4	J	L	L1	L2	Width Q	U	GR
4	1/8	3.2	YJ564PK4-1/8	14	6	42.5	22.5	9.5	24.5	14.4	27
4	1/4	3.2	YJ564PK4-1/4	19	9	47.5	22.5	9.5	24.5	14.4	43

YJ63PK - Adjustable male Y connector - BSPT



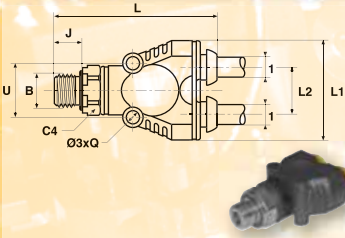
Threads are treated with PTFE sealing material

1	A	Ø 3	#	C4	L	L1	L2	P	Width Q	U	GR
4	1/8	3.2	YJ63PK4-1/8	10	38.5	22	11.0	7.5	15	14.4	18
4	1/4	3.2	YJ63PK4-1/4	14	42.0	22	11.0	11.0	15	14.4	26
6	1/8	4.2	YJ63PK6-1/8	11	51.5	30	13.5	7.5	17	17.0	22
6	1/4	4.2	YJ63PK6-1/4	14	50.0	30	13.5	11.0	17	17.0	31
8	1/8	4.2	YJ63PK8-1/8	14	47.0	30	13.5	7.5	19	18.4	34
8	1/4	4.2	YJ63PK8-1/4	14	50.0	30	13.5	11.0	19	18.4	41
10	1/4	4.2	YJ63PK10-1/4	17	62.6	39	18.0	11.0	24	19.3	60
10	3/8	4.2	YJ63PK10-3/8	19	61.3	39	18.0	11.5	24	19.3	77

Our fittings are supplied without cap. See page-B 20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

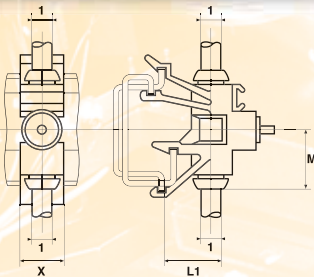
Thermoplastic Push-in fittings

YJ64PK - Adjustable male Y connector - BSPP



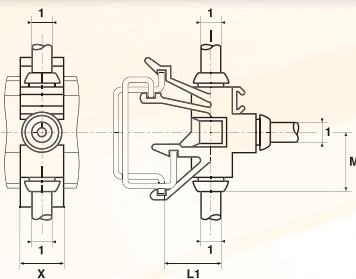
1	B	Ø 3	#	C4	J	L	L1	L2	Width Q	U	GR
4	1/8	3.2	YJ64PK4-1/8	14	6	38.5	22	11.0	15	14.4	22
4	1/4	3.2	YJ64PK4-1/4	19	9	43.5	22	11.0	15	14.4	37
6	1/8	4.2	YJ64PK6-1/8	14	6	46.5	30	13.5	17	17.0	26
6	1/4	4.2	YJ64PK6-1/4	19	9	51.5	30	13.5	17	17.0	37
8	1/8	4.2	YJ64PK8-1/8	14	6	46.5	30	13.5	19	18.4	36
8	1/4	4.2	YJ64PK8-1/4	19	9	51.5	30	13.5	19	18.4	48
10	1/4	4.2	YJ64PK10-1/4	19	9	62.5	39	19.3	24	19.3	58
10	3/8	4.2	YJ64PK10-3/8	22	9	63.5	39	19.3	24	19.3	75

HS3PK - Manifold for 2 tubes and pressure indicator



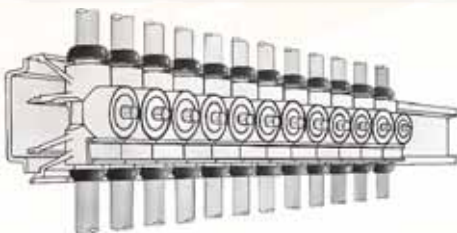
1	#	L1	M	X	GR
4	HS3PK4	14	16	12	12
6	HS3PK6	15	18	14	15
8	HS3PK8	15	29	14	31

J3PK - Manifold for 3 tubes



1	#	L1	M	X	GR
4	J3PK4	14	16	12	10
6	J3PK6	15	18	14	12
8	J3PK8	15	29	16	35

Manifolds



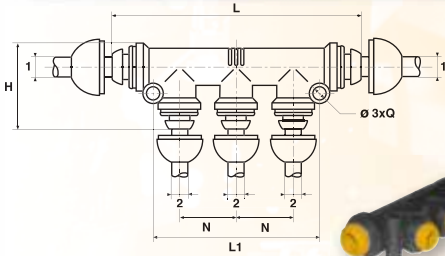
Prestolok manifolds permit close porting and compact modular assemblies on mounting rails, irrespective of :

- the DIN profiles used : 46277 T1 (32x15x1.5), 46277 T3 (35x15x1.5), 46277 T3 (35x7.5x1).
- the desired manifold configuration (3 tube connections, or 2 tube connections + pressure indicator).
- the tube O.D. (4, 6 or 8 mm).

Our fittings are supplied without cap. See page-B 20
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

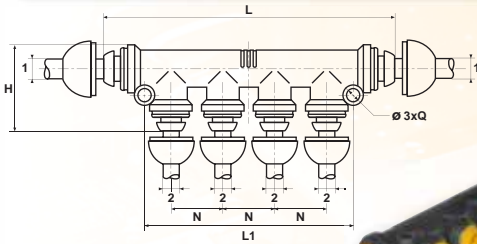
Thermoplastic Push-in fittings

J5PK - Multiple tee



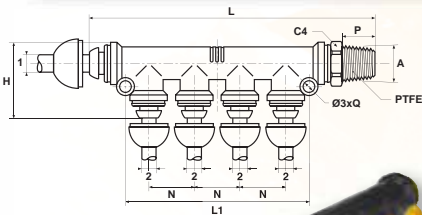
1	2	Ø 3	#	H	L	L1	N	Width Q	CF
6	4	4.4	J5PK6-4	27	78	52	18	15	16
8	4	4.4	J5PK8-4	28	80	52	18	17	21
8	6	4.4	J5PK8-6	30	80	52	18	17	19
10	6	4.4	J5PK10-6	33	90	52	18	21	24

J6PK - Multiple tee



1	2	Ø 3	#	H	L	L1	N	Width Q	CF
6	4	4.4	J6PK6-4	27	96	70	18	15	20
8	4	4.4	J6PK8-4	28	98	70	18	17	25
8	6	4.4	J6PK8-6	30	98	70	18	17	24
10	6	4.4	J6PK10-6	33	108	70	18	21	28

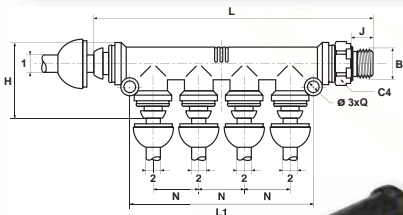
J663PK - Adjustable male multiple tee - BSPT



Threads are treated with PTFE sealing material

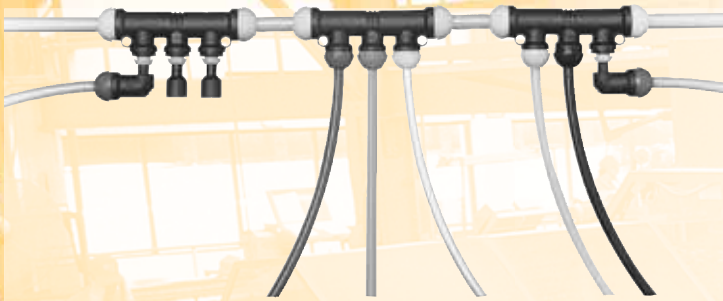
1	2	Ø 3	A	#	C4	H	L	L1	N	P	Width Q	CF
6	4	4.4	1/8	J663PK6-4-1/8	10	27	103.0	70	18	7.5	15	31
6	4	4.4	1/4	J663PK6-4-1/4	14	27	106.5	70	18	11.0	15	40
8	4	4.4	1/4	J663PK8-4-1/4	14	28	106.5	70	18	11.0	17	45
8	4	4.4	3/8	J663PK8-4-3/8	17	28	108.0	70	18	11.5	17	57
8	6	4.4	1/8	J663PK8-6-1/8	10	30	103.0	70	18	7.5	17	40
8	6	4.4	1/4	J663PK8-6-1/4	14	30	106.5	70	18	11.0	17	46
8	6	4.4	3/8	J663PK8-6-3/8	17	30	108.0	70	18	11.5	17	58
10	6	4.4	1/4	J663PK10-6-1/4	14	33	116.4	70	18	11.0	21	60
10	6	4.4	3/8	J663PK10-6-3/8	17	33	117.9	70	18	11.5	21	67

J664PK - Adjustable male multiple tee - BSPP



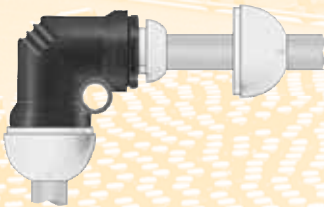
1	2	Ø 3	B	#	C4	H	J	L	L1	N	Width Q	CF
6	4	4.4	1/8	J664PK6-4-1/8	14	27	7.5	103.0	70	18	15	35
6	4	4.4	1/4	J664PK6-4-1/4	19	27	11.0	108.0	70	18	15	46
8	4	4.4	1/4	J664PK8-4-1/4	19	28	11.0	108.0	70	18	17	53
8	6	4.4	1/8	J664PK8-6-1/8	14	30	7.5	103.0	70	18	17	42
8	6	4.4	1/4	J664PK8-6-1/4	19	30	11.0	108.0	70	18	17	54
8	6	4.4	3/8	J664PK8-6-3/8	14	30	11.5	109.0	70	18	17	67
10	6	4.4	1/4	J664PK10-6-1/4	19	33	11.0	117.9	70	18	21	69
10	6	4.4	3/8	J664PK10-6-3/8	22	33	11.5	118.9	70	18	21	84

Thermoplastic Push-in fittings

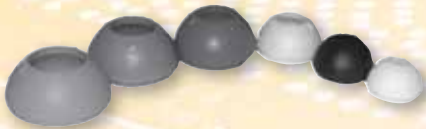


Multiple tees can be used as a simple system for air distribution. The flow path through the tee is designed to ensure an adequate air supply to the secondary lines. This economic modular solution concept provides a fully flexible solution for your pneumatic system.

C - Protective cap



1	#	GR
4	C4 ^{a)}	1
6	C6 ^{a)}	1
8	C8 ^{a)}	1
10	C10 ^{a)}	1
12	C12 ^{a)}	1
14	C14 ^{a)}	1



The design of Prestolok 2 permits the use of a protective cap for the following functions :

- protection : prevents the ingress of dirt into the connection system,
- safety : eliminates the risk of accidental disconnection, as the push button is made inaccessible,
- identification :
 - ▶ colour coding allows identification of fluid lines,
 - ▶ tubes sizes are marked on the protective cap.

a) : Add the following code, corresponding to the chosen colour :

- W : white; BU : blue;
- G : green; R : red;
- Y : yellow; BL: black.

Example : Cap red suitable for tube $\varnothing 4$ mm = C4R.

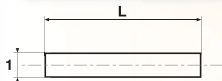
In case of no colour specification, we will deliver yellow caps (standard colour).

Our fittings are supplied without cap.
Cap must be ordered separately.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

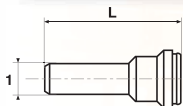
Thermoplastic Push-in fittings

BPK - Double male union



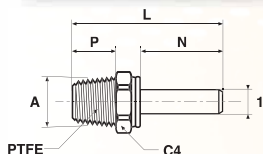
1	#	L	GR
4	BPK4	38	1
6	BPK6	41	1
8	BPK8	41	1
10	BPK10	51	2
12	BPK12	54	2
14	BPK14	55	2

FNPK - Plug



1	#	L	GR
4	FNPK4	34.5	1
6	FNPK6	35.0	1
8	FNPK8	35.0	2
10	FNPK10	42.0	9
12	FNPK12	41.0	10
14	FNPK14	40.0	10

T23FPK - Tube end male adaptor - BSPT

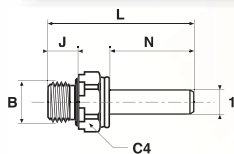


Threads are treated with PTFE sealing material.

1	A	#	C4	L	N	P	GR
4	1/8	T23FPK4-1/8	12	36	19.5	7.5	10
4	1/4	T23FPK4-1/4	14	40	19.5	11.0	17
6	1/8	T23FPK6-1/8	14	40	21.0	7.5	14
6	1/4	T23FPK6-1/4	14	40	21.0	11.0	16
8	1/8	T23FPK8-1/8	17	45	22.0	7.5	24
8	1/4	T23FPK8-1/4	17	46	22.0	11.0	24
8	3/8	T23FPK8-3/8	17	44	22.0	11.5	29
10	1/4	T23FPK10-1/4	19	57	27.0	11.0	41
10	3/8	T23FPK10-3/8	19	55	27.0	11.5	39
10	1/2	T23FPK10-1/2	22	52	27.0	15.0	57

* Thermoplastic stem with brass nickel plated threads.

T24FPK - Tube end male adaptor - BSPP



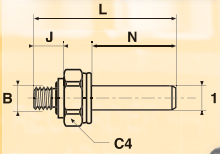
* Thermoplastic stem with brass nickel plated threads.

1	B	#	C4	J	L	N	GR
4	1/8	T24FPK4-1/8	14	6	38	19.0	14
4	1/4	T24FPK4-1/4	16	9	38	19.5	26
6	1/8	T24FPK6-1/8	14	6	41	21.0	17
6	1/4	T24FPK6-1/4	16	9	41	20.5	28
8	1/8	T24FPK8-1/8	14	6	45	22.0	26
8	1/4	T24FPK8-1/4	16	9	45	22.0	29
8	3/8	T24FPK8-3/8	19	9	45	22.0	45
10	1/4	T24FPK10-1/4	19	9	57	27.0	46
10	3/8	T24FPK10-3/8	19	9	51	26.0	45
10	1/2	T24FPK10-1/2	27	12	50	27.0	59

Do not mount on a fitting equipped with a protective cap. Our fittings are supplied without cap. See page-B 20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

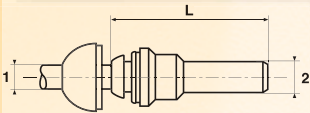
T28FPK - Tube end male adaptor - Metric straight thread



1	B	#	C4	J	L	N	GR
4	M5X0.8	T28FPK4M5	12	5	43	19.5	12
6	M5X0.8	T28FPK6M5	14	5	43	21.0	17

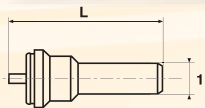
* Thermoplastic stem with brass nickel plated threads.

TR2PK - Tube end reducer



1	2	#	L	GR
4	6	TR2PK6-4	38	4
4	8	TR2PK8-4	36	6
6	8	TR2PK8-6	39	4
4	10	TR2PK10-4	41	16
6	10	TR2PK10-6	43	3
8	10	TR2PK10-8	47	4
6	12	TR2PK12-6	36	3
8	12	TR2PK12-8	38	7
10	12	TR2PK12-10	48	4
8	14	TR2PK14-8	39	8
10	14	TR2PK14-10	42	5
12	14	TR2PK14-12	51	14

TS2PK - Pressure indicator

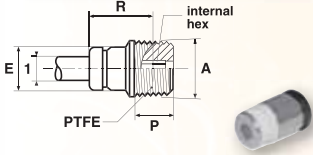


1	#	L	GR
4	TS2PK4	36	5
6	TS2PK6	37	6
8	TS2PK8	36	8

Do not mount on a fitting equipped with a protective cap. Our fittings are supplied without cap. See page-B20
 For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

F23PMB - Male connector - BSPT

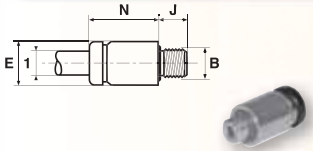


Threads are treated with PTFE sealing material.

1	A	#	E	P	R	Int. H	CR
3	1/8	F23PMB3-1/8	6.5	6.5	10.2	2.0	4
4	1/8	F23PMB4-1/8	7.9	6.5	11.4	2.5	5
6	1/8	F23PMB6-1/8	10.5	6.5	14.1	3.0	7

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an Allen key.

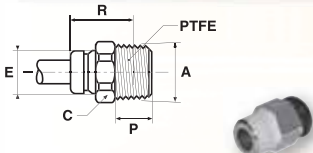
F28PMB - Male connector - Metric straight thread



1	B	#	E	J	N	Int. H	CR
3	M3x0.5	F28PMB3M3	7.0	3.25	13.65	1.5	5
3	M5x0.8	F28PMB3M5	6.5	3.50	9.80	2.0	5
4	M3x0.5	F28PMB4M3	7.9	3.25	14.15	1.5	6
4	M5x0.8	F28PMB4M5	7.9	3.50	11.70	2.0	6
6	M5x0.8	F28PMB6M5	10.5	3.50	14.80	2.0	7

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an Allen key.

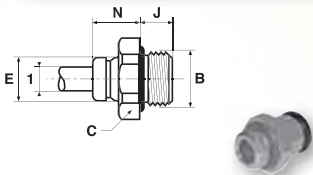
F3PMB - Male connector - BSPT



Threads are treated with PTFE sealing material.

1	A	#	C	P	R	CR
4	1/8	F3PMB4-1/8	10	6.5	11.4	7
4	1/4	F3PMB4-1/4	14	10.0	13.4	11
6	1/8	F3PMB6-1/8	11	6.5	14.8	10
6	1/4	F3PMB6-1/4	14	10.0	13.8	16

F4PMB - Male connector - BSPP



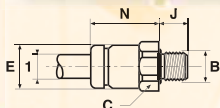
1	B	#	C	E	J	N	CR
4	1/8	F4PMB4-1/8	13	7.9	5.0	7.9	8
4	1/4	F4PMB4-1/4	16	7.9	5.5	7.9	12
6	1/8	F4PMB6-1/8	13	10.5	5.0	12.3	10
6	1/4	F4PMB6-1/4	16	10.5	5.5	8.8	14

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

B

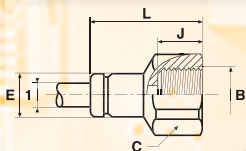
Thermoplastic Push-in fittings

F8PMB - Male - Metric straight thread



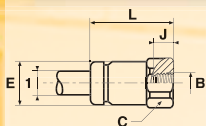
1	B	#	C	E	J	N	GR
3	M3x0.5	F8PMB3M3	7	6.5	3.25	11.45	5
3	M5x0.8	F8PMB3M5	7	6.5	3.50	11.20	5
4	M3x0.5	F8PMB4M3	8	7.9	3.25	11.95	5
4	M5x0.8	F8PMB4M5	8	7.9	3.50	11.80	7
6	M5x0.8	F8PMB6M5	11	10.5	3.50	14.80	7

G4PMB - Female - BSPP



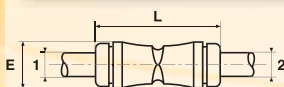
1	B	#	C	E	J	L	GR
4	1/8	G4PMB4-1/8	13	7.9	8	19.9	9
4	1/4	G4PMB4-1/4	16	7.9	10	21.9	15
6	1/8	G4PMB6-1/8	13	10.5	8	22.8	10
6	1/4	G4PMB6-1/4	16	10.5	10	24.8	15

G8PMB - Female - Metric



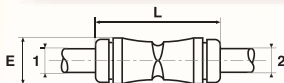
1	B	#	C	E	J	L	GR
3	M3x0.5	G8PMB3M3	7	6.5	4.25	14.05	5
3	M5x0.8	G8PMB3M5	7	6.5	6.60	17.90	5
4	M3x0.5	G8PMB4M3	8	7.9	4.25	14.55	5
4	M5x0.8	G8PMB4M5	8	7.9	6.60	18.40	5

HPMK - Equal union



1	2	#	E	L	GR
3	3	HPMK3	7.3	19.8	2
4	4	HPMK4	8.5	21.8	3
6	6	HPMK6	11.5	27.8	3

HPMK - Unequal union

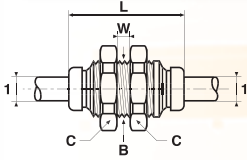


1	2	#	E	L	GR
4	3	HPMK4-3	8.5	21.2	2
6	4	HPMK6-4	11.5	27.8	3

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

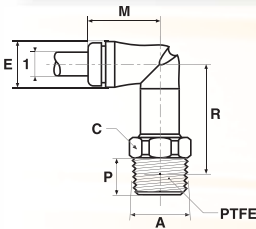
Thermoplastic Push-in fittings

WPMB - Bulkhead equal union



1	B	#	C	L	W Max.	GR
3	M8x1	WPMB3	12	20.15	5	10
4	M10x1	WPMB4	14	21.15	5	11
6	M12x1	WPMB6	16	26.00	8	13

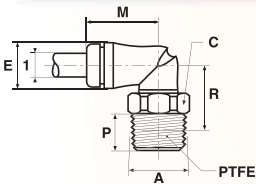
C63LPMK - Adjustable extended male elbow - BSPT



1	A	#	C	E	M	P	R	GR
3	1/8	C63LPMK3-1/8	10	7.3	11.25	6.5	19.4	12
4	1/8	C63LPMK4-1/8	10	8.5	12.65	6.5	21.2	14
4	1/4	C63LPMK4-1/4	14	8.5	12.65	10.0	23.2	27
6	1/8	C63LPMK6-1/8	11	11.5	16.70	6.5	25.7	19
6	1/4	C63LPMK6-1/4	14	11.5	16.70	10.0	27.7	35

Threads are treated with PTFE sealing material.

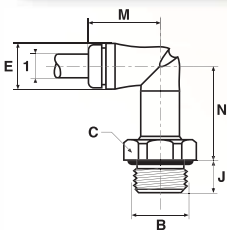
C63PMK - Adjustable male elbow - BSPT



1	A	#	C	E	M	P	R	GR
3	1/8	C63PMK3-1/8	10	7.3	11.25	6.5	11.6	6
4	1/8	C63PMK4-1/8	10	8.5	12.65	6.5	12.2	6
4	1/4	C63PMK4-1/4	14	8.5	12.65	10.0	14.2	6
6	1/8	C63PMK6-1/8	11	11.5	16.70	6.5	13.7	7
6	1/4	C63PMK6-1/4	14	11.5	16.70	10.0	15.7	7

Threads are treated with PTFE sealing material.

C64LPMK - Adjustable extended male elbow - BSPP

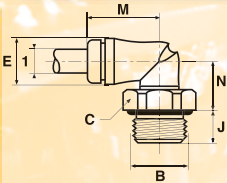


1	B	#	C	E	J	M	N	GR
4	1/8	C64LPMK4-1/8	13	8.5	5.0	12.65	17.2	10
4	1/4	C64LPMK4-1/4	16	8.5	5.5	12.65	17.2	13
6	1/8	C64LPMK6-1/8	13	11.5	5.0	16.70	23.7	12
6	1/4	C64LPMK6-1/4	16	11.5	5.5	16.70	21.7	12

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

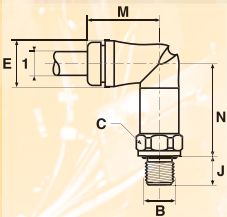
Thermoplastic Push-in fittings

C64PMK - Adjustable male elbow - BSPP



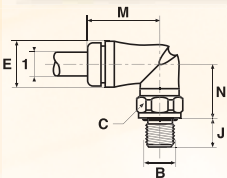
1	B	#	C	E	J	M	N	GR
4	1/8	C64PMK4-1/8	13	8.5	5.0	12.65	5	6
4	1/4	C64PMK4-1/4	16	8.5	5.5	12.65	5	6
6	1/8	C64PMK6-1/8	13	11.5	5.0	16.70	9	7
6	1/4	C64PMK6-1/4	16	11.5	5.5	16.70	9	7

C68LPMK - Adjustable extended male elbow - Metric straight thread



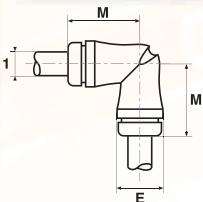
1	B	#	C	E	J	M	N	GR
3	M3x0.5	C68LPMK3M3	6	7.3	3.25	11.25	17.0	7
3	M5x0.8	C68LPMK3M5	8	7.3	3.50	11.25	17.0	8
4	M3x0.5	C68LPMK4M3	8	8.5	3.25	12.65	18.8	8
4	M5x0.8	C68LPMK4M5	8	8.5	3.50	12.65	18.8	8
6	M5x0.8	C68LPMK6M5	10	11.5	3.50	16.70	23.7	9

C68PMK - Adjustable male elbow - Metric straight thread



1	B	#	C	E	J	M	N	GR
3	M3x0.5	C68PMK3M3	7	7.3	3.25	11.25	9.2	6
3	M5x0.8	C68PMK3M5	7	7.3	3.50	11.25	9.2	6
4	M3x0.5	C68PMK4M3	8	8.5	3.25	12.65	9.8	6
6	M5x0.8	C68PMK6M5	11	11.5	3.50	16.70	11.7	7

EPMK - Equal elbow

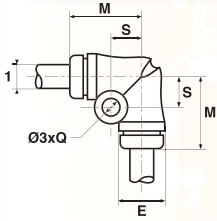


1	#	E	M	GR
3	EPMK3	7.3	11.25	2
4	EPMK4	8.5	12.65	3
6	EPMK6	11.5	16.70	3

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

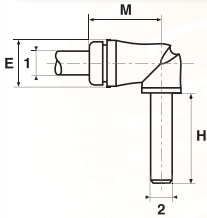
EPMFK - Equal elbow with mounting hole



1	#	E	M	Ø3	Q	S	GR
3	EPMFK3	7.3	11.25	3.2	7.3	5.0	2
4	EPMFK4	8.5	12.65	3.2	8.5	5.5	3
6	EPMFK6	11.5	16.70	3.2	11.5	7.0	4

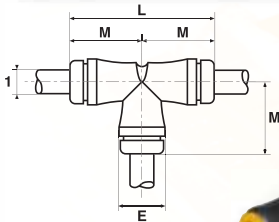
Not available from stock, please consult us.

T2ESPMK - Compact plug-in elbow



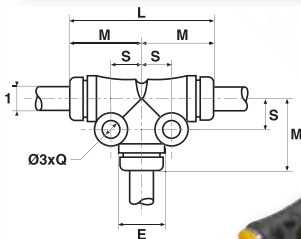
1	2	#	E	H	M	GR
3	3	T2ESPMK3	7.3	16	11.25	2
4	4	T2ESPMK4	8.5	16	12.65	2
4	6	T2ESPMK4-6	8.5	17	12.65	2
6	6	T2ESPMK6	11.5	17	16.70	3

JPMK - Equal tee



1	#	E	L	M	GR
3	JPMK3	7.3	22.5	11.25	3
4	JPMK4	8.5	25.3	12.65	3
6	JPMK6	11.5	33.4	16.70	4

JPMFK - Equal tee with mounting holes



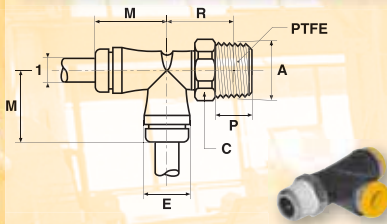
1	#	E	L	M	Ø3	Q	S	GR
3	JPMFK3	7.3	22.5	11.25	3.2	7.3	5.0	3
4	JPMFK4	8.5	25.3	12.65	3.2	8.5	5.5	4
6	JPMFK6	11.5	33.4	16.70	3.2	11.5	7.0	5

Not available from stock, please consult us.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

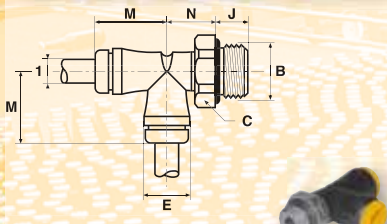
R63PMK - Adjustable male run tee - BSPT



1	A	#	C	E	M	P	R	GR
3	1/8	R63PMK3-1/8	10	7.3	11.25	6.5	11.6	7
4	1/8	R63PMK4-1/8	10	8.5	12.65	6.5	12.2	7
4	1/4	R63PMK4-1/4	14	8.5	12.65	10.0	14.2	7
6	1/8	R63PMK6-1/8	11	11.5	16.70	6.5	13.7	8
6	1/4	R63PMK6-1/4	14	11.5	16.70	10.0	15.7	8

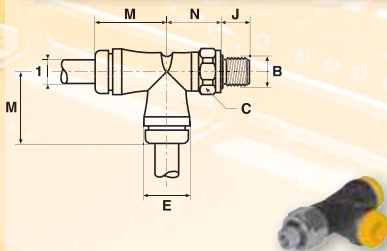
Threads are treated with PTFE sealing material.

R64PMK - Adjustable male run tee - BSPP



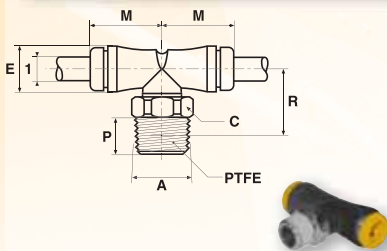
1	B	#	C	E	J	M	N	GR
4	1/8	R64PMK4-1/8	13	8.5	5.0	12.65	8.2	7
4	1/4	R64PMK4-1/4	16	8.5	5.5	12.65	8.2	7
6	1/8	R64PMK6-1/8	13	11.5	5.0	16.70	11.7	8
6	1/4	R64PMK6-1/4	16	11.5	5.5	16.70	9.7	9

R68PMK - Adjustable male run tee - Metric straight thread



1	B	#	C	E	J	M	N	GR
3	M3x0.5	R68PMK3M3	7	7.3	3.25	11.25	9.2	6
3	M5x0.8	R68PMK3M5	7	7.3	3.50	11.25	9.2	6
4	M3x0.5	R68PMK4M3	8	8.5	3.25	12.65	9.8	7
4	M5x0.8	R68PMK4M5	8	8.5	3.50	12.65	9.8	7
6	M5x0.8	R68PMK6M5	11	11.5	3.50	16.70	11.7	8

S63PMK - Adjustable male branch tee - BSPT



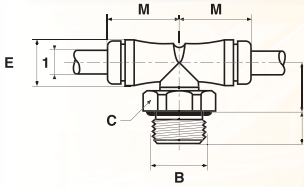
1	A	#	C	E	M	P	R	GR
3	1/8	S63PMK3-1/8	10	7.3	11.25	6.5	11.6	7
4	1/8	S63PMK4-1/8	10	8.5	12.65	6.5	12.2	7
4	1/4	S63PMK4-1/4	14	8.5	12.65	10.0	14.2	7
6	1/8	S63PMK6-1/8	11	11.5	16.70	6.5	13.7	8
6	1/4	S63PMK6-1/4	14	11.5	16.70	10.0	15.7	8

Threads are treated with PTFE sealing material.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

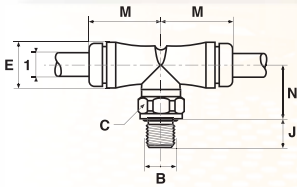
S64PMK - Adjustable male branch tee - BSPP



1	B	#	C	E	J	M	N	GR
4	1/8	S64PMK4-1/8	13	8.5	5.0	12.65	8.2	7
4	1/4	S64PMK4-1/4	16	8.5	5.5	12.65	8.2	7
6	1/8	S64PMK6-1/8	13	11.5	5.0	16.70	11.7	8
6	1/4	S64PMK6-1/4	16	11.5	5.5	16.70	9.7	9

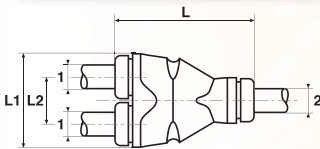
B

S68PMK - Adjustable male branch tee - Metric straight thread



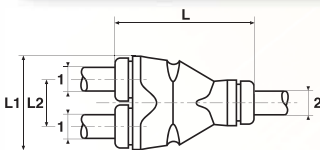
1	B	#	C	E	J	M	N	GR
3	M3x0.5	S68PMK3M3	7	7.3	3.25	11.25	9.2	6
3	M5x0.8	S68PMK3M5	7	7.3	3.50	11.25	9.2	6
4	M3x0.5	S68PMK4M3	8	8.5	3.25	12.65	9.8	7
4	M5x0.8	S68PMK4M5	8	8.5	3.50	12.65	9.8	7
6	M5x0.8	S68PMK6M5	11	11.5	3.50	16.70	11.7	8

YJPMK - Equal Y union



1	2	#	L	L1	L2	GR
3	3	YJPMK3	22.0	13.9	6.7	3
4	4	YJPMK4	24.8	16.4	8.1	4
6	6	YJPMK6	31.8	22.2	10.8	5

YJPMK - Unequal Y union

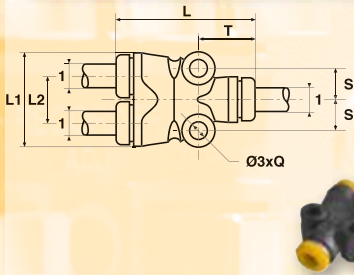


1	2	#	L	L1	L2	GR
3	4	YJPMK4-3	24.2	16.4	8.1	3
3	6	YJPMK6-3	31.2	22.2	10.8	4
4	6	YJPMK6-4	31.8	22.2	10.8	4

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

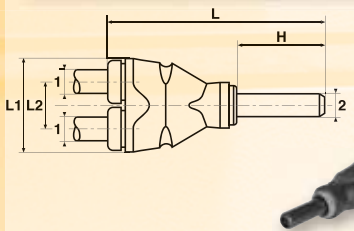
YJPMFK - Y union with mounting holes



1	#	L	L1	L2	Ø3	Q	S	T	GF
3	YJPMFK3	22.0	13.9	6.7	3.2	7.3	5.0	8.7	3
4	YJPMFK4	24.8	16.4	8.1	3.2	8.5	5.5	9.7	4
6	YJPMFK6	31.8	22.2	10.8	3.2	11.5	7.0	12.9	5

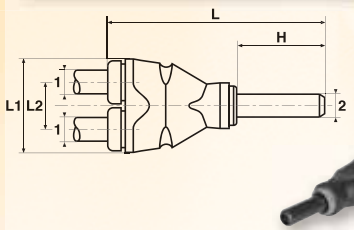
Not available from stock, please consult us.

YJ2PMK - Equal plug-in Y union



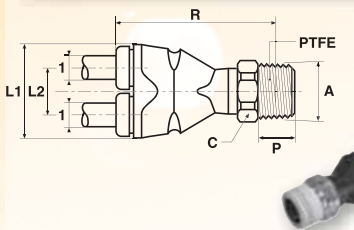
1	2	#	H	L	L1	L2	GF
3	3	YJ2PMK3	16	35.7	13.9	6.7	3
4	4	YJ2PMK4	16	37.9	16.4	8.1	3
6	6	YJ2PMK6	17	45.9	22.2	10.8	3

YJ2PMK - Unequal plug-in Y union



1	2	#	H	L	L1	L2	GF
4	3	YJ2PMK4-3	16	37.9	16.4	8.1	3
4	6	YJ2PMK6-4	16	44.9	22.2	10.8	4

YJ63PMK - Adjustable male Y connector - BSPT



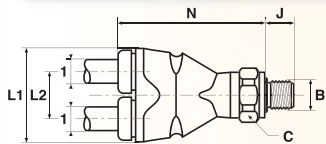
1	A	#	C	L1	L2	P	R	GF
3	1/8	YJ63PMK3-1/8	10	14.0	6.7	6.5	27.2	7
4	1/8	YJ63PMK4-1/8	10	16.6	8.1	6.5	29.4	7
6	1/8	YJ63PMK6-1/8	11	22.3	10.8	6.5	36.4	9

Threads are treated with PTFE sealing material.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Thermoplastic Push-in fittings

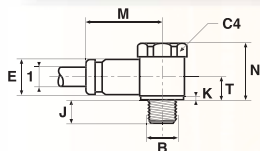
YJ68PMK - Adjustable male Y connector - metric straight thread



1	B	#	C	J	L1	L2	N	GR
3	M3x0.5	YJ68PMK3M3	8	3.25	14.0	6.7	24.2	7
4	M5x0.8	YJ68PMK4M5	9	3.50	16.6	8.1	26.2	7
6	M5x0.8	YJ68PMK6M5	12	3.50	22.3	10.8	34.1	8

B

COR8PMB - Banjo - metric straight thread



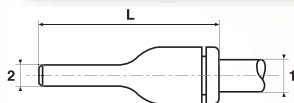
1	B	#	C4	E	J	K	M	N	T	GR
3	M3x0.5	COR8PMB3M3	6	6.5	3.25	0.5	12.5	10	4	5
3	M5x0.8	COR8PMB3M5	8	6.5	4.50	0.5	13.5	10	4	5

FNPMK - Plug



1	#	L	GR
3	FNPMK3	22	1

TE2PMK - Tube end expander

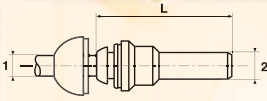


1	2	#	L	GR
6	4	TE2PMK4-6	31.7	2

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

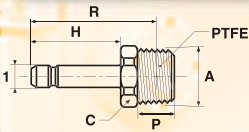
Thermoplastic Push-in fittings

TR2PMK - Tube end reducer



1	2	#	L	CF
3	4	TR2PMK4-3	26.4	2

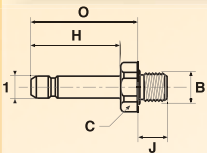
T23FPMB - Tube end male adaptor - BSPT



1	A	#	C	H	P	R	CF
4	1/8	T23FPMB4-1/8	10	16	6.5	22.5	9
4	1/4	T23FPMB4-1/4	14	16	10.0	25.0	13
6	1/8	T23FPMB6-1/8	10	17	6.5	23.5	9
6	1/4	T23FPMB6-1/4	14	17	10.0	26.0	15

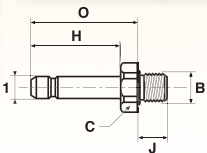
Threads are treated with PTFE sealing material.

T24FPMB - Tube end male adaptor - BSPP



1	B	#	C	H	J	O	CF
4	1/8	T24FPMB4-1/8	13	16	5.0	19.5	9
4	1/4	T24FPMB4-1/4	16	16	5.5	19.5	13
6	1/8	T24FPMB6-1/8	13	17	5.0	20.5	9
6	1/4	T24FPMB6-1/4	16	17	5.5	20.5	13

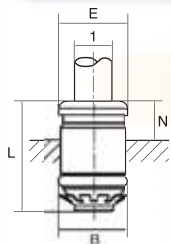
T28FPMB - Tube end male adaptor - Metric



1	B	#	C	H	J	O	CF
3	M3x0.5	T28FPMB3M3	6	16	3.25	19	6
4	M5x0.8	T28FPMB4M5	7	16	3.50	19	7

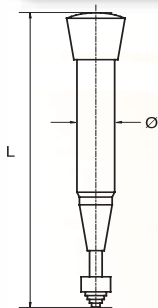
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

FTL - Male connector

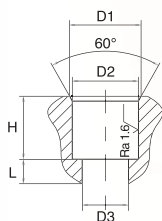


1	B	#	E	L	N	N**
4	8	FTL4	7.9	14.6	4.5	7.5
4	10	FTL6-4	7.9	16.7	4.5	9.5
6	10	FTL6	10.5	16.9	4.5	9.5
4	12	FTL8-4	7.9	17.6	5.0	10.5
6	12	FTL8-6	10.5	18.0	5.5	11.0
8	12	FTL8	13.5	18.9	6.5	12.0

TLT - Removal tool



#	L	Ø
TLT	156	27.9



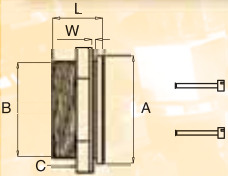
D1	D2	D3	Hole type	H	L
9	8	5.5	TL4	9.2	1.5
11	10	8.0	TL6	11.1	1.5
13	12	8.5	TL8	11.5	1.5
9	8	5.5	TL4C**	6.0	1.5
11	10	8.0	TL6C**	6.0	1.5
13	12	8.5	TL8C**	6.0	1.5

Drill available on request.
 ** Possible to mount in a short hole with extremely close porting.

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

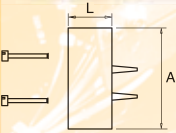


MC7RFBASE - Female base



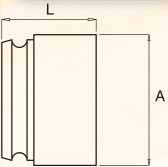
#	B	L	A	C	W
MC7RFBASE	53	28	60	60	5 max

MC7RMBASE - Male base



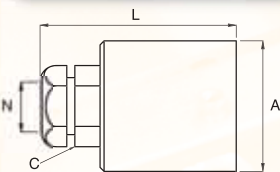
#	L	A
MC7RMBASE	22.5	52

MC7RSACOVER - Short cover



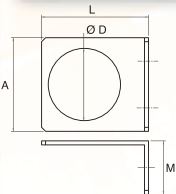
#	L	A
MC7RSACOVER	47	62

MC7RLCOVER - Long cover



#	L	A	C	N
MC7RLCOVER	98	65	35	20

MC7REQ - Bracket



#	L	A	Ø D	M
MC7REQ	80	70	54	40

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.



Prestolok

*Spark resistant push-in fittings
for fluids*

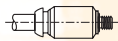
Catalogue 3528-1/UK



Straight connectors



Male - BSPT
F23PB - p. C 6



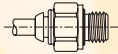
Male - Metric
F28PB - p. C 6



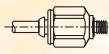
Male - BSPT
F3PB - p. C 6



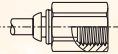
Male - NPTF
FPB - p. C 6



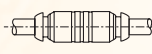
Male - BSPP
F4PB - p. C 7



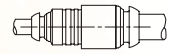
Male - Metric
F8PB - p. C 7



Female - BSPP
G4PB - p. C 7



Equal union
HPB - p. C 8

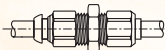


Unequal union
HPB - p. C 8

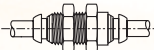
Bulkhead unions



Female - BSPP
WG4PB - p. C 8

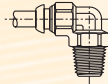


Mixed
WBMPB - p. C 8

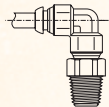


Equal
WPB - p. C 9

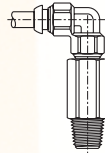
90° elbows



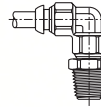
Compact - BSPT
C3PB - p. C 9



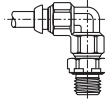
Adjustable male
NPT
C6PB - p. C 9



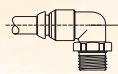
Adjustable extended
male - BSPT
C63LPB - p. C 9



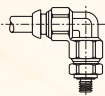
Adjustable male
BSPT
C63PB - p. C 10



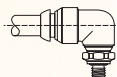
Adjustable male
BSPP
C64PB - p. C 10



Compact
adjustable
male - BSPP
C64SPB - p. C 10



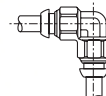
Adjustable
male - Metric
C68PB - p. C 11



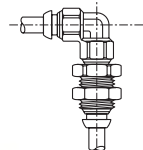
Compact
adjustable
male - Metric
C68SPB - p. C 11



Adjustable
female elbow
BSPP
D64PB - p. C 11

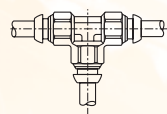


Equal union
EPB - p. C 11

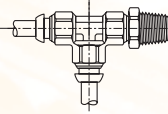


Adjustable
bulkhead union
WE6PB - p. C 11

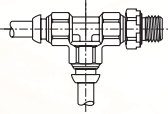
Tees



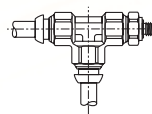
Equal union
JPB - p. C 12



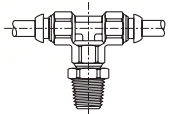
Adjustable male
run - BSPT
R63PB - p. C 12



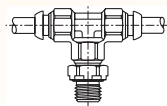
Adjustable male
run - BSPP
R64PB - p. C 12



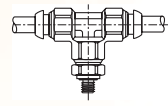
Adjustable male
run - Metric
R68PB - p. C 13



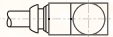

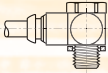
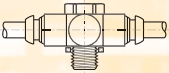

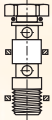


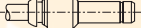
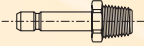
Adjustable male
branch - BSPT
S63PB - p. C 13



Adjustable male
branch - BSPP
S64PB - p. C 13



Adjustable male
branch - Metric
S68PB - p. C 13

<p>Banjos</p>	 <p>Single - Body only CORPB - p. C 14</p>	 <p>Double - Body only CORPBD - p. C 14</p>	 <p>Single - Assembled COR8PB/COR4PB - p. C 14</p>	 <p>Double - Assembled COR8PBD/COR4PBD - p. C 15</p>
<p>Adaptors/ Accessories</p>	 <p>Single bolt with seals SC8U/SC4U - p. C 15</p>	 <p>Stacking bolt with seals SC8UD/SC4UD - p. C 15</p>	 <p>Plug FNPB - p. C 16</p>	 <p>Tube end expander TEPB - p. C 16</p>  <p>Tube end reducer TRPB - p. C 16</p>  <p>Tube end male adaptor BSPT T23HFPB - p. C 16</p>
<p>Cartridges</p>	<p>p. C 17 and C 18</p>			
<p>Complementary parts with thermoplastic body</p>	<p>Please consult Prestolok 2 section (B)</p>			
<p>Technical tubing</p>	<p>Please consult Thermoplastic single tubes and Pneumo-Tube bundles section (O)</p>			

C

Spark resistant push-in fittings for fluids

Principle

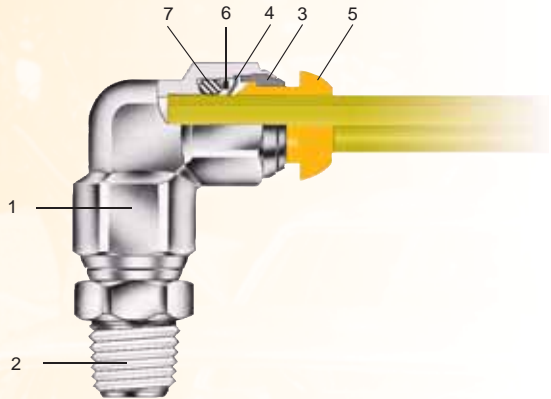
For more than 20 years, Parker Hannifin has designed and manufactured push-in fittings recognised worldwide for their quality and reliability.

During this period Prestolok has benefited from continuous improvement and is now one of the most advanced push-in fittings on the market.

Prestolok uses "elastic teeth" grab ring technology invented and perfected by Parker, who guarantee its excellent tube retention qualities.

Prestolok can be used not only with most types of plastic tubing available on the market (see Thermoplastic single tube and Pneumo-Tube bundles section O), but also with some metal tubing*, making it suitable for a wide range of applications.

* See advantages section



Automotive Technical features

1	2	3	4	5	6	7	 bar Mpa		 - 25° C to + 100° C
Body	Threaded parts	Sleeve	Grab ring	Push button	Back-up washer	O-ring			
Nickel plated brass	Nickel plated brass	Brass	Stainless steel	Polyamide	Brass	Nitrile	0.01 - 25	0.001 - 2.5	

Automotive Applications

Prestolok has been designed to handle many industrial fluids compatible with its technical features.

Thanks to its mechanical properties, Prestolok is a push-in fitting particularly suited to the most severe environments, such as welding, high temperatures, vibration.

Packaging

Welding

Automotive

Climate control

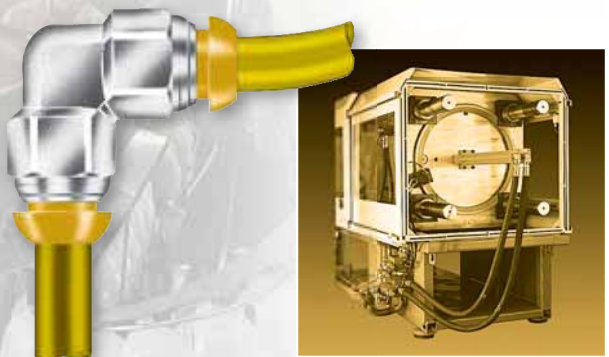
Food industrie

Machine tools

Packaging

Welding

Automotive



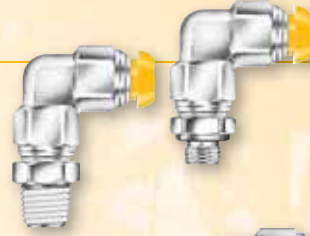
Spark resistant push-in fittings for fluids

Advantages

Ready-to-use compact fitting - Wide product range covering all applications
Full flow capability

Ready-to-use fitting

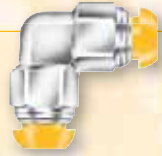
- Parallel threads with a fully retained O-ring seal,
- Taper threads with a special PTFE, reusable up to five times.



Brass nickel plated body

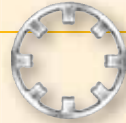
- Robustness,
- Excellent shock resistance,
- Good temperature capability,
- Excellent spark resistance. **NEW**

Nickel plating gives improved corrosion resistance and a bright appearance which does not deteriorate.



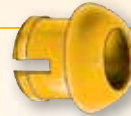
Positive hold by a flexible stainless steel grab ring

- Prevents scratch on the tube,
- Absorbs vibration and pulsating pressure,
- The tube can rotate freely even under pressure.



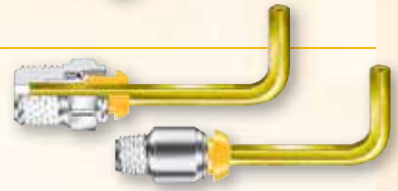
Plastic push button

- Instant disconnection of the tube,
- Marked tube sizes for easy identification.



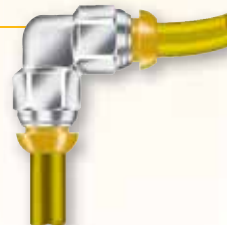
Straight male connectors with internal hexagon

- All straight male connectors have an internal hexagon for use with an Allen key to allow close porting,
- On F23 and F28, the lack of external hexagon enables close mounting to give very compact installations.



Use with plastic or metal tubing

- Plastic (polyamide, polyurethane, polyethylene, Pebax, PTFE...).
- Copper tubing* conforming to DIN 1786, NFA51-120, BS 2871 Part 2 (tolerance ±0.05mm).
- For other raw materials, please contact us.



* Tube must be cut square and correctly deburred.

How to use

Assembly

- Cut the tube square (and correctly deburred for copper).
- Insert the tube into the fitting until it bottoms.

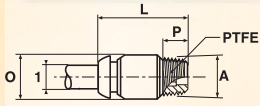
Disassembly

- Simply press on the push button and withdraw the tube.

C

Spark resistant push-in fittings for fluids

F23PB - Male connector - BSPT

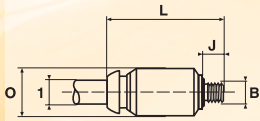


1	A	#	L	O	P	H. Int.	GR
4	1/8	F23PB4-1/8	21	10	6.5	3	7
6	1/8	F23PB6-1/8	24	12	6.5	4	10
6	1/4	F23PB6-1/4	28	14	9.7	4	22
8	1/8	F23PB8-1/8	28	14	6.5	6	19
8	1/4	F23PB8-1/4	28	14	9.7	6	25

Threads are treated with PTFE sealing material.

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an Allen key.

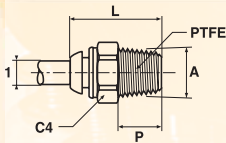
F28PB - Male connector - Metric straight thread



1	B	#	J	L	O	H. Int.	GR
4	M3x0.5	F28PB4M3	3.25	24	9.5	2.5	7
4	M5x0.8	F28PB4M5	5.00	26	9.5	2.5	7
6	M5x0.8	F28PB6M5	5.00	26	11.5	2.5	9

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an Allen key.

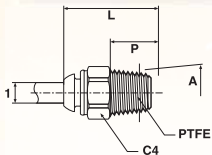
F3PB - Male connector - BSPT



1	A	#	C4	L	P	H. Int.	GR
4	1/8	F3PB4-1/8	12	20.5	7.5	3	14
4	1/4	F3PB4-1/4	14	23.0	11.0	3	21
5	1/8	F3PB5-1/8	11	22.5	7.5	4	13
5	1/4	F3PB5-1/4	14	24.0	11.0	4	17
6	1/8	F3PB6-1/8	14	24.0	7.5	4	19
6	1/4	F3PB6-1/4	14	24.0	11.0	4	22
8	1/8	F3PB8-1/8	17	28.0	7.5	4	31
8	1/4	F3PB8-1/4	17	28.5	11.0	4	31
8	3/8	F3PB8-3/8	17	26.5	11.5	6	28
10	1/4	F3PB10-1/4	19	35.5	11.0	6	45
10	3/8	F3PB10-3/8	19	33.0	11.5	8	48
10	1/2	F3PB10-1/2	22	31.0	15.0	8	47
12	1/4	F3PB12-1/4	22	36.5	11.0	6	68
12	3/8	F3PB12-3/8	22	36.0	11.5	10	48
12	1/2	F3PB12-1/2	22	36.0	15.0	10	56
14	3/8	F3PB14-3/8	24	39.0	11.5	10	91
14	1/2	F3PB14-1/2	24	37.0	15.0	11	83

Threads are treated with PTFE sealing material.

FPB - Male connector - NPTF

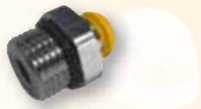
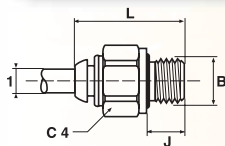


1	A	#	C4	L	P	H. Int.	GR
6	1/8-27	FPB6-1/8	14	26.0	10.1	4	15
6	1/4-18	FPB6-1/4	14	28.5	14.6	4	20
10	1/4-18	FPB10-1/4	19	40.0	14.6	8	45
10	3/8-18	FPB10-3/8	19	34.0	14.6	8	40
12	3/8-18	FPB12-3/8	22	36.5	14.6	10	45

Threads are treated with PTFE sealing material.

Spark resistant push-in fittings for fluids

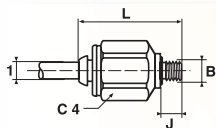
F4PB - Male connector - BSPP



No protective cap facility.

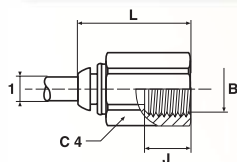
1	B	#	C4	J	L	H. Int.	GR
4	1/8	F4PB4-1/8	13	6	21.7	3	16
4	1/4	F4PB4-1/4	16	9	23.3	3	27
6	1/8	F4PB6-1/8	13	6	25.3	4	17
6	1/4	F4PB6-1/4	16	9	26.0	4	41
8	1/8	F4PB8-1/8	14	6	27.4	4	24
8	1/4	F4PB8-1/4	16	9	27.4	6	29
8	3/8	F4PB8-3/8	20	9	28.0	6	59
10	1/4	F4PB10-1/4	17	9	35.4	6	50
10	3/8	F4PB10-3/8	20	9	31.4	8	39
10	1/2	F4PB10-1/2	24	12	30.3	8	60
12	1/4	F4PB12-1/4	20	9	36.0	6	49
12	3/8	F4PB12-3/8	20	9	35.7	8	49
12	1/2	F4PB12-1/2	24	12	34.1	10	72
14	3/8	F4PB14-3/8	22	9	38.3	8	66
14	1/2	F4PB14-1/2	24	12	37.4	10	81

F8PB - Male connector - metric straight thread



1	B	#	C4	J	L	H. Int.	GR
4	M5x0.8	F8PB4M5	12	5	25.5	2.5	16
4	M10x1	F8PB4M10	14	8	24.0	3.0	17
6	M5x0.8	F8PB6M5	14	5	26.0	2.5	17
6	M10x1	F8PB6M10	14	8	28.0	4.0	17
6	M12x1.5	F8PB6M12	17	10	30.0	4.0	23
8	M12x1.5	F8PB8M12	17	10	30.0	6.0	25
8	M16x1.5	F8PB8M16	22	10	28.0	6.0	34
8	M22x1.5	F8PB8M22	27	12	30.0	6.0	55

G4PB - Female connector - BSPP

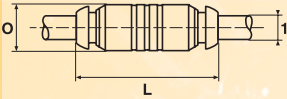


1	B	#	C4	J	L	GR
4	1/8	G4PB4-1/8	14	9.5	26.0	22
6	1/8	G4PB6-1/8	14	9.5	27.5	21
6	1/4	G4PB6-1/4	17	14.0	33.0	22
8	1/8	G4PB8-1/8	17	9.5	29.0	44
8	1/4	G4PB8-1/4	17	14.0	33.0	29

For product availability please consult our price list 3893.
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Spark resistant push-in fittings for fluids

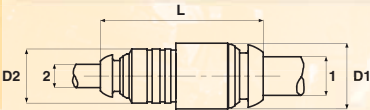
HPB - Equal union



1	#	Circlips*	L	O	GR
4	HPB4	CIR4	33.0	10	11
5	HPB5	CIR5	34.5	11	15
6	HPB6	CIR6	36.0	12	13
8	HPB8	CIR8	38.0	14	16
10	HPB10	CIR10	48.0	17	27
12	HPB12	CIR12	48.0	21	58
14	HPB14	CIR14	54.0	22	71

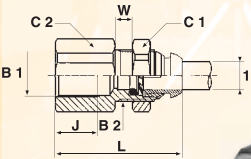
* Unions can be used as bulkhead unions. Simply mount two circlips in the machined grooves provided. Three grooves are provided to allow for a range of wall thickness : 1.5, 2 and 5 mm. (For circlips Part number, see chart above).

HPB - Unequal union



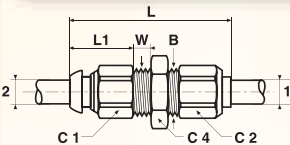
1	A	#	Circlips*	L	D1	D2	GR
8	6	HPB8-6	CIR6	37	14	12	22
10	6	HPB10-6	CIR8	42	17	14	20

WG4PB - Bulkhead union - female BSPP



1	B1	#	B2	C1	C2	J	L	W Max.	GR
4	1/8	WG4PB4-1/8	M11x0.75	14	14	8	25.0	6	21
6	1/8	WG4PB6-1/8	M13x1	17	17	8	25.0	6	32
6	1/4	WG4PB6-1/4	M13x1	17	19	12	29.5	6	42
8	1/8	WG4PB8-1/8	M15x1.25	19	17	8	25.0	6	32
8	1/4	WG4PB8-1/4	M15x1.25	19	19	12	30.0	6	42
10	3/8	WG4PB10-3/8	M18x1	22	22	12	34.0	8	60
12	3/8	WG4PB12-3/8	M23x1.5	27	24	12	35.0	10	86
12	1/2	WG4PB12-1/2	M23x1.5	27	27	14	40.0	10	104

WBMPB - Mixed bulkhead equal union



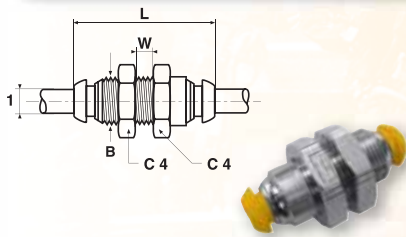
1	2	B	#	C1	C2	C4	L	L1	W Max.	GR
4	4	M8x1	WBMPB4	10	10	12	34	15	5	22
6	6	M10x1	WBMPB6	12	10	12	37	16	5	22
8	8	M12x1	WBMPB8	14	14	16	39	17	5	29
10	10	M14x1	WBMPB10	17	17	19	45	20	5	50
12	12	M16x1	WBMPB12	22	19	22	49	21	5	85
14	14	M18x1	WBMPB14	24	22	22	52	23	7	112

This bulkhead fitting combines a Prestolok and Metroluk connection, to connect a copper tube with a plastic tube.

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Spark resistant push-in fittings for fluids

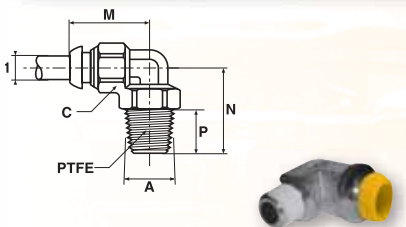
WPB - Bulkhead equal union



1	B	#	C4	L	W Max.	GR
4	M11x0.75	WPB4	16	33	6	18
6	M13x1	WPB6	19	35	6	22
8	M15x1.25	WPB8	22	36	6	27
10	M18x1	WPB10	22	43	8	55
12	M23x1.5	WPB12	27	46	10	109
14	M24x1.5	WPB14	30	52	10	119

C

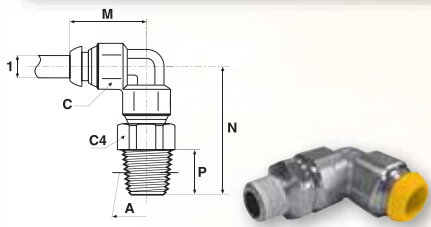
C3PB - Compact elbow - BSPT



Threads are treated with PTFE sealing material.

1	A	#	C	M	N	P	GR
4	1/8	C3PB4-1/8	14	18	21	7.5	23
6	1/8	C3PB6-1/8	14	20	21	7.5	24
6	1/4	C3PB6-1/4	14	20	21	11.0	25
8	1/8	C3PB8-1/8	14	22	23	7.5	24
8	1/4	C3PB8-1/4	14	22	23	11.0	25
10	1/4	C3PB10-1/4	17	28	26	11.0	67
10	3/8	C3PB10-3/8	17	28	26	11.5	89
12	3/8	C3PB12-3/8	17	30	27	11.5	69
12	1/2	C3PB12-1/2	17	30	31	15.0	72
14	3/8	C3PB14-3/8	20	34	30	11.5	97
14	1/2	C3PB14-1/2	20	34	33	15.0	97

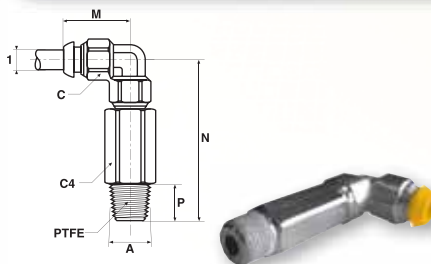
C6PB - Adjustable male elbow - NPT



Threads are treated with PTFE sealing material.

1	A	#	C	C4	M	N	P	GR
6	1/4-18	C6PB6-1/4	12	14	20	36.0	12.0	38
6	3/8-18	C6PB6-3/8	12	19	20	36.5	12.0	46
10	1/4-18	C6PB10-1/4	17	16	28	41.5	12.0	60
10	3/8-18	C6PB10-3/8	17	19	28	41.5	12.0	70
12	3/8-18	C6PB12-3/8	17	19	30	44.0	12.0	100
12	1/2-18	C6PB12-1/2	22	22	30	47.5	16.0	101

C63LPB - Adjustable extended male elbow - BSPT

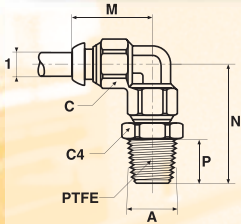


Threads are treated with PTFE sealing material.

1	A	#	C	C4	M	N	P	GR
4	1/8	C63LPB4-1/8	10	10	18	42.0	7.5	28
4	1/4	C63LPB4-1/4	10	14	18	46.0	11.0	52
6	1/8	C63LPB6-1/8	12	11	20	45.5	7.5	40
6	1/4	C63LPB6-1/4	12	14	20	49.5	11.0	60
8	1/8	C63LPB8-1/8	14	14	22	50.0	7.5	59
8	1/4	C63LPB8-1/4	14	14	22	52.5	11.0	64

Spark resistant push-in fittings for fluids

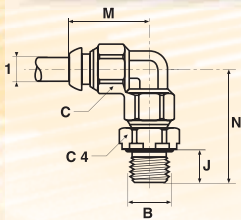
C63PB - Adjustable male elbow - BSPT



Threads are treated with PTFE sealing material.

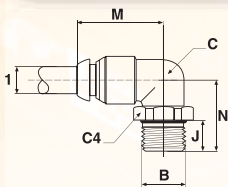
1	A	#	C	C4	M	N	P	GR
4	1/8	C63PB4-1/8	10	10	18	26.5	7.5	19
4	1/4	C63PB4-1/4	10	14	18	30.0	11.0	27
6	1/8	C63PB6-1/8	12	11	20	28.0	7.5	25
6	1/4	C63PB6-1/4	12	14	20	31.0	11.0	35
8	1/8	C63PB8-1/8	14	14	22	30.0	7.5	33
8	1/4	C63PB8-1/4	14	14	22	33.0	11.0	40
8	3/8	C63PB8-3/8	14	17	22	34.5	11.5	51
10	1/4	C63PB10-1/4	17	17	28	40.0	11.0	59
10	3/8	C63PB10-3/8	17	17	28	39.0	11.5	65
12	1/4	C63PB12-1/4	22	19	30	42.0	11.0	105
12	3/8	C63PB12-3/8	22	19	30	41.0	11.5	109
12	1/2	C63PB12-1/2	22	22	30	44.5	15.0	118
14	3/8	C63PB14-3/8	25	22	34	46.0	11.5	152
14	1/2	C63PB14-1/2	25	22	34	48.5	15.0	162

C64PB - Adjustable male elbow - BSPP



1	B	#	C	C4	J	M	N	GR
4	1/8	C64PB4-1/8	14	14	6	18	26.5	22
4	1/4	C64PB4-1/4	19	19	9	18	31.5	37
6	1/8	C64PB6-1/8	14	14	6	20	30.0	30
6	1/4	C64PB6-1/4	19	19	9	20	33.0	41
8	1/8	C64PB8-1/8	14	14	6	22	30.0	35
8	1/4	C64PB8-1/4	19	19	9	22	35.0	47
8	3/8	C64PB8-3/8	13	22	9	22	36.0	62
10	1/4	C64PB10-1/4	19	19	9	28	39.0	66
10	3/8	C64PB10-3/8	22	22	9	28	40.0	82
12	1/4	C64PB12-1/4	19	19	9	30	41.0	106
12	3/8	C64PB12-3/8	22	22	9	30	42.0	110
14	3/8	C64PB14-3/8	22	22	9	34	46.0	158
14	1/2	C64PB14-1/2	27	27	12	34	50.5	188

C64SPB - Compact adjustable male elbow - BSPP

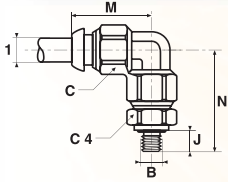


1	B	#	C	C4	J	M	N	GR
4	1/8	C64SPB4-1/8	11	13	6	17	18.0	19
6	1/8	C64SPB6-1/8	11	13	6	22	18.0	22
6	1/4	C64SPB6-1/4	11	16	9	22	21.5	28
8	1/8	C64SPB8-1/8	12	13	6	25	18.0	25
8	1/4	C64SPB8-1/4	12	16	9	25	21.0	32
8	3/8	C64SPB8-3/8	12	19	9	25	21.0	36
10	1/4	C64SPB10-1/4	15	16	9	30	23.0	40
10	3/8	C64SPB10-3/8	15	19	9	30	23.0	49
12	1/4	C64SPB12-1/4	17	16	9	32	24.0	51
12	3/8	C64SPB12-3/8	17	19	9	32	24.0	55
12	1/2	C64SPB12-1/2	17	24	12	32	29.0	80

For product availability please consult our price list 3893.
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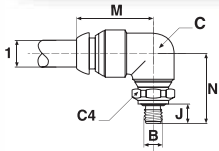
Spark resistant push-in fittings for fluids

C68PB - Adjustable male elbow - metric straight thread



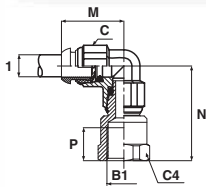
1	B	#	C	C4	J	M	N	GR
4	M3x0.5	C68PB4M3	10	10	3.25	18	23.0	15
4	M5x0.8	C68PB4M5	10	10	5.00	18	24.5	16
6	M5x0.8	C68PB6M5	12	11	5.00	20	25.5	24

C68SPB - Compact adjustable male elbow - metric straight thread



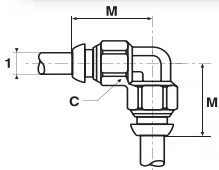
1	B	#	C	C4	J	M	N	GR
4	M5x0.8	C68SPB4M5	11	10	5	17	18	16
6	M5x0.8	C68SPB6M5	11	10	5	17	18	17

D64PB - Adjustable female elbow BSPP



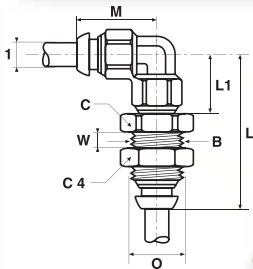
1	B1	#	C	C4	M	N	P	GR
4	1/8	D64PB4-1/8	10	14	18	27	8	24
6	1/8	D64PB6-1/8	12	14	20	28	8	37
6	1/4	D64PB6-1/4	12	17	20	32	12	52
8	1/4	D64PB8-1/4	14	17	23	35	12	52

EPB - Equal union elbow



1	#	C	M	GR
4	EPB4	10	18.0	12
5	EPB5	12	20.5	23
6	EPB6	12	20.0	19
8	EPB8	14	22.0	22
10	EPB10	17	28.0	38
12	EPB12	22	30.0	73
14	EPB14	25	35.0	116

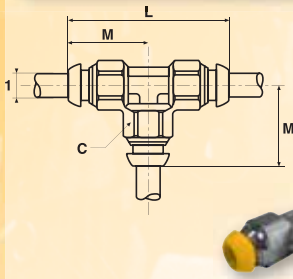
WE6PB - 90° adjustable bulkhead union elbow



1	B	#	C	C4	L	L1	M	O	W Max.	GR
4	M11x0.75	WE6PB4	14	16	37	18.0	18.0	11.5	6	28
6	M13x1	WE6PB6	17	17	39	19.5	20.5	13.5	6	50
8	M15x1.25	WE6PB8	19	19	43	21.5	22.5	15.5	6	65
10	M18x1	WE6PB10	22	22	54	29.0	28.5	18.5	8	128
12	M23x1.5	WE6PB12	27	27	59	30.0	30.0	23.5	10	189

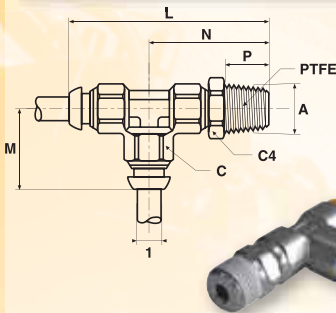
Spark resistant push-in fittings for fluids

JPB - Equal union tee



1	#	C	L	M	GR
4	JPB4	10	36	18.0	16
5	JPB5	12	41	20.5	28
6	JPB6	12	40	20.0	22
8	JPB8	14	44	22.0	29
10	JPB10	17	56	28.0	57
12	JPB12	22	60	30.0	100
14	JPB14	25	68	34.0	160

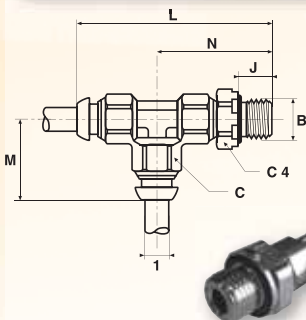
R63PB - Adjustable male run tee - BSPT



Threads are treated with PTFE sealing material.

1	A	#	C	C4	L	M	N	P	GR
4	1/8	R63PB4-1/8	10	10	44.5	18	26.5	7.5	23
4	1/4	R63PB4-1/4	10	14	48.0	18	30.0	11.0	31
6	1/8	R63PB6-1/8	12	11	48.0	20	28.0	7.5	28
6	1/4	R63PB6-1/4	12	14	51.0	20	31.0	11.0	38
8	1/8	R63PB8-1/8	14	14	52.0	22	30.0	7.5	40
8	1/4	R63PB8-1/4	14	14	55.0	22	33.0	11.0	46
8	3/8	R63PB8-3/8	14	17	56.5	22	34.5	11.5	58
10	1/4	R63PB10-1/4	17	17	68.0	28	40.0	11.0	77
10	3/8	R63PB10-3/8	17	17	67.0	28	39.0	11.5	84
12	1/4	R63PB12-1/4	22	19	72.0	30	42.0	11.0	132
12	3/8	R63PB12-3/8	22	19	71.0	30	41.0	11.5	135
12	1/2	R63PB12-1/2	22	22	74.5	30	44.5	15.0	144
14	3/8	R63PB14-3/8	25	22	80.0	34	46.0	11.5	197
14	1/2	R63PB14-1/2	25	22	82.5	34	48.5	15.0	207

R64PB - Adjustable male run tee - BSPP

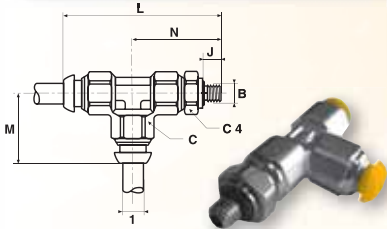


1	B	#	C	C4	J	L	M	N	GR
4	1/8	R64PB4-1/8	10	14	6	44.5	18	26.5	26
4	1/4	R64PB4-1/4	10	19	9	49.5	18	31.5	41
6	1/8	R64PB6-1/8	12	14	6	50.0	20	30.0	33
6	1/4	R64PB6-1/4	12	19	9	53.0	20	33.0	44
8	1/8	R64PB8-1/8	14	14	6	52.0	22	30.0	42
8	1/4	R64PB8-1/4	14	19	9	57.0	22	35.0	54
8	3/8	R64PB8-3/8	14	22	9	58.0	22	36.0	69
10	1/4	R64PB10-1/4	17	19	9	67.0	28	39.0	85
10	3/8	R64PB10-3/8	17	22	9	68.0	28	40.0	101
12	1/4	R64PB12-1/4	22	19	9	71.0	30	41.0	133
12	3/8	R64PB12-3/8	22	22	9	72.0	30	42.0	136
14	3/8	R64PB14-3/8	25	22	9	80.0	34	46.0	203
14	1/2	R64PB14-1/2	25	27	12	84.5	34	50.5	232

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

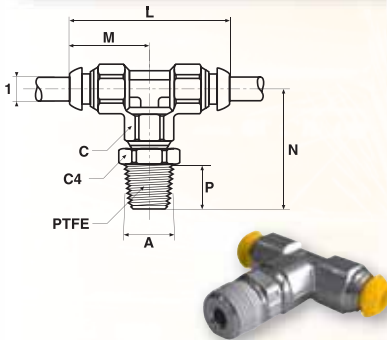
Spark resistant push-in fittings for fluids

R68PB - Adjustable male run tee - metric straight thread



1	B	#	C	C4	J	L	M	N	Gr
4	M3x0.5	R68PB4M3	10	10	3.25	41.0	18	23.0	19
4	M5x0.8	R68PB4M5	10	10	5.00	42.5	18	24.5	20
6	M5x0.8	R68PB6M5	12	11	5.00	45.5	20	25.5	27

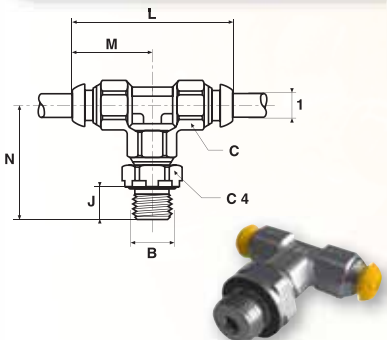
S63PB - Adjustable male branch tee - BSPT



Threads are treated with PTFE sealing material.

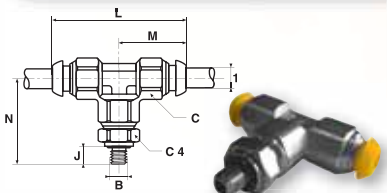
1	A	#	C	C4	L	M	N	P	Gr
4	1/8	S63PB4-1/8	10	10	36	18	26.5	7.5	23
4	1/4	S63PB4-1/4	10	14	36	18	30.0	11.0	31
6	1/8	S63PB6-1/8	12	11	40	20	28.0	7.5	28
6	1/4	S63PB6-1/4	12	14	40	20	31.0	11.0	38
8	1/8	S63PB8-1/8	14	14	44	22	30.0	7.5	40
8	1/4	S63PB8-1/4	14	14	44	22	33.0	11.0	46
8	3/8	S63PB8-3/8	14	17	44	22	34.5	11.5	58
10	1/4	S63PB10-1/4	17	17	56	28	40.0	11.0	77
10	3/8	S63PB10-3/8	17	17	56	28	39.0	11.5	84
12	1/4	S63PB12-1/4	22	19	60	30	42.0	11.0	132
12	3/8	S63PB12-3/8	22	19	60	30	41.0	11.5	135
12	1/2	S63PB12-1/2	22	22	60	30	44.5	15.0	144
14	3/8	S63PB14-3/8	25	22	68	34	46.0	11.5	197
14	1/2	S63PB14-1/2	25	22	68	34	48.5	15.0	207

S64PB - Adjustable male branch tee - BSPP



1	B	#	C	C4	J	L	M	N	Gr
4	1/8	S64PB4-1/8	10	14	6	36	18	26.5	26
4	1/4	S64PB4-1/4	10	19	9	36	18	31.5	41
6	1/8	S64PB6-1/8	12	14	6	40	20	30.0	33
6	1/4	S64PB6-1/4	12	19	9	40	20	33.0	44
8	1/8	S64PB8-1/8	14	14	6	44	22	30.0	42
8	1/4	S64PB8-1/4	14	19	9	44	22	35.0	54
8	3/8	S64PB8-3/8	14	22	9	44	22	36.0	69
10	1/4	S64PB10-1/4	17	19	9	56	28	39.0	85
10	3/8	S64PB10-3/8	17	22	9	56	28	40.0	101
12	1/4	S64PB12-1/4	22	19	9	60	30	41.0	133
12	3/8	S64PB12-3/8	22	22	9	60	30	42.0	136
14	3/8	S64PB14-3/8	25	22	9	68	34	46.0	203
14	1/2	S64PB14-1/2	25	27	12	68	34	50.5	232

S68PB - Adjustable male branch tee - metric straight thread

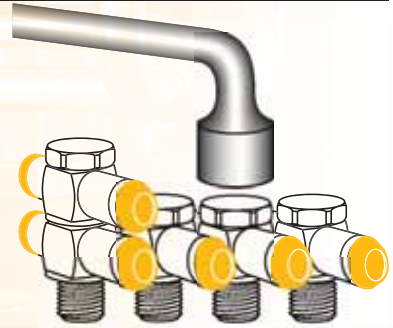


1	B	#	C	C4	J	L	M	N	Gr
4	M3x0.5	S68PB4M3	10	10	3.25	36	18	23.0	19
4	M5x0.8	S68PB4M5	10	10	5.00	36	18	24.5	20
6	M5x0.8	S68PB6M5	12	11	5.00	40	20	25.5	27

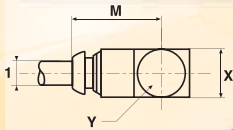
C

Spark resistant push-in fittings for fluids

Banjo or double banjo fittings with banjo or stacking banjo bolts permit space-saving connections and can be used where the mounting of elbows is not possible.

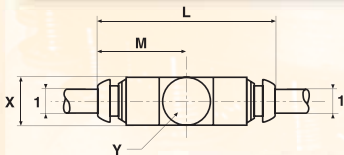


CORPB - Single banjo body only



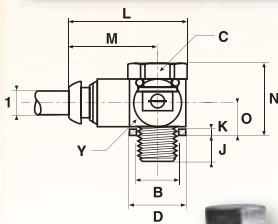
1	#	Part No. single bolt	Part No. stacking bolt	M	X	Y	GF
4	CORPB4-5	SC8UM5-4	SC8UDM5-4	19.0	10	10	8
4	CORPB4-10	SC4U1/8-4	SC4UD1/8-4	22.5	14	14	16
6	CORPB6-10	SC4U1/8-4	SC4UD1/8-4	23.0	14	14	17
6	CORPB6-13	SC4U1/4-6	SC4UD1/4-6	24.5	14	17	21
8	CORPB8-10	SC4U1/8-4	SC4UD1/8-4	24.0	14	14	44
8	CORPB8-13	SC4U1/4-6	SC4UD1/4-6	25.5	14	17	59
10	CORPB10-17	SC4U3/8-10	SC4UD3/8-10	32.0	17	22	127

CORPBD - Double banjo body only



1	#	Part No. single bolt	Part No. stacking bolt	L	M	X	Y	GF
4	CORPB4D5	SC8UM5-4	SC8UDM5-4	38	19.0	10	10	13
4	CORPB4D10	SC4U1/8-4	SC4UD1/8-4	45	22.5	14	14	22
6	CORPB6D10	SC4U1/8-4	SC4UD1/8-4	46	23.0	14	14	23
6	CORPB6D13	SC4U1/4-6	SC4UD1/4-6	49	24.5	14	17	47
8	CORPB8D10	SC4U1/8-4	SC4UD1/8-4	48	24.0	14	14	61

COR8PB/COR4PB - Single banjo - Assembled

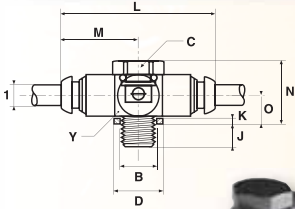


1	B	#	C	D	J	K	L	M	N	O	Y	GF
4	M5x0.8	COR8PB4M5	8	8.0	4.5	1.0	24.0	19.0	13.5	6.0	10	18
6	M10x1	COR8PB6M10	14	14.5	8.0	1.5	30.8	23.1	19.7	8.5	14	35
6	M12x1.5	COR8PB6M12	17	17.5	10.0	2.0	33.9	24.6	21.0	9.0	14	40
4	1/8	COR4PB4-1/8	14	14.0	6.0	1.5	29.5	22.5	19.5	8.5	14	31
6	1/8	COR4PB6-1/8	14	14.0	6.0	1.5	30.0	23.0	19.5	8.5	14	32
6	1/4	COR4PB6-1/4	17	17.0	9.0	2.0	33.0	24.5	21.0	9.0	17	48
8	1/8	COR4PB8-1/8	14	14.0	6.0	1.5	31.0	24.0	19.5	8.5	14	58
8	1/4	COR4PB8-1/4	17	17.0	9.0	2.0	34.0	25.5	21.0	9.0	17	86
10	3/8	COR4PB10-3/8	22	22.0	9.0	2.5	43.0	32.0	25.5	11.0	22	122

These parts are delivered complete with sealing washer.

Spark resistant push-in fittings for fluids

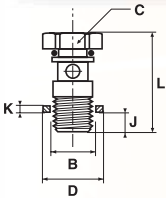
COR8PBD/COR4PBD - Double banjo - Assembled



1	B	#	C	D	J	K	L	M	N	O	Y	GR
4	M5x0.8	COR8PB4DM5	8	8	4.5	1.0	38.0	19.0	13.5	6.0	10	23
4	1/8	COR4PB4D1/8	14	14	6.0	1.5	45.0	22.5	19.5	8.5	14	37
6	1/8	COR4PB6D1/8	14	14	6.0	1.5	46.0	23.0	19.5	8.5	14	38
6	1/4	COR4PB6D1/4	17	17	9.0	2.0	49.0	24.5	21.0	9.0	17	75
8	1/8	COR4PB8D1/8	14	14	6.0	1.5	48.0	24.0	19.5	8.5	14	76

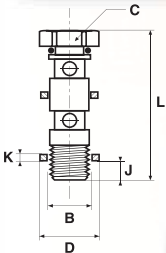
These parts are delivered complete with sealing washer.

SC8U/SC4U - Single banjo bolt with seals



B	#	C	D	J	K	L	GR
M5x0.8	SC8UM5-4	8	8	4.5	1.0	18.5	10
1/8	SC4U1/8-4	14	14	6.0	1.5	25.5	15
1/4	SC4U1/4-6	17	17	9.0	2.0	30.0	27
3/8	SC4U3/8-10	22	22	9.0	2.5	34.5	124

SC8UD/SC4UD - Stacking banjo bolt with seals

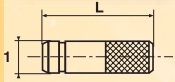


B	#	C	D	J	K	L	GR
M5x0.8	SC8UDM5-4	8	8	4.5	1.0	29.5	16
1/8	SC4UD1/8-4	14	14	6.0	1.5	41.0	19
1/4	SC4UD1/4-6	17	17	9.0	2.0	46.0	28

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

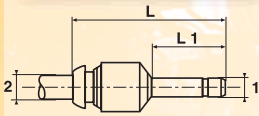
Spark resistant push-in fittings for fluids

FNPB - Plug



1	#	L	GR
4	FNPB4	27	2
6	FNPB6	27	5
8	FNPB8	30	12
10	FNPB10	30	23
12	FNPB12	35	35
14	FNPB14	36	46

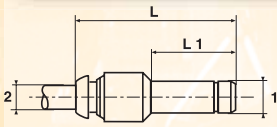
TEPB - Tube end expander



1	2	#	L	L1	GR
4	6	TEPB4-6	39	19	7

Not to be mounted on a fitting equipped with a protective cap.

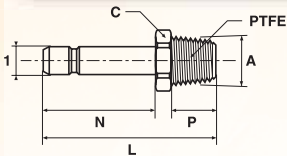
TRPB - Tube end reducer



1	2	#	L	L1	GR
6	4	TRPB6-4	40.0	22	8
8	4	TRPB8-4	39.5	22	10
8	6	TRPB8-6	41.5	22	10
10	4	TRPB10-4	37.0	27	27
10	6	TRPB10-6	43.0	27	15
10	8	TRPB10-8	47.5	27	16
12	6	TRPB12-6	38.0	27	23
12	8	TRPB12-8	44.0	27	17
12	10	TRPB12-10	52.0	27	20
14	8	TRPB14-8	41.0	30	31
14	10	TRPB14-10	51.0	30	23
14	12	TRPB14-12	55.0	30	36

Not to be mounted on a fitting equipped with a protective cap.

T23HFPB - Tube end male adaptor - BSPT



1	A	#	C	L	N	P	GR
5	1/8	T23HFPB5-1/8	10	31.5	20	7.5	12
5	1/4	T23HFPB5-1/4	14	36.0	20	11.0	26

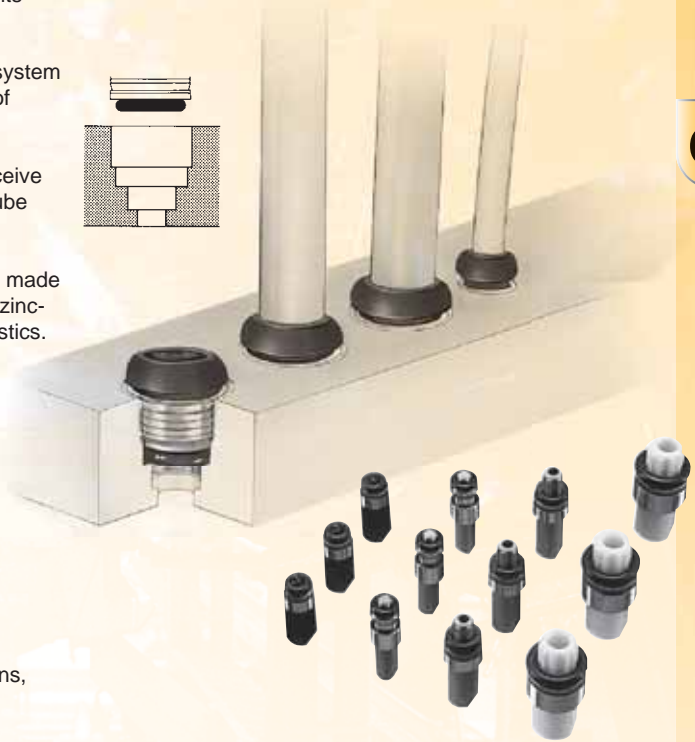
Not to be mounted on a fitting equipped with a protective cap.

Threads are treated with PTFE sealing material.

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Prestolok cartridge fittings

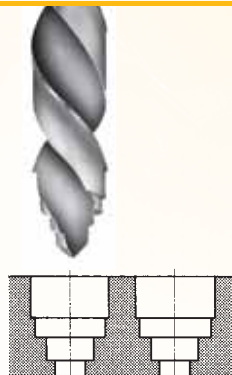
- Designed for use in pneumatic components for low-pressure applications.
- Eliminate the need for threaded ports in system components, and allow the construction of space-saving assemblies.
- Simple stepped holes are sufficient to receive these cartridges, which are available in tube outer diameters from 4 mm to 12 mm.
- Can be fitted into pneumatic components made of non-ferrous metals (brass, aluminium, zinc-aluminium alloy), and most industrial plastics.
- Particularly suitable for the mass production of pneumatic components.



For more information on potential applications, please consult your Parker sales engineer.

Stepped hole for cartridge reception

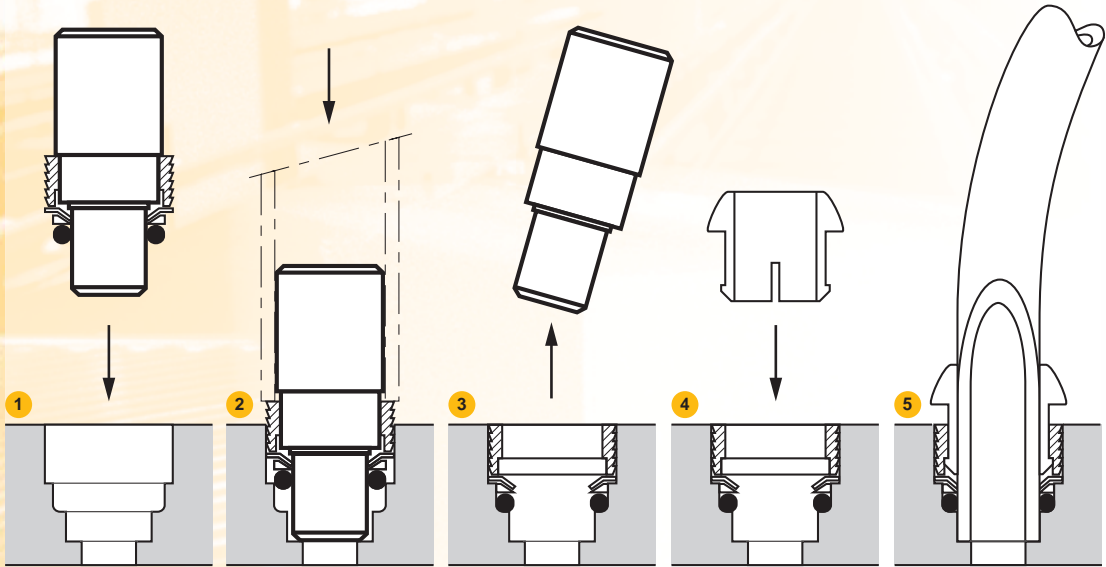
- Depending upon the component material used, the stepped holes for the reception of the drive-in cartridges are obtained by drilling or injection moulding.
- Dimensions and tolerances are defined by the configuration of the cartridge.
- For this purpose, we supply stepped drilling tools corresponding to each cartridge type.
- Technical information available on request.



C

Stepped hole for cartridge reception

Prestolok compact drive-in cartridges are installed using a simple tool (one tool for each cartridge size).



- 1** Position the mandrel above the port
- 2** Insert cartridge with drive-in tool
- 3** Remove mandrel from fitted cartridge
- 4** Insert push sleeve into cartridge
- 5** Final cartridge and tube assembly

Packaging

Prestolok drive-in cartridges are supplied in packs of 200 or 250 units (depending on the part number) stored in stacked thermoplastic packing trays.

This prevents damage during shipment and simplifies stock control and product handling.





Prestolok

Stainless Steel

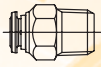
Stainless steel push-in fittings

Catalogue 3440-SS-13/UK



Stainless steel push-in fittings

Straight connectors



Male BSPT
F3PSS - p. D 4



Male BSPP
F4PSS - p. D4

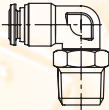


Male Metric
F8PSS - p. D4

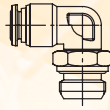


Union
HPSS - p. D 4

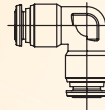
90° elbows



Male adjustable BSPT
C63PSS - p. D 5

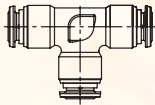


Male adjustable BSPP
C64PSS - p. D 5



Union
EPSS - p. D 5

Tees



Union
JPSS - p. D 5





Stainless steel push-in fittings

Principle

Prestolok Stainless Steel is a 100% stainless steel push-in fitting range with FKM (Viton™) sealing.

This range is available in a wide variety of shapes and threads.

Technical features

Body	Threaded parts	Sleeve	 Grab ring	Push button	Back-up washer	O-ring	 bar	 Mpa	
Stainless steel AISI 316 L	Stainless steel AISI 316 L	Stainless steel AISI 316 L	Stainless steel AISI 316 L	Stainless steel AISI 316 L	PTFE	FKM (Viton™)	0.01 - 15	0.01 - 1.5	- 20° C to + 225° C

Advantages

- All straight male connectors have an internal hexagon for use with an Allen key to allow close porting
- Parallel threads mounted with a fully retained O-Ring seal
- Recommended tubing: calibrated polyamide tubing PA11/12, Polyurethane, Polyethylene,... with a minimum of 98 Shore A
- Particularly suitable for use with aggressive fluids & severe environments



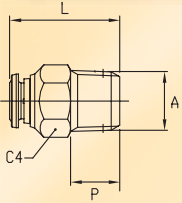
Applications

Food industry
 Petrochemistry
 Pharmaceutical industry
 Chemistry
 Food industry
 Petrochemistry
 Pharmaceutical industry
 Chemistry
 Food industry



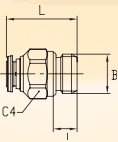
Stainless steel push-in fittings

F3PSS - Male connector - BSPT



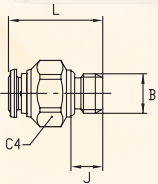
#	Tube size mm	A	C4	L	P	H. Int.	GR
F3PSS4-1/8	4	1/8	10	19.0	7.5	3	8
F3PSS4-1/4	4	1/4	14	23.0	11.0	3	18
F3PSS6-1/8	6	1/8	13	22.5	7.5	4	13
F3PSS6-1/4	6	1/4	14	24.5	11.0	4	18
F3PSS8-1/4	8	1/4	14	25.0	11.0	6	16
F3PSS10-1/4	10	1/4	17	30.5	11.0	7	25
F3PSS12-3/8	12	3/8	21	33.5	11.5	9	43

F4PSS - Male connector - BSPP



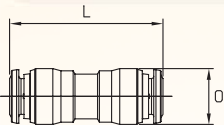
#	Tube size mm	B	C4	L	J	H. Int.	GR
F4PSS4-1/8	4	1/8	10	19.5	6	3	8
F4PSS4-1/4	4	1/4	15	19.5	8	3	18
F4PSS6-1/8	6	1/8	13	23.5	6	4	13
F4PSS6-1/4	6	1/4	15	23.5	8	4	18
F4PSS8-1/4	8	1/4	15	23.5	8	6	16
F4PSS10-1/4	10	1/4	17	30.0	8	8	25
F4PSS12-3/8	12	3/8	21	34.0	9	8	43

F8PSS - Male connector - Metric



#	Tube size mm	B	C4	L	J	H. Int.	GR
F8PSS4M5	4	M5x0.8	10	20	4	2	6

HPSS - Union

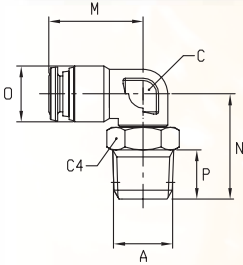


#	Tube size mm	L	O	GR
HPSS4	4	31.0	10.5	10
HPSS6	6	35.0	12.5	15
HPSS8	8	36.5	14.5	20
HPSS10	10	42.0	17.5	33
HPSS12	12	48.0	20.5	50

For product availability please consult our price list 3440-SS.
Dimensions shown may be changed at any time without prior notice.

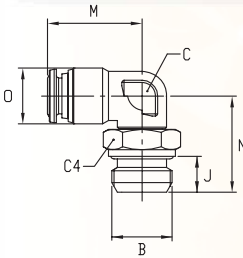
Stainless steel push-in fittings

C63PSS - Adjustable male elbow - BSPT



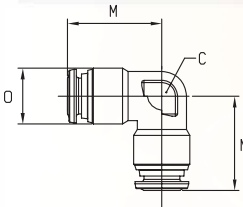
#	Tube size mm	A	C	C4	M	N	O	P	GR
C63PSS4-1/8	4	1/8	9	11	18.0	17.5	10.0	7.5	14
C63PSS6-1/8	6	1/8	11	11	21.0	19.5	12.5	7.5	20
C63PSS6-1/4	6	1/4	11	14	21.0	23.5	12.5	11.0	24
C63PSS8-1/4	8	1/4	12	14	22.5	24.0	14.5	11.0	23
C63PSS10-1/4	10	1/4	16	17	26.0	25.5	17.5	11.0	44
C63PSS12-3/8	12	3/8	19	18	30.5	30.5	20.5	11.5	72

C64PSS - Adjustable male elbow - BSPP



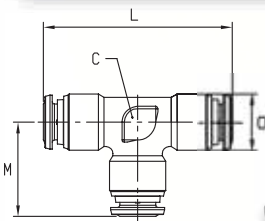
#	Tube size mm	B	C	C4	J	M	N	O	GR
C64PSS4-1/8	4	1/8	9	13	6	18.0	17.0	10.0	16
C64PSS6-1/8	6	1/8	11	13	6	21.0	19.0	12.5	21
C64PSS6-1/4	6	1/4	11	15	8	21.0	21.5	12.5	24
C64PSS8-1/4	8	1/4	12	15	8	22.5	21.5	14.5	27
C64PSS10-1/4	10	1/4	16	15	8	26.0	23.0	17.5	43
C64PSS12-3/8	12	3/8	19	21	9	30.5	29.0	20.5	81

EPSS - Union elbow



#	Tube size mm	C	M	O	GR
EPSS4	4	9	18.0	10.0	13
EPSS6	6	11	21.0	12.5	20
EPSS8	8	12	22.5	14.5	26
EPSS10	10	16	26.0	17.5	48
EPSS12	12	19	30.5	20.5	75

JPSS - Union tee



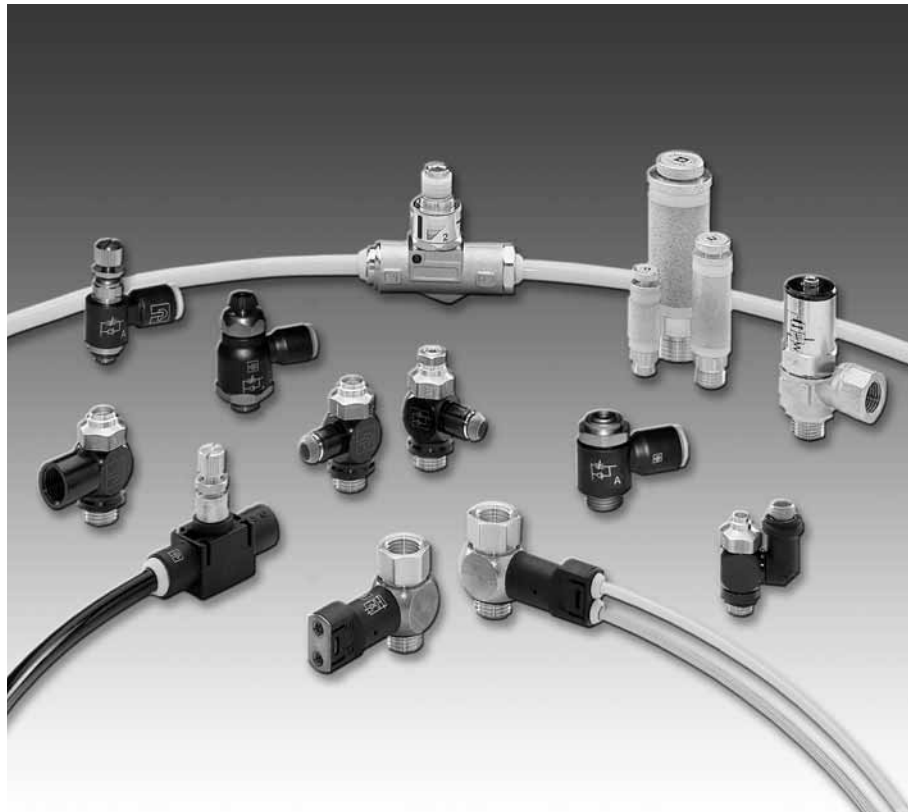
#	Tube size mm	C	L	M	O	GR
JPSS4	4	9	36	18.0	10.0	18
JPSS6	6	11	42	21.0	12.5	28
JPSS8	8	12	45	22.5	14.5	35
JPSS10	10	16	52	26.0	17.5	64
JPSS12	12	19	61	30.5	20.5	101

D



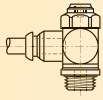
Pneumatic integrated function fittings

Catalogue 0019-5/UK

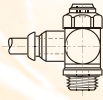


Pneumatic integrated function fittings

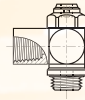
Prestoflow
Banjo flow
regulator -
compact



with push-in connection
metric bolt
PTF8PB / PTFA8PB - p. E 10

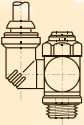


with push-in connection
BSPP bolt
PTF4PB / PTFA4PB - p. E 10

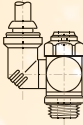


with threaded connection
BSPP bolt
PTF4 - p. E 10

Prestoflow
Banjo flow
regulator -
swivel outlet

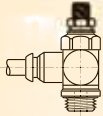


with push-in connection
metric bolt
PTF3E6PB - p. E 11

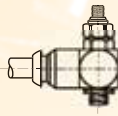


with push-in connection
BSPP bolt
PTF4E6PB - p. E 11

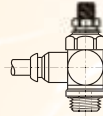
Prestoflow
Banjo flow
regulator -
with locknut



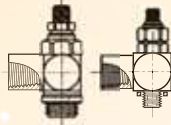
with push-in connection
metric bolt
PTFAL8PB - p. E 12



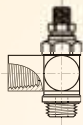
with push-in connection
metric bolt
PTFL8PB - p. E 13



with push-in connection
BSPP bolt
PTFL4PB - p. E 13



with threaded
connection metric bolt
PTFL8 / PTFAL8 - p. E 13

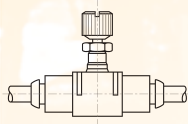


with threaded
connection - BSPP bolt
PTFL4 - p. E 13

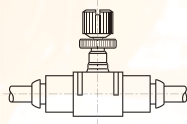


with compression
connection - BSPP bolt
PTFL4COB - p. E 13

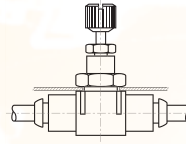
Prestoflow
Flow regulator -
In-line



with push-in connection
PTFIPK - p. E 15



with push-in connection
ultrafine adjustment
PTFMIPK - p. E 15

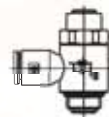


with push-in connection
PTFIWPK - p. E 15

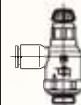
Prestoflow
Compact
and micro



with push-in connection
BSPP / Metric bolt
PTFC4/8PK - p. E 17



with push-in connection
BSPP / Metric bolt
PTFAC4/8PK - p. E 17



with push-in connection
BSPP bolt
PTFLC4PK - p. E 17



with push-in connection
BSPP bolt
PTFLAC4PK - p. E 18



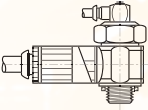




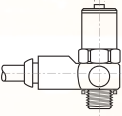
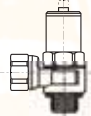
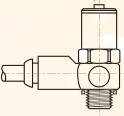
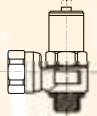
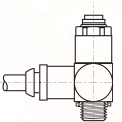
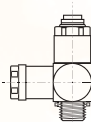
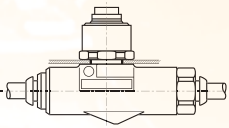
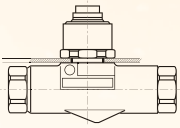








with push-in connection
metric bolt
PTFLM8PK - p. E 18



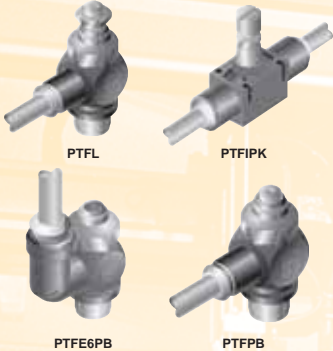
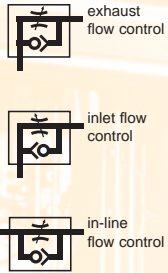

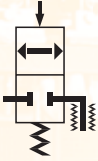

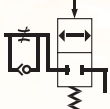
with push-in connection
metric bolt
PTFALM8PK - p. E 18

Pneumatic integrated function fittings


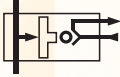

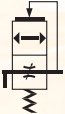
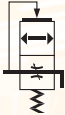
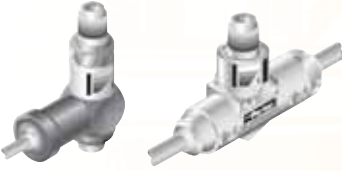



<p>Prestobloc</p>	<p>Blockers</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>with push-in connection BSPP bolt PWB-A - p. E 20</p> </div> <div style="text-align: center;">  <p>with threaded connection BSPP bolt PWB-A - p. E 20</p> </div> </div>					
<p>Prestotwin</p>	<p>flow regulator + blocker</p> <div style="text-align: center;">  </div> <p>with push-in connection BSPP bolt / barrel adjustment PWR-HB - p. E 21</p>					
<p>Prestosensor Pressure sensors</p>	<p>electrical output</p> <div style="text-align: center;">  </div> <p>plug-in sensor electrical output PWS-M - p. E 23</p>	<p>electronic output</p> <div style="text-align: center;">  </div> <p>plug-in sensor electronic output PWS-E - p. E 23</p>	<p>pneumatic output</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>plug-in sensor pneumatic output PWS-P - p. E 23</p> <p>banjo socket with sensor locking clip PWS-B - p. E 23</p>			
<p>Prestostart Pneumatic slow start fittings</p>	<p>power valve version</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>with push-in connection BSPP bolt PCV4PK - p. E 25</p> <p>with threaded connection BSPP bolt PCV4 - p. E 25</p>		<p>system isolating version</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>with push-in connection BSPP bolt PIV4PK - p. E 25</p> <p>with threaded connection BSPP bolt PIV4 - p. E 25</p>			
<p>Prestoreduce Pressure reducers</p>	<p>banjo version</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>with push-in connection BSPP bolt PRB4PB - p. E 27</p> <p>with threaded connection BSPP bolt PRB4 - p. E 27</p>		<p>in-line version</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>with push-in connection PRIPB - p. E 27</p> <p>with threaded connection PRI4 - p. E 27</p>			
<p>Prestosil Flow regulator + silencer and Accessories</p>	<div style="text-align: center;">  </div> <p>with threaded connection - BSPP PRS - p. E 28</p>	<div style="text-align: center;">  </div> <p>non-return valve equal union PWA-L - p. E 29</p>	<div style="text-align: center;">  </div> <p>Slide valve SVGP - p. E 29</p>	<div style="text-align: center;">  </div> <p>manual ratchet control for pressure reducers Ratchet - p. E 29</p>	<div style="text-align: center;">  </div> <p>sealing plug for pressure reducers Splog - p. E 29</p>	<div style="text-align: center;">  </div> <p>pressure gauge with push-in connection P Gauge - p. E 29</p>

E

Pneumatic integrated function fittings

Product family	Symbol	Function	Part number
<p>Prestoflow - Flow regulator</p>  <p>PTFL PTFIK</p> <p>PTFE6PB PTFPB</p>	 <p>exhaust flow control</p> <p>inlet flow control</p> <p>in-line flow control</p>	<p>Prestoflow flow control regulators are designed to adjust the speed of the cylinder piston rod by controlling the flow of air. They are unidirectional and are normally installed on the exhaust port of the cylinder. For specific applications, they could be mounted in-line or on the inlet port.</p> <p>Compact and micro series are specially designed where space saving is a priority.</p>	<p>PTF p. E 10</p> <p>PTFE6 p. E 11</p> <p>PTFL p. E 13</p> <p>PTFI p. E 15</p> <p>PTFC p. E 17</p> <p>PTFLC p. E 17</p> <p>PTFLM p. E 18</p>
<p>Prestobloc - Blocker</p>  <p>PWB-A</p>		<p>Prestobloc is a pneumatically controlled check valve for mounting onto the cylinder port. It is designed to block the movement of the piston rod at selected positions.</p> <p>As a safety device it prevents the exhausting of air from the cylinder in the event of a power failure.</p>	<p>PWB-A p. E 20</p>
<p>Prestotwin Flow regulator + blocker</p>  <p>PWR-HB</p>	 <p>block + control</p>	<p>Prestotwin fittings combine flow control with blocking function.</p> <p>This concept allows a more compact installation and saves assembly time.</p>	<p>PWR-HB p. E 21</p>

Pneumatic integrated function fittings

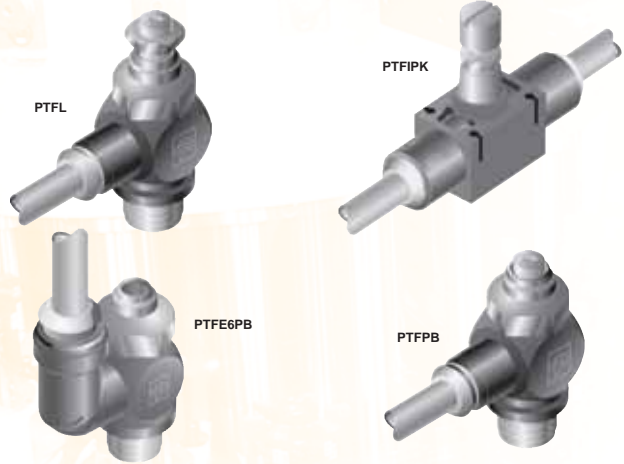
Product family	Symbol	Function	Part number
<p>Prestosensor Pressure sensor</p>  <p>PWS-B PWS-E PWS-M PWS-P</p>		<p>Prestosensor sensor fittings are designed to detect pressure drop and can be mounted on a cylinder or control valve. The sensor fittings produce a signal, either, pneumatic, electric or electronic when the back pressure disappears at the end of stroke.</p>	<p>PWS-M1012... p. E 23 + PWS-B p. E 23 PWS-E111 p. E 23 + PWS-B p. E 23 PWS-E101 p. E 23 + PWS-B p. E 23 PWS-P111 p. E 23 + PWS-B p. E 23</p>
<p>Prestostart Slow start fitting</p>  <p>PCV4PK PCV4</p>	 <p>for isolating valve</p>  <p>for control valve</p>	<p>Prestostart slow start fittings allow the air pressure to increase gradually when the pneumatic installation is started. This slow start prevents shocks that may occur when full system pressure is introduced, thus reducing the risk of damage to components.</p>	<p>PCV p. E 25 PIV p. E 25</p>
<p>Prestoreduce Pressure reducer</p>  <p>PRB4PB PRIPB</p>		<p>Prestoreduce pressure reducing fittings allow for the manual reduction of air pressure in a pneumatic installation. This pressure reduction limits the amount of compressed air used, resulting in a saving of energy.</p>	<p>PRB p. E 27 PRI p. E 27</p>
<p>Prestosil Flow regulator + silencer</p>  <p>PRS</p>		<p>Prestosil combined silencers and flow control regulators provide efficient silencing of exhaust noise and permits precise adjustment of piston rod speed.</p>	<p>PRS p. E 28</p>

E

Pneumatic integrated function fittings

Parker offer a wide range of flow regulators to meet a large variety of applications.

Prestoflow can be fitted directly to a cylinder port or mounted in the line. Prestoflow regulators with push-in terminations are suitable for use with a wide range of plastic tubing. Prestoflow regulators with threaded terminations can be adapted for use with copper and steel tubing or hoses.



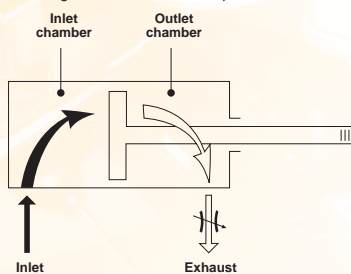
General principle

The piston rod moves as a result of the pressure differential either side of the piston. The speed of the rod is normally determined by the exhaust air flow from the cylinder. The control of this air flow is via an adjustable needle valve installed on the exhaust port.

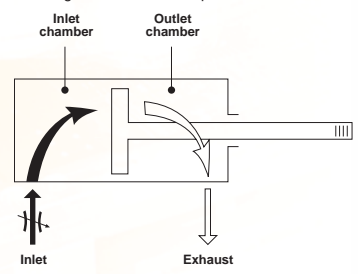
On single acting cylinders and some miniature (M5) double acting cylinders, the air flow can be controlled from the inlet port.

To permit regular and smooth movement of the piston rod, flow control should be made as near to the cylinder as possible.

Flow regulation on the exhaust port



Flow regulation on the inlet port

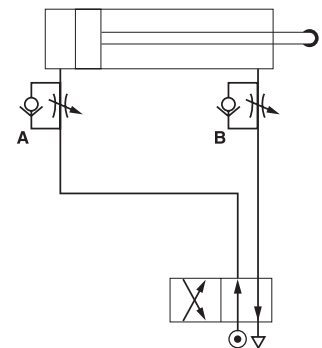


Operation

The mounting of two flow control devices on a cylinder permits speed control of the cylinder rod in both directions.

The sketch opposite shows a cylinder with inlet air at port A. Air passes freely through the flow control valve A, with the check valve in the open position. The exhaust is controlled by the flow control fitting B, where the check valve in the closed position forces the air to go through the adjustable needle valve.

The function of A and B are reversed when inlet air is applied to port B.

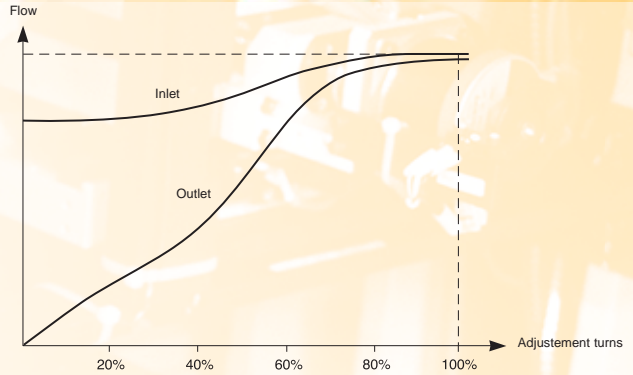


Flow control on a double acting cylinder.

Pneumatic integrated function fittings

Flow characteristics

Prestoflow pneumatic integrated fittings are designed to permit maximum flow in both directions. This full flow in both directions, together with the very precise setting of the screw, permits a wide range of adjustment between the minimum and maximum speeds. The sketch opposite shows the flow progression according to the adjustment of the screw.



Flow regulators - Assembly torques

To ensure a leak free connection for port mounted regulators the regulator bolt should be tightened in accordance with the table opposite.

Assembly torque		
Thread	Min. Nm	Max. Nm
M5	0.2	0.5
1/8	6	9
1/4	10	15
3/8	14	22
1/2	30	42















Applications

Robotics
 Precision Machinery
 Pneumatic System
 Robotics
 Precision Machinery
 Pneumatic System
 Robotics
 Precision Machinery
 Pneumatic System
 Robotics
 Precision Machinery



Pneumatic integrated function fittings

Flow control product selection guide

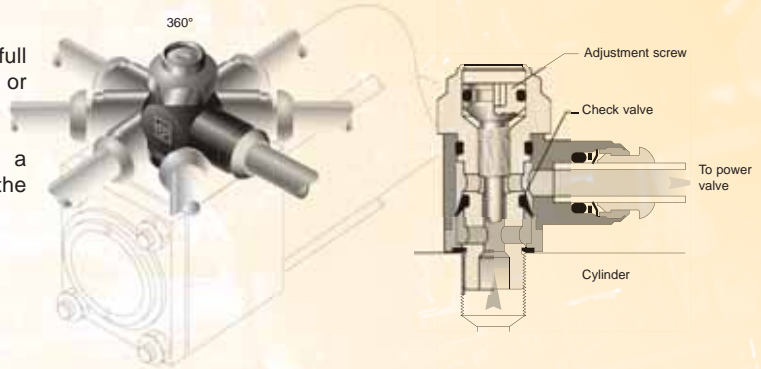
Feature	Mounting		Control		Tube Connection			Bolt Terminations	 Bar MPa		 °C	Body Material	Adjustment Screw Material	Adjustment Screw Type	Locknut	Panel Mounting	Bank Mounting	Swivel Outlet
	Direct	In-line	Outlet	Inlet	Push-in mm	Compression mm	Threaded Female		Bar	MPa								
PTF 	Yes	-	Yes	-	4-12	-	1/8-1/2 BSPP	M5 1/8-1/2 BSPP	1-10	0.1-1.0	-25°C +100°C	Brass	Brass	Allen Key	No	-	-	-
PTFA 	Yes	-	-	Yes	4-8	-	-	M5 1/8-1/4 BSPP	1-10	0.1-1.0	-25°C +100°C	Brass	Brass	Allen Key	No	-	-	-
PTFL 	Yes	-	Yes	-	4-12	6-18	M5 1/8-1/2 BSPP	M5 1/8-1/2 BSPP	1-10	0.1-1.0	-25°C +100°C	Brass	Brass	Allen Key	Yes	-	-	-
PTFAL 	Yes	-	-	Yes	4	-	M5	M5	1-10	0.1-1.0	-25°C +100°C	Brass	Brass	Allen Key	Yes	-	-	-
PTFI 	-	Yes	Yes	-	4-12	-	-	-	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass Duralium (Ultrafine adj)	Hand Adjustment Slotted head	Yes	Yes	Yes	-
PTFE6 	Yes	-	Yes	-	4-8	-	-	M5 1/8-3/8 BSPP	1-10	0.1-1.0	-25°C +70°C	Brass	Brass	Allen Key	No	-	-	Yes
PTFC 	Yes	-	Yes	-	4-10	-	-	M5 1/8-3/8 BSPP	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Slotted head	No	-	-	-
PTFAC 	Yes	-	-	Yes	4-10	-	-	M5 1/8-3/8 BSPP	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Slotted head	No	-	-	-
PTFLC 	Yes	-	Yes	-	4-12	-	-	M5 1/8-1/2 BSPP	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Hand Adjustment Slotted head	Yes	-	-	-
PTFLAC 	Yes	-	-	Yes	4-12	-	-	M5 1/8-1/2 BSPP	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Hand Adjustment Slotted head	Yes	-	-	-
PTFLM 	Yes	-	Yes	-	4-6	-	-	M5	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Hand Adjustment Slotted head	Yes	-	-	-
PTFALM 	Yes	-	-	Yes	4-6	-	-	M5	1-10	0.1-1.0	0°C +70°C	H.R. polyamide	Brass	Hand Adjustment Slotted head	Yes	-	-	-

Principle



Prestoflow compact flow regulators are designed for mounting directly onto cylinder ports to provide precise control of piston rod speed. Thanks to their compactness they are particularly suitable for applications where space is at a premium. These unidirectional flow regulators are available for exhaust or inlet flow control.

- A check valve blocks the full flow ports in the exhaust or inlet direction.
- The flow is controlled by a needle valve fitted in the regulator bolt.



Technical features

Body material	Bolt material	Bolt thread	Sealing device	Terminations			
Brass black epoxy coated	Brass	M5 1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	M5 Nylon washer Nitrile E. D. seal	1/8 - 1/2 BSPP 4 mm - 12 mm push-in connection	1/8 - 1/2 BSPP + M5 Female thread DIN 3852 long	From 1 to 10 bar From 0.1 to 1.0 MPa	From - 25°C to + 100°C

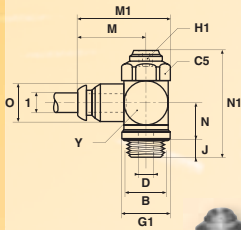
Flow adjustment

Flow control is adjusted with an Allen key.

The large number of turns from fully closed to fully open allows for precise flow control.

Pneumatic integrated function fittings

PTF4/8PB - Flow regulator with push-in connection



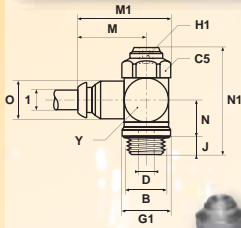
Exhaust flow control



1	B	#	C5	D	G1	H1	J	M	M1	N	N1	O	Y	⊥ GR
4	M5x0.8	PTF8PB4M5*	8	1.65	10.0	1.5	4	19.5	24.5	6.3	22.0	10	10	14
6	M12x1.5	PTF8PB6M12	17	6.00	17.0	4	9	24.9	34.2	22.9	42.9	17	17	69
4	1/8	PTF4PB4-1/8	14	3.00	14.4	2.0	6	22.0	30.1	10.7	34.5	10	14	35
6	M5x0.8	PTF8PB6M5*	8	1.65	10.0	1.5	4	20.5	26.5	7.3	24.5	12	12	19
6	1/8	PTF4PB6-1/8	14	3.20	14.4	2.0	6	23.5	31.6	10.7	34.5	12	14	37
6	1/4	PTF4PB6-1/4	17	5.20	18.4	4.0	7	25.0	34.9	13.8	41.0	12	17	65
6	3/8	PTF4PB6-3/8	22	5.50	21.6	4.0	7	28.0	40.7	17.3	51.0	12	22	142
8	1/8	PTF4PB8-1/8	14	3.20	14.4	2.0	6	25.0	33.1	10.7	34.5	14	14	43
8	1/4	PTF4PB8-1/4	17	5.20	18.4	4.0	7	28.5	38.3	13.8	41.0	14	17	70
8	3/8	PTF4PB8-3/8	22	6.00	21.6	4.0	7	29.5	42.2	17.3	51.0	14	22	146
10	1/4	PTF4PB10-1/4	17	5.20	18.4	4.0	7	31.5	41.3	13.8	41.0	17	17	67
10	3/8	PTF4PB10-3/8	22	6.00	21.6	4.0	7	34.0	46.7	17.3	51.0	17	22	131
10	1/2	PTF4PB10-1/2	27	8.00	26.5	4.0	9	36.5	52.1	20.1	61.0	17	27	231
12	3/8	PTF4PB12-3/8	22	6.00	21.6	4.0	7	34.0	46.7	17.3	51.0	20	22	200
12	1/2	PTF4PB12-1/2	27	8.50	26.5	4.0	9	36.5	52.1	20.1	61.0	20	27	232

* These fittings are supplied with Nylon seal.

PTFA4/8PB - Flow regulator with push-in connection



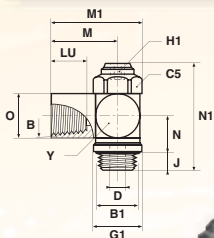
Inlet flow control



1	B	#	C5	D	G1	H1	J	M	M1	N	N1	O	Y	⊥ GR
4	M5x0.8	PTFA8PB4M5*	8	1.65	10.0	1.5	4	19.5	24.5	6.3	22.0	10	10	14
4	1/8	PTFA4PB4-1/8	14	3.00	14.4	2.0	6	22.0	30.1	10.7	34.5	10	14	35
6	M5x0.8	PTFA8PB6M5*	8	1.65	10.0	1.5	4	20.5	26.5	7.3	24.5	12	12	19
6	1/8	PTFA4PB6-1/8	14	3.20	14.4	2.0	6	23.5	31.6	10.7	34.5	12	14	37
6	1/4	PTFA4PB6-1/4	17	5.20	18.4	4.0	7	25.0	34.9	13.8	41.0	12	17	65
8	1/8	PTFA4PB8-1/8	14	3.20	14.4	2.0	6	25.0	33.1	10.7	34.5	14	14	43
8	1/4	PTFA4PB8-1/4	17	5.20	18.4	4.0	7	28.5	38.3	13.8	41.0	14	17	70

* These fittings are supplied with Nylon seal.

PTF4 - Flow regulator with threaded connection



Exhaust flow control



B	B1	#	C5	D	G1	H1	J	LU	M	M1	N	N1	O	Y	⊥ GR
1/8	1/8	PTF4-1/8	14	3.2	14.4	2	6	8.5	17.5	25.6	10.7	34.5	13.9	14	38
1/4	1/4	PTF4-1/4	17	5.2	18.4	4	7	12.5	24.5	34.3	10.7	34.5	16.9	17	85
3/8	3/8	PTF4-3/8	22	6.0	21.6	4	7	12.5	27.5	40.2	13.8	41.0	21.6	22	260
1/2	1/2	PTF4-1/2	27	8.5	26.5	4	9	14.5	33.5	49.1	17.3	51.0	26.5	27	323

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

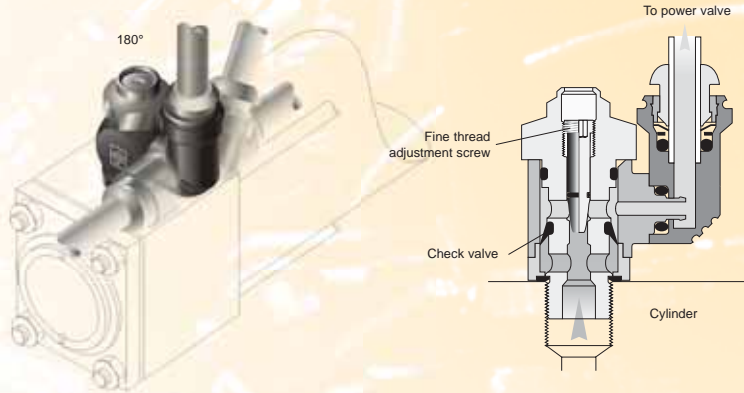
For product availability please consult our price list 3893.

Dimensions shown may be changed at any time without prior notice.

Principle

Prestoflow unidirection swivel flow regulators are designed for mounting directly onto the cylinder exhaust port and provide precise control of the piston rod speed. The swivel outlet is designed to allow vertical or oblique tube exit where access is restricted.

- A check valve blocks the full flow ports in the exhaust direction.
- The flow is controlled by a needle valve fitted in the regulator bolt.
- The swivel outlet can be positioned in the most suitable direction.



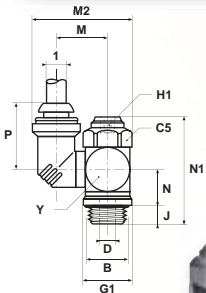
Technical features

Body material	Swivel elbow material	Bolt material	Bolt threads	Sealing device	Terminations	Adjustment screw		
Brass black epoxy coated	High resistance polyamide	Brass	M5 1/8 BSPP 1/4 BSPP 3/8 BSPP	Nylon washer 1/8 - 3/8 BSPP Nitrile E. D. seal	4 - 8 mm push-in	Brass	From 1 to 10 bar From 0.1 to 1.0 MPa	From - 25°C to + 70°C

Flow adjustment

Flow control is adjusted with an Allen key. The large number of turns from fully closed to fully open allows for precise flow control.

PTF4/8E6PB - Flow regulator with push-in connection



1	B	#	C5	D	G1	H1	J	M	M2	N	N1	P	Y	GR
4	M5x0.8	PTF8E6PB4M5*	8	1.65	10.0	1.5	4	11.7	18.4	6.2	22.5	20.5	10	16
4	1/8	PTF4E6PB4-1/8	14	3.00	14.4	2.0	6	14.3	30.0	10.7	34.5	20.5	14	37
6	M5x0.8	PTF8E6PB6M5*	8	1.65	10.0	1.5	4	12.7	20.4	7.2	24.5	23.0	12	20
6	1/8	PTF4E6PB6-1/8	14	3.20	14.4	2.0	6	15.3	31.0	10.7	34.5	23.0	14	38
6	1/4	PTF4E6PB6-1/4	17	5.20	18.4	4.0	7	17.3	35.0	13.8	41.0	23.0	17	70
6	3/8	PTF4E6PB6-3/8	22	5.50	21.6	4.0	7	19.8	40.0	17.3	51.0	23.0	22	132
8	1/8	PTF4E6PB8-1/8	14	3.20	14.4	2.0	6	16.8	33.5	10.7	34.5	25.0	14	40
8	1/4	PTF4E6PB8-1/4	17	5.20	18.4	4.0	7	18.3	37.0	13.8	41.0	25.0	17	73
8	3/8	PTF4E6PB8-3/8	22	6.00	21.6	4.0	7	20.8	42.0	17.3	51.0	25.0	22	136

* These fittings are supplied with Nylon seal.

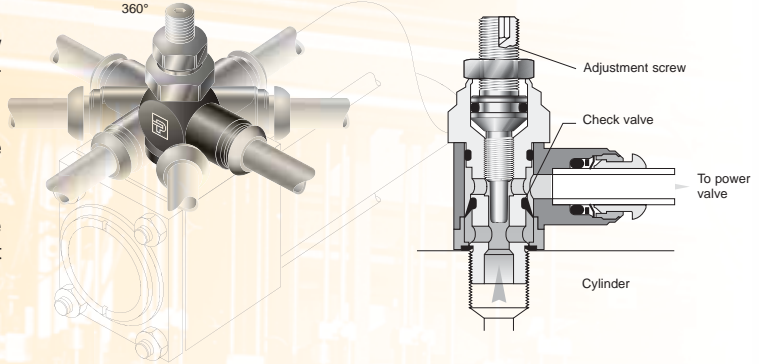
Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

Principle



Prestoflow locknut series flow regulators are designed for mounting directly onto the cylinder ports to provide precise control of piston rod speed. When the desired flow has been set the adjusting bolt can be locked in position. These unidirectional flow regulators are available for exhaust or inlet flow control.

- A check valve blocks the full flow ports in the exhaust or inlet direction.
- The flow is controlled by a needle valve fitted in the regulator bolt.
- The adjustment screw can be locked in position to prevent tampering.



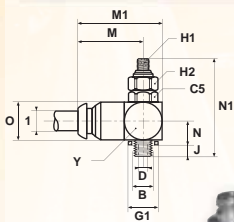
Technical features

Body material	Bolt material	Locknut	Bolt thread	Sealing device	Terminations			
Brass black epoxy coated	Brass	Brass	M5 1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	Nylon washer 1/8 - 1/2 BSPP Nitrile E. D. seal	4 mm - 12 mm push-in connection 6mm - 18 mm compression connection	1/8 - 1/2 BSPP + M5 Female threads DIN 3852 long	From 1 to 10 bar From 0.1 to 1.0 MPa	From - 25°C to + 100°C

Flow adjustment

Flow control is adjusted with an Allen key. When the desired flow is set the adjusting screw can be locked using the locking nut. The large number of turns from fully closed to fully open allows for precise flow control.

PTFAL8PB - Flow regulator with push-in connection



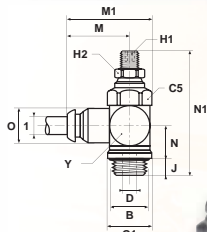
Inlet flow control



1	B	#	C5	D	G1	H1	H2	J	M	M1	N	N1	O	Y	
4	M5x0.8	PTFAL8PB4M5	8	1.65	10	1.5	8	4	19.5	24.5	6.3	28.5	10	10	15

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

PTFL4/8PB - Flow regulator with push-in connection



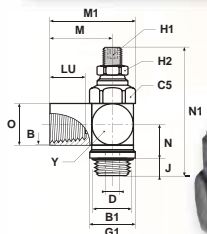
Exhaust flow control



1	B	#	C5	D	G1	H1	H2	J	M	M1	N	N1	O	Y	GR
4	M5x0.8	PTFL8PB4M5*	8	1.65	10.0	1.5	8	4	19.5	24.5	6.3	28.5	10	10	15
4	1/8	PTFL4PB4-1/8	14	3.00	14.4	2.0	7	6	22.0	30.1	10.7	43.7	10	14	42
6	M5x0.8	PTFL8PB6M5*	8	1.65	10.0	1.5	8	4	20.5	26.5	7.3	31.0	12	12	19
6	1/8	PTFL4PB6-1/8	14	3.20	14.4	2.0	7	6	23.5	31.6	10.7	43.7	12	14	44
6	1/4	PTFL4PB6-1/4	17	5.20	18.4	4.0	11	7	25.0	34.9	13.8	51.8	12	17	74
6	3/8	PTFL4PB6-3/8	22	5.50	21.6	4.0	11	7	28.0	40.7	17.3	63.7	12	22	147
8	1/8	PTFL4PB8-1/8	14	3.20	14.4	2.0	7	6	25.0	33.1	10.7	43.7	14	14	64
8	1/4	PTFL4PB8-1/4	17	5.20	18.4	4.0	11	7	28.5	38.3	13.8	51.8	14	17	79
8	3/8	PTFL4PB8-3/8	22	6.00	21.6	4.0	11	7	29.5	42.2	17.3	63.7	14	22	152
10	1/4	PTFL4PB10-1/4	17	5.20	18.4	4.0	11	7	31.5	41.3	13.8	51.8	17	17	76
10	3/8	PTFL4PB10-3/8	22	6.00	21.6	4.0	11	7	34.0	46.7	17.3	63.7	17	22	138
10	1/2	PTFL4PB10-1/2	27	8.00	26.5	4.0	14	9	36.5	52.1	20.1	76.1	17	27	224
12	3/8	PTFL4PB12-3/8	22	6.00	21.6	4.0	11	7	34.0	46.7	17.3	63.7	20	22	143
12	1/2	PTFL4PB12-1/2	27	8.50	26.5	4.0	14	9	36.5	52.1	20.1	76.1	20	27	225

* These fittings are supplied with Nylon seal.

PTFL4/8 - Flow regulator with threaded connection



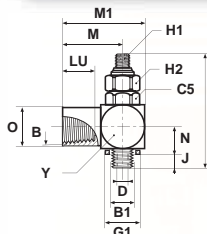
Exhaust flow control



B	B1	#	C5	D	G1	H1	H2	J	LU	M	M1	N	N1	O	Y	GR
M5x0.8	M5x0.8	PTFL8M5*	8	1.65	10.0	1.5	8	4	5.0	11.0	16.0	6.3	28.5	8.0	10	14
1/8	1/8	PTFL4-1/8	14	3.20	14.4	2.0	7	6	8.5	17.5	25.6	10.7	43.7	13.9	14	15
1/4	1/4	PTFL4-1/4	17	5.20	18.4	4.0	11	7	12.5	24.5	34.3	10.7	51.8	16.9	17	94
3/8	3/8	PTFL4-3/8	22	6.00	21.6	4.0	11	7	12.5	27.5	40.2	13.8	63.7	21.6	22	266
1/2	1/2	PTFL4-1/2	27	8.50	26.5	4.0	14	9	14.5	33.5	49.1	17.3	76.1	26.5	27	316

* These fittings are supplied with Nylon seal.

PTFAL8 - Flow regulator with threaded connection

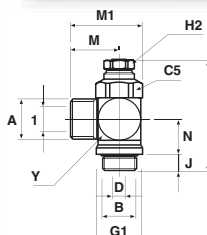


Inlet flow control



B	B1	#	C5	D	G1	H1	H2	J	LU	M	M1	N	N1	O	Y	GR
M5x0.8	M5x0.8	PTFL8M5	8	1.65	10	1.5	8	4	5	11	16	6.3	28.5	8	10	14

PTFL4COB - Flow regulator with compression connection



1	A	B	#	C5	D	G1	H2	J	M	M1	N	N1	Y	GR
6	M10x1	1/8	PTFL4COB6-1/8	14	3.2	14.0	7	6	14.5	22.1	10.8	37.3	14	38
8	M12x1	1/8	PTFL4COB8-1/8	14	3.2	14.0	7	6	15.7	23.4	10.8	37.3	14	40
10	M16x1.5	1/4	PTFL4COB10-1/4	17	5.2	18.3	11	7	19.3	28.6	13.8	37.7	17	72
14	M20x1.5	3/8	PTFL4COB14-3/8	22	6.0	22.0	11	7	23.0	35.1	17.4	54.2	22	117
18	M24x1.5	1/2	PTFL4COB18-1/2	27	8.0	27.0	14	9	26.9	41.8	20.2	65.2	27	184

* These fittings can be assembled with Push-Lok fittings 3FB82 series (see section N).

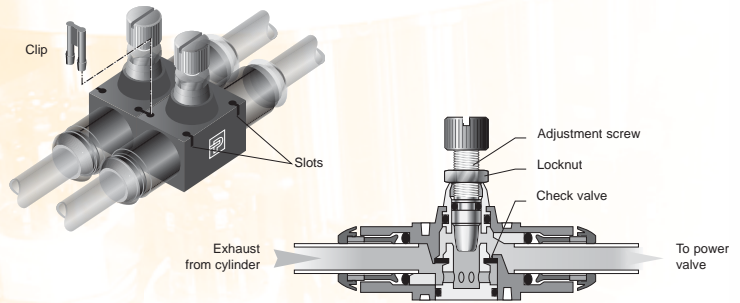
Pneumatic integrated function fittings

Principle



Prestoflow unidirection in-line flow regulators are designed to be used directly in the compressed air line when cylinder access is difficult or where another function fitting is already connected to the cylinder port. The fine thread knurled adjuster provides precise control of piston rod speed. When the desired flow has been set the adjusting bolt can be locked in position.

- A check valve blocks the full flow ports in the exhaust direction.
- The flow is controlled by a needle valve fitted in the regulator body.
- These regulators can be:
 - ▶ mounted using the 4 fixing holes
 - ▶ assembled into banks using the joining clips included.



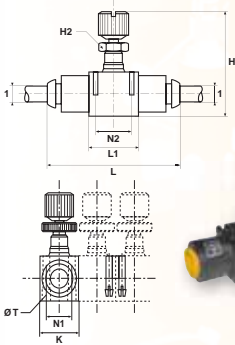
Technical features

Body material	Cartridge material	Adjustment and locking nut		Seals	Terminations		
		Standard adjustment	Ultrafine adjustment				
High resistance polyamide	Brass	Nickel plated brass	Duralumin	Nitrile or FKM	4 mm - 12 mm push-in	From 1 to 10 bar From 0.1 to 1.0 MPa	From 0°C to +70°C

Flow adjustment

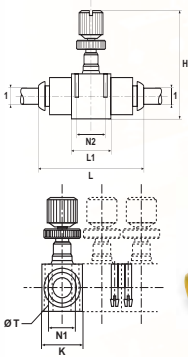
Flow control is adjusted with a screwdriver or manually with the knurled nut. When the desired flow is set the adjusting screw can be locked using the locking nut. The large number of turns from fully closed to fully open allows for precise flow control.

PTFIPK - Flow regulator with push-in connection



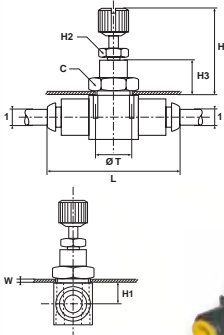
1	#	H		H2	K	L	L1	N1	N2	T	ØT
		Min.	Max.								
4	PTFIPK4	29.5	33.5	5	12.0	39.0	15	8.0	11.0	2.2	12
6	PTFIPK6	39.5	44.5	8	17.0	55.0	23	11.0	17.0	3.2	30
8	PTFIPK8	44.0	50.0	11	18.5	61.5	26	12.5	20.0	3.2	47
10	PTFIPK10	52.0	61.0	14	24.0	77.0	33	16.0	26.0	4.2	103
12	PTFIPK12	57.5	67.5	14	28.0	87.0	35	20.0	27.5	4.2	138

PTFMIPK - Flow regulator with push-in connection - Ultrafine adjustment



1	#	H		K	L	L1	N1	N2	T	ØT
		Min.	Max.							
4	PTFMIPK4	34	37.0	12	39	15	8	11	2.2	13
6	PTFMIPK6	42	45.5	17	54	23	11	17	3.2	29

PTFIWPK - Flow regulator with push-in connection - Panel



1	#	C	H		H1	H2	H3	L	T	W	ØT
			Min.	Max.							
4	PTFIWPK4*	14	21.5	25.5	6.5	-	11.0	39.0	10.5	6	12
6	PTFIWPK6*	19	27.5	32.5	7.5	-	13.5	54.0	16.5	7	30
8	PTFIWPK8	24	28.5	34.5	9.0	11	13.5	60.5	18.5	7	47
10	PTFIWPK10	30	29.5	38.5	11.5	14	13.5	76.0	24.5	7	103
12	PTFIWPK12	32	32.0	42.0	12.5	14	15.5	86.0	27.5	8	138

* Ultrafine adjustment.

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

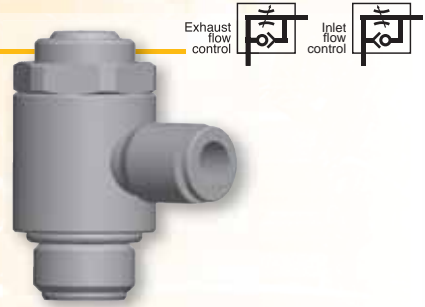
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Principle



Prestoflow micro flow regulators are designed for mounting directly onto cylinder ports to provide precise control of piston rod speed.

Thanks to their compactness they are particularly suitable for applications where space is at a premium.

These unidirectional flow regulators are available for exhaust or inlet flow control.



Technical features

Body material	Bolt material	Bolt thread	Sealing device	Terminations		
High resistance polymer	Nickel plated brass	M5 1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	Nitrile O-ring	4 mm - 12 mm push-in connection	From 1 to 10 bar From 0.1 to 1.0 MPa	From 0°C to + 70°C

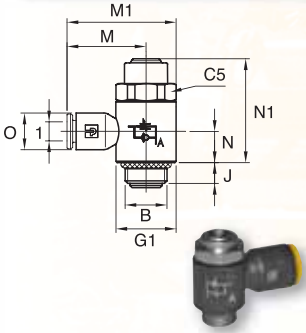
Flow adjustment

Flow control is adjusted by hand or with a screw driver.

The large number of turns from fully closed to fully open allows for precise flow control.

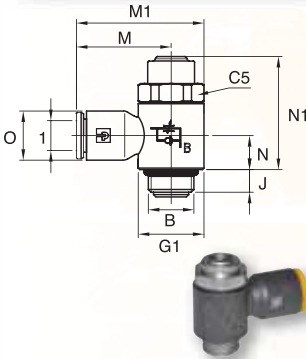
Pneumatic integrated function fittings

PTFC4/8PK - Micro exhaust flow control - BSPP/Metric



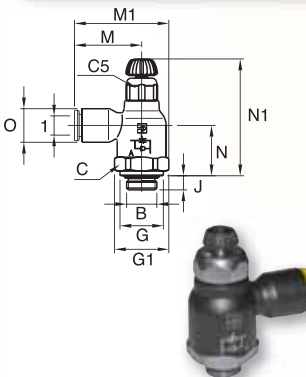
1	B	#	C5	G1	J	M	M1	N	N1	O	CF
4	M5	PTFC8PK4-M5	8	9.5	4.0	18.5	23.5	7.5	17.0	11.0	7
4	1/8	PTFC4PK4-1/8	13	14.0	5.0	19.0	25.5	7.5	24.0	8.5	17
6	M5	PTFC8PK6-M5	8	9.5	4.0	18.5	23.5	7.5	17.0	11.0	17
6	1/8	PTFC4PK6-1/8	13	14.0	5.0	20.0	27.0	7.5	24.0	10.5	19
6	1/4	PTFC4PK6-1/4	17	18.5	8.0	22.0	31.0	9.5	26.0	10.5	34
8	1/8	PTFC4PK8-1/8	13	14.0	5.0	25.0	32.0	9.0	24.0	13.5	20
8	1/4	PTFC4PK8-1/4	17	18.5	8.0	27.0	36.0	9.5	26.0	13.5	35
8	3/8	PTFC4PK8-3/8	20	22.5	7.0	28.5	40.0	11.0	37.0	13.5	42
10	1/4	PTFC4PK10-1/4	17	18.5	8.0	29.0	38.0	10.5	26.0	16.0	38
10	3/8	PTFC4PK10-3/8	20	22.5	7.0	30.5	42.0	11.0	37.0	16.0	43

PTFAC4/8PK - Micro inlet flow control - BSPP/Metric



1	B	#	C5	G1	J	M	M1	N	N1	O	CF
4	M5	PTFAC8PK4-M5	8	9.5	4.0	18.5	23.5	7.5	17.0	11.0	7
4	1/8	PTFAC4PK4-1/8	13	14.0	5.0	19.0	25.5	7.5	24.0	8.5	17
6	M5	PTFAC8PK6-M5	8	10.0	4.0	18.5	23.5	7.5	17.0	11.0	17
6	1/8	PTFAC4PK6-1/8	13	14.0	5.0	20.0	27.0	7.5	24.0	10.5	19
6	1/4	PTFAC4PK6-1/4	17	18.5	8.0	22.0	31.0	9.5	26.0	10.5	34
8	1/8	PTFAC4PK8-1/8	13	14.0	5.0	25.0	32.0	9.0	24.0	13.5	20
8	1/4	PTFAC4PK8-1/4	17	18.5	8.0	27.0	36.0	9.5	26.0	13.5	35
8	3/8	PTFAC4PK8-3/8	20	22.5	7.0	28.5	40.0	11.0	37.0	13.5	42
10	1/4	PTLAC4PK10-1/4	17	18.5	8.0	29.0	38.0	10.5	26.0	16.0	38
10	3/8	PTFAC4PK10-3/8	20	22.5	7.0	30.5	42.0	11.0	37.0	16.0	43

PTFLC4PK - Compact exhaust flow control - BSPP

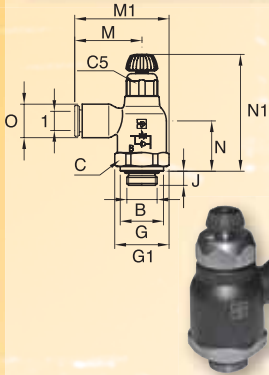


1	B	#	C	C5	G	G1	J	M	M1	N	N1	O	CF	
												maxi mini		
4	1/8	PTFLC4PK4-1/8	16	10	14.0	17.5	5.0	21.5	30.0	16.0	44.0	37.5	11.0	21
6	1/8	PTFLC4PK6-1/8	16	10	14.0	17.5	5.0	21.5	30.5	16.0	44.0	37.5	11.0	21
6	1/4	PTFLC4PK6-1/4	16	10	-	17.5	6.0	21.5	30.5	14.5	42.5	36.5	11.0	21
8	1/8	PTFLC4PK8-1/8	19	14	14.0	21.0	5.0	27.0	37.5	18.0	48.0	41.5	13.5	35
8	1/4	PTFLC4PK8-1/4	19	14	17.0	21.0	5.5	27.0	37.5	18.5	48.0	41.5	13.5	37
8	3/8	PTFLC4PK8-3/8	19	14	-	22.0	5.5	27.0	37.5	16.5	45.0	40.0	13.5	37
10	1/4	PTFLC4PK10-1/4	23	17	17.0	25.0	5.5	31.0	43.5	20.0	54.0	45.5	16.0	57
10	3/8	PTFLC4PK10-3/8	23	17	22.0	25.0	5.5	31.0	43.5	20.0	54.0	45.5	16.0	59
12	1/2	PTFLC4PK12-1/2	24	17	-	26.0	7.0	35.0	49.0	20.0	54.0	45.5	19.0	65

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

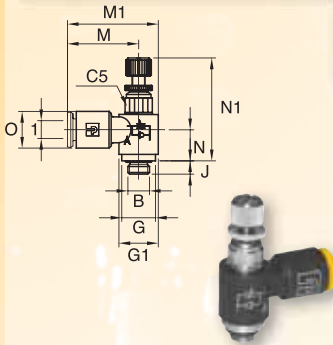
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

PTFLAC4PK - Compact inlet flow control - BSPF



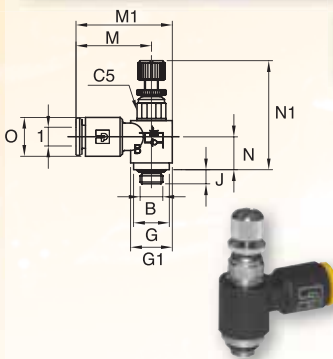
1	B	#	C	C5	G	G1	J	M	M1	N	N1 maxi mini		O	GR
4	1/8	PTFLAC4PK4-1/8	16	10	14.0	17.5	5.0	21.5	30.0	16.0	44.0	37.5	11.0	21
6	1/8	PTFLAC4PK6-1/8	16	10	14.0	17.5	5.0	21.5	30.5	16.0	44.0	37.5	11.0	21
6	1/4	PTFLAC4PK6-1/4	16	10	-	17.5	6.0	21.5	30.5	14.5	42.5	36.5	11.0	21
8	1/8	PTFLAC4PK8-1/8	19	14	14.0	21.0	5.0	27.0	37.5	18.0	48.0	41.5	13.5	35
8	1/4	PTFLAC4PK8-1/4	19	14	17.0	21.0	5.5	27.0	37.5	18.5	48.0	41.5	13.5	37
8	3/8	PTFLAC4PK8-3/8	19	14	-	22.0	5.5	27.0	37.5	16.5	45.0	40.0	13.5	37
10	1/4	PTFLAC4PK10-1/4	23	17	17.0	25.0	5.5	31.0	43.5	20.0	54.0	45.5	16.0	57
10	3/8	PTFLAC4PK10-3/8	23	17	22.0	25.0	5.5	31.0	43.5	20.0	54.0	45.5	16.0	59
12	1/2	PTFLAC4PK12-1/2	24	17	-	26.0	7.0	35.0	49.0	20.0	54.0	45.5	19.0	65

PTFLM8PK - Miniature exhaust flow control - Metric



1	B	#	C5	G	G1	J	M	M1	N	N1 maxi mini		O	GR
4	M5	PTFLM8PK4 M5	6	8.0	9.0	3.0	16.5	21.0	7.0	27.0	24.0	8.5	8
6	M5	PTFLM8PK6 M5	6	8.0	9.0	3.0	18.0	22.5	7.0	27.0	24.0	11.0	10

PTFALM8PK - Miniature inlet flow control - Metric



1	B	#	C5	G	G1	J	M	M1	N	N1 maxi mini		O	GR
4	M5	PTFALM8PK4-M5	6	8.0	9.0	3.0	16.5	21.0	7.0	27.0	24.0	8.5	8
6	M5	PTFALM8PK6-M5	6	8.0	9.0	3.0	18.0	22.5	7.0	27.0	24.0	11.0	10

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

For product availability please consult our price list 3893.

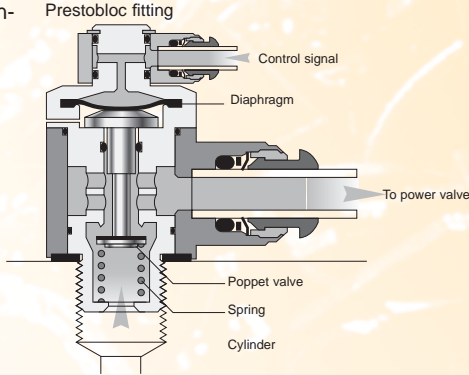
Dimensions shown may be changed at any time without prior notice.

Principle

Prestobloc pilot-operated blocking fittings are designed for mounting directly to the cylinder ports. Available with push-in or threaded terminations, these function fittings permit safe and immediate stopping of the piston rod by blocking the cylinder supply and exhaust.

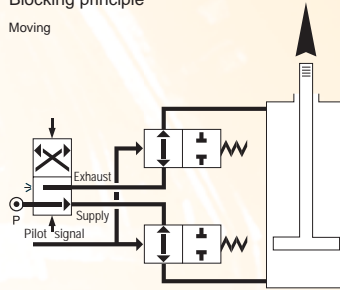


- Pilot operated diaphragm maintains full flow when pilot signal is present.
- Spring closes the poppet valve locking air in the cylinder when the pilot signal is removed.

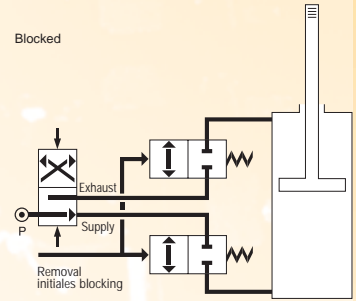


- Prestobloc fittings used in conjunction with Prestoflow flow regulators are mounted on inlet and outlet ports.
- Pilot signal should be independent from the control valve.

Blocking principle
Moving



Blocked



Technical features

Body material	Bolt material	Bolt thread	Sealing device	Terminations	Pilot termination		
Zinc alloy epoxy coated	Brass	1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	Nylon washer	6mm to 12 mm push-in 1/4 to 1/2 BSPP female thread	4 mm push-in	From 1 to 10 bar From 0.1 to 1.0 MPa	From -15°C to +60°C

Operating characteristics

Bolt size	Pilot operating pressure (100% flow)				Pilot release pressure				Max. input flow at 6 bar
	2 bar	4 bar	6 bar	8 bar	2 bar	4 bar	6 bar	8 bar	
1/8"	3.10	3.50	4.00	4.50	0.80	1.0	1.2	1.40	500 l/mn ANR
1/4"	3.10	3.50	4.00	4.50	0.80	1.0	1.2	1.40	650 l/mn ANR
3/8"	2.45	2.75	3.05	3.40	1.40	1.7	2.0	2.35	1300 l/mn ANR
1/2"	3.05	3.40	3.70	4.05	1.75	2.1	2.4	2.80	2300 l/mn ANR

Applications

Safety stop

Prevents descent under load in the event of power failure.

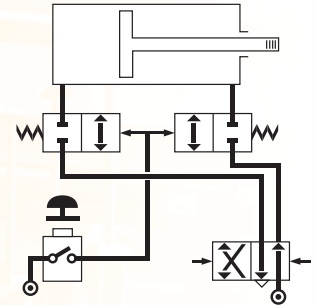
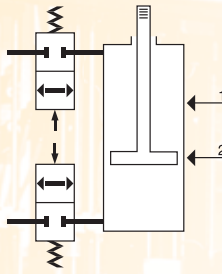
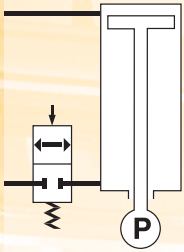
Stroke control

Stops the piston in various positions for conveying and handling applications.

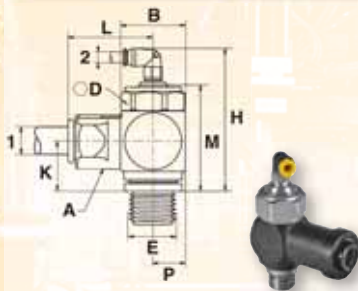
Safety locks

Safety guards for assembly and punch presses.

Combination with an emergency switch: restarting the cylinder after resetting the emergency switch.

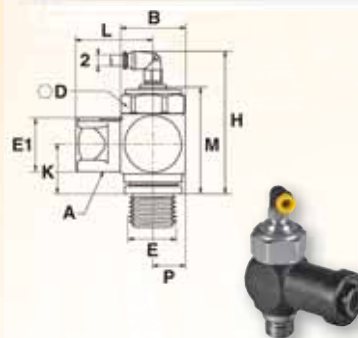


PWB-A - Blocker with push-in connection



1	E	2	#	A	B	D	H	K	L	P	M	CR
6	1/8	4	PWB-A1468	Ø 22	21	21	59.0	16.5	39	11	43	150
6	1/4	4	PWB-A1469	Ø 22	21	21	59.0	16.5	39	11	43	150
8	1/4	4	PWB-A1489	Ø 22	21	21	59.0	16.5	39	11	43	150
8	3/8	4	PWB-A1483	Ø 27	30	27	66.5	22.5	39	15	52	230
10	3/8	4	PWB-A1493	Ø 27	30	27	66.5	22.5	39	15	52	230
12	1/2	4	PWB-A1412	Ø 27	30	27	66.5	22.5	39	15	52	240

PWB-A - Blocker with threaded connection



E	E1	2	#	A	B	D	H	K	L	P	M	CR
1/8	1/4	4	PWB-A1898	Ø 22	21	21	59.0	16.5	43.5	11	43	180
1/4	1/4	4	PWB-A1899	Ø 22	21	21	59.0	16.5	43.5	11	43	180

Push-in, Ø 4 mm

E	E1	2	#	A	B	D	H	K	L	P	M	CR
3/8	3/8	4	PWB-A1833	Ø 27	30	27	66.5	22.5	36.0	15	52	210
1/2	1/2	4	PWB-A1822	Ø 27	30	27	66.5	22.5	36.0	15	52	220

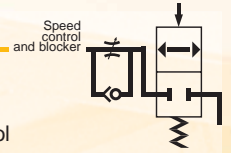
Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

For product availability please consult our price list 3893.

Dimensions shown may be changed at any time without prior notice.

Principle

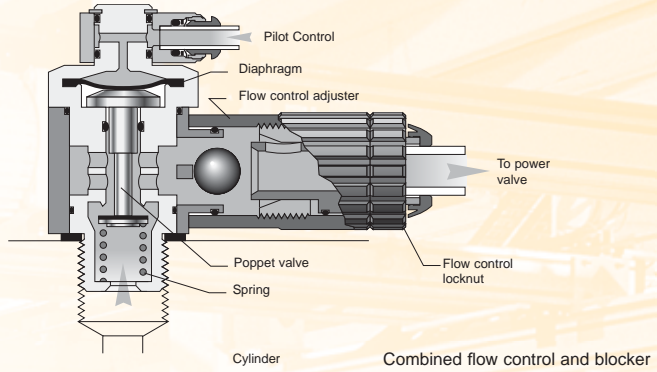
Prestotwin are multi-function fittings combining flow control. This avoids the requirement for two function fittings offering a compact solution with significant space saving. They meet the requirements for a safety fitting and incorporate the facility to accurately control the piston rod speed.



Operation

Flow regulator + blocker

- The pilot signal acting on the diaphragm keeps the poppet valve open. When the pilot signal is removed the spring closes the poppet valve.
- Flow control is obtained by the adjustment of the rotating barrel directing air through the orifices of the flow control adjuster.
- The flow control locknut ensures the optimum setting is maintained.



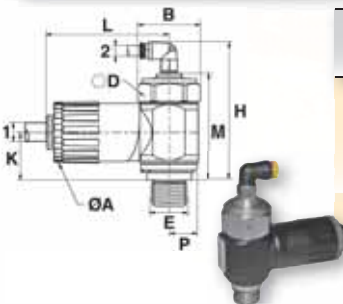
Technical features

Body material	Bolt material	Bolt thread	Sealing device	Termination	Pilot termination	Flow control adjustment	Flow control locking		
Zinc alloy epoxy coated	Brass	1/8BSPP 1/4BSPP 3/8BSPP 1/2 BSPP	Nylon washer	4 mm - 10 mm push-in	4 mm push-in	rotating barrel	knurled locknut	From 1 to 10 bar From 0.1 to 1.0 MPa	From -15 °C to +60 °C

Operating characteristics

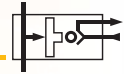
#	Pilot operating pressure				Pilot release pressure			
	2 bar	4 bar	6 bar	8 bar	2 bar	4 bar	6 bar	8 bar
PWR-HB 1448	3.10	3.50	4.00	4.50	0.80	1.0	1.20	1.40
PWR-HB 1468	3.10	3.50	4.00	4.50	0.80	1.0	1.20	1.40
PWR-HB 1469	3.10	3.50	4.00	4.50	0.80	1.0	1.20	1.40
PWR-HB 1489	3.10	3.50	4.00	4.50	0.80	1.0	1.20	1.40
PWR-HB 1483	2.45	2.75	3.05	3.40	1.40	1.7	2.00	2.35
PWR-HB 1493	2.45	2.75	3.05	3.40	1.40	1.7	2.00	2.35

PWR-HB - Flow regulator + Blocker with push-in connection



1	E	2	#	ØA	B	D	H	K	L	P	
4	1/8	4	PWR-HB1448	22.5	21	21	59.0	16.5	47.0	12.5	130.0
6	1/8	4	PWR-HB1468	22.5	21	21	59.0	16.5	47.0	12.5	130.0
6	1/4	4	PWR-HB1469	22.5	21	21	59.0	16.5	47.0	12.5	130.0
8	1/4	4	PWR-HB1489	22.5	21	21	59.0	16.5	47.0	12.5	130.0
8	3/8	4	PWR-HB1483	29.0	30	27	64.5	22.5	60.0	15.0	180.0
10	3/8	4	PWR-HB1493	29.0	30	27	64.5	22.5	60.0	15.0	180.0
10	1/2	4	PWR-HB1492	29.0	30	27	64.5	22.5	60.0	15.0	190.0

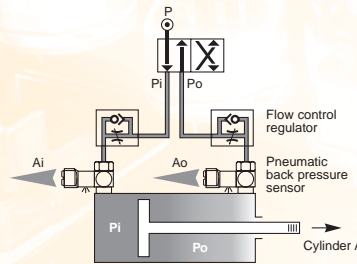
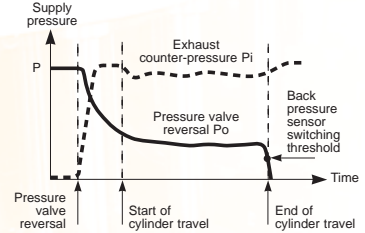
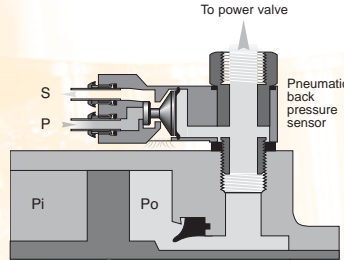
Principle



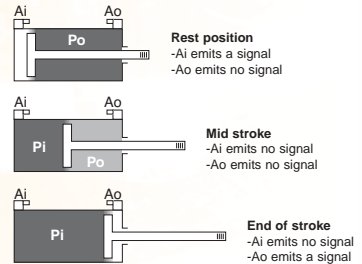
Prestosensor fittings are designed for direct mounting onto the cylinder. These sensors detect end of stroke travel by the variation in internal operating pressure. The sensing can be pneumatic, electric or electronic to suit the application. These fittings remove the need for mechanical position switches.

Operation

- Mounting to cylinder port
- Pressure sensors should be mounted in conjunction with flow regulators
- Pressure sensing on diaphragm valve.



Mounting of pressure sensors



Signals from pressure sensors

Technical features

Body material		Bolt material	Bolt threads	Sealing device	Terminations			Light bulb icon	Thermometer icon
Pneumatic output version	Electric and electronic version				Pneumatic output version	Electric output version	Electronic output version		
Zinc alloy and thermoplastic	Thermoplastic	M5: bichromate steel 1/8 to 1/2 BSPP: brass	M5 1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	Nylon washer	4 mm Push-in	3 core cable 0.5 mm ² 2 metres long	3 core cable 0.1 mm ² 2 metres long	From 3 to 8 bar From 0.3 to 0.8 MPa	From -15°C to +60°C

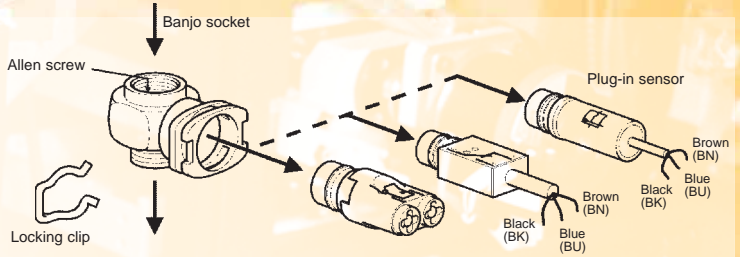
Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

For product availability please consult our price list 3893.

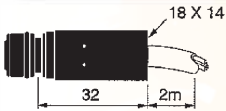
Dimensions shown may be changed at any time without prior notice.

All black pressure sensors are a combination of two distinct parts:

A banjo socket + a plug-in sensor.



PWS-M - Plug-in sensor - Electrical output



Level of protection: IP-40

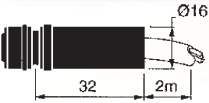


#	GR	Output function	Output connection	Output characteristics
PWS-M1012	80	Electrical - Ve = 3 A	3 wires 0.5 mm ² length 2 m	CO Contact 12 to 230 V ~ /10 VA 12 to 48 VDC/-5W

Technical specification of model PWS-M: breaking pressure = 0.5 bar

connection:

PWS-E - Plug in sensor - Electronic output



Level of protection: IP-67

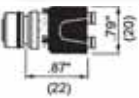


#	GR	Output function	Output connection	Output characteristics
PWS-E101	70	Type NC	3 wires 0.1 mm ² length 2 m	PNP Type 10/30 VDC 75 mA
PWS-E111	70	Type NO		

Technical specification of model PWS-E: Pilot release pressure = 0.5 bar

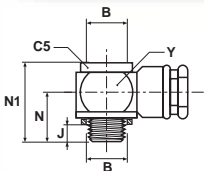
connection:

PWS-P - Plug-in sensor - Pneumatic output



#	Sensing function	Output function	Output connection	Output characteristics
PWSP-111	Exhaust back pressure decay	Pneumatic	Push-in Ø 4 mm	No valve flow rate at 6 bar 1.5 l/s

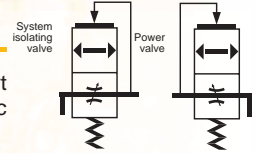
PWS-B - Banjo socket (with sensor locking clip)



B	#	C5	J	N	N1	Y	GR	Tool required
M5x0.8	PWS-B155	8	5	18	28	11	40	Flat spanner 8 mm
1/8	PWS-B188	6	8	18	28	16	40	Allen key 5 mm
1/4	PWS-B199	8	10	18	28	21	50	Allen key 8 mm
3/8	PWS-B133	10	11	22	32	28	70	Allen key 10 mm
1/2	PWS-B122	12	12	26	38	33	110	Allen key 12 mm

Principle

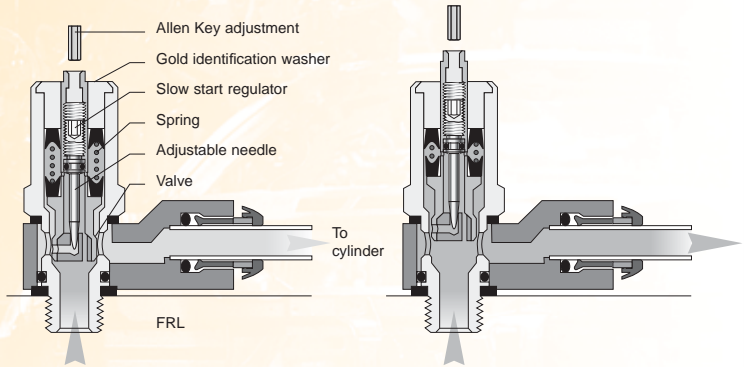
Designed for mounting on either the FRL or power valve, Parker Prestostart slow start function fittings permit the gradual increase in pressure to a section of the pneumatic system.



This prevents shocks to the system that may occur when full system pressure is introduced thus reducing wear and potential damage to components.

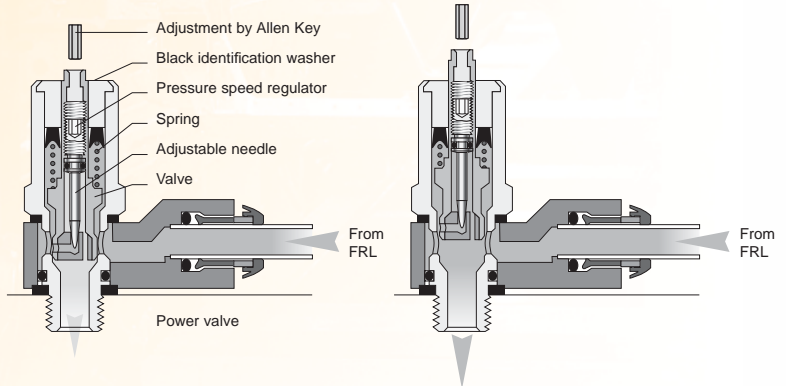
PIV Series

- Mounted on outlet port of FRL to control downstream installation.
- Initial flow through the bolt is controlled by a restrictor and adjustable needle valve.
- When 2/3rd system pressure is achieved the spring is compressed allowing immediate increase to full system pressure.
- When the system is pressurised after an emergency stop all cylinders will return to the rest position.



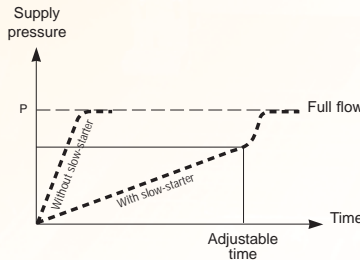
PCV Series

- Mounted on the supply port of the power valve or on the common supply of associated power valves.
- Initial flow into the power valve is controlled by the needle valve assembly.
- When 2/3rd system pressure is achieved the spring is compressed allowing immediate increase to full system pressure.
- When the system is pressurised after an emergency stop all cylinders will return to the rest position.



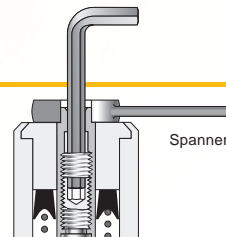
Pressurisation speed

- Adjustment of the needle valve to regulate the air flow controls the time taken to pressurise the system.





Adjustment

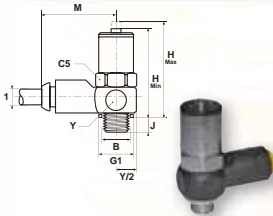
- Use a spanner to prevent the bolt assembly turning.
- Use an Allen key to adjust the needle valve. Maximum torque 1N/m.




Technical features

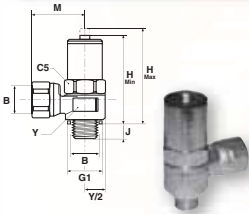
Body material Push-in version	Threaded version	Bolt assembly material	Bolt threads	Sealing device	Terminations		
High resistance polyamide	Brass nickel plated	Brass nickel plated	1/4 BSPP 3/8 BSPP 1/2 BSPP	Nylon washer	8 to 12 mm push-in 1/4 to 1/2 BSPP female thread	From 3 to 10 bar From 0.3 to 1.0 MPa	From - 15°C to + 70°C


PCV4PK - Slow start fittings - Power valve version with push-in connection



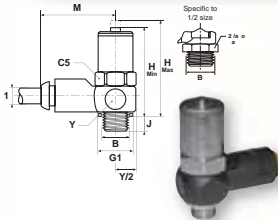
1	B	#	C5	G1	H Min. Max.	J	M	Y	Torque Nm	Air flow NI/mn at 6 bar	Kv	
8	1/4	PCV4PK8-1/4	17	17.5	54 61	9	35.0	20	1.3	1500	0.80	68
10	1/4	PCV4PK10-1/4	22	19.5	55 62	9	41.5	25	1.3	2000	1.15	112
10	3/8	PCV4PK10-3/8	22	21.0	55 62	10	41.5	25	1.5	2000	1.15	115


PCV4 - Slow start fitting - Power valve version with threaded connection



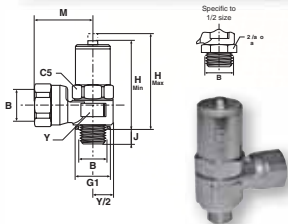
B	#	C5	G1	H Min. Max.	J	M	Y	Torque Nm	Air flow NI/mn at 6 bar	Kv	
1/4	PCV4-1/4	22	19.5	55 62	9	31	24	1.3	2000	1.15	149
3/8	PCV4-3/8	22	21.0	55 62	10	31	24	1.5	2000	1.15	141


PIV4PK - Slow start fitting - System isolating valve version with push-in connection



1	B	#	C5	G1	H Min. Max.	J	M	Y	Torque Nm	Air flow NI/mn at 6 bar	Kv	
3	1/4	PIV4PK8-1/4	17	17.5	54.0 61.0	9	27.5	20	1.3	1500	0.8	66
10	1/4	PIV4PK10-1/4	22	19.5	55.0 62.0	9	41.5	25	1.3	2100	1.2	110
10	3/8	PIV4PK10-3/8	22	21.0	55.0 62.0	10	41.5	25	1.5	2200	1.3	113
12	3/8	PIV4PK12-3/8	22	21.0	55.0 62.0	10	46.5	25	1.5	3100	1.0	125
12	1/2	PIV4PK12-1/2	22	25.5	63.5 70.5	10	46.5	25	1.8	3100	1.0	151

PIV4 - Slow start fitting - System isolating valve version with threaded connection



B	#	C5	G1	H Min. Max.	J	M	Y	Torque Nm	Air flow NI/mn at 6 bar	Kv	
1/4	PIV4-1/4	22	19.5	54.0 62.0	9	31.0	24	1.3	2100	1.2	148
3/8	PIV4-3/8	22	21.0	55.0 62.0	10	31.0	24	1.5	3100	1.0	140
1/2	PIV4-1/2	24	25.5	63.5 70.5	10	34.5	24	1.8	3100	1.0	178

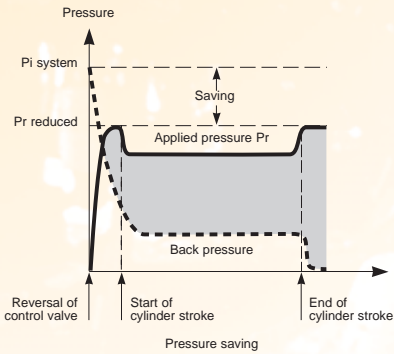
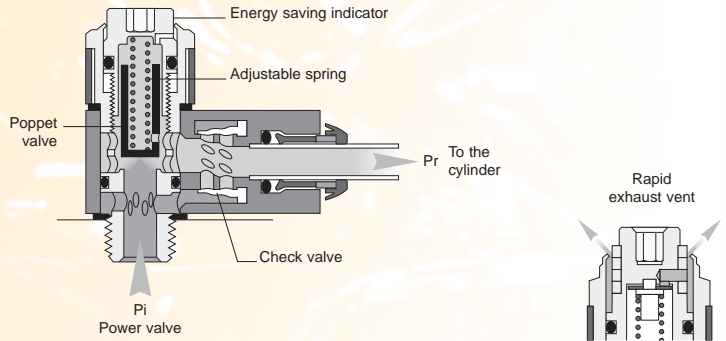
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Principle

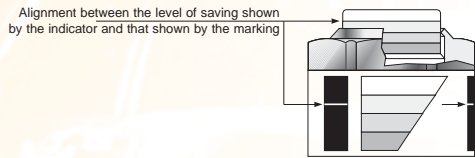


This function fitting is manually preset to provide the cylinder with optimum air pressure. This reduces the air consumption of the cylinder generating energy savings. This fitting is particularly suitable for cylinders used in cutting, pressing or gripping operations.

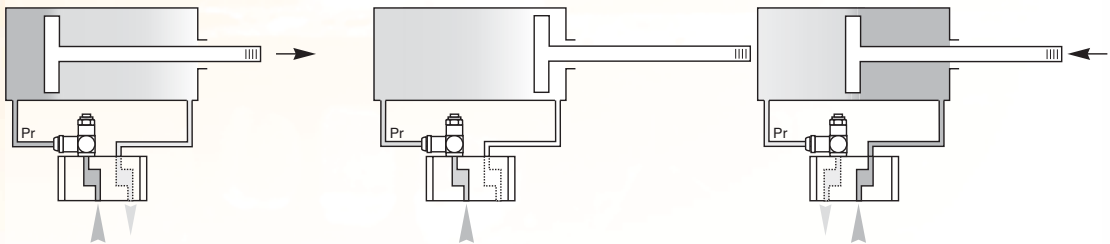
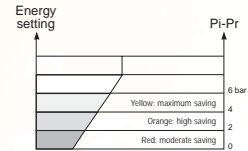
- System pressure (P_i) is reduced by a spring-loaded valve which can be calibrated by the set screw.
- The greater the reduction between inlet and outlet pressure the larger the energy savings.
- The coloured indicator shows the energy savings achieved.
- The purge vent allows rapid exhaust of air in emergencies.
- Adjustment can be made with an Allen key or manual ratchet control (see page E 29).
- An anti tamper plug can be fitted after the pressure has been set (see page E 29).



Pressure saving



Pressure saving indication





1 - Out stroke

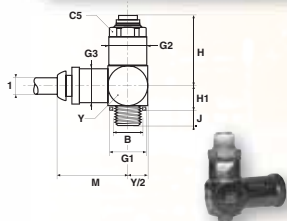
2 - End of stroke

3 - Return stroke

Technical features

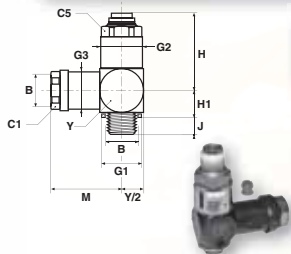
Body material Banjo version	In line version	Bolt assembly material	Bolt threads	Sealing device	Terminations		
Metal	Nickel plated brass	Brass	1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	Nylon Washer	6 to 10 mm Push-in 1/8 to 1/2 BSPP female thread	From 1 to 8 bar From 0.1 to 0.8 MPa	From -15°C to + 70°C

PRB4PB - Pressure reducer - Banjo version with push-in connection



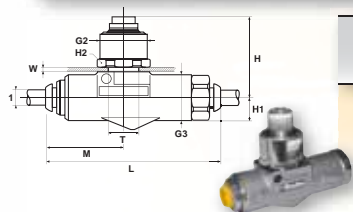
1	B	#	C5	G1	G2	G3	H		H1	J	M	Y	GR
							Min.	Max.					
6	1/8	PRB4PB6-1/8	19	19.5	22	20	49	57	12	6	43	21	135
6	1/4	PRB4PB6-1/4	19	19.5	22	20	49	57	12	6	43	21	136
8	1/4	PRB4PB8-1/4	19	19.5	22	20	49	57	12	6	40	21	133
10	1/4	PRB4PB10-1/4	27	26.0	28	26	55	64	15	6	50	28	241
10	3/8	PRB4PB10-3/8	27	26.0	28	26	55	64	15	8	50	28	250

PRB4 - Pressure reducer - Banjo version with threaded connection



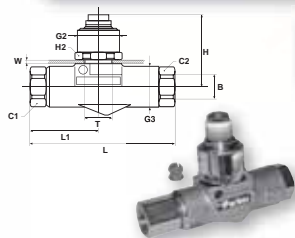
B	#	C1	C5	G1	G2	G3	H		H1	J	M	Y	GR
							Min.	Max.					
1/8	PRB4-1/8	19	19	19.5	22	20	49	57	12	6	45	21	157
1/4	PRB4-1/4	19	19	19.5	22	20	49	57	12	6	45	21	150
3/8	PRB4-3/8	24	27	26.0	28	26	55	64	15	6	56	28	283
1/2	PRB4-1/2	30	30	30.0	32	31	75	86	23	8	63	33	525

PRIPB - Pressure reducer - In-line version with push-in connection



1	#	G2	G3	H		H1	H2	L	M	T		W	GR
				Min.	Max.					Min.	Max.		
6	PRIPB6	11	21	49	57	14	22	75	32.5	18.5	4	208	
8	PRIPB8	13	21	49	57	14	22	72	32.5	18.5	4	196	
10	PRIPB10	17	28	61	70	19	27	90	41.5	22.5	5	405	

PR14 - Pressure reducer - In-line version with threaded connection



B	#	C1	C2	G2	G3	H		H1	H2	L	L1	T		W	GR
						Min.	Max.					Min.	Max.		
1/8	PR14-1/8	17	19	11	21	49	57	14	22	74	35	18.5	4	210	
1/4	PR14-1/4	17	19	13	21	49	57	14	22	83	44	18.5	4	211	
3/8	PR14-3/8	22	27	17	28	61	70	19	27	90	44	22.5	5	392	
1/2	PR14-1/2	27	30	19	31	75	86	23	32	119	61	27.5	7	655	

Parker integrated function fittings are designed to be used with Parker calibrated polyamide or polyurethane tubing. See Thermoplastic singles tubes & Pneumo-Tube bundles section (O).

Principle

Prestosil silencers are designed for mounting into the exhaust valve of single acting cylinders or on the directional control valve.



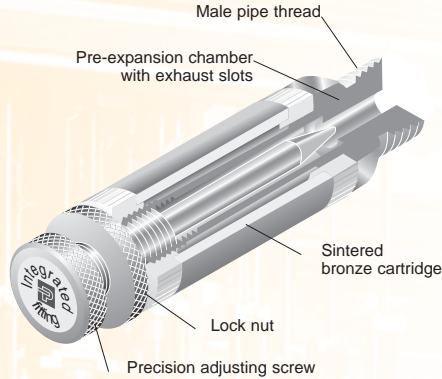
Operation

● Noise reduction

The escaping air is pre-expanded in the chamber of the silencer. It then flows through a sintered bronze cartridge whose design provides a complete expansion of the exhaust air.

● Flow control

The adjusting screw of the uni-direction flow control valve allows fine adjustment of the restriction and thus precise control of the piston-rod speed. The setting is secured by a lock nut.



Technical features

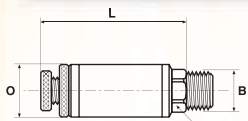
Body material	Sinter material	Needle valve material	Locknut material	Silencer thread		
Aluminium	Bronze	Aluminium	Aluminium	1/8 BSPP 1/4 BSPP 3/8 BSPP 1/2 BSPP	From 0.1 to 10 bar From 0.01 to 1.0 MPa	From -25°C to +100°C

Noise reduction characteristics

At an average working pressure of 5 bar the noise reduction achieved with the appropriate Prestosil model ranges from 22 to 37 dB.

#	Working pressure						
	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar
PRS4-1/8	6	15	20.5	21	22	24	24
PRS4-1/4	11	22	27.0	29	32	32	32
PRS4-3/8	19	27	33.0	35	37	39	40
PRS4-1/2	19	27	33.0	35	37	39	40

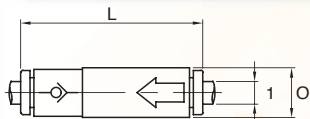
PRS - Silencer and flow control valve



B	#	C	L		O	
			Min.	Max.		
1/8	PRS4-1/8	11	43	48	14	45
1/4	PRS4-1/4	14	60	68	17	55
3/8	PRS4-3/8	19	80	88	26	98
1/2	PRS4-1/2	22	83	91	26	104

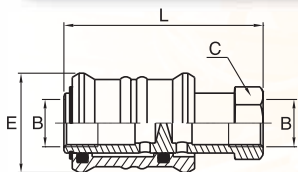
Pneumatic integrated function fittings

PWA-L - Non-return equal union



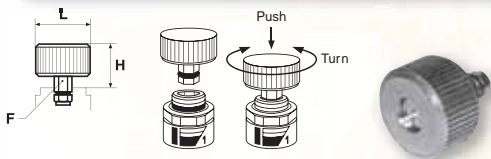
1	#	O	L	Air flow at 6 bar NI/min	Kv	GR
4	PWA-L1444	11.0	43.0	350	0.12	8
6	PWA-L1466	13.0	49.5	670	0.14	13
8	PWA-L1488	15.5	55.0	1080	0.80	18

SVGP-Slide valves



B	#	C	E	L	GR
G 1/8	SVG4-1/8P	14	25	48	50
G 1/4	SVG4-1/4P	17	30	58	81
G 3/8	SVG4-3/8P	22	35	68	152
G 1/2	SVG4-1/2P	27	40	80	220

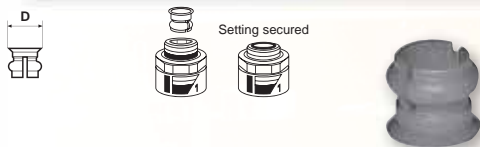
Ratchet 6 - manual ratchet



F	#	L	H	GR
6	RATCHET 6	22	15	39

Suitable for use with pressure reducing fittings - PRB/PRI

Splug - Adjuster plug



D	#	GR
6-16	SPLUG	1

PGAUGE - Plug-in pressure gauge



D	#	G1	G2	GR
6	PGAUGE	11	50	74

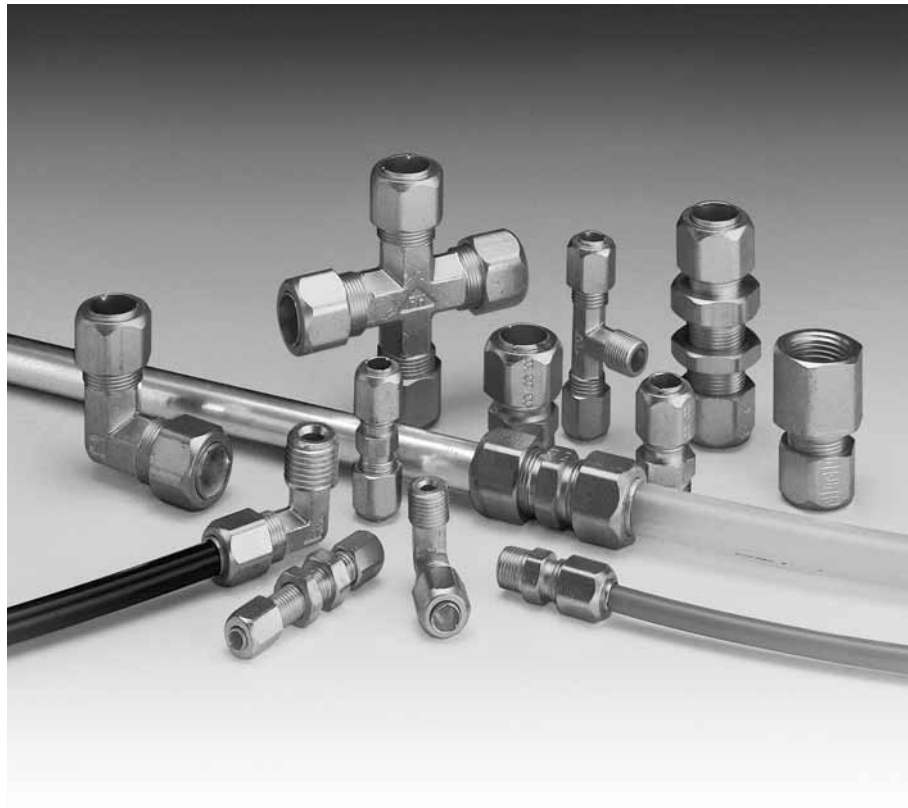
The plug in pressure gauge enables the energy savings made with Prestoreduce fittings to be measured.



Metrulok

*Brass fitting for copper
and plastic tubing*

Catalogue 4324/UK



Metrulok fittings

Straight connectors



Male - NPT
FBM - p. F 6



Male - BSPT
F3BM - p. F 6



Male - BSPP
F4BM - p. F 6



Male - Metric
F8BM - p. F 7



Union
HBM - p. F 7



Female - NPT
GBM - p. F 7



Female - BSPP
G4BM - p. F 8

Bulkhead connectors



Union
WBM - p. F 8



Mixed union
WBMPB - p. F 8

90° elbows



Male - NPT
CBM - p. F 9



Male - BSPT
C3BM - p. F 9

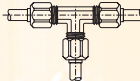


Adjustable male - Metric
C8BM - p. F 9

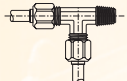


Union
EBM - p. F 10

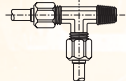
Tees



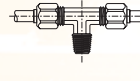
Union
JBM - p. F 10



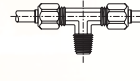
Male run - NPT
RBM - p. F 10



Male run - BSPT
R3BM - p. F 11

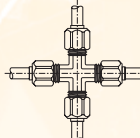


Male branch - NPT
SBM - p. F 11



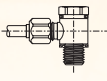
Male branch - BSPT
S3BM - p. F 11

Cross



Union
KBM - p. F 12

Banjo



Single - Assembled
BSPP
COR4BM - p. F 12

Tube end adaptors



Male - NPT
T2HF - p. F 12



Male - BSPT
T23HF - p. F 13



Male - metric
T28HF - p. F 13



Female - NPT
T2HG - p. F 13



Female - BSPP
T24HG - p. F 14

Connector accessories



Nut
BM - p. F 14



Nut + ferrule
BTM - p. F 14



Fitting body cap
FNM - p. F 14



Tube plug
PNM - p. F 15



Ferrule
TM - p. F 15



Tube end reducer
TRBM - p. F 15



Tube insert
T23U - p. F 15

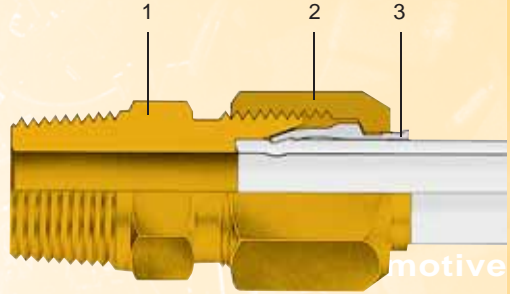
Metrulok fittings

Principle

Metrulok is a one-piece, ready-to-use, bite type fitting with back compression.

The ferrule is held captive in the nut.

The fitting is designed to permit tube entry and fitting make-up without removal of the nut and ferrule, avoiding assembly of the fitting components prior to use.



Technical features

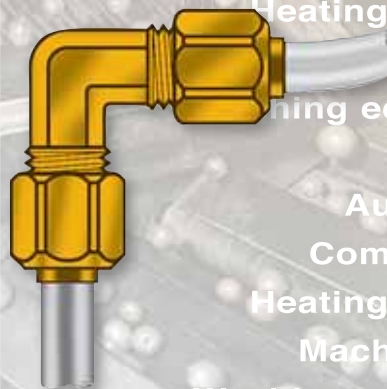
1	2	3	depending on tube O.D. (with 1 mm wall thickness)								
Body	Nut	Ferrule	Tube O.D. mm	4	6	8	10	12	14	16 to 22	From - 60°C
Brass	Brass	Brass	bar	180	180	130	110	90	75	60	to + 190°C
			MPa	18	18	13	11	9	7.5	6.0	

* The pressures given are with copper tubing. For polyamide or polyurethane tubing see Thermoplastic single tubes and Pneumo-Tube bundles section (O).

Applications

With its ability to be used with many types of tubing and its variety of thread forms, Metrulok is suitable for a wide range of fluid applications.

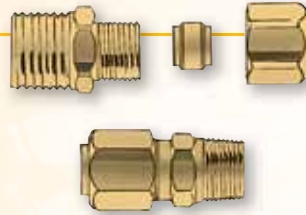
It is particularly suitable for arduous environments, with its wide temperature range and excellent vibration characteristics.



Advantages

Fitting ready to use

- Compact fully assembled fitting, saving time at installation.
- Captive snap-in ferrule.
- Simplified handling and stock control.
- No pre-setting of the ferrule.

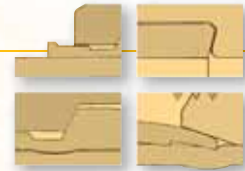


Safety

- Visible ferrule (extending through rear of nut) allows quality control checks for correct assembly.

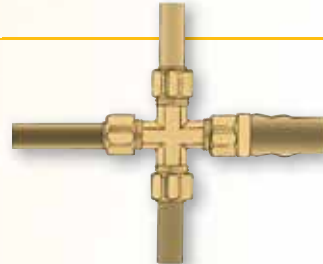
Excellent vibration resistance

- Vibration is contained by the back compression of the ferrule extending outside the nut.
- The tube is held at the bottom of the fitting.
- The tube is thus held between two points so that vibration running along the tube does not affect the sealing and bite area.



Wide variety of tubing

- Metrolok can be used with copper tube conforming to DIN 1786, NF AS1-120, BS 2871 Part 2.
- Metrolok is suitable for use with most types of plastic tubing (polyamide, polyurethane, polyethylene, Pebax, PTFE...).
- Parker Push-Lok hoses can also be connected with Metrolok bodies using the Push-Lok FF series connectors (see Push-Lok Hose and Fittings section).



Forgings

- Metrolok shaped fittings are produced from hot forgings to meet exacting requirements.
- The hot forging process increases the density of the material, refines the grain structure and improves material strength.



Positive sealing and bite

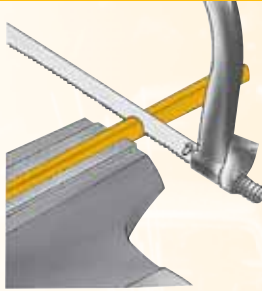
- The wedging action of the nut when tightened causes the ferrule to bite into the outside diameter of the tube wall for a leakproof connection.
- With flexible tubing (polyurethane, PEBA or polyethylene), it is recommended to use a tube insert to ensure positive holding of the tube.



Metrulok fittings

Assembly instructions

Cut the tube square

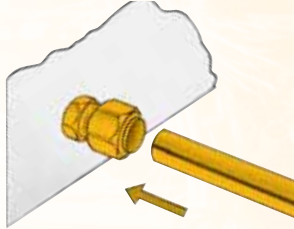


De-burr

(copper tube)



Insert the tube through the nut and ferrule until it bottoms

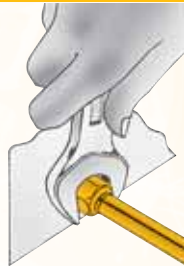


Finger tighten the nut



Spanner tighten the nut

(one turn, or one and half turns according to the size)

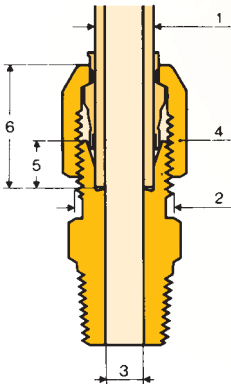


Disassembly - remake

The Metrulok fitting can be assembled and disassembled at least 15 times.

At each remake, hand tighten the nut, then spanner tighten 1/6 of a turn.

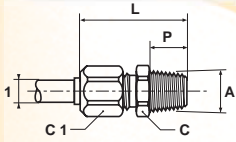
Fitting dimensions



1 Tube O.D. mm	2 Metric straight thread	3 Inside diameter mm	4 Hex of nut mm	5 Tube entry body mm	6 Tube entry compl. fitting mm	Spanner tightening in turns
4	M8x1	2	10	4	12	1.1/2
6	M10x1	4	12	5	13	1.1/2
8	M12x1	6	14	6	14	1.1/2
10	M14x1	8	17	6	14	1.1/2
12	M16x1	10	19	7	15	1.1/2
14	M18x1	12	22	8	16	1.1/2
16	M22x1.5	14	27	8	16	1
18	M24x1.5	16	30	9	21	1
20	M26x1.5	18	32	9	21	1
22	M28x1.5	20	36	10	22	1

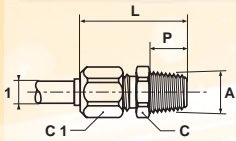
Metrolok fittings

FBM - Male connector - NPT



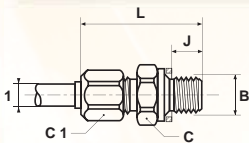
1	A	#	C	C1	L	P	GR
4	1/16	FBMB4-1/16	8	10	26	8	11
4	1/8	FBMB4-1/8	11	10	27	8	15
6	1/8	FBMB6-1/8	11	12	28	8	17
6	1/4	FBMB6-1/4	14	12	32	12	28
8	1/8	FBMB8-1/8	12	14	29	8	21
8	1/4	FBMB8-1/4	14	14	33	12	30
10	1/4	FBMB10-1/4	14	17	33	12	30
10	3/8	FBMB10-3/8	19	17	34	12	45
12	3/8	FBMB12-3/8	19	19	35	12	45
12	1/2	FBMB12-1/2	22	19	40	16	61
14	3/8	FBMB14-3/8	19	22	36	12	53
14	1/2	FBMB14-1/2	22	22	41	16	76
16	1/2	FBMB16-1/2	22	27	40	16	55
18	1/2	FBMB18-1/2	24	30	46	16	135
20	3/4	FBMB20-3/4	27	32	47	18	154
22	3/4	FBMB22-3/4	30	36	49	18	147

F3BM - Male connector - BSPT



1	A	#	C	C1	L	P	GR
4	1/8	F3BMB4-1/8	10	10	24.0	6.5	13
6	1/8	F3BMB6-1/8	11	12	26.0	6.5	17
6	1/4	F3BMB6-1/4	14	12	29.5	10.0	26
8	1/8	F3BMB8-1/8	12	14	27.5	6.5	17
8	1/4	F3BMB8-1/4	14	14	30.5	10.0	29
10	1/4	F3BMB10-1/4	14	17	30.5	10.0	29
10	3/8	F3BMB10-3/8	17	17	31.0	10.0	41
12	3/8	F3BMB12-3/8	17	19	32.4	10.0	41
12	1/2	F3BMB12-1/2	22	19	35.5	12.5	68
14	3/8	F3BMB14-3/8	19	22	33.2	10.0	51
14	1/2	F3BMB14-1/2	22	22	36.2	12.5	73
16	3/8	F3BMB16-3/8	22	27	34.2	10.0	73
16	1/2	F3BMB16-1/2	22	27	36.4	12.5	81
18	1/2	F3BMB18-1/2	24	30	42.3	12.5	132
20	3/4	F3BMB20-3/4	27	32	43.0	14.0	144
22	3/4	F3BMB22-3/4	30	36	45.0	14.0	142

F4BM - Male connector - BSPP



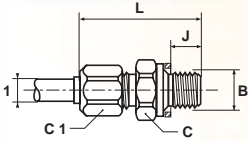
1	B	#	C	C1	J	L	GR
4	1/8	F4BMB4-1/8	14	10	8	29	20
6	1/8	F4BMB6-1/8	14	12	8	30	29
6	1/4	F4BMB6-1/4	19	12	9	32	39
8	1/4	F4BMB8-1/4	19	14	9	33	41
10	1/4	F4BMB10-1/4	19	17	9	33	45

These parts are supplied with a copper seal.

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Metrulok fittings

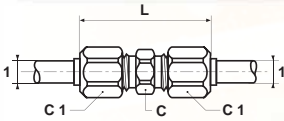
F8BM - Male connector - metric straight thread



1	B	#	C	C1	J	L	Gr
4	M5x0.8	F8BMB4M5	8	10	5	24	10
12	M16x1.5	F8BMB12M16	22	19	11	37	60
12	M22x1.5	F8BMB12M22	27	19	12	40	98
14	M16x1.5	F8BMB14M16	22	22	11	38	68
14	M22x1.5	F8BMB14M22	27	22	12	41	102
16	M16x1.5	F8BMB16M16	22	27	11	37	84
16	M22x1.5	F8BMB16M22	27	27	12	40	112

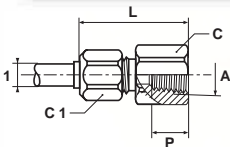
These parts are supplied with a copper seal.

HBM - Equal union



1	#	C	C1	L	Gr
4	HBMB4	8	10	31	15
6	HBMB6	10	12	34	22
8	HBMB8	12	14	37	31
10	HBMB10	14	17	37	40
12	HBMB12	17	19	39	50
14	HBMB14	19	22	41	74
16	HBMB16	22	27	41	109
18	HBMB18	24	30	51	202
20	HBMB20	27	32	51	202
22	HBMB22	30	36	54	182

GBM - Female connector - NPT

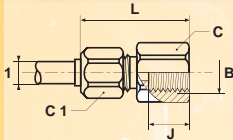


1	A	#	C	C1	L	P	Gr
6	1/8	GBMB6-1/8	14	12	29	10	23
6	1/4	GBMB6-1/4	19	12	32	13	38
8	1/8	GBMB8-1/8	14	14	30	10	27
8	1/4	GBMB8-1/4	19	14	33	13	44
10	1/4	GBMB10-1/4	19	17	33	13	44
10	3/8	GBMB10-3/8	22	17	35	15	58
12	3/8	GBMB12-3/8	22	19	36	15	60
12	1/2	GBMB12-1/2	27	19	38	16	84
14	3/8	GBMB14-3/8	22	22	37	15	71
14	1/2	GBMB14-1/2	27	22	39	16	97
16	1/2	GBMB16-1/2	27	27	39	16	110

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

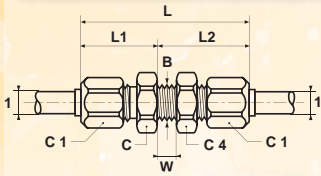
Metrolok fittings

G4BM - Female connector - BSPP



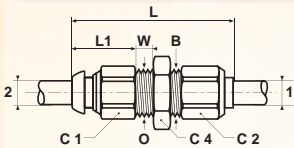
1	B	#	C	C1	J	L	GR
4	1/8	G4BMB4-1/8	14	10	8	26	19
6	1/8	G4BMB6-1/8	14	12	8	27	22
6	1/4	G4BMB6-1/4	19	12	10	29	35
8	1/8	G4BMB8-1/8	14	14	8	28	25
8	1/4	G4BMB8-1/4	19	14	10	30	39
10	1/4	G4BMB10-1/4	19	17	10	30	41
10	3/8	G4BMB10-3/8	22	17	12	32	52
12	3/8	G4BMB12-3/8	22	19	12	33	54
12	1/2	G4BMB12-1/2	27	19	14	36	82
14	3/8	G4BMB14-3/8	22	22	12	34	63
14	1/2	G4BMB14-1/2	27	22	14	37	92
16	1/2	G4BMB16-1/2	27	27	14	37	105
18	1/2	G4BMB18-1/2	27	30	14	41	148

WBM - Bulkhead union



1	#	B	C	C1	C4	L	L1	L2	W Max.	GR
4	WBMB4	M8x1	12	10	10	47	19	28	10	30
6	WBMB6	M10x1	14	12	12	49	20	29	10	36
8	WBMB8	M12x1	16	14	14	52	21	31	10	48
10	WBMB10	M14x1	19	17	17	53	22	31	10	65
12	WBMB12	M16x1	22	19	19	56	24	32	10	85
14	WBMB14	M18x1	24	22	22	60	26	34	10	112
16	WBMB16	M22x1.5	27	27	24	58	25	33	10	225
18	WBMB18	M24x1.5	30	30	27	70	31	39	10	275
20	WBMB20	M26x1.5	32	32	32	70	31	39	10	280
22	WBMB22	M28x1.5	36	36	36	74	33	41	10	262

WBMPB - Mixed bulkhead equal union



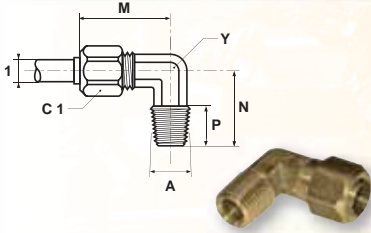
1	2	B	#	C1	C2	C4	L	L1	O	W Max.	GR
4	4	M8x1	WBMPB4	10	10	12	34	15	8.5	5	22
6	6	M10x1	WBMPB6	12	10	12	37	16	10.5	5	22
8	8	M12x1	WBMPB8	14	14	16	39	17	12.5	5	29
10	10	M14x1	WBMPB10	17	17	19	45	20	14.5	5	50
12	12	M16x1	WBMPB12	22	19	22	49	21	16.5	5	85
14	14	M18x1	WBMPB14	24	22	22	52	23	18.5	7	112

This bulkhead fitting combines a Prestolok and Metrolok connection to connect a copper tube with a plastic tube. For this conversion fitting please consult Prestolok section (C), for recommended working pressure and temperature.

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

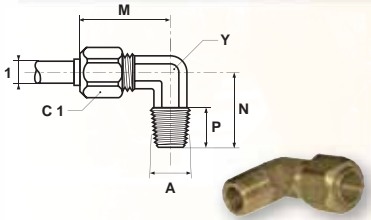
Metrulok fittings

CBM - 90° male elbow - NPT



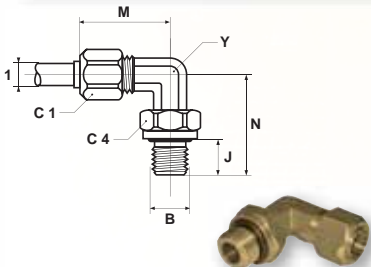
1	A	#	C1	M	N	P	Y	GR
4	1/8	CBMB4-1/8	10	22	17	8	7	17
6	1/8	CBMB6-1/8	12	24	18	8	8	22
6	1/4	CBMB6-1/4	12	24	22	12	8	30
8	1/8	CBMB8-1/8	14	26	19	8	10	28
8	1/4	CBMB8-1/4	14	26	23	12	10	36
10	1/4	CBMB10-1/4	17	27	24	12	12	49
10	3/8	CBMB10-3/8	17	28	25	12	12	55
12	3/8	CBMB12-3/8	19	32	27	12	14	51
12	1/2	CBMB12-1/2	19	32	31	16	14	70
14	3/8	CBMB14-3/8	22	32	26	12	16	87
14	1/2	CBMB14-1/2	22	33	31	16	16	94
16	1/2	CBMB16-1/2	27	35	34	16	16	111
18	1/2	CBMB18-1/2	30	41	35	16	20	163
20	3/4	CBMB20-3/4	32	45	40	18	24	215
22	3/4	CBMB22-3/4	36	46	40	18	24	191

C3BM - 90° male elbow - BSPT



1	A	#	C1	M	N	P	Y	GR
4	1/8	C3BMB4-1/8	10	22	17.0	8.0	7	16
6	1/8	C3BMB6-1/8	12	24	17.0	6.5	8	21
6	1/4	C3BMB6-1/4	12	24	20.5	10.0	8	30
8	1/8	C3BMB8-1/8	14	26	18.0	6.5	10	28
8	1/4	C3BMB8-1/4	14	26	21.5	10.0	10	35
10	1/4	C3BMB10-1/4	17	27	22.5	10.0	12	49
10	3/8	C3BMB10-3/8	17	28	22.1	10.0	12	52
12	3/8	C3BMB12-3/8	19	32	25.1	10.0	14	51
12	1/2	C3BMB12-1/2	19	32	27.8	12.5	14	64
14	3/8	C3BMB14-3/8	22	32	24.1	10.0	16	67
14	1/2	C3BMB14-1/2	22	32	27.3	12.5	16	92
16	1/2	C3BMB16-1/2	27	35	30.8	12.5	18	108
18	1/2	C3BMB18-1/2	30	41	31.8	12.5	20	164
20	3/4	C3BMB20-3/4	32	45	36.5	14.0	24	205
22	3/4	C3BMB22-3/4	36	46	36.5	14.0	24	186

C8BM - 90° adjustable male elbow - metric straight thread



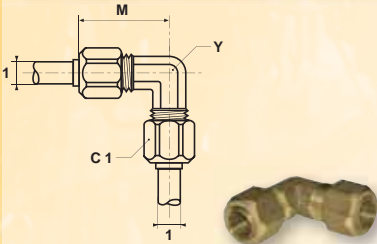
1	B	#	C1	C4	J	M	N	Y	GR
12	M22x1.5	C8BMB12M22	19	30	10	35	39	20	153
14	M16x1.5	C8BMB14M16	22	22	9	32	33	16	103
14	M22x1.5	C8BMB14M22	22	30	10	35	39	20	160
16	M16x1.5	C8BMB16M16	24	22	9	35	36	18	128
16	M22x1.5	C8BMB16M22	27	30	10	36	39	20	169

These fittings are equipped with Nitrile O-Ring. The temperature range for this fitting range is from -25° C to + 100° C.

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

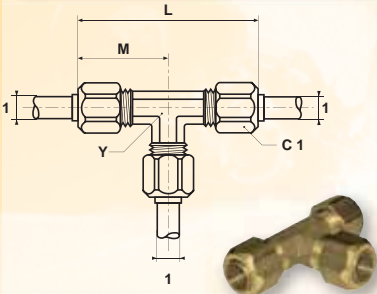
Metrulok fittings

EBM - 90° union elbow



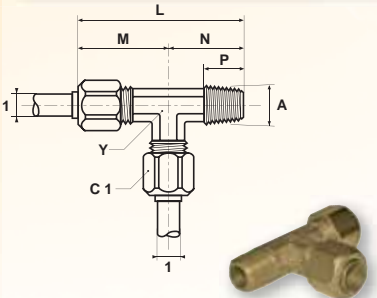
1	#	C1	M	Y	GR
4	EBMB4	10	22	7	20
6	EBMB6	12	24	8	28
8	EBMB8	14	26	10	39
10	EBMB10	17	27	12	60
12	EBMB12	19	32	14	60
14	EBMB14	22	32	16	87
16	EBMB16	27	35	18	195
18	EBMB18	30	41	20	230
20	EBMB20	32	45	24	270
22	EBMB22	36	46	24	222

JBM - Union tee



1	#	C1	L	M	Y	GR
4	JBMB4	10	47	23.5	8	33
6	JBMB6	12	48	24.0	8	40
8	JBMB8	14	52	26.0	10	54
10	JBMB10	17	54	27.0	12	69
12	JBMB12	19	63	31.5	14	93
14	JBMB14	22	63	31.5	16	128
16	JBMB16	27	69	34.5	18	180
18	JBMB18	30	82	41.0	20	336
20	JBMB20	32	89	44.5	24	379
22	JBMB22	36	91	45.5	24	309

RBM - Male run tee - NPT

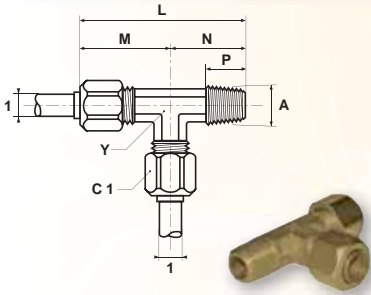


1	A	#	C1	L	M	N	P	Y	GR
6	1/8	RBMB6-1/8	12	42	24	18	8	8	33
6	1/4	RBMB6-1/4	12	48	25	23	12	10	31
8	1/8	RBMB8-1/8	14	45	26	19	8	10	23
8	1/4	RBMB8-1/4	14	49	26	23	12	10	32
10	1/4	RBMB10-1/4	17	51	27	24	12	12	97
10	3/8	RBMB10-3/8	17	52	28	24	12	12	39
12	3/8	RBMB12-3/8	19	59	32	27	12	14	51
12	1/2	RBMB12-1/2	19	63	32	31	16	14	71
14	3/8	RBMB14-3/8	22	60	33	28	12	16	60
14	1/2	RBMB14-1/2	22	64	33	31	16	16	76
16	1/2	RBMB16-1/2	27	69	35	34	16	18	83

For product availability please consult our price list 3893.
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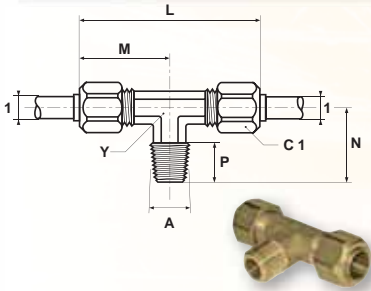
Metrulok fittings

R3BM - Male run tee - BSPT



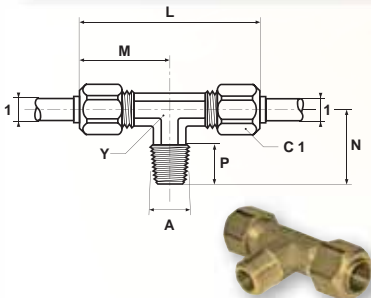
1	A	#	C1	L	M	N	P	Y	Gr
6	1/8	R3BMB6-1/8	12	42	24	17.0	6.5	8	33
6	1/4	R3BMB6-1/4	12	48	25	20.5	10.0	10	45
8	1/8	R3BMB8-1/8	14	45	26	18.0	6.5	10	43
8	1/4	R3BMB8-1/4	14	49	26	21.5	10.0	10	52
10	1/4	R3BMB10-1/4	17	51	27	22.5	10.0	12	60
10	3/8	R3BMB10-3/8	17	52	28	22.1	10.0	12	65
12	3/8	R3BMB12-3/8	19	59	32	25.1	10.0	14	81
12	1/2	R3BMB12-1/2	19	63	32	27.8	12.5	14	101
14	3/8	R3BMB14-3/8	22	59	32	24.1	10.0	16	110
14	1/2	R3BMB14-1/2	22	63	33	27.3	12.5	16	126
16	1/2	R3BMB16-1/2	27	69	35	30.8	12.5	18	151

SBM - Male branch tee - NPT



1	A	#	C1	L	M	N	P	Y	Gr
6	1/8	SBMB6-1/8	12	48	24.0	18	8	8	33
6	1/4	SBMB6-1/4	12	50	25.0	23	12	10	31
8	1/8	SBMB8-1/8	14	52	26.0	19	8	10	23
8	1/4	SBMB8-1/4	14	52	26.0	23	12	10	32
10	1/4	SBMB10-1/4	17	56	28.0	24	12	12	97
10	3/8	SBMB10-3/8	17	56	28.0	24	12	12	39
12	3/8	SBMB12-3/8	19	63	31.5	25	12	14	51
12	1/2	SBMB12-1/2	19	63	31.5	31	16	14	71

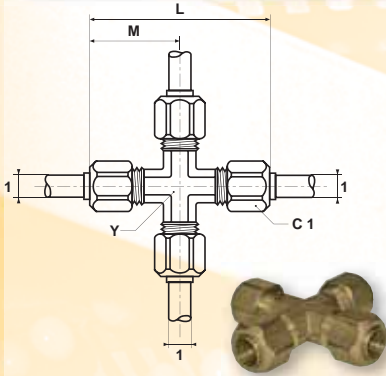
S3BM - Male branch tee - BSPT



1	A	#	C1	L	M	N	P	Y	Gr
6	1/8	S3BMB6-1/8	12	48	24.0	17.0	6.5	8	33
6	1/4	S3BMB6-1/4	12	49	24.5	20.5	10.0	10	44
8	1/8	S3BMB8-1/8	14	52	26.0	18.0	6.5	10	55
8	1/4	S3BMB8-1/4	14	52	26.0	21.5	10.0	10	50
10	1/4	S3BMB10-1/4	17	54	27.0	22.5	10.0	12	59
10	3/8	S3BMB10-3/8	17	56	28.0	22.1	10.0	12	65
12	3/8	S3BMB12-3/8	19	63	31.5	25.1	10.0	14	81
12	1/2	S3BMB12-1/2	19	63	31.5	27.8	12.5	14	91
14	3/8	S3BMB14-3/8	22	63	31.5	24.1	10.0	16	109
14	1/2	S3BMB14-1/2	22	65	32.5	27.3	12.5	16	123
16	1/2	S3BMB16-1/2	27	69	34.5	30.8	12.5	18	155

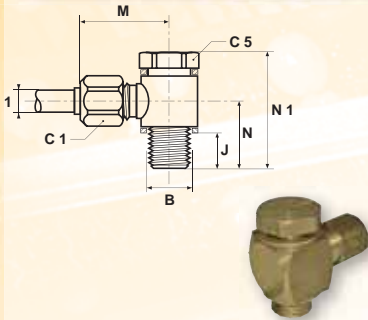
For product availability please consult our price list 3893.
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KBM - Union cross



1	#	C1	L	M	Y	GR
6	KBMB6	12	48	24.0	8	50
8	KBMB8	14	52	26.0	10	69
10	KBMB10	17	54	27.0	12	93
12	KBMB12	19	63	31.5	14	122
14	KBMB14	22	65	32.5	16	184
16	KBMB16	27	69	34.5	18	236

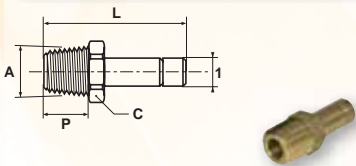
COR4BM - Single banjo BSPP



1	B	#	C1	C5	J	M	N	N1	GR
4	1/8	COR4BMB4-1/8	10	14	6	23	15	27	45
6	1/4	COR4BMB6-1/4	12	19	9	26	18	29	67
8	1/4	COR4BMB8-1/4	14	19	9	27	20	35	83
14	1/2	COR4BMB14-1/2	22	27	12	34	27	48	220
16	1/2	COR4BMB16-1/2	27	27	12	33	27	48	316
18	1/2	COR4BMB18-1/2	30	27	12	38	29	54	303
20	3/4	COR4BMB20-3/4	32	32	14	41	33	60	449
22	3/4	COR4BMB22-3/4	36	32	14	43	38	70	519

These parts are supplied with peripheral seals.

T2HF - Tube end male adaptor - NPT

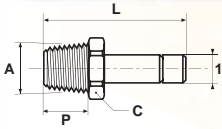


1	A	#	C	L	P	GR
6	1/8	T2HFB6-1/8	11	31	8	10
6	1/4	T2HFB6-1/4	14	36	12	21
8	1/8	T2HFB8-1/8	11	32	8	9
8	1/4	T2HFB8-1/4	14	36	12	19
10	1/4	T2HFB10-1/4	14	37	12	21
10	3/8	T2HFB10-3/8	19	38	12	35
12	3/8	T2HFB12-3/8	19	38	12	29
12	1/2	T2HFB12-1/2	22	43	16	55
14	3/8	T2HFB14-3/8	19	39	12	31
14	1/2	T2HFB14-1/2	22	44	16	50
16	1/2	T2HFB16-1/2	22	46	16	44
18	1/2	T2HFB18-1/2	22	50	16	55
20	3/4	T2HFB20-3/4	27	51	18	80
22	3/4	T2HFB22-3/4	27	54	18	85

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

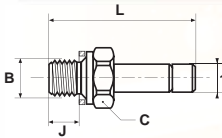
Metrulok fittings

T23HF - Tube end male adaptor - BSPT



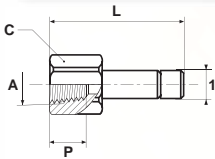
1	A	#	C	L	P	GR
6	1/8	T23HFB6-1/8	10	28.5	6.5	9
6	1/4	T23HFB6-1/4	14	32.5	10.0	20
8	1/8	T23HFB8-1/8	10	29.0	6.5	9
8	1/4	T23HFB8-1/4	14	33.0	10.0	17
10	1/4	T23HFB10-1/4	14	34.0	10.0	20
10	3/8	T23HFB10-3/8	17	34.1	10.0	30
12	3/8	T23HFB12-3/8	17	34.6	10.0	23
12	1/2	T23HFB12-1/2	22	35.1	12.5	49
14	3/8	T23HFB14-3/8	17	35.6	10.0	27
14	1/2	T23HFB14-1/2	22	40.1	12.5	45
16	1/2	T23HFB16-1/2	22	41.6	12.5	39
18	1/2	T23HFB18-1/2	22	45.6	12.5	52
20	3/4	T23HFB20-3/4	27	46.5	14.0	78
22	3/4	T23HFB22-3/4	27	49.0	14.0	83

T28HF - Tube end male adaptor - metric straight thread



1	B	#	C	J	L	GR
12	M14x1.5	T28HFB12M14	19	10	39	31
12	M16x1.5	T28HFB12M16	22	11	40	41
12	M18x1.5	T28HFB12M18	24	11	40	89
12	M22x1.5	T28HFB12M22	27	12	43	113
14	M16x1.5	T28HFB14M16	22	11	41	42
16	M22x1.5	T28HFB16M22	27	12	46	72

T2HG - Tube end female adaptor - NPT

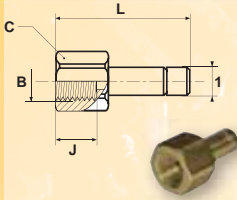


1	A	#	C	L	P	GR
6	1/8	T2HGB6-1/8	14	32	10	16
6	1/4	T2HGB6-1/4	19	35	13	33
8	1/8	T2HGB8-1/8	14	33	10	16
8	1/4	T2HGB8-1/4	19	36	13	34
10	1/4	T2HGB10-1/4	19	37	13	36
10	1/2	T2HGB10-1/2	27	41	16	60
12	3/8	T2HGB12-3/8	22	39	15	45
12	1/2	T2HGB12-1/2	27	41	16	71
14	3/8	T2HGB14-3/8	22	40	15	44
14	1/2	T2HGB14-1/2	27	42	16	71
16	1/2	T2HGB16-1/2	27	44	16	73
18	1/2	T2HGB18-1/2	27	48	16	72
20	3/4	T2HGB20-3/4	32	49	18	107
22	3/4	T2HGB22-3/4	32	51	18	98

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

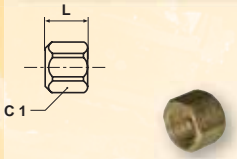
Metrolok fittings

T24HG - Tube end female adaptor - BSPP



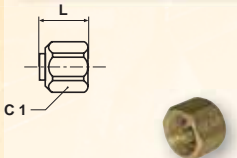
1	B	#	C	J	L	GR
6	1/8	T24HGB6-1/8	14	8	30	16
6	1/4	T24HGB6-1/4	19	10	32	28
8	1/8	T24HGB8-1/8	14	8	31	15
8	1/4	T24HGB8-1/4	19	10	33	28
10	1/4	T24HGB10-1/4	19	10	34	32
10	3/8	T24HGB10-3/8	22	12	36	40
12	3/8	T24HGB12-3/8	22	12	36	38
12	1/2	T24HGB12-1/2	27	14	40	68
14	3/8	T24HGB14-3/8	22	12	37	39
14	1/2	T24HGB14-1/2	27	14	41	80
16	1/2	T24HGB16-1/2	27	14	42	67
18	1/2	T24HGB18-1/2	27	14	46	79
20	3/4	T24HGB20-3/4	32	16	47	95
22	3/4	T24HGB22-3/4	32	16	49	106

BM - Nut



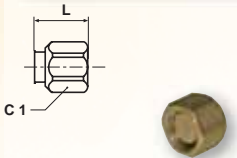
Tube Ø	#	C1	L	GR
4	BMB4	10	11	4
6	BMB6	12	12	6
8	BMB8	14	13	8
10	BMB10	17	13	11
12	BMB12	19	14	13
14	BMB14	22	15	22
16	BMB16	27	15	31
18	BMB18	30	19	70
20	BMB20	32	19	65
22	BMB22	36	20	46

BTM - Nut + ferrule



Tube Ø	#	C1	L	GR
4	BTMB4	10	12	5
6	BTMB6	12	13	7
8	BTMB8	14	14	10
10	BTMB10	17	14	13
12	BTMB12	19	15	15
14	BTMB14	22	16	25
16	BTMB16	27	16	34
18	BTMB18	30	21	77
20	BTMB20	32	21	73
22	BTMB22	36	22	55

FNM - Fitting body cap

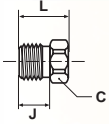


Tube Ø	#	C1	L	GR
4	FNMB4	10	12	6
6	FNMB6	12	13	9
8	FNMB8	14	14	13
10	FNMB10	17	14	17
12	FNMB12	19	15	21
14	FNMB14	22	16	34
16	FNMB16	27	16	82
18	FNMB18	30	21	96
20	FNMB20	32	21	94
22	FNMB22	36	22	85

For product availability please consult our price list 3893.
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Metrulok fittings

PNM - Tube plug



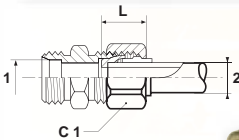
Tube Ø	#	C	J	L	GR
4	PNMB4	8	7	11	4
6	PNMB6	10	8	13	6
8	PNMB8	12	9	15	9
10	PNMB10	14	9	15	11
12	PNMB12	17	10	16	16
14	PNMB14	19	11	17	20
16	PNMB16	22	11	18	32
18	PNMB18	24	12	20	44
20	PNMB20	27	12	20	50
22	PNMB22	30	13	22	69

TM - Ferrule



Tube Ø	#	L	GR
4	TMB4A	10	1
6	TMB6A	10	1
8	TMB8A	10	2
10	TMB10A	10	2
12	TMB12A	10	2
14	TMB14A	10	3
16	TMB16A	10	3
18	TMB18A	14	7
20	TMB20A	14	8
22	TMB22A	14	9

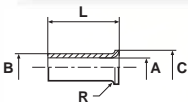
TRBM - Tube end reducer



Composed of : a reduction cone, a special nut and a standard ferrule.

1	2	#	C1	L	GR
6	4	TRBMB6-4	12	14	9
8	4	TRBMB8-4	14	15	13
8	6	TRBMB8-6	14	15	11
10	6	TRBMB10-6	17	16	20
10	8	TRBMB10-8	17	16	19
12	8	TRBMB12-8	19	16	25
12	10	TRBMB12-10	19	16	22
14	10	TRBMB14-10	22	18	35
14	12	TRBMB14-12	22	18	32
16	12	TRBMB16-12	27	19	36
16	14	TRBMB16-14	27	19	33
18	14	TRBMB18-14	30	21	48
20	16	TRBMB20-16	32	21	57
22	18	TRBMB22-18	36	21	84

T23U - Tube insert



Tube Ø	#	A	B	C	L ±0.50	R Maxi	GR
4/6	T23UB4	3.2	4.0	5.0	10	0.6	1
6/8	T23UB6	4.8	6.0	7.9	15	0.6	1
8/10	T23UB8	7.0	8.0	10.0	15	1.0	2
10/12	T23UB10	9.0	10.0	12.0	15	1.0	2
12/14	T23UB12	11.0	12.0	14.8	15	1.0	4

With plastic tubing, except polyamide 11 or 12, we recommend the use of a tube insert for positive holding of the tube. Tube inserts are available for alternative.



PL
Nickel plated brass fitting
for plastic tubing

Catalogue 0017/UK





Straight connectors



Male - NPT
FBPL - p. G 6



Male - BSPT
F3BPL - p. G 6



Male - BSPP
F4BPL - p. G 7



Male - Metric
F8BPL - p. G 7



Union
HBPL - p. G 7

Bulkhead connectors

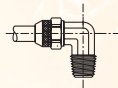


Union
WBPL - p. G 7

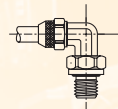
90° elbows



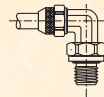
Male - NPT
CBPL - p. G 8



Male - BSPT
C3BPL - p. G 8

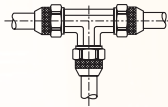


Male - BSPP
C4BPL - p. G 8

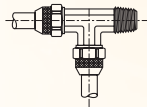


Male - metric
C8BPL - p. G 9

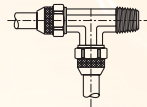
Tees



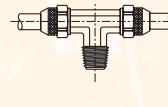
Union
JBPL - p. G 9



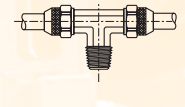
Male run - NPT
RBPL - p. G 9



Male run - BSPT
R3BPL - p. G 9

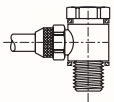


Male branch - NPT
SBPL - p. G 10



Male branch - BSPT
S3BPL - p. G 10

Banjo



Single / assembled
BSPP
COR4BPL - p. G 10

Nut



Nut
BLPM - p. G 10

G

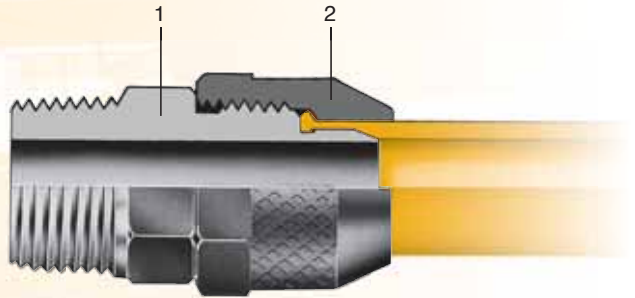
Principle

PL is a two piece nickel plated brass fitting specifically designed for flexible tubing such as polyamide, polyurethane, PEBA, polyethylene, PTFE, PVC, etc.




The seal is obtained by the bead formed at the tube end when the nut is tightened to the fitting body.

The connection is leakproof to the burst pressure of the tube.

PL fittings can be assembled and disassembled repeatedly.



Technical features

1		2	bar  * MPa	
Body		Nut	From 0.01 to 40 bar	From - 40°C to + 100° C
Nickel plated brass		Nickel plated brass	From 0.001 to 4.0 MPa	

* The pressures given are with polyamide tubing. For other tubing please consult us.

Applications

The PL fitting's unique sealing method make it ideally suited for use with a wide variety of media.

It is particularly suitable for use in fluid handling applications where media or temperature considerations limit the method of sealing.

Packaging

Welding

Chemical industry

Food industry

Laboratory equipment

Machine tools

Packaging

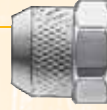
Welding



Advantages

Tube nut design

- Compact for fast and safe assembly
- Knurled nut facilitates finger tightening
- A positive stop prevents over tightening



Rapid assembly

- PL fittings can be assembled finger tight when used with soft tubing e.g. polyurethane, polyethylene, etc.
- This facilitates rapid assembly and disassembly.



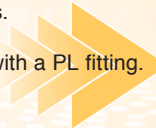
Excellent pull out resistance

- The clamping of the tube between the spigot of the PL fitting body and the tube nut creates an effective seal with a high pull out performance.
- This is particularly useful in severe operating conditions.

Maximum tensile pull out force of polyamide 11 tube from a PL fitting

Tube I.D./O.D. mm	Tensile force daN
2.7/4	11
4/6	41
6/8	52
7.5/10	88
8/10	67
10/12	79
11/14	149

Average pull out values for polyamide tubing when used with a PL fitting.



G

Assembly instructions

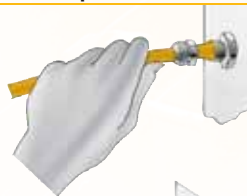
Cut the tube square



Insert the tube through the nut



Push the tube over the spigot of the fitting until it comes into contact with the stop



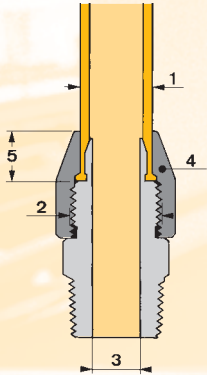
Finger tighten the nut to the end stop when using soft tubing



Tighten the nut with a spanner to the end stop when using semi-rigid tubing.

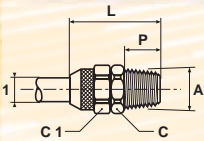


Fitting dimensions



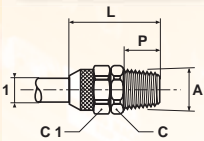
1 Tube I.D./O.D. mm	2 Metric pipe thread	3 Inside diameter mm	4 Hex of nut mm	5 Tube entry mm
2.7/4	M6x0.75	1.5	8	4.5
4/6	M9x0.75	3.0	11	6.5
6/8	M11x0.75	5.0	13	6.5
7.5/10	M13x1	6.5	17	7.0
8/10	M13x1	6.5	17	7.0
10/12	M15x1.25	9.0	17	7.5
11/14	M18x1.50	9.5	22	8.5

FBPL - Male connector - NPT



1	A	#	C	C1	L	P	GR
2.7/4	1/8	FBPL2.7/4-1/8	11	8	22	8	11
4/6	1/8	FBPL4/6-1/8	11	11	25	8	16
4/6	1/4	FBPL4/6-1/4	14	11	29	12	26
6/8	1/8	FBPL6/8-1/8	12	13	25	8	16
6/8	1/4	FBPL6/8-1/4	14	13	29	12	23
8/10	1/4	FBPL8/10-1/4	14	16	30	12	31
8/10	3/8	FBPL8/10-3/8	19	16	31	12	40
10/12	3/8	FBPL10/12-3/8	19	17	33	12	40

F3BPL - Male connector - BSPT

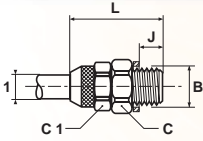


1	A	#	C	C1	L	P	GR
2.7/4	1/8	F3BPL2.7/4-1/8	10	8	20.5	6.5	9
4/6	1/8	F3BPL4/6-1/8	10	11	23.5	6.5	16
4/6	1/4	F3BPL4/6-1/4	14	11	26.5	10.0	25
6/8	1/8	F3BPL6/8-1/8	12	13	23.5	6.5	15
6/8	1/4	F3BPL6/8-1/4	14	13	26.5	10.0	23
6/8	3/8	F3BPL6/8-3/8	17	13	27.6	10.0	26
7.5/10	1/4	F3BPL7.5/10-1/4	14	16	27.5	10.0	31
7.5/10	3/8	F3BPL7.5/10-3/8	17	16	28.6	10.0	37
8/10	1/4	F3BPL8/10-1/4	14	16	27.5	10.0	31
8/10	3/8	F3BPL8/10-3/8	17	16	28.6	10.0	43
10/12	3/8	F3BPL10/12-3/8	17	17	30.1	10.0	36
11/14	3/8	F3BPL11/14-3/8	19	22	32.5	10.0	58

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

PL Fitting

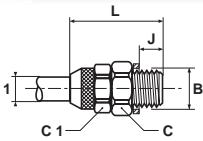
F4BPL - Male connector - BSPP



1	B	#	C	C1	J	L	GR
4/6	1/8	F4BPL4/6-1/8	14	11	8	26	21
6/8	1/4	F4BPL6/8-1/4	17	13	9	28	30

These parts are supplied with a copper seal.

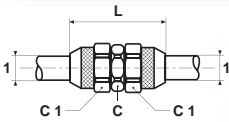
F8BPL - Male connector - Metric straight thread



1	B	#	C	C1	J	L	GR
6/8	M10x1	F8BPL6/8M10	14	13	7	28	21
6/8	M12x1.25	F8BPL6/8M12	17	13	7	28	24

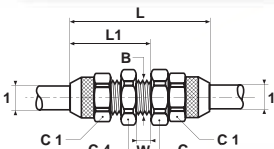
These parts are supplied with a copper seal.

HBPL - Equal union



1	#	C	C1	L	GR
2.7/4	HBPL2.7/4	7	8	24	10
4/6	HBPL4/6	10	11	30	21
6/8	HBPL6/8	12	13	30	22
8/10	HBPL8/10	14	16	32	43
10/12	HBPL10/12	16	17	36	56
11/14	HBPL11/14	19	22	40	87

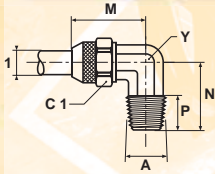
WBPL - Bulkhead union



1	#	B	C	C1	C4	L	L1	W	GR
4/6	WBPL4/6	M9x0.75	13	11	13	39	22	5	30
6/8	WBPL6/8	M11x0.75	14	13	16	39	22	5	32
8/10	WBPL8/10	M13x1	16	16	17	43	24	5	57
10/12	WBPL10/12	M15x1.25	19	17	19	46	26	5	64
11/14	WBPL11/14	M18x1.5	22	22	22	50	28	5	112

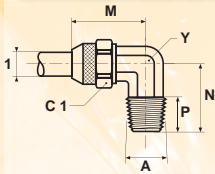
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

CBPL - 90° male elbow - NPT



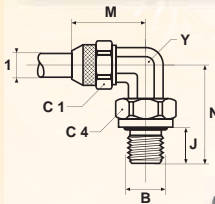
1	A	#	C1	M	N	P	Y	GR
2.7/4	1/8	CBPL2.7/4-1/8	8	22	18	8	8	19
4/6	1/8	CBPL4/6-1/8	11	24	18	8	8	23
4/6	1/4	CBPL4/6-1/4	11	25	23	12	10	36
6/8	1/8	CBPL6/8-1/8	13	25	19	8	10	27
6/8	1/4	CBPL6/8-1/4	13	25	23	12	10	34
8/10	1/4	CBPL8/10-1/4	16	28	24	12	12	58
8/10	3/8	CBPL8/10-3/8	16	28	25	12	12	59
10/12	3/8	CBPL10/12-3/8	17	32	27	12	14	51

C3BPL - 90° male elbow - BSPT



1	A	#	C1	M	N	P	Y	GR
2.7/4	1/8	C3BPL2.7/4-1/8	8	22	17.0	6.5	8	18
4/6	1/8	C3BPL4/6-1/8	11	24	17.0	6.5	8	22
4/6	1/4	C3BPL4/6-1/4	11	25	21.5	10.0	10	31
6/8	1/8	C3BPL6/8-1/8	13	25	18.0	6.5	10	25
6/8	1/4	C3BPL6/8-1/4	13	25	21.5	10.0	10	31
6/8	3/8	C3BPL6/8-3/8	13	27	23.1	10.0	12	50
7.5/10	1/4	C3BPL7.5/10-1/4	16	28	22.5	10.0	12	57
7.5/10	3/8	C3BPL7.5/10-3/8	16	28	23.1	10.0	12	58
8/10	1/4	C3BPL8/10-1/4	16	28	21.5	10.0	12	57
8/10	3/8	C3BPL8/10-3/8	16	28	23.1	10.0	12	58
10/12	3/8	C3BPL10/12-3/8	17	32	25.1	10.0	14	52
11/14	3/8	C3BPL11/14-3/8	22	34	25.1	10.0	16	94

C4BPL - 90° male elbow - BSPP

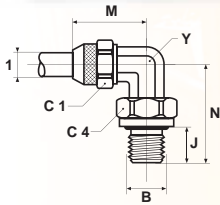


1	B	#	C1	C4	J	M	N	Y	GR
6/8	1/4	C4BPL6/8-1/4	13	13	7	27	27	12	63

These fittings are supplied with nitrile seals.

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

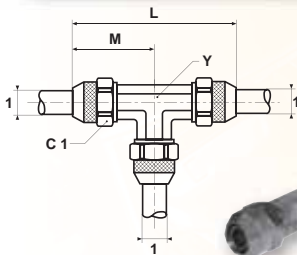
C8BPL - 90° male elbow - metric straight thread



1	B	#	C1	C4	J	M	N	Y	GR
6/8	M10x1	C8BPL6/8M10	13	14	7	21.5	27.25	10	31
6/8	M12x1	C8BPL6/8M12	13	13	7	25.0	26.00	12	59

These fittings are supplied with nitrile seals.

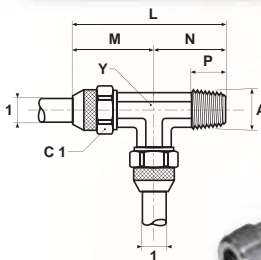
JBPL - Union tee



1	#	C1	L	M	Y	GR
2.7/4	JBPL2.7/4	8	44	22	8	24
4/6	JBPL4/6	11	48	24	8	42
6/8	JBPL6/8	13	50	25	10	45
7.5/10	JBPL7.5/10	16	56	28	12	86
8/10	JBPL8/10	16	56	28	12	85
10/12	JBPL10/12	17	64	32	14	100
11/14	JBPL11/14	22	68	34	16	168

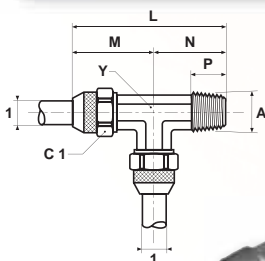
G

RBPL - Male run tee - NPT



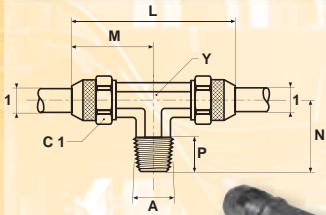
1	A	#	C1	L	M	N	P	Y	GR
4/6	1/8	RBPL4/6-1/8	11	42	24	18	8	8	37
4/6	1/4	RBPL4/6-1/4	11	48	25	23	12	10	50
6/8	1/4	RBLP6/8-1/4	13	48	25	23	12	10	46

R3BPL - Male run tee - BSPT



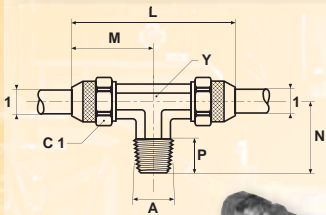
1	A	#	C1	L	M	N	P	Y	GR
4/6	1/8	R3BPL4/6-1/8	11	42	24	17.0	6.5	8	35
4/6	1/4	R3BPL4/6-1/4	11	48	25	21.5	10.0	10	48
6/8	1/8	R3BPL6/8-1/8	13	44	25	18.0	6.5	10	37
6/8	1/4	R3BPL6/8-1/4	13	48	25	21.5	10.0	10	45

SBPL - Male branch tee - NPT



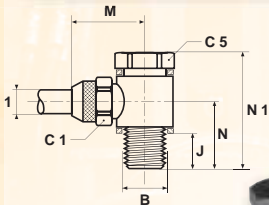
1	A	#	C1	L	M	N	P	Y	GR
4/6	1/8	SBPL4/6-1/8	11	48	24	18	8	8	35
4/6	1/4	SBPL4/6-1/4	11	50	25	23	12	10	50
6/8	1/4	SBPL6/8-1/4	13	50	25	23	12	10	49

S3BPL - Male branch tee - BSPT



1	A	#	C1	L	M	N	P	Y	GR
4/6	1/8	S3BPL4/6-1/8	11	48	24	17.0	6.5	8	35
4/6	1/4	S3BPL4/6-1/4	11	50	25	21.5	10.0	10	47
6/8	1/8	S3BPL6/8-1/8	13	50	25	18.0	6.5	10	38
6/8	1/4	S3BPL6/8-1/4	13	50	25	21.5	10.0	10	45

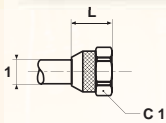
COR4BPL - Single banjo - BSPP



1	B	#	C1	C5	J	M	N	N1	GR
4/6	1/8	COR4BPL4/6-1/8	11	14	7	24	16	27	68
4/6	1/4	COR4BPL4/6-1/4	11	19	8	26	17	29	96
6/8	1/8	COR4BPL6/8-1/8	13	14	7	25	16	27	68
6/8	1/4	COR4BPL6/8-1/4	13	19	8	27	17	30	96

These parts are supplied with peripheral seals.
 The banjo bolt is made of steel.

BPLM - Nut



1	#	C1	L	GR
2.7/4	BPL4M	8	10	3
4/6	BPL6M	11	13	6
6/8	BPL8M	13	13	8
7.5/10	BPL10M	16	14	14
8/10	BPL10M	16	14	14
10/12	BPL12M	17	16	12
11/14	BPL14M	22	18	25

For product availability please consult our price list 3893.
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
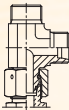


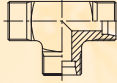







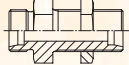

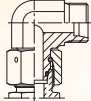

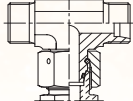


ED *Ermeto Original
Bite Type
Tube Fitting Systems*

Catalogue 4100-1/UK





<p>Union</p>	 <p>G - p. H 5</p>	<p>Swivel Nut Run Tee</p>	 <p>EL - p. H 14</p>
<p>Union Elbow</p>	 <p>W - p. H 6</p>	<p>EO-2 Functional Nut</p>	 <p>FM - p. H 15</p>
<p>Union Tee</p>	 <p>T - p. H 7</p>	<p>Nut</p>	 <p>M - p. H 15</p>
<p>Male Stud Connector BSPP thread</p>	 <p>GE-R-ED - p. H 8</p>	<p>PSR Progressive Stop Ring D Cutting Ring</p>	 <p>PSR - p. H 16</p>
<p>Male Stud Connector Metric thread</p>	 <p>GE-M-ED - p. H 9</p>	<p>Locknut for buck heads</p>	 <p>GM - p. H 16</p>
<p>Male Stud Connector UNF/UN thread</p>	 <p>GE-UNF/UN - p. H 10</p>	<p>Blanking Plug for ports</p>	 <p>VSTI-M/R-ED - p. H 17</p>
<p>Bulkhead Union</p>	 <p>SV - p. H 11</p>	<p>Tube Insert for plastic tubing</p>	 <p>E - p. H 17</p>
<p>Swivel Nut Elbow</p>	 <p>EW - p. H 12</p>	<p>Pressure Controller Service Junior SCP Mini Pressure Senso</p>	 <p>SCPSD - p. H 18 to 25</p>
<p>Swivel Nut Branch Tee</p>	 <p>ET - p. H 13</p>		

Ermeto Original Tube Fittings

EO fittings are designed for metric tube. All threads, hexagons, bores and other dimensions are purely metric. Historically it is based on German national standards DIN 3861, DIN 3859 and DIN 2353, which today are represented in the international standards ISO 8434.

EO fittings are recognized for the high pressure performance from a compact body. EO fittings are available in the three series for low, medium and high pressures (LL, L and S-series). This allows cost savings and -space minimised solutions for each specific application.

New Generation: High performance tube fittings

The new, chromiumVI-free fitting generation from Parker is called EO-Plus for metallic sealed connections, EO2-Plus for Dry Technology systems and EO2-FORM for formed tube soft-sealed systems without cutting rings. The new generation is characterised by maximum safety even under extreme pressures of up to 800 bar nominal pressure.

The new multifunctional PSR cutting ring, the heart of the EO-Plus fitting, ensures a uniquely simple and easy assembly through its multifunctional ring geometry.

The further development of the proven Dry Technology EO-2 concept is designated EO-2 Plus and gives extremely high pressure ratings and greatly reduced tightening torques for the larger fitting sizes.

The New Generation from Parker clearly exceeds the performance requirements of DIN/ISO standards: with its guaranteed 4-fold design factor, the new fitting generation can be used at the following nominal pressures in steel:

- Up to 500 bar in the L series
- Up to 800 bar in the S series
- A unique 420 bar in the 20S-38S sizes!

This extraordinary pressure and assembly performance can only be achieved by the use of even better and more resistant materials in combination with a special coating of individual components.

This greatly extends the application range and the user does not have to sacrifice any advantages. Thanks to the higher pressure levels, less expensive "L" series fittings can now be used instead of the heavier "S" series.

The new high performance forging design with its considerably larger flats size makes assembly even safer and easier.

Through the application of a chromiumVI-free surface treatment, Parker meets future requirements of the automotive industry today, and respects the directive of the European Parliament to eliminate the use of ChromiumVI. The removal of ChromiumVI reflects Parker's ongoing commitment to an environmentally clean and safe production process.

The additional "Plus": the corrosion resistance is increased to more than 500 hrs. to white rust.

Pressure rating

Nominal pressure PN

The Nominal pressure PN is a figure relating to the pressure rating of a fluid component for continuous dynamic applications. It is rounded to correspond to internationally standardised ratings. Logical series of fittings are grouped together, with the nominal pressure of the group being that of the "lowest common denominator" within the group.

Internationally, these nominal pressures are recognised and serve to match common sizes of components together. Parker tube fittings meet or exceed common standardised pressure ratings. To prove the long term dynamic load resistance, components are tested under pressure impulse conditions of PNx1.33, at 1 Hz for 1 million cycles. Static test burst pressures are at least 4 times the PN value. Exception: for ball valves the static burst pressure are at least 1.5 times the PN value according to DIN 3230 T5 and ISO 5108.

Pressure reductions and temperatures

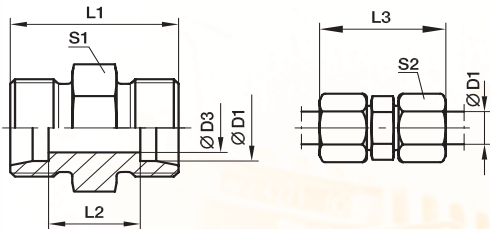
Required pressure reductions (dependant on the material) with reference to the catalogue pressures for higher temperatures. Both metal fitting material and elastomeric sealing compound have to be selected according to the temperature range of the system.

Fittings material	Pressure reduction of permissible operating temperatures TB in °C															
	-60	-50	-40	-35	-25	+20	+50	+100	+120	+150	+175	+200	+250	+300	+400	
Steel, fittings			0%								11%	19%		28%		
Steel, tubes			0%								19%		27%			
Stainless steel, fittings	0%						11%			20%		30%				
Stainless steel, tubes	0%					5.5 %	11.5 %	21.5 %				29%		34%		
Brass, fittings	35%															
Sealing material NBR																
Sealing material FKM																
Sealing material EPDM																

- Permissible operating temperature
- Ambient temperature of hydraulic and pneumatic applications
- Temperature not permissible

G - Union

EO 24° cone end



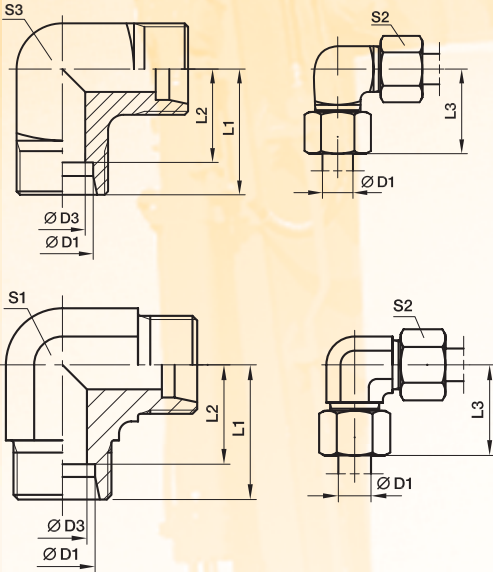
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	S1	S2		Order code without nut and ring
LL	04	100	3.0	20	12	31	9	10	5	G04LLCFX
	06	100	4.5	20	9	32	11	12	7	G06LLCFX
	08	100	6.0	23	12	35	12	14	10	G08LLCFX
	10	100	8.0	23	12	35	14	17	13	G10LLCFX
	12	100	10.0	23	11	35	17	19	16	G12LLCFX
L	06	500	4.0	24	10	39	12	14	12	G06LCFX
	08	500	6.0	25	11	40	14	17	16	G08LCFX
	10	500	8.0	27	13	42	17	19	23	G10LCFX
	12	400	10.0	28	14	43	19	22	28	G12LCFX
	15	400	12.0	30	16	46	24	27	51	G15LCFX
	18	400	15.0	31	16	48	27	32	69	G18LCFX
	22	250	19.0	35	20	52	32	36	90	G22LCFX
	28	250	24.0	36	21	54	41	41	137	G28LCFX
	35	250	30.0	41	20	63	46	50	214	G35LCFX
	42	250	36.0	43	21	66	55	60	296	G42LCFX

Order code with nut and D/PSR ring:
 Example: **G06LCF**

Order code with functional nut EO-2:
 Example: **G06ZLCF**

W - Union Elbow

EO 24° cone end



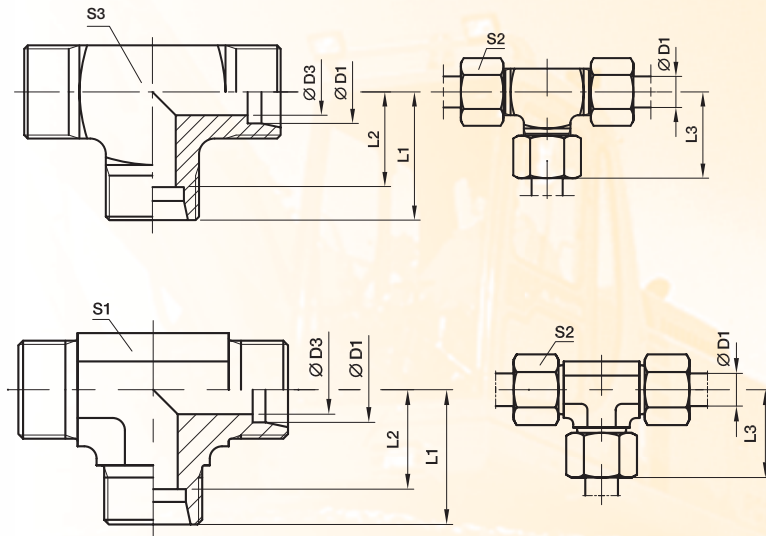
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	S1	S2	S3	Gr	Order code without nut and ring
LL	04	100	3.0	15	11.0	21	9	10	9	13	W04LLCFX
	06	100	4.5	15	9.5	21	9	12	11	15	W06LLCFX
	08	100	6.0	17	11.5	23	12	14	12	23	W08LLCFX
	10	100	8.0	18	12.5	24	12	17	14	32	W10LLCFX
	12	100	10.0	19	13.0	25	14	19	17	41	W12LLCFX
L	06	500	4.0	19	12.0	27	12	14	12	29	W06LCFX
	08	500	6.0	21	14.0	29	12	17	14	43	W08LCFX
	10	500	8.0	22	15.0	30	14	19	17	54	W10LCFX
	12	400	10.0	24	17.0	32	17	22	19	80	W12LCFX
	15	400	12.0	28	21.0	36	19	27	-	81	W15LCFX
	18	400	15.0	31	23.5	40	24	32	-	140	W18LCFX
	22	250	19.0	35	27.5	44	27	36	-	178	W22LCFX
	28	250	24.0	38	30.5	47	36	41	-	340	W28LCFX
	35	250	30.0	45	34.5	56	41	50	-	458	W35LCFX
	42	250	36.0	51	40.0	63	50	60	-	776	W42LCFX

Order code with nut and D/PSR ring:
 Example: **W06LCF**

Order code with functional nut EO-2:
 Example: **W06ZLCF**

T - Union Tee

EO 24° cone end



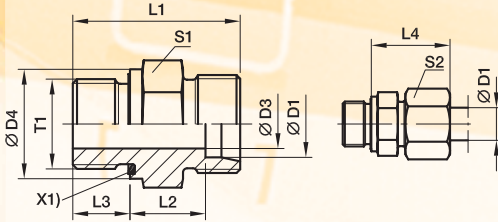
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	S1	S2	S3		Order code without nut and ring
LL	04	100	3.0	15	11.0	21	9	10	9	19	T04LLCFX
	06	100	4.5	15	9.5	21	9	12	11	20	T06LLCFX
	08	100	6.0	17	11.5	23	12	14	12	27	T08LLCFX
	10	100	8.0	18	12.5	24	12	17	14	39	T10LLCFX
	12	100	10.0	21	15.0	27	14	19	-	45	T12LLCFX
L	06	500	4.0	19	12.0	27	12	14	12	37	T06LCFX
	08	500	6.0	21	14.0	29	12	17	14	53	T08LCFX
	10	500	8.0	22	15.0	30	14	19	-	48	T10LCFX
	12	400	10.0	24	17.0	32	17	22	-	65	T12LCFX
	15	400	12.0	28	21.0	36	19	27	-	106	T15LCFX
	18	400	15.0	31	23.5	40	24	32	-	179	T18LCFX
	22	250	19.0	35	27.5	44	27	36	-	225	T22LCFX
	28	250	24.0	38	30.5	47	36	41	-	396	T28LCFX
	35	250	30.0	45	34.5	56	41	50	-	567	T35LCFX
	42	250	36.0	51	40.0	63	50	60	-	905	T42LCFX

Order code with nut and D/PSR ring:
 Example: **T06LCF**

Order code with functional nut EO-2:
 Example: **T06ZLCF**

GE-R-ED Male Stud Connector

Male BSPP thread - ED seal (ISO 1179) / EO 24° cone end



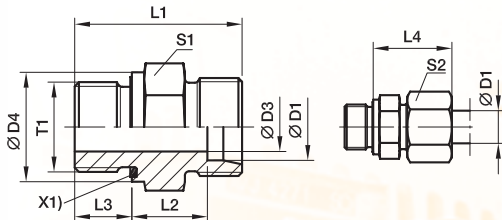
Series	Tube O.D. D1	T1	PN (bar)	D3	D4	L1	L2	L3	L4	S1	S2	GR	Order code without nut and ring
LL	04	G1/8A	100	3	14	20.0	9.5	6.5	19	14	10	10	GE04LLREDOMDCF
	06	G1/8A	100	4	14	20.0	8.0	6.5	20	14	12	11	GE06LLREDOMDCF
L	06	G1/8A	500	4	14	23.5	8.5	8.0	23	14	14	13	GE06LREDOMDCF
	06	G1/4A	500	4	19	29.0	10.0	12.0	25	19	14	28	GE06LR1/4EDOMDCF
	06	G3/8A	400	4	22	30.5	11.5	12.0	26	22	14	44	GE06LR3/8EDOMDCF
	06	G1/2A	400	4	27	33.0	12.0	14.0	27	27	14	61	GE06LR1/2EDOMDCF
	08	G1/4A	500	6	19	29.0	10.0	12.0	25	19	17	27	GE08LREDOMDCF
	08	G1/8A	500	4	14	24.5	9.5	8.0	24	14	17	16	GE08LR1/8EDOMDCF
	08	G3/8A	400	6	22	30.5	11.5	12.0	26	22	17	45	GE08LR3/8EDOMDCF
	08	G1/2A	400	6	27	33.0	12.0	14.0	27	27	17	74	GE08LR1/2EDOMDCF
	10	G1/4A	500	6	19	30.0	11.0	12.0	26	19	19	29	GE10LREDOMDCF
	10	G1/8A	500	4	14	25.5	10.5	8.0	25	17	19	21	GE10LR1/8EDOMDCF
	10	G3/8A	400	8	22	31.5	12.5	12.0	27	22	19	43	GE10LR3/8EDOMDCF
	10	G1/2A	400	8	27	34.0	13.0	14.0	28	27	19	71	GE10LR1/2EDOMDCF
	12	G3/8A	400	9	22	31.5	12.5	12.0	27	22	22	41	GE12LREDOMDCF
	12	G1/8A	315	4	14	26.5	11.5	8.0	26	19	22	26	GE12LR1/8EDOMDCF
	12	G1/4A	400	6	19	31.0	12.0	12.0	27	19	22	31	GE12LR1/4EDOMDCF
	12	G1/2A	400	10	27	34.0	13.0	14.0	28	27	22	67	GE12LR1/2EDOMDCF
	12	G3/4A	250	10	32	37.0	14.0	16.0	29	32	22	118	GE12LR3/4EDOMDCF
	15	G1/2A	400	11	27	35.0	14.0	14.0	29	27	27	72	GE15LREDOMDCF
	15	G3/8A	400	9	22	32.5	13.5	12.0	29	24	27	54	GE15LR3/8EDOMDCF
	15	G3/4A	250	12	32	38.0	15.0	16.0	30	32	27	116	GE15LR3/4EDOMDCF
	18	G1/2A	400	14	27	36.0	14.5	14.0	31	27	32	71	GE18LREDOMDCF
	18	G3/8A	400	9	22	33.5	14.0	12.0	30	27	32	66	GE18LR3/8EDOMDCF
	18	G3/4A	250	15	32	38.0	14.5	16.0	31	32	32	110	GE18LR3/4EDOMDCF
	22	G3/4A	250	18	32	40.0	16.5	16.0	33	32	36	102	GE22LREDOMDCF
22	G1/2A	250	14	27	38.0	16.5	14.0	33	32	36	91	GE22LR1/2EDOMDCF	
22	G1A	250	19	40	43.0	17.5	18.0	34	41	36	189	GE22LR1EDOMDCF	
28	G1A	250	23	40	43.0	17.5	18.0	34	41	41	170	GE28LREDOMDCF	
28	G3/4A	250	18	32	41.0	17.5	16.0	34	41	41	159	GE28LR3/4EDOMDCF	
28	G11/4A	250	24	50	46.0	18.5	20.0	35	50	41	316	GE28LR11/4EDOMDCF	
35	G11/4A	250	30	50	48.0	17.5	20.0	39	50	50	272	GE35LREDOMDCF	
35	G1A	250	23	40	46.0	17.5	18.0	39	46	50	226	GE35LR1EDOMDCF	
35	G11/2A	250	30	55	52.0	19.5	22.0	41	55	50	423	GE35LR11/2EDOMDCF	
42	G11/2A	250	36	55	52.0	19.0	22.0	42	55	60	343	GE42LREDOMDCF	
42	G1A	250	23	40	48.0	19.0	18.0	42	55	60	324	GE42LR1EDOMDCF	
42	G11/4A	250	30	50	50.0	19.0	20.0	42	55	60	348	GE42LR11/4EDOMDCF	

Order code with nut and D/PSR ring: Example: **GE06LREDCF**

Order code with functional nut EO-2: Example: **GE06ZLREDCF**

GE-M-ED Male Stud Connector

Male metric thread ED (ISO9974) / EO 24° cone end



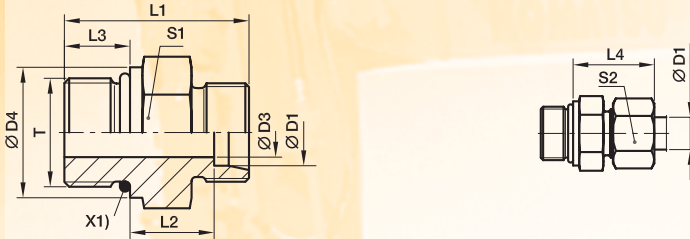
Series	Tube O.D. D1	T1	PN (bar)	D3	D4	L1	L2	L3	L4	S1	S2		Order code without nut and ring
L	06	M10x1	500	4	14	23.5	8.5	8	23	14	14	13	GE06LMEDOMDCF
	08	M12x1.5	500	6	17	29.0	10.0	12	25	17	17	22	GE08LMEDOMDCF
	10	M14x1.5	500	7	19	30.0	11.0	12	26	19	19	29	GE10LMEDOMDCF
	10	M12x1.5	315	6	17	30.0	11.0	12	26	17	19	23	GE10LM12X1.5EDOMDCF
	10	M16x1.5	400	8	22	31.5	12.5	12	24	22	19	40	GE10LM16X1.5EDOMDCF
	10	M18x1.5	400	8	24	31.5	12.5	12	27	24	19	50	GE10LM18X1.5EDOMDCF
	10	M22x1.5	400	8	27	35.0	14.0	14	29	27	19	80	GE10LM22X1.5EDOMDCF
	12	M16x1.5	400	9	22	31.5	12.5	12	27	22	22	40	GE12LMEDOMDCF
	12	M14x1.5	400	7	19	30.0	11.0	12	26	19	22	30	GE12LM14X1.5EDOMDCF
	12	M18x1.5	400	10	24	31.5	12.5	12	27	24	22	47	GE12LM18X1.5EDOMDCF
	12	M22x1.5	400	10	27	35.0	14.0	14	29	27	22	75	GE12LM22X1.5EDOMDCF
	15	M18x1.5	400	11	24	32.5	13.5	12	29	24	27	51	GE15LMEDOMDCF
	15	M16x1.5	400	9	22	32.0	13.0	12	28	24	27	64	GE15LM16X1.5EDOMDCF
	15	M22x1.5	400	12	27	36.0	15.0	14	30	27	27	77	GE15LM22X1.5EDOMDCF
	18	M22x1.5	400	14	27	36.0	14.5	14	31	27	32	74	GE18LMEDOMDCF
	18	M18x1.5	400	11	24	33.5	14.0	12	30	27	32	68	GE18LM18X1.5EDOMDCF
	22	M26x1.5	250	18	32	40.0	16.5	16	33	32	36	103	GE22LMEDOMDCF
	22	M22x1.5	250	14	32	38.0	16.5	14	33	32	36	97	GE22LM22X1.5EDOMDCF
28	M33x2	250	23	40	43.0	17.5	18	34	41	41	168	GE28LMEDOMDCF	
35	M42x2	250	30	50	48.0	17.5	20	39	50	50	281	GE35LMEDOMDCF	
42	M48x2	250	36	55	52.0	19.0	22	42	55	60	356	GE42LMEDOMDCF	

Order code with nut and PSR ring:
 Example: **GE06LMEDCF**

Order code with functional nut EO-2:
 Example: **GE06ZLMEDCF**

GE-UNF/UN - Male Stud Connector

Male UNF/UN thread - O-ring (ISO 11926) / EO 24° cone end



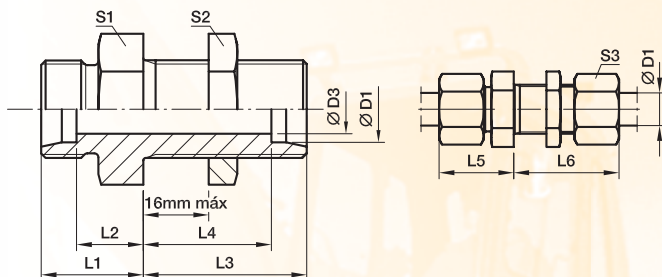
Series	Tube O.D. D1	T	PN (bar)	D3	D4	L1	L2	L3	L4	S1	S2	O-ring Shore-Hardness approx. 90		Order code without nut and ring
L	08	7/16-20UNF-2A	315	5.0	14.4	26	10.0	9.0	25	17	17	OR8.92X1.83X	21	GE08L7/16UNFOMDCF
	10	7/16-20UNF-2A	315	5.0	14.4	27	11.0	10.0	26	17	19	OR8.92X1.83X	23	GE10L7/16UNFOMDCF
	12	9/16-18UNF-2A	315	7.0	17.6	28	11.0	10.0	26	19	22	OR11.9X1.98X	32	GE12L9/16UNFOMDCF
	12	3/4-16UNF-2A	315	10.0	22.3	31	13.0	11.0	28	24	22	OR16.36X2.20X	52	GE12L3/4UNFOMDCF
	12	7/8-14UNF-2A	315	10.0	25.5	34	14.3	12.7	29	27	22	OR19.18X2.46X	77	GE12L7/8UNFOMDCF
	15	3/4-16UNF-2A	315	11.0	22.3	32	14.0	11.0	29	24	27	OR16.36X2.20X	57	GE15L3/4UNFOMDCF
	15	7/8-14UNF-2A	315	12.0	25.5	35	15.3	12.7	30	27	27	OR19.18X2.46X	81	GE15L7/8UNFOMDCF
	18	3/4-16UNF-2A	315	11.0	22.3	33	14.5	11.0	31	27	32	OR16.36X2.20X	68	GE18L3/4UNFOMDCF
	18	7/8-14UNF-2A	315	14.0	25.5	35	14.8	12.7	31	27	32	OR19.18X2.46X	72	GE18L7/8UNFOMDCF
	22	7/8-14UNF-2A	160	14.0	25.5	37	16.8	12.7	33	32	36	OR19.18X2.45X	94	GE22L7/8UNFOMDCF
	22	11/16-12UN-2A	160	18.0	31.9	39	16.5	15.0	33	32	36	OR23.47X2.95X	103	GE22L11/16UNOMDCF
	22	15/16-12UN-2A	160	19.0	38.2	40	17.5	15.0	34	41	36	OR29.74X2.95X	163	GE22L15/16UNOMDCF
28	11/16-12UN-2A	160	18.0	31.9	40	17.5	15.0	34	41	41	OR23.47X2.95X	152	GE28L11/16UNOMDCF	
28	15/16-12UN-2A	160	23.0	38.2	40	17.5	15.0	34	41	41	OR29.74X2.95X	163	GE28L15/16UNOMDCF	
35	15/16-12UN-2A	160	23.0	38.2	43	17.5	15.0	39	46	50	OR37.46X2.95X	222	GE35L15/16UNOMDCF	
35	15/8-12UN-2A	160	29.0	47.7	43	17.5	15.0	39	50	50	OR37.46X3X	257	GE35L15/8UNOMDCF	
42	15/8-12UN-2A	160	29.0	47.7	45	19.0	15.0	42	55	60	OR37.46X3X	339	GE42L15/8UNOMDCF	

Order code with nut and PSR ring:
Example: **GE08L7/16UNFCF**

Order code with functional nut EO-2:
Example: **GE08ZL7/16UNFCF**

SV - Bulkhead Union

EO 24° cone end



Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	L4	L5	L6	S1	S2	S3	PSR	Order code without nut and ring
L	06	500	4	14	7.0	34	27.0	22	42	17	17	14	39	SV06LOMDCF
	08	500	6	15	8.0	34	27.0	23	42	19	19	17	50	SV08LOMDCF
	10	500	8	17	10.0	35	28.0	25	43	22	22	19	67	SV10LOMDCF
	12	400	10	17	10.0	36	29.0	25	44	24	24	22	78	SV12LOMDCF
	15	400	12	19	12.0	38	31.0	27	46	27	30	27	128	SV15LOMDCF
	18	400	15	21	13.5	40	32.5	30	49	32	36	32	198	SV18LOMDCF
	22	250	19	24	16.5	42	34.5	33	51	36	41	36	254	SV22LOMDCF
	28	250	24	26	18.5	43	35.5	35	52	41	46	41	335	SV28LOMDCF
	35	250	30	29	18.5	47	36.5	40	58	50	55	50	546	SV35LOMDCF
	42	250	36	30	19.0	47	36.0	42	59	60	65	60	758	SV42LOMDCF

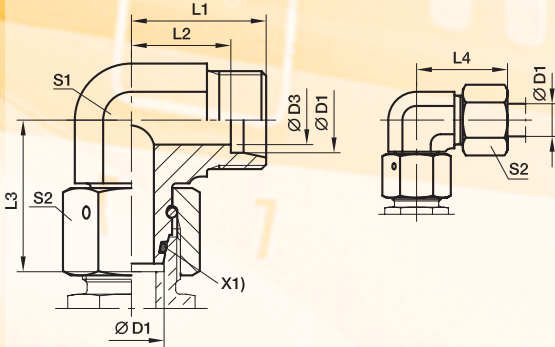
Order code with nut and PSR ring:
 Example: **SV06LCF**

Order code with functional nut EO-2:
 Example: **SV06ZLCF**

H

EW Swivel Nut Elbow

EO 24° cone end / EO 24° DKO swivel



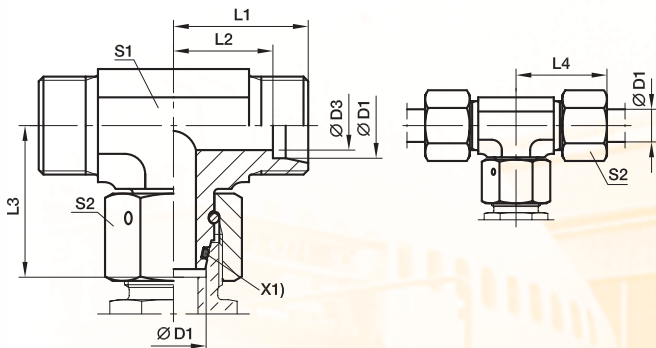
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	L4	S1	S2	O-ring Shore-Hardness A approx. 90	PSR	Order code without nut and ring
L	06	500	4	19	12.0	26.0	27	12	14	OR4.5X1.5X	34	EW06LOMDCF
	08	500	6	21	14.0	27.5	29	12	17	OR6.5X1.5X	43	EW08LOMDCF
	10	500	8	22	15.0	29.0	30	14	19	OR8X1.5X	58	EW10LOMDCF
	12	400	10	24	17.0	29.5	32	17	22	OR10X1.5X	81	EW12LOMDCF
	15	400	12	28	21.0	32.5	36	19	27	OR12X2X	128	EW15LOMDCF
	18	400	15	31	23.5	35.5	40	24	32	OR15X2X	197	EW18LOMDCF
	22	250	19	35	27.5	38.5	44	27	36	OR20X2X	258	EW22LOMDCF
	28	250	24	38	30.5	41.5	47	36	41	OR26X2X	370	EW28LOMDCF
	35	250	30	45	34.5	51.0	56	41	50	OR32X2.5X	593	EW35LOMDCF
	42	250	36	51	40.0	56.0	63	50	60	OR38X2.5X	993	EW42LOMDCF

Order code with nut and PSR ring:
 Example: **EW06LCF**

Order code with functional nut EO-2:
 Example: **EW06ZLCF**

ET - Swivel Nut Branch Tee

EO 24° cone end / EO 24° DKO swivel



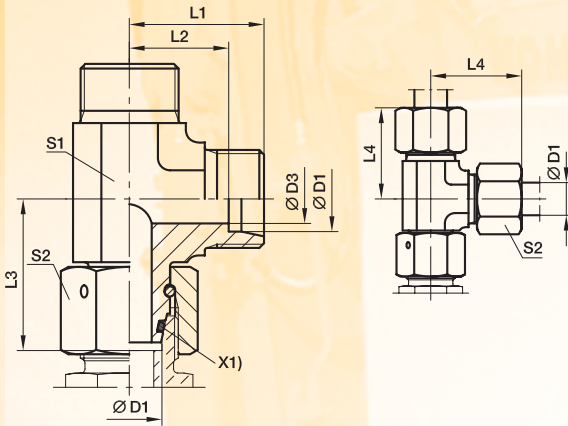
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	L4	S1	S2	O-ring Shore-Hardness approx. 90		Order code without nut and ring
L	06	500	4	19	12.0	26.0	27	12	14	OR4.5X1.5X	42	ET06LOMDCF
	08	500	6	21	14.0	27.5	29	12	17	OR6.5X1.5X	53	ET08LOMDCF
	10	500	8	22	15.0	29.0	30	14	19	OR8X1.5X	71	ET10LOMDCF
	12	400	10	24	17.0	29.5	32	17	22	OR10X1.5X	97	ET12LOMDCF
	15	400	12	28	21.0	32.5	36	19	27	OR12X2X	159	ET15LOMDCF
	18	400	15	31	23.5	35.5	40	24	32	OR15X2X	239	ET18LOMDCF
	22	250	19	35	27.5	38.5	44	27	36	OR20X2X	308	ET22LOMDCF
	28	250	24	38	30.5	41.5	47	36	41	OR26X2X	449	ET28LOMDCF
	35	250	30	45	34.5	51.0	56	41	50	OR32X2.5X	679	ET35LOMDCF
	42	250	36	51	40.0	56.0	63	50	60	OR38X2.5X	1131	ET42LOMDCF

Order code with nut and PSR ring:
 Example: **ET06LCF**

Order code with functional nut EO-2:
 Example: **ET06ZLCF**

EL - Swivel Nut Run Tee

EO 24° cone end / EO 24° DKO Swivel



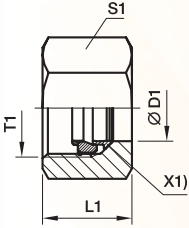
Series	Tube O.D. D1	PN (bar)	D3	L1	L2	L3	L4	S1	S2	O-ring Shore-Hardness approx. 90	CF	Order code without nut and ring
L	06	500	4	19	12.0	26.0	27	12	14	OR4.5X1.5X	44	EL06LOMDCF
	08	500	6	21	14.0	27.5	29	12	17	OR6.5X1.5X	53	EL08LOMDCF
	10	500	8	22	15.0	29.0	30	14	19	OR8X1.5X	68	EL10LOMDCF
	12	400	10	24	17.0	29.5	32	17	22	OR10X1.5X	95	EL12LOMDCF
	15	400	12	28	21.0	32.5	36	19	27	OR12X2X	151	EL15LOMDCF
	18	400	15	31	23.5	35.5	40	24	32	OR15X2X	233	EL18LOMDCF
	22	250	19	35	27.5	38.5	44	27	36	OR20X2X	309	EL22LOMDCF
	28	250	24	38	30.5	41.5	47	36	41	OR26X2X	436	EL28LOMDCF
	35	250	30	45	34.5	51.0	56	41	50	OR32X2.5X	666	EL35LOMDCF
	42	250	36	51	40.0	56.0	63	50	60	OR38X2.5X	1163	EL42LOMDCF

Order code with nut and PSR ring:
 Example: **EL06LCF**

Order code with functional nut EO-2:
 Example: **EL06ZLCF**

FM - EO-2 Functional Nut

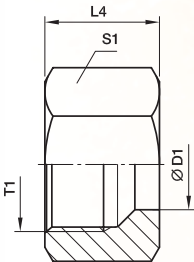
For steel tubes



Series	Tube O.D. D1	T1	L1	S1		Order code
LL	04	M8X1	11.0	10	5	FM04LLCF
	06	M10X1	11.5	12	6	FM06LLCF
L	06	M12X1.5	14.5	14	12	FM06LCF
	08	M14X1.5	14.5	17	17	FM08LCF
	10	M16X1.5	15.5	19	22	FM10LCF
	12	M18X1.5	15.5	22	30	FM12LCF
	15	M22X1.5	17.0	27	48	FM15LCF
	18	M26X1.5	18.0	32	70	FM18LCF
	22	M30X2	20.0	36	94	FM22LCF
	28	M36X2	21.0	41	106	FM28LCF
	35	M45X2	24.0	50	160	FM35LCF
	42	M52X2	24.0	60	244	FM42LCF

M - Nut

EO 24° cone end

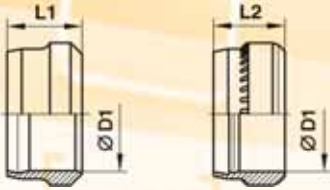


Series	Tube O.D. D1	T1	L4	S1		Order code
LL	04	M8X1	11.0	10	4	M04LLCFX
	06	M10X1	11.5	12	6	M06LLCFX
	08	M12X1	12.0	14	7	M08LLCFX
	10	M14X1	12.5	17	11	M10LLCFX
	12	M16X1	13.0	19	13	M12LLCFX
L	06	M12X1.5	14.5	14	10	M06LCFX
	08	M14X1.5	14.5	17	15	M08LCFX
	10	M16X1.5	15.5	19	18	M10LCFX
	12	M18X1.5	15.5	22	25	M12LCFX
	15	M22X1.5	17.0	27	42	M15LCFX
	18	M26X1.5	18.0	32	62	M18LCFX
	22	M30X2	20.0	36	82	M22LCFX
	28	M36X2	21.0	41	89	M28LCFX
	35	M45X2	24.0	50	137	M35LCFX
	42	M52X2	24.0	60	216	M42LCFX

H

PSR Progressive Stop Ring - D Cutting Ring

For EO 24° cone end



Series	Tube O.D. D1	L1	L2	PN (bar)	GR	Order code
LL	04	6.0	-	100	0.3	D04LLX
	06	7.0	-	100	0.8	D06LLX
	08	7.0	-	100	1.0	D08LLX
	10	7.0	-	100	1.3	D10LLX
	12	7.5	-	100	1.6	D12LLX
L	06	-	9.5	500	1.7	PSR06LX
	08	-	9.5	500	2.2	PSR08LX
	10	-	10.0	500	3.1	PSR10LX
	12	-	10.0	400	3.5	PSR12LX
	15	-	10.0	400	4.5	PSR15LX
	18	-	10.0	400	5.5	PSR18LX
	22	-	10.5	250	7.3	PSR22LX
	28	-	10.5	250	9.4	PSR28LX
	35	-	13.0	250	20.0	PSR35LX
	42	-	13.5	250	23.0	PSR42LX

GM - Locknut for bulkheads

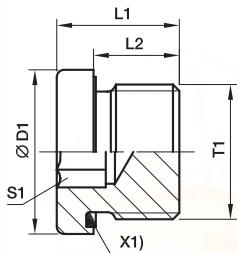
For bulkhead SV and WSV



Series D1	Tube O.D. D1	T1	L1	S1	GR	Order code
L	06	M12x1.5	6	17	7	GM06LCFX
	08	M14x1.5	6	19	8	GM08LCFX
	10	M16x1.5	6	22	11	GM10LCFX
	12	M18x1.5	6	24	12	GM12LCFX
	15	M22x1.5	7	30	23	GM15LCFX
18	M26x1.5	8	36	37	GM18LCFX	
22	M30x2	8	41	46	GM22LCFX	
28	M36x2	9	46	58	GM28LCFX	
35	M45x2	9	55	71	GM35LCFX	
42	M52x2	10	65	123	GM42LCFX	

VSTI M/R-ED Blanking plug for ports

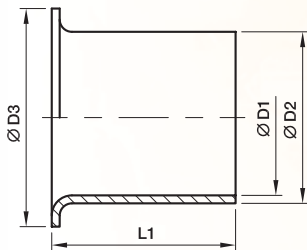
Male Metric thread - ED-seal (ISO 9974)
 Male BSPP thread - ED-seal (ISO 1179)



Male metric parallel thread T1	Male stud BSP thread T1	PN (bar)	D1	L1	L2	S1	GR	Order code Metric parallel	Order code BSPP
M10x1	G1/8A	400	14.0	12.0	8.0	5	8	VSTI10X1EDCF	VSTI1/8EDCF
M12x1.5	-	400	17.0	17.0	12.0	6	14	VSTI12X1.5EDCF	-
M14x1.5	G1/4A	400	19.0	17.0	12.0	6	20	VSTI14X1.5EDCF	VSTI1/4EDCF
M16x1.5	G3/8A	400	22.0	17.0	12.0	8	25	VSTI16X1.5EDCF	VSTI3/8EDCF
M18x1.5	-	400	23.9	17.0	12.0	8	32	VSTI18X1.5EDCF	-
M20x1.5	-	400	25.9	19.0	14.0	10	42	VSTI20X1.5EDCF	-
M22x1.5	G1/2A	400	27.0	19.0	14.0	10	51	VSTI22X1.5EDCF	VSTI1/2EDCF
M26x1.5	-	400	31.9	21.0	16.0	12	78	VSTI26X1.5EDCF	-
M27x2	G3/4A	400	32.0	21.0	16.0	12	79	VSTI27X2EDCF	VSTI3/4EDCF
M33x2	G1A	400	39.9	22.5	16.0	17	130	VSTI33X2EDCF	VSTI1EDCF
M42x2	G11/4A	315	49.9	22.5	16.0	22	198	VSTI42X2EDCF	VSTI11/4EDCF
M48x2	G11/2A	315	55.0	22.5	16.0	24	263	VSTI48X2EDCF	VSTI11/2EDCF

E - Tube Insert

For plastic tubing



Tube O.D.	ID	D1	D2	D3	L1	GR	Order code Brass
04	2.0	1.3	2.0	3.5	8	1	E04/02X
04	2.5	1.7	2.5	4.0	8	1	E04/2.5X
05	3.0	2.2	3.0	5.0	14	1	E0506/03X
06	3.0	2.2	3.0	5.0	14	1	E0506/03X
05	4.0	3.2	4.0	5.0	14	1	E0506/04X
06	4.0	3.2	4.0	5.0	14	1	E0506/04X
08	4.0	3.2	4.0	6.6	14	1	E08/04X
06	5.0	4.0	5.0	6.0	14	1	E06/05X
08	5.0	4.0	5.0	6.0	14	1	E08/05X
10	6.0	5.0	6.0	8.0	15	1	E0810/06X
08	6.0	5.0	6.0	8.0	15	1	E0810/06X
10	8.0	6.7	8.0	10.0	15	1	E10/08X
12	8.0	6.7	8.0	12.0	15	2	E12/08X
12	9.0	7.7	9.0	12.0	15	2	E12/09X
12	10.0	8.7	10.0	12.0	15	2	E1215/10X
15	12.0	10.7	12.0	14.8	15	3	E15/12X
15	12.5	11.2	12.5	14.8	15	3	E1516/12.5X
16	12.5	11.2	12.5	14.8	15	3	E1516/12.5X
18	14.0	12.7	14.0	17.8	15	4	E18/14X
18	16.0	14.7	16.0	17.8	20	4	E1820/16X
20	16.0	14.7	16.0	17.8	20	4	E1820/16X
22	18.0	16.7	18.0	21.8	16	5	E22/18X

PressureController SCPSD

With its compact integration of pressure switch, pressure sensor and display, the PressureController offers a perfect solution for monitoring and control of pressure in hydraulic and pneumatic systems, particularly series production.

Switch condition display

- Optical interface

Everything at a glance

- Angled display
- Large digital display
- PSI / bar / Mpa

Easy to operate

- 3 large keys

Any connection you want

- 2 switch outputs
- Scaleable analogue output
- 0..20 or 4..20 mA
- M 12 plug
- DIN 43650 plug
- DESINA

Robust

- Metallic housing
- Waterproof
- Highly interference resistant
- Vibration proof
- Shockproof

Any installation you want

- Compact
- Female thread
- Male thread
- Directionally adjustable 290°

Reliable

- Stainless steel
- Long term measuring cell stability
- Wide media compatibility



Housing

Material
 Foil material
 Display
 Type of Protection

Directionally settable up to 90°
 Zinc pressure die casting Z410; painted
 Polyester
 4 position, 7 segment; red, figure height 9 mm
 IP67 EN60529 (with DIN43650 plug IP65)

Ambient conditions

Ambient temperature range
 Storage temperature range
 EM tolerance

-20°C to +85°C
 -40°C to +100°C
 Interference emission to EN 50081-1
 Interference resistance to EN 61000-6-2

Vibration resistance
 Shock resistance

20g 10...500Hz IEC60068-2-6 *
 50g 11ms IEC60068-2-29 *

*not valid for DIN43650 version

Outputs

Switch outputs
 Contact functions

2 Mosfet high side switches (PNP)
 Closer/opener, window, hysteresis
 Function freely adjustable

Switch voltage
 Switch current max.
 Short circuit current
 Analogue output

Supply voltage - 1.5VDC
 1A; with two switched outputs 0.5A per switch
 2.4 A per switch
 0/...20mA, programmable, freely scaleable
 $RL \leq (\text{supply voltage} - 8V) / 20mA (\leq 500\Omega)$

*higher switch current available on request

Cable

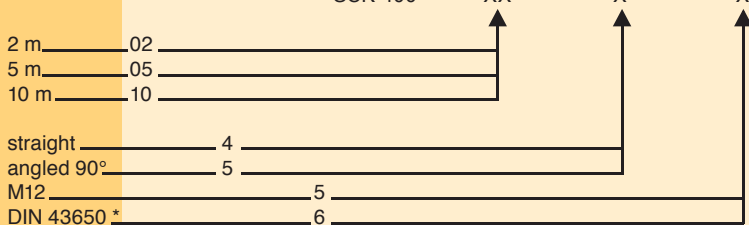
Cable length

2 m _____ 02
 5 m _____ 05
 10 m _____ 10

Plug connect straight

straight _____ 4
 angled 90° _____ 5
 M12 _____ 5
 DIN 43650 * _____ 6

SCK-400 - XX - X X



*only in angled version

Accessories

PC programmer kit
 Fixing clamps

SCSD-PRG-KIT
 SCSD-S27

Technical data

Input dimensions

		Low pressure			High pressure				
Measuring range	bar	-1.4	-1..10	1..16	0..60	0..100	0..250	0..400	0..600
Overload pressure	bar	10	20	40	120	200	500	800	1200
Burst pressure	bar	12	25	50	550	800	1200	1700	2200
Measuring element		ceramic			thin film				
Switching cycles		≥ 100 Mio.							
Connecting thread		G1/4 (BSPP); ED-soft seal NBR* (DIN 3852 T2, Form X); ED (DIN3852 T11, Form E)							
Tightening torque		35Nm							
Media-contacting parts		Low pressure: stainless steel 1.4404; ceramic AL ₂ O ₃ ; NBR High pressure: stainless steel 1.4404; 1.4542							
Medium temperature Range		-20°C to +85°C							
Weight		Approx. 300g							

* other seal materials (FKM, EPDM etc...) on request

Output dimensions

Accuracy	± 0,5 % FS typ. ± 1 % FS max.
Temperature drift	± 0,02 % FS/°K typ. (at -20...85°C) ± 0,03 % FS/°K max.
Long-term stability	± 0,2 % FS/a
Repeatability	± 0,25 % FS
Switching point accuracy	± 0,5 % FS typ. ± 1 % FS max.
Display accuracy	± 0,5 % FS typ. ± 1 Digit ± 1 % FS max. ± 1 Digit

Response speed

Switch output	≤ 10 ms
Analogue output	≤ 10 ms

Ordering codes

Pressure range

004 010 016 060 100 250 400 600

1 switch output, without analogue output
 DIN 43650 connector plug

2 switch outputs, without analogue output
 M12 connector plug 4pin

1 switch output, with analogue output
 M12 connector plug 4pin

2 switch output, with analogue output
 M12 connector plug 5pin

SCPSD-	XXX	-04-	X	6
SCPSD-	XXX	-04-	X	7
SCPSD-	XXX	-14-	X	7
SCPSD-	XXX	-14-	X	5

Types

- 1 = G1/4 BSPP external thread
- 2 = G1/4 BSPP internal thread

H

ServiceJunior

ServiceJunior:

- Digital pressure measurement and display
- Accuracy $\pm 0,5\%$ FS (Full Scale Range)
- Display with bar graph (trailing indicator) with peak hold function
- Pressure peaks captured - 10 msec scanning rate
- Easy operation
- Long-term stability
- Back-lit measured value display
- Pressure ports stainless steel 1/4 BSPP



The ServiceJunior makes possible the measurement and display of pressures with one instrument.

Measured values are shown with high precision on a 4-digit display. Pressure peaks are securely captured at a scanning rate of 10 m sec.

The ServiceJunior is distinctive through its very simple operation.

With its convincing price to power ratio, the instrument offers all the advantages of digital pressure measurement.

Technical Data ServiceJunior

Range PN (bar)	-1...16	0...100	0...400	0...600	0...1.000
Overload pressure P_{max} (bar)	40	200	800	1.200	1.500
Burst Pressure PB (bar)	50	800	1.700	2.200	2.500
Housing	Ø = 80 mm; T = 33 mm Zinc die casting with rubber TPE protection cover				
Weight (g)	540				
Port	Stainless Steel 1.4404 1/4" BSPP (ISO 228-1)				
Input	Sensor element ceramics Strain gauge pressure measurement cell 10 msec. Scanning rate Accuracy $\pm 0,5\%$ FS (typ.) A/D converter 12 bit 4096 steps resolution				
Display	LC-Text-Display 4 1/2 digits 50x34 mm Digit size 15 mm Units: mbar/bar/PSI/Mpa/kPa Back lit illumination Bar graph (trailing indicator) with peak & hold function				
Sealing	NBR				

Technical Data ServiceJunior

Functions	Units: mbar/bar/PSI/Mpa/kPa MIN/MAX - FullScale Battery Level Display Auto Power Off/On Zero (zero point equalization) Reset (Delete MIN/MAX)
PC-Function*	PC Software "Junior Win" Read out data from memory to PC via radio interface (2,4 Ghz) Operation range 50 mtr. Setup of recording parameters
Memory Function*	5.000 Readings (MAX pressure peaks) Setup of storage interval REC TIME (Time based recording) REC AUTO (Pressure spike monitoring)
Power-supply	2 x 1,5 V alkaline batteries Battery life typ. 1.500 h
Ambient Temperature (°C)	-10...+50
Storage Temperature (°C)	-20...+60
T_{max} Fluid (°C)	+80
Rel. Humidity	< 85%
Protection	EN 60529 (IP65)
Vibration	IEC 60068-2-6/10...500Hz; 20g
Shock Load	IEC 600068-2-29/50g; 11 msec.
Reliability Cycles (10⁶)	100

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ServiceJunior Digital Pressure Gauge

ServiceJunior

Range:
 -1...016 bar (relativ)
 0...100/ 400/ 600/1.000 bar (absolut)

SCJN-xxx-01

Standard ServiceJunior delivery includes:

1 ServiceJunior (acc. To pressure range)
 2 batteries 1,5 VDC alkaline
 1 Adaptor SCA-1/4-EMA-3

ServiceJunior-Kit

SCJN-KIT-xxx

1 Equipment Case
 1 ServiceJunior
 with adaptors:
 1 1/4 BSPP female - M 16x2 female
 1 M16x2 male - M 16x2 male
 1 Test Hose 1.500 mm (M16x2)

SCC-120
 SCJN-xxx-01
 SCA-1/4-EMA-3
 SCA-EMA-3/3
 SMA3-1.500

SCP-Mini Pressure Sensor

The SCP-Mini pressure transmitters contain only a small number of active components, such as the sensor element, a signal processing ASIC and a U/I converter circuit. Calibration takes place electronically, so that the pressure transmitters display a comparably small total error and are stable in a long term.

The hermetically welded thin film measuring cell ensures a high degree of long term resistance to leakage and stability. The ASIC is a programmable precision CMOS ASIC with EPROM data storage and analogue signal path, which is suitable for an extended operating temperature range.

The special steel membrane is completely vacuum-tight, burst-proof and can be used with all standard media in hydraulics, pneumatics, environmental technology, process technology, semi-conductor technology and automotive engineering, as far as they are compatible with special steel. This thereby covers use in standard applications in mobile hydraulics and in other areas of application. The great exactness and the robust, compact structure guarantee a broad range of possible uses in industry. On the basis of the combinability of different mechanical and electronic connections, a variety of different pressure transmitters is offered.



Pressure port

Digital pressure measurement and display
 Connection to measuring media Threaded stud G1/4A
 DIN 3852 T11, Form E
 Drilling 0,6 mm
 Seal Seal DIN 3869-14-FKM
 Materials: Viton, Stainless Steel
 1.4301, 1.4542, 1.4548, 17-4PH

Electrical Connection

Short-circuit protection ¹
 Polarity-reversal protection
 Protectionclass 3

Plug connector

4-pin, M12x1, IP 67 ²
 4-pin, DIN EN 175301-803 Form A, IP65 ²

Accuracy

Characteristic curve deviation Max. $\leq \pm 0,5$ %FS
 Total error³ at -20...85°C Typ. $\leq \pm 0,7$ %FS,
 max. $\leq \pm 1$ %FS

Thermal coefficient

Zero point Max. $\leq \pm 0,3$ %/FS/10 K
 Sensitivity Max. $\leq \pm 0,3$ %/FS/10 K

Environmental conditions

Working temperature range -40 to +85°C
 Fluid temperature range -40 to +125°C
 Compensated range -20 to +85°C
 Storage temperature

General

Response time typ 0,5 ms; max 1 ms
 Long-term stability <0,1%/FS/a
 Load alternating cycles >20 Mio.
 Weight ca. 80 g
 Vibration resistance IEC 60068-2-6:
 ± 5 mm / 10 Hz...32 Hz
 200 m/s² / 32 Hz...2 kHz
 Shock resistance IEC 60068-2-29: 500 m/s² 11 ms
 IEC 60068-2-32:
 1 m (free-fall onto steel plate) ⁴
 EM-according ⁵ DIN EN 61000-6-3
 (Interference emission)
 DIN EN 61000-6-2
 (Interference resistance)

¹1 with outputsignal 0...10V short circuit protection short-time
²2 in connected situation
³3 including non-linearity, hysteresis, repeatability, Calibration, temperature influence
⁴4 not for electrical Connector (plug)
⁵5 Details see declaration-sheet

SCP	004	006	010	016	025	040	060	100	160	250	400	600
Pressure range (bar) 0...	4	6	10	16	25	40	60	100	160	250	400	600
	relative pressure						absolute pressure					
Overload pressure max. (bar)							2-times					
Burst-pressure min. (bar)							3-times					
							2.5-times					

Pressure range

004; 006; 010; 016; 025;
040; 060; 100; 160; 250;
400; 600 bar

DIN EN 175301-803 Form A, G1/4 (BSPP), class 0,5%

0...20 mA
4...20 mA, 3-Leiter
4...20 mA, 2-Leiter
0...10 V

SCP-XXX-14-06
SCP-XXX-24-06
SCP-XXX-34-06
SCP-XXX-44-06

M12 Socket connector, G1/4 (BSPP), class 0,5%

0...20 mA
4...20 mA, 3-Leiter
4...20 mA, 2-Leiter
0...10 V

SCP-XXX-14-07
SCP-XXX-24-07
SCP-XXX-34-07
SCP-XXX-44-07

Connection cable % Connector

Connection cable, screened
(one side with blank wires)

SCK-400-XX-XX

Cable length in m
02 = 2 m; **05** = 5m; **10** = 10 m

Socket connection
45 M12 Connector, straight
55 M12 Connector, 90° elbow
56 DIN EN 175301-803 Form A Plug

Separate Connector
M12 Connector, straight
M12 Connector, 90° elbow
DIN EN 175301-803 Form A Plug

SCK-145
SCK-155
SCK-006
































Brass adaptors

Brass adaptors for heavy duty applications

Catalogue 4360/UK

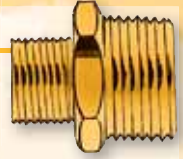


<p>Pipe nipples</p>	 Equal BSPT FF33 - p. 14	 Equal NPTF FF - p. 14	 Equal NPTF 216P - p. 14	 Unequal BSPT FF33 - p. 14	 Equal BSPP FF44 - p. 14	
<p>Reducers</p>	 Reducing connector female-male BSPP-BSPT FG43 - p. 15	 Reducing connector female-male NPTF FG - p. 15	 Reducing connector female-male NPTF 222P - p. 15	 Pipe thread reducer male-female BSPT-BSPP PTR34 - p. 15	 Pipe thread reducer male-female NPTF PTR - p. 16	
<p>Pipe connectors</p>	 Equal BSPP GG44 - p. 17	 Equal NPTF GG - p. 17	 Equal NPTF 207P - p. 17	 Unequal BSPP GG44 - p. 17		
<p>Bulkhead unions</p>	 Female BSPP WGG44 - p. 18	 Female NPTF 207ACBH - p. 18				
<p>90° elbows</p>	 Male-female BSPT-BSPP CD43 - p. 18	 Equal female BSPP DD44 - p. 18				
<p>Tees</p>	 Equal female BSPP MMO444 - p. 19	 Male branch tee BSPP-BSPP-BSPT MMS443 - p. 19	 Male run tee BSPP-BSPT-BSPP MRO434 - p. 19			
<p>Cross</p>	 Equal female BSPP KMMO04 - p. 19					
<p>Plugs</p>	 Hex head BSPT HP3 - p. 110	 Hex head NPTF HP - p. 110	 Hex head NPTF 218P - p. 110	 Hollow hex BSPT HHP3 - p. 110	 Hollow hex NPTF HHP - p. 111	 Hollow hex NPTF 219P - p. 111
<p>Conversion adaptors</p>	 Male NPT - female BSPP FHG4 - p. 111					




Principle

To simplify the installation of pneumatic systems, Parker supplies a comprehensive range of adaptors for BSPP, BSPT and NPT pipe threads.

The range includes pipe nipples, pipe connectors, reducers, bulkhead female unions, elbows, tees, crosses and hex head plugs.



Technical features

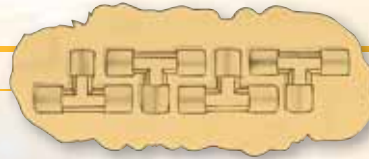
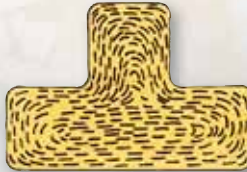
		
Brass	60 bar except where indicated	From - 60°C to + 190°C
	6.0 MPa except where indicated	

Advantages

Brass forgings

Parker brass adaptors are produced from hot forgings to meet exacting tolerances.

The hot forging process increases the density of the material, refines the grain structure and improves material strength.

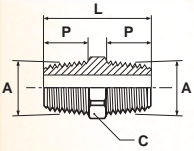


Applications

- Packaging
- Climate Control
- Automotive
- Compressors
- Heating System
- Machine Tools
- Welding
- Packaging
- Climate Control

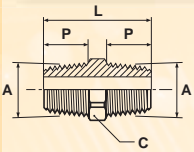


FF33 - Pipe nipple - BSPT



A	#	C	L	P	GR
1/8	1/8FF33B	10	19	8	7
1/4	1/4FF33B	14	27	11	16
3/8	3/8FF33B	17	28	12	25
1/2	1/2FF33B	22	36	15	50
3/4	3/4FF33B	27	40	16	90
1	1FF33B	36	46	19	151

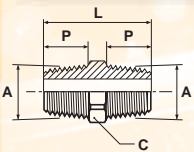
FF - Pipe nipple - NPTF - Heavy series



A	#	C*		L	P	GR	**
		in	mm				
1/8	1/8 FF-B	7/16	11.2	27	10	10	260
1/4	1/4 FF-B	5/8	15.9	37	14	31	260
3/8	3/8 FF-B	3/4	19.5	37	14	38	260
1/2	1/2 FF-B	7/8	22.3	48	19	70	260

* Inch dimensions - ** bar

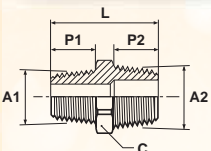
216P - Pipe nipple - NPTF



A	#	C*		L	P	GR
		in	mm			
1/8	216P-2	7/16	11.2	25	10	8
1/4	216P-4	9/16	14.3	35	14	25
3/8	216P-6	11/16	17.5	36	14	29
1/2	216P-8	7/8	22.3	46	19	64

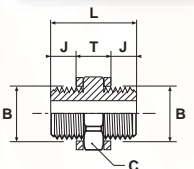
* Inch dimensions

FF33 - Unequal pipe nipple - BSPT



A1	A2	#	C	L	P1	P2	GR
1/8	1/4	1/8x1/4FF33B	14	23	8	11	16
1/8	3/8	1/8x3/8FF33B	17	24	8	12	24
1/8	1/2	1/8x1/2FF33B	22	28	8	15	40
1/4	3/8	1/4x3/8FF33B	17	28	11	12	28
1/4	1/2	1/4x1/2FF33B	22	31	11	15	41
3/8	1/2	3/8x1/2FF33B	22	32	12	15	56
3/8	3/4	3/8x3/4FF33B	27	35	12	16	92
1/2	3/4	1/2x3/4FF33B	27	38	15	16	36
3/4	1	3/4x1FF33B	36	43	16	19	205

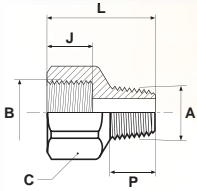
FF44 - Pipe nipple - BSPP



B	#	C	J	L	T	GR
1/8	1/8FF44B	14	6	19	8	18
1/4	1/4FF44B	17	7	22	9	22
3/8	3/8FF44B	22	8	24	9	40
1/2	1/2FF44B	27	10	31	11	77

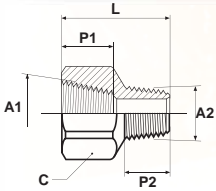
These parts are supplied with two copper seals.

FG43 - Reducing connector female-male - BSPP-BSPT



A	B	#	C	J	L	P	GR
1/8	1/4	1/4x1/8FG43B	17	11	21.5	6.5	20
1/8	3/8	3/8x1/8FG43B	22	12	25.0	7.5	35
1/4	3/8	3/8x1/4FG43B	22	12	28.0	11.0	40
1/8	1/2	1/2x1/8FG43B	27	15	28.0	6.5	63
1/4	1/2	1/2x1/4FG43B	27	15	30.0	10.0	71
3/8	1/2	1/2x3/8FG43B	27	15	28.6	10.0	66
1/2	3/4	3/4x1/2FG43B	32	16	39.0	15.0	112
3/4	1	1x3/4FG43B	41	18	38.0	16.0	166

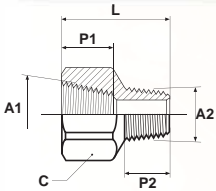
FG - Reducing connector female-male - NPTF - Heavy series



A1	A2	#	C*	L	P1	P2	GR	**
			in mm					
1/4	1/8	1/4 x 1/8 FG-B	3/4 19.5	31	14	10	32	260
3/8	1/4	3/8 x 1/4 FG-B	7/8 22.3	37	15	14	52	260
1/2	3/8	1/2 x 3/8 FG-B	1.1/8 28.6	43	19	14	94	220

* Inch dimensions - ** bar

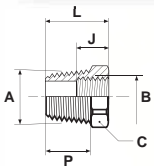
222P - Reducing connector female-male - NPTF



A1	A2	#	C*	L	P1	P2	GR
			in mm				
1/4	1/8	222P-4-2	3/4 19.5	27	14	10	32
3/8	1/4	222P-6-4	7/8 22.3	32	15	14	46
1/2	3/8	222P-8-6	1.1/16 27.0	37	19	14	83

* Inch dimensions

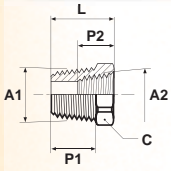
PTR34 - Pipe thread reducer male-female - BSPT-BSPP



A	B	#	C	J	L	P	GR
1/4	1/8	1/4x1/8PTR34B	14	8	16.0	11.0	10
3/8	1/8	3/8x1/8PTR34B	17	8	16.5	11.5	21
3/8	1/4	3/8x1/4PTR34B	17	11	14.6	10.0	14
1/2	1/8	1/2x1/8PTR34B	22	8	21.5	15.0	37
1/2	1/4	1/2x1/4PTR34B	22	11	18.3	12.5	42
1/2	3/8	1/2x3/8PTR34B	22	12	21.5	15.0	28
3/4	3/8	3/4x3/8PTR34B	27	12	23.0	16.0	68
3/4	1/2	3/4x1/2PTR34B	27	15	19.5	14.0	48
1	1/2	1x1/2PTR34B	36	15	23.6	17.0	136
1	3/4	1x3/4PTR34B	36	16	27.0	19.0	90

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

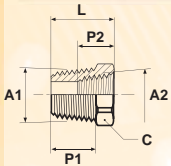
PTR - Pipe thread reducer male-female - NPTF - Heavy series



A1	A2	#	C*	L	P1	P2			**
			in mm						
1/4	1/8	1/4 x 1/8 PTR-B	5/8	15.9	22	11	8	21	260
3/8	1/8	3/8 x 1/8 PTR-B	3/4	19.5	22	11	8	32	260
3/8	1/4	3/8 x 1/4 PTR-B	3/4	19.5	22	12	8	28	260
1/2	1/4	1/2 x 1/4 PTR-B	7/8	22.3	28	16	13	54	220
1/2	3/8	1/2 x 3/8 PTR-B	7/8	22.3	28	15	13	43	220
3/4	3/8	3/4 x 3/8 PTR-B	1.1/8	28.6	30	16	14	81	180
3/4	1/2	3/4 x 1/2 PTR-B	1.1/8	28.6	30	19	17	78	180

* Inch dimensions - ** bar

209P - Pipe thread reducer male-female - NPTF

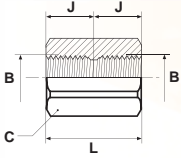


A1	A2	#	C*	L	P1	P2		
			in mm					
1/4	1/8	209P-4-2	9/16	14.3	19	11	8	12
3/8	1/8	209P-6-2	11/16	17.5	18	11	8	25
3/8	1/4	209P-6-4	11/16	17.5	19	12	8	17
1/2	1/4	209P-8-4	7/8	22.3	26	16	13	49
1/2	3/8	209P-8-6	7/8	22.3	26	15	13	33
3/4	3/8	209P-12-6	1.1/8	28.6	26	16	14	74
3/4	1/2	209P-12-8	1.1/8	28.6	26	19	17	57

* Inch dimensions

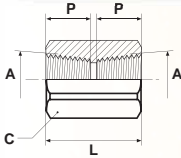
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

GG44 - Pipe connector - BSPP



B	#	C	J	L	GR
1/8	1/8GG44B	14	8	16	13
1/4	1/4GG44B	17	10	20	21
3/8	3/8GG44B	22	12	24	28
1/2	1/2GG44B	27	14	28	65
3/4	3/4GG44B	32	16	32	99
1	1GG44B	41	18	36	194

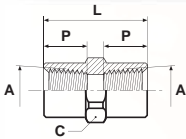
GG - Pipe connector - NPTF - Heavy series



A	#	C*	L	P	GR	**
		in	mm			
1/8	1/8 GG-B	5/8	15.9	19	9	21
1/4	1/4 GG-B	3/4	19.5	29	14	46
3/8	3/8 GG-B	7/8	22.3	29	14	60
1/2	1/2 GG-B	1.1/8	28.6	38	18	99

* Inch dimensions - ** bar

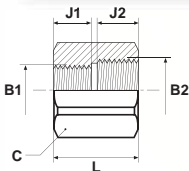
207P - Pipe connector - NPTF



A	#	C*	L	P	GR
		in	mm		
1/8	207P-2	9/16	14.3	19	9
1/4	207P-4	3/4	19.5	28	14
3/8	207P-6	7/8	22.3	28	14
1/2	207P-8	1.1/16	27.0	38	18

* Inch dimensions

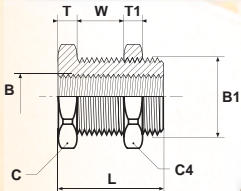
GG44 - Unequal pipe connector - BSPP



B1	B2	#	C	J1	J2	L	GR
1/8	1/4	1/8x1/4GG44B	17	8	10	18	23
1/8	3/8	1/8x3/8GG44B	22	8	12	20	45
1/8	1/2	1/8x1/2GG44B	27	8	14	22	75
1/4	3/8	1/4x3/8GG44B	22	10	12	22	46
1/4	1/2	1/4x1/2GG44B	27	10	14	24	79
3/8	1/2	3/8x1/2GG44B	17	12	14	26	68

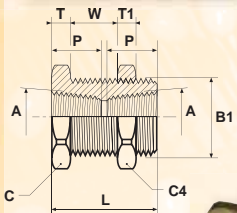
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

WGG44 - Bulkhead female union - BSPP



B	#	B1	C	C4	L	T	T1	W Max.	GR
1/8	1/8WGG44B	M16x1.5	19	22	22	5	5	12	34
1/4	1/4WGG44B	M20x1.5	24	24	22	5	5	12	46
3/8	3/8WGG44B	M23x1.5	27	27	24	6	6	12	58
1/2	1/2WGG44B	M27x1.5	32	32	28	7	7	14	87
3/4	3/4WGG44B	M34x1.5	41	41	31	8	10	13	172
1	1WGG44B	M45x2	55	55	36	11	13	12	453

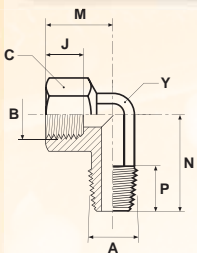
207ACBH - Bulkhead female union - NPTF



A	#	B1	C	C4	L	P	T	T1	W Max.	GR
1/8	207ACBH-2	5/8-18	7/8*	15/16*	38	10.0	7	8	20	72
1/4	207ACBH-4	3/4-16	1*	1.1/8*	38	14.0	7	10	18	100
3/8	207ACBH-6	1-14	1.1/8*	1.1/4*	34	15.0	7	10	13	128
1/2	207ACBH-8	1.1/8-14	1.1/4*	1.3/8*	38	19.0	7	12	16	159
3/4	207ACBH-M34	M34x1.5	41	41	39	17.5	10	8	19	214
1	207ACBH-M45	M45x2	55	58	46	20.5	13	11	19	553

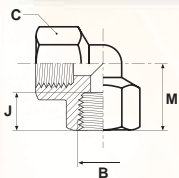
* Inch dimensions

CD43 - 90° elbow male-female - BSPT-BSPP



A	B	#	C	J	M	N	P	Y	GR
1/8	1/8	1/8CD43B	14	8	14	19.5	8	10	19
1/4	1/4	1/4CD43B	17	10	18	25.0	11	10	9
3/8	3/8	3/8CD43B	22	12	19	29.0	12	16	65
1/2	1/2	1/2CD43B	27	14	24	37.0	15	19	93

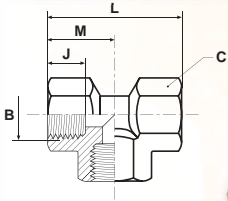
DD44 - 90° female pipe elbow - BSPP



B	#	C	J	M	GR
1/8	1/8DD44B	14	8	15	16
1/4	1/4DD44B	17	10	18	11
3/8	3/8DD44B	22	12	22	64
1/2	1/2DD44B	27	14	29	128

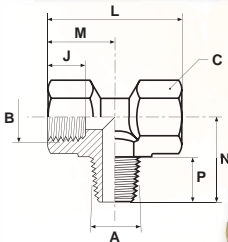
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

MMO444 - Female pipe tee - BSPP



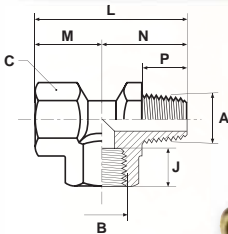
B	#	C	J	L	M	GR
1/8	1/8MMO444B	14	8	29	14.5	25
1/4	1/4MMO444B	17	10	36	18.0	59
3/8	3/8MMO444B	22	12	44	22.0	115
1/2	1/2MMO444B	27	14	58	29.0	228
3/4	3/4MMO444B	32	16	62	31.0	339
1	1MMO444B	40	18	85	42.5	719

MMS443 - Branch tee female-female-male - BSPP-BSPP-BSPT



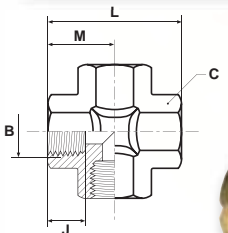
A	B	#	C	J	L	M	N	P	GR
1/8	1/8	1/8MMS443B	14	8	29	14.5	17	8	29
1/4	1/4	1/4MMS443B	17	10	36	18.0	22	11	50
3/8	3/8	3/8MMS443B	24	12	48	24.0	25	12	150
1/2	1/2	1/2MMS443B	30	14	62	31.0	32	15	249

MRO434 - Run tee female-male-female - BSPP-BSPT-BSPP



A	B	#	C	J	L	M	N	P	GR
1/8	1/8	1/8MRO434B	14	8	32	15	17	8	29
1/4	1/4	1/4MRO434B	17	10	40	18	22	11	51
3/8	3/8	3/8MRO434B	24	12	49	24	25	12	127
1/2	1/2	1/2MRO434B	30	14	63	31	32	15	254

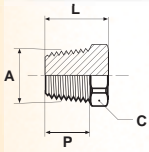
KMMOO4 - Female pipe cross - BSPP



B	#	C	J	L	M	GR
1/8	1/8KMMOO4B	14	8	29	14.5	29
1/4	1/4KMMOO4B	17	10	36	18.0	67
3/8	3/8KMMOO4B	22	12	44	22.0	153
1/2	1/2KMMOO4B	27	14	58	29.0	97

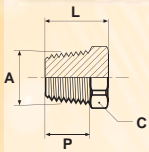
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

HP3 - Hex head plug - BSPT



A	#	C	L	P	GR
1/8	1/8HP3B	10	12	8	7
1/4	1/4HP3B	14	16	11	18
3/8	3/8HP3B	17	17	12	29
1/2	1/2HP3B	22	21	15	59
3/4	3/4HP3B	27	24	16	110
1	1HP3B	36	27	19	195

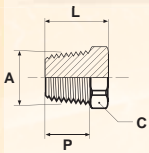
HP - Hex head plug - NPTF - Heavy series



A	#	C*		L	P	GR	⚡**
		in	mm				
1/8	1/8 HP-B	7/16	11.2	14	10	8	260
1/4	1/4 HP-B	9/16	14.3	19	13	20	260
3/8	3/8 HP-B	11/16	17.5	20	14	33	260
1/2	1/2 HP-B	7/8	22.3	25	18	58	260

* Inch dimensions - ** bar

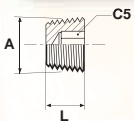
218P - Hex head plug - NPTF



A	#	C*		L	P	GR
		in	mm			
1/8	218P-2	7/16	11.2	14	10	8
1/4	218P-4	9/16	14.3	19	13	20
3/8	218P-6	11/16	17.5	20	14	33
1/2	218P-8	7/8	22.3	25	18	58

* Inch dimensions

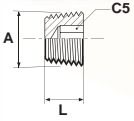
HHP3 - Hollow hex head plug - BSPT



A	#	C5	L	GR
1/8	1/8HHP3B	5	8	2
1/4	1/4HHP3B	6	10	5
3/8	3/8HHP3B	8	11	10
1/2	1/2HHP3B	10	13	26
1	1HHP3B	17	20	100

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

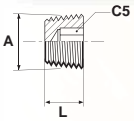
HHP - Hollow hex head plug - NPTF - Heavy series



A	#	C5*		L	GR	**
		in	mm			
1/8	1/8 HHP-B	3/16	4.8	8	3	260
1/4	1/4 HHP-B	1/4	6.4	12	10	260

* Inch dimensions - ** bar

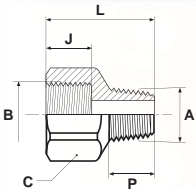
219P - Hollow hex head plug - NPTF



A	#	C5*		L	GR
		in	mm		
1/8	219P-2	3/16	4.8	8	3
1/4	219P-4	1/4	6.4	12	10

* Inch dimensions

FHG4 - Conversion adaptor - Male NPT to female BSPP



A	B	#	C	J	L	P	GR
1/8	1/8	1/8 FHG4-B	14	10	22	10	16
1/4	1/4	1/4 FHG4-B	19	15	32	14	38
3/8	3/8	3/8 FHG4-B	22	15	32	14	45
1/2	1/2	1/2 FHG4-B	27	20	42	19	88

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.



Brass adaptors for automotive industry

Catalogue 4360-1/UK



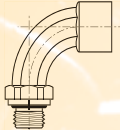
Brass adaptors for automotive industry

Straight connectors

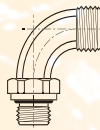


Male - BSPP
F4UCOB - p. J5

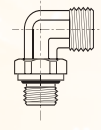
90° elbow connectors



Large radius
Male-Female - BSPP
CL4UD4B - p. J5

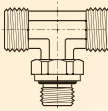


Large radius
Male - BSPP
CL4UCOB - p. J5

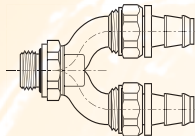


Male - BSPP
C4UCOB - p. J6

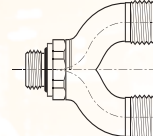
Tee & Y connectors



Male tee
BSPP
S4UCOB - p. J6



Male - BSPP
YGX/X-82 - p. J6



Male - BSPP
YGX/XCO - p. J7

Conversion adaptors



Male-Female - BSPP
F4UG4B - p. J7



Equal pipe nipple
Male - BSPP
F4UF4UB - p. J7

Adaptors



Straight - Metric
BSP taper
EG - p. J8



45° elbow - Metric
BSP taper
EV - p. J8

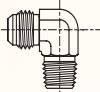


90° elbow - Metric
BSP taper
EW - p. J8

Adaptors (Ford standard UWR 003-XXX)



Male nipple
M14-4F3 - p. J9



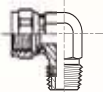
Male nipple
90° elbow
M14-4C3 p. J9



Male nipple
45° elbow
M14-4V3 - p. J9



Male swivel nut
M14-4F63 - p. J10



Male swivel nut
90° elbow
M14-4C63 p. J10



Male swivel nut
45° elbow
M14-4V63 - p. J10

Principle




To improve its brass adaptors range, Parker developed a range of adaptors particularly designed for the automotive industry.

These adaptors are existing in various configurations and are equipped with BSPP pipe threads.

They are used to convey water or welding heads cooling system and also on compressed air circuits used to pilot automated clamping system.



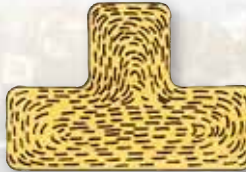
Technical features

		
Brass	60 bar except where indicated	From - 60°C to + 190°C except where indicated
	6.0 MPa except where indicated	

Brass forgings

Parker brass adaptors are produced from hot forgings to meet exacting tolerances.

The hot forging process increases the density of the material, refines the grain structure and improves material strength.



Applications

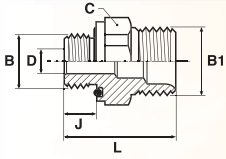
Automotive Industry
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J

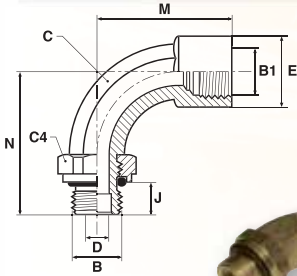


F4UCOB - Male connector - BSPP *



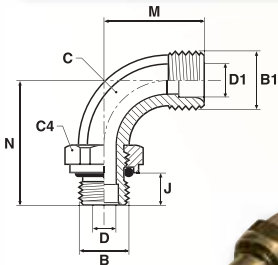
B	B1	#	C	D	J	L	GR
1/4	M10x1	F4UCOB6-1/4	19	6.5	9	24.0	30
1/8	M12x1	F4UCOB8-1/8	14	10.0	6	20.0	30
1/4	M12x1	F4UCOB8-1/4	19	4.5	9	22.1	31
1/4	M16x1.5	F4UCOB10-1/4	19	10.0	9	27.5	35
3/8	M20x1.5	F4UCOB14-3/8	22	6.5	9	28.5	45
3/8	M22x1.5	F4UCOB16-3/8	22	10.0	9	29.0	65
1/2	M22x1.5	F4UCOB16-1/2	27	4.5	12	33.5	70
1/2	M24x1.5	F4UCOB18-1/2	27	6.5	12	34.5	97

CL4UD4B - Male-female 90° elbow - Large radius - BSPP *



B	B1	#	C	C4	D	E	M	N	J	GR
3/8	3/8	CL4UD4B3/8	17	22	11	22	42	44	9	161

CL4UCOB - Male 90° elbow - Large radius - BSPP *

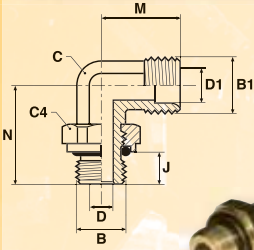


B	B1	#	C	C4	D	D1	M	N	J	GR
1/4	M16x1.5	CL4UCOB10-1/4	14	19	8	10	27	34	9	60
3/8	M20x1.5	CL4UCOB14-3/8	14	22	11	14	37	44	9	95

* Working temperature : from -40°C to +100°C

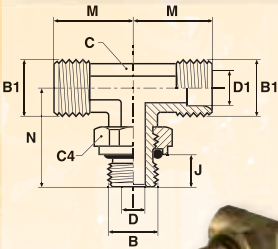
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

C4UCOB - Male 90° elbow - BSPP *



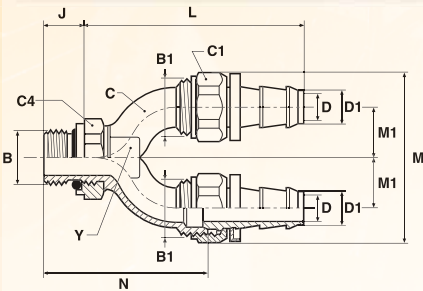
B	B1	#	C	C4	D	D1	J	M	N	GR
1/8	M12x1	C4UCOB8-1/8	10	14	5	8	6	18.5	22.0	37
1/4	M12x1	C4UCOB8-1/4	12	19	7	8	9	21.0	30.5	121
1/4	M16x1.5	C4UCOB10-1/4	12	19	7	10	9	22.0	27.5	36
3/8	M16x1.5	C4UCOB10-3/8	14	22	10	10	9	23.0	33.5	84

S4UCOB - Male branch tee - BSPP *



B	B1	#	C	C4	D	D1	M	N	J	GR
1/4	M16x1.5	S4UCOB10-1/4	14	19	7	10	23	31	9	20

YGX/X-82 - Male Y connector - BSPP *

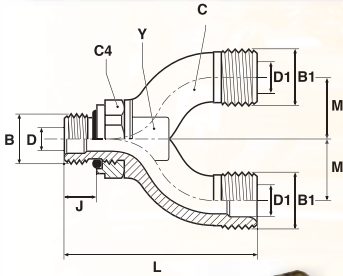


B	B1	#	C	C1	C4	D	D1	J	L	M	M1	N	Y	GR
3/8	M20x1.5	YG3/8-82-6B	15	24	22	8	9.5	9	80.0	66	19	48.0	22	197
1/2	M20x1.5	YG1/2-82-8B	15	24	27	10	12.7	12	85.5	66	19	49.5	22	176
3/8	M16x1.5	YG3/8-82-10-6B	15	19	22	6	9.5	9	81.0	59	19	48.0	22	200

* Working temperature : from -40°C to +100°C

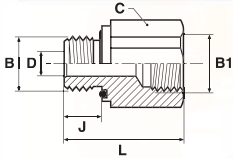
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

YGX/XCO - Male Y connector - BSPP *



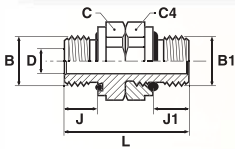
B	B1	#	C	C4	D	D1	J	L	M	Y	GR
3/8	M16x1.5	YG3/8CO10COMP	15	22	11	10	9	57.0	19	22	68
1/2	M20x1.5	YG1/2CO14COMP	15	27	14	14	12	61.5	19	22	62

F4UG4B - Male-female enlarging adaptor - BSPP *



B	B1	#	C	D	J	L	GR
1/8	1/8	1/8F4UG4B-20	4.5	14	6	20	31
1/4	1/4	1/4F4UG4B-20	6.5	19	9	20	52
1/4	1/4	1/4F4UG4B-30	6.5	19	9	30	76
1/4	1/4	1/4F4UG4B-50	6.5	19	9	50	123
3/8	3/8	3/8F4UG4B-20	10.0	22	9	20	55
3/8	3/8	3/8F4UG4B-30	10.0	22	9	30	80
3/8	3/8	3/8F4UG4B-50	10.0	22	9	50	142

F4UF4UB - Male equal pipe nipple - BSPP *

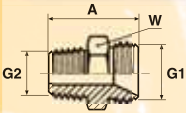


B	B1	#	C	C4	D	J	J1	L	GR
1/8	1/8	1/8F4UF4UB	14	14	4.5	6	6	24.5	30
1/4	1/4	1/4F4UF4UB	19	19	6.5	9	9	33.5	45
3/8	3/8	3/8F4UF4UB	22	22	10.0	9	9	38.0	62
1/2	1/2	1/2F4UF4UB	27	27	12.5	12	12	46.5	85

* Working temperature : from -40°C to +100°C

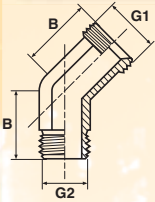
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

EG - Straight adaptor - metric 60° cone - BSPT



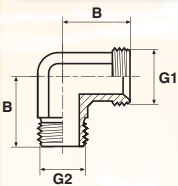
DN	#	Thread		A mm	W mm	I GR
		G1 metric	G2 BSPT			
6	EG6-1/8B	M12x1	1/8	23	14	20
6	EG6-1/4B	M12x1	1/4	28	14	27
6	EG12x15-1/8B	M12x1.5	1/8	23	14	20
6	EG12x15-1/4B	M12x1.5	1/4	28	14	27
8	EG8-1/4B	M14x1.5	1/4	28	17	36
8	EG8-3/8B	M14x1.5	3/8	28	19	94
10	EG10-1/4B	M16x1.5	1/4	28	19	30
10	EG10-1/2B	M16x1.5	1/2	32	24	73
10	EG10-3/8B	M16x1.5	3/8	28	19	35
12	EG15-1/2B	M22x1.5	1/2	34	24	40
12	EG15-3/8B	M22x1.5	3/8	34	24	79
16	EG18-3/4B	M26x1.5	3/4	38	27	247

EV - 45° elbow adaptor - metric 60° cone - BSPT



DN	#	Thread		B mm	I GR
		G1 metric	G2 BSPT		
6	EV6-1/8B	M12x1	1/8	20	43
6	EV6-1/4B	M12x1	1/4	20	43
8	EV8-1/4B	M14x1.5	1/4	27	63
8	EV8-3/8B	M14x1.5	3/8	27	97
10	EV10-1/4B	M16x1.5	1/4	27	129
10	EV10-3/8B	M16x1.5	3/8	27	197
12	EV15-1/2B	M22x1.5	1/2	30	11

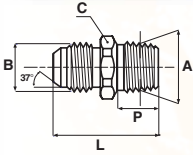
EW - 90° elbow adaptor - metric 60° cone - BSPT



DN	#	Thread		B mm	I GR
		G1 metric	G2 BSPT		
6	EW6-1/8B	M12x1	1/8	20	29
6	EW6-1/4B	M12x1	1/4	20	55
6	EW12x15-1/4B	M12x1.5	1/4	20	88
8	EW8-1/4B	M14x1.5	1/4	27	64
8	EW8-3/8B	M14x1.5	3/8	27	151
10	EW10-1/4B	M16x1.5	1/4	27	45
10	EW10-3/8B	M16x1.5	3/8	27	100
12	EW15-1/2B	M22x1.5	1/2	30	130

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

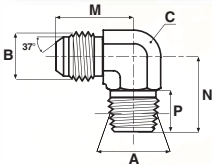
M14-4F3 - Male nipple straight fitting (Ford standard UWR003-04000)



A	B	#	C	L	P	CF
1/4	M14x1.5	M14-4F3MX8BL31	17	31	12	31

Designed to be used in conjunction with Parker Push-Lok hose fittings H898 202 and H897 995 for both welding robots and portable guns on water cooling and compressed air circuits. See the Push-Lok Hose and Fitting section (N).

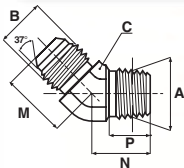
M14-4C3 - Male nipple 90° elbow (Ford standard UWR003-04090)



A	B	#	C	M	N	P	CF
1/4	M14x1.5	M14-4C3MX8BH22	14	25	22	12	76

Designed to be used in conjunction with Parker Push-Lok hose fittings H898 202 and H897 995 for both welding robots and portable guns on water cooling and compressed air circuits. See the Push-Lok Hose and Fitting section (N).

M14-4V3 - Male nipple 45° elbow (Ford standard UWR003-04045)

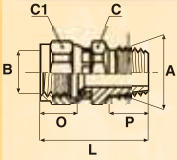


A	B	#	C	M	N	P	CF
1/4	M14x1.5	M14-4V3MX8BH17	14	18	17	12	45

Designed to be used in conjunction with Parker Push-Lok hose fittings H898 202 and H897 995 for both welding robots and portable guns on water cooling and compressed air circuits. See the Push-Lok Hose and Fitting section (N).

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

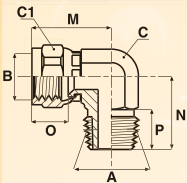
M14-4F63 - Male swivel nut straight fitting (Ford standard UWR003-03000)



A	B	#	C	C1	L	O	P	GR
1/4	M14x1.5	M14-4F63MX8BL32	17	17	32	11	12	58

Designed to be used in conjunction with Parker Push-Lok hose fittings H898 202 and H897 995 for both welding robots and portable guns on water cooling and compressed air circuits. See the Push-Lok Hose and Fitting section (N).

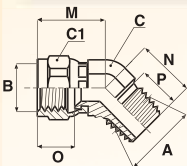
M14-4C63 - Male swivel nut 90° elbow (Ford standard UWR003-03090)



A	B	#	C	C1	M	N	O	P	GR
1/4	M14x1.5	M14-4C63MX8BH22	14	17	24	22	11	12	62

Designed to be used in conjunction with Parker Push-Lok hose fittings H898 202 and H897 995 for both welding robots and portable guns on water cooling and compressed air circuits. See the Push-Lok Hose and Fitting section (N).

M14-4V63 - Male swivel nut 45° elbow (Ford standard UWR003-03045)



A	B	#	C	C1	M	N	O	P	GR
1/4	M14X1.5	M14-4V63MX8BH17	14	17	20	17	11	12	57

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.



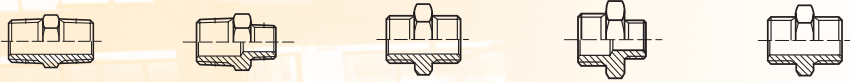
Pneumatic adaptors

*Nickel plated brass adaptors
for pneumatic applications*

Catalogue 4360-2/UK



Pipe nipples



Equal BSPT
 FF33 - p. K 5

Unequal BSPT
 FF33 - p. K 5

Equal BSPP
 FF44 - p. K 5

Unequal BSPP
 FF44 - p. K 5

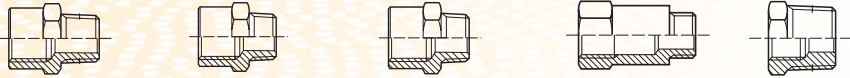
Equal Metric
 FF88 - p. K 6



Unequal Metric / BSPP
 FF84 - p. K 6

Male-Male BSPT
 FF633 - p. K 6

Reducers



Female-Male BSPP - BSPT
 FG43 - p. K 6

Female-Male BSPP - Metric
 FG48 - p. K 7

Female-Male BSPP
 FG44 - p. K 7

Female-Male extend. BSPP
 FF41G4 - p. K 7

Male-Female BSPT-BSPP
 PTR34 - p. K 7



Male-Female BSPP / Metric
 PTR48 - p. K 8

Male-Female BSPP
 PTR44 - p. K 8

Male-Female BSPP
 PTR44H - p. K 8

Pipe connectors and bulkhead unions



Equal Metric
 GG88 - p. K 8

Unequal Metric - BSPP
 GG84 - p. K 9

Equal BSPP
 GG44 - p. K 9

Unequal BSPP
 GG44 - p. K 9

Female BSPP
 WG44 - p. K 9

90° elbows

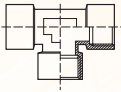
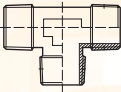
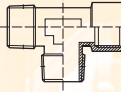
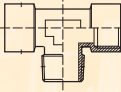
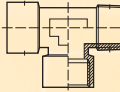
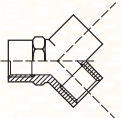
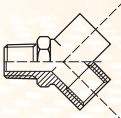





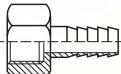
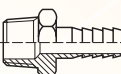

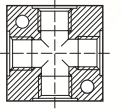

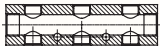

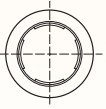


Female-Male BSPP - BSPT
 CD43 - p. K 10

Male BSPT
 CR33 - p. K 10

Female BSPP
 DD44 - p. K 10

Female BSPP
 DD44BKTL - p. K 10

Tees and Cross					
	Equal Female BSPP MMO444 - p. K 11	Equal Male BSPT RRS333 - p. K 11	Female-Male-Male BSPP-BSPT-BSPT MRS433 - p. K 11	Female-Female-Male BSPP-BSPP-BSPT MMS443 - p. K 11	Female-Male-Female BSPP-BSPT-BSPP MRO434 - p. K 12
Y connectors					
	Female BSPP YMM444 - p. K 13	Female-Female-Male BSPP-BSPP-BSPT YMM543 - p. K 13			
Plugs and Caps					
	Male BSPP P4UN - p. K 13	Male Metric P80N - p. K 14	Male BSPP P40N - p. L 14	Male BSPT HHP3 - p. K 14	Female BSPP FN4 - p. L 14
Hose barb fittings					
	Female BSPP FGH - p. K 15	Male BSPT F3H - p. K 15	Male BSPP F41H - p. K 16		
Aluminium manifolds and washers					
	Manifold BSPP MANIF - p. K 16	Manifold 1 BSPP MANI1 - p. K 16	Manifold 2 BSPP MANI2 - p. K 17	Aluminium washer RRD - p. K 17	Nylon washer RRP - p. K 17

Principle




To simplify the installation of pneumatic systems, Parker supplies a comprehensive range of adaptors with BSPT, BSPP and metric threads.

The range includes pipe nipples, reducers, bulkhead unions, elbows, tees, crosses and plugs.

The technical features of the pneumatic adaptors allow their use in several applications as well as with other compatible products within the Parker range.



Technical features

	Threads*	bar 	MPa	
Nickel plated brass	BSPP BSPT Metric	From 0.01 to 15 bar	From 0.001 to 1.5 MPa	From - 60°C to + 190°C Except where indicated

* These adaptors have been designed for low pressure applications with the principal target to reduce space and weight. They are compatible with most of current threads used on this type of application. If a specific standard is required, please consult us.

Advantages

Brass nickel plated body

Brass is a raw material providing:

- Robustness,
- Excellent shock resistance,
- Good temperature capability,
- Excellent spark resistance.

Nickel plating gives improved corrosion resistance and a bright appearance which does not deteriorate.



Excellent features

Pneumatic adaptors have been designed to guarantee:

- An efficient and economic solution for all applications,
- Compact dimensions where space is at a premium,
- A significant weight saving.

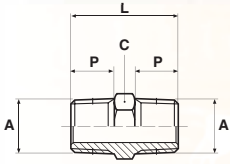


Applications

Packaging
 Pneumatic System
 Climate Control
 Heating System
 Machine Tools
 Packaging
 Pneumatic System

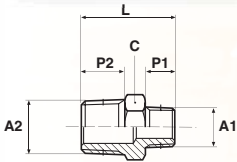


FF33 - Equal pipe nipple - BSPT



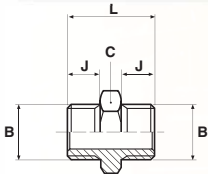
A	#	C	L	P	GR
1/8	1/8FF33BL	12	19.5	7.5	9
1/4	1/4FF33BL	14	27.0	11.0	17
3/8	3/8FF33BL	17	28.0	11.5	27
1/2	1/2FF33BL	22	33.5	14.0	41
3/4	3/4FF33BL	27	40.0	16.5	80
1	1FF33BL	34	45.5	19.0	145

FF33 - Unequal pipe nipple - BSPT



A1	A2	#	C	L	P1	P2	GR
1/8	1/4	1/8x1/4FF33BL	14	23.5	7.5	11.0	14
1/8	3/8	1/8x3/8FF33BL	17	24.0	7.5	11.5	19
1/8	1/2	1/8x1/2FF33BL	22	27.0	7.5	14.0	32
1/4	3/8	1/4x3/8FF33BL	17	27.5	11.0	11.5	23
1/4	1/2	1/4x1/2FF33BL	22	30.5	11.0	14.0	35
3/8	1/2	3/8x1/2FF33BL	22	31.0	11.5	14.0	37
1/2	3/4	1/2x3/4FF33BL	27	37.5	14.0	16.5	67
3/4	1	3/4x1FF33BL	34	43.0	16.5	19.0	125

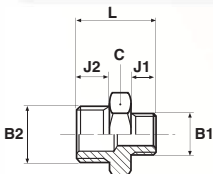
FF44 - Equal pipe nipple - BSPP



B	#	C	J	L	GR
1/8	1/8FF44BL	14	6	16.5	9
1/4	1/4FF44BL	17	8	21.0	17
3/8	3/8FF44BL	19	9	23.5	23
1/2	1/2FF44BL	24	10	25.5	34

These parts require two RRD or RRP washers. Order separately.

FF44 - Unequal pipe nipple - BSPP

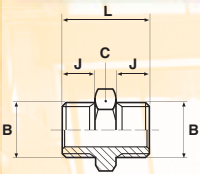


B1	B2	#	C	J1	J2	L	GR
1/8	1/4	1/8x1/4FF44BL	17	6	8	19.0	15
1/8	3/8	1/8x3/8FF44BL	19	6	9	20.0	20
1/4	3/8	1/4x3/8FF44BL	19	8	9	22.0	21
1/4	1/2	1/4x1/2FF44BL	24	8	10	23.5	31
3/8	1/2	3/8x1/2FF44BL	24	9	10	24.5	34
1/2	3/4	1/2x3/4FF44BL	30	10	12	27.5	75

These parts require two RRD or RRP washers. Order separately.

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

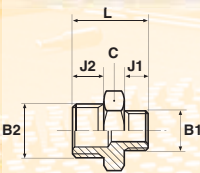
FF88 - Equal pipe nipple - Metric



B	#	C	J	L	GR
M5	M5FF88BL	8	4	11.5	2

These parts require two RRD or RRP washers. Order separately.

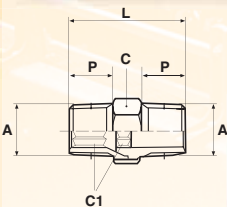
FF84 - Unequal pipe nipple - Metric / BSPP



B1	B2	#	C	J1	J2	L	GR
M5	1/8	M5x1/8FF84BL	14	4	6	14.5	8

These parts require two RRD or RRP washers. Order separately.

FF633 - Swivel pipe nipple male-male - BSPT

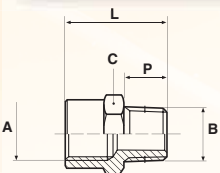


A	#	C	C1	L	P	GR
1/8	1/8FF633BL	15	5	27.0	9.0	18
1/4	1/4FF633BL	19	6	33.5	11.5	36
3/8	3/8FF633BL	22	8	36.5	13.0	55
1/2	1/2FF633BL	27	12	45.0	15.5	90
3/4	3/4FF633BL	36	14	52.5	18.0	261
1	1FF633BL	46	19	63.5	22.0	600

⚠ Working temperature:
 from -20°C to +80°C

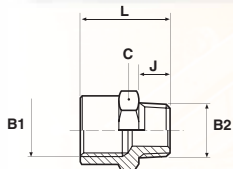
Fittings not nickel plated.

FG43 - Reducing connector female-male - BSPP-BSPT



A	B	#	C	L	P	GR
1/8	1/8	1/8FG43BL	14	20.0	7.5	11
3/8	1/8	3/8x1/8FG43BL	22	23.0	7.5	29
1/4	1/8	1/4x1/8FG43BL	17	22.0	7.5	18
1/4	1/4	1/4FG43BL	17	26.0	11.0	22
3/8	1/4	3/8x1/4FG43BL	22	27.0	11.0	34
1/2	1/4	1/2x1/4FG43BL	26	30.0	11.0	45
3/8	3/8	3/8FG43BL	22	27.5	11.0	37
1/2	3/8	1/2x3/8FG43BL	26	30.5	11.5	30
1/2	1/2	1/2FG43BL	26	33.0	14.0	50
3/4	1/2	3/4x1/2FG43BL	32	35.0	14.0	80

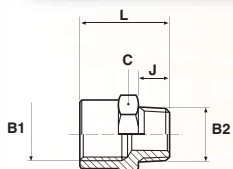
FG48 - Reducing connector female-male - BSPP / Metric



B1	B2	#	C	J	L	GR
1/8	M5	1/8xM5FG48BL	14	4	14.5	8

These parts require one RRD or RRP washer. Order separately

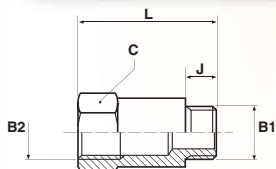
FG44 - Reducing connector female-male - BSPP



B1	B2	#	C	J	L	GR
1/8	1/8	1/8FG44BL	14	6	17.0	11
3/8	1/8	3/8x1/8FG44BL	22	6	21.5	29
1/4	1/8	1/4x1/8FG44BL	17	6	20.5	18
1/4	1/4	1/4FG44BL	17	8	22.5	19
3/8	1/4	3/8x1/4FG44BL	22	8	23.5	31
3/8	3/8	3/8FG44BL	22	9	24.5	33
1/2	1/4	1/2x1/4FG44BL	26	8	26.5	42
1/2	3/8	1/2x3/8FG44BL	26	9	27.5	45
1/2	1/2	1/2FG44BL	26	10	28.5	46

These parts require one RRD or RRP washer. Order separately

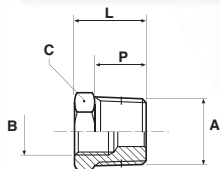
FF41G4 - Extended connector female-male - BSPP



B1	B2	#	C	J	L	GR
1/8	1/8	1/8FF41G4BL22L	14	6	22	15
1/8	1/8	1/8FF41G4BL42L	14	6	42	27
1/4	1/4	1/4FF41G4BL35L	17	8	35	30
1/4	1/4	1/4FF41G4BL51L	17	8	51	44

These parts require one RRD or RRP washer. Order separately

PTR34 - Pipe thread reducer male-female - BSPT-BSPP

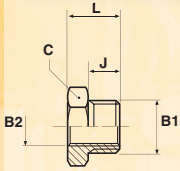


A	B	#	C	L	P	GR
1/4	1/8	1/4x1/8PTR34BL	14	16.0	11.0	11
3/8	1/8	3/8x1/8PTR34BL	17	16.5	11.5	12
1/2	1/8	1/2x1/8PTR34BL	22	19.5	14.0	46
3/8	1/4	3/8x1/4PTR34BL	17	16.5	11.5	14
1/2	1/4	1/2x1/4PTR34BL	22	19.5	14.0	37
1/2	3/8	1/2x3/8PTR34BL	22	19.5	14.0	25
3/4	3/8	3/4x3/8PTR34BL	27	23.5	16.5	47
3/4	1/2	3/4x1/2PTR34BL	27	23.5	16.5	48
1	1/2	1x1/2PTR34BL	34	26.5	19.0	130
1	3/4	1x3/4PTR34BL	34	26.5	19.0	77
1.1/4	1/2	1.1/4x1/2PTR34BL	45	31.0	22.0	220

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.



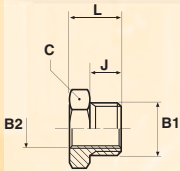
PTR48 - Pipe thread reducer male-female - BSPP / Metric



B1	B2	#	C	J	L	GR
1/8	M5	1/8xM5PTR48BL	14	6	10.5	8

These parts require one RRD or RRP washer. Order separately

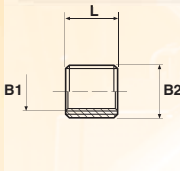
PTR44 - Pipe thread reducer male-female - BSPP



B1	B2	#	C	J	L	GR
1/4	1/8	1/4x1/8PTR44BL	17	8	13.0	10
3/8	1/8	3/8x1/8PTR44BL	19	9	14.0	19
1/2	1/8	1/2x1/8PTR44BL	24	10	15.5	39
3/8	1/4	3/8x1/4PTR44BL	19	9	14.0	13
1/2	1/4	1/2x1/4PTR44BL	24	10	15.5	32
1/2	3/8	1/2x3/8PTR44BL	24	10	15.5	33
3/4	3/8	3/4x3/8PTR44BL	30	12	17.5	54
3/4	1/2	3/4x1/2PTR44BL	30	12	17.5	38

These parts require one RRD or RRP washer. Order separately

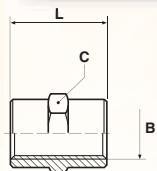
PTR44H - Pipe thread reducer male-female - BSPP



B1	B2	#	L	GR
1/8	1/4	1/4x1/8PTR44HBL	8	3
1/4	3/8	3/8x1/4PTR44HBL	9	5
3/8	1/2	1/2x3/8PTR44HBL	10	7
1/2	3/4	3/4x1/2PTR44HBL	14	19
3/4	1	1x3/4PTR44HBL	20	41

Fittings not nickel plated.

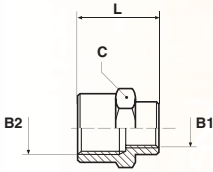
GG88 - Equal pipe connector - Metric



B	#	C	L	GR
M5	M5GG88BL	8	11	3

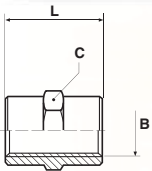
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

GG84 - Unequal pipe connector - Metric / BSPP



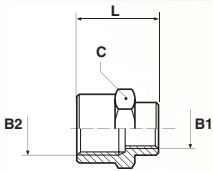
B1	B2	#	C	L	GR
M5	1/8	M5x1/8GG84BL	14	13	10

GG44 - Equal pipe connector - BSPP



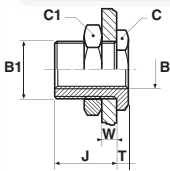
B	#	C	L	GR
1/8	1/8GG44BL	14	15	15
1/4	1/4GG44BL	17	22	18
3/8	3/8GG44BL	22	24	34
1/2	1/2GG44BL	26	30	54
3/4	3/4GG44BL	32	32	78

GG44 - Unequal pipe connector - BSPP



B1	B2	#	C	L	GR
1/8	1/4	1/8x1/4GG44BL	17	19.0	16
1/8	3/8	1/8x3/8GG44BL	22	20.0	23
1/8	1/2	1/8x1/2GG44BL	24	20.0	15
1/4	3/8	1/4x3/8GG44BL	22	23.0	29
1/4	1/2	1/4x1/2GG44BL	24	25.0	30
3/8	1/2	3/8x1/2GG44BL	24	27.5	31
1/2	1	1/2x1GG44BL	40	39.0	145
3/4	1/2	3/4x1/2GG44BL	30	30.0	33
3/4	1	3/4x1GG44BL	40	41.0	146

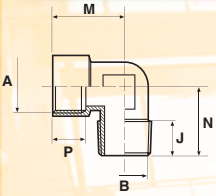
WGG44 - Bulkhead female union - Metric or BSPP



B	#	B1	C	C1	J	T	W Max.	GR
M5	M5WGG44BL	M10x1.5	14	14	10.5	3.5	7	12
1/8	1/8WGG44BL	M16x1.5	19	22	14.0	4.0	10	30
1/4	1/4WGG44BL	M20x1.5	24	27	21.0	4.0	16	55
3/8	3/8WGG44BL	M26x1.5	30	32	21.0	5.0	15	93
1/2	1/2WGG44BL	M28x1.5	32	36	27.0	6.0	21	112

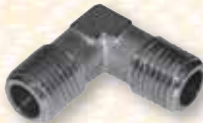
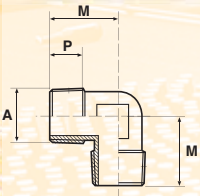
K

CD43 - 90° female-male elbow - BSPP-BSPT



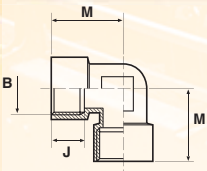
A	B	#	J	M	N	P	GR
1/8	1/8	1/8CD43BL	8.5	19	21	8.0	19
1/4	1/4	1/4CD43BL	11.0	24	26	11.0	31
3/8	3/8	3/8CD43BL	12.0	27	28	11.5	50
1/2	1/2	1/2CD43BL	15.0	30	32	14.0	74
3/4	3/4	3/4CD43BL	16.5	32	37	14.5	124
1	1	1CD43BL	19.0	39	45	16.8	200

CR33 - 90° equal male elbow - BSPT



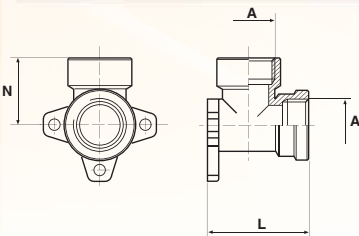
A	#	M	P	GR
1/8	1/8CR33BL	18.5	7.5	16
1/4	1/4CR33BL	24.0	11.0	27
3/8	3/8CR33BL	27.0	12.0	44
1/2	1/2CR33BL	29.5	14.0	61
3/4	3/4CR33BL	32.0	14.5	97
1	1CR33BL	39.0	16.8	166

DD44 - 90° female pipe elbow - BSPP



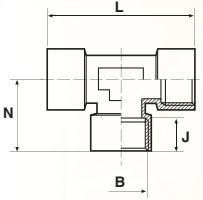
B	#	J	M	GR
1/8	1/8DD44BL	8.5	21.0	22
1/4	1/4DD44BL	11.0	25.5	36
3/8	3/8DD44BL	12.0	28.0	54
1/2	1/2DD44BL	15.0	32.0	91
3/4	3/4DD44BL	16.5	36.5	154
1	1DD44BL	19.0	45.0	233

DD44BKTL - 90° bracketed equal female elbow - BSPP



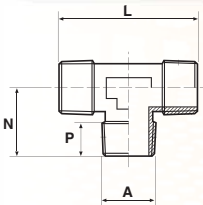
A	#	L	N	GR
1/2	1/2DD44BKTL	40.5	27	110

MMO444 - Female pipe tee - BSPP



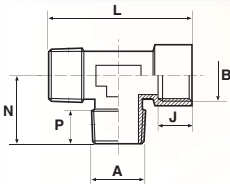
B	#	J	L	N	±GR
1/8	1/8MMO444BL	8.5	39	19.5	30
1/4	1/4MMO444BL	11.0	49	24.5	50
3/8	3/8MMO444BL	12.0	54	27.0	72
1/2	1/2MMO444BL	15.0	64	32.0	132
3/4	3/4MMO444BL	16.5	73	36.5	220
1	1MMO444BL	19.0	90	45.0	325

RRS333 - Male pipe tee - BSPT



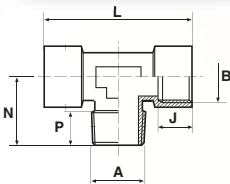
A	#	L	N	P	±GR
1/8	1/8RRS333BL	35.0	17.5	8.0	20
1/4	1/4RRS333BL	46.0	23.0	11.0	36
3/8	3/8RRS333BL	51.5	25.5	11.5	55
1/2	1/2RRS333BL	59.0	29.5	14.0	85
3/4	3/4RRS333BL	64.0	32.0	14.5	127
1	1RRS333BL	78.0	39.0	16.8	208

MRS433 - Run tee female-male-male - BSPP-BSPT-BSPT



A	B	#	J	L	N	P	±GR
1/8	1/8	1/8MRS433BL	8.5	37.0	17.5	8.0	23
1/4	1/4	1/4MRS433BL	11.0	47.5	23.0	11.0	40
3/8	3/8	3/8MRS433BL	12.0	52.5	25.5	11.5	61
1/2	1/2	1/2MRS433BL	15.0	61.5	29.5	14.0	98
3/4	3/4	3/4MRS433BL	16.5	68.5	29.5	14.5	157
1	1	1MRS433BL	19.0	84.0	29.5	16.8	244

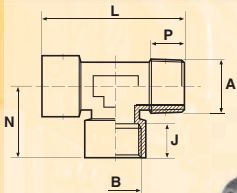
MMS443 - Branch tee female-female-male - BSPP-BSPP-BSPT



A	B	#	J	L	N	P	±GR
1/8	1/8	1/8MMS443BL	8.5	39	18	8.0	26
1/4	1/4	1/4MMS443BL	11.0	49	23	11.0	44
3/8	3/8	3/8MMS443BL	12.0	54	26	11.5	65
1/2	1/2	1/2MMS443BL	15.0	64	29	14.0	118
3/4	3/4	3/4MMS443BL	16.5	73	32	14.5	190
1	1	1MMS443BL	19.0	90	39	16.8	280

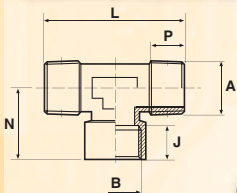
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

MRO434 - Run tee female-male-female - BSPP-BSPT-BSPP



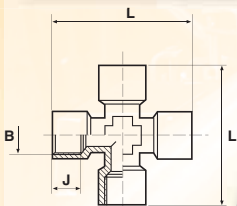
A	B	#	J	L	N	P	GR
1/8	1/8	1/8MRO434BL	8.5	37	20	8.0	25
1/4	1/4	1/4MRO434BL	11.0	48	25	11.0	45
3/8	3/8	3/8MRO434BL	12.0	53	27	11.5	65
1/2	1/2	1/2MRO434BL	15.0	62	32	14.0	116
3/4	3/4	3/4MRO434BL	16.5	69	37	14.5	191
1	1	1MRO434BL	19.0	84	45	16.8	285

RRO334 - Branch tee male-male-female - BSPT-BSPT-BSPP



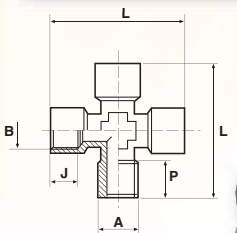
A	B	#	J	L	N	P	GR
1/8	1/8	1/8RRO334BL	8.5	35	19.5	8.0	23
1/4	1/4	1/4RRO334BL	11.0	46	24.5	11.0	40
3/8	3/8	3/8RRO334BL	12.0	51	27.0	11.5	59
1/2	1/2	1/2RRO334BL	15.0	59	32.0	14.0	98
3/4	3/4	3/4RRO334BL	16.5	64	36.5	14.5	159
1	1	1RRO334BL	19.0	78	45.0	16.8	245

KMMOO4 - Female pipe cross - BSPP



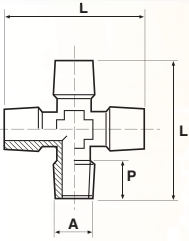
B	#	J	L	GR
1/8	1/8KMMOO4BL	8.5	39	36
1/4	1/4KMMOO4BL	11.0	50	60
3/8	3/8KMMOO4BL	12.0	56	96
1/2	1/2KMMOO4BL	15.0	64	160

KMRO4434 - Cross fem.-fem.-male-fem. - BSPP-BSPP-BSPT-BSPP



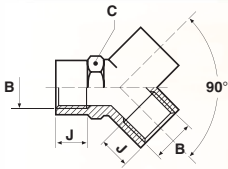
A	B	#	J	L	P	GR
1/8	1/8	1/8KMRO4434BL	8.5	39	8.5	33
1/4	1/4	1/4KMRO4434BL	11.0	50	11.0	57
3/8	3/8	3/8KMRO4434BL	12.0	56	11.5	89
1/2	1/2	1/2KMRO4434BL	15.0	64	14.0	144

KRRS3 - Male pipe cross - BSPT



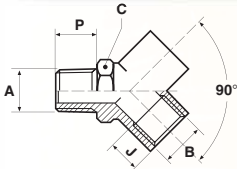
A	#	P	L	GR
1/8	1/8KRRS3BL	8.5	35	24
1/4	1/4KRRS3BL	11.0	47	46
3/8	3/8KRRS3BL	11.5	52	70
1/2	1/2KRRS3BL	14.0	58	100

YMMM444 - Y connector female - BSPP



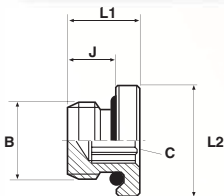
B	#	C	J	GR
1/8	1/8YMMM444BL	14	8.0	32
1/4	1/4YMMM444BL	17	11.0	42
3/8	3/8YMMM444BL	22	11.5	92
1/2	1/2YMMM444BL	26	14.0	150

YMMS443 - Y connector female-female-male - BSPP-BSPP-BSPT



A	B	#	C	J	P	GR
1/8	1/8	1/8YMMS443BL	14	8.0	9.0	31
1/4	1/4	1/4YMMS443BL	17	11.0	11.0	41
3/8	3/8	3/8YMMS443BL	22	11.5	12.5	87
1/2	1/2	1/2YMMS443BL	26	14.0	16.5	138

P4UN - Hollow hex head plug - O-Ring sealing

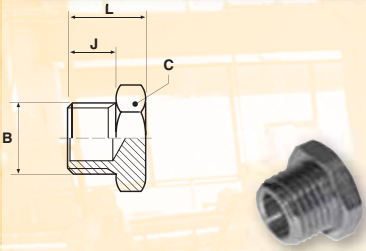


B	#	C	J	L1	L2	GR
1/8	1/8P4UNBL	5	6	8.5	14	6
1/4	1/4P4UNBL	6	8	11.0	17	10
3/8	3/8P4UNBL	8	9	12.5	20	18
1/2	1/2P4UNBL	10	10	13.5	25	30

⚠ Working temperature:
 from -30°C to +100°C.

K

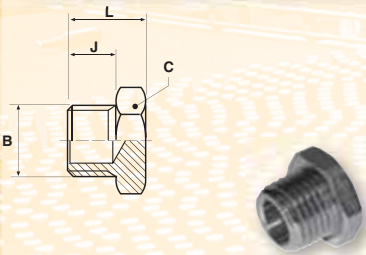
P80N - Hex head plug - Metric



B	#	C	J	L	GR
M5	M5P80NBL	8	4.5	8	2

This part requires one RRD or RRP washer to order separately.

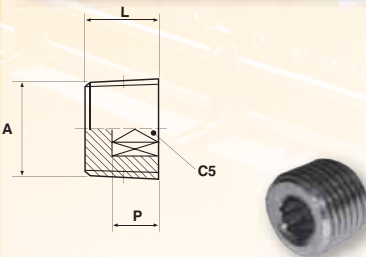
P40N - Hex head plug - BSPP



B	#	C	J	L	GR
1/8	1/8P40NBL	14	6.5	10.0	6
1/4	1/4P40NBL	17	9.0	13.0	12
3/8	3/8P40NBL	19	9.5	13.5	15
1/2	1/2P40NBL	24	10.0	14.5	27
3/4	3/4P40NBL	30	11.0	16.0	48
1	1P40NBL	40	12.0	17.0	88

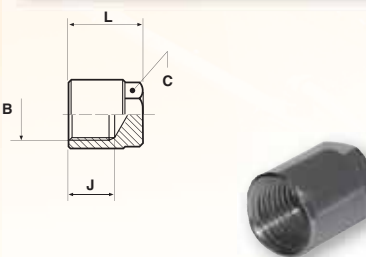
These parts require one RRD or RRP washer to order separately.

HHP3 - Hollow hex head plug - BSPT



A	#	C5	L	P	GR
1/8	1/8HHP3BL	5	8	5.0	2
1/4	1/4HHP3BL	6	10	7.0	7
3/8	3/8HHP3BL	8	11	7.5	13
1/2	1/2HHP3BL	10	13	8.0	25

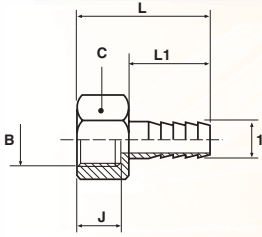
FN4 - Hex head cap - BSPP



B	#	C	J	L	GR
1/8	1/8FN4BL	12	7.5	11	5
1/4	1/4FN4BL	14	11.0	19	15
3/8	3/8FN4BL	17	11.5	20	25
1/2	1/2FN4BL	19	14.0	22	40

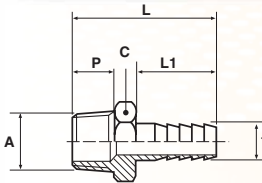
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

FGH - Female hose adaptor - BSPP



1	B	#	C	J	L	L1	Gr
6	1/8	FGHBL6-1/8BL	14	8.5	30.0	19.5	11
7	1/8	FGHBL7-1/8BL	14	8.5	30.0	19.5	12
7	1/4	FGHBL7-1/4BL	17	11.0	32.5	19.5	19
8	1/4	FGHBL8-1/4BL	17	11.0	32.5	19.5	19
9	1/4	FGHBL9-1/4BL	17	11.0	32.5	19.5	20
9	3/8	FGHBL9-3/8BL	20	11.5	33.5	19.5	25
10	3/8	FGHBL10-3/8BL	20	11.5	33.5	19.5	25
12	3/8	FGHBL12-3/8BL	20	11.5	33.5	19.5	27
12	1/2	FGHBL12-1/2BL	24	14.5	37.5	19.5	40

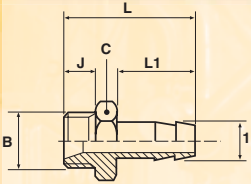
F3H - Male hose adaptor - BSPT



1	A	#	C	L	L1	P	Gr
6	1/8	F3HBL6-1/8BL	12	32.0	19.5	7.5	9
6	1/4	F3HBL6-1/4BL	14	35.5	19.5	11.0	14
7	1/8	F3HBL7-1/8BL	12	32.0	19.5	7.5	9
7	1/4	F3HBL7-1/4BL	14	35.5	19.5	11.0	14
8	1/8	F3HBL8-1/8BL	12	32.0	19.5	7.5	10
8	1/4	F3HBL8-1/4BL	14	35.5	19.5	11.0	15
9	1/8	F3HBL9-1/8BL	12	32.0	19.5	7.5	12
9	1/4	F3HBL9-1/4BL	14	35.5	19.5	11.0	15
9	3/8	F3HBL9-3/8BL	17	36.0	19.5	11.5	21
9	1/2	F3HBL9-1/2BL	22	39.0	19.5	14.0	32
10	1/8	F3HBL10-1/8BL	12	32.0	19.5	7.5	10
10	1/4	F3HBL10-1/4BL	14	35.5	19.5	11.0	15
10	3/8	F3HBL10-3/8BL	17	36.0	19.5	11.5	22
10	1/2	F3HBL10-1/2BL	22	39.0	19.5	14.0	33
12	1/4	F3HBL12-1/4BL	14	35.5	19.5	11.0	19
12	3/8	F3HBL12-3/8BL	17	36.0	19.5	11.5	21
12	1/2	F3HBL12-1/2BL	22	39.0	19.5	14.0	33
14	3/8	F3HBL14-3/8BL	17	36.0	19.5	11.5	23
14	1/2	F3HBL14-1/2BL	22	39.0	19.5	14.0	36
16	3/8	F3HBL16-3/8BL	17	36.0	19.5	11.5	26
16	1/2	F3HBL16-1/2BL	22	39.0	19.5	14.0	38
16	3/4	F3HBL16-3/4BL	27	43.5	19.5	16.5	62
17	3/8	F3HBL17-3/8BL	18	36.0	19.5	11.5	30
17	1/2	F3HBL17-1/2BL	22	39.0	19.5	14.0	43
18	3/8	F3HBL18-3/8BL	19	36.0	19.5	11.5	31
18	1/2	F3HBL18-1/2BL	22	39.0	19.5	14.0	43
18	3/4	F3HBL18-3/4BL	27	43.5	19.5	16.5	62
20	3/8	F3HBL20-3/8BL	21	36.0	19.5	11.5	38
20	1/2	F3HBL20-1/2BL	22	39.0	19.5	14.0	46

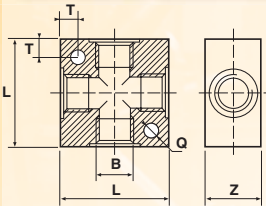
For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

F41H - Male hose adaptor - Metric or BSPP



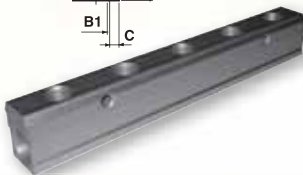
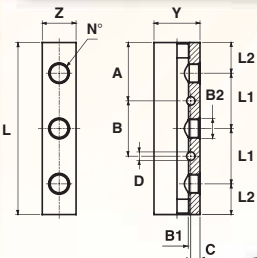
1	B	#	C	J	L	L1	GR
4.5	M5	F41HBL4.5-M5BL	8	4	23.0	15	3
7	1/8	F41HBL7-1/8BL	14	6	30.0	20	11
7	1/4	F41HBL7-1/4BL	17	8	33.0	20	19
8	1/8	F41HBL8-1/8BL	14	6	30.0	20	12
9	1/8	F41HBL9-1/8BL	14	6	30.0	20	12
9	1/4	F41HBL9-1/4BL	17	8	33.0	20	19
9	3/8	F41HBL9-3/8BL	19	9	34.0	20	24
12	1/4	F41HBL12-1/4BL	17	8	33.0	20	21
12	3/8	F41HBL12-3/8BL	19	9	34.0	20	25
12	1/2	F41HBL12-1/2BL	24	10	37.5	22	42
17	3/8	F41HBL17-3/8BL	19	9	38.0	24	31
17	1/2	F41HBL17-1/2BL	24	10	39.5	24	46

MANIF - Aluminium manifold - BSPP



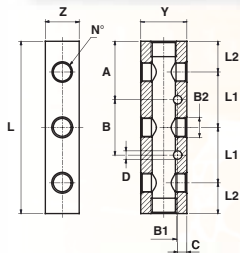
B	#	L	Q	T	Z	GR
1/8	MANIF1/8KMO4DL	25	4.5	4.3	16	16
1/4	MANIF1/4KMO4DL	40	5.5	6.5	20	63
3/8	MANIF3/8KMO4DL	50	5.5	7.5	25	126
1/2	MANIF1/2KMO4DL	50	5.5	7.5	30	136

MANI1 - Aluminium manifold - BSPP



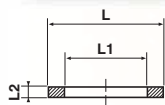
B1	B2	N°	#	A	B	C	D	L	L1	L2	Y	Z	GR
1/4	1/8	2	MANI1x1/4x1/8x2	7.5	50	4.5	4.5	65	30	17.5	24	18	78
1/4	1/8	3	MANI1x1/4x1/8x3	32.5	30	6.0	4.5	95	30	17.5	24	18	163
1/4	1/8	4	MANI1x1/4x1/8x4	32.5	60	6.0	4.5	125	30	17.5	24	18	214
1/4	1/8	5	MANI1x1/4x1/8x5	32.5	90	6.0	4.5	155	30	17.5	24	18	265
1/4	1/8	6	MANI1x1/4x1/8x6	32.5	120	6.0	4.5	185	30	17.5	24	18	316
3/8	1/4	2	MANI1x3/8x1/4x2	7.5	61	7.0	5.5	76	36	20.0	30	22	80
3/8	1/4	3	MANI1x3/8x1/4x3	38.0	36	7.0	5.5	112	36	20.0	30	22	193
3/8	1/4	4	MANI1x3/8x1/4x4	38.0	72	7.0	5.5	148	36	20.0	30	22	255
3/8	1/4	5	MANI1x3/8x1/4x5	38.0	108	7.0	5.5	184	36	20.0	30	22	180
3/8	1/4	6	MANI1x3/8x1/4x6	38.0	144	7.0	5.5	220	36	20.0	30	22	377

MANI2 - Aluminium manifold - BSPP



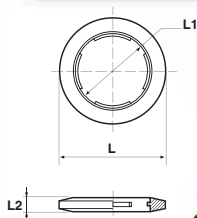
B1	B2	N°	#	A	B	C	D	L	L1	L2	Y	Z	GR
1/4	1/8	2	MANI2x1/4x1/8x2	7.5	50	4.5	4.5	65	30	17.5	30	18	76
1/4	1/8	3	MANI2x1/4x1/8x3	32.5	30	6.0	4.5	95	30	17.5	30	18	117
1/4	1/8	4	MANI2x1/4x1/8x4	32.5	60	6.0	4.5	125	30	17.5	30	18	156
1/4	1/8	5	MANI2x1/4x1/8x5	32.5	90	6.0	4.5	155	30	17.5	30	18	204
3/8	1/4	2	MANI2x3/8x1/4x2	7.5	61	7.0	5.5	76	36	20.0	38	22	177
3/8	1/4	3	MANI2x3/8x1/4x3	38.0	36	7.0	5.5	112	36	20.0	38	22	260
3/8	1/4	4	MANI2x3/8x1/4x4	38.0	72	7.0	5.5	148	36	20.0	38	22	342
3/8	1/4	5	MANI2x3/8x1/4x5	38.0	108	7.0	5.5	184	36	20.0	38	22	424

RRD - Aluminium washer



Size	#	L	L1	L2	GR
M5	M5RRD	8	5.2	1.0	0.1
1/8	1/8RRD	14	10.0	1.5	0.1
1/4	1/4RRD	18	13.5	1.5	0.1
3/8	3/8RRD	21	16.5	1.5	0.1
1/2	1/2RRD	26	21.1	1.5	0.2

RRP - Nylon washer



Size	#	L	L1	L2	GR
M5	M5RRP	8	5.1	1.3	0.1
1/8	1/8RRP	14	9.8	1.8	0.1
1/4	1/4RRP	18	13.2	1.8	0.1
3/8	3/8RRP	21	16.7	1.8	0.2
1/2	1/2RRP	26	21.1	1.8	0.3
3/4	3/4RRP	33	28.0	2.5	0.7
1	1RRP	41	34.0	2.5	1.0

! Working temperature:
 from -18°C to +90°C.

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.



Ball valves

Catalogue 3529/UK



Ball Valves

The table below lists general recommendations for the selection of valve materials. For specific cases, and for those not included in the Media Guide, it is advisable to check with your Parker representative.

There are many specific environmental factors which may affect corrosion rate, such as temperature, solution, concentration and presence of impurities. Therefore, we recommend that the information be used only as a guide to material selection. If any questions exist regarding the expected performance of a material in a given application, actual tests should be performed to determine the suitability of the materials in question.

Fluid	Brass	Carbon steel	Stainless steel (316)	Buna N (Nitrile)	Neoprene	EPR	Fluoro-carbon	PTFE	Acetal	Nylon (Polyamide)
Acetone	E	E	E	U	U	E	U	E	E	E
Acetylene	G	E	E	G	P	E	E	E	E	
Air	E	E	E	E	E	E	E	E	E	E
Alcohol, ethyl	G	G	G	E	G	E	E	E	E	G
Alcohol, methyl	E	G	E	G	E	E	P	E	E	G
Animal oil	G	G	G	E	G	G	E			G
Asphalt emulsion	E	G	E	U	P	U	E	E	E	G
Asphalt liquid	E	G	E	P	P	U	E	E	E	G
Beer	G	U	E	G	G	G	E	E	E	U
Benzene	G	G	G	U	U	U	G	E		E
Butane	E	G	E	G	G	U	E	E	E	P
Calcium chloride	G	P	G	E	E	G	E	E	E	U
Carbonated water	G	G	E	E	E	E	E	E	E	E
Caustic soda		G	E	P		G	G	E		
Coffee	E		E	E	E	E	E	G		
Cutting oils	E	G	E	E	G		E	E	E	
Diesel oil fuels	E	E	E	E	P	U	E	E		G
Ethanol	E	U	U	U	E	E	U			G
Ethyl alcohol	G	G	G	E	E	E	E	E		
Ferrous sulphate	G	U	G	E	E	E	E	E	E	U
Gas, natural	G	G	E	E	E	U	E	E	E	
Gasoline, unleaded	E	E	E	P	U	U	E	E	E	E
Glucose	E	G	E	E	E	E	E	E	E	
Glycerine	G	P	E	P	U	E	G	E	P	E
Kerosene	E	G	E	E	P	U	E	E	E	G
Methane	E	G	E	E	G		E	E	E	
Methanol	G		E	G	G	U	G	E	E	G
Methyl alcohol	G	G	G	E	G		P	E		E
Milk & milk products	G	U	E	E	E	E	E	E	E	G
Mineral oils	G	G	E	E	G	U	E	E	E	G
Naphtha	G	G	G	G	P	U	E	E	E	G
Natural gas, sour	G	G	E	E	E	U	E	E	E	
Nitric acid 100%	U	U	E	U	U	U	G	E	U	U
Nitric acid 30%	U	U	E	P	P	G	E	E	U	U
Nitrogen	E	E	E	E	E	G	E	E	E	G
Paints & solvents	E	E	E	U	U	U	G	E		G
Paper pulp	G		E	G	G	G	G	E		
Paraffin	E	G	E	E	P	U	E	E	E	
Petrolatum (Petroleum Jelly)	G	P	G	E	G		E	E	E	
Propane gas	E	G	G	E	G	U	E	E	E	
Sea water	P	U	G	E	E	E	E	E	E	
Sodium chloride	G	P	G	E	E	G	E	E	E	E
Steam (100°C)	E	E	E	U	U	G	P	E	U	
Sulphur	U	P	G	U	P	G	G	E	E	
Trichlorethylene	G	G	G	U	U	U	G	E	E	U
Water, distilled	E	U	E	P	G	G	E	E	E	E
Water, fresh	E	P	E	P	G	G	E	E	E	E

E = Excellent

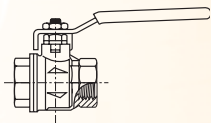
G = Good

P = Poor

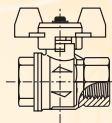
U = Unsatisfactory

Ball Valves

BVGC series
BSPP short
threads
General purpose

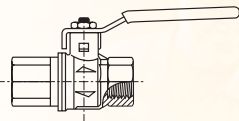


**Female/Female valve
with lever handle BSPP
BVGC - p. L 5**

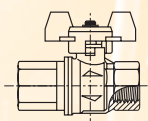


**Female/Female valve
with compact handle BSPP
BVGTC - p. L 5**

BVGL series
BSPP long
threads
General purpose

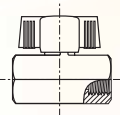


**Female/Female valve
with lever handle BSPP
BVGL - p. L 7**



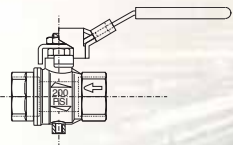
**Female/Female valve
with compact handle BSPP
BVGTL - p. L 7**

MBVG series
BSPP short
threads
Compact



**Female/Female valve
BSPP
MBVG - p. L 9**

BVG4PLOCK
Series
BSPP-long
threads
Lockable vented
valve



**Female/Female valve
BSPP
BVG4PLOCK - p. L 11**

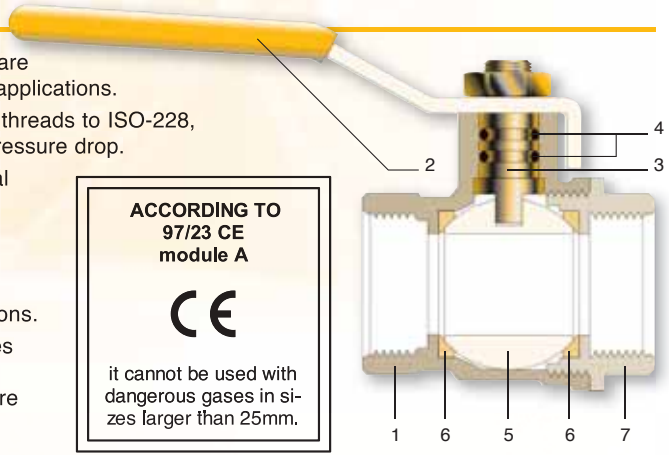
See also our extended valves offer in our catalogue 3501-E from Brass Products Division USA.



Ball Valves

Principle

- Parker BVGC series economy ball valves are designed for use in a wide variety of fluid applications.
- Available with BSPP female/female* short threads to ISO-228, they are full flow valves giving minimum pressure drop.
- The BVGC series has a double PTFE seal on the ball enabling the valve to be used with flow in either direction.
- All seals are treated with a silicone free lubricant enabling the valves to be used in water-based paint spray applications.
- For operator safety the BVGC series valves are fitted with anti-extrusion stems to prevent blow out and all valves are 100% pressure tested to ensure zero leakage.



**ACCORDING TO
97/23 CE
module A**

CE

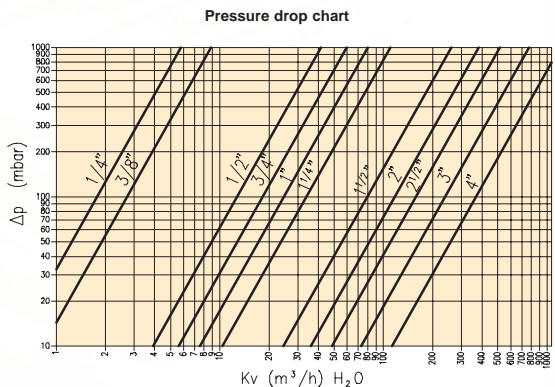
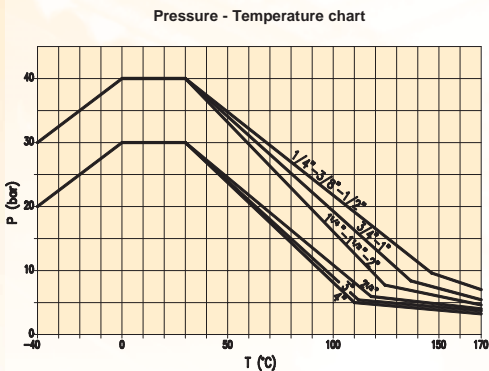
it cannot be used with dangerous gases in sizes larger than 25mm.

* For other thread configurations please consult your Parker sales engineer.

Technical features

1	2	3	4	5	6	7			
Body	Lever handle	Compact handle	Anti extrusion stem	Stem packing gland	Ball	Anti friction ring	Forcing nut	Threads	
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Aluminium with yellow epoxy coating	Nickel plated brass	Two Fluorocarbon O-rings	Brass chrome plated	PTFE	Nickel plated brass	1/4" - 2" BSPP to ISO228/DIN259	See chart below

Operating pressures and temperatures



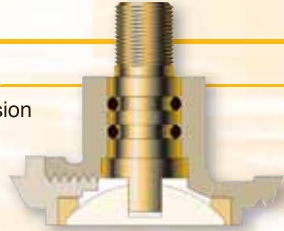
N.B. These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Ball Valves

Advantages

Anti extrusion stem

The BVGC series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks. The stem is sealed with two Fluorocarbon O-rings for maximum safety and performance.

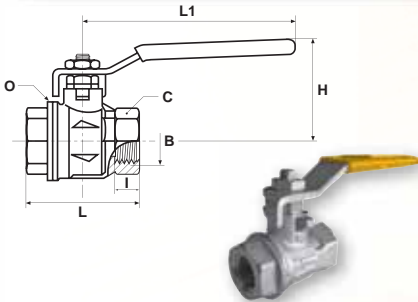


Compact handle

For applications where space is at a premium, the BVGC series valve is available with a compact handle for sizes up to 1".

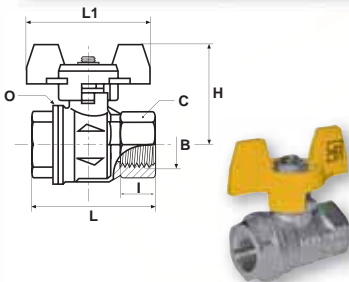


BVGC - BSPP Female/Female valve with lever handle



DN mm	B	#	C	H	L	L1	O	I	CF
8	1/4	BVG4-1/4C	20	39.5	39	82	25.0	9	130
10	3/8	BVG4-3/8C	20	39.5	39	82	25.0	9	120
15	1/2	BVG4-1/2C	25	44.0	50	100	32.5	11	200
20	3/4	BVG4-3/4C	31	50.0	54	120	39.0	12	312
25	1	BVG4-1C	38	54.0	67	120	47.5	14	440
32	1.1/4	BVG4-1.1/4C	48	76.5	77	158	59.0	15	730
40	1.1/2	BVG4-1.1/2C	54	82.5	90	158	71.5	17	972
50	2	BVG4-2C	66	89.5	106	158	86.0	19	1500

BVGT4 - BSPP Female/Female valve with compact handle



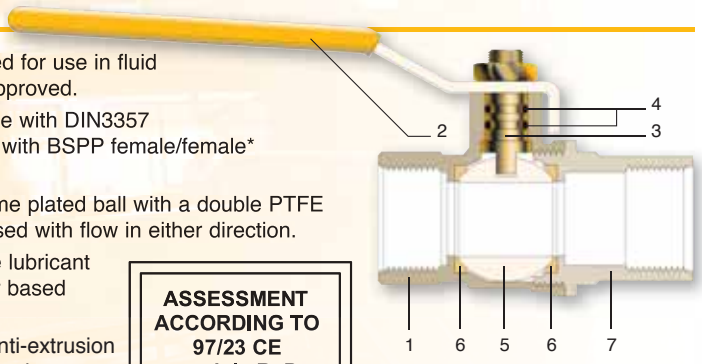
DN mm	B	#	C	H	L	L1	O	I	CF
8	1/4	BVGT4-1/4C	20	40	39	50	25.0	9	130
10	3/8	BVGT4-3/8C	20	40	39	50	25.0	9	120
15	1/2	BVGT4-1/2C	25	44	50	50	32.5	11	180
20	3/4	BVGT4-3/4C	31	49	54	60	39.0	12	265
25	1	BVGT4-1C	38	53	67	60	47.5	14	390

For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Ball Valves

Principle

- Parker BVGL series valves are designed for use in fluid and gas applications and are DVGW approved.
- The valve dimensions are in accordance with DIN3357 for interchangeability and are available with BSPP female/female* long threads to DIN 2999/ ISO 228.
- These full flow ball valves have a chrome plated ball with a double PTFE seal system enabling the valve to be used with flow in either direction.
- All seals are treated with a silicone free lubricant enabling the valves to be used in water based paint spray applications.
- BVGL series valves are fitted with an anti-extrusion stem with two Fluorocarbon seals for maximum safety and performance.
- After assembly all valves are 100% pressure tested to ensure zero leakage.



**ASSESSMENT
ACCORDING TO
97/23 CE
module B+D
by Pascal**

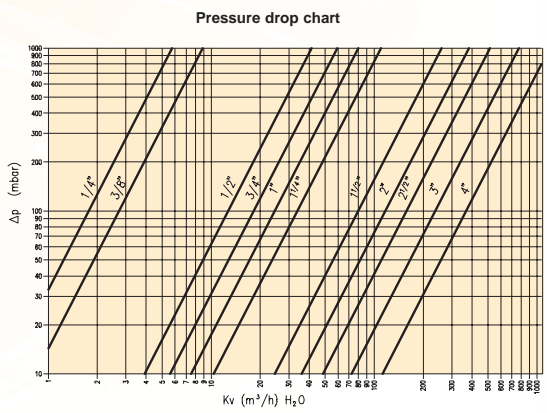
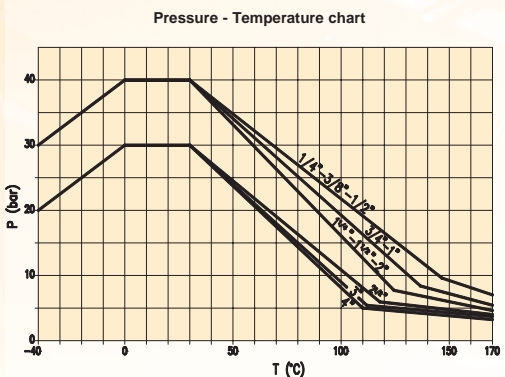
CE 1115

* For other thread configurations please consult us.

Technical features

1	2	3	4	5	6	7	Valve dimensions		
Body	Lever handle	Compact handle	Anti extrusion stem	Stem seal	Ball	Anti friction ring	Forcing nut	Valve dimensions	
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Aluminium with yellow epoxy coating	Brass nickel plated	Two Fluorocarbon O-rings	Brass chrome plated	PTFE	Brass nickel plated	In accordance with DIN3357	See chart below

Operating pressures and temperatures



N.B.
These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

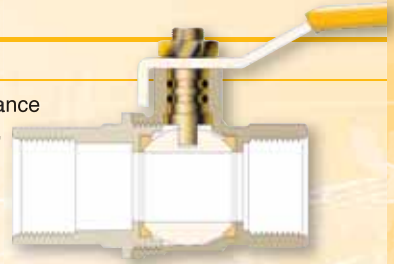


Ball Valves

Advantages

DIN 2999 / ISO 228 female threads

BVGL series valves are manufactured with long female threads in accordance to DIN 2999 / ISO 228. This enables the valves to be used with Prestolok, Metrulok and brass adaptors but also Parker's range of steel hydraulic fittings and EO-fittings form "A" or "C" to DIN 3852.

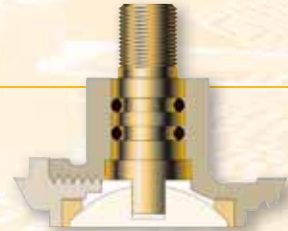


Full flow

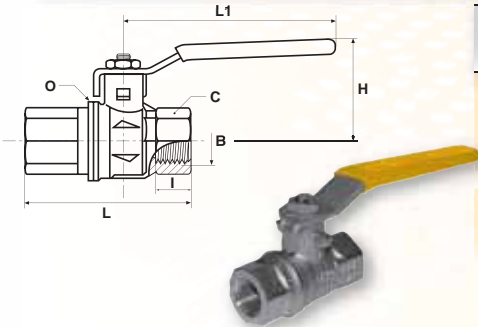
All BVGL series valves are full-flow. This limits the turbulence created by the passage of fluid across the valve, minimizing pressure drop.

Anti extrusion stem

The BVGL series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks. The stem is sealed with two Fluorocarbon O-rings for maximum safety and performance.

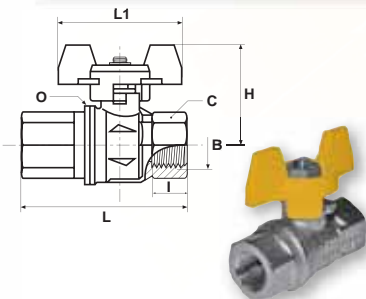


BVGL- BSPP Female/Female valve with lever handle



DN mm	B	#	C	H	L	L1	O	I	Gr
8	1/4	BVG4-1/4L	20	38	50	82	25.0	12.0	150
10	3/8	BVG4-3/8L	20	38	60	82	25.0	12.0	150
15	1/2	BVG4-1/2L	25	43	75	100	32.5	15.5	255
20	3/4	BVG4-3/4L	32	50	80	120	39.0	17.0	390
25	1	BVG4-1L	41	54	90	120	47.5	21.0	590
32	1.1/4	BVG4-1.1/4L	50	73	110	158	59.0	23.0	980
40	1.1/2	BVG4-1.1/2L	55	79	120	158	71.5	23.0	1205
50	2	BVG4-2L	70	86	140	158	86.0	26.5	1960

BVGT4 - BSPP Female/Female valve with compact handle



DN mm	B	#	C	H	L	L1	O	I	Gr
8	1/4	BVGT4-1/4L	20	39	50	50	25.0	12.0	150
10	3/8	BVGT4-3/8L	20	39	60	50	25.0	12.0	150
15	1/2	BVGT4-1/2L	25	43	75	50	32.5	15.5	230
20	3/4	BVGT4-3/4L	32	47	80	60	39.0	17.0	350
25	1	BVGT4-1L	41	51	90	60	47.5	21.0	550

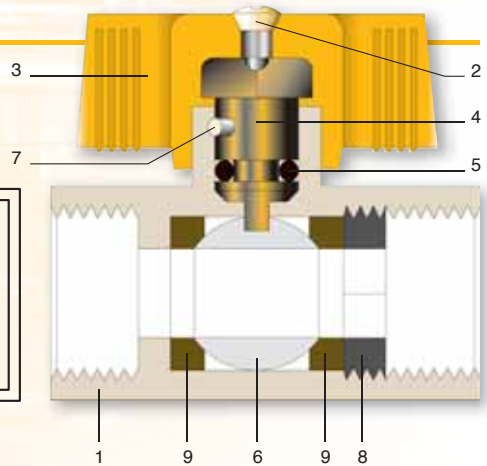
For product availability please consult our price list 3893. Dimensions shown may be changed at any time without prior notice.

Ball Valves

Principle

- The MBVG series ball valves with their compact design offer the solution to applications where space is an important factor.
- The body is of a particularly robust design.
- The integrity of the sealing on the ball is obtained by the use of PTFE seats.
- The valves are available with BSPP female threads ISO-228/1 (DIN 2999) in: 1/4" 3/8" and 1/2".

The product described in this document meets the requirements of PED Directive 97/23 and according to art.3 par.3, it does not require CE marking.

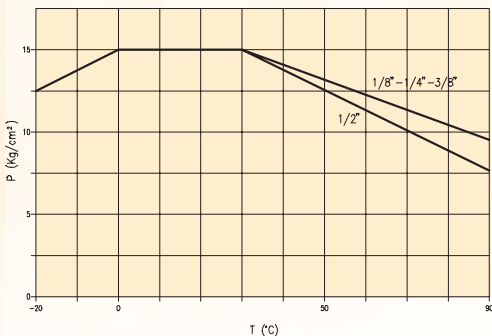


Technical features

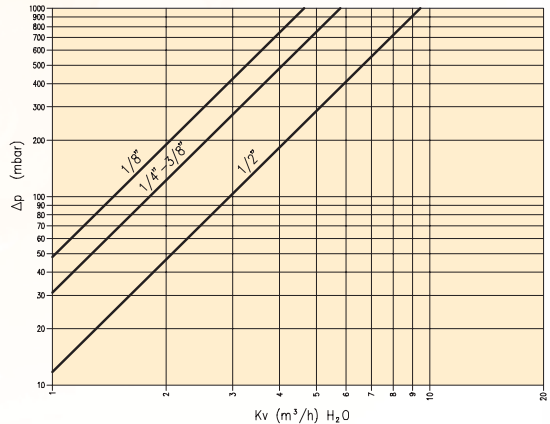
1	2	3	4	5	6	7	8	9	
Body	Handle retention screw	Handle	Stem	Stem seal	Ball	Anti-extrusion guide pin	Nut	Seat seals	
Brass chromium plated	Brass chromium plated	Polyamide	Brass	Fluorocarbon O-ring	Brass chromium plated	Stainless steel	Brass	PTFE	See chart below

Operating pressures and temperatures

Pressure - Temperature chart



Pressure drop chart



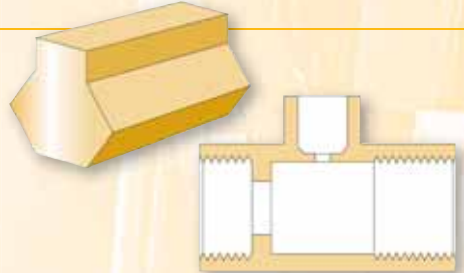
N.B. These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Ball Valves

Advantages

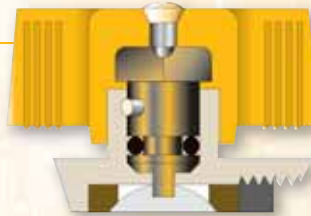
Design of the body

- The valve is manufactured from a solid section which incorporates the stem housing in the body.
- This design allows excellent guidance of the stem, which increases its lifespan.



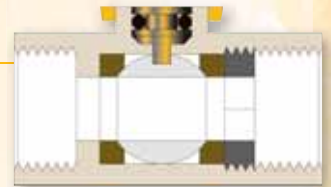
Stem tightness

- A Fluorocarbon O-ring assembled under compression automatically compensates for minute friction wear.
- Thus a high standard of seal is attained

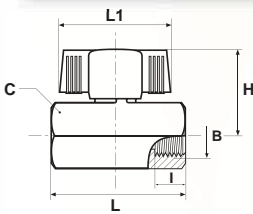


Tightness of the seals

- The perfect tightness of the seals on the casing is obtained by the preset force of the nut, adjusted during assembly.



MBVG - BSPP Female/Female valve



DN mm	B	#	C	H	L	L1	I	⌀
8	1/4	MBVG4-1/4	21	31.5	41.5	39	11	115
8	3/8	MBVG4-3/8	21	31.5	41.5	39	11	102
10	1/2	MBVG4-1/2	25	33.5	48.0	39	13	150

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Ball Valves

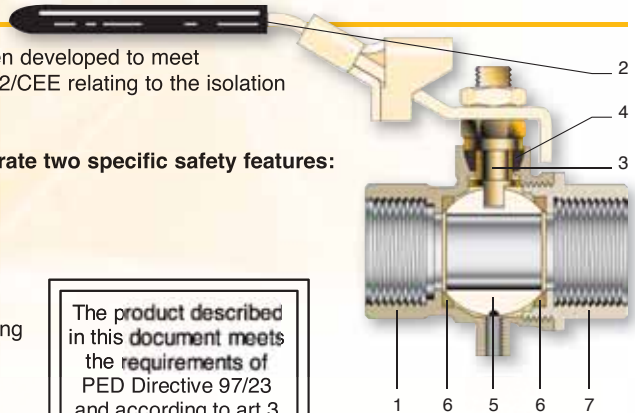
Principle

Parker BVGPLOCK series of ball valves has been developed to meet the requirements of European Directive DI 89/392/CEE relating to the isolation of power supply.

The BVGPLOCK series of ball valves incorporate two specific safety features:

- An M5 threaded venting port enabling downstream pressure to be vented when the valve is closed
- All valves are fitted with a locking mechanism enabling the valve to be padlocked in the closed position, thus preventing tampering or accidental closure of the valve during operation.

All seals are treated with a silicone free lubricant enabling them to be used in water based paint spray applications.



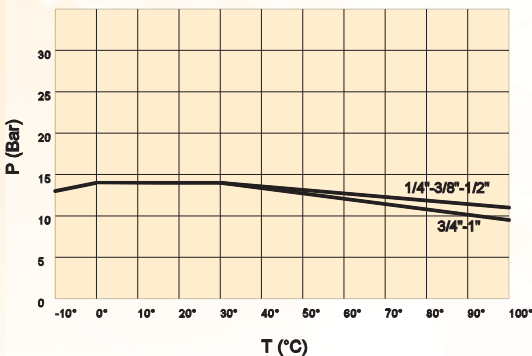
The product described in this document meets the requirements of PED Directive 97/23 and according to art.3 par.3, it does not require CE marking.

Technical features

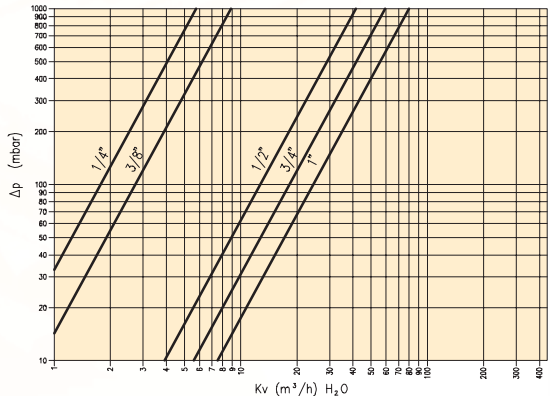
1	2	3	4	5	6	7	Valve dimensions	
Body	Lever handle	Anti extrusion stem	Stem packing gland	Ball	Anti friction ring	Forcing nut		
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Brass nickel plated	PTFE	Brass chrome plated	PTFE	Brass nickel plated	In accordance with DIN3357	See chart below

Operating pressures and temperatures

Pressure - Temperature chart



Pressure drop chart



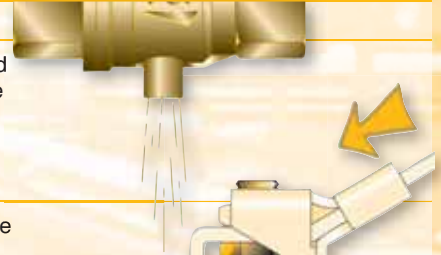
N.B. These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Ball Valves

Advantages

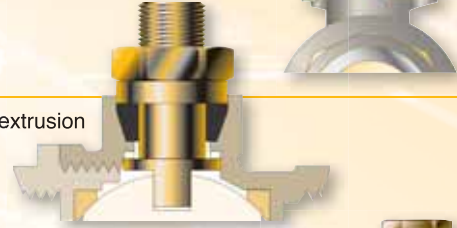
Threaded exhaust

BVGPLOCK series ball valves are manufactured with an M5 threaded exhaust port, this safety feature enables the downstream air pressure to be vented when the valve is closed.



Lockable handle

The BVGPLOCK series ball valves are fitted with a handle that can be locked in the closed position with a padlock. This safety feature ensures the valve cannot be accidentally opened, and only authorised personnel can operate the valve.



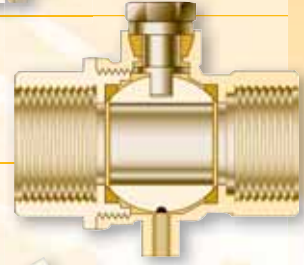
Anti extrusion stem

The BVGPLOCK series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks.



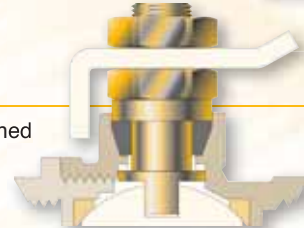
DIN 2999 / ISO 228 female threads

BVGPLOCK series valves are manufactured with female threads in accordance to DIN 2999/ISO228. This enables the valves to be used with Prestolok, Metrulok and brass adaptors but also Parker's range of steel hydraulic fittings and EO-fittings form "A" or "C" to DIN 3852.



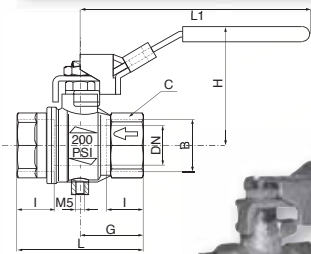
Full flow

All BVGPLOCK series valves are full-flow. This limits the turbulence created by the passage of fluid across the valve, minimizing pressure drop.



Adjustable packing

The PTFE packing gland and adjustable washer are designed to give longer service life and lower operating torques.



BVG4PLOCK - BSPP Female/Female lockable vented valve with lever handle

DN	B	#	C	G	H	I	L	L1	Gr
8	1/4	BVG4P-1/4LOCK	20	22.5	47.5	12.0	45	96	154
10	3/8	BVG4P-3/8LOCK	20	22.5	47.5	12.0	45	96	171
16	1/2	BVG4P-1/2LOCK	25	29.5	52.0	15.5	59	96	238
20	3/4	BVG4P-3/4LOCK	31	32.0	59.5	17.0	64	117	370
25	1	BVG4P-1LOCK	40	40.5	63.5	21.0	81	117	580


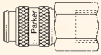
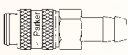





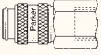
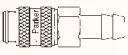

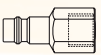
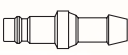






Quick Coupling Products

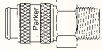
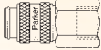







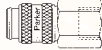
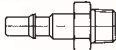
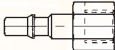
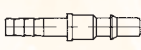

Catalogue 3806/UK



Pneumatic couplings

<p>PB series</p>	 <p>Female body Male thread BSPT PB52 F3C - p. M 5 PB53 F3C - p. M 5</p>	 <p>Female body Female thread BSPP PB52 G4Z - p. M 5 PB53 G4Z - p. M 5 PB54 G4Z - p. M 5</p>	 <p>Female body hose barb PB52 EB - p. M 5</p>
	 <p>Male tip Male thread BSPT PB12 F3C - p. M 6 PB13 F3C - p. M 6 PB14 F3C - p. M 6</p>	 <p>Male tip Female thread BSPP PB12 G4Z - p. M 6 PB13 G4Z - p. M 6 PB14 G4Z - p. M 6</p>	 <p>Male tip Hose barb PB12 EB - p. M 6 PB13 EB - p. M 6 PB14 EB - p. M 6</p>  <p>Male tip Push-Lok PB12 PL - p. M 6 PB13 PL - p. M 6 PB14 PL - p. M 6</p>
<p>PBF series</p>	<p>PBF series female bodies are recommended for use with PB series male tips (page M 5)</p>		
<p>PBS series</p>	 <p>Female body Male thread BSPP PBF52 F3C - p. M 8</p>	 <p>Female body Female thread BSPP PBF52 G4Z - p. M 8</p>	 <p>Female body Hose barb PBF52 EB - p. M 8</p>
	<p>For sizes 1/4" & 3/8", male tips to be used with PBS female bodies are those of the PB Series (page M 5). For size 1/2", please use the male tips PBS-502 with a specific treatment especially designed to withstand high flows.</p>		
<p>PE series</p>	 <p>Female body Male thread BSPP PE52 F3C - p. M 13</p>	 <p>Female body Female thread BSPP PE52 G4Z - p. M 13</p>	 <p>Female body Hose barb PE52 EB - p. M 13</p>
	 <p>Male tip Male thread BSPP PE12 F3C - p. M 13</p>	 <p>Male tip Female thread BSPP PE12 G4Z - p. M 14</p>	 <p>Male tip Hose barb PE12 EB - p. M 14</p>  <p>Male tip Push-Lok PE12 PL - p. M 14</p>

Pneumatic couplings

<p>PEF series</p>	 <p>Female body Male thread BSPT PEF52 F3C - p. M 16</p>	 <p>Female body Female thread BSPP PEF52 G4Z - p. M 16</p>	 <p>Female body Hose barb PEF52 EB - p. M 16</p>	
	 <p>Male tip Male thread BSPT PEF12 F3C - p. M 17</p>	 <p>Male tip Female thread BSPP PEF12 G4Z - p. M 17</p>	 <p>Male tip Hose barb PEF12 EB - p. M 17</p>	 <p>Male tip Push-Lok PEF13 F3C - p. M 17</p>
<p>PES series</p>	<p>Male tips to be used with PES female bodies are those of the PEF Series (page M 15).</p>			
	 <p>Female body Male thread BSPP PES - 251 - MB - p. M 19</p>		 <p>Female body Female thread BSPP PES - 251 - FB - p. M 19</p>	
<p>PCF series</p>	 <p>Female body Female thread BSPP PCF52 G4Z - p. M 21</p>			
	 <p>Male tip Male thread BSPT PCF12 F3C - p. M 21</p>	 <p>Male tip Female thread BSPP PCF12 G4Z - p. M 21</p>	 <p>Male tip Hose barb PCF12 EB - p. M 21</p>	
<p>BG series</p>	 <p>BSSP Thread BG 34 - p. M 22</p>			



Pneumatic couplings

Principle

The PB series of pneumatic quick couplers has been designed to meet the specifications and the profile defined in ISO standard 6150-B.

- Size: 1/4", 3/8", 1/2"
- Valving on female half only: poppet.
- Meets the requirements of ISO 6150-B, US MIL-C4109 and AFNOR E49-053.
- End configuration: BSP male and female, barb connector, Parker Push-Lok.
- One-hand operated (Push-to- connect).



Technical features

Female body							Male tip	Body size	Flow rates l/min.	Pressure		Temperature
End adaptor	Body	Sleeve	Poppet	Spring and snap ring	Pins	Seals				bar	Mpa	
Brass	Brass (except on 3/8 steel yellow chromate plated)	Brass	Brass	AISI 301 Stainless steel	AISI 420 Stainless steel hardened 54HRC	NBR (Nitrile)	Hardened steel nickel plated (Push-Lok version is in brass)	1/4" 3/8" 1/2"	550 900 2 350	16	1.6	From -20°C to + 100°C

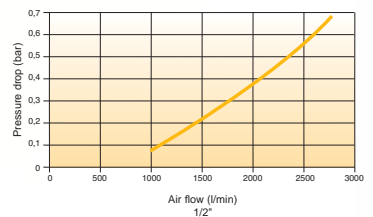
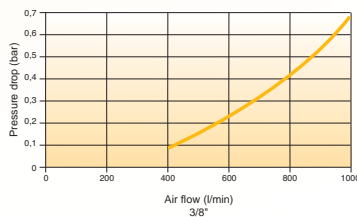
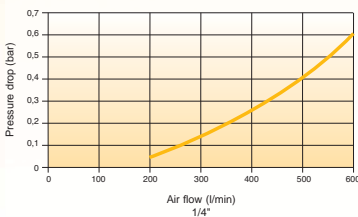
Applications

Meeting an international standard, the 1/4" size PB series pneumatic couplers are extensively used in the connection of pneumatic tools currently utilised in industry and garages.

Larger sizes (3/8" and 1/2") are used in pneumatic applications when larger flow rates are required, e.g.: grinding machines, pneumatic wrenches, pneumatic equipment, etc.

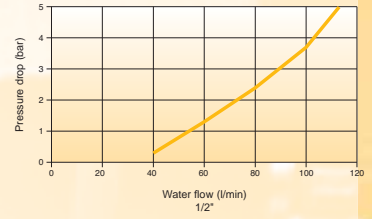
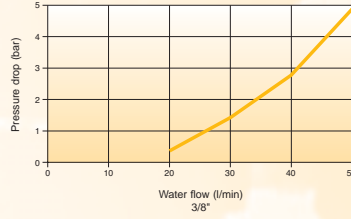
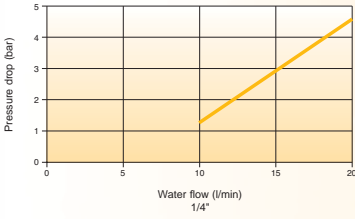
Pressure drop

Test with air, inlet pressure 6 bar

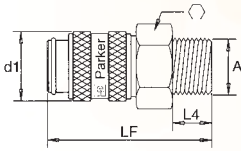


Pressure drop

Tests with water

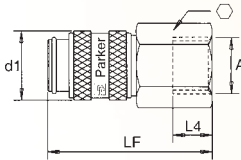


PB52/53/54 F3C - Female body - Male thread BSPT



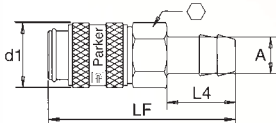
Body size	A	#	d1	⬡	LF	L4
1/4	1/4	PB52 F3C2	25	22	43	9
1/4	3/8	PB52 F3C3	25	22	43	9
3/8	1/4	PB53 F3C2	30	22	49	9
3/8	3/8	PB53 F3C3	30	22	49	9
3/8	1/2	PB53 F3C4	30	22	52	12
1/2	1/2	PB54 F3C4	35	30	79	17

PB52/53/54 G4Z - Female body - Female thread BSPP



Body size	A	#	d1	⬡	LF	L4
1/4	1/4	PB52 G4Z2	25	22	43	11.0
1/4	3/8	PB52 G4Z3	25	22	43	9.0
3/8	1/4	PB53 G4Z2	30	22	49	9.0
3/8	3/8	PB53 G4Z3	30	22	49	9.0
3/8	1/2	PB53 G4Z4	30	24	52	12.0
1/2	1/2	PB54 G4Z4	35	30	83	23.0
1/2	3/4	PB54 G4Z6	35	32	84	24.0

PB52 EB - Female body - Hose barb

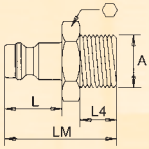



Body size	A mm	#	d1	⬡	LF	L4
1/4	6	PB52 EB6	25	25	60	25
1/4	8	PB52 EB8	25	25	60	25
1/4	10	PB52 EB10	25	25	60	25

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

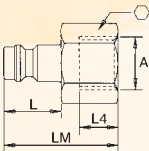
Pneumatic couplings


PB12/13/14 F3C - Male tip - Male thread BSPT



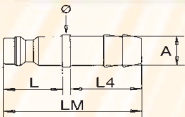
Body size	A	#		L	LM	L4
1/4	1/8	PB12 F3C1	13	23.6	39	9
1/4	1/4	PB12 F3C2	14	23.6	42	12
1/4	3/8	PB12 F3C3	17	23.6	42	12
3/8	1/4	PB13 F3C2	17	26.2	42	9
3/8	3/8	PB13 F3C3	19	26.2	42	9
3/8	1/2	PB13 F3C4	24	26.2	46	12
1/2	1/2	PB14 F3C4	22	34.9	59	17
1/2	3/4	PB14 F3C6	27	34.9	62	19

PB12/13/14 G4Z - Male tip - Female thread BSPP



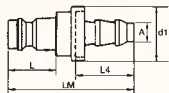
Body size	A	#		L	LM	L4
1/4	1/4	PB12 G4Z2	17	23.6	36	9.0
1/4	3/8	PB12 G4Z3	19	23.6	36	9.0
3/8	3/8	PB13 G4Z3	19	26.2	42	10.0
3/8	1/2	PB13 G4Z4	24	26.2	43	12.0
1/2	1/2	PB14 G4Z4	24	34.9	61	23.0
1/2	3/4	PB14 G4Z6	32	34.9	62	24.0

PB12/13/14 EB - Male tip - Hose barb



Body size	A mm	#	Ø	L	LM	L4
1/4	6	PB12 EB6	14	23.6	51	25
1/4	8	PB12 EB8	14	23.6	51	25
1/4	10	PB12 EB10	14	23.6	51	25
3/8	6	PB13 EB6	16	26.2	55	25
3/8	8	PB13 EB8	16	26.2	55	25
3/8	10	PB13 EB10	16	26.2	55	25
1/2	10	PB14 EB10	17	34.9	62	25
1/2	13	PB14 EB13	17	34.9	62	25
1/2	19	PB14 EB19	21	34.9	72	35

PB12/13/14 PL - Male tip - Push-Lok



Body size	A	#	d1	L	LM	L4
1/4	1/4	PB12 PL4	18.0	23.6	45.5	20.4
1/4	3/8	PB12 PL6	22.0	23.6	49.3	24.2
3/8	3/8	PB13 PL6	22.0	26.2	52.2	24.2
1/2	1/2	PB14 PL8	24.5	34.9	64.9	27.9

Pneumatic couplings

Principle

PBF series pneumatic quick couplers are only available in the 1/4" size and conform to specifications and profile of ISO standard 6150-B, while having improved flow capability.

- Valving on female half only: poppet.
- Meets the requirements of ISO 6150-B, US MIL-C4109 and AFNOR E49-053.
- End configuration: BSP male and female, barb connector.
- One-hand operated (Push-to-connect).



Technical features

End adaptor	Body	Female body					Male tip	Body size	Flow rates l/min.	Pressure		Temperature
		Sleeve	Poppet	Spring and snap ring	Balls	Seals				bar	Mpa	
Brass nickel plated	Brass nickel plated	Steel hardened and nickel plated	Brass	AISI 301 Stainless steel	AISI 420 Stainless steel	NBR (Nitrile)	Hardened steel nickel plated	1/4"	900	16	1.6	From -20°C to + 100°C

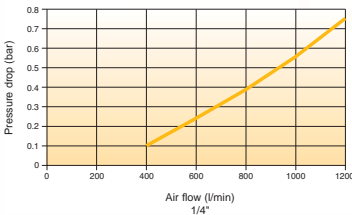
Applications

The PBF series comes from the same family as the PB series, but has even better flow characteristics, enabling these couplers to be used with any type of pneumatic tool.

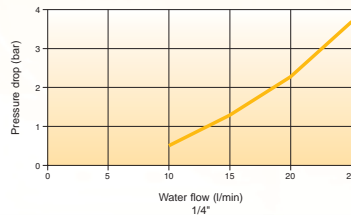
This series can be used in place of larger size couplers, because the pressure drop has been greatly improved.

Pressure drop

Tests with air, inlet pressure 6 bar.

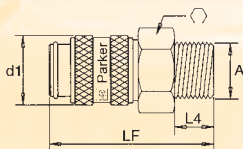


Tests with water



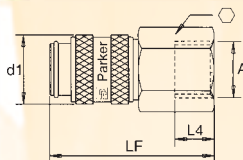
Pneumatic couplings

PBF52F3C - Female body - Male thread BSPT



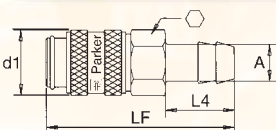
Body size	A	#	d1	Hexagon	LF	L4
1/4	1/4	PBF52 F3C2	23	19	59	12
1/4	3/8	PBF52 F3C3	23	19	59	12

PBF52G4Z - Female body - Female thread BSPP



Body size	A mm	#	d1	Hexagon	LF	L4
1/4	1/4	PBF52 G4Z2	23	19	55	10
1/4	3/8	PBF52 G4Z3	23	19	54	9

PBF52 EB - Female body - Hose barb



Body size	A mm	#	d1	Hexagon	LF	L4
1/4	6	PBF52 EB6	23	19	73	25
1/4	8	PBF52 EB8	23	19	73	25
1/4	10	PBF52 EB10	23	19	73	25

IMPORTANT: PBF series female bodies are recommended for use with PB series male tips (p. M 6).

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Pneumatic couplings

Principle

Parker PBS Series combines many advantages: **Easy operations and safety.** A low connection force allows an easy "push-to-connect action". One handed disconnection permits air to vent safely. PBS Series meets the ISO 4414 and DIN EN983 specifications.




The system is depressurised downstream prior to disconnection which will prevent hose whip.

Ergonomics: this series is lightweight, robust in its construction and produced in impact resistant material to increase service life and resistance to abrasion, shocks, crushing and vibration. The plastic sleeve construction has also the advantage of protecting surfaces from scratching.

- Body sizes: 1/4", 3/8", 1/2".
- Valving on female half only: streamlined poppet
- Meets the requirements of ISO 6150-B & US MIL-C4109
- End configurations: BSPP, BSPT and hose barb.



Technical features

 Female body							Male tip	Body size	Flow rates l/min.*	 bar Mpa		 From -15°C to +70°C
End adaptor	Body	Sleeve	Poppet	Spring and snap ring	Clamps	Seals				bar	Mpa	
Zinc plated steel	Polyamide	Polyamide	Polyacetal	Stainless steel	(1/4" - 3/8") Polyacetal	NBR (Nitrile)	For sizes 1/4" & 3/8" Hardened steel nickel plated	1/4" 3/8" 1/2"	880 1800 4160	16	1.6	
					Pins and balls (1/2")	Stainless steel	For size 1/2" carbonitrided steel					

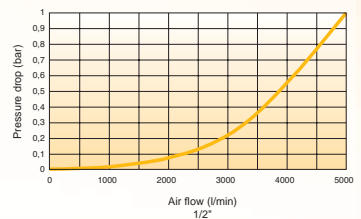
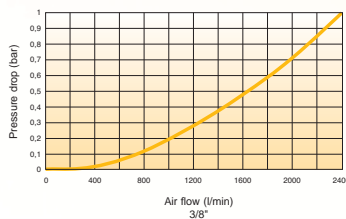
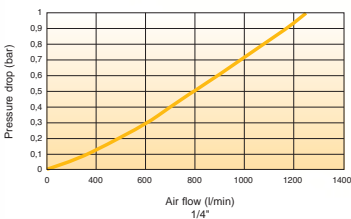
*Rated flow at pressure drop of 0,6 bar and 6 bar inlet pressure.

Applications

Due to a streamlined poppet, the PBS Series has high flow characteristics enabling them to be used with any type of pneumatic tool such as pneumatic spanners and cutters, grinding wheels, pneumatic hoists...

Pressure drop

Tests with air



Pneumatic couplings

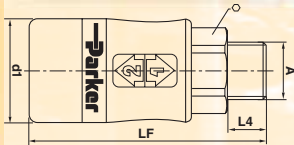
Easy operations



To decompress the down stream system, you just have to pull in the direction indicated on the arrow 1.

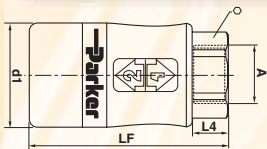
A thrust in the opposite direction is disconnecting the male tip in total safety.

PBS - 251/371/501 - MB - Female body - Male thread BSPP



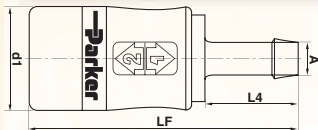
Size	A	#	d1		LF	L4
1/4	1/4	PBS - 251 - 4MB	30	17	74,5	11
1/4	3/8	PBS - 251 - 6MB	30	23	77	12
3/8	3/8	PBS - 371 - 6MB	35	21	86	12
3/8	1/2	PBS - 371 - 8MB	35	23	89	14
1/2	1/2	PBS - 501 - 8MB	41	30	89	14
1/2	3/4	PBS - 501 - 12MB	41	30	91	16

PBS - 251/371/501 - FB - Female body - Female thread BSPP



Size	A	#	d1		LF	L4
1/4	1/4	PBS - 251 - 4FB	30	17	64	9
1/4	3/8	PBS - 251 - 6FB	30	23	71	16
3/8	3/8	PBS - 371 - 6FB	35	21	74	9
1/2	1/2	PBS - 501 - 8FB	41	30	86	24
1/2	3/4	PBS - 501 - 12FB	41	30	95	33

PBS - 251/371/501 - HB - Female body - Hose barb



Size	A mm	#	d1	LF	L4
1/4	8	PBS - 251 - 5HB	30	82	23
1/4	10	PBS - 251 - 6HB	30	82	23
3/8	10	PBS - 371 - 6HB	35	92	23
1/2	13	PBS - 501 - 8HB	41	109	33

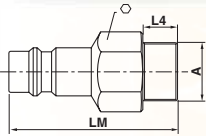
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.


Pneumatic couplings

IMPORTANT: For size 1/4 & 3/8", male tips to be used with PBS female bodies are those of the PB Series (page p. M 6).

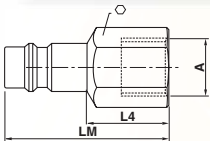
For size 1/2", please use the male tips PBS-502 with a specific treatment especially designed to withstand high flows.


PBS - 502 - MBT - Male tip - Male thread BSPT



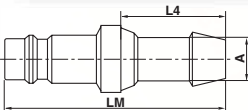
Size	A	#		LM	L4
1/2	3/8	PBS - 502 - 6MBT	17	82	11
1/2	1/2	PBS - 502 - 8MBT	22	84	15

PBS - 502 - FB - Male tip - Female thread BSPP



Size	A	#		LM	L4
1/2	3/8	PBS - 502 - 6FB	25	60	25

PBS - 502 - HB - Male tip - Hose barb



Size	A mm	#	LM	L4
1/2	13	PBS - 502 - 8HB	70	33

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Pneumatic couplings




Principle

Showing the same overall dimensions as corresponding size PB couplers, the PE series offers the double advantage of a profile design widespread in Europe and improved flow performance due to a larger flow path (7.2 mm).

- Valving on female half only: poppet
- End configuration: BSP male and female, barb connector, Parker Push-Lok
- One-hand operated (Push-to-connect)



Technical features

Female body 							Male tip	Body size	Flow rates l/min.*	Pressure		Temperature 
End adaptor	Body	Sleeve	Valve	Spring and snap ring	Pins	Seals				bar 	Mpa	
Brass	Brass	Brass	Brass	AISI 301 Stainless steel	AISI 420 Stainless steel hardened 54HRC	NBR (Nitrile)	Brass	7.2 mm	1000	35	3.5	From -20°C to +100°C

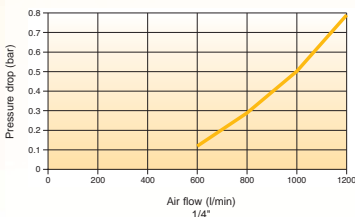
* Rated flow at pressure drop of 0.5 bar and 6 bar inlet pressure.

Applications

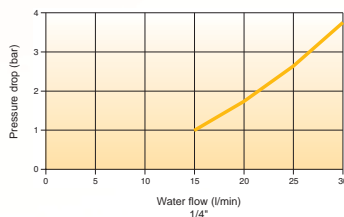
Because of their flow characteristics, the PE series of couplers satisfies most pneumatic applications and can even replace couplers of a different design, but of larger size. They are ideally used with all kinds of pneumatic hand tools.

Pressure drop

Tests with air, inlet pressure 6 bar.

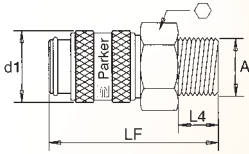


Tests with water



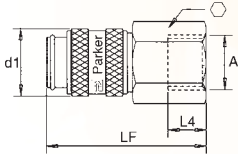
Pneumatic couplings

PE52 F3C - Female body - Male thread BSPP



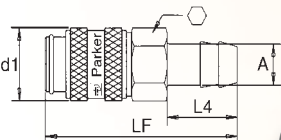
Body size mm	A	#	d1		LF	L4
7.2	1/4	PE52 F3C2	25	22	39	9
7.2	3/8	PE52 F3C3	25	22	41	9
7.2	1/2	PE52 F3C4	25	22	44	12

PE52 G4Z - Female body - Female thread BSPP



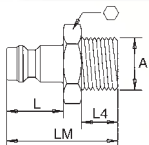
Body size mm	A	#	d1		LF	L4
7.2	1/4	PE52 G4Z2	25	22	41	9
7.2	3/8	PE52 G4Z3	25	22	41	9
7.2	1/2	PE52 G4Z4	25	24	44	10

PE52 EB - Female body - Hose barb



Body size mm	A mm	#	d1		LF	L4
7.2	6	PE52 EB6	25	21	58	25
7.2	8	PE52 EB8	25	21	58	25
7.2	10	PE52 EB10	25	21	58	25

PE12 F3C - Male tip - Male thread BSPP



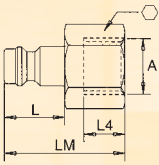
Body size mm	A	#		L	LM	L4
7.2	1/8	PE12 F3C1	14	20	31	9
7.2	1/4	PE12 F3C2	17	20	33	9
7.2	3/8	PE12 F3C3	19	20	33	9


For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

M

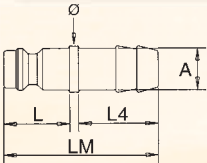
Pneumatic couplings

PE12 G4Z - Male tip - Female thread BSPP



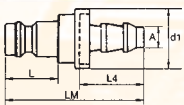
Body size mm	A	#		L	LM	L4
7.2	1/4	PE12 G4Z2	17	20	33	10
7.2	3/8	PE12 G4Z3	19	20	33	10
7.2	1/2	PE12 G4Z4	24	20	35	12

PE12 EB - Male tip - Hose barb



Body size mm	A mm	#	∅	L	LM	L4
7.2	6	PE12 EB6	12	20	48	25
7.2	8	PE12 EB8	12	20	48	25
7.2	10	PE12 EB10	12	20	48	25
7.2	13	PE12 EB13	15	20	48	25

PE12 PL - Male tip - Push-Lok



Body size mm	A	#	d1	L	LM	L4
7.2	1/4	PE12 PL4	18.0	20	42	20.4
7.2	3/8	PE12 PL6	22.0	20	46	24.2
7.2	1/2	PE12 PL8	24.5	20	50	27.9

For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

Pneumatic couplings




Principle

The PEF series are available in 7.2 and 10 mm nominal sizes with the same profile as PE series. However, flow characteristics are even better.

- Valving on female half only: poppet.
- End configuration: BSP male and female, barb connector, Parker Push-Lok.
- One-hand operated (Push-to-connect).



Technical features

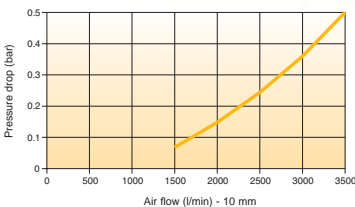
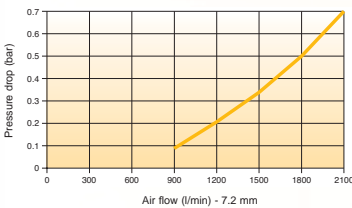
 Female body							Male tip	Body size	Flow rates l/min.	 bar Mpa		 From -20°C to +100°C
End adaptor	Body	Sleeve	Poppet	Spring and snap ring	Balls	Seals				bar	Mpa	
Brass nickel plated	Brass nickel plated	Steel hardened and nickel plated	Brass	AISI 301 Stainless steel	AISI 420 Stainless steel	NBR (Nitrile)	Hardened steel nickel plated (Push-Lok version is in brass)	7.2 mm 10 mm	1800 3500	16	1.6	

Applications

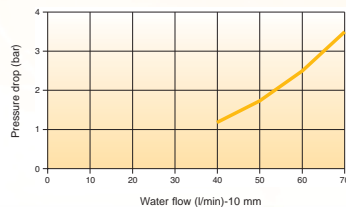
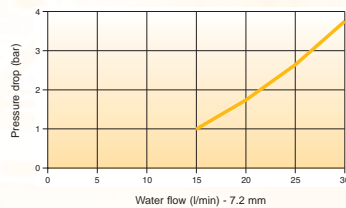
Showing exceptional flow characteristics, PEF series couplers are used in all pneumatic applications, where pressure drop has to be reduced to an absolute minimum, and energy saving is essential.

Pressure drop

Tests with air, inlet pressure 6 bar.

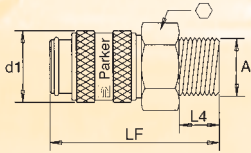


Tests with water



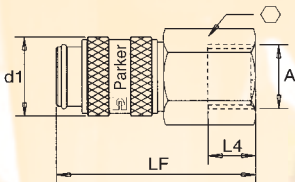
Pneumatic couplings

PEF52/53 F3C - Female body - Male thread BSPT



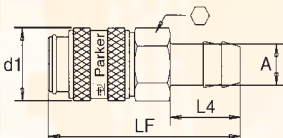
Body size mm	A	#	d1		LF	L4
7.2	1/4	PEF52 F3C2	23	19	60	12
7.2	3/8	PEF52 F3C3	23	19	60	12
7.2	1/2	PEF52 F3C4	23	22	61	17
10.0	3/8	PEF53 F3C3	27	24	63	12
10.0	1/2	PEF53 F3C4	27	24	65	17

PEF52/53 G4Z - Female body - Female thread BSPP



Body size mm	A	#	d1		LF	L4
7.2	1/4	PEF52 G4Z2	23	19	56	10
7.2	3/8	PEF52 G4Z3	23	19	55	9
7.2	1/2	PEF52 G4Z4	23	24	58	12
10.0	3/8	PEF53 G4Z3	27	24	56	11
10.0	1/2	PEF53 G4Z4	27	24	56	12

PEF52/53 EB - Female body - Hose barb

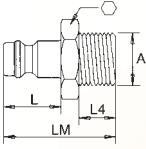


Body size mm	A mm	#	d1		LF	L4
7.2	6	PEF52 EB6	23	19	74	25
7.2	8	PEF52 EB8	23	19	74	25
7.2	10	PEF52 EB10	23	19	74	25
10.0	10	PEF53 EB10	27	24	76	25
10.0	13	PEF53 EB13	27	24	76	25

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

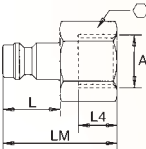
Pneumatic couplings

PEF12/13 F3C - Male tip - Male thread BSPT



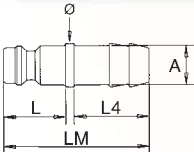
Body size mm	A	#		L	LM	L4
7.2	1/8	PEF12 F3C1	13	20.0	33	9
7.2	1/4	PEF12 F3C2	14	20.0	37	12
7.2	3/8	PEF12 F3C3	17	20.0	37	12
7.2	1/2	PEF12 F3C4	22	20.0	43	17
10.0	1/4	PEF13 F3C2	17	21.5	40	12
10.0	3/8	PEF13 F3C3	17	21.5	40	12
10.0	1/2	PEF13 F3C4	22	21.5	45	17

PEF12/13 G4Z - Male tip - Female thread BSPP



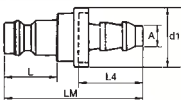
Body size mm	A	#		L	LM	L4
7.2	1/4	PEF12 G4Z2	17	20.0	33	9
7.2	3/8	PEF12 G4Z3	19	20.0	33	9
7.2	1/2	PEF12 G4Z4	24	20.0	36	12
10.0	3/8	PEF13 G4Z3	19	21.5	33	9
10.0	1/2	PEF13 G4Z4	24	21.5	37	12

PEF12/13 EB - Male tip - Hose barb



Body size mm	A mm	#	Ø	L	LM	L4
7.2	6	PEF12 EB6	12	20.0	48	25
7.2	8	PEF12 EB8	12	20.0	48	25
7.2	10	PEF12 EB10	12	20.0	48	25
10.0	8	PEF13 EB8	15	21.5	48	25
10.0	10	PEF13 EB10	15	21.5	48	25
10.0	13	PEF13 EB13	15	21.5	48	25

PEF12/13 PL - Male tip - Push-Lok



Body size mm	A	#	d1	L	LM	L4
10	3/8	PEF13 PL6	22	21.5	47.8	24.2

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

M

Pneumatic couplings

Principle

Parker PES Series combines many advantages: **Easy operations and safety.**

A low connection force allows an easy "push-to-connect".

One handed disconnection permits air to vent safely.

PES Series meets the ISO 4414 and DIN EN983 specifications.




The system is depressurised downstream prior to disconnection which will prevent hose whip.

Ergonomics: this series is lightweight, robust in its construction and produced in impact resistant material to increase service life and resistance to abrasion, shocks, crushing and vibration. The plastic sleeve construction has also the advantage of protecting surfaces from scratching.



- Body size: 7.2 mm.
- Valving on female half only: streamlined poppet
- Meets the requirements of "Europrofile"
- End configurations: BSPP, BSPT and hose barb.

Technical features

 Female body							Male tip	Body size	Flow rates l/min.*	 bar Mpa		 From -15°C to + 70°C
End adaptor	Body	Sleeve	Poppet	Spring and snap ring	Pins and balls	Seals						
Zinc plated steel	Polyamide	Polyamide	Polyacetal	Stainless steel	Stainless steel	NBR (Nitrile)	carbonitrided steel	7.2 mm	1470	16	1.6	

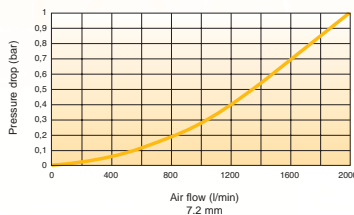
*Rated flow at pressure drop of 0,6 bar and 6 bar inlet pressure.

Applications

Due to a streamlined poppet, the PES Series has high flow characteristics enabling them to be used with any type of pneumatic tool such as pneumatic spanners and cutters, grinding wheels, pneumatic hoists...

Pressure drop

Tests with air



Pneumatic couplings

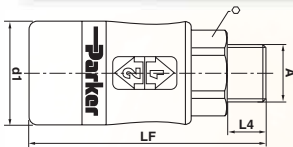
Easy operations




To decompress the down stream system, you just have to pull in the direction indicated on the arrow 1.
 A thrust in the opposite direction is disconnecting the male tip in total safety.

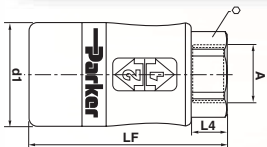
IMPORTANT: Male tips to be used with PES female bodies are those of the PEF Series (p. M 15).


PES - 251 - MB - Female body - Male thread BSPP



Size mm	A	#	d1		LF	L4
7.2	1/4	PES - 251 - 4MB	32	21	71	22
7.2	3/8	PES - 251 - 6MB	32	21	72	23

PES - 251 - FB - Female body - Female thread BSPP



Size mm	A	#	d1		LF	L4
7.2	1/4	PES - 251 - 4FB	32	21	60	11
7.2	3/8	PES - 251 - 6FB	32	21	60	11



For product availability please consult our price list 3893.
 Dimensions shown may be changed at any time without prior notice.

Pneumatic couplings

Principle

The PCF series, available in the 1/4" body size, has been designed to meet the profile defined in ISO standard 6150-C.

It has very good flow capability.

- Valving on female half only: poppet
Meets the requirements of ISO 6150-C
- End configuration:
BSP male and female, barb connector
- One-hand operated (Push-to-connect)



Technical features

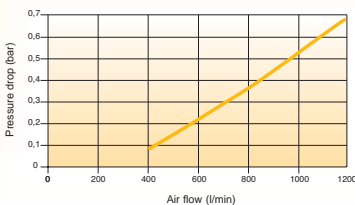
End adaptor	Body	Female body					Male tip	Body size	Flow rates l/min.	bar		Mpa	Temperature
		Sleeve	Poppet	Spring and snap ring	Balls	Seals				bar	Mpa		
Brass nickel plated	Brass nickel plated	Steel hardened and nickel plated	Brass	AISI 301 Stainless steel	AISI 420 Stainless steel	NBR (Nitrile)	Hardened steel, nickel plated	1/4"	970	15	1.5	From -20°C to +100°C	

Applications

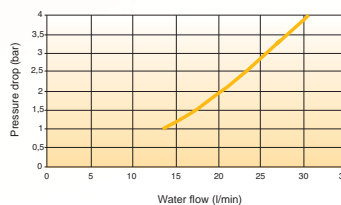
The 1/4" size PCF series pneumatic couplers are extensively used in the connection of pneumatic tools currently utilised in industry.

Pressure drop

Tests with air, inlet pressure 6 bar.

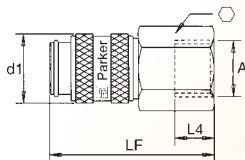


Tests with water



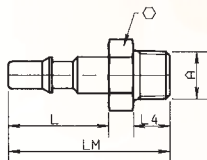
Pneumatic couplings

PCF52G4Z - Female body - Female thread BSPP



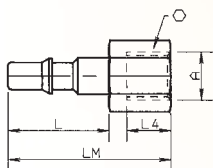
Body size	A	Part number	d1		LF	L4
1/4	1/4	PCF52G4Z2	23	19	58	9
1/4	3/8	PCF52G4Z3	23	19	57	9
1/4	1/2	PCF52G4Z4	23	24	60	12

PCF12F3C - Male tip - male thread BSPT



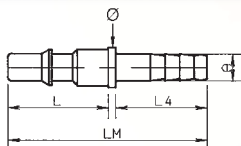
Body size	A	#		L	LM	L4
1/4	1/4	PCF12F3C2	17	27.5	41	9
1/4	3/8	PCF12F3C3	19	27.5	41	9

PCF12G4Z - Male tip - Female thread BSPP



Body size	A	#		L	LM	L4
1/4	1/4	PCF12G4Z2	17	27.5	40	9
1/4	3/8	PCF12G4Z3	19	27.5	41	9

PCF12EB - Male tip - Hose barb



Body size	A mm	#	Ø	L	LM	L4
1/4	6	PCF12EB6	12	27.5	59	25
1/4	8	PCF12EB8	12	27.5	59	25
1/4	10	PCF12EB10	12	27.5	59	25

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Pneumatic couplings

Principle

The blow guns of the BG Series are available with a variety of nozzle configurations.

They combine many advantages: light weight, reduced noise level, easy control, ergonomic design and variable flow, thus providing superior performance.

- Standard: nozzles available that meet OSHA requirements
- Inlet port: 1/4" NPTF and 1/4" BSPP



Technical features

Material:

Impact resistant plastic.

Pistol grip trigger:

Allows greater control over the amount of air delivered.

Dual hooks for hanging.

Ergonomic lever:

For an easy, instantaneous handling, without effort.

Nozzles:

- Extended nozzles allow air to be focused where it is needed
- Short nozzles also available

Standards:

Most models meet OSHA directives on the use of compressed air for cleaning purposes. OSHA directive #100-1 states that "when dead ending occurs a static pressure at the main orifice shall not exceed 2 bar". For those blow guns that do not meet this requirement, OSHA requires that "compressed air shall not be used for cleaning purposes except where reduced to less than 2 bar, and then only with effective chip guarding and personal protective equipment" (section 29 CFR 1910.242 paragraph b). Please refer to the blow gun descriptions on the next page for compatibility with OSHA directive #100-1.

bar		Mpa	
12	1.2	From - 20 °C to + 50 °C.	

Applications

BG Series blow guns can be used at all the manufacturing stages to:

- Blow off parts
- Clean work-stations
- Remove dust
- Dry

Blow Guns

Thread	Description	Meets OSHA requirements		Colour black	#
		yes	no		
1/4 BSPP	Extended nozzle	●		●	BG342-SBL
1/4 BSPP	Extended nozzle		●	●	BG341-NBL
1/4 BSPP	Short nozzle	●		●	BG344-SBL



Push-Lok[®]
The Self-Grip Hose System

Catalogue 4482/UK



Push-Lok® Hose and Fittings**Hoses**

801	Push-Lok® Hose.....	p. N 5
804	Push-Lok® Hose.....	p. N 5
821FR	Push-Lok® Hose.....	p. N 6
830M	Push-Lok® Hose.....	p. N 6
831	Push-Lok® Hose.....	p. N 7
836	Push-Lok® Hose.....	p. N 7
837BM	Push-Lok® Hose.....	p. N 8
837PU	Hybrid Push-Lok® Hose	p. N 8
838M	Push-Lok® Hose.....	p. N 9

Push-Lok® Fittings: 82 Series

Metric	p. N 10
60° - 90° Cone.....	p. N 15
BSP.....	p. N 17
NPTF.....	p. N 20
JIC - SAE.....	p. N 21
ORFS.....	p. N 24
Special.....	p. N 24
Chemical Resistance Table	p. N 29
Safety guide.....	p. N 35

Assembly accessories

Assembly instructions.....	p. N 4
Push-Lok® cut off and assembly tools	p. N 4

For your safety !

Flexible hoses are used to transmit fluids, sometimes at considerable pressures. The power-grip connection between the fitting and the hose is a critical zone in all flexible hose connections. Only use Parker components (hoses and nipples) designed to be assembled by means of the appropriate Parker tooling, which will ensure full compliance with standards.

Following installation recommendations and suitable maintenance also give a guarantee for long life of the flexible hose. Non-compliance with these elementary rules can lead to the rupture of a flexible hose and cause considerable damage and sometimes bodily injury.

Low Pressure Push-Lok® - Hose and fittings

The self-grip hose system for low pressure applications

The Push-Lok® range offers a wide selection of different hose types in rubber and thermoplastic as well as a hybrid version.



All hose materials are available in 6 different colours.

The hose range is complete with end configurations in DIN, BSP, SAE, JIC and ORFS in brass, steel and stainless steel.

Parker Push-Lok®

World-wide market leader for the following good reasons:

Easy assembly

- No tools or clamps required

6 colours for...

- Easy identification
- Simple production processes
- A colour for a particular medium
- Easy control of maintenance intervals
- Simple stock planning in different departments

Wide variety of hose types

- 6 rubber hose type
- 2 thermoplastic hoses
- 1 hybrid hose

One fitting series for all hose types

- With DIN, BSP, SAE, JIC and ORFS connections in brass, steel and stainless steel

Push-Lok® hoses offer variety

Excellent performance and durability for the following applications.



Assembly instructions

1. Cut the hose right angled with a sharp knife

If necessary it is possible to use a lubricant (water/soap solution with 5% soap fluid and 95% water) for easy assembly.



2. Insert fitting into hose until first barb is in hose

Place end of fitting against a flat object (bench, door, wall) and grip hose approximately 1" from end and push with a steady force until end of hose is covered by the yellow plastic collar. Alternatively please use the Parker Assembly Tool No. 611050G.



Attention! During assembly please note that Push-Lok® fittings will provide an effective grip only when the Push-Lok® hose is pushed fully on the insert, where the cropped end of the hose should be fully concealed by the plastic collar. **For easy assembly of hose 830M, 837BM and 837PU please use only Push-Lok® Assembly Oil No. H896137.** Push-Lok® Assembly Oil is free from wetting disturbing substances. Don't use oil, lubricant or soap fluids for this hose!

Disassembly instructions

1. Cut lengthwise along a line at approximately a 20° angle from centre line of hose

The cut should be approximately 1" long. Be careful not to nick barbs when cutting the hose.



2. Grip hose and give a sharp downward tug to disengage from fitting



Attention! Before re-use of the nipple please check nipple for damage. Damaged nipples can cause leakage

Assembly oil H896137

1 litre bottle



Part No. H896137

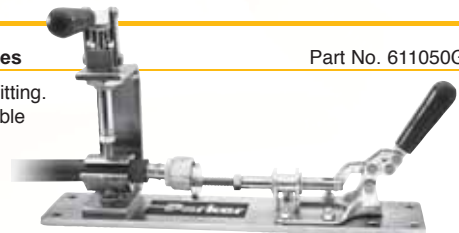
Assembly tool

Tool designed for assembly of Push-Lok® fittings and hose in all sizes

Part No. 611050G

Toggle actions greatly reduce effort necessary to hold hose and press in fitting. Only a few pounds of force are needed on either handle to quickly assemble any size.

Overall length: 320 mm
Weight: 2.2 kg



Push-Lok® Hose and Fittings

801 - Push-Lok® Hose for a variety of applications



Main Features: Very flexible, wide range of colours, available up to size -16.
Primary Applications/Restrictions
All Markets: For light applications
Paper and Pulp: For water / air applications.
Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.
Hose Construction
Tube: Synthetic rubber
Reinforcement: High tensile textile layer
Cover: High performance synthetic rubber in different colours
Recommended Fluids: Mineral based hydraulic and lubricating oils (up to +70 °C), coolant, antifreeze, air, dry air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.
Temperature Range -40 °C up to +100 °C
Exception: Airmax. +70 °C
 Watermax. +85 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vaccum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure MPa	psi	min. burst pressure MPa	psi			
801-4-XXX-RL	6	1/4	-4	6.3	12.7	1.7	250	6.8	1000	95	65	0.13
801-6-XXX-RL	10	3/8	-6	9.5	15.9	1.7	250	6.8	1000	95	75	0.16
801-8-XXX-RL	12	1/2	-8	12.7	19.8	1.7	250	6.8	1000	95	130	0.27
801-10-XXX-RL	16	5/8	-10	15.9	23.0	1.7	250	6.8	1000	51	150	0.28
801-12-XXX-RL	20	3/4	-12	19.1	26.2	1.7	250	6.8	1000	51	180	0.36
801-16-XXX-RL	25	1	-16	25.4	32.5	1.2	175	4.8	700	51	250	0.55

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
 Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.
 Example: 801-4-XXX-RL XXX = BLK = black / BLU = blue / RED = red / GRN = green / GRA = grey
 Example: 801-4-GRN-RL (green) RL = only available on reels 801-16-XXX-RL is only available in grey or black.

804 - Push-Lok® Hose for high temperature water / phosphate ester fluid



Main Features: For hot water up to +93 °C, For phosphate ester fluids
Primary Applications/Restrictions
Injection Moulding: For special tempering circuits.
Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems. Do not allow tube to contact any petroleum based fluids.
Hose Construction
Tube: EPDM material
Reinforcement: High tensile textile layer
Cover: Black EPDM material
Recommended Fluids: Phosphate ester based hydraulic fluids, *water, *water glycol emulsions, air. Use liquid soap as lubricant. Consult the chemical compatibility section on page N-29 for more detailed information.
Temperature Range up to +80 °C
Exception: Airmax. +70 °C
 *Watermax. +93 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure MPa	psi	min. burst pressure MPa	psi		
804-4-RL	6	1/4	-4	6.3	12.7	0.9	125	3.4	500	65	0.13
804-6-RL	10	3/8	-6	9.5	15.9	0.9	125	3.4	500	75	0.16
804-8-RL	12	1/2	-8	12.7	19.8	0.9	125	3.4	500	130	0.27
804-12-RL	20	3/4	-12	19.1	26.2	0.9	125	3.4	500	180	0.36

RL = only available on reels

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

Push-Lok® Hose and Fittings

821FR- Push-Lok® Hose with fire retardant hose cover

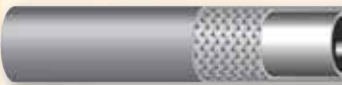


Main Features: Fire retardant hose cover, very flexible, for high level air temperatures.
Primary Applications/Restrictions
All Markets: For a variety of applications
Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.
Hose Construction
Tube: Synthetic PKR-rubber
Reinforcement: High tensile textile layer
Cover: A fire retardant special fiber outer cover
Recommended Fluids: Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.
Temperature Range -40 °C up to +100 °C
Exception: Air.....max. +100 °C
 Water.....max. +85 °C
Fittings Series 82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure MPa	psi	min. burst pressure MPa	psi			
821FR-4-XXX-RL	6	1/4	-4	6.3	12.7	2.4	350	9.7	1400	95	65	0.12
821FR-6-XXX-RL	10	3/8	-6	9.5	15.9	2.0	300	8.3	1200	95	75	0.16
821FR-8-XXX-RL	12	1/2	-8	12.7	19.8	2.0	300	8.3	1200	95	130	0.18
821FR-12-XXX-RL	20	3/4	-12	19.1	26.2	1.7	250	6.8	1000	95	180	0.33

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
 Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.
 Example: 821FR-4-XXX-RL XXX = BLK = black / BLU = blue / GRN = green / WHT = white / BRN = brown
 Example: 821FR-4-GRN-RL (green) RL = only available on reels

830M - Push-Lok® Hose for a variety of applications including automotive



Main Features: Chemical resistant for a wide range of fluids, high abrasion resistance, free of wetting disturbing substances, small OD and bend radii.
Primary Applications/Restrictions
All Markets: For a variety of applications
Robot and Automotive market: For hose bundle systems
Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.
Hose Construction
Tube: Polyurethane material
Reinforcement: High tensile textile layer
Cover: High performance polyurethane material in different colours
Recommended Fluids: Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.
Temperature Range -40 °C up to +80 °C
Fittings Series 82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure MPa	psi	min. burst pressure MPa	psi			
830M-4-XXX-RL	6	1/4	-4	6.3	10.7	1.6	232	6.4	928	10	30	0.08
830M-6-XXX-RL	10	3/8	-6	9.5	14.9	1.6	232	6.4	928	10	50	0.13
830M-8-XXX-RL	12	1/2	-8	12.7	19.1	1.6	232	6.4	928	10	70	0.20
830M-10-XXX-RL	16	5/8	-10	16.0	23.0	1.6	232	6.4	928	10	90	0.26
830M-12-XXX-RL	20	3/4	-12	19.0	26.0	1.6	232	6.4	928	10	110	0.31

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
 Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.
 Example: 830M-4-XXX-RL XXX = BLK = black / BLU = blue / GRN = green / WHT = white / BRN = brown
 Example: 830M-4-GRN-RL (green) RL = only available on reels

Push-Lok® Hose and Fittings

831 - Push-Lok® Hose - Ideal for petroleum based fluids



Main Features: Max. working pressure up to 2.4 MPa, High temperature level for petroleum based fluids, Nitrile (NBR) inner tube - extended fluid compatibility

Primary Applications/Restrictions

All Markets: For a wide range of fluids.

Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.

Hose Construction

Tube: Synthetic rubber

Reinforcement: High tensile textile layer

Cover: High performance synthetic rubber in different colours

Recommended Fluids: Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.

Temperature Range Air.....-40 °C up to +100 °C

Exception: Water.....max. +70 °C

Water.....max. +85 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure	min. burst pressure					
					MPa	psi	MPa	psi				
831-4-XXX-RL	6	1/4	-4	6.3	12.7	2.4	350	9.7	1400	95	65	0.13
831-6-XXX-RL	10	3/8	-6	9.5	15.9	2.0	300	8.3	1200	95	75	0.16
831-8-XXX-RL	12	1/2	-8	12.7	19.8	2.0	300	8.3	1200	95	130	0.27
831-10-XXX-RL	16	5/8	-10	15.9	23.0	2.0	300	8.3	1200	51	150	0.28
831-12-XXX-RL	20	3/4	-12	19.1	26.2	2.0	300	8.3	1200	51	180	0.36

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.

Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.

Example: 831-4-XXX-RL

XXX = BLK = black / BLU = blue / RED = red / GRN = green

Example: 831-4-GRN-RL (green)

RL = only available on reels.

836 - Push-Lok® Hose for high oil temperatures



Main Features: Max. oil temperature up to +150 °C, Blue hose cover

Primary Applications/Restrictions

All Markets: Special high temperature applications

Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.

Hose Construction

Tube: Synthetic PKR rubber

Reinforcement: High tensile textile layer

Cover: Blue synthetic PKR rubber

Recommended Fluids: Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.

Temperature Range Air.....-48 °C up to +150 °C

Exception: Water.....max. +70 °C

Water.....max. +85 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure	min. burst pressure					
					MPa	psi	MPa	psi				
836-4-RL	6	1/4	-4	6.3	12.7	1.7	250	6.8	1000	95	65	0.13
836-6-RL	10	3/8	-6	9.5	15.5	1.7	250	6.8	1000	95	75	0.16
836-8-RL	12	1/2	-8	12.7	19.8	1.7	250	6.8	1000	95	130	0.27
836-10-RL	16	5/8	-10	15.9	23.1	1.7	250	6.8	1000	51	150	0.28
836-12-RL	20	3/4	-12	19.1	26.2	1.7	250	6.8	1000	51	180	0.36

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa.

RL = only available on reels

Information about standard products or non-standard products can be found in the current price list.

Dimensions shown may be changed at any time without prior notice.

837BM - Push-Lok Hose - For a variety of applications including automotive



Main Features: High level of hose flexibility, high abrasion resistant, Free of wetting disturbing substances, Low push-in forces

Primary Applications/Restrictions

All Markets: For a variety of applications

Automotive: For water / air applications

Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.

Hose Construction

Tube: Synthetic rubber

Reinforcement: High tensile textile layer

Cover: High performance synthetic rubber in different colours

Recommended Fluids: Mineral based hydraulic and lubricating oils (up to +70 °C), coolant, antifreeze, air, dry air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.

Temperature Range

-40 °C up to +100 °C

Exception: Air.....max. +70 °C

Water.....max. +85 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	GR kg/m
	DN	Inch	Size	mm		max. dynamic working pressure		min. burst pressure				
						MPa	psi	MPa	psi			
837BM-4-XXX-RL	6	1/4	-4	6.3	12.7	1.6	235	6.4	940	95	65	0.13
837BM-6-XXX-RL	10	3/8	-6	9.5	15.9	1.6	235	6.4	940	95	75	0.16
837BM-8-XXX-RL	12	1/2	-8	12.7	19.8	1.6	235	6.4	940	95	130	0.27
837BM-10-XXX-RL	16	5/8	-10	15.9	23.0	1.6	235	6.4	940	51	150	0.28
837BM-12-XXX-RL	20	3/4	-12	19.1	26.2	1.6	235	6.4	940	51	180	0.36

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa

Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.

Example: 837BM-4-XXX-RL

XXX = BLK = black / BLU = blue / RED = red / GRN = green / GRA = grey

Example: 837BM-4-GRN-RL (green)

RL = only available on reels

837PU-Plus - Hybrid Push-Lok Hose - For a variety of applications including automotive



Main Features: High level of hose flexibility, High abrasion resistance, High torsion resistance, Free of wetting disturbing substances, Low push-in forces

Primary Applications/Restrictions

All Markets: For high demanding applications. For energy chain systems.

Robot and Automotive market:

For hose bundle systems

Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.

Hose Construction

Tube: Synthetic rubber

Reinforcement: High tensile textile layer

Cover: High performance polyurethane material in different colours

Recommended Fluids: Mineral based hydraulic and lubricating oils (up to +70 °C), coolant, antifreeze, air, dry air, water and water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.

Temperature Range

-40 °C up to +100 °C

Exception: Air.....max. +70 °C

Water.....max. +85 °C

Fittings Series

82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	GR kg/m
	DN	Inch	Size	mm		max. dynamic working pressure		min. burst pressure				
						MPa	psi	MPa	psi			
837PU-4-xxx-RL	6	1/4	-4	6.3	12.7	1.6	235	6.4	940	95	30	0.11
837PU-6-xxx-RL	10	3/8	-6	9.5	15.9	1.6	235	6.4	940	95	50	0.15
837PU-8-xxx-RL	12	1/2	-8	12.7	19.8	1.6	235	6.4	940	95	70	0.26
837PU-10-xxx-RL	16	5/8	-10	15.9	23.0	1.6	235	6.4	940	51	90	0.27
837PU-12-xxx-RL	20	3/4	-12	19.1	26.2	1.6	235	6.4	940	51	110	0.33

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.

Note: when ordering, specify Push-Lok® hose part number, followed by size, followed by colour.

Example: 837PU-4-XXX-RL

XXX = BLK = black / BLU = blue / RED = red / GRN = green / GRA = grey

Example: 837PU-4-GRN-RL (green)

RL = only available on reels

838M - Push-Lok Hose - For non conductive applications



Main Features: Non conductive hose
Primary Applications/Restrictions
Special Market: For special electrical requirements
Not permitted for use in air brake systems. Not suitable for high dynamic pulsation systems.
Hose Construction
Tube: Polyurethane material
Reinforcement: High tensile textile layer
Cover: Orange coloured polyurethane material
Recommended Fluids: Mineral based hydraulic and lubricating oils, coolant, antifreeze, water, water-oil emulsions. Consult the chemical compatibility section on page N-29 for more detailed information.
Temperature Range -40 °C up to +80 °C
Fittings Series 82

#	Hose I. D.				Hose O.D. mm	Pressure rating				Vacuum kilo Pascal*1 kPa	min. bend radius mm	kg/m
	DN	Inch	Size	mm		max. dynamic working pressure		min. burst pressure				
						MPa	psi	MPa	psi			
838M-4-RL	6	1/4	-4	6.3	11.2	1.6	232	6.4	928	10	30	0.08
838M-6-RL	10	3/8	-6	9.5	15.0	1.6	232	6.4	928	10	50	0.13
838M-8-RL	12	1/2	-8	12.7	19.1	1.6	232	6.4	928	10	70	0.20
838M-10-RL	16	5/8	-10	15.9	23.0	1.6	232	6.4	928	10	90	0.26
838M-12-RL	20	3/4	-12	19.1	26.0	1.6	232	6.4	928	10	110	0.31

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
 RL = only available on reels

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

C3 - Female Metric - Light Series - Swivel - Straight (Ball Nose)

DKL



#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	W mm	
	DN	Inch	Size						
3C382-6-4	6	1/4	-4	6.3	M12x1.5	6	33	14	14
3C382-6-4B	6	1/4	-4	6.3	M12x1.5	6	33	14	14
3C382-6-4BK	6	1/4	-4	6.3	M12x1.5	6	33	14	14
3C382-6-4C	6	1/4	-4	6.3	M12x1.5	6	35	16	14
3C382-8-4	6	1/4	-4	6.3	M14x1.5	8	33	14	17
3C382-8-4B	6	1/4	-4	6.3	M14x1.5	8	36	16	19
3C382-8-4BK	6	1/4	-4	6.3	M14x1.5	8	36	16	19
3C382-8-4C	6	1/4	-4	6.3	M14x1.5	8	33	14	17
3C382-10-4	6	1/4	-4	6.3	M16x1.5	10	34	14	19
3C382-10-4BK	6	1/4	-4	6.3	M16x1.5	10	34	14	19
3C382-10-4C	6	1/4	-4	6.3	M16x1.5	10	36	17	19
3C382-10-6	10	3/8	-6	9.5	M16x1.5	10	38	15	19
3C382-10-6B	10	3/8	-6	9.5	M16x1.5	10	38	15	19
3C382-10-6BK	10	3/8	-6	9.5	M16x1.5	10	38	15	19
3C382-10-6C	10	3/8	-6	9.5	M16x1.5	10	40	17	19
3C382-12-6	10	3/8	-6	9.5	M18x1.5	12	38	16	22
3C382-12-6BK	10	3/8	-6	9.5	M18x1.5	12	38	16	22
3C382-12-6C	10	3/8	-6	9.5	M18x1.5	12	38	15	22
3C382-15-8	12	1/2	-8	12.7	M22x1.5	15	42	15	27
3C382-15-8B	12	1/2	-8	12.7	M22x1.5	15	42	15	27
3C382-15-8C	12	1/2	-8	12.7	M22x1.5	15	44	17	27
3C382-15-8BK	12	1/2	-8	12.7	M22x1.5	15	46	17	27
3C382-15-10	16	5/8	-10	15.9	M22x1.5	15	56	20	27
3C382-18-10	16	5/8	-10	15.9	M26x1.5	18	53	17	32
3C382-18-10C	16	5/8	-10	15.9	M26x1.5	18	54	17	32
3C382-22-12	20	3/4	-12	19.1	M30x2	22	53	17	36
3C382-22-12B	20	3/4	-12	19.1	M30x2	22	53	17	36
3C382-22-12BK	20	3/4	-12	19.1	M30x2	22	53	17	36
3C382-28-16	25	1	-16	25.4	M36x2	28	58	22	41
3C382-28-16BK	25	1	-16	25.4	M36x2	28	58	22	41
3C382-28-16C-K	25	1	-16	25.4	M36x2	28	58	20	41

Material: Steel, zinc plated

B = Brass

C = Stainless Steel

K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.

Dimensions shown may be changed at any time without prior notice.

C4 - Female Metric - Light Series - Swivel - 45° Elbow (Ball Nose)

DKL - 45°

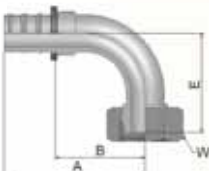


#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	E mm	W mm	
	DN	Inch	Size							mm
3C482-6-4	6	1/4	-4	6.3	M12x1.5	6	51	32	16	14
3C482-6-4B	6	1/4	-4	6.3	M12x1.5	6	51	32	16	14
3C482-8-4	6	1/4	-4	6.3	M14x1.5	8	51	32	16	17
3C482-8-4B	6	1/4	-4	6.3	M14x1.5	8	51	32	16	17
3C482-8-4C	6	1/4	-4	6.3	M14x1.5	8	49	30	14	17
3C482-10-6	10	3/8	-6	9.5	M16x1.5	10	58	35	18	19
3C482-10-6B	10	3/8	-6	9.5	M16x1.5	10	58	35	18	19
3C482-10-6C	10	3/8	-6	9.5	M16x1.5	10	59	36	19	19
3C482-12-6	10	3/8	-6	9.5	M18x1.5	12	59	36	18	22
3C482-12-6B	10	3/8	-6	9.5	M18x1.5	12	59	36	18	22
3C482-15-8	12	1/2	-8	12.7	M22x1.5	15	68	41	19	27
3C482-15-8B	12	1/2	-8	12.7	M22x1.5	15	68	41	19	27
3C482-15-10	16	5/8	-10	15.9	M22x1.5	15	82	45	21	27
3C482-15-10B	16	5/8	-10	15.9	M22x1.5	15	82	45	21	27
3C482-18-10	16	5/8	-10	15.9	M26x1.5	18	81	45	21	32
3C482-18-10B	16	5/8	-10	15.9	M26x1.5	18	81	44	21	32
3C482-18-12	20	3/4	-12	19.1	M26x1.5	18	99	62	31	32
3C482-22-12	20	3/4	-12	19.1	M30x2	22	88	52	23	36
3C482-22-12B	20	3/4	-12	19.1	M30x2	22	88	52	23	36
3C482-28-16-K	25	1	-16	25.4	M36x2	28	105	67	30	41

Material: Steel, zinc plated
 B = Brass
 C = Stainless Steel
 K = Without plastic ring

C5 - Female Metric - Light Series - Swivel - 90° Elbow (Ball Nose)

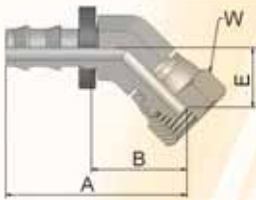
DKL - 90°



#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	E mm	W mm	
	DN	Inch	Size							mm
3C582-6-4	6	1/4	-4	6.3	M12x1.5	6	42	23	29	14
3C582-6-4B	6	1/4	-4	6.3	M12x1.5	6	42	23	29	14
3C582-8-4	6	1/4	-4	6.3	M14x1.5	8	42	23	29	17
3C582-8-4B	6	1/4	-4	6.3	M14x1.5	8	42	23	29	17
3C582-10-4	6	1/4	-4	6.3	M16x1.5	10	42	23	29	19
3C582-10-4C	6	1/4	-4	6.3	M16x1.5	10	43	23	31	19
3C582-10-6	10	3/8	-6	9.5	M16x1.5	10	49	27	33	19
3C582-10-6B	10	3/8	-6	9.5	M16x1.5	10	49	27	33	19
3C582-10-6C	10	3/8	-6	9.5	M16x1.5	10	49	27	33	19
3C582-12-6	10	3/8	-6	9.5	M18x1.5	12	49	27	34	22
3C582-12-6B	10	3/8	-6	9.5	M18x1.5	12	49	27	34	22
3C582-12-6C	10	3/8	-6	9.5	M18x1.5	12	49	27	34	22
3C582-15-8	12	1/2	-8	12.7	M22x1.5	15	60	34	39	27
3C582-15-8B	12	1/2	-8	12.7	M22x1.5	15	60	34	39	27
3C582-15-8C	12	1/2	-8	12.7	M22x1.5	15	60	34	39	27
3C582-18-10	16	5/8	-10	15.9	M26x1.5	18	74	37	43	32
3C582-22-12	20	3/4	-12	19.1	M30x2	22	88	51	50	36
3C582-22-12B	20	3/4	-12	19.1	M30x2	22	88	51	50	36
3C582-22-12C	20	3/4	-12	19.1	M30x2	22	88	51	54	36
3C582-28-16-K	25	1	-16	25.4	M36x2	28	99	61	70	41

Material: Steel, zinc plated
 B = Brass
 C = Stainless Steel
 K = Without plastic ring

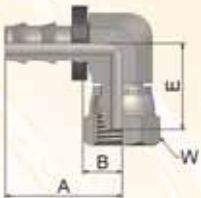
9B - Metric - Swivel Female 45° Elbow - Light Series



#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	E mm	W mm	
	DN	Inch	Size							
39B82-6-4BK	6	1/4	-4	6.3	M12x1.5	6	44	23	16	14
39B82-8-4BK	6	1/4	-4	6.3	M14x1.5	8	43	23	15	19
39B82-10-6BK	10	3/8	-6	9.5	M16x1.5	10	48	25	16	19
39B82-12-6BK	10	3/8	-6	9.5	M18x1.5	12	50	26	17	22
39B82-15-8BK	12	1/2	-8	12.7	M22x1.5	15	54	26	18	27

Material: B = Brass
K = Without plastic ring

9C - Metric - Swivel Female 90° Elbow - Light Series



#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	E mm	W mm	
	DN	Inch	Size							
39C82-6-4BK	6	1/4	-4	6.3	M12x1.5	6	30	10	22	14
39C82-8-4BK	6	1/4	-4	6.3	M14x1.5	8	30	10	22	19
39C82-10-6BK	10	3/8	-6	9.5	M16x1.5	10	34	10	25	19
39C82-12-6BK	10	3/8	-6	9.5	M18x1.5	12	34	10	25	22
39C82-15-8BK	12	1/2	-8	12.7	M22x1.5	15	43	15	32	27

Material: B = Brass
K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.

CA - Female Metric 24° - Light Series with O-ring - Swivel - Straight

ISO 12151-2-SWS-L, DKOL



#	Hose I. D.			Thread metric	Tube				
	DN	Inch	Size		O.D. mm	A mm	B mm	W mm	
3CA82-6-4	6	1/4	-4	6.3	M12x1.5	6	40	21	14
3CA82-6-4B	6	1/4	-4	6.3	M12x1.5	6	40	21	14
3CA82-8-4	6	1/4	-4	6.3	M14x1.5	8	36	17	17
3CA82-8-4B	6	1/4	-4	6.3	M14x1.5	8	36	17	17
3CA82-10-4	6	1/4	-4	6.3	M16x1.5	10	36	17	19
3CA82-10-6	10	3/8	-6	9.5	M16x1.5	10	40	17	19
3CA82-10-6B	10	3/8	-6	9.5	M16x1.5	10	40	17	19
3CA82-12-6	10	3/8	-6	9.5	M18x1.5	12	40	17	22
3CA82-12-6B	10	3/8	-6	9.5	M18x1.5	12	40	17	22
3CA82-15-8	12	1/2	-8	12.7	M22x1.5	15	44	18	27
3CA82-15-8B	12	1/2	-8	12.7	M22x1.5	15	44	18	27
3CA82-15-10	16	5/8	-10	15.9	M22x1.5	15	60	23	27
3CA82-15-10B	16	5/8	-10	15.9	M22x1.5	15	60	23	27
3CA82-18-10	16	5/8	-10	15.9	M26x1.5	18	56	19	32
3CA82-22-12	20	3/4	-12	19.1	M30x2	22	58	21	36
3CA82-22-12B	20	3/4	-12	19.1	M30x2	22	58	21	36

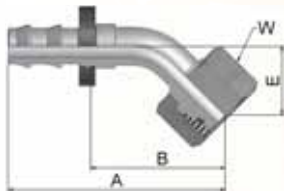
Material: Steel, zinc plated

B = Brass

Fittings with standard O-ring seals can be used for temperatures from -30 °C up to +105 °C.

CE - Female Metric 24° - Light Series with O-ring - Swivel - 45° Elbow

ISO 12151-2-SWE 45°-L, DKOL 45°



#	Hose I. D.			Thread metric	Tube					
	DN	Inch	Size		O.D. mm	A mm	B mm	E mm	W mm	
3CE82-6-4	6	1/4	-4	6.3	M12x1.5	6	56	37	21	14
3CE82-8-4	6	1/4	-4	6.3	M14x1.5	8	51	31	16	17
3CE82-10-6	10	3/8	-6	9.5	M16x1.5	10	59	37	19	19
3CE82-12-6	10	3/8	-6	9.5	M18x1.5	12	60	37	19	22
3CE82-15-8	12	1/2	-8	12.7	M22x1.5	15	69	43	21	27
3CE82-18-10	16	5/8	-10	15.9	M26x1.5	18	83	46	23	32
3CE82-22-12	20	3/4	-12	19.1	M30x2	22	97	60	26	36

Material: Steel, zinc plated

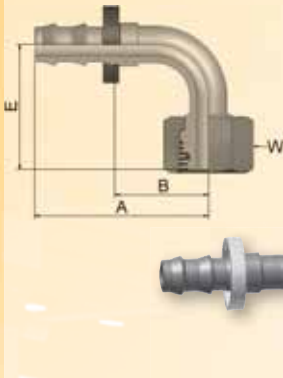
Fittings with standard O-ring seals can be used for temperatures from -30 °C up to +105 °C.

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.

CF - Female Metric 24° - Light Series with O-ring - Swivel - 90° Elbow

ISO 12151-2-SWE-L, DKOL 90°

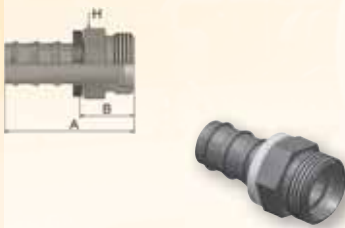


#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	E mm	W mm	
	DN	Inch	Size							
3CF82-6-4	6	1/4	-4	6.3	M12x1.5	6	42	23	36	14
3CF82-8-4	6	1/4	-4	6.3	M14x1.5	8	42	23	32	17
3CF82-10-4	6	1/4	-4	6.3	M16x1.5	10	42	23	31	19
3CF82-10-6	10	3/8	-6	9.5	M16x1.5	10	49	27	35	19
3CF82-10-6B	10	3/8	-6	9.5	M16x1.5	10	49	27	35	19
3CF82-12-6	10	3/8	-6	9.5	M18x1.5	12	49	27	36	22
3CF82-12-6B	10	3/8	-6	9.5	M18x1.5	12	49	27	36	22
3CF82-15-8	12	1/2	-8	12.7	M22x1.5	15	58	32	41	27
3CF82-18-10	16	5/8	-10	15.9	M26x1.5	18	74	37	45	32
3CF82-22-12	20	3/4	-12	19.1	M30x2	22	88	51	55	36

B & BK parts have brass nipples and steel nuts.
 Fittings with standard O-ring seals can be used for temperatures from -30 °C up to +105 °C.
 Special O-rings are available on request.

D0 - Male Metric 24° - Light Series - Rigid - Straight

ISO 12151-2-S-L, CEL



#	Hose I. D.			Thread metric	Tube O.D. mm	A mm	B mm	H mm	
	DN	Inch	Size						
3D082-6-4	6	1/4	-4	6.3	M12x1.5	6	35	16	12
3D082-8-4	6	1/4	-4	6.3	M14x1.5	8	36	17	14
3D082-10-6	10	3/8	-6	9.5	M16x1.5	10	41	18	17
3D082-10-6B	10	3/8	-6	9.5	M16x1.5	10	41	18	17
3D082-10-6C	10	3/8	-6	9.5	M16x1.5	10	41	18	17
3D082-12-6	10	3/8	-6	9.5	M18x1.5	12	41	18	19
3D082-12-6B	10	3/8	-6	9.5	M18x1.5	12	41	18	19
3D082-12-6C	10	3/8	-6	9.5	M18x1.5	12	41	18	19
3D082-15-8	12	1/2	-8	12.7	M22x1.5	15	49	23	22
3D082-15-8B	12	1/2	-8	12.7	M22x1.5	15	49	23	22
3D082-15-8BK	12	1/2	-8	12.7	M22x1.5	15	49	22	22
3D082-15-8C	12	1/2	-8	12.7	M22x1.5	15	49	22	22
3D082-18-8	12	1/2	-8	12.7	M26x1.5	18	48	21	27
3D082-18-10	16	5/8	-10	15.9	M26x1.5	18	58	21	27
3D082-22-12	20	3/4	-12	19.1	M30x2	22	63	27	30
3D082-22-12B	20	3/4	-12	19.1	M30x2	22	63	27	30

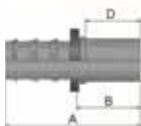
Material: Steel, zinc plated
 B = Brass
 C = Stainless Steel
 K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

1D - Metric Standpipe - Light Series - Rigid - Straight

ISO 8434-1 - BEL



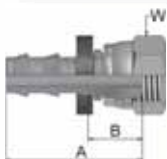
#	Hose I. D.			Tube O.D. mm	A mm	B mm	D mm	
	DN	Inch	Size					
31D82-6-4	6	1/4	-4	6.3	6	44	25	22
31D82-6-4B	6	1/4	-4	6.3	6	44	25	22
31D82-8-4	6	1/4	-4	6.3	8	44	25	22
31D82-8-4B	6	1/4	-4	6.3	8	44	25	22
31D82-10-6	10	3/8	-6	9.5	10	49	26	23
31D82-10-6B	10	3/8	-6	9.5	10	49	26	23
31D82-10-6C	10	3/8	-6	9.5	10	49	26	23
31D82-12-6	10	3/8	-6	9.5	12	49	27	23
31D82-12-6B	10	3/8	-6	9.5	12	49	27	23
31D82-12-6C	10	3/8	-6	9.5	12	49	27	23
31D82-15-8	12	1/2	-8	12.7	15	55	29	25
31D82-15-8B	12	1/2	-8	12.7	15	55	29	25
31D82-15-8C	12	1/2	-8	12.7	15	55	29	25
31D82-18-10	16	5/8	-10	15.9	18	67	30	26
31D82-18-10B	16	5/8	-10	15.9	18	67	30	26
31D82-22-12	20	3/4	-12	19.1	22	69	32	28
31D82-22-12B	20	3/4	-12	19.1	22	69	32	28

Attention: For assembly of nut and sleeve use pre-assembly body.

Material: Steel, zinc plated
 B = Brass
 C = Stainless Steel

Catalogue 4482/UK

5C - 60°-90° Cone Swivel Female



#	Hose I. D.			Thread metric	A mm	B mm	W mm	
	DN	Inch	Size					
35C82-12x1-4BK	6	1/4	-4	6.3	M12x1	33	13	14
35C82-6-4BK	6	1/4	-4	6.3	M12x1.5	33	14	14
35C82-10-6BK	10	3/8	-6	9.5	M16x1.5	38	15	19
35C82-10-6B	10	3/8	-6	9.5	M16x1.5	38	15	19
35C82-15-8BK	12	1/2	-8	12.7	M22x1.5	44	18	27
35C82-15-8B	12	1/2	-8	12.7	M22x1.5	44	18	27
35C82-18-10BK	16	5/8	-10	15.9	M26x1.5	56	18	32

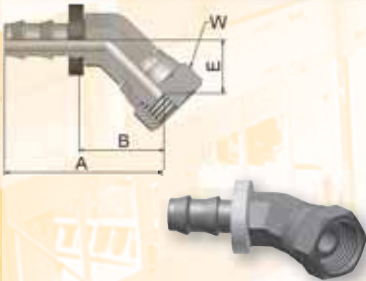
Material: B = Brass
 K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.



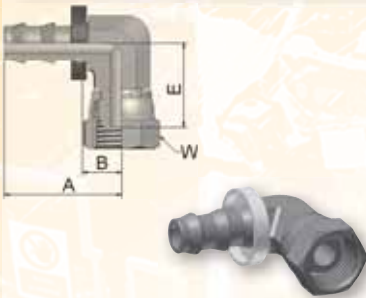
6C - 60°-90° Cone Swivel Female - 45° Elbow



#	Hose I. D.			Thread metric	A mm	B mm	E mm	W mm	
	DN	Inch	Size						
36C82-12x1-4BK	6	1/4	-4	6.3	M12x1	43	22	15	14
36C82-6-4BK	6	1/4	-4	6.3	M12x1.5	44	25	16	14
36C82-6-4B	6	1/4	-4	6.3	M12x1.5	44	25	16	14
36C82-10-6BK	10	3/8	-6	9.5	M16x1.5	48	26	16	19
36C82-10-6B	10	3/8	-6	9.5	M16x1.5	48	26	16	19
36C82-15-8BK	12	1/2	-8	12.7	M22x1.5	54	28	18	27

Material: B = Brass
K = Without plastic ring

7C - 60°-90° Cone Swivel Female - 90° Elbow



#	Hose I. D.			Thread metric	A mm	B mm	E mm	W mm	
	DN	Inch	Size						
37C82-12x1-4BK	6	1/4	-4	6.3	M12x1	30	10	22	14
37C82-12x1-4B	6	1/4	-4	6.3	M12x1	30	10	22	14
37C82-6-4BK	6	1/4	-4	6.3	M12x1.5	30	11	22	14
37C82-6-4B	6	1/4	-4	6.3	M12x1.5	30	11	22	14
37C82-10-6BK	10	3/8	-6	9.5	M16x1.5	34	11	25	19
37C82-10-6B	10	3/8	-6	9.5	M16x1.5	34	11	25	19
37C82-15-8BK	12	1/2	-8	12.7	M22x1.5	43	16	32	27
37C82-15-8B	12	1/2	-8	12.7	M22x1.5	43	16	32	27

Material: B = Brass
K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.

92 - Female BSP Parallel Pipe - Swivel - Straight (60° Cone)

BS5200-A, DKR



#	Hose I. D.			Thread BSP	A mm	B mm	W mm	
	DN	Inch	Size					
39282-4-4	6	1/4	-4	6.3	1/4x19	33	14	17
39282-4-4B	6	1/4	-4	6.3	1/4x19	33	14	17
39282-4-4C	6	1/4	-4	6.3	1/4x19	33	14	19
39282-6-4B	6	1/4	-4	6.3	3/8x19	37	18	22
39282-6-6	10	3/8	-6	9.5	3/8x19	37	14	19
39282-6-6B	10	3/8	-6	9.5	3/8x19	37	14	19
39282-6-6C	10	3/8	-6	9.5	3/8x19	40	17	22
39282-8-8	12	1/2	-8	12.7	1/2x14	42	15	27
39282-8-8B	12	1/2	-8	12.7	1/2x14	42	15	27
39282-8-8C	12	1/2	-8	12.7	1/2x14	43	16	27
39282-10-10	16	5/8	-10	15.9	5/8x14	53	16	30
39282-10-10B	16	5/8	-10	15.9	5/8x14	55	18	30
39282-12-10C	16	5/8	-10	15.9	3/4x14	55	18	32
39282-12-12	20	3/4	-12	19.1	3/4x14	58	21	32
39282-12-12B	20	3/4	-12	19.1	3/4x14	58	21	32
39292-16-16	25	1	-16	25.4	1x11	57	20	41

Material: Steel, zinc plated
 B = Brass
 C = Steel

B1 - Female BSP Parallel Pipe - Swivel - 45° Elbow (60° Cone)

BS 5200-D, DKR 45°



#	Hose I. D.			Thread BSP	A mm	B mm	E mm	W mm	
	DN	Inch	Size						
3B182-4-4	6	1/4	-4	6.3	1/4x19	51	32	16	17
3B182-6-6	10	3/8	-6	9.5	3/8x19	58	35	18	19
3B182-6-6B	10	3/8	-6	9.5	3/8x19	69	46	17	19
3B182-8-8	12	1/2	-8	12.7	1/2x14	68	41	19	27
3B182-8-8B	12	1/2	-8	12.7	1/2x14	68	41	19	27
3B182-10-10	16	5/8	-10	15.9	5/8x14	81	45	21	30
3B182-12-12	20	3/4	-12	19.1	3/4x14	92	55	27	32
3B182-16-16-K	25	1	-16	25.4	1x11	106	68	31	41

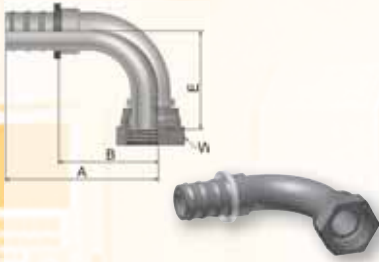
Material: Steel, zinc plated
 B = Brass
 K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

B2 - Female BSP Parallel Pipe - Swivel - 90° Elbow (60° Cone)

BS 5200-B, DKR 90°

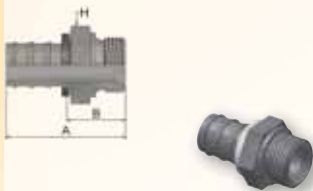


#	Hose I. D.			Thread BSP	A mm	B mm	E mm	W mm	
	DN	Inch	Size						
3B282-4-4	6	1/4	-4	6.3	1/4x19	42	23	29	17
3B282-4-4B	6	1/4	-4	6.3	1/4x19	42	23	29	17
3B282-6-6	10	3/8	-6	9.5	3/8x19	49	27	33	19
3B282-6-6B	10	3/8	-6	9.5	3/8x19	49	27	33	19
3B282-8-8	12	1/2	-8	12.7	1/2x14	60	34	39	27
3B282-8-8B	12	1/2	-8	12.7	1/2x14	60	34	39	27
3B282-10-8	12	1/2	-8	12.7	5/8x14	58	32	40	30
3B282-10-10	16	5/8	-10	15.9	5/8x14	74	37	43	30
3B282-10-10B	16	5/8	-10	15.9	5/8x14	74	37	44	30
3B282-12-12	20	3/4	-12	19.1	3/4x14	88	51	53	32
3B282-12-12B	20	3/4	-12	19.1	3/4x14	88	51	53	32
3B282-16-16-K	25	1	-16	25.4	1x11	99	61	68	41

Material: Steel, zinc plated
B = Nipple: Brass, Nut: Steel

D9 - Male BSP Parallel Pipe - Rigid - Straight (60° Cone)

BS5200, AGR



#	Hose I. D.			Thread BSP	A mm	B mm	H mm	
	DN	Inch	Size					
3D982-2-4	6	1/4	-4	6.3	1/8x28	36	17	14
3D982-4-4	6	1/4	-4	6.3	1/4x19	41	23	19
3D982-4-4B	6	1/4	-4	6.3	1/4x19	41	23	19
3D982-4-6	10	3/8	-6	9.5	1/4x19	44	21	19
3D982-4-6B	10	3/8	-6	9.5	1/4x19	44	21	19
3D982-6-6	10	3/8	-6	9.5	3/8x19	45	23	22
3D982-6-6B	10	3/8	-6	9.5	3/8x19	45	23	22
3D982-8-8	12	1/2	-8	12.7	1/2x14	53	27	27
3D982-8-8B	12	1/2	-8	12.7	1/2x14	53	27	27
3D982-10-10	16	5/8	-10	15.9	5/8x14	65	28	30
3D982-10-10B	16	5/8	-10	15.9	5/8x14	65	28	30
3D982-12-12	20	3/4	-12	19.1	3/4x14	65	28	32
3D982-12-12B	20	3/4	-12	19.1	3/4x14	65	28	32

Material: Steel, zinc plated
B = Brass

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

91 - Male BSP Taper Pipe - Rigid - Straight

BS5200, AGR-K



#	Hose I. D.			Thread BSP	A mm	B mm	H mm	
	DN	Inch	Size					
39182-2-4B	6	1/4	-4	6.3	1/8x28	37	18	12
39182-2-4	6	1/4	-4	6.3	1/8x28	37	18	12
39182-4-4	6	1/4	-4	6.3	1/4x19	40	21	14
39182-4-4B	6	1/4	-4	6.3	1/4x19	40	21	14
39182-4-6	10	3/8	-6	9.5	1/4x19	44	21	14
39182-4-6B	10	3/8	-6	9.5	1/4x19	44	21	14
39182-6-6	10	3/8	-6	9.5	3/8x19	45	22	19
39182-6-6B	10	3/8	-6	9.5	3/8x19	45	22	19
39182-6-8B	12	1/2	-8	12.7	3/8x19	49	22	19
39182-8-8	12	1/2	-8	12.7	1/2x14	55	29	22
39182-8-8B	12	1/2	-8	12.7	1/2x14	55	29	22
39182-8-10B	16	5/8	-10	15.9	1/2x14	65	28	22
39182-12-10B	16	5/8	-10	15.9	3/4x14	68	31	27
39182-12-12	20	3/4	-12	19.1	3/4x14	68	31	27
39182-12-12B	20	3/4	-12	19.1	3/4x14	68	31	27
39282-16-16B	25	1	-16	25.4	1x11	74	38	36

Material: Steel, zinc plated
B = Brass

34 - Inch Standpipe (Brass)

BS 5200-D, DKR 45°



#	Hose I. D.			Tube O. D. Inch	A mm	B mm	D mm	
	DN	Inch	Size					
33482-4-4B	6	1/4	-4	6.3	1/4	48	29	26
33482-6-6B	10	3/8	-6	9.5	3/8	57	34	31
33482-8-8B	12	1/2	-8	12.7	1/2	55	28	25
33482-10-10B	16	5/8	-10	15.9	5/8	67	30	25
33482-12-12B	20	3/4	-12	19.1	3/4	67	30	25

Material: B = Brass

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

01 - Male NPTF Pipe - Rigid - Straight

SAE J476A / J516



#	Hose I. D.			Thread NPTF	A mm	B mm	H Inch	
	DN	Inch	Size					
30182-2-4	6	1/4	-4	6.3	1/8x27	35	16	7/16
30182-2-4B	6	1/4	-4	6.3	1/8x27	35	16	7/16
30182-2-4-SM	6	1/4	-4	6.3	1/8x27	35	16	12
30182-4-4	6	1/4	-4	6.3	1/4x18	40	21	9/16
30182-4-4-SM	6	1/4	-4	6.3	1/4x18	40	21	14
30182-4-4B	6	1/4	-4	6.3	1/4x18	40	21	9/16
30182-4-4C	6	1/4	-4	6.3	1/4x18	40	21	9/16
30182-8-4C	6	1/4	-4	6.3	1/2x14	48	29	7/8
30182-4-6	10	3/8	-6	9.5	1/4x18	45	22	9/16
30182-4-6B	10	3/8	-6	9.5	1/4x18	45	22	9/16
30182-4-6-SM	10	3/8	-6	9.5	1/4x18	45	22	14
30182-6-6	10	3/8	-6	9.5	3/8x18	45	22	11/16
30182-6-6B	10	3/8	-6	9.5	3/8x18	45	22	11/16
30182-6-6-SM	10	3/8	-6	9.5	3/8x18	45	22	22
30182-6-6C	10	3/8	-6	9.5	3/8x18	45	23	11/16
30182-8-6-SM	10	3/8	-6	9.5	1/2x14	52	29	22
30182-8-6B-SM	10	3/8	-6	9.5	1/2x14	52	29	22
30182-6-8	12	1/2	-8	12.7	3/8x18	49	22	11/16
30182-6-8B	12	1/2	-8	12.7	3/8x18	49	22	11/16
30182-8-8	12	1/2	-8	12.7	1/2x14	55	29	7/8
30182-8-8B	12	1/2	-8	12.7	1/2x14	55	29	7/8
30182-8-8B-SM	12	1/2	-8	12.7	1/2x14	55	29	22
30182-8-8C	12	1/2	-8	12.7	1/2x14	55	29	7/8
30182-8-10-SM	16	5/8	-10	15.9	1/2x14	66	29	22
30182-8-10B	16	5/8	-10	15.9	1/2x14	66	29	7/8
30182-8-12-SM	20	3/4	-12	19.1	1/2x14	66	29	22
30182-8-12B	20	3/4	-12	19.1	1/2x14	66	29	7/8
30182-12-12	20	3/4	-12	19.1	3/4x14	66	29	1-1/16
30182-12-12C	20	3/4	-12	19.1	3/4x14	66	29	1-1/16
30182-12-12B	20	3/4	-12	19.1	3/4x14	66	29	1-1/16

Material: Steel, zinc plated

B = Brass

C = Stainless Steel

SM = Metric Hexagon

13 - Male NPTF Pipe Swivel



#	Hose I. D.			Thread NPTF	A mm	B mm	H Inch	
	DN	Inch	Size					
31382-4-4	6	1/4	-4	6.3	1/4x18	41	22	9/16
31382-4-6	10	3/8	-6	9.5	1/4x18	45	23	11/16
31382-6-6	10	3/8	-6	9.5	3/8x18	45	23	11/16
31382-8-8	12	1/2	-8	12.7	1/2x14	56	29	7/8
31382-12-12	20	3/4	-12	19.1	3/4x14	94	58	1-1/4

Note: This fitting allows for minor movement under pressure to relieve the torsion on hose, but it is not to be used for continuous or extreme swiveling.

Note: Internal O-ring is not compatible with phosphate ester fluids.

Material: Steel, zinc plated

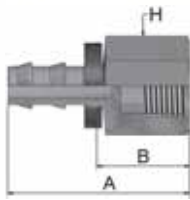
Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.

Dimensions shown may be changed at any time without prior notice.

02 - Female NPTF Pipe - Rigid - Straight

SAE J476A / J516



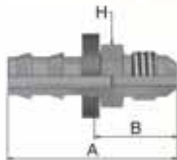
#	Hose I. D.			Thread NPTF	A mm	B mm	H mm	
	DN	Inch	Size					
30282-4-4B	6	1/4	-4	6.3	1/4x18	40	21	3/4
30282-4-4C-SM	6	1/4	-4	6.3	1/4x18	40	21	19
30282-6-6B	10	3/8	-6	9.5	3/8x18	46	23	7/8
30282-8-8C	12	1/2	-8	12.7	1/2x14	55	28	1-1/16
30282-8-8B	12	1/2	-8	12.7	1/2x14	55	28	1-1/16

Material: Steel, zinc plated
 B = Brass
 C = Stainless Steel
 K = Without plastic ring
 SM = Metric Hexagon

Catalogue 4482/UK

03 - Male JIC 37° - Rigid - Straight

ISO12151-5-S, AGJ



#	Hose I. D.			Thread UNF	A mm	B mm	H Inch	
	DN	Inch	Size					
30382-4-4	6	1/4	-4	6.3	7/16x20	40	21	1/2
30382-4-4B	6	1/4	-4	6.3	7/16x20	40	21	12
30382-6-6	10	3/8	-6	9.5	9/16x18	45	22	5/8
30382-6-6B	10	3/8	-6	9.5	9/16x18	45	22	5/8
30382-8-8	12	1/2	-8	12.7	3/4x16	52	26	3/4
30382-8-8B	12	1/2	-8	12.7	3/4x16	52	26	3/4
30382-12-12	20	3/4	-12	19.1	1-1/16x12	69	32	1-1/8
30382-12-12B	20	3/4	-12	19.1	1-1/16x12	69	32	1-1/8

Material: Steel, zinc plated
 B = Brass

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

06/68 - Female - JIC 37° / SAE 45° Dual Flare - Swivel - Straight

ISO12151-5-SWS, DKJ

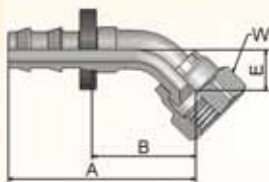


#	Hose I. D.			Thread UNF	A mm	B mm	W Inch	
	DN	Inch	Size					
30682-4-4	6	1/4	-4	6.3	7/16x20	39	19	9/16
30682-4-4-SM	6	1/4	-4	6.3	7/16x20	40	21	14
30682-4-4B	6	1/4	-4	6.3	7/16x20	39	19	9/16
30682-4-4C	6	1/4	-4	6.3	7/16x20	39	19	9/16
30682-5-4	6	1/4	-4	6.3	1/2x20	40	21	5/8
30682-5-4B	6	1/4	-4	6.3	1/2x20	40	21	5/8
36882-5-4C-SM	6	1/4	-4	6.3	1/2x20	40	21	17
30682-6-4B	6	1/4	-4	6.3	9/16x18	42	22	11/16
30682-5-6B	10	3/8	-6	9.5	1/2x20	44	21	5/8
30682-6-6	10	3/8	-6	9.5	9/16x18	46	22	11/16
30682-6-6-SM	10	3/8	-6	9.5	9/16x18	45	22	19
30682-6-6B-SM	10	3/8	-6	9.5	9/16x18	45	22	19
30682-6-6C	10	3/8	-6	9.5	9/16x18	46	22	11/16
30682-6-6C-SM	10	3/8	-6	9.5	9/16x18	45	22	19
30682-8-6B	10	3/8	-6	9.5	3/4x16	47	24	7/8
36882-8-6-SM	10	3/8	-6	9.5	3/4x16	48	25	22
36882-8-6C-SM	10	3/8	-6	9.5	3/4x16	48	25	22
30682-8-8	12	1/2	-8	12.7	3/4x16	51	25	7/8
30682-8-8B	12	1/2	-8	12.7	3/4x16	51	25	7/8
30682-10-8B	12	1/2	-8	12.7	7/8x14	52	25	1
30682-10-8-SM	12	1/2	-8	12.7	7/8x14	65	28	27
30682-10-10	6	5/8	-10	15.9	7/8x14	52	25	1
30682-10-10-SM	16	5/8	-10	15.9	7/8x14	65	28	27
30682-10-10B	16	5/8	-10	15.9	7/8x14	62	25	1
36882-10-10C-SM	16	5/8	-10	15.9	7/8x14	65	28	27
30682-12-12	20	3/4	-12	19.1	1-1/16x12	67	30	1-1/4
30682-12-12-SM	20	3/4	-12	19.1	1-1/16x12	67	30	32
30682-12-12B	20	3/4	-12	19.1	1-1/16x12	67	30	1-1/4
30682-12-12B-SM	20	3/4	-12	19.1	1-1/16x12	67	30	32
30682-12-12C	20	3/4	-12	19.1	1-1/16x12	67	30	1-1/4
30682-12-12C-SM	20	3/4	-12	19.1	1-1/16x12	67	30	32
30682-16-16-SM	25	1	-16	25.4	1-5/16x12	70	33	41
30682-16-16C-SM	25	1	-16	25.4	1-5/16x12	70	33	41

Material: Steel, zinc plated
 C = Stainless Steel
 SM = Metric Hexagon

37/3V - Female JIC 37° / SAE 45° - Dual Flare - Swivel Female 45° Elbow

ISO 12151-5-SWE 45°, DKJ 45°



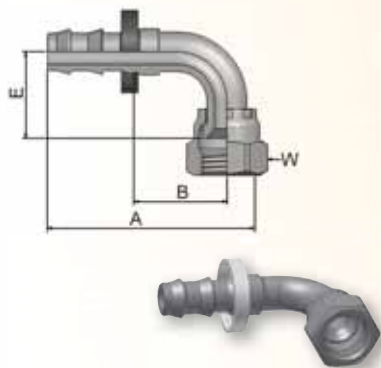
#	Hose I. D.			Thread UNF	A mm	B mm	E mm	W Inch	
	DN	Inch	Size						
33782-4-4	6	1/4	-4	6.3	7/16x20	39	20	8	9/16
33V82-4-4B-SM	6	1/4	-4	6.3	7/16x20	44	25	10	17
33782-6-6	10	3/8	-6	9.5	9/16x18	53	30	10	11/16
33782-6-6-SM	10	3/8	-6	9.5	9/16x18	51	28	11	19
33782-8-8	12	1/2	-8	12.7	3/4x16	54	35	14	7/8

Material: Steel, zinc plated
 B = Brass
 SM = Metric Hexagon

Information about standard products or non-standard products can be found in the current price list.
 Dimensions shown may be changed at any time without prior notice.

39/3W - Female JIC 37° / SAE 45° - Dual Flare - Swivel Female 90° Elbow

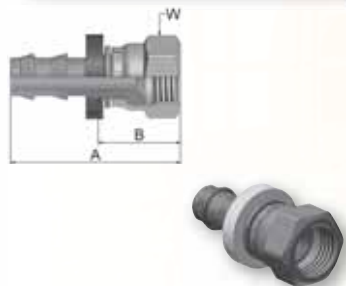
ISO 12151-5-SWES - DKJ 90



#	Hose I. D.			Thread UNF	A mm	B mm	E mm	W Inch	
	DN	Inch	Size						
33982-4-4	6	1/4	-4	6.3	7/16x20	39	20	17	5/8
33W82-4-4C-SM	6	1/4	-4	6.3	7/16x20	39	20	21	17
33982-6-6	10	3/8	-6	9.5	9/16x18	50	28	22	11/16
33982-6-6-SM	10	3/8	-6	9.5	9/16x18	47	25	23	19
33982-6-6C-SM	10	3/8	-6	9.5	9/16x18	47	25	23	19
33982-8-8	12	1/2	-8	12.7	3/4x16	59	33	28	7/8
33W82-8-8-SM	12	1/2	-8	12.7	3/4x16	55	29	28	22
33982-10-10	16	5/8	-10	15.9	7/8x14	74	37	31	1
33982-12-12	20	3/4	-12	19.1	1-1/16x12	84	46	46	1-1/4
33982-12-12-SM	20	3/4	-12	19.1	1-1/16x12	83	46	48	32

Material: Steel, zinc plated
 C = Stainless Steel
 SM = Metric Hexagon

08 - Female SAE 45° Swivel



#	Hose I. D.			Thread UNF	A mm	B mm	W Inch	
	DN	Inch	Size					
30882-4-4	6	1/4	-4	6.3	7/16x20	39	19	9/16
30882-4-4B	6	1/4	-4	6.3	7/16x20	39	19	9/16
30882-5-4B	6	1/4	-4	6.3	1/2x20	40	21	5/8
30882-6-6	10	3/8	-6	9.5	5/8x18	46	23	3/4
30882-6-6B	10	3/8	-6	9.5	5/8x18	46	23	3/4
30882-8-8	12	1/2	-8	12.7	3/4x16	51	25	7/8
30882-8-8B	12	1/2	-8	12.7	3/4x16	51	25	7/8
30882-10-10	16	5/8	-10	15.9	7/8x14	65	28	1
30882-10-10B	16	5/8	-10	15.9	7/8x14	65	28	1
30882-12-12	20	3/4	-12	19.1	1-1/16x14	67	30	1-1/4
30882-12-12B	20	3/4	-12	19.1	1-1/16x14	67	30	1-1/4

Material: Steel, zinc plated
 B = Brass

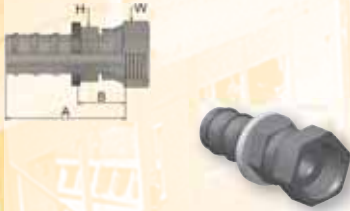
Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.



JC - Female ORFS - Swivel - Straight - Short

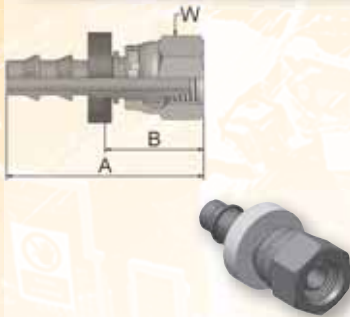
ISO 12151-1 - SWSA,
SAE - J516 ORFS



#	Hose I. D.			Thread	A	B	H	W	
	DN	Inch	Size						UNF
3JC82-4-4	6	1/4	-4	6.3	9/16x18	36	17	9/16	11/16
3JC82-6-6	10	3/8	-6	9.5	11/16x16	40	18	11/16	13/16
3JC82-6-6-SM	10	3/8	-6	9.5	11/16x16	41	18	19	22
3JC82-8-6-SM	10	3/8	-6	9.5	13/16x16	43	20	22	24
3JC82-8-8	12	1/2	-8	12.7	13/16x16	47	20	22	15/16
3JC82-8-8-SM	12	1/2	-8	12.7	13/16x16	47	20	22	24
3JC82-8-10	16	5/8	-10	15.9	13/16x16	57	21	3/4	15/16
3JC82-8-10-SM	16	5/8	-10	15.9	13/16x16	57	21	22	24
3JC82-10-10	16	5/8	-10	15.9	1x14	61	24	15/16	1-1/8
3JC82-10-12	20	3/4	-12	19.1	1x14	61	24	1	1-1/8
3JC82-12-12	20	3/4	-12	19.1	1-3/16x12	67	30	1-1/8	1-3/8

Material: Steel, zinc plated
SM = Metric Hexagon

FF - Metru-Lok Swivel Female



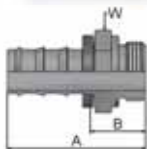
#	Hose I. D.			Thread	Tube O. D.	A	B	W	
	DN	Inch	Size						Metric
3FF82-6-4B	6	1/4	-4	6.3	M10x1	6	36	16	1
3FF82-8-4B	6	1/4	-4	6.3	M12x1	8	31	12	14
3FF82-10-6B	10	3/8	-6	9.5	M14x1	10	35	12	17
3FF82-12-6B	10	3/8	-6	9.5	M16x1	12	35	12	19
3FF82-14-8B	12	1/2	-8	12.7	M18x1	14	38	12	2
3FF82-16-8B	12	1/2	-8	12.7	M22x1.5	16	38	12	24
3FF82-18-10B	16	5/8	-10	15.9	M24x1.5	18	51	15	27
3FF82-22-12B	20	3/4	-12	19.1	M28x1.5	22	51	15	32

Material: B = Brass

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

AF - Male BSP Parallel Pipe - Rigid - Straight (with O-ring Seal)



#	Hose I. D.			Thread BSP	A mm	B mm	W mm	
	DN	Inch	Size					
3AF82-2-4B	6	1/4	-4	6.3	1/8x28	34	15	17
3AF82-4-4B	6	1/4	-4	6.3	1/4x19	39	20	19
3AF82-4-4C	6	1/4	-4	6.3	1/4x19	39	20	19
3AF82-4-6B	10	3/8	-6	9.5	1/4x19	43	20	19
3AF82-6-6B	10	3/8	-6	9.5	3/8x19	46	23	22
3AF82-6-8B	12	1/2	-8	12.7	3/8x19	49	22	22
3AF82-8-8B	12	1/2	-8	12.7	1/2x14	53	26	27
3AF82-8-10B	16	5/8	-10	15.9	1/2x14	63	26	27

Material: B = Brass
C = Stainless Steel

NM - Male BSP Parallel Pipe - L Series - Rigid - Straight - ED-Seal

ISO 1179



#	Hose I. D.			Thread BSP	A mm	B mm	H mm	
	DN	Inch	Size					
3NM82-6-8B	12	1/2	-8	12.7	3/8x19	52	26	22
3NM82-8-8B	12	1/2	-8	12.7	1/2x14	55	28	27
3NM82-12-12B	20	3/4	-12	19.1	3/4x14	65	28	3

Material: B = Brass

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-Ring as a standard version. Working temperature from -30 °C up to +150 °C.

HoSe fittings with special O-Rings (Viton or EPDM) available on request.

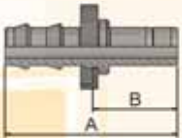
For O-Ring dimensions and part-numbers see Section Eb of catalogue 4360.

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list. Dimensions shown may be changed at any time without prior notice.

YW - Male Standpipe - Rigid - Straight - A-Lok

Metric Size Tube O.D.
with Vee Notch

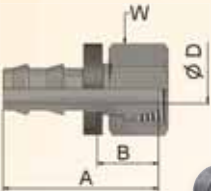


#	Hose I. D.			A mm	B mm
	DN	Inch	Size		
3YW82-6-4C-ROUND	6	1/4	-4	39	20
3YW82-8-4C-ROUND	6	1/4	-4	40	21
3YW82-10-6C-ROUND	10	3/8	-6	44	22
3YW82-12-8C-ROUND	12	1/2	-8	54	27
3YW82-18-10C-ROUND	16	5/8	-10	65	29

Material: Stainless Steel

VW121 - BSP Swivel Female

VW-Norm 39-V-16631



#	Hose I. D.			Thread BSP	A mm	B mm	D mm	W mm
	DN	Inch	Size					
VW121-8937*	6	1/4	-4	1/4x19	32	13	5.0	17
VW121-8938**	10	3/8	-6	3/8x19	38	15	7.5	19
VW121-8939**	14	1/2	-8	1/2x14	46	19	11.0	27
VW121-8940**	16	5/8	-10	3/4x14	58	21	14.0	32
VW121-8941**	20	3/4	-12	1x11	53	16	17.0	4

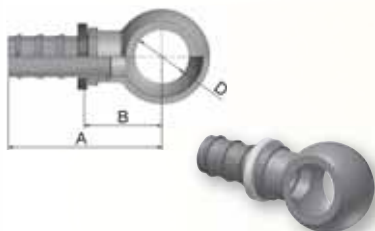
* Stainless steel nipple, steel nut
** Brass nipple, steel nut

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

49 - Metric Banjo - Straight

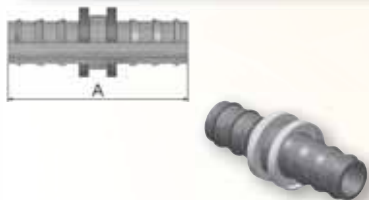
DIN 7642



#	Hose I. D.			D mm	A mm	B mm
	DN	Inch	Size			
34982-8-4	6	1/4	-4	6.3	8	36
34982-10-4	6	1/4	-4	6.3	10	38
34982-12-4	6	1/4	-4	6.3	12	40
34982-14-4	6	1/4	-4	6.3	14	42
34982-14-4C	6	1/4	-4	6.3	14	42
34982-10-6	10	3/8	-6	9.5	10	42
34982-12-6	10	3/8	-6	9.5	12	44
34982-14-6	10	3/8	-6	9.5	14	47
34982-14-6C	10	3/8	-6	9.5	14	47
34982-16-6	10	3/8	-6	9.5	16	49
34982-17-6	10	3/8	-6	9.5	17	49
34982-17-6C	10	3/8	-6	9.5	17	49
34982-14-8	12	1/2	-8	12.7	14	51
34982-18-8	12	1/2	-8	12.7	18	55
34982-22-8	12	1/2	-8	12.7	22	58
34982-22-10	16	5/8	-10	15.9	22	68
34982-26-12	20	3/4	-12	19.1	26	73

Material: Steel, zinc plated
C = Stainless Steel

82 - Push-Lok® Union



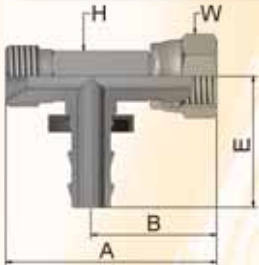
#	Hose I. D.			A mm
	DN	Inch	Size	
38282-4-4	6	1/4	-4	6.3
38282-4-4B	6	1/4	-4	6.3
38282-6-6	10	3/8	-6	9.5
38282-6-6B	10	3/8	-6	9.5
38282-8-8	12	1/2	-8	12.7
38282-8-8B	12	1/2	-8	12.7
38282-10-10	16	5/8	-10	15.9
38282-10-10B	16	5/8	-10	15.9
38282-12-12	20	3/4	-12	19.1
38282-12-12B	20	3/4	-12	19.1

Material: Steel, zinc plated
B = Brass

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

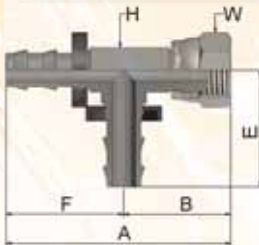
DP - Metric Swivel Female Tee / Male Stud



#	Hose I. D.			Thread Metric	A mm	B mm	E mm	H mm	W mm	
	DN	Inch	Size							
DP-6-6-4BK	6	1/4	-4	6.3	M12x1	43	24	30	11	14
DP-8-8-4BK	6	1/4	-4	6.3	M14x1.5	43	24	30	11	14
DP-10-10-6BK	10	3/8	-6	9.5	M16x1.5	48	26	34	13	19
DP-15-15-8BK	12	1/2	-8	12.7	M22x1.5	58	32	42	17	2

B & BK parts have brass nipples and steel nuts.
Standard nipples are stocked without plastic collar. If you need a collar, delete K from the part number.

DR - Metric Swivel Female Tee



#	Hose I. D.			Thread Metric	A mm	B mm	E mm	F mm	H mm	W mm	
	DN	Inch	Size								
DR-6-4-4BK	6	1/4	-4	6.3	M12x1	54	24	30	30	11	14
DR-10-6-6BK	10	3/8	-6	9.5	M16x1.5	59	25	34	34	13	19
DR-15-8-8BK	12	1/2	-8	12.7	M22x1.5	74	32	42	42	17	27

Material: Steel, zinc plated
B = Brass
C = Stainless Steel
K = Without plastic ring

Approved fitting series for hose types: 801 / 804 / 821FR / 830M / 831 / 836 / 837BM / 837PU-Plus / 838M

Information about standard products or non-standard products can be found in the current price list.
Dimensions shown may be changed at any time without prior notice.

Warning ! This chemical compatibility guide must not be used in conjunction with any other compatibility guides from previous or future catalogue editions, bulletins or publications. Incorrect use of these charts could result in death, personal injury or property damage.

Hose Selection by Medium and Hose Type

This hose compatibility chart is a ready reference of Parker hose compatibility with various fluid media. It is intended as a guide to **chemical compatibility with inner tube materials and assembly lubricants applied internally.**

The outer cover of the hose is intended to protect the reinforcement layer(s) from mechanical influences (abrasion, weathering etc), as such the **cover compounds are not designed to exhibit the same chemical resistance as the tube compounds.** Hose Division Technical Department should be consulted about the compatibility of the cover should the application involve the extended exposure or immersion in a liquid.

The specific recommendations are based upon field experience, the advice of various polymer or fluid suppliers, and specific laboratory experiments. It must be stressed, however, that this information is offered only as a guide. Final hose selection depends also upon pressure, fluid temperature, ambient temperature, and special requirements or variations, which may not be known by Parker Hannifin. Legal and other regulations must be followed with particular care. Where an external compatibility problem may occur, or for fluids not listed, we encourage you to first contact the fluid manufacturer for a recommendation prior to contacting your Parker Hannifin Field Representative or the Technical Department, Hose Products Division Europe (HPDE@Parker.com)

Use the Chart as Follows:

1. Locate medium to be carried using the Chemical Resistance Table on the following pages.
2. Select suitability of hose and fitting material from the table based on the letter rating in the table. See resistance rating key below for explanation of compatibility ratings. See list of numerals below for an explanation when a numeral, or a numeral and a letter rating are present in the table.
3. The Column headings on the Chemical Resistance Table, I, II, III, IV, V, refer to specific groups of hoses.
4. Locate hose part number under Column I, II, III, IV, V, VI from the list below.
5. For fitting material availability refer to appropriate fitting section of catalogue.
6. Check hose specifications in this catalogue. Contact Hose Division Technical Department on any items not catalogued.

Resistance Rating Key

A = Preferred, good to excellent with little or no change in physical properties.

F = Fair, marginal or conditional with noticeable effects on physical properties.

X = Unsuitable, severe effects on physical properties.

~ = No rating, insufficient information.

Numerals

1. For air or gaseous applications above 250 PSI (1,7 MPa), the cover should be pin pricked.
2. Legal and insurance regulations must be considered. Contact HPDE Technical Department for more information.
3. Push-Lok hoses (801, 804, 821, 821FR, 831, 836, 837BM, 837PU, 830M, 838M) are not recommended for any type of fuel.
4. Use 285, 235 or 244 hoses. The compatibility of the systems refrigeration oil with these hoses needs to be evaluated on a case by case basis. Contact HPDE Technical Department for more information. Do not use mineral oil or Alkyl Benzene refrigeration oils with 244 hose. Chemical compatibility does not imply low permeation.
5. 65 °C (150 °F) maximum.
6. Satisfactory at some concentrations and temperatures, unsatisfactory at others.
7. For phosphate ester fluids use 304, 424, 774 or 804 hoses.
8. Acceptable for flushing hose assemblies.
9. 221FR hose recommended.
10. For dry air applications, hoses with inner tubes from columns IV, and V are preferred. See hose specifications for maximum recommended temperatures with air.
11. 100 °C (212 °F) maximum.
12. 121 °C (250 °F) maximum.
13. Hoses for gas application are available from Parker. Please contact the Technical Department for more information about the products as well as the legal application requirements.
14. Hoses for gas application are available from Parker. Please contact the Technical Department for more information about the products as well as the legal application requirements.
15. 70 °C maximum for hoses 801, 837BM, 837PU
16. No rating / insufficient information about chemical compatibility for hoses 801, 837BM, 837PU.

Hose Types

Column I

201, 225, 601, 701, 721, 721TC, 731, 77C, 78C, 781, 791TC, 881

Column II

371LT, SS25UL, 421WC, 431, 451TC, 451ST, 461LT, 463, 471TC, 471ST, 493, 681DB, 811

Column III

221FR, 301SN, 372, 402, 421SN, 462, 462ST, 472TC, 492, 492ST, 692, 692Twin, 772TC, 772ST, 782TC, 782ST, 792TC, 792ST, 821, 831

Column IV

206, 213, 226, 266, 293, 426, 436, 821FR, 836, 801*, 837BM*, 837PU*

Column V

304, 424, 604, 774, 804

Column VI

830M, 838M

Note: * See Numeral 15, 16

Caution: The fluid manufacturer's recommended maximum operating temperature for any specific name-brand fluid should be closely observed by the user. Specific name brand fluids can vary greatly between manufacturers even though they are considered to be from the same family or-of fluids. Using fluids above the manufacturers maximum recommended temperature can cause the fluid to break down, creating by-products that can be harmful to elastomers or other materials used in the system. When selecting a hose type, both the fluid manufacturer and hose manufacturers maximum temperature limit must be taken into consideration, with the lower of the taking precedence.

Push-Lok® Hose and Fittings

Medium	I	II	III	IV	V	VI	STEEL	BRASS	SS
3M FC-75	A	A	A	A 16	A	A	A	A	A
Acetic Acid	X	X	X	A 16	6	X	X	X	A
Acetone	X	X	X	A 16	A	X	A	A	A
Acetylene	X	X	X	X	X	-	-	-	-
AEROSHELL Turbine Oil 500 (See MIL-L-23699)	X	X	F	X	X	-	A	-	A
Air	A, 1, 10	A, 1, 10	A, 1, 10	A, 1, 10	A, 1, 10	A	A	A	A
Air (dry)	X	F, 1, 10	F, 1, 10	A, 1, 10	A, 1, 10	A	A	A	A
Alcohol (Methanol-Ethanol)	F	F	F	A 16	F	-	F	A	A
Ammonia (Anhydrous)	X	X	X	X	X	-	X	X	X
Ammonium Chloride	A	A	A	A 16	A	A	X	X	X
Ammonium Hydroxide	F	F	F	A 16	A	X	F	X	A
Ammonium Nitrate	A	A	A	A 16	A	-	F	X	A
Ammonium Phosphate	A	A	A	A 16	A	-	X	X	F
Ammonium Sulfate	A	A	A	A 16	A	-	F	X	F
Amoco 32 Rykon	X	A	A	F 15	X	A	A	A	A
Ampol PE 46	X	X	X	X	A, 7	F	A	A	A
AMSOIL Synthetic ATF	F	A	A	A 16	X	F	A	A	A
Amyl Alcohol	X	X	X	A 16	F	-	X	A	A
Anderol 495,497,500,750	X	X	X	A 16	X	X	A	A	A
Aniline	X	X	X	A 16	A	X	A	X	A
Animal Fats	X	F	F	A 16	F	-	6	6	A
Aquacent Light, Heavy	X	A	A	X	X	A	A	A	A
Argon	A	A	A	A	A	A	A	A	A
Aromatic 100,150	X	F	F	-	X	F	A	A	A
Arrow 602P	A	A	A	A 15	X	A	A	A	A
Asphalt	X	F	F	F 15	X	A	F	F	A
ASTM #3 Oil	F	F	F	A 16	X	-	A	A	A
ATF-M	F	A	A	A 15	X	A	A	A	A
Automotive Brake Fluid	X	X	X	X	-	X	X	X	X
AW 32,46,68	F	A	A	A 15	X	A	A	A	A
BCF	F	F	F	F 16	-	-	A	A	A
Benz Petraulic 32,46,68,100,150,220,320,460	F	A	A	A 15	X	A	A	A	A
Benzene, Benzol	X	X	X	A 16	X	F	A	A	A
Benzgrind HP 15	-	A	A	A 16	X	-	A	A	A
Benzine	X	X	X	F 16	X	-	A	A	A
Biodegradable Hydraulic Fluid 112B	X	A	A	X	-	-	A	A	A
Borax	F	F	F	A 16	A	-	F	A	A
Boric Acid	A	A	A	X	A	X	X	6	A
Brayco 882	X	A	A	A 16	X	-	A	A	A
Brayco Micronic 745	X	X	A	F 15	X	A	A	A	A
Brayco Micronic 776RP	F	A	A	F 15	X	A	A	A	A
Brayco Micronic 889	X	F	F	-	X	-	A	A	A
Brine	F	F	F	A 16	A	-	X	F	A
Butane		See 2 & 13				F	A	A	A
Butyl Alcohol, Butanol	F	F	F	A 16	F	-	F	F	A
Calcium Chloride	A	A	A	A 16	A	-	F	F	X
Calcium Hydroxide	A	A	A	A 16	A	-	A	A	A
Calcium Hypochlorite	X	X	X	A 16	A	-	X	F	X
Calibrating Fluid	A	A	A	A 15	X	A	A	A	A
Carbon Dioxide, gas	F	F	F	F 16	6	-	A	A	A
Carbon Disulfide	X	X	X	A 16	X	-	A	F	A
Carbon Monoxide (hot)	F	F	F	A 16	6	-	F	6	A
Carbon Tetrachloride	X	X	X	A 16	X	-	6	6	6
Carbonic Acid	F	F	F	X	F	X	X	X	F
Castor Oil	A	A	A	A 16	A	-	A	A	A
Castrol 5000	X	F	F	A 16	X	X	A	A	A
Cellosolve Acetate	X	X	X	X	A	-	X	X	A
Cellugard	A	A	A	-	A	-	A	A	A
Cellulube 90, 150, 220 300, 550, 1000	X	X	X	-	A	-	A	A	A
Chevron Clarity AW 32, 46, 68	A	A	A	A 15	X	A	A	A	A
Chevron FLO-COOL 180	F	F	F	-	X	-	A	A	A
Chevron FR-8, 10, 13, 20	X	X	X	X	A, 7	F	A	A	A
Chevron Hydraulic Oils AW MV 15, 32, 46, 68, 100	X	A	A	A 15	X	A	A	A	A
Chevron HyJet IV (9)	X	X	X	X	A, 7	F	A	A	A
Citric Acid	F	A	A	X	A	X	X	X	6
Commonwealth EDM 242, 244	A	A	A	-	X	A	A	A	A
CompAir CN300	X	X	X	A 16	X	X	A	A	A
CompAir CS100, 200, 300, 400	X	X	X	A 16	X	X	A	A	A
Coolanol 15, 20, 25, 35, 45	A	A	A	A 16	A	X	A	A	A
Copper Chloride	F	A	A	X	A	-	X	X	X
Copper Sulfate	A	A	A	X	A	-	X	X	F
Cosmolubric HF-122, HF-130, HF-144	X	F	A	X	X	-	A	A	A
Cosmolubric HF-1530	X	F	A	X	X	-	A	A	A
Cottonseed Oil	F	A	A	F 16	X	-	A	A	A
CPI CP-4000	X	X	X	A 16	X	-	A	A	A
Crude Petroleum Oil	F	A	A	A 15	X	A	F	F	A

Medium	I	II	III	IV	V	VI	STEEL	BRASS	SS
CSS 1001 Dairy Hydraulic Fluid	F	A	A	A 16	X	-	A	A	A
Daphne AW32	A	A	A	A 15	X	A	A	A	A
Dasco FR 201-A	A	A	A	-	X	-	A	A	A
Dasco FR150, 200, 310	F	A	A	-	A	-	A	A	A
Dasco FR300, FR2550	X	X	X	-	X	F	A	A	A
Dasco FR355-3	X	F	A	X	X	X	A	A	A
Deicer Fluid 419R	A	A	A	-	-	A	A	A	A
Deionized Water	A	A	A	A 16	A	-	F	F	A
Dexron II ATF	F	A	A	A 15	X	A	A	A	A
Dexron III ATF	X	F, 11	F, 11	A 16, 12	X	-	A	A	A
Diesel Fuel	F, 3	A, 3	A, 3	A 16, 3	X	A(2)	A	A	A
Diester Fluids	X	X	X	A 16	X	X	A	A	A
Dow Corning 2-1802 Sullair (24KT)	-	-	-	F 16	-	-	A	A	A
Dow Corning DC 200, 510, 550, 560, FC126	A	A	A	A 16	-	-	A	A	A
Dow HD50-4	F	F	F	-	-	-	-	-	A
Dow Sullube 32	-	-	-	F 16	-	-	A	A	A
Dowtherm A,E	X	X	X	A 16	X	-	A	A	A
Dowtherm G	X	X	X	X	X	-	A	A	A
Duro AW-16, 31	A	A	A	-	X	-	A	A	A
Duro FR-HD	A	A	A	-	X	-	A	A	A
EcoSafe FR-68	A	A	A	-	X	X	A	A	A
Ethanol	F	F	F	A 16	F	-	F	A	A
Ethers	X	X	X	A 16	X	-	A	A	A
Ethyl Acetate	X	X	X	A 16	F	-	F	A	A
Ethyl Alcohol	F	F	F	A 16	F	-	F	A	A
Ethyl Cellulose	F	F	F	A 16	F	-	X	F	F
Ethyl Chloride	X	X	X	X	A	-	F	F	F
Ethylene Dichloride	X	X	X	A 16	X	-	X	A	X
Ethylene Glycol	F	A	A	A	A	A	A	F	A
Exxon 3110 FR	A	A	A	A 16	X	A	A	A	A
Exxon Esstic	A	A	A	A 15	A	A	A	A	A
Exxon Nuto H 46, 68	A	A	A	A 15	X	A	A	A	A
Exxon Tellura Industrial Process Oils	A	A	A	A 15	X	A	A	A	A
Exxon Terresstic, EP	A	A	A	A 15	A	A	A	A	A
Exxon Turbo Oil 2380	X	F	F	A 16	X	X	A	A	A
Exxon Univolt 60, N61	F	A	A	A 15	X	A	A	A	A
FE 232 (Halon)	X	X	X	X	F	-	A	A	A
Fenso 150	-	A	A	-	X	A	A	A	A
Formaldehyde	X	X	X	A 16	A	-	X	F	A
Formic Acid	X	X	X	X	A	X	X	6	X
Freons see refrigerants	-	-	-	-	-	-	-	-	-
Fuel Oil	F	A	A	A 15	X	A	A	A	A
Fyre-Safe 120C,126,155,1090E,1150,1220,1300E	X	X	X	X	X	A, 7	F	A	A
Fyre-Safe 200C, 225, 211	F	A	A	A	A	F	A	A	A
Fyre-Safe W/O	A	A	A	A 16	X	A	A	A	A
Fyrguard 150, 150-M, 200	A	A	A	A	A	F	A	A	A
Fyrquel 60, 90, 150, 220, 300, 550, 1000	X	X	X	X	A, 7	F	A	A	A
Fyrquel EHC, GT, LT, VPF	X	X	X	X	A, 7	F	A	A	A
Fyrtek MF, 215, 290, 295	X	X	X	X	X	F	A	A	A
Gardner-Denver GD5000, GD8000	X	X	X	A 16	X	X	A	A	A
Gasoline	-	See 9	-	-	-	-	A	A	A
Glue	F	F	F	-	X	-	A	F	A
Glycerine, Glycerol	A	A	A	A 16	A	-	A	F	A
Grease	A	A	A	A 15	X	A	A	A	A
Gulf-FR Fluid P37, P40, P43, P45, P47	X	X	X	A 16	A	-	A	A	A
H-515 (NATO)	A	A	A	-	X	-	A	A	A
Halon 1211, 1301	F	F	F	F 16	-	-	A	A	A
Helium Gas	X	X	X	X	X	-	A	A	A
Heptane	X	F	F	A 16	X	-	A	A	A
Hexane	X	F	F	A 16	X	-	A	A	A
HF-20, HF-28	-	A	A	A	A	F	A	A	A
Houghto-Safe 1055, 1110, 1115, 1120, 1130 (9)	X	X	X	X	A, 7	F	A	A	A
Houghto-Safe 271 to 640	F	A	A	A	A	F	A	A	A
Houghto-Safe 419 Hydraulic Fluid	A	A	A	-	X	-	A	A	A
Houghto-Safe 419R Deicer Fluid	A	A	A	-	-	A	A	A	A
Houghto-Safe 5046, 5046W, 5047-F	A	A	A	A 16	X	-	A	A	A
HP 100C (Jack hammer oil)	F	A	A	A 15	X	A	A	A	A
HPWG 46B	F	A	A	A	-	F	A	A	A
Hul-E-Mul	A	A	A	-	X	-	A	A	A
Hychem C, EP1000, RDF	A	A	A	A 16	A	-	A	A	A
Hydra Safe E-190	A	A	A	A 16	X	-	A	A	A
Hydra-Cut 481, 496	A	A	A	-	X	-	A	A	A
Hydrafluid 760	A	A	A	-	X	-	A	A	A
Hydrochloric Acid	X	X	X	X	X	X	X	X	X
Hydrofluoric Acid	X	X	X	X	X	X	X	6	X
Hydrogen Gas	X	X	X	X	X	-	A	A	A

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Medium	I	II	III	IV	V	VI	STEEL	BRASS	SS
Hydrogen Peroxide	X	X	X	A 16	X	-	X	X	6
Hydrogen Sulfide	X	X	X	X	X	-	X	X	6
Hydrolube	A	A	A	A 16	A	-	A	A	A
Hydrolubric 120-B, 141, 595	F	A	A	A 16	A	-	A	A	A
Hydrosafe Glycol 200	A	A	A	A	A	F	A	F	A
HyJet IV	X	X	X	X	A, 7	-	A	A	A
Ideal Yellow 77	A	A	A	A 16	X	-	A	A	A
Imol S150 to S550	X	X	X	-	-	-	A	A	A
Ingersoll Rand SSR Coolant	X	X	X	A 16	X	X	A	A	A
Isocyanates	F	F	F	A 16	X	-	A	-	A
Isooctane	X	F	F	A 16	X	-	A	A	A
Isopar H	X	X	X	X	X	-	A	A	A
Isopropyl Alcohol	F	F	F	A 16	F	-	F	A	A
Jayflex DIDP	X	X	X	X	A	-	A	A	A
JP3 and JP4	X	A,3	A,3	-	X	A(2)	A	A	A
JP5	X	A,3	A,3	F 16,3	X	A(2)	A	A	A
JP9	X	X	X	X	X	-	A	-	A
Kaeser 150P, 175P, 325R, 687R	X	X	X	A 16	X	-	A	A	A
Kerosene	X	A	A	F 15	X	A	A	A	A
KSL-214, 219, 220, 222	X	X	X	A 16	X	-	A	A	A
Lacquer	X	X	X	A 16	X	-	X	A	A
Lacquer Solvents	X	X	X	A 16	X	-	X	A	A
Lactic Acids	X	X	X	X	X	X	X	X	A
Lindol HF	X	X	X	A 16	A	-	A	A	A
Linseed Oil	A	A	A	A 16	A	-	A	A	A
LP-Gas		See 13					A	A	A
Magnesium Chloride	A	A	A	A 16	A	-	X	X	X
Magnesium Hydroxide	F	F	F	A 16	A	-	F	F	F
Magnesium Sulfate	A	A	A	A 16	A	-	A	F	A
Mercaptans	X	X	X	X	X	-	-	-	-
Methane		See 14					A	A	A
Methanol	F	F	F	A 16	F	-	F	A	A
Methyl Alcohol	F	F	F	A 16	F	-	F	A	A
Methyl Chloride	X	X	X	A 16	X	-	A	A	A
Methyl Ethyl Ketone (MEK)	X	X	X	A 16	X	-	F	A	A
Methyl Isopropyl-Ketone	X	X	X	X	X	-	F	A	A
Metsafe FR303, FR310, FR315, FR330, FR350	X	X	X	X	X	F	A	A	A
Microzol-T46	X	A	A	-	X	-	A	A	A
MIL-B-46176A	X	X	X	X	X	-	X	X	X
MIL-H-46170	X	F	F	A 16	X	-	A	A	A
MIL-H-5606	F	A	A	A 15	X	A	A	A	A
MIL-H-6083	F	A	A	A 16	X	-	A	A	A
MIL-H-7083	F	A	A	A 16	X	-	A	A	A
MIL-H-83282	F	A	A	A 16	X	-	A	A	A
MIL-L-2104, 2104B	F	A	A	A 15	X	A	A	A	A
MIL-L-23699	X	X	X	X	X	X	A	A	A
MIL-L-7808	F	A	A	-	X	-	A	A	A
Mine Guard FR	A	A	A	-	A	-	A	A	A
Mineral Oil	A	A	A	F 15	X	A	A	A	A
Mineral Spirits	8	8	8	8	X	-	A	A	A
Mobil Aero HFE	F	A	A	F 15	X	A	A	A	A
Mobil DTE 11M, 13M, 15M, 16M, 18M, 19M	F	A	A	A 15	X	A	A	A	A
Mobil DTE 22, 24, 25, 26	F	A	A	A 15	X	A	A	A	A
Mobil EAL 224H	X	A	A	X	-	-	A	A	A
Mobil EAL Artic 10, 15, 22,32, 46, 68, 100	X	X	X	X	X	X	A	A	A
Mobil Glygoyle 11, 22, 30, 80	A	A	A	-	X	-	A	A	A
Mobil HFA	F	A	A	A 16	X	-	A	A	A
Mobil Jet 2	X	F	F	A 16	X	-	A	A	A
Mobil Nyvac 20, 30, 200, FR	F	A	A	A	A	F	A	A	A
Mobil Rarus 824, 826, 827	X	X	X	A 16	X	X	A	A	A
Mobil SHC 600 Series	F	A	A	A 16	X	-	A	A	A
Mobil SHC 800 Series	F	A	A	A 16	X	-	A	A	A
Mobil SHL 624	-	A	A	A 16	X	-	A	A	A
Mobil Vactra Oil	A	A	A	F 15	X	A	A	A	A
Mobil XRL 1618B	X	X	X	X	A, 7	F	A	A	A
Mobilfluid 423	F	A	A	A 15	X	A	A	A	A
Mobilgear SHC 150, 220, 320, 460, 680	F	F	F	A 16	X	-	A	A	A
Mobilrama 525	A	A	A	F 15	X	A	A	A	A
Molub-Alloy 890	X	X	X	A 16	X	-	A	A	A
Moly Lube „HF“ 902	F	F	F	F 15	X	A	A	A	A
Monolec 6120 Hydraulic Oil	A	A	A	A 15	X	A	A	A	A
Morpholine (pure additive)	X	X	X	X	X	-	X	X	A
Naptha	X	F	F	A 16	X	-	A	A	A
Napthalene	X	X	X	A 16	X	-	A	A	A
Natural Gas		See 14					A	A	A
Nitric Acid	X	X	X	X	X	X	X	X	F

Medium	I	II	III	IV	V	VI	STEEL	BRASS	SS
Nitrobenzene	X	X	X	A 16	X	-	X	X	A
Nitrogen, gas	F, 1	F, 1	F, 1	F 16, 1	F, 1	-	A	A	A
NORPAR 12, 13, 15	8	8	8	8	X	-	A	A	A
Nuto H 46, 68	A	A	A	A 15	X	-	A	A	A
Nyvac 20, 30, 200, FR	F	A	A	A	A	F	A	A	A
Nyvac Light	X	X	X	-	A	-	A	A	A
Oceanic HW	F	A	A	A	X	F	A	A	A
Oxygen, gas	X	X	X	X	X	-	X	A	A
Ozone	F	F	F	-	A	-	A	A	A
Pacer SLC 150, 300, 500, 700	X	X	X	A 16	X	-	A	A	A
Pennzbell AWX	F	A	A	F 15	X	A	A	A	A
Perchloroethylene	X	X	X	X	X	-	F	X	A
Petroleum Ether	X	F	F	F 15	X	A	A	A	A
Petroleum Oils	A	A	A	A 15	X	A	A	A	A
Phenol (Carbolic Acid)	X	X	X	A 16	X	X	X	F	A
Phosphate Ester Blends	X	X	X	X	X	F	A	A	A
Phosphate Esters	X	X	X	X	A, 7	-	A	A	A
Phosphoric Acid	X	X	X	X	X	X	X	X	F
Plurasafe P 1000, 1200	F	A	A	A	A	F	A	A	A
Polyalkylene Glycol	A	F	F	-	X	-	A	A	A
Polyol Ester	X	F	A	X	X	-	A	A	A
Potassium Chloride	A	A	A	A 16	A	-	X	F	F
Potassium Hydroxide	X	X	X	A 16	A	-	6	X	A
Potassium Sulfate	A	A	A	A 16	A	-	A	A	A
Propane		See 13				-	A	A	A
Propylene Glycol	F	A	A	A 16	A	-	F	F	F
Pydraul 10-E, 29-E, 50-E, 65-E, 90-E, 115-E	X	X	X	X	A, 7	F	A	A	A
Pydraul 230-C, 312-C, 68-S	X	X	X	X	A, 7	-	A	A	A
Pydraul 60, 150, 625, F9	X	X	X	X	A, 7	-	A	A	A
Pydraul 90, 135, 230, 312, 540, MC	X	X	X	X	X	-	A	A	A
Pydraul A-200	X	X	X	A 16	X	-	A	A	A
Pyro Gard 43, 230, 630	X	X	X	X	X	-	A	A	A
Pyro Gard C, D, R, 40S, 40W	F	A	A	F 16	X	A	A	A	A
Pyro Guard 53, 55, 51, 42	X	X	X	X	A, 7	-	A	A	A
Quintolubric 700	A	A	A	A 16	A	-	A	F	A
Quintolubric 807-SN	F	A	A	A	X	-	A	A	A
Quintolubric 822, 833	X	F, 5	A, 5	X	X	X	A	A	A
Quintolubric 822-68EHC (71°C, 160°F maximum)	X	F, 5	A, 5	-	-	-	A	A	A
Quintolubric 888	X	F, 5	A, 5	X	X	-	A	A	A
Quintolubric 957, 958	F	A	A	A	A	F	A	A	A
Quintolubric N822-300	-	-	A	-	-	-	A	A	A
Rando	A	A	A	A 15	X	A	A	A	A
Rayco 782	X	F	A	X	X	-	X	X	X
Refrigerant 124		See 4				X	A	A	A
Refrigerant Freon 113, 114	X	X	X	X	X	X	A	A	A
Refrigerant Freon 12		See 4		X		X	A	A	A
Refrigerant Freon 22		See 4		X		X	A	A	A
Refrigerant Freon 502		See 4		X		X	A	A	A
Refrigerant HFC134A		See 4		X		X	A	A	A
Reolube Turbofluid 46	X	X	X	X	A, 7	-	A	A	A
Rotella	A	A	A	A 15	X	A	A	A	A
Royal Bio Guard 3032, 3046, 3068, 3100	X	-	A	X	X	X	A	A	A
Royco 2200, 2210, 2222, 2232, 2246, 2268	X	X	X	X	X	X	A	A	A
Royco 4032, 4068, 4100, 4150	X	X	X	A 16	X	X	A	A	A
Royco 756, 783	A	A	A	A 15	X	A	A	A	A
Royco 770	X	F	F	F 16	X	-	A	A	A
RTV Silicone Adhesive Sealants	X	X	X	X	X	-	A	A	A
Safco-Safe T10, T20	-	-	-	-	A	-	F	F	A
Safety-Kleen ISO 32, 46, 68 hydraulic oil	F	A	A	-	X	A	A	A	A
Safety-Kleen Solvent	8	8	8	8	X	-	A	A	A
Santoflex 13	F	F	F	-	F	-	A	A	A
Santosafe 300	X	X	X	-	X	-	A	A	A
Santosafe W/G 15 to 30	-	-	-	A 16	A	-	A	A	A
Sea Water	F	F	F	A 16	A	-	X	F	A
Sewage	F	F	F	A 16	F	-	X	F	A
Shell 140 Solvent	8	8	8	8	X	-	A	A	A
Shell Clavus HFC 68	X	X	X	X	X	X	A	A	A
Shell Compstella Oil	F	F	F	A 15	X	A	A	A	A
Shell Compstella Oil S 46, 68	F	F	F	A 15	X	A	A	A	A
Shell Compstella Oil SM	F	F	F	A 15	X	A	A	A	A
Shell Diala A, (R) Oil AX	F	A	A	F 15	X	A	A	A	A
Shell FRM	-	-	-	-	X	-	A	A	A
Shell IRUS 902, 905	A	A	A	-	A	-	A	A	A
Shell Pella-A	A	A	A	A 16	X	-	A	A	A
Shell Tellus	F	A	A	A 15	X	A	A	A	A
Shell Thermia Oil C	A	A	A	A 15	X	A	A	A	A

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Medium	I	II	III	IV	V	VI	STEEL	BRASS	SS
Shell Turbo R	X	F	F	A 16	X	X	A	A	A
SHF 220, 300, 450	X	X	A	X	X	X	A	A	A
Silicate Esters	A	F	F	A 16	X	-	A	A	A
Silicone Oils	A	A	A	-	-	-	A	A	A
Silicone Sealants	X	X	X	X	X	-	A	A	A
Skydrol 500B-4, LD-4	X	X	X	X	A, 7	F	A	A	A
Soap Solutions	X	F	F	F 16	A	-	A	A	A
Soda Ash, Sodium Carbonate	A	A	A	A 16	A	-	A	F	A
Sodium Bisulfate	F	F	F	A 16	A	-	F	A	F
Sodium Chloride	F	F	F	A 16	A	-	X	F	A
Sodium Hydroxide	X	X	X	A 16	A	-	A	X	A
Sodium Hypochlorite	F	F	X	X	F	-	X	X	X
Sodium Nitrate	F	F	F	A 16	A	-	A	F	A
Sodium Peroxide	X	X	X	X	A	-	X	X	A
Sodium Silicate	A	A	A	A 16	A	-	A	A	A
Sodium Sulfate	A	A	A	A 16	A	-	A	A	A
Soybean Oil	F	A	A	A 16	A	-	A	A	A
SSR Coolant	X	X	X	A 16	X	X	A	A	A
Steam	X	X	X	X	X	-	F	A	A
Stoddard Solvent	8	8	8	8	X	-	A	A	A
Sulfur Chloride	X	X	X	A 16	X	-	X	X	X
Sulfur Dioxide	X	X	X	X	F	-	X	F	F
Sulfur Trioxide	X	X	X	A 16	F	-	X	X	X
Sulfuric Acid (0% to 30% room temperture)	F, 6	F, 6	F, 6	X	F, 6	-	6	X	6
Summa-20, Rotor, Recip	X	X	X	A 16	X	-	A	A	A
Summit DSL-32,68,100,125	X	X	X	A 16	X	-	A	A	A
Sun Minesafe, Sun Safe	X	F	F	A 16	X	-	A	A	A
Sundex 8125	X	F	F	-	A	-	A	A	A
Suniso 3GS	A	A	A	A 15	X	A	A	A	A
Sun-Vis 722	X	F	F	-	X	-	A	A	A
Super Hydraulic Oil 100, 150, 220	A	A	A	A 15	X	A	A	A	A
SUVA MP 39, 52, 66	X	X	X	X	X	X	A	A	A
SYNCON Oil	X	X	X	X	X	-	A	A	A
Syndale 2820	X	F	F	-	-	-	A	A	A
Synesitic 32,68,100	X	X	X	X	X	X	A	A	A
Syn-Flo 70,90	X	X	X	A 16	X	-	A	A	A
SYN-O-AD 8478	X	X	X	X	A, 7	F	A	A	A
Tannic Acid	F	A	A	A 16	A	-	X	F	X
Tar	F	F	F	A 16	X	-	X	F	A
Tellus (Shell)	F	A	A	A 15	X	A	A	A	A
Texaco 760 Hydraulicfluid	-	-	-	-	X	-	A	A	A
Texaco 766, 763 (200 - 300)	-	-	-	-	A	-	F	F	A
Texaco A-Z Oil	A	A	A	F 15	X	A	A	A	A
Texaco Spindura Oil 22	F	F	F	F 15	X	A	A	A	A
Texaco Way Lubricant 68	A	A	A	A 15	X	A	A	A	A
Thanol-R-650-X	X	F	F	-	X	-	A	A	A
Thermanol 60	X	X	X	X	X	-	A	A	A
Toluene, Toluol	X	X	X	X	X	-	A	A	A
Transmission Oil	A	A	A	A 15	X	A	A	A	A
Tribol 1440	X	F	F	X	X	F	A	A	A
Trichloroethylene	X	X	X	A 16	X	-	X	A	A
Trim-Sol	F	A	A	A 16	X	-	A	A	A
Turbinol 50, 1122, 1223	X	X	X	X	A, 7	-	A	A	A
Turpentine	X	X	X	A 16	X	-	A	A	A
Ucon Hydrolubes	F	A	A	A	A	F	A	A	A
UltraChem 215,230,501,751	X	X	X	A 16	X	-	A	A	A
Univis J26	A	A	A	A 15	X	A	A	A	A
Unleaded Gasoline		See 9					A	A	A
Unocal 66/3 Mineral Spirits	8	8	8	8	X	-	A	A	A
Urea	F	F	F	A 16	F	-	F	-	F
Urethane Formulations	A	A	A	A 16	-	-	A	A	A
Van Straaten 902	A	A	A	A 16	X	-	A	A	A
Varnish	X	X	X	A 16	X	-	F	F	A
Varsol	8	F	F	8	X	-	A	A	A
Versilube F44, F55		A	A	A 16	-	-	A	A	A
Vinegar	X	X	X	A 16	A	-	F	X	A
Vital 29, 4300, 5230, 5310	X	X	X	X	X	-	A	A	A
Volt Esso 35	A	A	A	A 16	X	-	A	A	A
Water	F	A	A	A	A	A	F	A	A
Water / Glycols	A	A	A	A	A	F	A	F	A
Xylene, Xylol	X	X	X	X	X	-	A	A	A
Zerol 150	A	A	A	A 15	X	A	A	A	A
Zinc Chloride	A	A	A	X	A	-	X	X	F
Zinc Sulfate	A	A	A	X	A	-	X	A	A

Parker Safety Guide for Selecting and Using Hose, Tubing, Fittings and Related Accessories

Parker Publication No. 4400-B.1-EUR

Revised: March, 2005



WARNING

Failure or improper selection or improper use of hose, tubing, fittings, assemblies or related accessories ("Products") can cause death, personal injury and property damage.

Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocutation from high voltage electric powerlines.
- Contact with suddenly moving or falling objects that are controlled by the conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping Hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity buildup or other sources of electricity.
- Sparking or explosion while spraying paint or flammable liquids.
- Injuries resulting from inhalation, ingestion or exposure to fluids.

Before selecting or using any of these Products, it is important that you read and follow the instructions below. Only Hose from Parker's Stratoflex Products Division is approved for in flight aerospace applications, and no other Hose can be used for such in flight applications.

1.0 GENERAL INSTRUCTIONS

1.1 Scope

This safety guide provides instructions for selecting and using (including assembling, installing, and maintaining) these Products. For convenience, all rubber and/or thermoplastic products commonly called "hose" or "tubing" are called "Hose" in this safety guide. All assemblies made with Hose are called "Hose Assemblies". All products commonly called "fittings" or "couplings" are called "Fittings". All related accessories (including crimping and swaging machines and tooling) are called "Related Accessories". This safety guide is a supplement to and is to be used with, the specific Parker publications for the specific Hose, Fittings and Related Accessories that are being considered for use.

1.2 Fail-Safe

Hose, and Hose Assemblies and Fittings can and do fail without warning for many reasons. Design all systems and equipment in a failsafe mode, so that failure of the Hose or Hose Assembly or Fitting will not endanger persons or property.

1.3 Distribution

Provide a copy of this safety guide to each person that is responsible for selecting or using Hose and Fitting products. Do not select or use Parker Hose or Fittings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

1.4 User Responsibility

Due to the wide variety of operating conditions and applications for Hose and Fittings, Parker and its distributors do not represent or warrant that any particular Hose or Fitting is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the Hose and Fitting.
- Assuring that the user's requirements are met and that the application presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the Hose and Fittings are used.
- Assuring compliance with all applicable government and industry standards.

1.5 Additional Questions

Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the product being considered or used, or call 00-800-2727-5374, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2.0 HOSE AND FITTING SELECTION INSTRUCTIONS

2.1 Electrical Conductivity

Certain applications require that the Hose be nonconductive to prevent electrical current flow. Other applications require the Hose and the Fitting and the Hose/Fitting interface to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting Hose and Fittings for these or any other applications in which electrical conductivity or nonconductivity is a factor. The electrical conductivity or nonconductivity of Hose and Fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the Hose and the Fittings, Fitting finish (some Fitting finishes are electrically conductive while others are nonconductive), manufacturing methods (including moisture control), how the Fittings contact the Hose, age and amount of deterioration or damage or other changes, moisture content of the Hose at any particular time, and other factors. The following are considerations for electrically nonconductive and conductive Hose. For other applications consult the individual catalog pages and the appropriate industry or regulatory standards for proper selection.

2.1.1 Electrically Nonconductive Hose

Certain applications require that the Hose be nonconductive to prevent electrical current flow or to maintain electrical isolation. For these applications that require Hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive Hose can be used. The manufacturer of the equipment in which the nonconductive Hose is to be used must be consulted to be certain that the Hose and Fittings that are selected are proper for the application. Do not use any Parker Hose or Fitting for any such application requiring nonconductive Hose, including but not limited to applications near high voltage electric lines, unless (i) the application is expressly approved in the Parker technical publication for the product, (ii) the Hose is marked "nonconductive", and (iii) the manufacturer of the equipment on which the Hose is to be used specifically approves the particular Parker Hose and Fitting for such use.

2.1.2 Electrically Conductive Hose

Parker manufacturers special Hose for certain applications that require electrically conductive Hose. Parker manufactures special Hose for conveying paint in airless paint spraying applications. This Hose is labeled "Electrically Conductive Airless Paint Spray Hose" on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in all airless paint spraying applications. Do not use any other Hose for airless paint spraying, even if electrically conductive. Use of any other Hose or failure to properly connect the Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Parker manufactures a special Hose for certain compressed natural gas ("CNG") applications where static electricity buildup may occur. Parker CNG Hose assemblies comply with AGA Requirements 1-93, "Hoses for Natural Gas Vehicles and Fuel Dispensers". This Hose is labeled "Electrically Conductive for CNG Use" on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in, for example, high velocity CNG dispensing or transfer. Do not use any other Hose for CNG applications where static charge buildup may occur, even if electrically conductive. Use of other Hoses in CNG applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Care must also be taken to protect against CNG permeation through the Hose wall. See section 2.6, Permeation, for more information. Parker CNG Hose is intended for dispenser and vehicle use at a maximum temperature of 82°C / 180°F. Parker CNG Hose should not be used in confined spaces or unventilated areas or areas exceeding 82°C / 180°F. Final assemblies must be tested for leaks. CNG Hose Assemblies should be tested on a monthly basis for conductivity per AGA 1-93. Parker manufacturers special Hose for aerospace in flight applications. Aerospace in flight applications employing Hose to transmit fuel, lubricating fluids and hydraulic fluids require a special Hose with a conductive inner tube. This Hose for in flight applications is available only from Parker's Stratoflex Products Division. Do not use any other Parker Hose for in flight applications, even if electrically conductive. Use of other Hoses for in flight applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. These Hose assemblies for in flight applications must meet all applicable aerospace industry, aircraft engine, and aircraft requirements.

2.2 Pressure

Hose selection must be made so that the published maximum recommended working pressure of the Hose is equal to or greater than the maximum system pressure. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the Hose. Surge pressures and peak pressures can usually only be determined by sensitive electrical instrumentation that measures and indicates pressures at millisecond intervals. Mechanical pressure gauges indicate only average pressures and cannot be used to determine surge pressures or peak transient pressures. Published burst pressure ratings for Hose is for manufacturing test purposes only and is no indication that the Product can be used in applications at the burst pressure or otherwise above the published maximum recommended working pressure.

2.3 Suction

Hoses used for suction applications must be selected to ensure that the Hose will withstand the vacuum and pressure of the system. Improperly selected Hose may collapse in suction application.

2.4 Temperature

Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the Hose. Temperatures below and above the recommended limit can degrade Hose to a point where a failure may occur and release fluid. Properly insulate and protect the Hose Assembly when routing near hot objects

(e.g. manifolds). Do not use any Hose in any application where failure of the Hose could result in the conveyed fluids (or vapors or mist from the conveyed fluids) contacting any open flame, molten metal, or other potential fire ignition source that could cause burning or explosion of the conveyed fluids or vapors.

2.5 Fluid Compatibility

Hose Assembly selection must assure compatibility of the Hose tube, cover, reinforcement, and Fittings with the fluid media used. See the fluid compatibility chart in the Parker publication for the product being considered or used. This information is offered only as a guide. Actual service life can only be determined by the end user by testing under all extreme conditions and other analysis. Hose that is chemically compatible with a particular fluid must be assembled using Fittings and adapters containing likewise compatible seals.

2.6 Permeation

Permeation (that is, seepage through the Hose) will occur from inside the Hose to outside when Hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, diesel fuel, gasoline, natural gas, or LPG). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong Hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use Hose if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a Hose even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the Hose Assembly. Permeation of moisture from outside the Hose to inside the Hose will also occur in Hose assemblies, regardless of internal pressure. If this moisture permeation would have detrimental effects (particularly, but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

2.7 Size

Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

2.8 Routing

Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to Hose collapse, twisting of the Hose, proximity to hot objects or heat sources).

2.9 Environment

Care must be taken to insure that the Hose and Fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals, and air pollutants can cause degradation and premature failure.

2.10 Mechanical Loads

External forces can significantly reduce Hose life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type Fittings or adapters may be required to insure no twist is put into the Hose. Unusual applications may require special testing prior to Hose selection.

2.11 Physical Damage

Care must be taken to protect Hose from wear, snagging, kinking, bending smaller than minimum bend radius, and cutting, any of which can cause premature Hose failure. Any Hose that has been kinked or bent to a radius smaller than the minimum bend radius, and any Hose that has been cut or is cracked or is otherwise damaged, should be removed and discarded.

2.12 Proper End Fitting

See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards such as EN853, EN854, EN857, ISO17165-2, SAE J517 for hydraulic applications, or MIL-A-5070, AS1339, or AS3517 for Hoses from Parker's Stratoflex Products Division for aerospace applications.

2.13 Length

When establishing a proper Hose length, motion absorption, Hose length changes due to pressure, and Hose and machine tolerances and movement must be considered.

2.14 Specifications and Standards

When selecting Hose and Fittings, government, industry, and Parker specifications and recommendations must be reviewed and followed as applicable.

2.15 Hose Cleanliness

Hose components may vary in cleanliness levels. Care must be taken to insure that the Hose Assembly selected has an adequate level of cleanliness for the application.

2.16 Fire Resistant Fluids

Some fire resistant fluids that are to be conveyed by Hose require use of the same type of Hose as used with petroleum base fluids. Some such fluids require a special Hose, while a few fluids will not work with any Hose at all. See instructions 2.5 and 1.5. The wrong Hose may fail after a very short service. In addition, all liquids but pure water may burn fiercely under certain conditions, and even pure water leakage may be hazardous.

2.17 Radiant Heat

Hose can be heated to destruction without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the Hose.

2.18 Welding or Brazing

When using a torch or arc-welder in close proximity to hydraulic lines, the hydraulic lines should be removed or shielded with appropriate fire resistant materials. Flame or weld spatter could burn through the Hose and possibly ignite escaping fluid resulting in a catastrophic failure. Heating of plated parts, including Hose Fittings and adapters, above 450°F (232°C) such as during welding, brazing, or soldering may emit deadly gases.

2.19 Atomic Radiation

Atomic radiation affects all materials used in Hose assemblies. Since the long-term effects may be unknown, do not expose Hose assemblies to atomic radiation.

2.20 Aerospace Applications

The only Hose and Fittings that may be used for in flight aerospace applications are those available from Parker's Stratoflex Products Division. Do not use any other Hose or Fittings for in flight applications. Do not use any Hose or Fittings from Parker's Stratoflex Products Division with any other Hose or Fittings, unless expressly approved in writing by the engineering manager or chief engineer of Stratoflex Products Division and verified by the user's own testing and inspection to aerospace industry standards.

2.21 Unlocking Couplings

Ball locking couplings or other couplings with disconnect sleeves can unintentionally disconnect if they are dragged over obstructions or if the sleeve is bumped or moved enough to cause disconnect. Threaded couplings should be considered where there is a potential for accidental uncoupling.

3.0 HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1 Component Inspection

Prior to assembly, a careful examination of the Hose and Fittings must be performed. All components must be checked for correct style, size, catalog number, and length. The Hose must be examined for cleanliness, obstructions, blisters, cover looseness, kinks, cracks, cuts or any other visible defects. Inspect the Fitting and sealing surfaces for burrs, nicks, corrosion or other imperfections. Do NOT use any component that displays any signs of nonconformance.

3.2 Hose and Fitting Assembly

Do not assemble a Parker Fitting on a Parker Hose that is not specifically listed by Parker for that Fitting, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division. Do not assemble a Parker Fitting on another manufacturer's Hose or a Parker Hose on another manufacturer's Fitting unless (i) the engineering manager or chief engineer of the appropriate Parker division approves the Assembly in writing or that combination is expressly approved in the appropriate Parker literature for the specific Parker product, and (ii) the user verifies the Assembly and the application through analysis and testing. For Parker Hose that does not specify a Parker Fitting, the user is solely responsible for the selection of the proper Fitting and Hose Assembly procedures. See instruction 1.4. The Parker published instructions must be followed for assembling the Fittings on the Hose. These instructions are provided in the Parker Fitting catalog for the specific Parker Fitting being used, or by calling 00-800-2727-5374, or at www.parker.com.

3.3 Related Accessories

Do not crimp or swage any Parker Hose or Fitting with anything but the listed swage or crimp machine and dies in accordance with Parker published instructions. Do not crimp or swage another manufacturer's Fitting with a Parker crimp or swage die unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.4 PARTS

Do not use any Parker Fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct Parker mating parts, in accordance with Parker published instructions, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.5 Reusable/Permanent

Do not reuse any field attachable (reusable) Hose Fitting that has blown or pulled off a Hose. Do not reuse a Parker permanent Hose Fitting (crimped or swaged) or any part thereof. Complete Hose Assemblies may only be reused after proper inspection under section 4.0. Do not assemble Fittings to any previously used hydraulic Hose that was in service, for use in a fluid power application.

3.6 Pre-Installation Inspection

Prior to installation, a careful examination of the Hose Assembly must be performed. Inspect the Hose Assembly for any damage or defects. Do NOT use any Hose Assembly that displays any signs of nonconformance.

3.7 Minimum Bend Radius

Installation of a Hose at less than the minimum listed bend radius may significantly reduce the Hose life. Particular attention must be given to preclude sharp bending at the Hose to Fitting juncture. Any bending during installation at less than the minimum bend radius must be avoided. If any Hose is kinked during installation, the Hose must be discarded.

3.8 Twist Angle and Orientation

Hose Assembly installation must be such that relative motion of machine components does not produce twisting.

3.9 Securement

In many applications, it may be necessary to restrain, protect, or guide the Hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to insure such restraints do not introduce additional stress or wear points.

3.10 Proper Connection of Ports

Proper physical installation of the Hose Assembly requires a correctly installed port connection insuring that no twist or torque is transferred to the Hose when the Fittings are being tightened or otherwise during use.

3.11 External Damage

Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

3.12 System Checkout

All air entrapment must be eliminated and the system pressurized to the maximum system pressure (at or below the Hose maximum working pressure) and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

3.13 Routing

The Hose Assembly should be routed in such a manner so if a failure does occur, the escaping media will not cause personal injury or property damage. In addition, if fluid media comes in contact with hot surfaces, open flame, or sparks, a fire or explosion may occur. See section 2.4.

4.0 HOSE AND FITTING MAINTENANCE AND REPLACEMENT INSTRUCTIONS**4.1**

Even with proper selection and installation, Hose life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a possible Hose failure, and experience with any Hose failures in the application or in similar applications should determine the frequency of the inspection and the replacement for the Products so that Products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.7.

4.2 Visual Inspection Hose/Fitting

Any of the following conditions require immediate shut down and replacement of the Hose Assembly:

- Fitting slippage on Hose,
- Damaged, cracked, cut or abraded cover (any reinforcement exposed);
- Hard, stiff, heat cracked, or charred Hose;
- Cracked, damaged, or badly corroded Fittings;
- Leaks at Fitting or in Hose;
- Kinked, crushed, flattened or twisted Hose; and
- Blistered, soft, degraded, or loose cover.

4.3 Visual Inspection All Other

The following items must be tightened, repaired, corrected or replaced as required:

- Leaking port conditions;
- Excess dirt buildup;
- Worn clamps, guards or shields; and
- System fluid level, fluid type, and any air entrapment.

4.4 Functional Test

Operate the system at maximum operating pressure and check for possible malfunctions and leaks. Personnel must avoid potential hazardous areas while testing and using the system. See section 2.2.

4.5 Replacement Intervals

Hose assemblies and elastomeric seals used on Hose Fittings and adapters will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Hose Assemblies and elastomeric seals should be inspected and replaced at specific replacement intervals, based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk. See section 1.2.

4.6 Hose Inspection and Failure

Hydraulic power is accomplished by utilizing high-pressure fluids to transfer energy and do work. Hoses, Fittings, and Hose Assemblies all contribute to this by transmitting fluids at high pressures. Fluids under pressure can be dangerous and potentially lethal and, therefore, extreme caution must be exercised when working with fluids under pressure and handling the Hoses transporting the fluids. From time to time, Hose Assemblies will fail if they are not replaced at proper time intervals. Usually these failures are the result of some form of misapplication, abuse, wear, or failure to perform proper maintenance. When Hoses fail, generally the high-pressure fluids inside escape in a stream which may or may not be visible to the user. Under no circumstances should the user attempt to locate the leak by "feeling" with their hands or any other part of their body. High-pressure fluids can and will penetrate the skin and cause severe tissue damage and possibly loss of limb. Even seemingly minor hydraulic fluid injection injuries must be treated immediately by a physician with knowledge of the tissue damaging properties of hydraulic fluid. If a Hose failure occurs, immediately shut down the equipment and leave the area until pressure has been completely released from the Hose Assembly. Simply shutting down the hydraulic pump may or may not eliminate the pressure in the Hose Assembly. Many times check valves, etc., are employed in a system and can cause pressure to remain in a Hose Assembly even when pumps or equipment are not operating. Tiny holes in the Hose, commonly known as pinholes, can eject small, dangerously powerful but hard to see streams of hydraulic fluid. It may take several minutes or even hours for the pressure to be relieved so that the Hose Assembly may be examined safely. Once the pressure has been reduced to zero, the Hose Assembly may be taken off the equipment and examined. It must always be replaced if a failure has occurred. Never attempt to patch or repair a Hose Assembly that has failed. Consult the nearest Parker distributor or the appropriate Parker division for Hose Assembly replacement information. Never touch or examine a failed Hose Assembly unless it is obvious that the Hose no longer contains fluid under pressure. The high-pressure fluid is extremely dangerous and can cause serious and potentially fatal injury.

4.7 Elastomeric seals

Elastomeric seals will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Elastomeric seals should be inspected and replaced.

4.8 Refrigerant gases

Special care should be taken when working with refrigeration systems. Sudden escape of refrigerant gases can cause blindness if the escaping gases contact the eye and can cause freezing or other severe injuries if it contacts any other portion of the body.

4.9 Compressed natural gas (CNG)

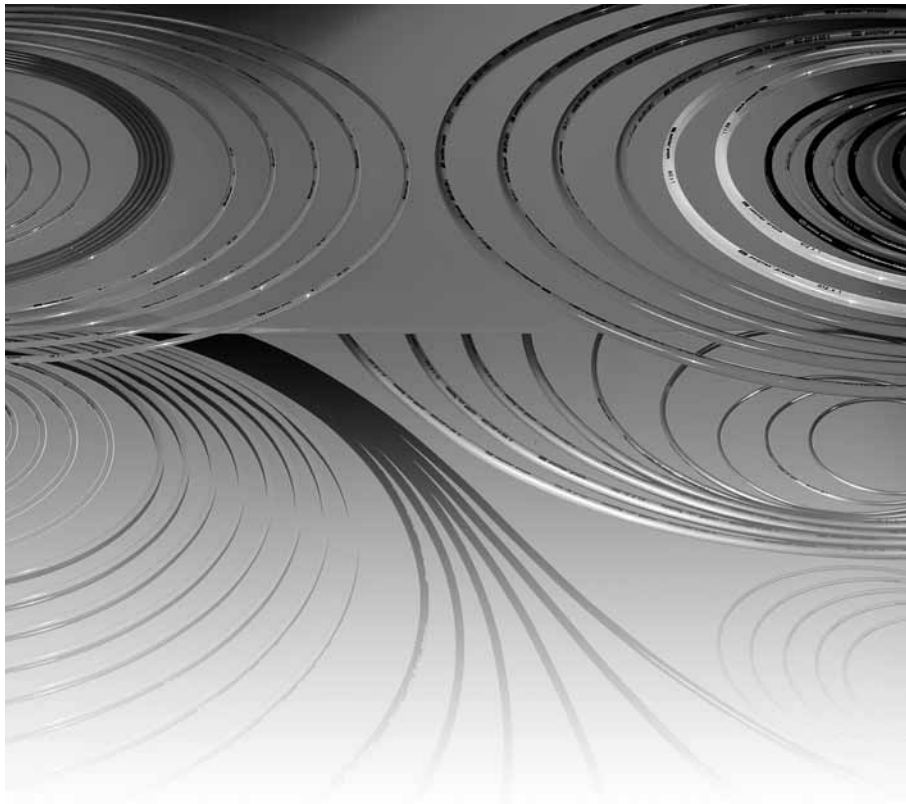
Parker CNG Hose Assemblies should be tested after installation and before use, and at least on a monthly basis per AGA 1-93 Section 4.2 "Visual Inspection Hose/Fitting". The recommended procedure is to pressurize the Hose and check for leaks and to visually inspect the Hose for damage.

Caution: Matches, candles, open flame or other sources of ignition shall not be used for Hose inspection. Leak check solutions should be rinsed off after use.



Thermoplastic Tubing

Catalogue 5210/UK



Thermoplastic Tubing

Table of contents

presto polyurethane tubes - Single tubes.....O 3

presto polyurethane tubes - Twin-line tubesO 4

presto polyamide tubes - Single tubesO 5

presto polyethylene tubes - Single tubesO 6

Tube bundles - Single line tubing PVC sheathed.....O 7

Tube bundles - Tube bundles for maximum safety and minimum installation workO 8

Tube bundles - Technical details and packaging informationO 8

Tube bundles - Pneumatic MulticonnectorsO 8

FEP, PFA, TFE tubing.....O 9

Prestoweld 2 tubing - weld spark resistant.....O10

Textile

Machine Tools

Packaging

Robotics

Automotive Industry

Textile

Machine Tools

Packaging

Robotics

Automotive Industry

Textile

Machine Tools

Packaging

Robotics

Automotive Industry

Textile

Machine Tools

Packaging

Robotics

Automotive Industry





***presto* polyurethane tubes (52 Shore D) - Single tubes**

Working pressures shown are based on a design factor of 3:1.

Temperature range: -35 °C up to +80 °C

Polyurethane (TPU) metric single tubes with O.D. within the limits of CETOP RP 54P

# PU Metric	Tube size		Maximum working pressure MPa			Minimum bend radius mm 	GR 
	O.D. mm	I.D. mm	-35°C to +23°C	-35°C to +40°C	-35°C to +60°C		
TPU 3 x 0.5	3.0	2.0	1.2	0.9	0.8	13	5
TPU 4 x 0.75	4.0	2.5	1.4	1.1	0.9	17	9
TPU 6 x 1	6.0	4.0	1.2	0.9	0.8	27	19
TPU 8 x 1.25	8.0	5.5	1.1	0.9	0.7	37	32
TPU 10 x 1.5	10.0	7.0	1.0	0.8	0.7	54	49
TPU 12 x 2	12.0	8.0	1.2	0.9	0.8	62	77
TPU 16 x 2.5	16.0	11.0	1.1	0.9	0.7	88	129

For Prestolok push-in fittings (TÜV tested).

1 MPa = 10 bar

Polyurethane single tube tolerances in mm

Tube O. D. 3 to 8 mm

Tube O. D. 10 to 16 mm

± 0.1

± 0.15

Colour codes

Natural Red Blue Green Black Brown Yellow Orange Grey Purple Pink White Silver

1 2 3 4 5 6 7 8 9 10 11 12 13






presto polyurethane Tubes - Twin-line tubes

Two tubes are permanently joined to make a pair. For assembly, the tube pair is separated at either end to the required length. Additional multi-line tubes are available on request.

Working pressures shown are based on a design factor of 3:1.

Temperature range: -35 °C up to +80 °C

Polyurethane (TPU) metric twin-line tubes with O.D. within the limits of CETOP RP 54P

# PU Metric	Tube size		Maximum working pressure MPa			Minimum bend radius mm 	
	O.D. mm 	I.D. mm 	-35°C to +23°C	-35°C to +40°C 	-35°C to +60°C		
TPU 4 x 0.75D	4.0	2.5	1.0	0.9	0.7	17	19
TPU 6 x 1D	6.0	4.0	1.0	0.9	0.7	27	38
TPU 8 x 1.25D	8.0	5.5	1.0	0.9	0.7	37	65
TPU 10 x 1.5D	10.0	7.0	1.0	0.9	0.7	54	98

For Prestolok push-in fittings (TÜV tested).

1 MPa = 10 bar

Ordering keys for single and multi-line tubes

Metric tube

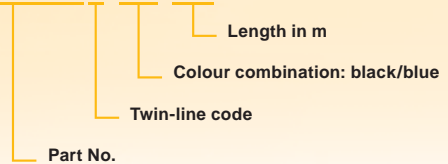
Multi-line tube

Examples:

TPU6X1/5-25



TPU4X0.75D/5/3-100



Colour codes

Natural	Red	Blue	Green	Black	Brown	Yellow	Orange	Grey	Purple	Pink	White	Silver
1	2	3	4	5	6	7	8	9	10	11	12	13




presto polyamide tubes - Single tubes

Polyamide tubing is extruded in polyamide PA12. This heat & light stabilised material meets or exceeds the DIN 73378, BS5409 PT 1 and the CETOP RP54P requirements. DIN 74 324 tubing available on request (for airbrake applications).



Working pressures shown are based on a design factor of 3:1.
Temperature range: -40 °C up to +100 °C (acc. DIN 74324)

Polyamide (PA) metric single tubes

#	Tube O. D.  X wall thickness	Maximum working pressure MPa			Minimum bend radius mm 	
		-40°C to +23°C	-40°C to +40°C	-40°C to +60°C		
N3X0.60	3 x 0.60 mm	3.3	2.5	1.9	15	5
N4X0.65	4 x 0.65 mm	2.6	1.9	1.5	30	7
N4X1	4 x 1 mm	4.4	3.3	2.5	20	10
N5X1	5 x 1 mm	3.3	2.5	1.9	30	13
N6X1	6 x 1 mm	2.7	2.0	1.5	30	16
N8X1	8 x 1 mm	1.9	1.4	1.1	40	23
N8X1.25	8 x 1.25 mm	2.5	1.8	1.4	35	28
N10X1	10 x 1 mm	1.5	1.1	0.8	60	29
N10X1.25	10 x 1.25 mm	1.9	1.4	1.1	60	36
N10X1.5	10 x 1.5 mm	2.4	1.7	1.3	60	42
N12X1	12 x 1 mm	1.2	0.9	0.7	85	36
N12X1.5	12 x 1.5 mm	1.9	1.4	1.1	60	52
N12X1.75	12 x 1.75 mm	2.3	1.7	1.3	60	59
N14X1.5	14 x 1.5 mm	1.6	1.2	0.9	75	61
N16X1.5	16 x 1.5 mm	1.4	1.0	0.8	105	71
N16X2	16 x 2 mm	1.9	1.4	1.1	95	92
N22X2.5	22 x 2.5 mm	1.7	1.3	1.0	125	159

1 MPa = 10 bar

Polyamide single tube tolerances in mm

Tube O. D. 3 to 5 mm

Tube O. D. 6 to 16 mm

+ 0.05 / - 0.08




+ 0.05 / - 0.10

presto polyethylene tubes - Single tubes

presto soft polyethylene tubing is manufactured to ASTM D-1248, type 1, E5 to achieve maximum environmental stress cracking resistance.

Working pressures shown are based on a design factor of 3:1.
 Temperature range: -30 °C up to +60 °C

Polyethylene (PE) metric single tubes

#	Tube O. D.  X wall thickness	Maximum working pressure MPa			Minimum bend radius mm 	
		-0°C to +23°C	-0°C to +40°C	-0°C to +60°C		
L4X1	4 x 1 mm	2.14	1.60	1.07	25	9
L6X1	6 x 1 mm	1.31	0.98	0.66	35	15
L8X1	8 x 1 mm	0.93	0.70	0.47	55	20
L10X1	10 x 1 mm	0.72	0.54	0.36	85	26
L12X2	12 x 2 mm	1.24	0.93	0.62	75	58
L16X2	16 x 2 mm	0.97	0.72	0.48	90	82

1 MPa = 10 bar

Correction factors for working pressures at lower temperatures

-30°C to -20°C

-20°C to 0°C

0.7

0.8

Polyethylene single tube tolerances in mm

Tube O. D. 3 to 5 mm

Tube O. D. 6 to 16 mm

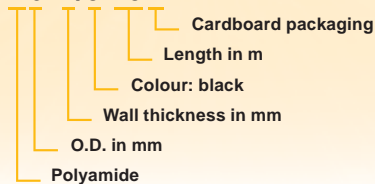
+ 0.05 / - 0.08

+ 0.05 / - 0.10

Ordering keys

Example:

N6X1/5-25K



Colour codes

Natural	Red	Blue	Green	Black	Brown	Yellow	Orange	Grey	Purple	Pink	White	Silver
1	2	3	4	5	6	7	8	9	10	11	12	13

Thermoplastic Tubing

Single line tubing PVC sheathed

For applications where the tubing requires additional protection from abrasion or the environment.

The standard product has a natural coloured core tube with a black PVC sheath. Other colour combinations are available on request.



Tube bundles for maximum safety and minimum installation work

Parker tube bundles are a high-quality thermoplastic product designed specifically for process control and monitoring applications.

Parker tube bundles are excellent for use in hydraulic and pneumatic systems.

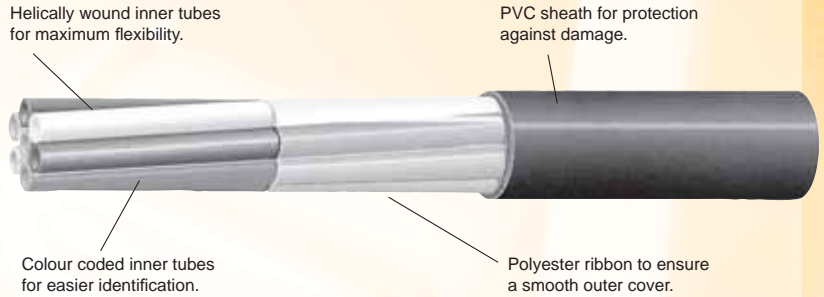
The PVC coat protects the product against mechanical and chemical damage.

The combination of different tube materials in a **Parker** tube bundle allows their application in almost all industrial areas.

Each tube can be easily and quickly identified by its colour and position within the helically wound bundle.

The single tubes are marked in intervals of max. 500 mm as standard.

In addition to the standard range (STS), extra thick sheath (ETS), and steel wire armour (SWA) constructions are also available.



Standard configurations are available in lengths of max. 1000 m.



1



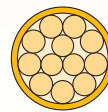
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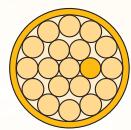
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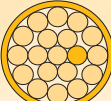
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19

Thermoplastic Tubing

Technical details and packaging information

Configuration	#	Thickness of Sheath mm	Nominal O. D. mm	Min. Bend radius mm	kg / 100 m	100 m Coil Dimensions Dia x Width mm	Standard Length m
	P01N4X0.65STS	1.0					
	P01N6X1STS	1.0	6.0	20	3.1	400 x 80	100
	P01N8X1STS	1.0	8.0	30	4.9	500 x 80	100
	P01N8X1.25STS	1.0	10.0	40	6.6	700 x 80	100
	P01N10X1STS	1.0	10.0	35	7.1	700 x 80	100
	P01N10X1.25STS	1.0	12.0	60	8.0	700 x 80	100
	P01N12X1STS	1.0	12.0	60	8.9	700 x 80	100
	P01N12X1.5STS	1.0	14.0	85	9.8	700 x 150	100
	P01N14X1.5STS	1.0	14.0	60	11.3	700 x 150	100
			1.0	16.0	75	13.3	700 x 150
	P03N4X0.65STS	2.0	13.0	65	13.0	700 x 150	100
	P03N6X1STS	2.0	17.0	90	19.0	700 x 150	100
	P03N8X1STS	2.0	22.0	105	25.0	850 x 280	100
	P05N4X0.65STS	2.0	15.0	75	16.0	700 x 150	100
	P05N6X1STS	2.0	20.0	105	26.0	800 x 280	100
	P05N8X1STS	2.5	27.0	135	41.0	950 x 300	100
	P07N4X0.65STS	2.0	16.0	80	19.0	700 x 150	100
	P07N6X1STS	2.0	22.0	115	32.0	850 x 280	100
	P07N8X1STS	2.5	29.0	150	48.0	950 x 320	100
	P12N4X0.65STS	2.0	21.0	105	27.0	850 x 280	100
	P12N6X1STS	2.0	29.0	150	48.0	1000 x 300	100
	P12N8X1STS	2.5	38.0	185	70.0	1100 x 320	100
	P19N6X1STS	2.5	35.0	180	72.0	1100 x 320	100

1 MPa = 10 bar

Pneumatic multiconnectors

The new pneumatic TL multiconnector from Parker allows the simultaneous connection of 2 to 7 tubes of different diameters (4, 6, or 8 mm) by using a combination of Prestolok TL fittings.

The pneumatic multiconnectors are available in different configurations for various applications.

Detailed information available on page B 34.



Thermoplastic Tubing





FEP, PFA and TFE tubing

Safety factor: 3:1

Standard length: 100 m

FEP tubing





Temperature range: -200°C up to +205°C

#	Tube O. D. X wall thickness	Maximum working pressure in		Minimum bend radius	g/m 
	 in mm	MPa 	psi	 mm	
FEP 4 x 1	4 x 1	2.7	390	20	20.0
FEP 6 x 1	6 x 1	1.6	230	30	33.3
FEP 8 x 1	8 x 1	1.1	160	40	46.6
FEP 10 x 1	10 x 1	0.9	130	60	59.9
FEP 12 x 1	12 x 1	0.7	100	85	73.3

1 MPa = 10 bar





PFA tubing

Temperature range: -200°C up to +260°C

#	Tube O. D. X wall thickness	Maximum working pressure in		Minimum bend radius	g/m 
	 in mm	MPa 	psi	 mm	
PFA 4 x 1	4 x 1	2.7	390	20	20.0
PFA 6 x 1	6 x 1	1.6	230	30	33.3
PFA 8 x 1	8 x 1	1.1	160	40	46.6
PFA 10 x 1	10 x 1	0.9	130	60	59.9
PFA 12 x 1	12 x 1	0.7	100	85	73.3

TFE tubing

Temperature range: -200°C up to +260°C

#	Tube O. D. X wall thickness	Maximum working pressure in		Minimum bend radius	g/m 
	 in mm	MPa 	psi	 mm	
TFE 4 x 1	4 x 1	2.7	390	20	20.5
TFE 6 x 1	6 x 1	1.6	230	30	34.2
TFE 8 x 1	8 x 1	1.1	160	40	47.8
TFE 10 x 1	10 x 1	0.9	130	60	61.5
TFE 12 x 1	12 x 1	0.7	100	85	75.2

Correction factors for working pressures at higher temperatures

	Correction factor		Correction factor
50	0.87	150	0.53
75	0.77	200	0.39
100	0.68	250	0.28

Prestoweld 2 - Polyurethane tubes - weld spark resistant

Prestoweld 2 tubing is made of weld spark resistant Polyurethane and therefore the ideal solution for water and air supply of welding robots.

Prestoweld 2 guarantees a simple, fast and reliable assembly without additional tools.

#	Tube size		Maximum working pressure		Minimum Burst Pressure		Minimum radius	GR
	O.D. mm	I.D. mm	MPa	psi	MPa	psi		
PWPU 4x1/5-W-100	4.0	2.0	2.8	406	8.4	1.218	8	12.0
PWPU 6x1/5-W-100	6.0	4.0	1.6	232	5.0	725	15	20.0
PWPU 8x1,5/5-W-100	8.0	5.0	1.9	276	5.8	841	16	38.9
PWPU 8x2/5-W-100	8.0	4.0	2.8	406	8.4	1.218	16	47.9
PWPU 10x2/5-W-50	10.0	6.0	2.1	305	6.3	914	21	63.9
PWPU 12x2/5-W-50	12.0	8.0	1.6	232	5.0	725	30	79.9
PWPU 14x2/5-W-50	14.0	10.0	1.6	232	4.2	609	47	95.8

Packaging: In cardboard boxes. 100 m or 50 m, depending on size (see Part number).

Correction factors for burst and working pressures at higher temperatures

	Correction factor		Correction factor
- 30 to + 23 °C	1.00	+ 80°C	0.46
+ 40 °C	0.77	+ 90°C	0.42
+ 60 °C	0.56		

For spark resistant fittings, detailed information available in section C.



Accessories

Catalogue 0026/UK



Accessories

Accessories

2000 - Manual copper tube bender..... P 3

2005-A - Copper tube cutter..... P 3

PTC - Plastic tube cutter..... P 3

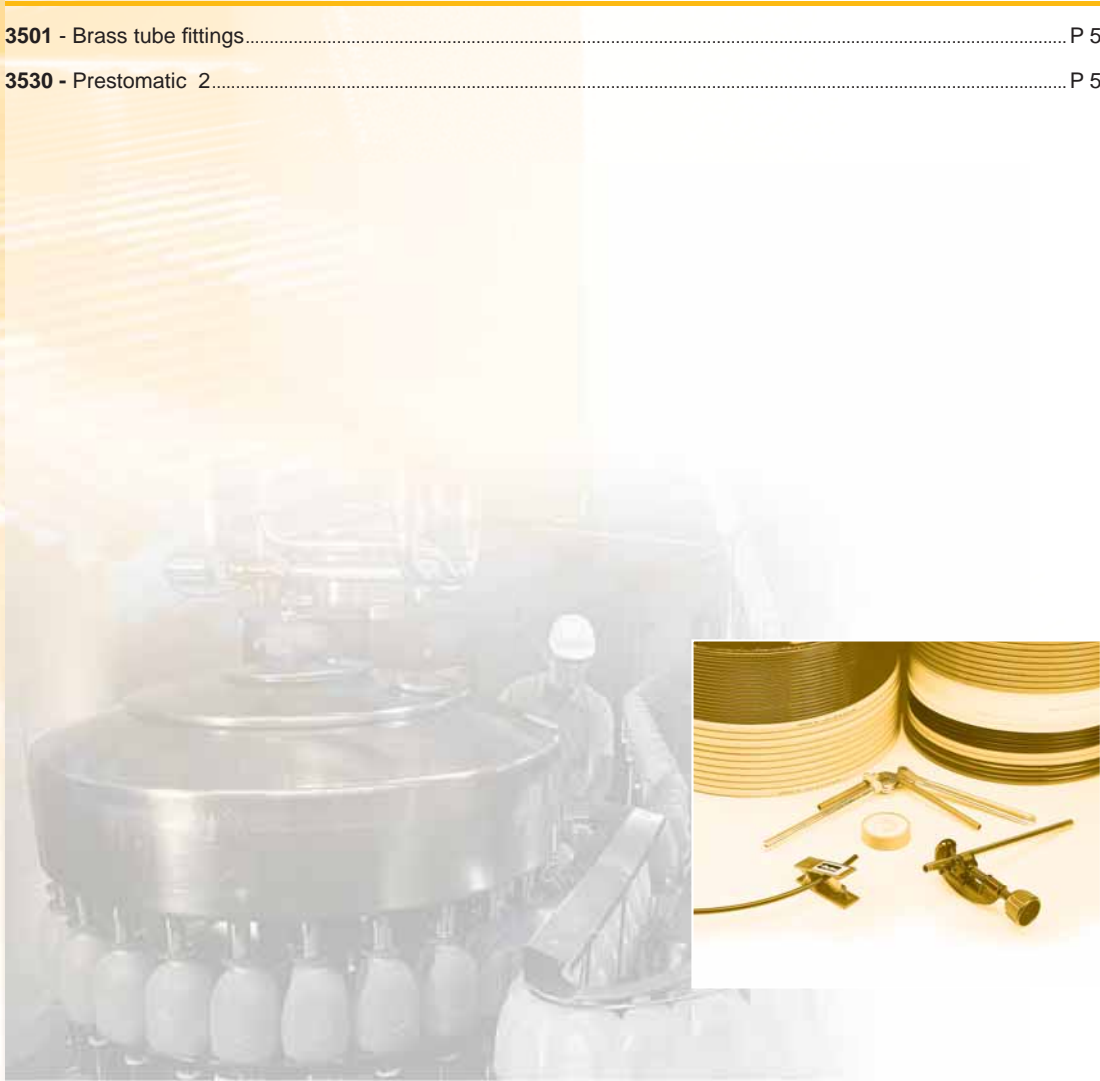
PTFE tape..... P 3

Hose reels..... P 4

Complementary products

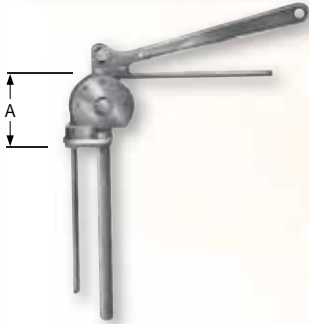
3501 - Brass tube fittings..... P 5

3530 - Prestomatic 2..... P 5



Accessories

2000 - Manual copper tube bender



Tube size mm	#	Radius mm	Length A mm	Gr
6x1	2000/6-1	11	31	270
8x1	2000/8-1	14	38	320
10x1	2000/10-1	23	57	710
12x1	2000/12-1	31	74	930
14x1	2000/14-1	42	97	2050
16x1	2000/16-1	54	123	2500

2005 - Copper tube cutter



Adjustable cutting tool.
Capacity : copper tube from 6x1 to 22x1.5 mm

Part number : **2005-A**

PTC - Plastic tube cutter



Cutting tool.
Capacity: plastic tube up to 14 mm O.D.

Part number: **PTC**

Replacement blade for plastic tube cutter
Part number: **PTC001RB**

Parker PTFE tape



Improves sealing on threads.
Resists to most known chemical agents.
High pressures and temperatures (250°C).
Available in 12 metre reels -
12.7 mm x 0.08 mm section.

Part number: **Ruban PTFE**

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Accessories

Principle

- Compressed air hose reels feature high-quality, oil-resistant polyurethane hose and are supplied with a feeder hose as standard equipment.

Advantages




- Reel comes completely assembled with mounting plate
- Compact design and low weight construction
- Professional version with high performance, durable brass axle and long-lived high grade steel spring
- Hose can be replaced without any danger. Complete instruction manual and spare part list
- TÜV, SEV and EMKO approved cable reels





Benefits

- The hoses and cables are always at hand for efficient working
- Small danger of accident, since no hoses and cables are lying on the floor
- Higher life time, because hoses and cables are protected in the housing
- High flow capacity with smallest pressure drop for full performance of power tools
- Free wheel action on small size for multiple use of same reel

Technical features

		
Braided PUR	Up to 16 bar	From - 20°C to + 60°C
	Up to 1.6 MPa	

CE CE marked in compliance with 98/37/EC

Compressed Air	#	Hose size ID x OD mm	Connection male	Reel diameter mm		
10 metres	AHR-5-L10M	8 x 12	R1/4"	390	5400	16 bar
14 metres	AHR-6-L14M	9.5 x 13.5	R1/4"	430	6300	12 bar

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Complementary Products

The Parker Fluid Connectors Group has a complete range of components for pneumatic systems.

The major product features are shown. For detailed information please consult the corresponding product catalogue.

Brass tube fittings - catalogue 3501

Comprehensive range of brass tube fittings for use with imperial rigid or plastic tubing to NPT threads.



Prestomatic 2 - CD 3530-2/UK

Comprehensive range of metric push-in air brake fittings for the truck, bus and trailer industries.



Pneumatic connectors handbook

Part Number	Page	Part Number	Page	Part Number	Page
2000	P 3	837PU	N 8	COR4PBD	C 15
2005-A	P 3	838M	N 9	COR8PB	C 14
207ACBH	I 8	BG 34	M 22	COR8PBD	C 15
207P	I 7	BGV4PLOCK	L 11	COR8PMB	B 31
209P	I 6	BM	F 14	CORPB	C 14
216P	I 4	BPK	B 21	CORPBD	C 14
218P	I 10	BPLM	G 10	CR33	K 10
219P	I 11	BTM	F 14	D64PB	C 11
222P	I 5	BVGC	L 5	DD44	I 8 - K 10
30182	N 20	BVGL	L 7	DD44BKTL	K 10
30282	N 21	BVGTG	L 5	DP	N 28
30382	N 21	BVGTL	L 7	DR	N 28
30682	N 22	C	B 20	E	H 17
30882	N 23	C3BM	F 9	EBM	F 10
31382	N 20	C3BPL	G 8	EG	J 8
31D82	N 15	C3PB	C 9	EL	H 14
33482	N 19	C4BPL	G 8	EPB	C 11
34982	N 27	C4UCOB	J 6	EPK	B 12
35C82	N 15	C63LPB	C 9	EPMFK	B 27
36C82	N 16	C63LPK	B 10	EPMK	B 26
37/3V82	N 22	C63LPMK	B 25	EPSS	D 5
37C82	N 16	C63PB	C 10	ET	H 13
38282	N 27	C63PK	B 10	EV	J 8
39/3W82	N 23	C63PMK	B 25	EW	H 12 - J 8
39182	N 19	C63PSS	D 5	F23PB	C 6
39282	N 17	C63SPK	B 10	F23PMB	B 23
39B82	N 12	C64LPMK	B 25	F28PB	C 6
39C82	N 12	C64PB	C 10	F28PMB	B 23
3AF82	N 25	C64PK	B 11	F3BM	F 6
3B182	N 17	C64PMK	B 26	F3BPL	G 6
3B282	N 18	C64PSS	D 5	F3H	K 15
3C382	N 10	C64SPB	C 10	F3PB	B 8 - C 6
3C482	N 11	C64SPK	B 11	F3PMB	B 23
3C582	N 11	C68LPMK	B 26	F3PSS	D 4
3CA82	N 13	C68PB	C 11	F41H	K 16
3CE82	N 13	C68PK	B 11	F4BM	F 6
3CF82	N 14	C68PMK	B 26	F4BPL	G 7
3D082	N 14	C68SPB	C 11	F4PB	B 8 - C 7
3D982	N 18	C68SPK	B 11	F4PMB	B 23
3FF82	N 24	C6PB	C 9	F4PSS	D 4
3JC82	N 24	C8BM	F 9	F4UCOB	J 5
3NM82	N 25	C8BPL	G 9	F4UF4UB	J 7
3YW82	N 26	CBM	F 9	F4UG4B	J 7
801	N 5	CBPL	G 8	F8BM	F 7
804	N 5	CD43	I 8 - K 10	F8BPL	G 7
821FR	N 6	CL4UCOB	J 5	F8PB	B 8 - C 7
830M	N 6	CL4UD4B	J 5	F8PMB	B 24
831	N 7	COR4BM	F 12	F8PSS	D 4
836	N 7	COR4BPL	G 10	FBM	F 6
837BM	N 8	COR4PB	C 14	FBPL	G 6

Pneumatic connectors handbook

Part Number	Page	Part Number	Page	Part Number	Page
FEF13 G4Z	M 17	J5PK	B 19	PB14 PL	M 6
FEP tubing	O 9	J663PK	B 19	PB52 EB	M 5
FF	I 4	J664PK	B 19	PB52 F3C	M 5
FF33	I 4 - K 5	J6PK	B 19	PB52 F3C	M 8
FF41G4	K 7	JBM	F 10	PB52 G4Z	M 5
FF44	I 4 - K 5	JBPL	G 9	PB52 G4Z	M 8
FF633	K 6	JPB	C 12	PB53 F3C	M 5
FF84	K 6	JPK	B 12 - B 13	PB53 G4Z	M 5
FF88	K 6	JPMFK	B 27	PB54 G4Z	M 5
FG	I 5	JPMK	B 27	PBF52 EB	M 8
FG43	I 5 - K 6	JPSS	D 5	PBS-251-FB	M 10
FG44	K 7	KBM	F 12	PBS-251-HB	M 10
FG48	K 7	KMMO04	I 9 - K 12	PBS-251-MB	M 10
FGH	K 15	KMRO4434	K 12	PBS-371-FB	M 10
FHG4	I 11	KRRS3	K 13	PBS-371-HB	M 10
FM	H 15	M	H 15	PBS-371-MB	M 10
FN4	K 14	M14-4C3	J 9	PBS-501-FB	M 10
FNM	F 14	M14-4C63	J 10	PBS-501-HB	M 10
FNPB	C 16	M14-4F3	J 9	PBS-501-MB	M 10
FNPK	B 21	M14-4F63	J 10	PBS-502-FB	M 11
FNPMK	B 31	M14-4V3	J 9	PBS-502-HB	M 11
FPB	C 6	M14-4V63	J 10	PBS-502-MBT	M 11
FTL	B 33	MANI1	K 16	PCF12 EB	M 21
G	H 5	MANI2	K 17	PCF12 F3C	M 21
G4BM	F 8	MANIF	K 16	PCF12 G4Z	M 21
G4PB	B 9 - C 7	MBVG	L 9	PCF52 G4Z	M 21
G4PMB	B 24	MC7REQ	B 34	PCV4	E 25
G8PMB	B 24	MC7RFBASE	B 34	PCV4PK	E 25
GBM	F 7	MC7RLCOVER	B 34	PE12 EB	M 14
GE-M-ED	H 9	MC7RMBASE	B 34	PE12 F3C	M 13
GE-R-ED	H 8	MC7RSACOVER	B 34	PE12 G4Z	M 14
GE-UNF/UN	H 10	MMO444	I 9 - K 11	PE12 PL	M 14
GG	I 7	MMS443	I 9 - K 11	PE52 EB	M 13
GG44	I 7 - K 9	MRO434	I 9 - K 12	PE52 F3C	M 13
GG84	K 9	MRS433	K 11	PE52 G4Z	M 13
GG88	K 8	P Gauge	E 29	PEF12 EB	M 17
GM	H 16	P40N	K 14	PEF12 F3C	M 17
HBM	F 7	P4UN	K 13	PEF12 G4Z	M 17
HBPL	G 7	P80N	K 14	PEF12 PL	M 17
HHP	I 11	PB12 EB	M 6	PEF13 EB	M 17
HHP3	I 10 - K 14	PB12 F3C	M 6	PEF13 F3C	M 17
Hose reels	P 4	PB12 G4Z	M 6	PEF52 EB	M 16
HP	I 10	PB12 PL	M 6	PEF52 F3C	M 16
HP3	I 10	PB13 EB	M 6	PEF52 G4Z	M 16
HPB	C 8	PB13 F3C	M 6	PES-251-FB	M 19
HPK	B 9	PB13 G4Z	M 6	PES-251-MB	M 19
HPMK	B 24	PB13 PL	M 6	PFA tubing	O 9
HPSS	D 4	PB14 EB	M 6	PIV4	E 25
HS3PK	B 18	PB14 F3C	M 6	PIV4PK	E 25
J3PK	B 18	PB14 G4Z	M 6	PNM	F 15

Pneumatic connectors handbook

<u>Part Number</u>	<u>Page</u>	<u>Part Number</u>	<u>Page</u>	<u>Part Number</u>	<u>Page</u>
Polyamide tubes	O 5	R3BPL	G 9	T24HG	F 14
Polyethylene tubes	O 6	R63PB	C 12	T28FPK	B 22
Polyurethane tubes	O 3 - O 4	R63PK	B 13	T28FPMB	B 32
PRB4	E 27	R63PMK	B 28	T28HF	F 13
PRB4PB	E 27	R64PB	C 12	T2EPMK	B 31
Prestoweld 2 tubing	O 10	R64PK	B 13	T2ESPK	B 12
PRI4	E 27	R64PMK	B 28	T2ESPMK	B 27
PRIPB	E 27	R68PB	C 13	T2HF	F 12
PRS	E 28	R68PK	B 14	T2HG	F 13
PSR	H 16	R68PMK	B 28	T2JPK	B 14
PTC	P 3	Ratchet	E 29	T2JPK	B 14
PTF4	E 10	RBM	F 10	TEPB	C 16
PTF4E6PB	E 11	RBPL	G 9	TFE tubing	O 9
PTF4PB	E 10	RRD	K 17	TLT	B 33
PTF8E6PB	E 11	RRO334	K 12	TM	F 15
PTF8PB	E 10	RRP	K 17	TR2PK	B 22
PTFA4PB	E 10	RRS333	K 11	TR2PMK	B 32
PTFA8PB	E 10	S3BM	F 11	TRBM	F 15
PTFAC4PK	E 17	S3BPL	G 10	TRPB	C 16
PTFAC8PK	E 17	S4UCOB	J 6	TS2PK	B 22
PTFAL8	E 13	S63PB	C 13	VSTI M/R-ED	H 17
PTFAL8PB	E 12	S63PK	B 15	VW121	N 26
PTFALM8PK	E 18	S63PMK	B 28	W	H 6
PTFC4PK	E 17	S64PB	C 13	WBM	F 8
PTFC8PK	E 17	S64PK	B 15	WBMPB	C 8-F 8
PTFE tape	P 3	S64PMK	B 29	WBPL	G 7
PTFIPK	E 15	S68PB	C13	WE6PB	C 11
PTFIWPK	E 15	S68PK	B 15	WE6PK	B 12
PTFL4	E 13	S68PMK	B 29	WG4PB	C 8
PTFL4COB	E 13	SBM	F 11	WGG44	I 8-K 9
PTFL4PB	E 13	SBPL	G 10	WPB	C 9
PTFL8	E 13	SC4U	C 15	WPMB	B 25
PTFL8PB	E 13	SC4UD	C 15	WYJ6PK	B 16
PTFLAC4PK	E 18	SC8U	C 15	YGX/X-82	J 6
PTFLC4PK	E 17	SC8UD	C 15	YGX/XCO	J 7
PTFLM8PK	E 18	SCP	H 24	YJ2PK	B 16
PTFMIPK	E 15	SCPSD	H 18	YJ2PMK	B 30
PTR	I 6	ServiceJunior	H 22	YJ52PK	B 17
PTR34	I 5 - K 7	Single tubes and bundles	O 7 - O 8	YJ563PK	B 17
PTR44	K 8	Splug	E 29	YJ564PK	B 17
PTR44H	K 8	SV	H 11	YJ5PK	B 16
PTR48	K 8	SVGP	E 29	YJ63PK	B 17
PWA-L	E 29	T	H 7	YJ63PMK	B 30
PWB-A	E 20	T23FPK	B 21	YJ64PK	B 18
PWR-HB	E 21	T23FPMB	B 32	YJ68PMK	B 31
PWS-B	E 23	T23HF	F 13	YJPK	B 16
PWS-E	E 23	T23HFPB	C 16	YJPMFK	B 30
PWS-M	E 23	T23U	F 15	YJPMK	B 29
PWS-P	E 23	T24FPK	B 21	YMMM444	K 13
R3BM	F 11	T24FPMB	B 32	YMMS443	K 13



About Parker Hannifin Corporation

Parker Hannifin is a leading global motion-control company dedicated to delivering premier customer service.

A Fortune 500 corporation listed on the New York Stock Exchange (PH), our components and systems comprise over 1,400 product lines that control motion in some 1,000 industrial and aerospace markets.

Parker is the only manufacturer to offer its customers a choice of hydraulic, pneumatic, and electromechanical motion-control solutions. Our Company has the largest distribution network in its field, with over 7,500 distributors serving nearly 400,000 customers worldwide.

Parker's Charter

To be a leading worldwide manufacturer of components and systems for the builders and users of durable goods. More specifically, we will design, market and manufacture products controlling motion, flow and pressure. We will achieve profitable growth through premier customer service.

Product Information

Customers seeking product information, the location of a nearby distributor, or repair services will receive prompt attention by calling the Parker Product Information Centre.

The Centre can be called toll free from France, Germany, Austria, Switzerland or the United Kingdom. You will be answered by a Parker employee in your own language. Call Freephone: 00800 27 27 5374 (00800 C PARKER).

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