

polypropylene

Polypropylene (PP) piping systems are widely used in industrial processing. Light in weight yet with high impact strength and reliable heat fusion welding, PP also offers good abrasion resistance and is a good thermal and electrical insulator.

PP is suitable for working use at temperatures up to 90°C, and will withstand short term use at a maximum 110°C.

Chemical resistance is excellent: PP is resistant to aqueous solutions of acids, alkalis and salts, and to a large number of organic solvents.

PP systems are assembled using heat fusion welding, either using socket fittings or butt fusion of pipes and/or fittings end to end. Welding equipment is available for sale or hire and is featured in Section 13.

application guide

- Temperature range 0°C to 90°C (Short Term 110°C)
- High impact strength
- Abrasion resistant
- Suitable for handling foodstuffs
- Ideal for above and below ground use
- Threading possible
- Resistant to acids, alkalis, salts and many organic solvents
- Good insulator
- Lightweight (density 0.905-0.92)

- Welding equipment required
- Not resistant to concentrated oxidising acids
- Thermal expansion is higher than other plastics

standards and approvals

Pipe : BS 5556: 1978, DIN 8077/8078
Fittings : DIN 16962
Threaded fittings : BS21/DIN 2199/ISO 727

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about: polypropylene

Polypropylene (PP) is a thermoplastic from the polyolefin group of materials. It has low density compared to other thermoplastics, and a unique combination of properties including mechanical strength, chemical resistance and thermal stability.

There are two different types of polypropylene that are in common use as piping materials:

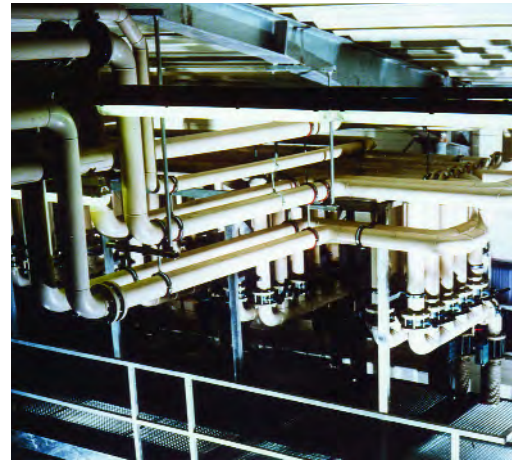
- PP-H (Homopolymer)
- PP-R (Random copolymer)

The pipes, sheets and semi-finished products supplied by IPS are manufactured from nucleoid PP-H 100 (Beta β -PP), whilst fittings are produced from PP-R (polypropylene random copolymer).

Polypropylene generally exhibits a good resistance against a variety of chemicals, such as salts, acids, and alkalis. Good chemical resistance is also achieved against contact with solvents, such as alcohols, esters and ketones. Consequently, solvent cement welding of polypropylene pipes and fittings is not possible.

There are a number of welding techniques suitable for pressure piping applications. High quality, reliable joints can be achieved using socket fusion jointing, butt fusion welding, non-contact Infra-Red (IR) butt welding, and electrofusion welding. In addition, polypropylene systems can be joined using flanges, threaded connections and mechanical couplings.

Polypropylene piping systems are available from IPS in metric dimensions according to DIN 8077/8078 and DIN 16962.



General properties of polypropylene

Polypropylene exhibits thermal stability up to 100°C (short-term 120°C for drainage systems). Polypropylene also shows good impact strength, improving further along with increasing temperature.

Polypropylene is physiologically non-toxic (in accordance with ONORM B5014, Part 1, FDA, BGA, and KTW guidelines) making it ideally suited for a piping material in contact with potable water.

Some important advantages of polypropylene are:

- Low specific weight of 0.91g/cm³
- High long term creep resistance
- Excellent chemical resistance
- High resistance to thermal ageing
- Outstanding welding characteristics
- Excellent abrasion resistance
- Smooth internal surfaces

Properties of Polypropylene (Average values)		
Property	PP-H	PP-R
Density	0.91g/cm ³	0.91g/cm ³
Tensile Strength	30 MPa	25 MPa
Elongation at Break	>300%	>300%
Notched Impact Strength at 23°C	50 kJ/ m ²	25 kJ/ m ²
Notched Impact Strength at -30°C	5 kJ/ m ²	2 kJ/ m ²
Modulus of Elasticity	1300MPa	900 MPa
Coefficient of Linear Expansion	0.16mm/m°C	0.16mm/m°C
Maximum Operating Temperature	90°C	90°C
Minimum Operating Temperature	-10°C	-10°C
Crystalline Melting Temperature	160-165°C	150-154°C
Melt Flow Index	0.50 g/10min	0.50g/10min
Surface Resistance	>10 ¹³ Ω	>10 ¹³ Ω
Thermal Conductivity	0.22 W/m · K	0.24 W/m · K
Flammability	HB UL94	HB UL94
Colour - Beige Grey	7032 RAL	7032 RAL

Characteristics

Chemical resistance

The chemical resistance of polypropylene is considered excellent. It is resistant to dilute (aqueous) solutions of salts, acids and alkalis and to a large number of organic solvents. Polypropylene is resistant to concentrated hydrochloric acid and hydrofluoric acid, however above certain concentration levels diffusion can occur. This does not damage the material itself but it can cause secondary damage to surrounding steel constructions. In this type of application, double containment piping systems have been found ideally suited.

Note: PP-R and Copper:

Direct contact between PP-R and copper, especially at higher temperatures, can lead to deterioration of the physical properties of PP-R. Heat ageing is faster due to the accelerated thermal oxidation.

Weathering resistance

Piping systems in beige grey polypropylene are not UV stabilised, and therefore they should be suitably protected against degradation when used outdoors - especially where there are high UV levels. Protection against direct solar radiation can be achieved by the application of a UV absorbent coating such as AGRU Coat, or by adding a layer of insulation. It is also possible to compensate for the surface damage that may arise by increasing the wall thickness of the piping system. In such cases, the additional wall thickness should be not less than 2mm. As polypropylene does not contain light stable colour pigments, it may experience a change of colour (fading) because of long-term weathering.

Electrical characteristics

Polypropylene is non-conductive, therefore systems will remain free from electrolytic corrosion. Precautions should be taken to avoid static discharge should any part of a Polypropylene piping system pass through an area where explosive gases may be present.

Physiological characteristics

Polypropylene piping systems from IPS are physiologically non-toxic (in accordance with ONORM B5014, Part 1, FDA, BGA, and KTW guidelines) making them ideally suited as a piping material in contact with potable water.

about: polypropylene

Pressure ratings for polypropylene systems

Maximum continuous pressure ratings

Pipes, fittings and valves are designed to operate continuously for 50 years at their maximum rated pressure at 20°C as follows, unless otherwise stated.

The pressure ratings for Polypropylene pipes according to DIN 8077 & DIN 8078 and Polypropylene fittings according to DIN 16962 are defined by the 'nominal pressure' method, **whereby** pipes, fittings and valves are grouped together according to a single nominal pressure rating. The PN rating is the maximum permitted operational pressure in bars calculated at 20°C, for example PN6 indicates a maximum working pressure of 6 bars. According to this method the pressure ratings of Polypropylene pipes and fittings according to the nominal pressure system is as follows:-

		Size Range	Max. Operating Pressure
Pipe	PN16	10mm to 225mm	16 Bar
	PN10	16mm to 500mm	10 Bar
	PN6	20mm to 710mm	6 Bar
	PN4	40mm to 1000mm	4 Bar
	PN3.2	50mm to 1200mm	3.2 Bar
	PN2.5	63mm to 1400mm	2.5 Bar

		Size Range	Max. Operating Pressure	
Fittings				
Socket Fusion	PN10	20mm to 110mm	10 Bar	
	Spigot Fusion	PN10	20mm to 500mm	10 Bar
		PN6	50mm to 1000mm	6 Bar
	PN3.2	110mm to 1000mm	3.2 Bar	
Threaded	PN10	1/4" to 4"	10 Bar	

Standard Dimensional Ratio (SDR)

Standard Dimensional Ratio (SDR) is used to define thermoplastic pipes in a variety of materials including polypropylene, polyethylene, and PVC-U. Taken from ISO 4065, SDR is described as being 'the ratio of the nominal outside diameter of a pipe to its nominal wall thickness'. To calculate the SDR according to ISO 4065 the following equation can be used:

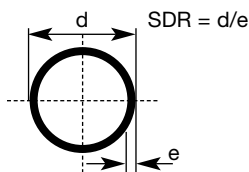
$$SDR = \frac{d}{e}$$

where:

SDR = Value to be calculated

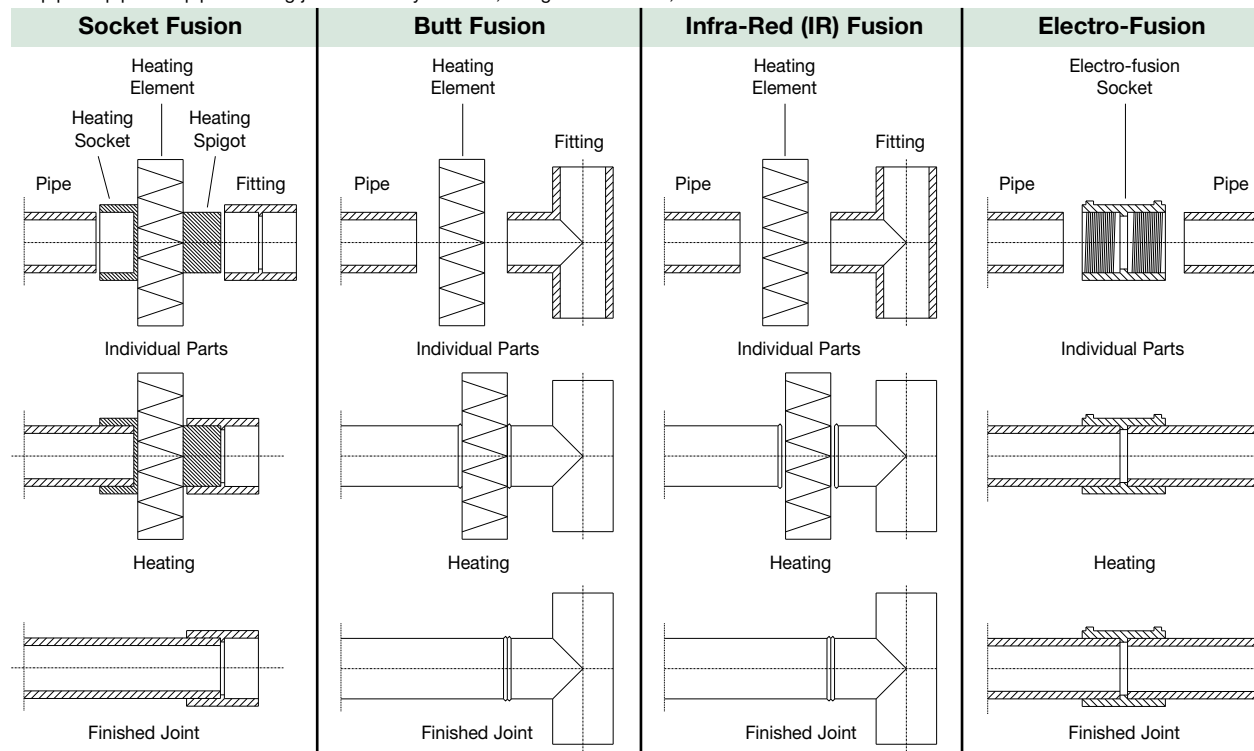
e = Thickness of the pipe wall (mm)

d = Pipe outside diameter (mm)



Joining Polypropylene Systems

PP pipe to pipe and pipe to fitting joints are easy to make, using socket fusion, butt fusion or electrofusion welds.



Welding equipment is available for sale or hire - see Tools and Installation Equipment. Detailed installation instructions, as well as free training, is available on request.

polypropylene pipe availability - PP-H

Metric Sizes DIN 8077/8078								
Size	Series SDR Working Pressure	Ventilation -	S-20 SDR41 PN2.5	S-16 SDR33 PN3.2	S-12.5 SDR26 PN4	S-8.3 SDR17.6 PN6	S-5 SDR11 PN10	S-3.2 SDR7.4 PN16
10	O.D. (mm)							10
	Wall (mm)							1.8
	Weight/m (kg)							0.05
12	O.D. (mm)							12
	Wall (mm)							1.8
	Weight/m (kg)							0.06
16	O.D. (mm)						16	16
	Wall (mm)						1.8	2.2
	Weight/m (kg)						0.08	0.09
20	O.D. (mm)					20	20	20
	Wall (mm)					1.8	2.5	2.8
	Weight/m (kg)					0.10	0.14	0.15
25	O.D. (mm)					25	25	25
	Wall (mm)					1.8	2.7	3.5
	Weight/m (kg)					1.13	0.16	0.23
32	O.D. (mm)					32	32	32
	Wall (mm)					1.9	2.9	4.4
	Weight/m (kg)					0.17	0.26	0.37
40	O.D. (mm)				40	40	40	40
	Wall (mm)				1.8	2.3	3.7	5.5
	Weight/m (kg)				0.22	0.27	0.41	0.58
50	O.D. (mm)			50	50	50	50	50
	Wall (mm)			1.8	2.0	2.9	4.6	6.9
	Weight/m (kg)			0.27	0.30	0.42	0.64	0.90
63	O.D. (mm)		63	63	63	63	63	63
	Wall (mm)		1.8	2.0	2.5	3.6	5.8	8.6
	Weight/m (kg)		0.35	0.38	0.47	0.66	1.01	1.41
75	O.D. (mm)		75	75	75	75	75	75
	Wall (mm)		1.9	2.3	2.9	4.3	6.8	10.3
	Weight/m (kg)		0.44	0.52	0.65	0.93	1.40	2.00
90	O.D. (mm)		90	90	90	90	90	90
	Wall (mm)		2.2	2.8	3.5	5.1	8.2	12.3
	Weight/m (kg)		0.60	0.76	0.94	1.32	2.02	2.86
110	O.D. (mm)		110	110	110	110	110	110
	Wall (mm)		2.7	3.4	4.2	6.3	10.0	15.1
	Weight/m (kg)		0.90	1.11	1.36	1.98	3.01	4.29
125	O.D. (mm)		125	125	125	125	125	125
	Wall (mm)		3.1	3.9	4.8	7.1	11.4	17.1
	Weight/m (kg)		1.17	1.45	1.76	2.54	3.89	5.52
140	O.D. (mm)		140	140	140	140	140	140
	Wall (mm)		3.5	4.3	5.4	8.0	12.7	19.2
	Weight/m (kg)		1.48	1.78	2.21	3.20	4.87	6.93
160	O.D. (mm)		160	160	160	160	160	160
	Wall (mm)		4.0	4.9	6.2	9.1	14.6	21.9
	Weight/m (kg)		1.91	2.32	2.89	4.15	6.38	9.04
180	O.D. (mm)		180	180	180	180	180	180
	Wall (mm)		4.4	5.5	6.9	10.2	16.4	24.6
	Weight/m (kg)		2.36	2.94	3.63	5.22	6.05	11.40
200	O.D. (mm)		200	200	200	200	200	200
	Wall (mm)		4.9	6.2	7.7	11.4	18.2	27.4
	Weight/m (kg)		2.92	3.65	4.50	6.47	9.92	14.10
225	O.D. (mm)		225	225	225	225	225	225
	Wall (mm)		5.5	6.9	8.6	12.8	20.5	30.8
	Weight/m (kg)		3.70	4.57	5.65	8.19	12.60	17.90
250	O.D. (mm)		250	250	250	250	250	250
	Wall (mm)		6.2	7.7	9.6	14.2	22.7	34.4
	Weight/m (kg)		4.59	5.67	6.99	10.10	15.50	23.10
280	O.D. (mm)		280	280	280	280	280	280
	Wall (mm)		6.9	8.6	10.7	15.9	25.4	38.6
	Weight/m (kg)		5.73	7.09	8.72	12.60	19.40	28.90
315	O.D. (mm)		315	315	315	315	315	315
	Wall (mm)		7.7	9.7	12.1	17.9	28.6	43.7
	Weight/m (kg)		7.19	8.97	11.10	16.00	24.60	36.90
355	O.D. (mm)		355	355	355	355	355	355
	Wall (mm)		8.7	10.9	13.6	20.1	32.2	49.3
	Weight/m (kg)		9.14	11.30	14.00	20.20	31.10	46.80
400	O.D. (mm)	400	400	400	400	400	400	400
	Wall (mm)	6.0	9.8	12.3	15.3	22.7	36.3	54.7
	Weight/m (kg)	7.20	11.60	14.40	17.70	25.70	39.50	59.10
450	O.D. (mm)	450	450	450	450	450	450	450
	Wall (mm)	6.0	11.0	13.8	17.2	25.5	40.9	61.4
	Weight/m (kg)	8.10	14.60	18.20	22.40	32.50	50.10	74.10
500	O.D. (mm)	500	500	500	500	500	500	500
	Wall (mm)	8.0	12.3	15.3	19.1	28.3	45.4	68.4
	Weight/m (kg)	11.90	18.10	22.30	27.60	40.10	61.70	91.40
560	O.D. (mm)	560	560	560	560	560	560	560
	Wall (mm)	10.0	13.7	17.2	21.4	31.7	50.0	74.4
	Weight/m (kg)	13.41	22.60	28.10	34.60	50.30	75.10	111.40
630	O.D. (mm)	630	630	630	630	630	630	630
	Wall (mm)	10.0	15.4	19.3	24.1	35.7	54.3	80.4
	Weight/m (kg)	18.80	28.50	35.50	43.90	63.70	94.40	139.40
710	O.D. (mm)	710	710	710	710	710	710	710
	Wall (mm)	12.0	17.4	21.8	27.2	40.2	60.3	88.7
	Weight/m (kg)	25.30	36.30	45.20	55.80	80.70	120.40	177.40
800	O.D. (mm)	800	800	800	800	800	800	800
	Wall (mm)	12.0	19.6	24.5	30.6	45.1	67.1	99.4
	Weight/m (kg)	28.60	46.10	57.20	70.80	101.40	150.40	222.40
900	O.D. (mm)	900	900	900	900	900	900	900
	Wall (mm)	15.0	22.0	27.6	34.4	50.0	73.4	109.4
	Weight/m (kg)	40.10	58.10	72.50	89.40	127.40	188.40	279.40
1000	O.D. (mm)	1000	1000	1000	1000	1000	1000	1000
	Wall (mm)	15.0	24.5	30.6	38.2	54.1	79.4	117.4
	Weight/m (kg)	44.60	72.00	89.20	110.00	157.40	231.40	341.40
1200	O.D. (mm)	1200	1200	1200	1200	1200	1200	1200
	Wall (mm)	18.0	29.4	36.7	45.5	65.1	95.4	141.4
	Weight/m (kg)	64.10	103.00	128.00	157.40	225.40	335.40	497.40
1400	O.D. (mm)	1400	1400	1400	1400	1400	1400	1400
	Wall (mm)	21.0	34.3	42.6	52.4	74.1	109.4	162.4
	Weight/m (kg)	83.20	141.00	176.00	216.40	307.40	454.40	673.40

polypropylene pipe availability - PP-R and special grades

Metric Sizes DIN 8077/8078		PP-R	PPs: Flame Retardent				PPs-el: Flame Retardent Electric Conductive			
Size	Series SDR Working Pressure	S-5 SDR11 PN10	Ventilation -	S-20 SDR41 PN2.5	S-16 SDR33 PN3.2	S-5 SDR11 PN10	Ventilation -	S-16 SDR33 PN3.2	S-8.3 SDR17.6 PN6	S-5 SDR11 PN10
20	O.D. (mm)	20				20				
	Wall (mm)	2.5				2.5				
	Weight/m (kg)	0.14				0.14				
25	O.D. (mm)	25				25				
	Wall (mm)	2.7				2.7				
	Weight/m (kg)	0.19				0.19				
32	O.D. (mm)	32				32				32
	Wall (mm)	2.9				2.9				2.9
	Weight/m (kg)	0.26				0.27				0.32
40	O.D. (mm)	40				40				
	Wall (mm)	3.7				3.7				
	Weight/m (kg)	0.41				0.42				
50	O.D. (mm)	50				50				50
	Wall (mm)	4.6				4.6				4.6
	Weight/m (kg)	0.64				0.65				0.79
63	O.D. (mm)	63			63	63				63
	Wall (mm)	5.8			2.0	5.8				5.8
	Weight/m (kg)	1.01			0.39	1.03				1.20
75	O.D. (mm)	75		75		75				75
	Wall (mm)	6.8		1.9		6.8				6.8
	Weight/m (kg)	1.40		0.45		1.44				1.70
90	O.D. (mm)	90		90	90	90		90		90
	Wall (mm)	8.2		2.2	2.8	8.2		2.8		8.2
	Weight/m (kg)	2.02		0.62	0.78	2.08		0.93		2.50
110	O.D. (mm)	110		110	110	110	110	110	110	110
	Wall (mm)	10.0		2.7	3.4	10.0	3.0	3.4	6.3	10
	Weight/m (kg)	3.01		0.92	1.14	3.09	1.24	1.40	2.40	3.31
125	O.D. (mm)	125		125						
	Wall (mm)	11.4		3.1						
	Weight/m (kg)	3.89		1.20						
140	O.D. (mm)	140	140			140				
	Wall (mm)	12.7	3.0			12.7				
	Weight/m (kg)	4.87	1.32			4.99				
160	O.D. (mm)	160	160	160	160	160	160	160	160	
	Wall (mm)	14.6	3.0	4.0	4.9	14.6	3.0	4.9	9.1	
	Weight/m (kg)	6.38	1.53	1.97	2.38	6.55	1.82	2.90	5.10	
180	O.D. (mm)	180	180			180				
	Wall (mm)	16.4	3.0			16.4				
	Weight/m (kg)	8.05	1.71			8.05				
200	O.D. (mm)	200	200	200	200	200	200	200	200	
	Wall (mm)	18.2	3.0	4.9	6.2	18.2	3.0	6.2	11.4	
	Weight/m (kg)	9.92	1.90	3.00	3.75	9.92	2.28	4.50	8.00	
225	O.D. (mm)	225	225		225	225	225	225		
	Wall (mm)	20.5	3.5		6.9	20.5	3.5	6.9		
	Weight/m (kg)	12.60	2.47		4.69	12.60	2.62	5.86		
250	O.D. (mm)	250	250	250	250	250	250	250		
	Wall (mm)	22.7	3.5	6.2	7.7	22.7	3.5	7.7		
	Weight/m (kg)	15.50	2.75	4.72	5.82	15.50	3.50	6.60		
280	O.D. (mm)	280	280			280				
	Wall (mm)	25.4	4.0			25.4				
	Weight/m (kg)	19.40	3.48			19.40				
315	O.D. (mm)	315	315		315	315	315			
	Wall (mm)	28.6	5.0		9.7	28.6	5.0	9.7		
	Weight/m (kg)	24.60	4.91		9.21	24.60	5.80	11.60		
355	O.D. (mm)		355		355	355	355			
	Wall (mm)		5.0		10.9	355	5.0	10.9		
	Weight/m (kg)		5.54		11.60	355	6.60	14.99		
400	O.D. (mm)		400	400		400	400			
	Wall (mm)		6.0	9.8		400	6.0	11.0		
	Weight/m (kg)		7.39	11.88		400	7.40	14.99		
450	O.D. (mm)		450	450						
	Wall (mm)		6.0	11.0						
	Weight/m (kg)		8.33	14.99						



Temperature De-Rating Factors

Pressure ratings for Polypropylene pipework systems are always quoted at 20°C. As working temperature increases, the maximum working pressure decreases by the factor indicated.

* For continuous use at these temperatures, consult our Customer Services Department

Working Temperature (°C)	Pressure De-Rating Factor
20	1.00
30	1.00
40	0.82
50	0.66
60	0.50
70	0.36
80	0.25
90*	0.13
100*	0.05



PP-H Homopolymer Pipe

Ventilation				PN2.5/S-20/SDR41		PN3.2/S-16/SDR33		PN4/S-12.5/SDR26	
Size	Wall	Code	Price/m	Code	Price/m	Code	Price/m	Code	Price/m
12		-	-	-	-	-	-	-	-
16		-	-	-	-	-	-	-	-
20		-	-	-	-	-	-	-	-
25		-	-	-	-	-	-	-	-
32		-	-	-	-	-	-	-	-
40		-	-	-	-	-	-	12 705 0040 26	1.93
50	3.0	12 705 0050 00	on application	-	-	12 705 0050 33	2.54	12 705 0050 26	2.62
63	3.0	12 705 0063 00	on application	12 705 0063 41	3.06	12 705 0063 33	3.51	12 705 0063 26	4.12
75	3.0	12 705 0075 00	on application	12 705 0075 41	3.83	12 705 0075 33	4.77	12 705 0075 26	5.60
90	3.0	12 705 0090 00	on application	12 705 0090 41	5.33	12 705 0090 33	6.92	12 705 0090 26	8.15
110	3.0	12 705 0110 00	on application	12 705 0110 41	7.80	12 705 0110 33	10.13	12 705 0110 26	11.84
125	3.0	12 705 0125 00	on application	12 705 0125 41	10.43	12 705 0125 33	13.27	12 705 0125 26	15.31
140	3.0	12 705 0140 00	on application	12 705 0140 41	13.05	12 705 0140 33	16.23	12 705 0140 26	19.14
160	3.0	12 705 0160 00	on application	12 705 0160 41	16.45	12 705 0160 33	21.16	12 705 0160 26	25.10
180	3.0	12 705 0180 00	on application	12 705 0180 41	20.85	12 705 0180 33	26.80	12 705 0180 26	31.49
200	3.0	12 705 0200 00	18.15	12 705 0200 41	25.24	12 705 0200 33	33.26	12 705 0200 26	39.01
225	3.5	12 705 0225 00	on application	12 705 0225 41	32.05	12 705 0225 33	41.56	12 705 0225 26	48.95
250	3.5	12 705 0250 00	26.38	12 705 0250 41	44.72	12 705 0250 33	51.68	12 705 0250 26	60.57
280	4.0	12 705 0280 00	on application	12 705 0280 41	53.62	12 705 0280 33	70.01	12 705 0280 26	81.98
315	5.0	12 705 0315 00	46.95	12 705 0315 41	67.80	12 705 0315 33	88.60	12 705 0315 26	104.39
355	6.0	12 705 0355 00	56.88	12 705 0355 41	90.07	12 705 0355 33	117.49	12 705 0355 26	138.58
400	6.0	12 705 0400 00	71.35	12 705 0400 41	114.88	12 705 0400 33	149.67	12 705 0400 26	175.18
450	6.0	12 705 0450 00	94.61	12 705 0450 41	171.62	12 705 0450 33	222.65	12 705 0450 26	260.95
500	8.0	12 705 0500 00	138.58	12 705 0500 41	209.91	12 705 0500 33	272.52	12 705 0500 26	321.26
560	10.0	12 705 0560 00	193.61	12 705 0560 41	263.08	12 705 0560 33	344.01	12 705 0560 26	402.78
630	10.0	12 705 0630 00	219.14	12 705 0630 41	333.28	12 705 0630 33	434.10	12 705 0630 26	511.29
710	12.0	12 705 0710 00	295.00	12 705 0710 41	424.07	12 705 0710 33	552.49	12 705 0710 26	649.56
800	12.0	12 705 0800 00	324.18	12 705 0800 41	536.83	12 705 0800 33	699.18	12 705 0800 26	824.02
900	15.0	12 705 0900 00	493.57	12 705 0900 41	714.79	12 705 0900 33	936.69	12 705 0900 26	1100.58
1000	15.0	12 705 1000 00	548.87	12 705 1000 41	882.17	12 705 1000 33	1152.63	12 705 1000 26	1354.45
1200	18.0	12 705 1200 00	832.51	12 705 1200 41	1340.26	12 705 1200 33	1743.83		
1400	20.0	12 705 1400 00	1131.77	12 705 1400 41	1917.50				

Standard length 5m

Please note that a transportation surcharge may be applied on pipe diameters 250mm or larger - please enquire for details.

Electrofusion Coupling



Manufactured from PP-H (Homopolymer) material

PN10

Size	Code	Price
20	11 375 0020 11	10.79
25	11 375 0025 11	12.28
32	11 375 0032 11	13.27
40	11 375 0040 11	13.92
50	11 375 0050 11	21.60
63	11 375 0063 11	22.64
75	11 375 0075 11	31.73
90	11 375 0090 11	42.46
110	11 375 0110 11	51.68
125	11 375 0125 11	73.12
140	11 375 0140 11	82.65
160	11 375 0160 11	94.72
180	11 375 0180 11	139.09
200	11 375 0200 11	160.82
225	11 375 0225 11	198.05
250	11 375 0250 11	521.65
315	11 375 0315 11	842.44



Flame Retardant PP

Flame retardant (PPs) and flame retardant electrically conductive (PPs-el) grades of PP are featured at the end of the Polypropylene section.

Machine Hire

Don't have the tools? We have a dedicated fleet of welding equipment available to hire on a weekly basis.





PP-H Homopolymer Pipe

PP-R Copolymer Pipe

PN6/S-8.3/SDR17.6			PN10/S-5/SDR11		PN16/S-3.2/SDR7.4		PN10/S-5/SDR 11		
Size	Code	Price/m	Code	Price/m	Code	Price/m	Size	Code	Price/m
10	-	-	-	-	12 705 0010 07	0.65	20	11 705 0020 11	1.71
12	-	-	-	-	12 705 0012 07	0.92	25	11 705 0025 11	2.32
16	-	-	12 705 0016 11	0.91	12 705 0016 07	1.33	32	11 705 0032 11	3.28
20	12 705 0020 17	1.13	12 705 0020 11	1.65	12 705 0020 07	1.72	40	11 705 0040 11	4.55
25	12 705 0025 17	1.48	12 705 0025 11	2.16	12 705 0025 07	2.61	50	11 705 0050 11	7.00
32	12 705 0032 17	2.09	12 705 0032 11	3.06	12 705 0032 07	4.32	63	11 705 0063 11	11.13
40	12 705 0040 17	2.46	12 705 0040 11	3.80	12 705 0040 07	5.30	75	11 705 0075 11	15.41
50	12 705 0050 17	3.87	12 705 0050 11	5.90	12 705 0050 07	8.19	90	11 705 0090 11	22.22
63	12 705 0063 17	6.02	12 705 0063 11	9.16	12 705 0063 07	12.87	110	11 705 0110 11	33.15
75	12 705 0075 17	8.56	12 705 0075 11	12.74	12 705 0075 07	18.33	125	11 705 0125 11	42.83
90	12 705 0090 17	11.84	12 705 0090 11	18.33	12 705 0090 07	26.07	140	11 705 0140 11	53.56
110	12 705 0110 17	18.33	12 705 0110 11	25.61	12 705 0110 07	39.02	160	11 705 0160 11	70.18
125	12 705 0125 17	23.69	12 705 0125 11	35.60	12 705 0125 07	50.19	180	11 705 0180 11	88.55
140	12 705 0140 17	29.19	12 705 0140 11	44.68	12 705 0140 07	63.14	200	11 705 0200 11	109.15
160	12 705 0160 17	38.27	12 705 0160 11	58.20	12 705 0160 07	82.21	225	11 705 0225 11	138.62
180	12 705 0180 17	47.36	-	-	-	-	250	11 705 0250 11	170.56
200	12 705 0200 17	59.12	12 705 0200 11	90.10	12 705 0200 07	122.27	280	11 705 0280 11	213.45
225	12 705 0225 17	74.62	12 705 0225 11	114.66	12 705 0225 07	155.64	315	11 705 0315 11	270.77
250	12 705 0250 17	91.89	12 705 0250 11	141.04					
280	12 705 0280 17	124.49	12 705 0280 11	192.86					
315	12 705 0315 17	158.61	12 705 0315 11	243.49					
355	12 705 0355 17	211.46	12 705 0355 11	324.65					
400	12 705 0400 17	267.32	12 705 0400 11	412.51					
450	12 705 0450 17	397.62	12 705 0450 11	613.55					
500	12 705 0500 17	489.93	12 705 0500 11	757.99					
560	12 705 0560 17	615.03							
630	12 705 0630 17	778.84							
710	12 705 0710 17	987.33							
800	12 705 0800 17	1084.69							

Standard length 5m

Please note that a transportation surcharge may be applied on pipe diameters 250mm or larger - please enquire for details.



Polypropylene Material

AGRU Polypropylene pipes and fittings are manufactured in accordance with DIN 8077/8078 using the following materials:

Pipes: Nucleoid PP-H 100 (Beta β-PP)
Fittings: PP-R (polypropylene random copolymer)

Nucleoid PP-H is chosen for pipes because of its exceptional impact strength at cold temperatures, good stress fracture and chemical resistance. PP-R (also optionally available as pipe) provides high long term creep strength at continuous high temperatures. Other types of Polypropylene are also available:

Flame Retardant

PPs (Polypropylene homo-polymer, flame-retardant)

Due to its higher stiffness, PPs is ideally suited for ventilation pipes. The flame-retardant properties enhance the material for this application. Note that this material may not be used outdoors, as it is not UV stabilised.

PPs-el (Polypropylene random copolymer flame-retardant, electro-conductive)

This material combines the benefits of flame retardant properties and electro-conductivity. It can be used for safety reasons in the transport of combustible material.

High Purity

PP Pure PP-R (High purity grade Polypropylene random copolymer)

Selected and fully traceable raw materials are manufactured under strictly controlled conditions. This materials is ideal for less critical ultra-pure water applications (see High Purity Systems).

Polypure PP-R: Natural (Polypropylene random copolymer, natural coloured)

As natural PP-R contains no colour additives, it is ideally suited for high purity water piping systems. Note that it is not UV stabilised (see High Purity Systems).

Tee 90°



Size	Code	Price
16	11 056 0016 07	2.54
20	11 056 0020 07	2.75
25	11 056 0025 07	3.14
32	11 056 0032 07	3.64
40	11 056 0040 07	4.55
50	11 056 0050 07	7.60
63	11 056 0063 07	10.96
75	11 056 0075 07	27.11
90	11 056 0090 07	40.36
110	11 056 0110 07	50.19



Reducing Tee 90°



25/20	11 055 2520 07	4.24
32/20	11 055 3220 07	5.21
32/25	11 055 3225 07	5.21
40/20	11 055 4020 07	5.90
40/25	11 055 4025 07	5.90
40/32	11 055 4032 07	5.90
50/20	11 055 5020 07	9.52
50/25	11 055 5025 07	9.52
50/32	11 055 5032 07	9.52
50/40	11 055 5040 07	9.52
63/25	11 055 6325 07	13.92
63/32	11 055 6332 07	13.92
63/40	11 055 6340 07	13.92
63/50	11 055 6350 07	13.92

Elbow 90°



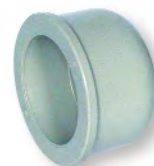
16	11 051 0016 07	2.31
20	11 051 0020 07	2.38
25	11 051 0025 07	2.91
32	11 051 0032 07	3.51
40	11 051 0040 07	4.41
50	11 051 0050 07	8.12
63	11 051 0063 07	10.57
75	11 051 0075 07	22.34
90	11 051 0090 07	28.15
110	11 051 0110 07	40.81



Elbow 45°



16	11 050 0016 07	2.75
20	11 050 0020 07	3.06
25	11 050 0025 07	3.64
32	11 050 0032 07	4.18
40	11 050 0040 07	5.37
50	11 050 0050 07	7.37
63	11 050 0063 07	9.46
75	11 050 0075 07	20.85
90	11 050 0090 07	26.07
110	11 050 0110 07	41.70



Socket



16	11 053 0016 07	1.65
20	11 053 0020 07	1.56
25	11 053 0025 07	1.65
32	11 053 0032 07	2.16
40	11 053 0040 07	2.75
50	11 053 0050 07	4.82
63	11 053 0063 07	7.53
75	11 053 0075 07	12.28
90	11 053 0090 07	15.49
110	11 053 0110 07	24.13



Reducer

Spigot x Socket

Size	Code	Price
25x16	11 057 2516 07	2.25
25/20	11 057 2520 07	2.54
32/20	11 057 3220 07	3.14
32/25	11 057 3225 07	3.14
40/20	11 057 4020 07	3.73
40/25	11 057 4025 07	3.73
40/32	11 057 4032 07	3.73
50/20	11 057 5020 07	4.32
50/25	11 057 5025 07	4.32
50/32	11 057 5032 07	4.32
50/40	11 057 5040 07	4.32
63/25	11 057 6325 07	5.96
63/32	11 057 6332 07	5.96
63/40	11 057 6340 07	5.96
63/50	11 057 6350 07	5.96
75/63	11 057 7563 07	10.43
90/63	11 057 9063 07	14.52
90/75	11 057 9075 07	14.52
110/63	11 057 1163 07	19.82
110/90	11 057 1190 07	19.82

Female Adaptor

BSP or NPT threaded

20 x 1/2	11 034 2020 07	7.53
25 x 3/4	11 034 2525 07	8.50
32 x 1	11 034 3232 07	11.09
40 x 1 1/4	11 034 4040 07	12.67
50 x 1 1/2	11 034 5050 07	19.96
63 x 2	11 034 6363 07	25.02

Code shown is for BSP.
Code for NPT on request.

Male Adaptor

BSP or NPT threaded

20 x 3/4	11 035 2025 07	7.09
25 x 1	11 035 2532 07	8.86
32 x 1 1/4	11 035 3240 07	10.66
40 x 1 1/2	11 035 4050 07	17.58
50 x 2	11 035 5063 07	22.19

Code shown is for BSP
Code for NPT on request

Cap

16	11 054 0016 07	2.25
20	11 054 0020 07	2.61
25	11 054 0025 07	2.75
32	11 054 0032 07	3.06
40	11 054 0040 07	3.95
50	11 054 0050 07	5.07
63	11 054 0063 07	7.00
75	11 054 0075 07	11.32
90	11 054 0090 07	15.64
110	11 054 0110 07	20.85

Union

FPM O-Rings

20	11 024 1120 07	10.06
25	11 024 1125 07	10.96
32	11 024 1132 07	13.10
40	11 024 1140 07	18.64
50	11 024 1150 07	26.22
63	11 024 1163 07	35.74



Pressure Ratings

Maximum working pressures (socket fusion):
All sizes PN10

Stub Flange

DIN or ANSI standards

20	11 052 0020 07	1.95
25	11 052 0025 07	2.09
32	11 052 0032 07	2.31
40	11 052 0040 07	2.85
50	11 052 0050 07	3.35
63	11 052 0063 07	4.41
75	11 052 0075 07	9.68
90	11 052 0090 07	13.64
110	11 052 0110 07	19.23

Code shown is for DIN.
ANSI code on request.

Blind Flange

Polypropylene with steel core drilled to BS4504 NP10/16 - black

20	14 045 0020 11	47.66
25	14 045 0025 11	48.41
32	14 045 0032 11	49.61
40	14 045 0040 11	53.18
50	14 045 0050 11	62.31
63	14 045 0063 11	65.53
75	14 045 0075 11	76.69
90	14 045 0090 11	85.41
110	14 045 0110 11	115.26

Blind Flange

Polypropylene with steel core drilled to ANSI 150 - grey

20	11 043 0020 11	59.57
25	11 043 0025 11	60.46
32	11 043 0032 11	61.94
40	11 043 0040 11	66.43
50	11 043 0050 11	75.21
63	11 043 0063 11	81.91
75	11 043 0075 11	93.53
90	11 043 0090 11	105.43
110	11 043 0110 11	144.16

Gasket

EPDM

20	861-_-005	0.50
25	861-_-007	0.58
32	861-_-010	0.64
40	861-_-012	0.80
50	861-_-015	0.96
63	861-_-020	1.65
75	861-_-025	2.02
90	861-_-030	2.17
110	861-_-040	3.16

Complete code when ordering
Insert 'ISO' for NP10/16; 'A' for ANSI 150; 'E' for Table D/E

Gasket

FPM

20	862-_-005	2.34
25	862-_-007	3.48
32	862-_-010	4.59
40	862-_-012	7.36
50	862-_-015	8.05
63	862-_-020	10.60
75	862-_-025	15.34
90	862-_-030	20.01
110	862-_-040	34.14

Complete code when ordering
Insert 'ISO' for NP10/16; 'A' for ANSI 150; 'E' for Table D/E

Backing Ring Table D/E

Galvanised mild steel

20	860-005-11E	5.71
25	860-007-11E	6.47
32	860-010-11E	6.79
40	860-012-11E	7.00
50	860-015-11E	8.59
63	860-020-11E	12.18
75	860-025-11E	18.20
90	860-030-11E	18.50
110 D	860-040-11D	23.91
110 E	860-040-11E	23.91

Backing Ring NP10/16

Galvanised mild steel

20	860-005-11NP	6.47
25	860-007-11NP	6.85
32	860-010-11NP	8.13
40	860-012-11NP	8.64
50	860-015-11NP	9.48
63	860-020-11NP	13.39
75	860-025-11NP	18.33
90	860-030-11NP	21.20
110	860-040-11NP	27.11

Backing Ring ASA 150

Galvanised mild steel

20	860-005-11A	6.47
25	860-007-11A	6.85
32	860-010-11A	8.13
40	860-012-11A	8.64
50	860-015-11A	9.48
63	860-020-11A	13.39
75	860-025-11A	18.33
90	860-030-11A	21.20
110	860-040-11A	27.11

Backing Ring NP10

Polypropylene with steel core

20	11 014 0020 11	6.86
25	11 014 0025 11	7.53
32	11 014 0032 11	9.64
40	11 014 0040 11	12.22
50	11 014 0050 11	14.27
63	11 014 0063 11	17.62
75	11 014 0075 11	18.34
90	11 014 0090 11	21.70
110	11 014 0110 11	25.80

Backing Ring ASA 150

Polypropylene with steel core

20	11 013 0020 11	6.86
25	11 013 0025 11	7.53
32	11 013 0032 11	9.64
40	11 013 0040 11	12.22
50	11 013 0050 11	14.27
63	11 013 0063 11	17.62
75	11 013 0075 11	18.34
90	11 013 0090 11	21.70
110	11 013 0110 11	25.80

Elbow 45°

Elongated



PN3.2		PN6		PN10	
20				11 060 0020 11	5.37
25				11 060 0025 11	5.74
32				11 060 0032 11	6.92
40				11 060 0040 11	8.63
50				11 060 0050 11	9.75
63				11 060 0063 11	17.88
75		11 060 0063 17	16.08	11 060 0075 11	22.19
90		11 060 0075 17	19.82	11 060 0090 11	27.71
110		11 060 0090 17	25.02	11 060 0110 11	53.18
125		11 060 0110 17	47.82	11 060 0125 11	65.68
140		11 060 0125 17	58.97	11 060 0140 11	83.39
160		11 060 0140 17	75.06	11 060 0160 11	99.18
180		11 060 0160 17	89.36	11 060 0180 11	108.57
200		11 060 0180 17	97.56	11 060 0200 11	148.32
225		11 060 0200 17	133.42	11 060 0225 11	177.21
250		11 060 0225 17	159.34	11 060 0250 11	342.52
280		11 060 0250 17	307.53	11 060 0280 11	517.49
315		11 060 0280 17	465.39	11 060 0315 11	647.05
		11 060 0315 17	579.29		



Pipe Supports

Pipe supports should be free of sharp edges which can damage a pipe wall. Care should also be taken to ensure that supports allow for expansion and contraction of the pipe without restraint.

Polypropylene pipework requires more support than for metallic systems. As working temperature increases, the distance between supports is reduced.

PN10 Pipe Size	Support Centres/m		
	20°C	60°C	100°C
16	0.75	0.65	0.40
20	0.80	0.65	0.45
25	0.85	0.75	0.50
32	1.00	0.85	0.55
40	1.10	0.95	0.60
50	1.25	1.05	0.70
63	1.40	1.20	0.80
75	1.55	1.30	0.85
90	1.65	1.45	0.95
110	1.85	1.60	1.05
125	2.00	1.70	1.10
140	2.10	1.80	1.15
160	2.25	1.90	1.25
180	2.40	2.00	1.30
200	2.50	2.15	1.35
225	2.65	2.30	1.45
250	2.75	2.35	1.50
280	2.90	2.45	1.60
315	3.05	2.60	1.65
355	3.20	2.70	1.75
400	3.40	2.90	1.85
450	3.70	3.15	2.00
500	3.85	3.25	2.05
560	4.10	3.50	2.25
630	4.35	3.70	2.40

Reducer

Concentric - elongated



Size	PN3.2		PN6		PN10	
	Code	Price	Code	Price	Code	Price
25 x 20					11 067 2520 11	3.58
32 x 20					11 067 3220 11	3.95
32 x 25					11 067 3225 11	3.95
40 x 20					11 067 4020 11	5.74
40 x 25					11 067 4025 11	5.74
40 x 32					11 067 4032 11	5.74
50 x 25					11 067 5025 11	7.09
50 x 32					11 067 5032 11	7.09
50 x 40					11 067 5040 11	7.09
63 x 32					11 067 6332 11	9.39
63 x 40					11 067 6340 11	9.39
63 x 50					11 067 6350 11	9.39
75 x 50					11 067 7550 11	14.52
75 x 63					11 067 7563 11	14.52
90 x 63					11 067 9063 11	20.42
90 x 75					11 067 9075 11	20.54
110 x 63					11 067 1163 11	32.45
110 x 90					11 067 1190 11	32.45
125 x 63					11 067 1263 11	32.92
125 x 90					11 067 1290 11	32.92
125 x 110					11 067 1211 11	32.92
140 x 125					11 067 1412 11	47.21
160 x 90					11 067 1690 11	63.14
160 x 110					11 067 1611 11	63.30
160 x 125					11 067 1612 11	63.30
160 x 140					11 067 1614 11	63.59
180 x 125					11 067 1812 11	81.91
180 x 160					11 067 1816 11	81.91
200 x 160					11 067 2016 11	89.81
225 x 160					11 067 2216 11	144.46
250 x 160					11 067 2516 11	195.84
250 x 200					11 067 2521 11	204.77
250 x 225					11 067 2522 11	204.77
280 x 250					11 067 2825 11	272.52
315 x 200					11 067 3120 11	350.70
315 x 225					11 067 3122 11	350.70
315 x 250					11 067 3125 11	350.70

Reducer

Eccentric - elongated



Size	PN3.2		PN6		PN10	
	Code	Price	Code	Price	Code	Price
25 x 20					11 069 2520 11	3.95
32 x 25					11 069 3225 11	4.55
40 x 25					11 069 4025 11	6.26
40 x 32					11 069 4032 11	6.26
50 x 32					11 069 5032 11	7.74
50 x 40					11 069 5040 11	7.74
63 x 32					11 069 6332 11	11.17
63 x 40					11 069 6340 11	11.17
63 x 50					11 069 6350 11	11.17
75 x 50					11 069 7550 11	17.28
75 x 63					11 069 7563 11	17.28
90 x 63					11 069 9063 11	24.13
90 x 75					11 069 9075 11	24.13
110 x 63					11 069 1163 11	32.45
110 x 90					11 069 1190 11	32.45
125 x 63					11 069 1263 11	39.02
125 x 90					11 069 1290 11	39.02
125 x 110					11 069 1211 11	39.02
140 x 125					11 069 1412 11	56.15
160 x 90					11 069 1690 11	74.90
160 x 110					11 069 1611 11	74.90
160 x 125					11 069 1612 11	74.90
160 x 140					11 069 1614 11	74.90
180 x 90					11 069 1890 11	97.39
180 x 125					11 069 1812 11	97.39
180 x 160					11 069 1816 11	97.39
200 x 160					11 069 2016 11	106.64
200 x 180					11 069 2018 11	106.64
225 x 160					11 069 2216 11	172.01
225 x 180					11 069 2218 11	172.01
225 x 200					11 069 2220 11	172.01
250 x 200					11 069 2521 11	244.23
250 x 225					11 069 2522 11	225.61

pp flame retardant pipe and fittings

Flame
retardant
grade



Pipe PPs

Ventilation				PN3.2/S-16/SDR33		PN10/S-5/SDR11	
Size	Wall	Code	Price/m	Code	Price/m	Code	Price/m
20	-	-	-	-	-	17 705 0020 11	1.84
25	-	-	-	-	-	17 705 0025 11	2.49
32	-	-	-	-	-	17 705 0032 11	3.54
40	-	-	-	-	-	17 705 0040 11	5.04
50	3.0	17 705 0050 00	-	-	-	17 705 0050 11	7.82
63	3.0	17 705 0063 00	-	17 705 0063 33	4.69	17 705 0063 11	12.39
75	3.0	17 705 0075 00	-	-	-	17 705 0075 11	17.32
90	3.0	17 705 0090 00	-	-	-	17 705 0090 11	25.03
110	3.0	17 705 0110 00	-	-	-	17 705 0110 11	37.19
125	3.0	17 705 0125 00	-	-	-	-	-
140	3.0	17 705 0140 00	18.15	-	-	17 705 0140 11	60.05
160	3.0	17 705 0160 00	21.05	-	-	17 705 0160 11	78.84
180	3.0	17 705 0180 00	23.53	-	-	-	-
200	3.0	17 705 0200 00	26.13	-	-	-	-
225	3.5	17 705 0225 00	33.96	-	-	-	-
250	3.5	17 705 0250 00	37.82	-	-	-	-
280	4.0	17 705 0280 00	47.87	-	-	-	-
315	5.0	17 705 0315 00	67.54	-	-	-	-
355	5.0	17 705 0355 00	76.19	-	-	-	-
400	6.0	17 705 0400 00	101.64	-	-	-	-
450	6.0	17 705 0450 00	119.52	-	-	-	-
500	8.0	17 705 0500 00	176.49	-	-	-	-
560	8.0	17 705 0560 00	198.01	-	-	-	-
630	10.0	17 705 0630 00	276.92	-	-	-	-
710	12.0	17 705 0710 00	373.06	-	-	-	-
800	12.0	17 705 0800 00	420.41	-	-	-	-
900	15.0	17 705 0900 00	641.88	-	-	-	-
1000	15.0	17 705 1000 00	715.11	-	-	-	-
1200	18.0	17 705 1200 00	1187.15	-	-	-	-

Standard length 5m

Please note that a transportation surcharge may be applied on pipe diameters 250mm or larger - please enquire for details.

Tee 90°



PN2.5

PN3.2

PN10

Size	Code	Price	Code	Price	Code	Price
20	-	-	-	-	17 006 0020 11	3.32
25	-	-	-	-	17 006 0025 11	3.32
32	-	-	-	-	17 006 0032 11	4.14
40	-	-	-	-	17 006 0040 11	6.56
50	-	-	-	-	17 006 0050 11	8.85
63	-	-	-	-	17 006 0063 11	13.73
75	-	-	-	-	17 006 0075 11	27.71
90	-	-	-	-	17 006 0090 11	41.36
110	-	-	17 006 0110 33	34.38	17 006 0110 11	60.77
140	-	-	-	-	17 006 0140 11	106.00
160	-	-	17 006 0160 33	78.33	17 006 0160 11	178.33
180	-	-	17 006 0180 33	104.89	-	-
200	-	-	17 006 0200 33	114.60	-	-
225	-	-	17 006 0225 33	214.75	-	-
250	-	-	17 006 0250 33	323.10	-	-
280	-	-	17 006 0280 33	422.84	-	-
315	-	-	17 006 0315 33	534.94	-	-

Bend 90°



PN2.5			PN3.2		PN10	
Size	Code	Price	Code	Price	Code	Price
20	-	-	-	-	17 001 0020 11	4.11
25	-	-	-	-	-	-
32	-	-	-	-	17 001 0032 11	4.44
40	-	-	-	-	17 001 0040 11	5.75
50	-	-	-	-	17 001 0050 11	7.21
63	-	-	-	-	17 001 0063 11	10.34
75	-	-	-	-	17 001 0075 11	14.24
90	-	-	-	-	17 001 0090 11	20.67
110	-	-	17 001 0110 33	26.27	17 001 0110 11	39.35
140	-	-	-	-	17 001 0140 11	74.14
160	-	-	17 001 0160 33	49.93	17 001 0160 11	90.31
180	-	-	17 001 0180 33	60.83	-	-
200	-	-	17 001 0200 33	75.45	-	-
225	-	-	17 001 0225 33	92.87	-	-
250	-	-	17 001 0250 33	114.10	-	-
280	-	-	17 001 0280 33	141.15	-	-
315	-	-	17 001 0315 33	200.16	-	-
355	-	-	17 001 0355 33	535.10	-	-
400	-	-	17 001 0400 33	750.42	-	-

Reducer

Concentric



PN2.5			PN3.2		PN10	
Size	Code	Price	Code	Price	Code	Price
63x16	-	-	-	-	17 007 6316 11	7.82
75x32	-	-	-	-	17 007 7532 11	12.53
110x63	-	-	17 007 1163 33	14.93	17 007 1163 11	16.60
125x75	-	-	17 007 1275 33	17.06	17 007 1275 11	18.74
160x110	-	-	17 007 1611 33	54.08	17 007 1611 11	62.40
225x160	-	-	17 007 2216 33	137.13	-	-
315x225	-	-	17 007 3122 33	157.79	-	-

Stub Flange



PN2.5			PN3.2		PN10	
Size	Code	Price	Code	Price	Code	Price
20	-	-	-	-	17 012 0020 11	3.75
25	-	-	-	-	17 012 0025 11	3.75
32	-	-	-	-	17 012 0032 11	4.41
40	-	-	-	-	17 012 0040 11	5.29
50	-	-	-	-	17 012 0050 11	6.41
63	-	-	-	-	17 012 0063 11	8.07
75	-	-	-	-	17 012 0075 11	9.46
90	-	-	-	-	17 012 0090 11	13.65
110	-	-	17 012 0110 33	15.93	17 012 0110 11	17.54
125	-	-	-	-	-	-
140	-	-	-	-	17 012 0140 11	24.72
160	-	-	17 012 0160 33	28.04	17 012 0160 11	29.12
180	-	-	17 012 0180 33	40.97	-	-
200	-	-	17 012 0200 33	48.26	-	-
225	-	-	17 012 0225 33	55.18	-	-
250	-	-	17 012 0250 33	70.79	-	-
280	-	-	17 012 0280 33	83.95	-	-
315	-	-	17 012 0315 33	100.58	-	-
355	-	-	17 012 0355 33	172.07	-	-
400	-	-	17 012 0400 33	358.34	-	-
500	-	-	17 012 0500 33	509.63	-	-

Refer to page 269 for backing rings and gaskets

Electrically
conductive
grade



Pipe PPs-el

Ventilation				PN3.2/S-16/SDR33		PN6/S-8.3/SDR17		PN10/S-5/SDR11	
Size	Wall	Code	Price/m	Code	Price/m	Code	Price/m	Code	Price/m
32		-	-	-	-	-	-	19 705 0032 11	15.19
50		-	-	-	-	-	-	19 705 0050 11	39.12
63		-	-	-	-	-	-	19 705 0063 11	61.88
75		-	-	-	-	-	-	19 705 0075 11	86.31
90		-	-	19 705 0090 33	46.53	-	-	19 705 0090 11	124.76
110	3.0	19 705 0110 00	70.93	19 705 0110 33	70.83	19 705 0110 17	121.79	19 705 0110 11	167.98
160	3.0	19 705 0160 00	104.07	19 705 0160 33	145.18	19 705 0160 17	255.98	-	-
180	3.0	19 705 0180 00	117.25	-	-	-	-	-	-
200	3.0	19 705 0200 00	130.39	19 705 0200 33	225.53	19 705 0200 17	397.58	-	-
225	3.5	19 705 0225 00	165.32	19 705 0225 33	279.43	-	-	-	-
250	3.5	19 705 0250 00	197.91	-	-	-	-	-	-
315	5.0	19 705 0315 00	332.42	-	-	-	-	-	-
355	5.0	19 705 0355 00	375.20	-	-	-	-	-	-
400	6.0	19 705 0400 00	423.72	-	-	-	-	-	-

Standard length 5m

Please note that a transportation surcharge may be applied on pipe diameters 250mm or larger - please enquire for details



Tee 90°



PN3.2

PN6

PN10

Size	Code	Price	Code	Price	Code	Price
32	-	-	-	-	19 006 0032 11	6.54
50	-	-	-	-	19 006 0050 11	14.01
63	-	-	-	-	19 006 0063 11	21.76
75	-	-	-	-	19 006 0075 11	43.94
90	-	-	-	-	19 006 0090 11	65.55
110	19 006 0110 33	54.45	19 006 0110 17	81.84	19 006 0110 11	97.03
160	19 006 0160 33	124.01	19 006 0160 17	251.75	-	-
200	19 006 0200 33	181.60	19 006 0200 17	422.31	-	-
225	19 006 0225 33	340.12	-	-	-	-
250	19 006 0250 33	526.22	-	-	-	-
315	19 006 0315 33	845.13	-	-	-	-

pp flame retardent - electrically conductive

Bend 90°



PN3.2			PN6		PN10	
Size	Code	Price	Code	Price	Code	Price
32	-	-	-	-	19 001 0032 11	7.06
50	-	-	-	-	19 001 0050 11	11.43
63	-	-	-	-	19 001 0063 11	16.38
75	-	-	-	-	19 001 0075 11	22.60
90	-	-	-	-	19 001 0090 11	32.70
110	19 001 0110 33	41.61	19 001 0110 17	60.75	19 001 0110 11	62.86
160	19 001 0160 33	79.06	19 001 0160 17	123.66	-	-
200	19 001 0200 33	119.57	19 001 0200 17	187.69	-	-
225	19 001 0225 33	147.10	-	-	-	-
250	19 001 0250 33	180.79	-	-	-	-
315	19 001 0315 33	317.36	-	-	-	-

Reducer

Concentric



PN3.2			PN6		PN10	
Size	Code	Price	Code	Price	Code	Price
63x16	-	-	-	-	19 007 6316 11	12.42
75x32	-	-	-	-	19 007 7532 11	19.81
110x63	-	-	-	-	19 007 1163 11	26.25
160x110	19 007 1611 33	85.63	19 007 1611 17	87.13	-	-
225x160	19 007 2216 33	216.75	19 007 2216 17	243.35	-	-
315x225	19 007 3122 33	249.92	-	-	-	-

Stub Flange



PN3.2			PN6		PN10	
Size	Code	Price	Code	Price	Code	Price
32	-	-	-	-	19 012 0032 11	6.93
50	-	-	-	-	19 012 0050 11	10.19
63	-	-	-	-	19 012 0063 11	12.72
75	-	-	-	-	19 012 0075 11	15.08
90	-	-	-	-	19 012 0090 11	21.61
110	19 012 0110 33	25.52	19 012 0110 17	25.22	19 012 0110 11	28.01
160	19 012 0160 33	44.43	19 012 0160 17	44.43	-	-
200	19 012 0200 33	77.98	19 012 0200 17	81.10	-	-
225	19 012 0225 33	87.47	-	-	-	-
250	19 012 0250 33	123.32	-	-	-	-
315	19 012 0315 33	159.31	-	-	-	-

Backing Ring

BS 4504 EN1072 NP10



PPs-el		
Size	Code	Price
32	19 014 0032 11	20.01
50	19 014 0050 11	29.55
63	19 014 0063 11	34.10
75	19 014 0075 11	37.82
90	19 014 0090 11	45.01
110	19 014 0110 11	71.82
140	-	-
160	19 014 0160 11	104.61
200	-	-
225	-	-
250	-	-
315	-	-



Gaskets

Refer to page 269 for backing rings and gaskets



Hayward Simplex Basket Strainer

Description: In-line strainer with serviceable basket filter

Mounting: Vertical

Maximum Fluid Pressure at 20°C: 10 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Strainer Basket: Polypropylene or 316 Stainless Steel

Strainer Mesh Sizes: PP: 1/32", 1/16", 1/8", 3/16"

Stainless Steel: 20, 40, 60, 80, 100, 150, 200, 325 mesh

Seals: FPM

End Connections: NPT Threaded or Flanged

Gauge: Optional



NPT Female Threaded

PP Body PP Basket	1"	BS401 00T	on application
	1 1/2"	BS401 50T	
	2"	BS402 00T	

NPT Female Threaded

PP Body St/St Basket	1"	BSS401 00T	on application
	1 1/2"	BSS401 50T	
	2"	BSS402 00T	

Flanged ANSI 150

PP Body PP Basket	1"	BS401 00F	on application
	1 1/2"	BS401 50F	
	2"	BS402 00F	

Flanged ANSI 150

PP Body St/St Basket	1"	BSS401 00F	on application
	1 1/2"	BSS401 50F	
	2"	BSS402 00F	

Spare PP Basket

1"	BS401001/_	on application
1 1/2, 2"	BS402001/_	

To specify the mesh size, add to part number e.g. 3" basket c/w 1/32" mesh = BS103001/32

Spare Stainless Steel Basket

1"	BS710(XX)	on application
1 1/2, 2"	BS720(XX)	

To specify the mesh size, add to part number e.g. 2" basket c/w 60 mesh = BS72060

Hayward Bag Filter

Description: In-line strainer with replaceable bag filter
Mounting: In a horizontal position
Maximum Fluid Pressure at 20°C: 15.5 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Glass filled Polypropylene
Strainer Basket: Cloth
Strainer Mesh Sizes: 5, 10, 25, 50, 100 micron
Seals: FPM
End Connections: 2" NPT Female Threaded, flanged ASA 150
Gauge: Optional



Single or Double Bag Filter

Length	Connection	Simplex		Duplex	
		Code	Price	Code	Price
Single	2" FPT	FLT4201		-	
Single	2" ASA 150	FLT4201F	on application	-	
Double	2" FPT	FLT4202		-	
Double	2" ASA 150	FLT4202F		FLT2DUP	on application

Polypropylene Filter Bags - Welded Construction

Length	Gauge	Code	Price
Single*	1 micron	F31R36590	
Single*	5 micron	F31R36817	
Single*	10 micron	F31R36552	
Single*	25 micron	F31R36596	
Single*	50 micron	F31R36589	
Single*	100 micron	F31R36551	
Single*	200 micron	F3AB00319	on application
Double**	1 micron	F31R36502	
Double**	5 micron	F31R36501	
Double**	10 micron	F31R36503	
Double**	25 micron	F31R36412	
Double**	50 micron	F31R36500	
Double**	100 micron	F31R36505	
Double**	200 micron	F3AB00222	

Polypropylene Filter Bags - Sewn Construction

Length	Gauge	Code	Price
Single*	1 micron	F3AB00013	
Single*	5 micron	F3AB00157	
Single*	10 micron	F3AB00019	
Single*	25 micron	F3AB00020	
Single*	50 micron	F3AB00014	
Single*	100 micron	F31A37288	
Single*	200 micron	F3AB00103	on application
Double**	1 micron	F31B36372	
Double*	5 micron	F31B37455	
Double*	10 micron	F3AA01434	
Double*	25 micron	F3AB00002	
Double*	50 micron	F3AA00160	
Double*	100 micron	F3AA01128	
Double**	200 micron	F3AB00057	

Polypropylene Monofilament Filter Bags - Sewn Construction

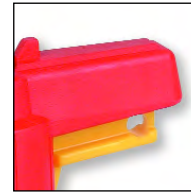
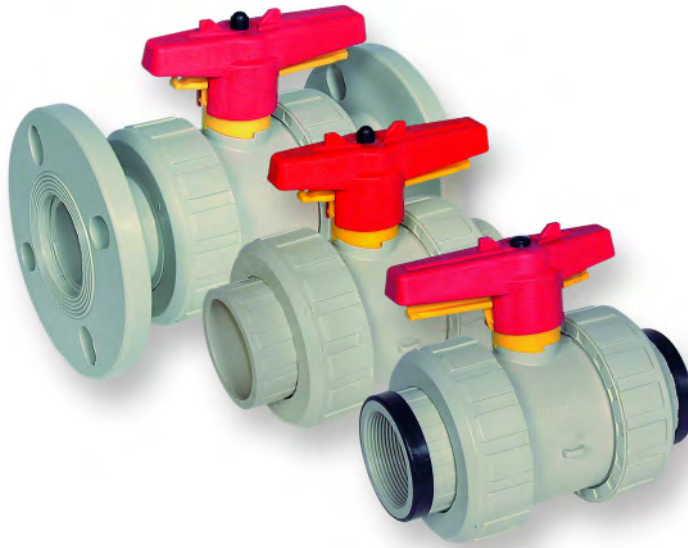
Length	Gauge	Code	Price
Single*	150 micron	F3AB00170	
Single*	400 micron	F3AB00173	
Single*	600 micron	F3AB00174	
Single*	800 micron	F3AB00175	
Double*	150 micron	F3AB00177	on application
Double*	400 micron	F3AB00180	
Double*	600 micron	F3AB00181	
Double*	800 micron	F3AB00182	

Note: Filter bags are sold in box quantities only

*Box quantity 50

** Box quantity 30

Praher S4 Ball Valve



Lockable Handle



Tagging Point



Valve Bracket



Actuation

Materials

Body - Polypropylene
 Ball Seat - PTFE
 Seals - EPDM or FPM

Sizes

3/8" - 4"/16mm - 110mm

Pressure Rating

3/8"/16mm to 2.1/2"/75mm - 10 bar
 3" - 4"/90mm - 110mm - 6 bar

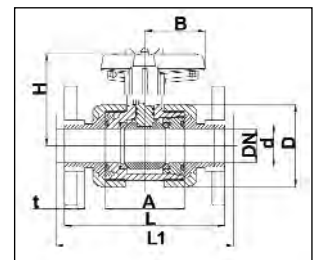
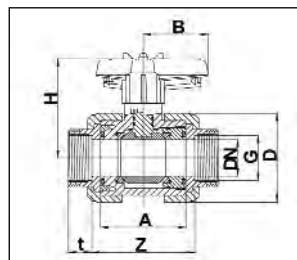
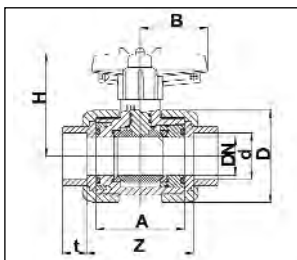
Connections

Fusion Sockets
 Fusion Spigots
 BSP Female Threaded
 Flanged PN10

Features

- Lockable Handle (Lock not supplied)
- True Union design for easy maintenance
- Full bore design
- Tagging point included
- Matched Valve bracket for panel mounting and retrofit actuation.
- Pneumatically and Electrically actuated versions available
- Silicone free on request

Valve Dimensions

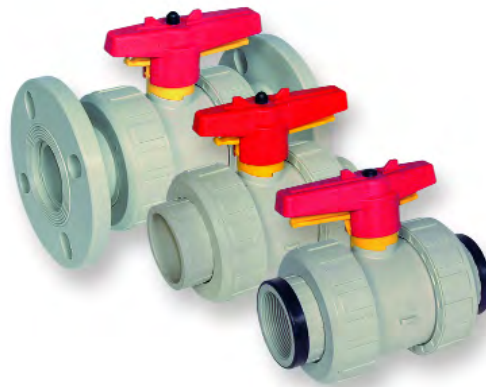


d	16	20	25	32	40	50	63	75	90	110
DN	10	15	20	25	32	40	50	65	80	80
G	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3	4
L	114.0	124.0	144.0	154.0	174.0	194.0	224.0	284.0	300.0	340.0
L1	120.0	130.0	150.0	160.0	180.0	200.0	230.0	290.0	310.0	350.0
A	62.0	62.0	69.0	73.0	83.0	94.0	108.0	133.0	160.0	160.0
Z	71.0	67.5	79.0	84.0	96.0	114.0	134.0	162.0	208.0	207.0
t	14.5	16.0	17.0	19.5	22.0	25.0	29.0	34.5	38.5	44.0
D	52.5	52.5	62.0	69.5	80.0	100.0	120.5	155.0	187.0	187.0
H	71.5	71.5	77.0	80.5	98.5	106.5	115.5	142.0	160.0	160.0
B	40.0	40.0	51.5	51.5	64.0	73.0	85.0	110.0	132.0	132.0
PN	10	10	10	10	10	10	10	10	6	6
Weight	0.16	0.16	0.23	0.28	0.47	0.74	1.11	2.28	3.87	3.87

Dimensions in mm

Praher Type S4 Ball Valve

Description: In-line double union ball valve with lockable handle
Mounting: In any position
Maximum Fluid Pressure at 20°C: Sizes 16mm to 75mm - 10bar;
 Sizes 90mm to 110mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene
Seals: EPDM or FPM
Seats: PTFE
End Connections: Fusion sockets, fusion spigots,
 BSP Female Threaded, Flanged BS4504 EN1092 PN10
Option: Silicon-free



MM Fusion Sockets

EPDM Seals PTFE Seats	16	12 1378	47.82
	20	12 1379	49.73
	25	12 1381	59.74
	32	12 1383	67.76
	40	12 1385	86.68
	50	12 1387	109.29
	63	12 1389	140.59
	75	12 1391	323.92
	90	12 1393	495.17
	110	12 2094	572.60

MM Fusion Sockets

FPM Seals PTFE Seats	16	12 1377	55.70
	20	12 1412	57.78
	25	12 1380	70.01
	32	12 1382	79.81
	40	12 1384	100.82
	50	12 1386	125.24
	63	12 1388	159.34
	75	12 1390	360.40
	90	12 1392	549.52
	110	12 2115	641.84

BSP Female Threaded

EPDM Seals PTFE Seats	3/8	12 1395	50.49
	1/2	12 1397	52.57
	3/4	12 1399	63.45
	1	12 1401	71.78
	1 1/4	12 1403	91.44
	1 1/2	12 1405	115.72
	2	12 1407	149.97
	2 1/2	12 1409	338.05
	3	12 1411	519.00

BSP Female Threaded

FPM Seals PTFE Seats	3/8	12 1394	58.68
	1/2	12 1396	60.62
	3/4	12 1398	73.43
	1	12 1400	91.89
	1 1/4	12 1402	105.59
	1 1/2	12 1404	141.33
	2	12 1406	167.54
	2 1/2	12 1408	374.53
	3	12 1410	573.34

MM Fusion Spigots

EPDM Seals PTFE Seats	16	12 1430	47.82
	20	12 1432	49.73
	25	12 1434	59.74
	32	12 1436	67.76
	40	12 1438	86.68
	50	12 1440	109.29
	63	12 1442	140.59
	75	12 1444	323.92
	90	12 1446	495.17
	110	12 2508	572.60

MM Fusion Spigots

FPM Seals PTFE Seats	16	12 1431	55.70
	20	12 1433	57.78
	25	12 1435	70.01
	32	12 1437	79.81
	40	12 1439	100.82
	50	12 1441	125.24
	63	12 1443	159.34
	75	12 1445	360.40
	90	12 1447	549.52
	110	12 2509	641.84

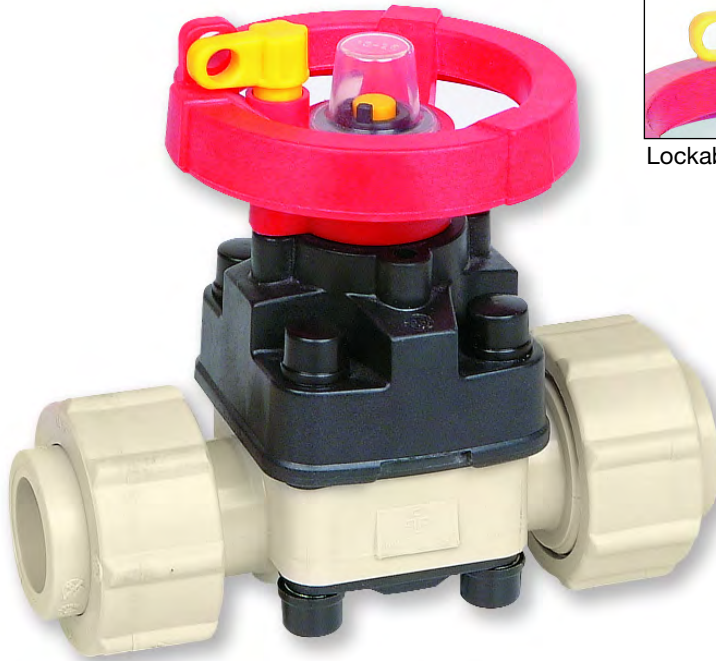
Flanged PN10

EPDM Seals PTFE Seats	1/2	12 2294	81.91
	3/4	12 2295	93.53
	1	12 2170	121.07
	1 1/4	12 2296	146.09
	1 1/2	12 2168	188.69
	2	12 2297	226.52
	2 1/2	12 2298	423.98
	3	12 2299	609.68
	4	12 2267	706.32

Flanged PN10

FPM Seals PTFE Seats	1/2	12 2301	89.94
	3/4	12 2302	103.80
	1	12 2303	133.14
	1 1/4	12 2304	160.23
	1 1/2	12 2305	204.61
	2	12 2306	245.29
	2 1/2	12 2307	460.45
	3	12 2308	664.02
	4	12 5510	623.98

Praher T4 Diaphragm Valve



Lockable Handle



Visual Position Indicator



Optional Valve Support Plates

General

Sealing material: EPDM / EPDM-PTFE / FPM

Body material: PP

Dimensions: DN 15/d 20 - DN125/d140

Operating Pressure

DN 15 / 1/2" - DN 125 / 5" 10 bar

Connections

PP union sockets 20mm-63mm

PP fusion spigots 20mm-110mm

Flanged PN10 20mm-140mm

Technical Specification

For example:

TYPE PRAHER, DIN 2403

PP Diaphragm valve T4 DN 15 d20

PP mm fusion spigot

Sealing material EPDM-PTFE

Safety gear wheel

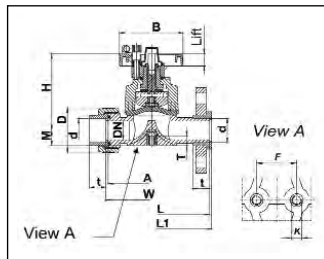
Max. Operating pressure 10 bar

Features

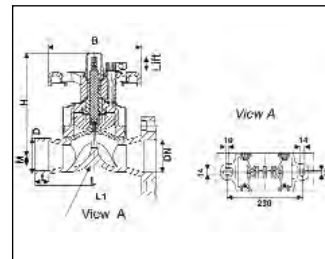
- Safety gear wheel
- Corrosion Resistant
- Maintenance free operation over a long working life
- Suitable for aggressive and dirty media
- Radial installation or removal
- Easy replacement of the diaphragms

Valve Dimensions

DN 15 - DN 50



DN 65 - DN 80

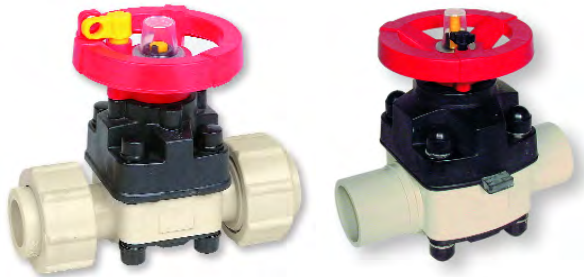


d	20	25	32	40	50	63	75	90	110	140
DN	15	20	25	32	40	50	65	80	100	125
G	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"
M	16.5	16.5	20.1	31.5	31.5	38.6	25.0	25.0	25.0	25.0
H	100.0	100.0	107.0	144.0	144.0	170.0	260.0	260.0	330.0	330.0
B	86.0	86.0	86.0	136.0	136.0	136.0	234.0	234.0	234.0	234.0
F	24.5	24.5	24.5	43.5	43.5	43.5	-	-	-	-
Lift	9.0	9.0	11.0	22.0	22.0	28.0	35.0	35.0	45.0	45.0
K	M6	M6	M6	M8	M8	M8	-	-	-	-
L	124.0	144.0	154.0	174.0	194.0	224.0	284.0	300.0	340.0	-
L1	130.0	150.0	160.0	180.0	200.0	230.0	-	310.0	350.0	400.0
T	12.0	12.0	12.0	15.0	15.0	15.0	-	-	-	-
t	28.5	36.0	36.0	38.5	46.0	46.0	37.0	37.0	50.0	-
PN	10	10	10	10	10	10	10	10	10	10

Dimensions in mm

Praher Type T4 Diaphragm Valve

Description: In-line diaphragm valve with position indicator
Mounting: In any position
Maximum Fluid Pressure at 20°C: 10 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene
Diaphragm: EPDM, FPM or PTFE (EPDM backed)
End Connections: Fusion spigots, flanged BS4504 EN1092
Option: Silicon-free



MM Fusion Spigots

EPDM Diaphragm			
	20	12 0150	65.08
	25	12 0154	72.82
	32	12 0155	92.94
	40	12 0156	108.40
	50	12 0157	142.37
	63	12 0158	177.96
	75	12 0159	416.98
	90	12 0160	452.72
	110	12 0902	765.45

MM Union Sockets

EPDM Diaphragm			
	20	12 5038	80.58
	25	12 5039	84.44
	32	12 5040	103.05
	40	12 5041	123.62
	50	12 5042	160.82
	63	12 5043	195.84

Flanged PN10

EPDM Diaphragm			
	20	12 0229	96.80
	25	12 0230	104.55
	32	12 0231	123.90
	40	12 0232	157.86
	50	12 0233	189.13
	63	12 0235	240.50
	75	12 0237	469.10
	90	12 0238	522.70
	110	12 0909	929.26
	140	12 0910	1736.40

MM Fusion Spigots

FPM Diaphragm			
	20	12 0161	132.39
	25	12 0163	140.89
	32	12 0164	163.82
	40	12 0165	207.00
	50	12 0166	248.70
	63	12 0170	315.71
	75	12 0171	660.23
	90	12 0172	694.95

MM Fusion Spigots

PTFE Diaphragm			
	20	12 0173	132.39
	25	12 0175	140.89
	32	12 0177	163.82
	40	12 0178	207.00
	50	12 0179	248.70
	63	12 0180	315.71
	75	12 0181	534.63
	90	12 0182	624.71
	110	12 0905	960.52

MM Union Sockets

PTFE Diaphragm			
	20	12 5050	145.95
	25	12 5051	152.65
	32	12 5052	222.65
	40	12 5053	250.18
	50	12 5054	323.92
	63	12 5055	345.49

Flanged PN10

PTFE Diaphragm			
	20	12 0250	156.36
	25	12 0251	164.56
	32	12 0252	186.91
	40	12 0253	246.46
	50	12 0255	277.00
	63	12 0257	373.03
	75	12 0258	558.44
	90	12 0260	769.90
	110	12 0912	1124.35
	140	12 0913	1986.57

Flanged PN10

FPM Diaphragm			
	20	12 0239	156.36
	25	12 0240	164.56
	32	12 0241	186.91
	40	12 0242	246.46
	50	12 0243	277.00
	63	12 0246	373.03
	75	12 0248	638.73
	90	12 0249	767.56

Spears Needle Valve

Description: Globe or Angle pattern flow control valve
Mounting: In any position
Maximum Fluid Pressure at 20°C: 10 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene
Seal: PTFE
End Connections: Female NPT Threaded
Feature: Built-in panel or bracket mounting nut



Globe Pattern Valve

1/4	5591- 002P	65.83
3/8	5591- 003P	65.83

Angle Pattern Valve

1/4	5691- 002P	65.83
3/8	5691- 003P	65.83

Praher Type S4 T & L-Port Ball Valve

Description: In-line horizontal T-port or L-port ball valve with lockable handle and union ends

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Seals: EPDM or FPM

Seats: PTFE

End Connections: Fusion sockets or fusion spigots



T-Port Ball Valve

MM Fusion Sockets

	Size	Code	Price
EPDM Seals PTFE Seats	16	124767	122.58
	20	124771	122.58
	25	125014	124.21
	32	124775	125.09
	40	125016	185.41
	50	124890	187.64
	63	124894	227.85

MM Fusion Sockets

	Size	Code	Price
FPM Seals PTFE Seats	16	124898	143.26
	20	124902	143.26
	25	125022	146.41
	32	124906	147.87
	40	125024	224.12
	50	124910	233.07
	63	124914	292.63

L-Port Ball Valve

MM Fusion Sockets

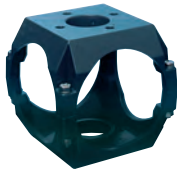
	Size	Code	Price
EPDM Seals PTFE Seats	16	124768	122.58
	20	124772	123.31
	25	125015	124.21
	32	124776	125.09
	40	125017	185.41
	50	124891	187.64
	63	124895	227.85

MM Fusion Sockets

	Size	Code	Price
FPM Seals PTFE Seats	16	124899	143.26
	20	124903	143.26
	25	125023	143.41
	32	124907	147.87
	40	125025	224.12
	50	124911	233.07
	63	124915	292.63

Also available with fusion spigot connections. Prices are the same as above.

Praher Valve Bracket for Type S4 T & L-Port Valve



Size	Code	Price
16	17.0511	30.09
20	17.0511	30.09
25	17.0512	33.95
32	17.0512	33.95
40	17.0513	38.42
50	17.0513	38.42
63	17.0514	38.42

Valve bracket shown in PVC-U

ASV Stubbe ProfiDos 101 Dosing Ball Valve

Description: In-line double union ball valve with flow indicator

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Fluid Temperature Range: 0°C-80°C

Construction:

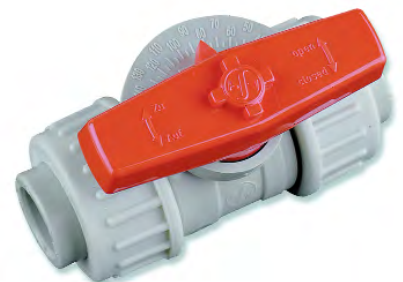
Body: Polypropylene

Seals: EPDM or FPM

Seats: PTFE

End Connections: Fusion sockets

Features: Accurate flow control with visible indicator



MM Fusion Sockets

	Size	Code	Price
EPDM Seals PTFE Seats	20	132 667	61.73
	25	132 668	64.30
	32	132 669	66.90
	40	132 670	69.58

MM Fusion Sockets

	Size	Code	Price
FPM Seals PTFE Seats	20	132 679	71.59
	25	132 680	77.54
	32	132 681	83.49
	40	132 682	89.41

Praher Type S4 Ball Valve with Actuator Adaptor Kit

EPDM Seals



Size	Code	Price
16	122 511	111.99
20	122 512	114.04
25	122 513	125.31
32	122 514	134.85
40	122 515	182.33
50	122 516	206.21
63	122 517	238.04
75	122 518	439.18
90	122 519	607.75
110	122 520	696.75



FPM Seals

Size	Code	Price
16	126.518	129.64
20	on application	
25	on application	
32	120.416	152.51
40	on application	
50	122.700	228.65
63	120.417	264.11
75	on application	
90	120.418	675.71
110	on application	

Includes:
Polypropylene Ball Valve, Polypropylene Valve Bracket, Console, Actuator Adaptor, Screw Set

Prices on request for BSP threaded sockets or PN10 flanged connections

Praher Valve Bracket for Type S4 Ball Valve



Size	Code	Price
16	17.0279	29.49
20	17.0279	29.49
25	17.0280	31.58
32	17.0281	33.51
40	17.0228	37.51
50	17.0230	37.51
63	17.0232	39.76
75	17.0275	55.55
90	17.0282	62.10
110	17.0282	62.10



Valve shown with bracket

Diaphragm Valve Mounting Plate

Ensures clearance of union nut from mounting surface
Complete with two fixing screws.

Valve Size	Plate Thickness (mm)	Code	Price
20	16.0	14 0103	5.51
25	23.0	14 0102	5.51
32	23.0	14 0102	5.51
40	18.5	14 0123	8.96
50	23.5	14 0109	8.96
63	23.5	14 0109	8.96



Mounting plate shown fitted to valve

Replacement T4 Diaphragm

EPDM Diaphragm

20/1/2	05.0457	21.75
25/3/4	05.0457	21.75
32/1	05.0458	23.09
40/11/4	05.0459	26.36
50/11/2	05.0459	26.36
63/2	05.0460	27.40
75/21/2	12.0933	56.89
90/3	12.0933	56.89
110/4	12.0934	128.97
5	12.0934	128.97

EPDM/PTFE Diaphragm

20/1/2	05.0473	44.06
25/3/4	05.0473	44.06
32/1	05.0474	49.43
40/11/4	05.0475	61.35
50/11/2	05.0475	61.35
63/2	05.0476	69.41
75/21/2	12.0918	338.05
90/3	12.0918	338.05
110/4	12.0919	387.19
5	12.0919	387.19

FPM Diaphragm

20/1/2	05.0465	102.02
25/3/4	05.0465	102.02
32/1	05.0466	106.04
40/11/4	05.0467	117.35
50/11/2	05.0467	117.35
63/2	05.0468	248.70
75/21/2	12.0935	385.83
90/3	12.0935	385.83
110/4	12.0936	478.68
5	12.0936	478.68

Praher K4 Butterfly Valve



Locking Handle



Universal Drilling



PP-GF Body
PP disc



Support Lugs in
Base

Materials

Body - PP-GF
Disc - Polypropylene
Seals - EPDM or FPM

Sizes

2 1/2"/75mm - 8"/225mm

Pressure Rating

PN10

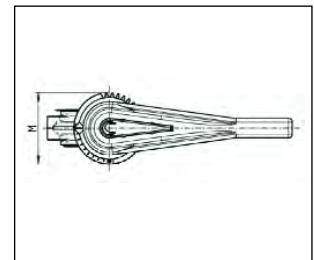
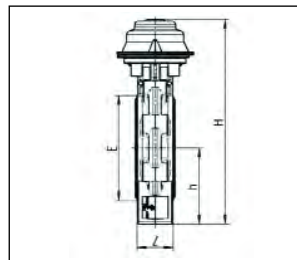
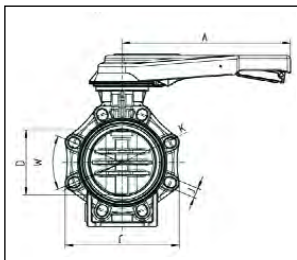
Connections

Between flanges, universal drilled

Features

- Only Body Seal and Disc in contact with media
- Double sealed shaft
- Valve support lugs in base
- Direct actuator mounting
- Low torque operation
- Multi-position Lockable Handle
- Manual or Gear operation
- All sizes PN10 rated
- Universal drilling - can be used with DIN, ANSI, BS and JIS flanges

Valve Dimensions



Size	2 1/2"/75	3"/90	4"/110	6"/160	8"/225
A	230	230	300	386	386
D	65	80	100	150	200
C	133	176	206	261	314
W	90°	45°	45°	45°	45°
J	19	19	19	23	23
K	127-145	146-160	175-190.5	234.5-241.3	290-298.5
H	285	292	322	396	458
h	100	100	115	147.5	175
E	98	116	146	196	251
M	114	114	114	150	150
Z	46	49	56	70	71
PN	10 bar	10 bar	10 bar	10 bar	10 bar

Dimensions in mm

Praher Type K4 Butterfly Valve

NEW

Description: Lug style butterfly valve with universal drilling for mounting between flanges. (DIN, ANSI & BS)

Construction:

Body: PP-GF

Disc: Polypropylene

Seals: EPDM or FPM

Pressure rating: PN10

Size: 2 1/2"/75mm - 8"/225mm



Lever Operated

EPDM Seals

2 1/2"/75	12.5870	206.95
3"/90	12.5871	242.87
4"/110	12.5872	265.55
5"/140	12.8458	372.23
6"/160	12.5873	432.81
8"/225	12.5874	606.69

Lever Operated

FPM Seals

2 1/2"/75	12.5875	287.96
3"/90	12.5876	346.82
4"/110	12.5877	332.73
5"/140	12.8459	495.66
6"/160	12.5878	559.44
8"/225	12.5879	759.78



Gear Operated

EPDM Seals

2 1/2"/75	12.6020	417.88
3"/90	12.6021	453.79
4"/110	12.6022	466.36
5"/140	On Application	
6"/160	12.6023	638.63
8"/225	12.6024	812.51

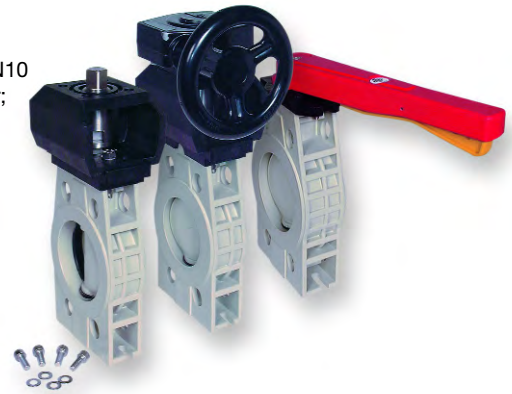
Gear Operated

FPM Seals

2 1/2"/75	12.6025	493.48
3"/90	12.6026	557.74
4"/110	12.6027	583.54
5"/140	On Application	
6"/160	12.6028	765.26
8"/225	12.6029	965.60

Praher Type S4 Butterfly Valve

Description: Wafer style butterfly valve
Mounting: In any position, between flanges to BS 4504 EN1072 PN10
Maximum Fluid Pressure at 20°C: Sizes 90mm to 140mm - 10 bar;
 Sizes 160mm to 225mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body and Disc: Polypropylene
Seals: EPDM or FPM
Shaft: Stainless steel 304
End Connections: Flange mounted (flanges not included)



Lever operated			
EPDM Seals	3"/90	12 1927	363.36
	4"/110	12 1928	436.32
	5"/140	12 2544	539.09
	6"/160	12 1929	627.68
	8"/225	12 1930	802.67

Gear operated			
EPDM Seals	3"/90	12 2545	890.54
	4"/110	12 2546	930.73
	5"/140	12 2547	1014.12
	6"/160	12 2548	1054.34
	8"/225	12 2549	1179.43

Lever operated			
FPM Seals	3"/90	12 1931	419.95
	4"/110	12 1932	497.40
	5"/140	12 2310	623.98
	6"/160	12 1933	701.42
	8"/225	12 1934	897.98

Gear operated			
FPM Seals	3"/90	12 2550	947.12
	4"/110	12 2551	991.80
	5"/140	12 2552	1099.03
	6"/160	12 2553	1127.31
	8"/225	12 2554	1274.73

Asahi Type 57 Butterfly Valve

Description: Wafer style butterfly valve
Mounting: In any position, between flanges to ANSI 150
Maximum Fluid Pressure at 20°C: Sizes 1 1/2" to 10" : 10 bar
 Sizes 12" to 14" : 6.9 bar; 16" : 5.8 bar; 18" : 5.1 bar;
 20" to 24" : 3.4 bar
Fluid Temperature Range: 0°C-60°C
Construction:
Body: Polypropylene
Disc: Polypropylene or PVDF
Seals: EPDM, FPM or Nitrile
Shaft: Stainless Steel 316
End Connections: Flange mounted (flanges not included)



Polypropylene Disc			
Lever Operated EPDM Seals	1 1/2	3752-015	725.98
	2	3752-020	761.04
	2 1/2	3752-025	965.54
	3	3752-030	1079.47
	4	3752-040	1155.43
	6	3752-060	1831.74
	8	3752-080	2730.08

PVDF Disc			
Lever Operated EPDM Seals	1 1/2	3740-015	825.31
	2	3740-020	860.37
	2 1/2	3740-025	1085.31
	3	3740-030	1224.09
	4	3740-040	1317.58
	6	3740-060	2217.37
	8	3740-080	3350.90

Lever Operated FPM Seals	1 1/2	3753-015	825.31
	2	3753-020	857.44
	2 1/2	3753-025	1155.43
	3	3753-030	1196.32
	4	3753-040	1273.75
	6	3753-060	2684.80
	8	3753-080	3102.57

Lever Operated FPM Seals	1 1/2	3741-015	924.63
	2	3741-020	958.24
	2 1/2	3741-025	1275.20
	3	3741-030	1340.95
	4	3741-040	1437.35
	6	3741-060	3070.44
	8	3741-080	3721.92

Polypropylene Disc

Plasgear Operated
EPDM Seals

1 1/2	3726-015	1107.24
2	3726-020	1142.29
2 1/2	3726-025	1348.24
3	3726-030	1460.72
4	3726-040	1538.14
6	3726-060	2211.53
8	3726-080	3063.13
10	3726-100	3504.26
12	3726-120	4884.66
14	3726-140	on application
16	3726-160	on application

Plasgear Operated
Nitrile Seals

1 1/2	3735-015	1107.24
2	3735-020	1142.29
2 1/2	3735-025	1348.24
3	3735-030	1460.72
4	3735-040	1538.14
6	3735-060	2211.57
8	3735-080	3063.13
10	3735-100	3504.26
12	3735-120	4884.66
14	3735-140	on application
16	3735-160	on application

Metal Gear Operated
EPDM Seals

12	3801-120	
14	3801-140	
16	3801-160	on application
18	3801-180	
20	3801-200	
24	3801-240	

Metal Gear Operated
Nitrile Seals

12	3802-120	
14	3802-140	
16	3802-160	on application
18	3802-180	
20	3802-200	
24	3802-240	

Plasgear Operated
FPM Seals

1 1/2	3727-015	1206.56
2	3727-020	1238.70
2 1/2	3727-025	1538.14
3	3727-030	1577.58
4	3727-040	1656.46
6	3727-060	3066.05
8	3727-080	3412.25
10	3727-100	4706.44
12	3727-120	6574.70
14	3727-140	on application
16	3727-160	on application

Metal Gear Operated
FPM Seals

12	3803-120	
14	3803-140	
16	3803-160	on application
18	3803-180	
20	3803-200	
24	3803-240	



PVDF Disc

Plasgear Operated
EPDM Seals

1 1/2	3736-015	1206.56
2	3736-020	1243.07
2 1/2	3736-025	1468.02
3	3736-030	1606.79
4	3736-040	1700.28
6	3736-060	2598.62
8	3736-080	3683.94
10	3736-100	4598.35
12	3736-120	6392.12
14	3736-140	on application
16	3736-160	on application

Plasgear Operated
FPM Seals

1 1/2	3737-015	1307.35
2	3737-020	1338.02
2 1/2	3737-025	1657.91
3	3737-030	1722.19
4	3737-040	1818.59
6	3737-060	3453.15
8	3737-080	4033.05
10	3737-100	5800.52
12	3737-120	8080.70
14	3737-140	on application
16	3737-160	on application

Metal Gear Operated
EPDM Seals

12	3804-120	
14	3804-140	
16	3804-160	on application
18	3804-180	
20	3804-200	
24	3804-240	

Metal Gear Operated
FPM Seals

12	3805-120	
14	3805-140	
16	3805-160	on application
18	3805-180	
20	3805-200	
24	3805-240	

Praher K4 Check Valve



Visual Position Indicator



Universal Drilling



85° Max Opening

Features

- Excellent Flow Rates
- Wide opening (85%)
- Low pressure drop
- Visual open-closed indicator
- Spring return
- All sizes PN10 rated
- Universal drilling - can be used with DIN, ANSI, BS and JIS flanges

Materials

Body - PP-GF
 Disc - PP-GF
 Seals - EPDM or FPM

Sizes

2 1/2"/75mm - 10"/250mm

Pressure Rating

PN10

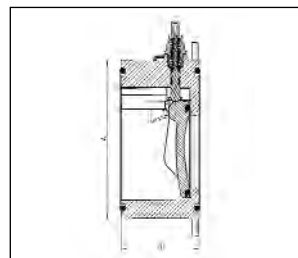
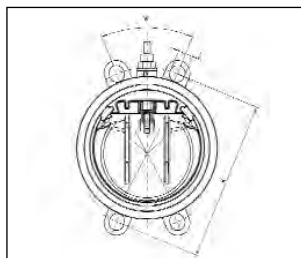
Connections

Between flanges, universally drilled

Tightening torque for flange connections

DN	65	80	100	150	200	250	300
Nm	15	18	20	40	55	60	65

Valve Dimensions



DN	A	B	C	K	W
65	115	63	20	139-145	90°
80	128	71	20	150-160	45°
100	155	80	20	175-191	45°
150	212	106	24	234-242	45°
200	264	140	24	290-299	45°
250	325	140	27	350-362	30°

Dimensions in mm

Praher Type K4 Check Valve

Description: Lug style check valve with universal drilling for mounting between flanges. (DIN, ANSI & BS)

Construction:

- Body:** Polypropylene
- Seals:** EPDM or FPM
- Pressure rating:** PN10
- Size:** 2 1/2"/75mm - 10"/250mm



EPDM Seals			
	2 1/2"/75	12.5832	309.16
	3"/90	12.5833A	341.02
	4"/110	12.5834A	408.45
	6"/160	12.5835A	560.93
	8"/225	12.5836	1003.32
	10"/250	12.5837	1683.18

FPM Seals			
	2 1/2"/75	12.5839	349.51
	3"/90	12.5840A	396.90
	4"/110	12.5841A	471.55
	6"/160	12.5842A	637.91
	8"/225	12.5843	1091.55
	10"/250	12.5844	1784.88

Kv Value Table		
Pressure Lost	1 bar	0.001 bar
DN 80	2958 l/min	94 l/min
DN 100	5633 l/min	178 l/min
DN 150	12466 l/min	394 l/min
DN 200	21166 l/min	699 l/min

Pressure loss based on maximum opening of 85%

Praher Type S4 Air Release Valve

Description: In-line air release valve
Mounting: In a vertical position
Maximum Fluid Pressure at 20°C: Sizes 16mm to 75mm - 10 bar;
 Sizes 90mm to 110mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene **Seals:** EPDM or FPM **Cone:** Polypropylene
End Connections: Fusion sockets, fusion spigots or female BSP threaded



MM Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	12 1550	35.60
	20	12 1552	37.39
	25	12 1554	42.46
	32	12 1556	49.29
	40	12 1558	55.70
	50	12 1560	75.96
	63	12 1562	112.57
	75	12 1564	279.23
	90	12 1566	367.08
	110	12 2539	446.01

MM Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	12 1551	42.46
	20	12 1553	44.23
	25	12 1555	50.94
	32	12 1557	59.28
	40	12 1559	67.47
	50	12 1561	89.51
	63	12 1563	127.77
	75	12 1565	309.75
	90	12 1567	413.26
	110	12 2542	492.18

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	12 1568	35.60
	20	12 1570	37.39
	25	12 1572	42.46
	32	12 1574	49.29
	40	12 1576	55.70
	50	12 1578	75.96
	63	12 1580	112.57
	75	12 1582	279.23
	90	12 1584	367.08
	110	12 2540	446.01

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	12 1569	42.46
	20	12 1571	44.23
	25	12 1573	50.94
	32	12 1575	59.28
	40	12 1577	67.47
	50	12 1579	89.51
	63	12 1581	127.77
	75	12 1583	309.75
	90	12 1585	413.26
	110	12 2543	492.18

Praher Type S4 Foot Valve

Description: In-line foot valve with screen
Mounting: In a vertical position
Maximum Fluid Pressure at 20°C: Sizes 16mm to 75mm - 10 bar;
 Sizes 90mm to 110mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene **Seals:** EPDM or FPM **Cone:** Polypropylene (weighted)
End Connections: Fusion sockets, fusion spigots or female BSP threaded



MM Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	12 1604	40.81
	20	12 1606	42.46
	25	12 1608	47.51
	32	12 1610	53.62
	40	12 1612	66.89
	50	12 1614	87.13
	63	12 1616	120.02
	75	12 1618	291.15
	90	12 1620	375.28
	110	12 2535	454.19

MM Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	12 1605	47.51
	20	12 1607	49.43
	25	12 1609	56.15
	32	12 1611	63.89
	40	12 1613	78.62
	50	12 1615	100.68
	63	12 1617	135.08
	75	12 1619	320.91
	90	12 1621	420.70
	110	12 2537	499.63

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	12 1622	40.81
	20	12 1624	42.46
	25	12 1626	47.51
	32	12 1628	53.62
	40	12 1630	66.89
	50	12 1632	87.13
	63	12 1634	120.02
	75	12 1636	291.15
	90	12 1638	375.28
	110	12 2536	454.19

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	12 1623	47.51
	20	12 1625	49.43
	25	12 1627	56.15
	32	12 1629	63.89
	40	12 1631	78.62
	50	12 1633	100.68
	63	12 1635	135.08
	75	12 1637	320.91
	90	12 1639	420.70
	110	12 2538	499.63

Praher Type S4 Check (Non Return) Valve

Description: In-line spring weighted cone check valve
Mounting: In any position
Maximum Fluid Pressure at 20°C: Sizes 16mm to 75mm - 10 bar;
 Sizes 90mm to 110mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene **Seals:** EPDM or FPM
Spring: Stainless Steel sleeved in PTFE
End Connections: Fusion sockets, fusion spigots or female BSP threaded



MM Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	12 1502	42.46
	20	12 1503	44.23
	25	12 1504	50.94
	32	12 1505	59.28
	40	12 1506	71.94
	50	12 1507	89.81
	63	12 1508	121.98
	75	12 1509	293.36
	90	12 1510	378.99
	110	12 2531	445.27

BSP Female Threaded

EPDM Seals	Size	Part No.	Price
	3/8	12 1532	49.73
	1/2	12 1534	51.24
	3/4	12 1536	60.02
	1	12 1538	69.55
	1 1/4	12 1540	84.16
	1 1/2	12 1542	106.04
	2	12 1544	144.46
	2 1/2	12 1546	329.86
	3	12 1548	440.06

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	12 1513	42.46
	20	12 1515	44.23
	25	12 1517	50.94
	32	12 1519	59.28
	40	12 1522	71.94
	50	12 1524	89.81
	63	12 1526	121.98
	75	12 1528	293.36
	90	12 1530	378.99
	110	12 2532	445.27

MM Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	12 1838	49.43
	20	12 1839	50.94
	25	12 1840	59.28
	32	12 1841	69.55
	40	12 1842	85.87
	50	12 1843	103.35
	63	12 1844	137.16
	75	12 1845	323.15
	90	12 1846	425.16
	110	12 2533	504.09

BSP Female Threaded

FPM Seals	Size	Part No.	Price
	3/8	12 1533	56.44
	1/2	12 1535	58.09
	3/4	12 1537	68.66
	1	12 1539	79.81
	1 1/4	12 1541	95.90
	1 1/2	12 1543	119.59
	2	12 1545	160.10
	2 1/2	12 1547	360.40
	3	12 1549	485.48

MM Fusion Spigots

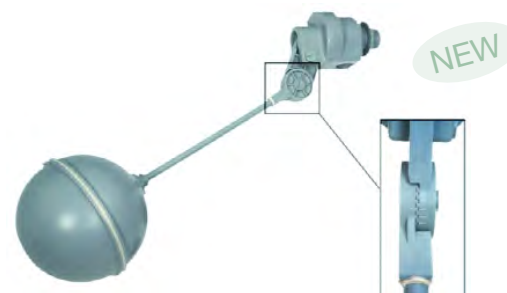
FPM Seals	Size	Part No.	Price
	16	12 1514	49.43
	20	12 1516	50.94
	25	12 1518	59.28
	32	12 1521	69.25
	40	12 1523	83.87
	50	12 1525	103.35
	63	12 1527	137.16
	75	12 1529	323.15
	90	12 1531	425.16
	110	12 2534	504.09

Ball Float Valve

Description: Liquid level control valve
Mounting: In a horizontal position
Maximum Fluid Pressure at 20°C: 10 bar
Fluid Temperature Range: 0°C-60°C
Construction:
Body: Polypropylene
Arm: Polypropylene
Float: Polypropylene
End Connections: BSP male threaded



Standard Design



Adjustable Cam Design
5 Different Positions

Standard	Size	Part No.	Price
	1/2	03500102	29.66
	1	03500104	118.66
	1 1/2	03500106	148.95

Adjustable Cam	Size	Part No.	Price
	1/2	HA/BVADJ/1PE/EP	38.20
	1	HA/BVADJ/5PE/EP	134.82
	1 1/2	HA/BVADJ/7PE/EP	162.91

Praher Type S4 Wafer Check Valve

Description: Wafer style flap check valve

Mounting: In any position, between flanges to BS 4504 EN1072, PN10.

Optional spring return for mounting in horizontal position or for pulsating flow.

Maximum Fluid Pressure at 20°C: Sizes 40mm to 160mm - 10 bar; sizes 225mm to 500mm - 6 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Seals: EPDM or FPM

Spring: Stainless Steel

End Connections: Flange mounted (flanges not included)



No Spring Return

EPDM Seals			
	1 1/4"/40	07 0190	86.38
	1 1/2"/50	07 0200	90.42
	2"/63	07 0040	120.92
	2 1/2"/75	07 0050	125.24
	3"/90	07 0060	133.89
	4"/110	07 0070	155.64
	5"/140	07 0080	177.21
	6"/160	07 0090	221.90
	8"/225	07 0100	492.93
	10"/280	07 0110	711.10
	12"/315	07 0120	912.87
	14"/355	07 0620	1769.14
	16"/450	07 0621	2011.88
	20"/560	07 0622	3291.11

Stainless Steel Spring Return

EPDM Seals			
	1 1/4"/40	07 0192	160.82
	1 1/2"/50	07 0205	165.32
	2"/63	07 0041	193.60
	2 1/2"/75	07 0051	201.05
	3"/90	07 0061	214.43
	4"/110	07 0071	248.70
	5"/140	07 0081	283.69
	6"/160	07 0091	312.74
	8"/225	07 0101	612.80
	10"/280	07 0111	872.67
	12"/315	07 0121	1131.77

No Spring Return

FPM Seals			
	1 1/4"/40	07 0191	111.86
	1 1/2"/50	07 0201	115.72
	2"/63	07 0042	137.46
	2 1/2"/75	07 0052	139.26
	3"/90	07 0062	160.10
	4"/110	07 0072	201.05
	5"/140	07 0082	237.53
	6"/160	07 0092	299.32
	8"/225	07 0102	550.26
	10"/280	07 0112	766.93
	12"/315	07 0122	979.88
	14"/355	07 0623	2285.89
	16"/450	07 0624	2728.17
	20"/560	07 0625	4559.87

Stainless Steel Spring Return

FPM Seals			
	1 1/4"/40	07 0193	192.86
	1 1/2"/50	07 0203	196.57
	2"/63	07 0043	208.48
	2 1/2"/75	07 0053	209.97
	3"/90	07 0063	250.94
	4"/110	07 0073	295.61
	5"/140	07 0083	347.74
	6"/160	07 0093	416.22
	8"/225	07 0103	615.77
	10"/280	07 0113	909.89
	12"/315	07 0123	1198.80

Installation Adaptor for Wafer Check Valve

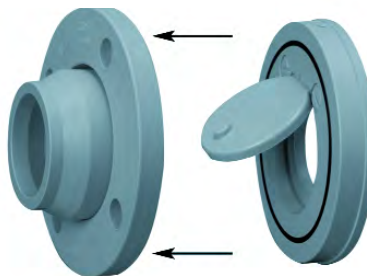
Flange mounting

Allows the valve to open fully

Will accommodate use with heavy wall pipes

1 1/4"/40	07 0467	21.88
1 1/2"/50	07 0468	28.44
2"/63	07 0469	38.12
2 1/2"/75	07 0470	45.58
3"/90	07 0471	77.15
4"/110	07 0472	115.26
5"/140	07 0473	174.23
6"/160	07 0474	312.74
8"/225	07 0475	766.93
10"/280	07 0476	1012.65
12"/315	07 0477	1374.51

Note: backing ring not included.



Flange Mounted Wafer Check Valves

Occasionally the flange mounted wafer check valve will have restricted opening if it is mounted in a heavy wall pipe. For all installations in heavy wall pipes we recommend the use of the additional installation adaptor to ensure that the valve will open fully.

Praher Type S4 Line Strainer

Description: In-line strainer with union ends

Mounting: In any position

Maximum Fluid Pressure at 20°C: Sizes 16mm to 75mm - 10 bar;
 Sizes 90mm to 110mm - 6 bar

Fluid Temperature Range: 0°C-80°C

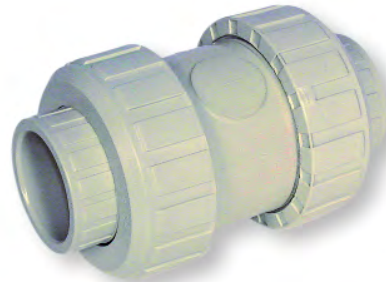
Construction:

Body: Polypropylene

Seals: EPDM

Strainer: Polypropylene with 1.8mm mesh; Stainless Steel with 0.5mm, 0.75mm or 1mm mesh

End Connections: Fusion sockets, fusion spigots



MM Fusion Sockets

EPDM Seals
 Polypropylene Screen

16	12 1711	42.29
20	12 1712	42.29
25	12 1713	50.94
32	12 1714	59.28
40	12 1715	71.94
50	12 1716	89.81
63	12 1717	121.98
75	12 1718	321.67
90	12 1719	399.10
110	12 1720	494.98

MM Fusion Spigots

EPDM Seals
 Polypropylene Screen

16	12 1725	42.29
20	12 1726	42.29
25	12 1727	50.94
32	12 1728	59.28
40	12 1729	71.94
50	12 1730	89.81
63	12 1731	121.98
75	12 1732	321.67
90	12 1733	399.10
110	12 1734	494.98

MM Fusion Sockets

EPDM Seals
 no screen included

16	12 5000	38.72
20	12 5001	38.72
25	12 5002	47.36
32	12 5003	55.70
40	12 5004	67.60
50	12 5005	85.17
63	12 5006	116.91
75	12 5007	314.97
90	12 5008	389.43
110	12 5009	482.21

Stainless Steel Screens*

0.5mm mesh
 * Note: A filter support is required for the stainless steel screen

16/3/8	50606	12.33
20/1/2	50606	12.33
25/3/4	50608	15.49
32/1	50608	15.49
40/1 1/4	50609	17.48
50/1 1/2	50610	21.31
63/2	50611	24.67
75/2 1/2	50612	37.38
90/3	50613	45.50
110/4	50613	45.50

0.75mm mesh

16/3/8	50614	12.33
20/1/2	50614	12.33
25/3/4	50616	15.49
32/1	50616	15.49
40/1 1/4	50617	17.48
50/1 1/2	50618	21.31
63/2	50619	24.67
75/2 1/2	50620	37.38
90/3	50621	45.50
110/4	50621	45.50

1mm mesh

16/3/8	50622	12.33
20/1/2	50622	12.33
25/3/4	50624	15.49
32/1	50624	15.49
40/1 1/4	50625	17.48
50/1 1/2	50626	21.31
63/2	50627	24.67
75/2 1/2	50628	37.38
90/3	50629	45.50
110/4	50629	45.50

Filter Support for Stainless Steel Screen

16/3/8	14.1474	25.72
20/1/2	14.1474	25.72
25/3/4	14.1475	26.95
32/1	14.1476	26.95
40/1 1/4	14.1477	32.97
50/1 1/2	14.1478	36.34
63/2	14.1479	39.36
75/2 1/2	14.1480	50.70
90/3	14.1481	66.64
110/4	14.1481	66.64

ASV Stubbe Gauge Guard

Description: Pressure gauge connector with isolating diaphragm

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Diaphragm: PTFE (EPDM backed)

End Connections: Fusion Spigots, NPT Female Threaded

25x1/4x1/4"	135534	88.70
32x1/2x1/2"	135537	88.70



Note: gauge not included.

Praher Type S4 Electrically Actuated Ball Valve

Description: In-line ball valve with electric actuator

Mounting: In any position

Maximum Fluid Pressure at 20°C: Sizes up to 63mm - 10 bar;
75mm - 6 bar; 90mm - 5 bar; 110mm - 4 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Seals: EPDM or FPM

Seats: PTFE

End Connections: Fusion Sockets, Fusion Spigots, BSP Threaded,
Flanged BS4504 EN1072 PN10

Actuation:

Housing Material: Plastic with epoxy coated aluminium base

Voltages: 240v AC; 110v AC; 24v AC; 110v DC; 24v DC; 12v DC

Frequency Range: 50/60 Hz

Protection: IP65

Manual Override: Optional

Position Indicator: Included

Contacts: Open, closed. Additional contacts optional.



MM Fusion Sockets

110v ac
EPDM Seals
PTFE Seats

Size (mm)	Quantity	Material	Price
16	12	1378 E2AG	561.52
20	12	1379 E2AG	568.41
25	12	1381 E2AG	579.98
32	12	1383 E2AG	589.46
40	12	1385 E2AG	609.68
50	12	1387 E2AG	633.19
63	12	1389 E2AG	664.72
75	12	1391 E2AG	1059.37
90	12	1393 E2AG	1229.24
110	12	2094 E2AG	1303.78

MM Fusion Sockets

110v ac
FPM Seals
PTFE Seats

Size (mm)	Quantity	Material	Price
16	12	1377 E2AG	573.98
20	12	1412 E2AG	576.42
25	12	1380 E2AG	589.74
32	12	1382 E2AG	601.21
40	12	1384 E2AG	623.16
50	12	1386 E2AG	648.23
63	12	1388 E2AG	682.64
75	12	1390 E2AG	1094.49
90	12	1392 E2AG	1281.56
110	12	2115 E2AG	1371.15

Electric Actuated Valve Options

Option	Price
Switch Options	
Open/Closed	included
Open/Closed plus 2 x extra volt free	93.52
Actuator Options	
Reversible actuator with manual override	standard
Uni-directional actuator without manual override	on application
Customer specification actuator	on application
EEXD version actuator	on application
Power Options	
110v AC	standard
240v AC	free option
24v DC	on application
24v AC	on application
Extra Options	
Heater and thermostat	on application
4 - 20Ma positioner	on application
Fail-Safe operation	on application

Pneumatic Actuated Valve Options

Option	Price
Body Material Options	
Technopolymer	standard
Hard anodised aluminium	free option
Stainless steel	on application
Double pack epoxy coated	on application
Switchbox Options (with beacon)	
IP65 Technopolymer 2 x mechanical switches	87.47
IP65 Technopolymer 2 x proximity switches EEXIA	342.15
IP67 Polycarbonate 2 x V3 gold plated switches	118.34
IP67 Polycarbonate 2 x V3 gold plated switches EEXIA	185.21
IP67 Polycarbonate 2 x proximity switches EEXIA	295.84
IP67 Aluminium 2 x V3 gold plated switches EEXD	308.70
Solenoid Valve Options	
240v AC Solenoid	90.03
110v AC Solenoid	90.03
24v DC Solenoid	90.03
24v AC Solenoid	90.03

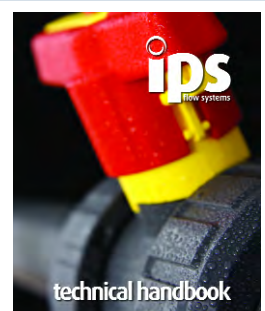
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Praher Type S4 Pneumatically Actuated Ball Valve

Description: In-line ball valve with pneumatic operation

Mounting: In any position

Maximum Fluid Pressure at 20°C: Sizes up to 75mm - 10 bar;

Sizes 90mm and 110mm - 6 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Seals: EPDM or FPM

Seats: PTFE

End Connections: Fusion Sockets, Fusion Spigots, BSP Threaded, Flanged BS4504 EN1072 PN10

Actuation:

Housing Material: Plastic (optional aluminium)

Air Actuators: Fail-safe close, Fail-safe open, double acting

Protection: IP65

Manual Override: Optional

Position Indicator: Included

Contacts: Optional limit switch box with two mechanical switches

Pilot Valve: Solenoid, not included



MM Fusion Sockets

Fail-safe Close	16	12 1378 P1A	298.83
EPDM Seals	20	12 1379 P1A	300.69
PTFE Seats	25	12 1381 P1A	311.68
	32	12 1383 P1A	320.82
	40	12 1385 P1A	371.01
	50	12 1387 P1A	394.33
	63	12 1389 P1A	489.69
	75	12 1391 P1A	724.53
	90	12 1393 P1A	964.61
	110	12 2094 P1A	1132.47

MM Fusion Sockets

Fail-safe Close	16	12 1377 P1A	306.49
FPM Seals	20	12 1412 P1A	308.50
PTFE Seats	25	12 1380 P1A	321.70
	32	12 1382 P1A	322.51
	40	12 1384 P1A	384.77
	50	12 1386 P1A	409.81
	63	12 1388 P1A	507.91
	75	12 1390 P1A	759.78
	90	12 1392 P1A	1017.41
	110	12 2115 P1A	1199.75

MM Fusion Spigots

Fail-safe Close	16	12 1430 P1A	298.83
EPDM Seals	20	12 1432 P1A	300.69
PTFE Seats	25	12 1434 P1A	311.68
	32	12 1436 P1A	320.82
	40	12 1438 P1A	371.01
	50	12 1440 P1A	394.33
	63	12 1442 P1A	489.69
	75	12 1444 P1A	724.53
	90	12 1446 P1A	964.61
	110	12 2508 P1A	1132.47

MM Fusion Spigots

Fail-safe Close	16	12 1431 P1A	306.49
FPM Seals	20	12 1433 P1A	308.50
PTFE Seats	25	12 1435 P1A	321.70
	32	12 1437 P1A	322.51
	40	12 1439 P1A	384.77
	50	12 1441 P1A	409.81
	63	12 1443 P1A	507.91
	75	12 1445 P1A	759.98
	90	12 1447 P1A	1017.41
	110	12 2509 P1A	1199.75

MM Fusion Sockets

Double Acting	16	12 1378 P3A	277.11
EPDM Seals	20	12 1379 P3A	278.99
PTFE Seats	25	12 1381 P3A	289.99
	32	12 1383 P3A	299.11
	40	12 1385 P3A	318.92
	50	12 1387 P3A	342.23
	63	12 1389 P3A	397.79
	75	12 1391 P3A	629.02
	90	12 1393 P3A	938.55
	110	12 2094 P3A	954.46

MM Fusion Sockets

Double Acting	16	12 1377 P3A	284.77
FPM Seals	20	12 1412 P3A	286.80
PTFE Seats	25	12 1380 P3A	299.97
	32	12 1382 P3A	310.82
	40	12 1384 P3A	332.51
	50	12 1386 P3A	357.71
	63	12 1388 P3A	415.30
	75	12 1390 P3A	664.48
	90	12 1392 P3A	904.55
	110	12 2115 P3A	1021.75

MM Fusion Spigots

Double Acting	16	12 1430 P3A	271.11
EPDM Seals	20	12 1432 P3A	278.99
PTFE Seats	25	12 1434 P3A	289.99
	32	12 1436 P3A	299.11
	40	12 1438 P3A	318.92
	50	12 1440 P3A	342.23
	63	12 1442 P3A	397.79
	75	12 1444 P3A	629.02
	90	12 1446 P3A	938.55
	110	12 2508 P3A	954.32

MM Fusion Spigots

Double Acting	16	12 1431 P3A	284.77
FPM Seals	20	12 1433 P3A	286.80
PTFE Seats	25	12 1435 P3A	299.97
	32	12 1437 P3A	310.82
	40	12 1439 P3A	332.68
	50	12 1441 P3A	357.71
	63	12 1443 P3A	415.30
	75	12 1445 P3A	664.48
	90	12 1447 P3A	904.55
	110	12 2509 P3A	1021.75

Requires pilot valve - enquire for details.

Also available with BSP female threaded connections, and with fail-safe open actuators. Please enquire for details.

Praher Type S4 Electrically Actuated Butterfly Valve

Description: Wafer style butterfly valve with electric actuation
Mounting: In any position, between flanges to BS4504 EN1072 PN10
Maximum Fluid Pressure at 20°C: Sizes 3"/90mm to 5"/140mm - 10 bar;
 Sizes 6"/160mm to 8"/225mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene
Seals: EPDM or FPM
Shaft: Stainless Steel 304
End Connections: Flange mounted (flanges not included)
Actuation:
Housing Material: Plastic with epoxy coated aluminium base
Voltages: 240v AC; 110v AC; 24v AC; 110v DC; 24v DC; 24v DC; 12v DC
Frequency Range: 50/60 Hz **Protection:** IP65 **Manual Override:** Optional
Position Indicator: Included **Contacts:** Open, closed. Additional contacts optional.



110v ac EPDM Seals	3"/90	12 1927 E2AG	1137.50
	4"/110	12 1928 E2AG	1246.44
	5"/140	12 2544 E2AG	1345.34
	6"/160	12 1929 E2AG	1947.44
	8"/225	12 1930 E2AG	2115.86

110v ac FPM Seals	3"/90	12 1931 E2AG	1191.96
	4"/110	12 1932 E2AG	1304.50
	5"/140	12 2310 E2AG	1414.95
	6"/160	12 1933 E2AG	2019.11
	8"/225	12 1934 E2AG	2207.60

Praher Type S4 Pneumatically Actuated Butterfly Valve

Description: Wafer style butterfly valve with pneumatic operation
Mounting: In any position, between flanges to BS4504 EN1072 PN10
Maximum Fluid Pressure at 20°C: Sizes 3"/90mm to 5"/140mm - 10 bar;
 Sizes 6"/160mm to 8"/225mm - 6 bar
Fluid Temperature Range: 0°C-80°C
Construction:
Body: Polypropylene
Seals: EPDM or FPM
Shaft: Stainless Steel 304
End Connections: Flange mounted (flanges not included)
Actuation:
Housing Material: Aluminium
Air Actuators: Fail-safe close, fail-safe open, double acting
Protection: IP65 **Manual Override:** Optional **Position Indicator:** Included
Contacts: Optional limit switch box with two mechanical switches
Pilot Valve: Solenoid, not included



Fail-safe Close EPDM Seals	3"/90	12 1927 P1D	779.97
	4"/110	12 1928 P1D	918.86
	5"/140	12 2544 P1D	1036.08
	6"/160	12 1929 P1D	1342.12
	8"/225	12 1930 P1D	1529.51

Fail-safe Close FPM Seals	3"/90	12 1931 P1D	834.94
	4"/110	12 1932 P1D	978.18
	5"/140	12 2310 P1D	1118.57
	6"/160	12 1933 P1D	1413.76
	8"/225	12 1934 P1D	1622.11

Double Acting EPDM Seals	3"/90	12 1927 P3D	677.21
	4"/110	12 1928 P3D	748.11
	5"/140	12 2544 P3D	847.96
	6"/160	12 1929 P3D	1000.62
	8"/225	12 1930 P3D	1271.95

Double Acting FPM Seals	3"/90	12 1931 P3D	732.21
	4"/110	12 1932 P3D	807.44
	5"/140	12 2310 P3D	930.45
	6"/160	12 1933 P3D	1104.09
	8"/225	12 1934 P3D	1364.56

Fail-safe Open EPDM Seals	3"/90	12 1927 P2D	779.97
	4"/110	12 1928 P2D	918.86
	5"/140	12 2544 P2D	1036.08
	6"/160	12 1929 P2D	1342.12
	8"/225	12 1930 P2D	1529.51

Fail-safe Open FPM Seals	3"/90	12 1931 P2D	834.94
	4"/110	12 1932 P2D	978.18
	5"/140	12 2310 P2D	1118.57
	6"/160	12 1933 P2D	1413.76
	8"/225	12 1934 P2D	1622.11

Requires pilot valve - enquire for details.

Praher Type T4 Pneumatically Actuated Diaphragm Valve

Description: In-line pneumatically operated diaphragm valve

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Fluid Temperature Range: 0°C-80°C

Construction:

Body: Polypropylene

Seals: EPDM, FPM or PTFE (EPDM backed)

End Connections: Fusion Spigots, Flanged BS4504 EN1072 PN10, Fusion Socket Unions

Actuation:

Housing Material: Glass reinforced polypropylene

Air Actuators: Fail-safe close, fail-safe open

Protection: IP65

Manual Override: Included

Position Indicator: Included

Contacts: Optional

Pilot Valve: Solenoid, not included



MM Fusion Spigots

Fail-safe Close EPDM Diaphragm	20	12 5679	183.77
	25	12 5681	188.12
	32	12 5683	266.99
	40	12 5685	330.67
	50	12 5687	330.67
	63	12 5689	411.69

Flanged PN10

Fail-safe Close EPDM Diaphragm	20	12 5722	214.90
	25	12 5724	219.22
	32	12 5726	279.27
	40	12 5728	363.20
	50	12 5730	374.79
	63	12 5732	457.29

MM Fusion Spigots

Fail-safe Open EPDM Diaphragm	20	12 5679 FSO	183.77
	25	12 5681 FSO	188.12
	32	12 5683 FSO	266.99
	40	12 5685 FSO	330.67
	50	12 5687 FSO	330.67
	63	12 5689 FSO	411.69

Flanged PN10

Fail-safe Open EPDM Diaphragm	20	12 5722 FSO	214.90
	25	12 5724 FSO	219.22
	32	12 5726 FSO	279.27
	40	12 5728 FSO	363.20
	50	12 5730 FSO	374.79
	63	12 5732 FSO	457.29

MM Fusion Spigots

Fail-safe Close PTFE Diaphragm	20	12 5680	193.18
	25	12 5682	197.53
	32	12 5684	279.27
	40	12 5686	363.20
	50	12 5688	374.79
	63	12 5690	461.61

Flanged PN10

Fail-safe Close PTFE Diaphragm	20	12 5723	224.29
	25	12 5725	228.64
	32	12 5727	298.10
	40	12 5729	379.12
	50	12 5731	416.75
	63	12 5733	507.18

MM Fusion Spigots

Fail-safe Open PTFE Diaphragm	20	12 5680 FSO	193.18
	25	12 5682 FSO	197.53
	32	12 5684 FSO	279.27
	40	12 5686 FSO	363.20
	50	12 5688 FSO	376.79
	63	12 5690 FSO	461.61

Flanged PN10

Fail-safe Open PTFE Diaphragm	20	12 5723 FSO	224.29
	25	12 5725 FSO	228.64
	32	12 5727 FSO	298.10
	40	12 5729 FSO	379.12
	50	12 5731 FSO	416.75
	63	12 5733 FSO	507.18

Requires pilot valve - enquire for details.

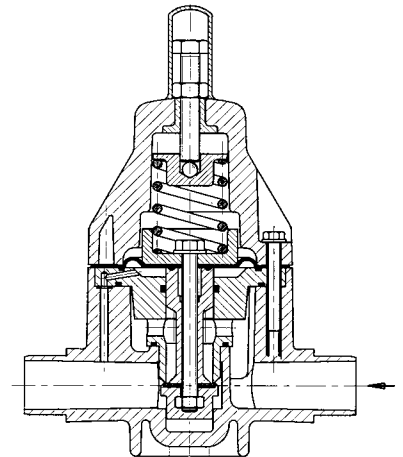
pressure reducing valves

The function of a pressure reducing valve

A pressure reducing valve is installed in-line. It is responsible for maintaining the downstream line pressure to the pressure set at the valve.

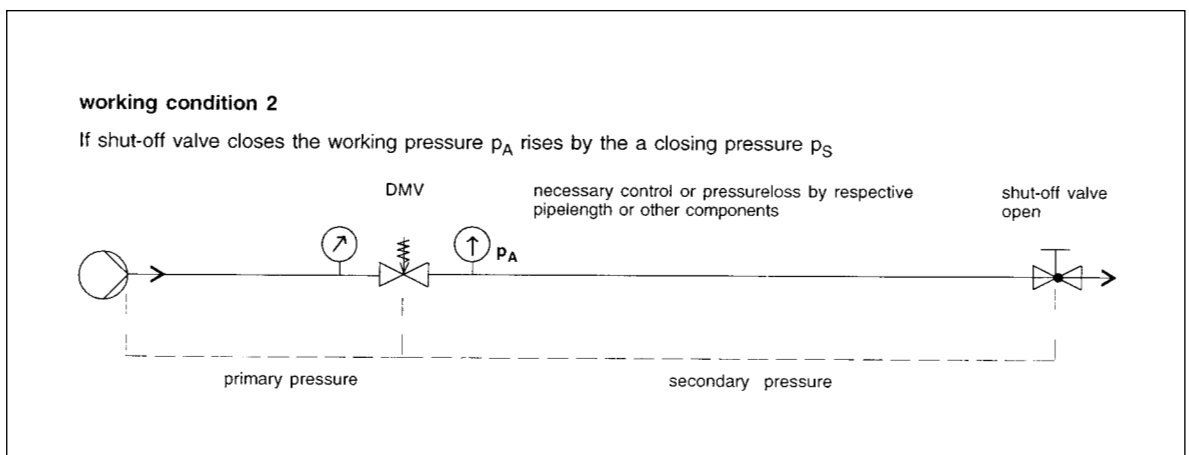
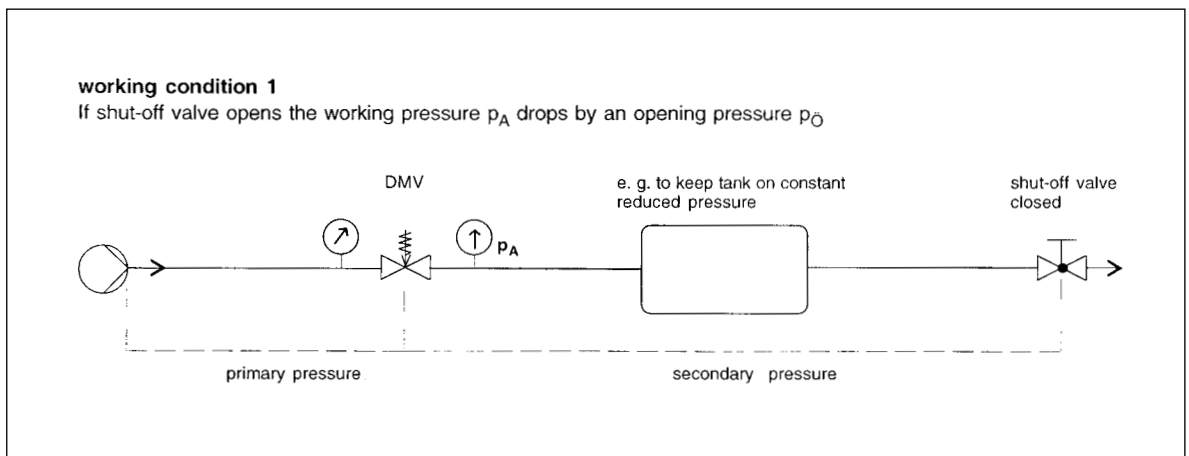
The valve works by responding to changes in the downstream pressure. For example, assume that there are normally two open valves downstream from the pressure regulator. When one is closed, the back pressure will increase. As this happens, the pressure reducing valve would close down to maintain the downstream pressure. When the valve is re-opened the pressure reducing valve would also open up again until the set pressure was reached.

Under operating conditions the pressure reducing valve is always open which means that it is balanced between the inlet pressure (primary side) and the lower outlet/working pressure. At any rise of working pressure at the valve outlet a pressure compensation via the control bore takes place at the area below the diaphragm. The higher working pressure activates the large diaphragm and lifts the piston against the spring force. The flow reduces and the working pressure drops until the balanced condition is reached again. When the working pressure drops this procedure is reversed. The spring force opens the valve seat against the lower pressure force below the diaphragm. The flow rises until the balanced condition is reached again.



Pre-setting or re-adjustment of the valve set pressure is made by removing the protective cap and by setting the control screw. The counter nut is tightened after final adjustment. When used with neutral fluids, many of the pressure relief valves can be fitted with a pressure gauge if required.

Applications for Pressure Reducing Valves



ASV Stubbe Type 755 Pressure Reducing Valve

Description: In-line adjustable valve used to reduce system pressures and to keep the working pressure constant

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 1 to 9 bar

Hysteresis: Approx. 0.1 to 0.4 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Adjustable at any time, even during use. Constant pressure control to ± 0.2 bar. Vibration free during operation. Installation is independent of flow direction.

Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 1 to 9 bar

MM Union Fusion Sockets

EPDM Seals

16	1193 14	372.93
20	1193 15	375.16
25	1193 16	491.61
32	1193 17	496.04
40	1193 18	584.48
50	1193 19	597.00
63	1193 20	618.39

MM Union Fusion Sockets

FPM Seals

16	1193 21	381.06
20	1193 22	399.47
25	1193 23	504.13
32	1193 24	507.08
40	1193 25	605.85
50	1193 26	620.58
63	1193 27	643.45

MM Fusion Spigots

EPDM Seals

16	1220 62	348.65
20	1220 63	348.65
25	1220 64	461.59
32	1220 65	461.59
40	1220 66	541.32
50	1220 67	541.32
63	1220 68	541.32

MM Fusion Spigots

FPM Seals

16	1220 69	354.15
20	1220 70	354.15
25	1220 71	467.89
32	1220 72	467.89
40	1220 73	551.11
50	1220 74	551.11
63	1220 75	551.11



Free Training

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Contact Tony Charlton or Tom Tate on:

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ASV Stubbe Type 765 Pressure Reducing Valve

Description: In-line adjustable valve used to reduce system pressures and to keep the working pressure constant

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.5 to 9 bar

Hysteresis: Approx. 0.1 to 0.4 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Adjustable at any time, even during use. Constant pressure control to ± 0.2 bar. Vibration free during operation. Installation is independent of flow direction.

Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 0.5 to 9 bar

MM Union Fusion Sockets

EPDM Seals

16	1193 56	388.43
20	1193 57	389.89
25	1193 58	505.62
32	1193 59	509.30
40	1193 60	594.80
50	1193 61	608.08
63	1193 62	629.43

MM Union Fusion Sockets

FPM Seals

16	1193 63	395.05
20	1193 64	399.47
25	1193 65	517.40
32	1193 66	521.10
40	1193 67	615.45
50	1193 68	630.17
63	1193 69	653.76

MM Fusion Spigots

EPDM Seals

16	1221 04	363.23
20	1221 05	363.23
25	1221 06	474.83
32	1221 07	474.83
40	1221 08	551.70
50	1221 09	551.70
63	1221 10	551.70

MM Fusion Spigots

FPM Seals

16	1221 11	368.11
20	1221 12	368.11
25	1221 13	481.02
32	1221 14	481.02
40	1221 15	560.76
50	1221 16	560.76
63	1221 17	560.76

ASV Stubbe Type 750 Pressure Reducing Valve

Description: In-line adjustable valve used to reduce system pressures and to keep the working pressure constant

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 1 to 6 bar

Hysteresis: Approx. 0.1 to 0.4 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Fusion spigots

Features: Adjustable at any time, even during use. Constant pressure control to ± 0.2 bar. Installation is independent of flow direction.



Setting Range - 1 to 6 bar

MM Fusion Spigots

EPDM Seals	75	1111 76	1699.38
	90	1111 77	4033.45

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The function of a pressure relief valve

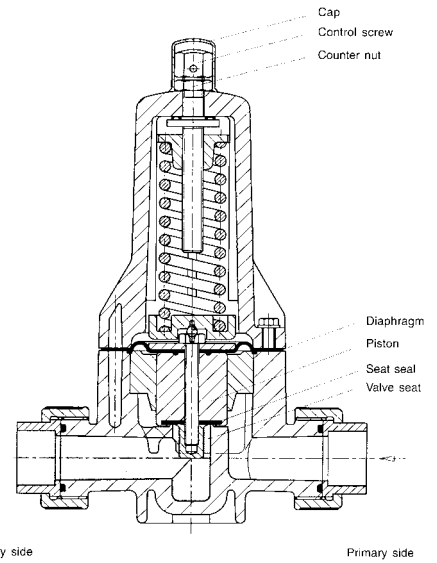
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

Not normally installed as an in-line valve, it only opens when the system pressure exceeds the pressure set against the diaphragm of the valve. When this happens, the excess pressure forces the valve piston off its seat, compressing the spring and allowing fluid to flow through the valve body to discharge. Damping at the valve piston suppresses vibration and fluttering.

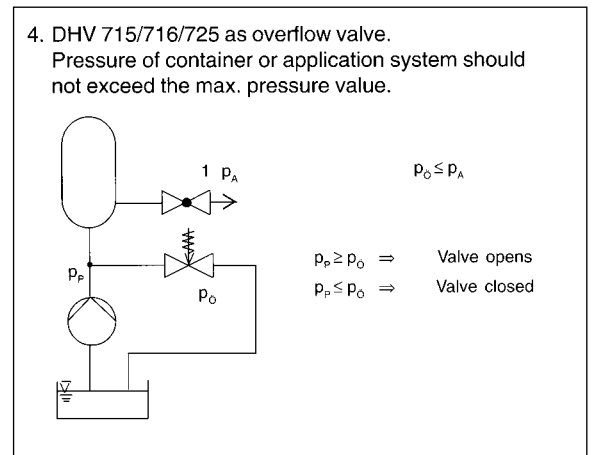
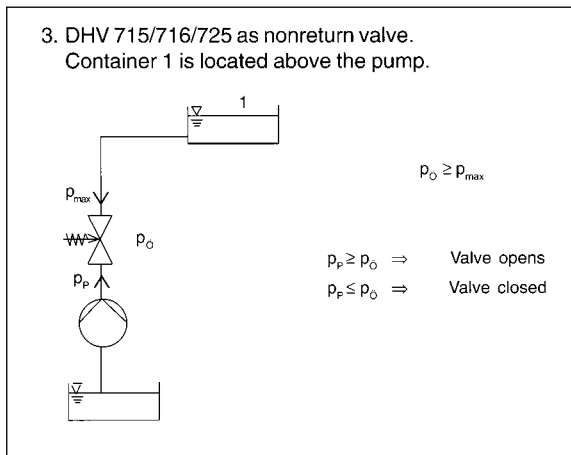
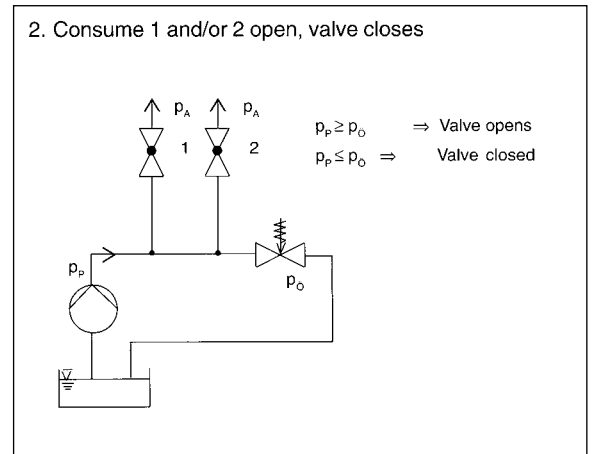
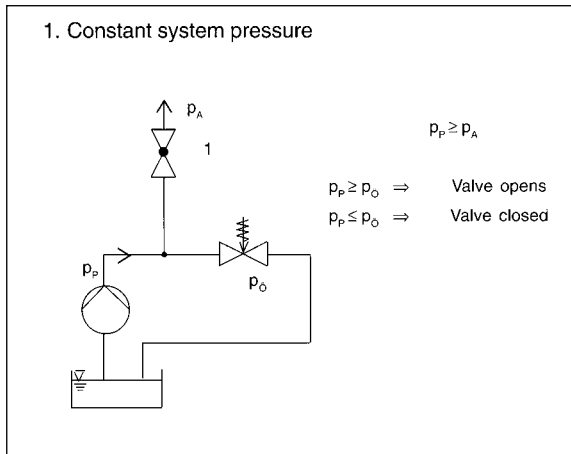
The pre-formed diaphragm allows full opening of the valve whilst separating the fluid in the lower body from the bonnet and therefore the atmosphere. The seal is additionally secured by crimped seal O-rings at the diaphragm.

When the system pressure falls back to below the set pressure, the spring forces the piston back into the seat, closing the valve.

Pre-setting or re-adjustment of the valve set pressure is made by removing the protective cap and by setting the control screw. The counter nut is tightened after final adjustment. When used with neutral fluids, many of the pressure reducing valves can be fitted with a pressure gauge if required.



Applications for Pressure Relief Valves



ASV Stubbe Type 712-R Pressure Relief and Non-Return Valve

Description: Adjustable pressure relief and overflow valve, back-pressure safe

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.3 to 10 bar

Opening Pressure: Approx. 0.5 bar

Hysteresis: Approx. 0.3 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Unique design: valve acts as a non-return valve if there is no pressure on the inlet side. Adjustable at any time, even during use. Vibration free during operation. Maintenance free. High reproducibility, low hysteresis.

Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 0.3 to 10 bar

MM Union Fusion Sockets

EPDM Seals

16	1206 74	198.27
20	1206 75	201.22
25	1206 76	278.60
32	1206 77	283.04
40	1206 78	358.21
50	1206 79	370.74
63	1206 80	393.60

MM Union Fusion Sockets

FPM Seals

16	1206 81	201.94
20	1206 82	206.37
25	1206 83	286.71
32	1206 84	291.14
40	1206 85	372.49
50	1206 86	376.63
63	1206 87	391.39

MM Fusion Spigots

EPDM Seals

16	1218 94	179.12
20	1218 95	179.12
25	1218 96	255.01
32	1218 97	255.01
40	1218 98	324.31
50	1218 99	324.31
63	1219 00	324.31

MM Fusion Spigots

FPM Seals

16	1219 01	181.31
20	1219 02	181.31
25	1219 03	258.69
32	1219 04	258.69
40	1219 05	336.89
50	1219 06	333.89
63	1219 07	333.89

ASV Stubbe Type 725 Pressure Relief Valve

Description: Adjustable pressure relief valve
Mounting: In any position
Maximum Fluid Pressure at 20°C: 10 bar
Pressure Setting Range: 0.2 to 10 bar
Opening Pressure: Approx. 0.2 bar
Hysteresis: Approx. 0.3 bar
Fluid Temperature Range: 0°C-70°C
Construction:
Body: Polypropylene
Diaphragm: EPDM with PTFE liner on fluid side
Seats and Seals: EPDM or FPM
End Connections: Union fusion sockets or fusion spigots
Features: Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free. High reproducibility, low hysteresis.
Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 0.2 to 10 bar

MM Union Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	1190 98	240.28
	20	1190 99	243.22
	25	1191 00	322.83
	32	1191 01	327.26
	40	1191 02	558.68
	50	1191 03	569.00
	63	1191 04	589.64

MM Union Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	1191 05	243.97
	20	1191 06	247.66
	25	1191 07	331.65
	32	1191 08	336.09
	40	1191 09	576.38
	50	1191 10	591.10
	63	1191 11	614.68

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	1220 20	217.72
	20	1220 21	217.72
	25	1220 22	296.02
	32	1220 23	296.02
	40	1220 24	514.35
	50	1220 25	514.35
	63	1220 26	514.35

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	1220 27	219.80
	20	1220 28	219.80
	25	1220 29	299.48
	32	1220 30	299.48
	40	1220 31	522.71
	50	1220 32	522.71
	63	1220 33	522.71

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ASV Stubbe Type 712 Pressure Relief Valve

Description: Adjustable pressure relief valve
Mounting: In any position
Maximum Fluid Pressure at 20°C: Sizes 75mm & 90mm: 10 bar; 110mm: 6 bar
Pressure Setting Range: Choice of 0.3 to 4 bar, 0.5 to 6 bar or 0.5 to 10 bar
Opening Pressure: Approx. 0.3 to 0.5 bar
Hysteresis: Maximum approx. 1 bar
Fluid Temperature Range: 0°C-70°C
Construction:
Body: Polypropylene
Diaphragm: EPDM with PTFE liner on fluid side
Seats and Seals: EPDM or FPM
End Connections: Fusion spigots
Features: Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free.



Setting Range
0.3 to 4 bar

MM Fusion Spigots			
EPDM Seals	75	1105 46	1111.28
	90	1105 49	1759.79
	110	1129 27	2666.38

MM Fusion Spigots			
FPM Seals	75	1129 21	1223.08
	90	1129 24	1935.26
	110	1129 30	2933.02

Setting Range
0.5 to 6 bar

MM Fusion Spigots			
EPDM Seals	110	1118 57	2666.38

MM Fusion Spigots			
FPM Seals	110	1129 33	2933.02

Setting Range
0.5 to 10 bar

MM Fusion Spigots			
EPDM Seals	75	1100 61	1111.28
	90	1100 64	1759.79

MM Fusion Spigots			
FPM Seals	75	1129 12	1223.08
	90	1129 15	1935.26

ASV Stubbe Type 718 Pressure Relief Valve

Description: Adjustable pressure relief valve
Mounting: In any position
Maximum Fluid Pressure at 20°C: 10 bar
Pressure Setting Range: 0.5 to 10 bar
Opening Pressure: Approx. 0.5 bar
Fluid Temperature Range: 0°C-70°C
Flow Rate: Up to 500 l/hr
Construction:
Body: Polypropylene
Diaphragm: EPDM with PTFE liner on fluid side
Seats and Seals: EPDM or FPM
End Connections: Union fusion sockets
Features: Ideal for oscillating pumps. Adjustable at any time, even during use. Vibration and flutter free during operation. Diaphragm controlled, insensitive to back-pressure. Installation is independent of flow direction.

Ideal for Oscillating Pumps

Setting Range - 0.5 to 10 bar



Size 12mm

MM Union Fusion Sockets			
EPDM Seals	12	1278 41	129.13

MM Union Fusion Sockets			
FPM Seals	12	1278 42	132.52

MM Fusion Spigots			
EPDM Seals	16	1352 83	149.53
	20	1352 84	149.53
	25	1352 85	213.38
	32	1352 86	213.38
	40	1352 87	283.60
	50	1352 88	283.60
	63	1352 89	283.60



Sizes 16-63mm

ASV Stubbe Type 715-SL Pressure Relief Valve

Description: Adjustable pressure relief valve with no metal fixings for aggressive environments

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.2 to 4 bar

Hysteresis: Approx. 0.3 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Body is internally screwed together making this valve suitable for externally corrosive environments. Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free. High reproducibility, low hysteresis.

Options: A pressure gauge can be fitted on the primary side or also on the secondary side.



Setting Range - 0.2 to 4 bar

MM Union Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	1382 82	183.65
	20	1382 83	185.90
	25	1382 84	257.87
	32	1382 85	261.63

MM Union Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	1382 98	187.31
	20	1382 99	191.15
	25	1383 00	266.13
	32	1383 01	270.63

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	1382 86	162.19
	20	1382 87	162.19
	25	1382 88	231.27
	32	1382 89	231.27

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	1383 02	164.26
	20	1383 03	164.26
	25	1383 04	234.80
	32	1383 05	234.80

ASV Stubbe Type 715 Pressure Relief Valve

Description: Adjustable pressure relief valve

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.2 to 4 bar

Opening Pressure: Approx. 0.2 bar

Hysteresis: Approx. 0.3 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free. High reproducibility, low hysteresis.

Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 0.2 to 4 bar

MM Union Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	1190 14	180.58
	20	1190 15	182.79
	25	1190 16	253.54
	32	1190 17	257.24
	40	1190 18	341.26
	50	1190 19	353.04
	63	1190 20	374.43

MM Union Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	1190 21	184.25
	20	1190 22	187.95
	25	1190 23	261.65
	32	1190 24	266.08
	40	1190 25	359.68
	50	1190 26	373.68
	63	1190 27	398.74

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	1219 36	159.48
	20	1219 37	159.48
	25	1219 38	227.38
	32	1219 39	227.38
	40	1219 40	302.93
	50	1219 41	302.93
	63	1219 42	302.93

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	1219 43	161.52
	20	1219 44	161.52
	25	1219 45	230.86
	32	1219 46	230.86
	40	1219 47	311.30
	50	1219 48	311.30
	63	1219 49	311.30

ASV Stubbe Type 716-SL Pressure Relief Valve

Description: Adjustable pressure relief valve with no metal fixings for aggressive environments

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.5 to 10 bar

Hysteresis: Approx. 0.3 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene

Diaphragm: EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Body is internally screwed together making this valve suitable for externally corrosive environments. Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free. High reproducibility, low hysteresis.

Options: A pressure gauge can be fitted on the primary side or also on the secondary side.



Setting Range - 0.5 to 10 bar

MM Union Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	1382 90	183.65
	20	1382 91	185.90
	25	1382 92	257.87
	32	1382 93	261.63

MM Union Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	1383 06	187.31
	20	1383 07	191.15
	25	1383 08	266.13
	32	1383 09	270.63

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	1382 94	162.19
	20	1382 95	162.19
	25	1382 96	231.27
	32	1382 97	231.27

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	1383 10	164.26
	20	1383 11	164.26
	25	1383 12	234.80
	32	1383 13	234.80

ASV Stubbe Type 716 Pressure Relief Valve

Description: Adjustable pressure relief valve

Mounting: In any position

Maximum Fluid Pressure at 20°C: 10 bar

Pressure Setting Range: 0.5 to 10 bar

Opening Pressure: Approx. 0.4 bar

Hysteresis: Approx. 0.3 bar

Fluid Temperature Range: 0°C-70°C

Construction:

Body: Polypropylene **Diaphragm:** EPDM with PTFE liner on fluid side

Seats and Seals: EPDM or FPM

End Connections: Union fusion sockets or fusion spigots

Features: Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free. High reproducibility, low hysteresis.

Options: A pressure gauge can be fitted on the primary or also on the secondary side.



Setting Range - 0.5 to 10 bar

MM Union Fusion Sockets

EPDM Seals	Size	Part No.	Price
	16	1190 56	180.58
	20	1190 57	182.79
	25	1190 58	253.74
	32	1190 59	257.24
	40	1190 60	341.26
	50	1190 61	353.04
	63	1190 62	374.43

MM Union Fusion Sockets

FPM Seals	Size	Part No.	Price
	16	1190 63	184.25
	20	1190 64	187.95
	25	1190 65	261.65
	32	1190 66	266.08
	40	1190 67	359.68
	50	1190 68	373.68
	63	1190 69	398.74

MM Fusion Spigots

EPDM Seals	Size	Part No.	Price
	16	1219 78	159.48
	20	1219 79	159.48
	25	1219 80	227.38
	32	1219 81	227.38
	40	1219 82	302.93
	50	1219 83	302.93
	63	1219 84	302.93

MM Fusion Spigots

FPM Seals	Size	Part No.	Price
	16	1219 85	161.52
	20	1219 86	161.52
	25	1219 87	230.86
	32	1219 88	230.86
	40	1219 89	311.30
	50	1219 90	311.30
	63	1219 91	311.30