

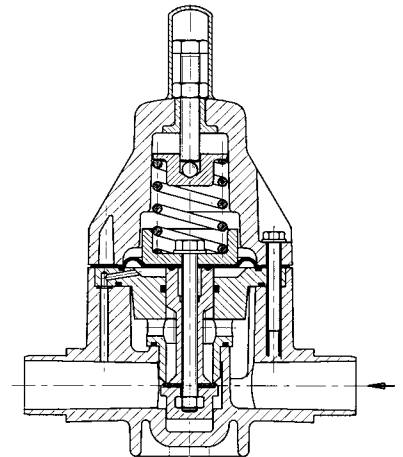
# pressure reducing valves

## 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.

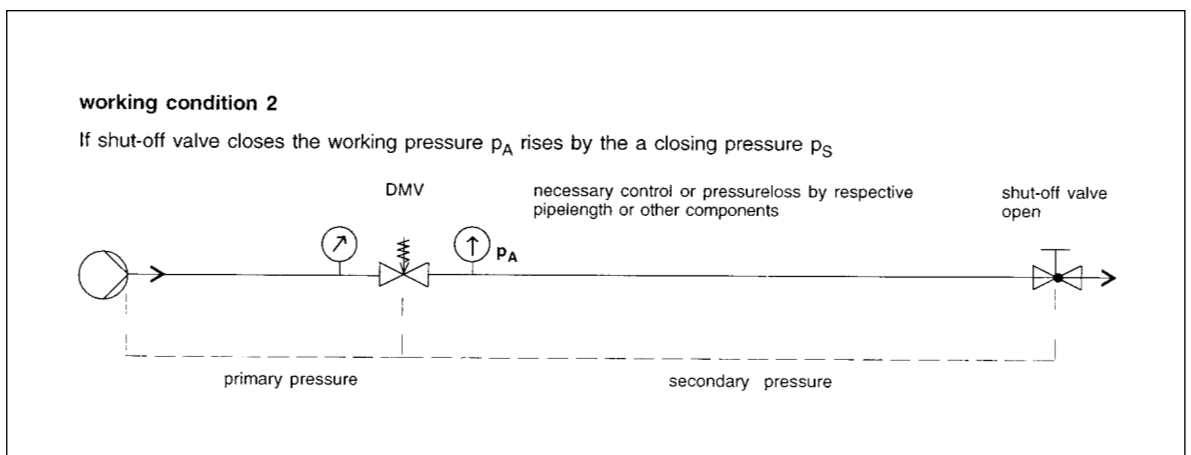
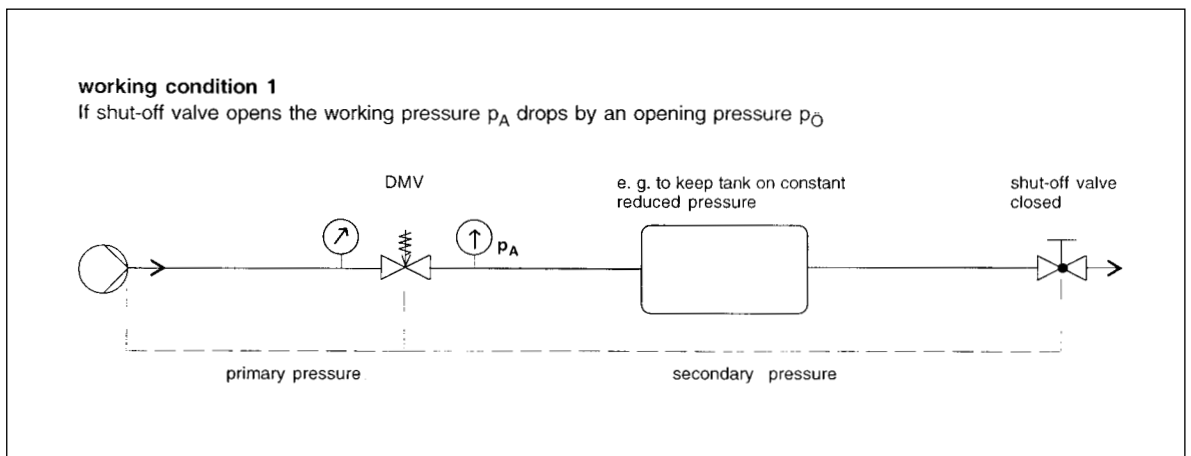
The valve works by responding to changes in the downstream pressure. For example, assume that there are normally two open valves downstream from the pressure regulator. When one is closed, the back pressure will increase. As this happens, the pressure reducing valve would close down to maintain the downstream 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  $\pm 0.2$  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

We can provide free installer training either on site or at our bespoke training facility.

Contact Tony Charlton or Tom Tate on:

**0800 975 79 71**



## 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  $\pm 0.2$  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	Size	Part No.	Price
	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	Size	Part No.	Price
	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	Size	Part No.	Price
	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	Size	Part No.	Price
	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  $\pm 0.2$  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

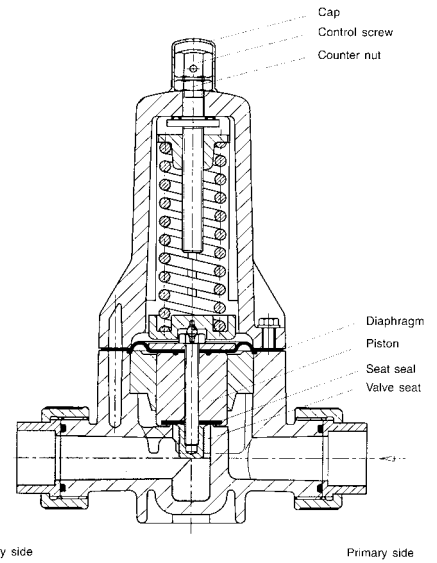
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

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.

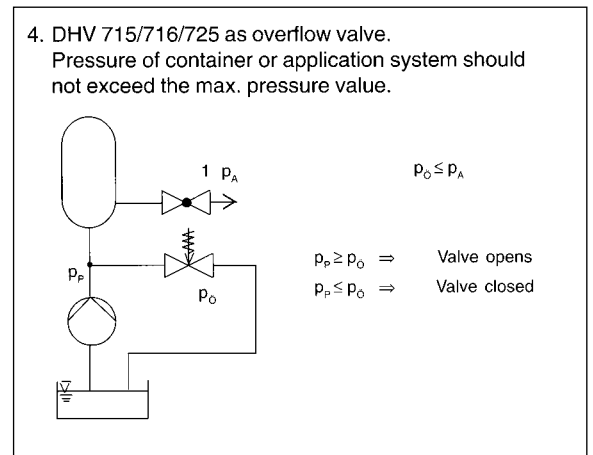
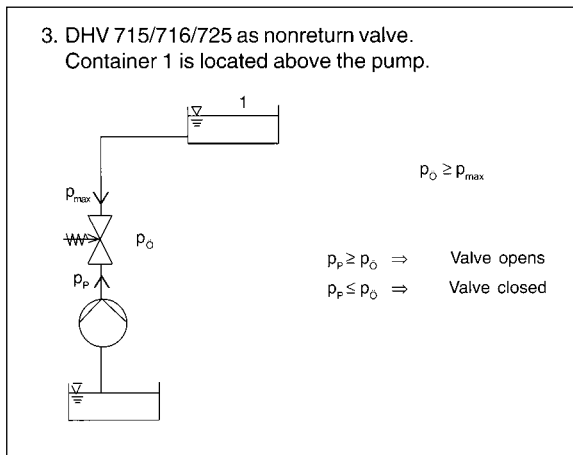
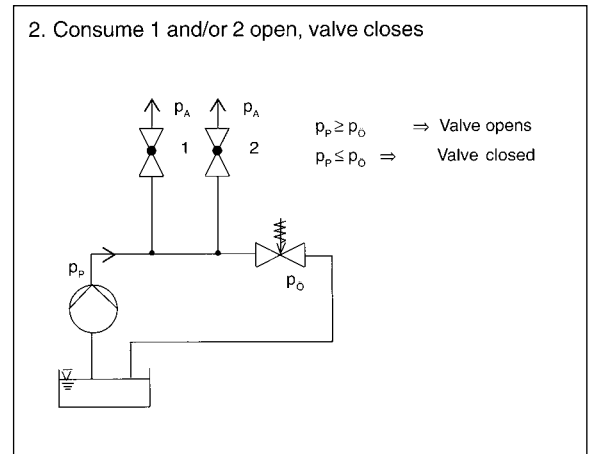
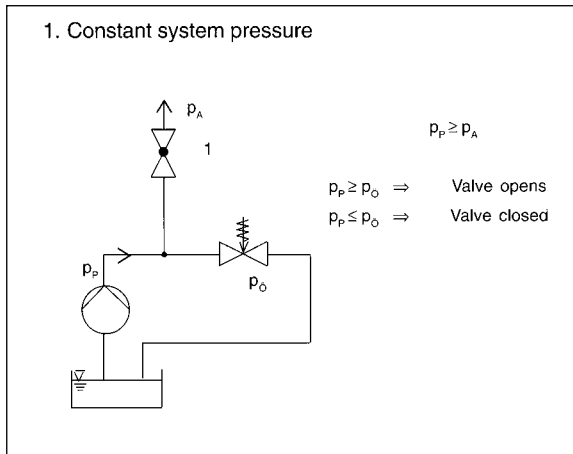
The pre-formed diaphragm allows full opening of the valve whilst separating the fluid in the lower body from the bonnet and therefore the atmosphere. The seal is additionally secured by crimped seal O-rings at the diaphragm.

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