

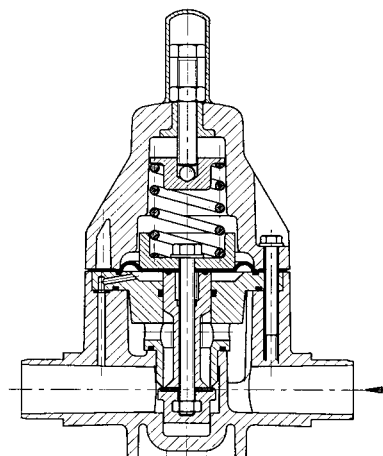
# pressure reducing valves

## 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.

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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.



### MM Fusion Spigots

FPM Seals	75	1111 79	4083.97
	90	1111 80	5352.60

## ASV Stubbe Type 755 and 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:** Type 755: 1 to 9 bar Type 765: 0.5 to 9 bar

**Hysteresis:** Approx. 0.1 to 0.4 bar

**Fluid Temperature Range:** 0°C-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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.



### Type 755

Setting Range  
1 to 9 bar

#### MM Fusion Spigots

FPM Seals

16	1220 83	461.73
20	1220 84	461.73
25	1220 85	698.86
32	1220 86	698.86
40	1220 87	1171.15
50	1220 88	1171.15
63	1220 89	1171.15

#### MM Union Fusion Sockets

FPM Seals

16	1193 35	479.40
20	1193 36	481.53
25	1193 37	723.03
32	1193 38	733.04
40	1193 39	1217.45
50	1193 40	1241.79
63	1193 41	1286.24

### Type 765

Setting Range  
0.5 to 9 bar

#### MM Fusion Spigots

FPM Seals

16	1221 25	521.51
20	1221 26	521.51
25	1221 27	761.69
32	1221 28	761.69
40	1221 29	1521.15
50	1221 30	1521.15
63	1221 31	1521.15

#### MM Union Fusion Sockets

FPM Seals

16	1193 77	538.14
20	1193 78	541.00
25	1193 79	783.91
32	1193 80	794.69
40	1193 81	1562.11
50	1193 82	1585.75
63	1193 83	1630.20

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# pressure relief valves

## The function of a pressure relief valve

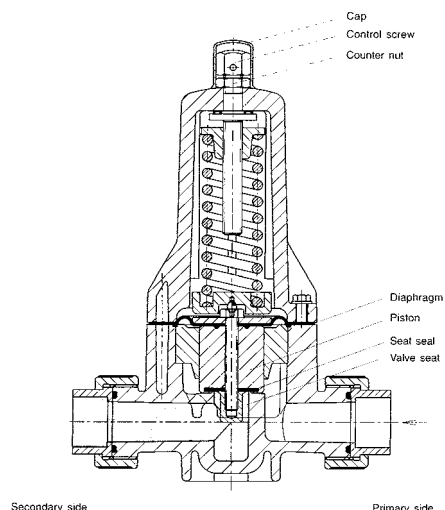
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

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.



## 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:** Approx. 0.2 to 10 bar

**Opening Pressure:** Approx. 0.2 bar

**Hysteresis:** Approx. 0.3 bar

**Fluid Temperature Range:** 0°C-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals	MM	Part No.	Price
	16	1220 41	376.38
	20	1220 42	636.70
	25	1220 43	595.64
	32	1220 44	595.64
	40	1220 45	881.37
	50	1220 46	1176.58
	63	1220 47	1176.58

### MM Union Fusion Sockets

FPM Seals	MM	Part No.	Price
	16	1191 19	404.87
	20	1191 20	407.02
	25	1191 21	636.31
	32	1191 22	644.91
	40	1191 23	1253.98
	50	1191 24	1274.78
	63	1191 25	1311.30

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals

16	1383 18	367.31
20	1383 19	367.31
25	1383 20	568.91
32	1383 21	568.91

### MM Union Fusion Sockets

FPM Seals

16	1383 14	395.02
20	1383 15	395.02
25	1383 16	612.72
32	1383 17	612.72

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals

16	1219 57	357.85
20	1219 58	357.85
25	1219 59	554.22
32	1219 60	554.22
40	1219 61	858.04
50	1219 62	858.04
63	1219 63	858.04

### MM Union Fusion Sockets

FPM Seals

16	1190 35	384.80
20	1190 36	388.38
25	1190 37	596.89
32	1190 38	600.48
40	1190 39	921.51
50	1190 40	943.74
63	1190 41	978.84

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals

16	1383 26	367.34
20	1383 27	367.34
25	1383 28	568.91
32	1383 29	568.91

### MM Union Fusion Sockets

FPM Seals

16	1383 22	395.02
20	1383 23	398.68
25	1383 24	612.72
32	1383 25	612.72

## 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:** Approx. 0.5 to 10 bar

**Opening Pressure:** Approx. 0.4 bar

**Hysteresis:** Approx. 0.3 bar

**Fluid Temperature Range:** 0°C-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals

16	1219 99	357.85
20	1220 00	357.85
25	1220 01	554.22
32	1220 02	554.22
40	1220 03	858.04
50	1220 04	858.04
63	1220 05	858.04

### MM Union Fusion Sockets

FPM Seals

16	1190 77	384.80
20	1190 78	388.38
25	1190 79	596.89
32	1190 80	600.48
40	1190 81	921.51
50	1190 82	943.74
63	1190 83	978.84

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** 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 Fusion Spigots

FPM Seals			
	16	1219 15	383.38
	20	1219 16	383.38
	25	1219 17	593.33
	32	1219 18	593.33
	40	1219 19	917.92
	50	1219 20	917.92
	63	1219 21	917.92

### MM Union Fusion Sockets

FPM Seals			
	16	1206 95	404.14
	20	1206 96	407.02
	25	1206 97	621.26
	32	1206 98	921.51
	40	1206 99	968.08
	50	1207 00	991.02
	63	1207 01	1027.56

## 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-100°C

**Construction:**

**Body:** PVDF

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

**Seats and Seals:** FPM

**End Connections:** Fusion spigots

**Features:** Adjustable at any time, even during use. Vibration and flutter free during operation. Maintenance free.

Setting Range  
0.5 to 10 bar

### MM Fusion Spigots

FPM Seals			
	75	1129 13	3569.91
	90	1129 16	4691.35



## 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-100°C

**Flow Rate:** Up to 500 l/hr

**Construction:**

**Body:** PVDF

**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

### MM Union Fusion Sockets

EPDM Seals			
	12	1278 43	139.48

### MM Union Fusion Sockets

FPM Seals			
	12	1278 44	146.93