

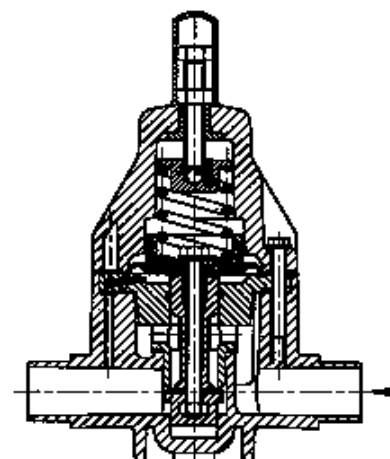
# pressure reducing valves

## 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	3781.45
	90	1111 80	4956.11

## 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	427.53
20	1220 84	427.53
25	1220 85	647.09
32	1220 86	647.09
40	1220 87	1084.40
50	1220 88	1084.40
63	1220 89	1084.40

#### MM Union Fusion Sockets

FPM Seals

16	1193 35	443.89
20	1193 36	445.86
25	1193 37	669.47
32	1193 38	678.74
40	1193 39	1127.27
50	1193 40	1149.81
63	1193 41	1190.96

### Type 765

Setting Range  
0.5 to 9 bar

#### MM Fusion Spigots

FPM Seals

16	1221 25	482.88
20	1221 26	482.88
25	1221 27	705.27
32	1221 28	705.27
40	1221 29	1408.47
50	1221 30	1408.47
63	1221 31	1408.47

#### MM Union Fusion Sockets

FPM Seals

16	1193 77	498.28
20	1193 78	500.93
25	1193 79	725.84
32	1193 80	735.82
40	1193 81	1446.40
50	1193 82	1468.29
63	1193 83	1509.44

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# pressure relief valves

## The function of a pressure relief valve

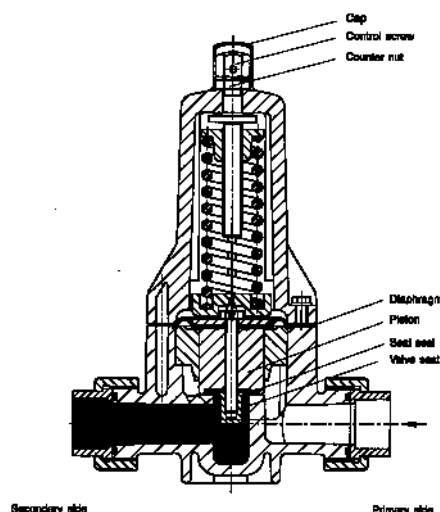
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

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	348.50
	20	1220 42	589.54
	25	1220 43	551.52
	32	1220 44	551.52
	40	1220 45	816.08
	50	1220 46	1089.43
	63	1220 47	1089.43

### MM Union Fusion Sockets

FPM Seals	MM	Part No.	Price
	16	1191 19	374.88
	20	1191 20	376.87
	25	1191 21	589.18
	32	1191 22	597.14
	40	1191 23	1161.09
	50	1191 24	1180.35
	63	1191 25	1214.17

## 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	336.98
	20	1383 19	336.98
	25	1383 20	521.94
	32	1383 21	521.94

### MM Union Fusion Sockets

FPM Seals	16	1383 14	362.40
	20	1383 15	365.75
	25	1383 16	562.13
	32	1383 17	565.49

## 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	331.34
	20	1219 58	331.34
	25	1219 59	513.17
	32	1219 60	513.17
	40	1219 61	794.48
	50	1219 62	794.48
	63	1219 63	794.48

### MM Union Fusion Sockets

FPM Seals	16	1190 35	356.30
	20	1190 36	359.61
	25	1190 37	552.68
	32	1190 38	556.00
	40	1190 39	853.25
	50	1190 40	873.83
	63	1190 41	906.33

## 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	337.01
20	1383 27	337.01
25	1383 28	521.94
32	1383 29	521.94

### MM Union Fusion Sockets

FPM Seals

16	1383 22	362.40
20	1383 23	365.76
25	1383 24	562.13
32	1383 25	565.49

## 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	331.34
20	1220 00	331.34
25	1220 01	513.17
32	1220 02	513.17
40	1220 03	794.48
50	1220 04	794.48
63	1220 05	794.48

### MM Union Fusion Sockets

FPM Seals

16	1190 77	356.30
20	1190 78	359.61
25	1190 79	552.68
32	1190 80	556.00
40	1190 81	853.25
50	1190 82	873.83
63	1190 83	906.33

## 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	354.98
	20	1219 16	354.98
	25	1219 17	549.38
	32	1219 18	549.38
	40	1219 19	849.93
	50	1219 20	849.93
	63	1219 21	849.93

### MM Union Fusion Sockets

FPM Seals			
	16	1206 95	374.20
	20	1206 96	376.87
	25	1206 97	575.24
	32	1206 98	853.25
	40	1206 99	896.37
	50	1207 00	917.61
	63	1207 01	951.44

## 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	3305.47
	90	1129 16	4343.84



## 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	129.15

### MM Union Fusion Sockets

FPM Seals			
	12	1278 44	136.05