

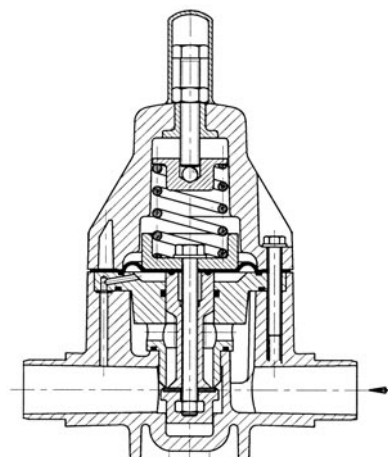
pressure reducing valves

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.

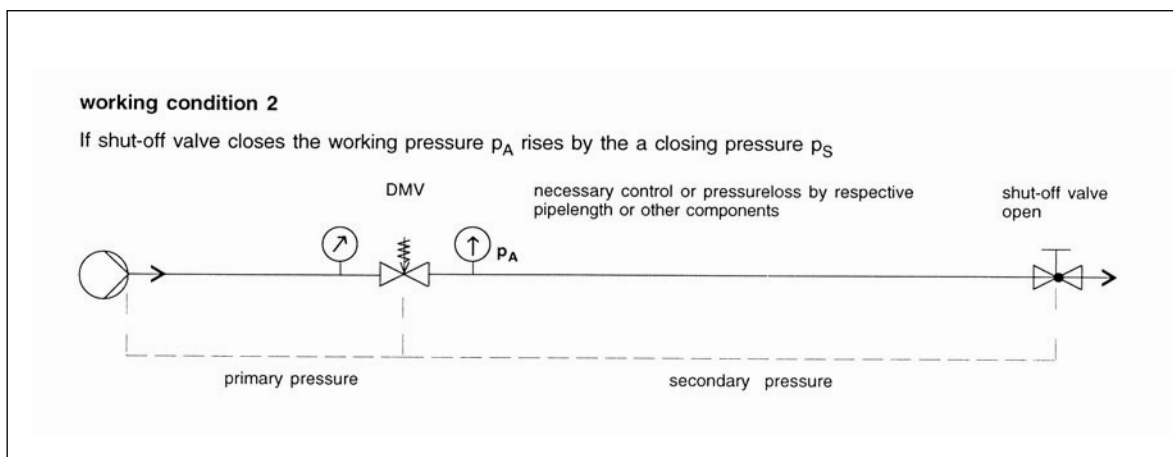
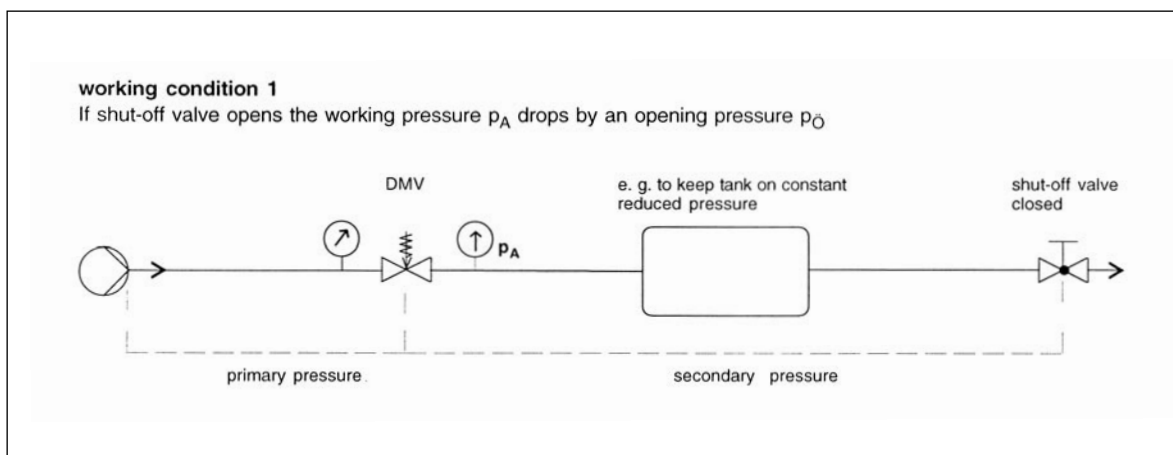
The valve works by responding to changes in the downstream pressure. For example, assume that there are normally two open valves downstream from the pressure regulator. When one is closed, the back pressure will increase. As this happens, the pressure reducing valve would close down to maintain the downstream 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: Factory fitted pressure gauge available on request.



Setting Range - 1 to 9 bar

MM Union Fusion Sockets

EPDM Seals

Size	Code	Price
16	1193 14	423.79
20	1193 15	426.31
25	1193 16	558.66
32	1193 17	563.69
40	1193 18	664.20
50	1193 19	678.43
63	1193 20	702.72

MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	1193 21	433.03
20	1193 22	453.96
25	1193 23	572.88
32	1193 24	576.23
40	1193 25	688.49
50	1193 26	705.21
63	1193 27	731.20

MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	1220 62	396.20
20	1220 63	396.20
25	1220 64	524.55
32	1220 65	524.55
40	1220 66	615.14
50	1220 67	615.14
63	1220 68	615.14

MM Fusion Spigots

FPM Seals

Size	Code	Price
16	1220 69	402.44
20	1220 70	402.44
25	1220 71	531.71
32	1220 72	531.71
40	1220 73	626.27
50	1220 74	626.27
63	1220 75	626.27

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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: Factory fitted pressure gauge available on request.



Setting Range - 0.5 to 9 bar

MM Union Fusion Sockets

EPDM Seals

Size	Code	Price
16	1193 56	441.42
20	1193 57	443.07
25	1193 58	574.58
32	1193 59	578.77
40	1193 60	675.92
50	1193 61	691.02
63	1193 62	715.27

MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	1193 63	448.93
20	1193 64	453.96
25	1193 65	587.98
32	1193 66	592.17
40	1193 67	699.38
50	1193 68	716.12
63	1193 69	742.92

MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	1221 04	412.78
20	1221 05	412.78
25	1221 06	539.58
32	1221 07	539.58
40	1221 08	626.94
50	1221 09	626.94
63	1221 10	626.94

MM Fusion Spigots

FPM Seals

Size	Code	Price
16	1221 11	418.32
20	1221 12	418.32
25	1221 13	546.62
32	1221 14	546.62
40	1221 15	637.23
50	1221 16	637.23
63	1221 17	637.23

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

Size	Code	Price
75	1111 76	1931.14
90	1111 77	4583.54

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The function of a pressure relief valve

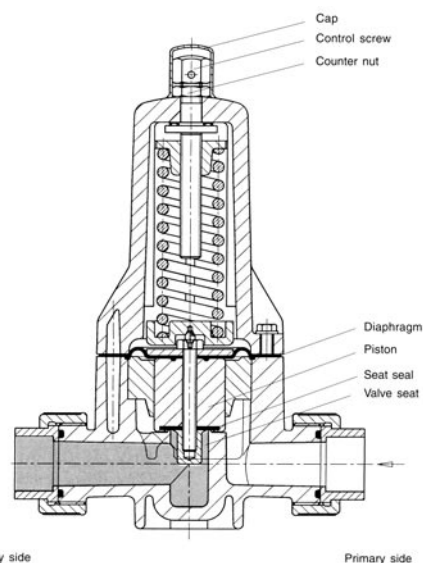
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

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.



For Pressure Relief Valve Applications See Page 148

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: Factory fitted pressure gauge available on request.



Setting Range - 0.3 to 10 bar

MM Union Fusion Sockets

EPDM Seals

Size	Code	Price
16	146582	225.31
20	146583	228.67
25	146584	316.60
32	146585	321.65
40	146586	407.05
50	146587	421.31
63	146588	447.29

MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	146590	229.49
20	146591	234.52
25	146592	325.82
32	146593	330.84
40	146594	428.00
50	146595	444.76
63	146596	474.90

MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	146626	203.54
20	146627	203.54
25	146628	289.79
32	146629	289.79
40	146630	368.54
50	146631	368.54
63	146632	368.54

MM Fusion Spigots

FPM Seals

Size	Code	Price
16	146634	206.03
20	146635	206.03
25	146636	293.97
32	146637	293.97
40	146638	379.43
50	146639	379.43
63	146640	379.43

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		
	Size	Code	Price
EPDM Seals	75	1105 46	1262.84
	90	1105 49	1999.80
	110	1129 27	3030.04

FPM Seals	MM Fusion Spigots		
	Size	Code	Price
	75	1129 21	1389.89
	90	1129 24	2199.20
	110	1129 30	3333.04

Setting Range 0.5 to 6 bar	MM Fusion Spigots		
	Size	Code	Price
EPDM Seals	110	1118 57	3030.04

FPM Seals	MM Fusion Spigots		
	Size	Code	Price
	110	1129 33	3333.04

Setting Range 0.5 to 10 bar	MM Fusion Spigots		
	Size	Code	Price
EPDM Seals	75	1100 61	1262.84
	90	1100 64	1999.80

FPM Seals	MM Fusion Spigots		
	Size	Code	Price
	75	1129 12	1389.89
	90	1129 15	2199.20

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

EPDM Seals	MM Union Fusion Sockets		
	Size	Code	Price
	12	1471 60	146.75

FPM Seals	MM Union Fusion Sockets		
	Size	Code	Price
	12	1471 68	150.59

EPDM Seals	MM Fusion Spigots		
	Size	Code	Price
	16	1468 89	169.92
	20	1468 90	169.92
	25	1468 91	242.48
	32	1468 92	242.48
	40	1468 93	322.28
	50	1468 94	322.28
	63	1468 95	322.28



Sizes 16-63mm