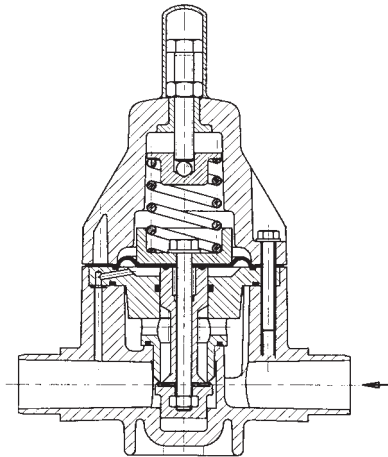




## The function of a pressure reducing valve

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

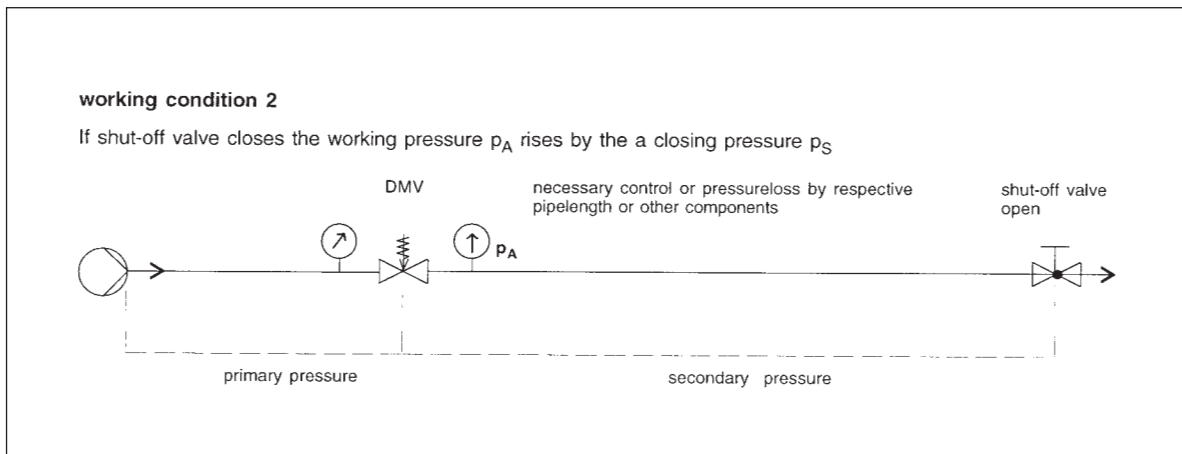
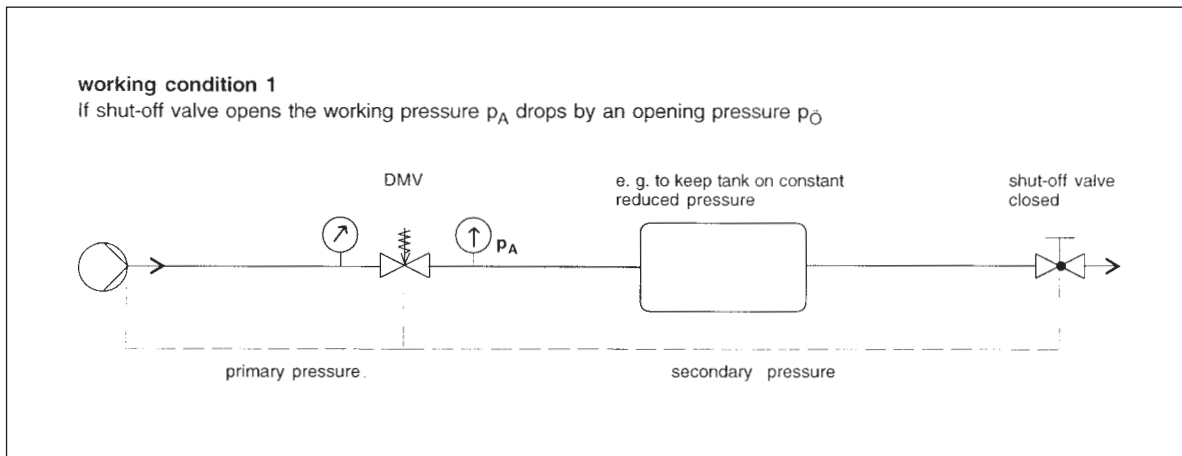
The valve works by responding to changes in the downstream pressure. For example, assume that there are normally two open valves downstream from the pressure regulator. When one is closed, the back pressure will increase. As this happens, the pressure reducing valve would close down to maintain the downstream 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 DMV 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	148987	485.03
20	148988	487.91
25	148989	639.39
32	148990	645.14
40	148991	760.18
50	148992	776.46
63	148993	804.26

#### MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	149001	495.60
20	149002	519.56
25	149003	655.66
32	149004	659.49
40	149005	787.97
50	149006	807.11
63	149007	836.86

#### MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	148735	453.45
20	148736	453.45
25	148737	600.35
32	148738	600.35
40	148739	704.03
50	148740	704.03
63	148741	704.03

#### MM Fusion Spigots

FPM Seals

Size	Code	Price
16	148742	460.59
20	148743	460.59
25	148744	608.54
32	148745	608.54
40	148746	716.76
50	148747	716.76
63	148748	716.76

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# pressure reducing valves

## ASV Stubbe DMV 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	149426	505.21
20	149427	507.10
25	149428	657.60
32	149429	662.40
40	149430	773.59
50	149431	790.87
63	149432	818.62

### MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	149440	513.80
20	149441	519.56
25	149442	672.95
32	149443	677.74
40	149444	800.44
50	149445	819.60
63	149446	850.27

### MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	149185	472.43
20	149186	472.43
25	149187	617.55
32	149188	617.55
40	149189	717.53
50	149190	717.53
63	149191	717.53

### MM Fusion Spigots

FPM Seals

Size	Code	Price
16	149192	478.77
20	149193	478.77
25	149194	625.61
32	149195	625.61
40	149196	729.31
50	149197	729.31
63	149198	729.31

### ASV Stubbe DMV 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	148472	2210.19
90	148473	5245.86

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The image shows a white van with 'ips Fluid Handling Solutions' branding and various product photos on its side.

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The image shows a well-lit training room with workbenches, equipment, and an IPS logo on the wall.

## The function of a pressure relief valve

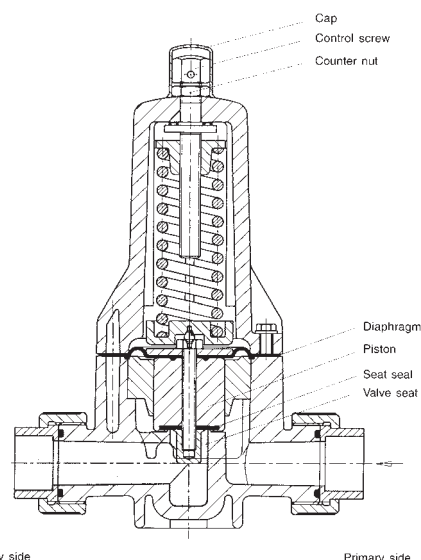
A pressure relief valve is most often used to protect a system from over-pressurisation, but it can also be used to maintain a constant upstream pressure or even as a non-return valve in certain installations.

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 136

## ASV Stubbe DHV 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	257.87
20	146583	261.71
25	146584	362.34
32	146585	368.13
40	146586	465.86
50	146587	494.81
63	146588	511.93

### MM Fusion Spigots

EPDM Seals

Size	Code	Price
16	146626	232.95
20	146627	232.95
25	146628	331.66
32	146629	331.66
40	146630	421.80
50	146631	421.80
63	146632	421.80

### MM Union Fusion Sockets

FPM Seals

Size	Code	Price
16	146590	262.65
20	146591	268.41
25	146592	372.90
32	146593	378.65
40	146594	489.85
50	146595	509.03
63	146596	543.52

### MM Fusion Spigots

FPM Seals

Size	Code	Price
16	146634	235.80
20	146635	235.80
25	146636	336.45
32	146637	336.45
40	146638	434.26
50	146639	434.26
63	146640	434.26

### ASV Stubbe DHV 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	PN	Code	Price
75	10	148300	1445.32
90	10	148301	2288.77
110	6	148302	3467.88

Setting Range  
0.5 to 6 bar

#### MM Fusion Spigots

Size	PN	Code	Price
110	6	148325	3467.88

Setting Range  
0.5 to 10 bar

#### MM Fusion Spigots

Size	PN	Code	Price
75	10	148315	1445.32
90	10	148316	2288.77

#### MM Fusion Spigots

Size	PN	Code	Price
75	10	148303	1590.73
90	10	148304	2516.98
110	6	148305	3814.66

#### MM Fusion Spigots

Size	PN	Code	Price
110	6	148326	3814.66

#### MM Fusion Spigots

Size	PN	Code	Price
75	10	148317	1590.73
90	10	148318	2516.98

### ASV Stubbe DHV 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	167.96

FPM Seals

#### MM Union Fusion Sockets

Size	Code	Price
12	1471 68	172.35

#### MM Fusion Spigots

Size	Code	Price
16	146899	194.47
20	146900	194.47
25	146901	277.52
32	146902	277.52
40	146903	368.85
50	146904	368.85
63	146905	368.85



Sizes 16-63mm