TYPE C7/C8 PRESSURE REDUCING VALVE

The C7/C8 pressure reducing valves are direct acting nozzle design, which are suitable for use on compressed air, gas, water, oil and steam. These valves are used in a variety of applications throughout industry, where their outstanding accuracy and reliability have been proven.

Valves are supplied in sizes ½" to 2" with ends screwed female or alternatively flanged to customers requirements. The maximum inlet pressure is 40.0 Barg, reduced pressure ranges of 0.35 – 10.0 Barg are possible. ***(Consult Broady Technical Sales Engineers for further information).***

Specification

All valves are supplied with a nitrile disc and diaphragm for air, gases, oils, etc. as standard, but other materials are available on request. Valves for steam service are supplied with a metallic diaphragm and lid for steam and high temperature applications.

Description of Action

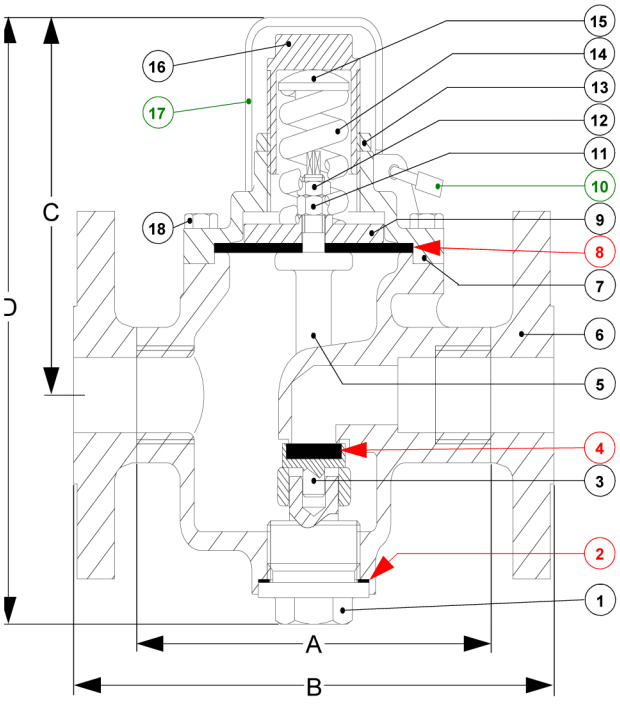
High pressure is admitted to the underside of the needle valve or disc valve. The spring is then compressed the requisite amount and the valve opened permitting pressure to pass to the service side. Expansion and consequent reduction of pressure takes place as it leaves the valve orifice and the reduced pressure is then controlled by the reaction of the spring to the reduced pressure acting upon the area of the piston. If the reduced pressure tends to fall, the spring, through the medium of the diaphragm, opens the valve and increases the orifice area. Conversely, if the pressure rises the valve closes until the required downstream pressure is restored; uniformity of the reduced pressure is thereby maintained within very close limits. The reduced pressure can be varied to requirements by compressing or relaxing the spring. The adjusting screw is provided for this purpose.

Compressing the spring ***increases*** the reduced pressure, ***relaxing*** the spring ***decreases*** the reduced pressure.

Installation

All valves should be fitted in a horizontal pipeline with, flow in the direction of the arrow cast on the side of the body. The adjusting screw should be directly above or below the pipeline. The pipe must be clean and free from dirt, scale, etc. It is advisable to fit a stop valve on the high pressure side of the line. A relief valve should always be fitted where dead end conditions apply. This can be combined with the reducing valve but we recommend that it be fitted in a convenient point in the reduced pressure line.

Valve for Air, Gas and Water Applications



Item	Description	Material (C7)	Material (C8)
1	Cap	Stainless Steel	Stainless Steel
2	Joint, Cap	Non-Asbestos	Non-Asbestos
3	Disc Holder	Stainless Steel	Stainless Steel
4	Disc	Nitrile	Nitrile
5	Saddle	Stainless Steel	Stainless Steel
6	Body	Carbon Steel	Stainless Steel
7	Cover	Stainless Steel	Stainless Steel
8	Diaphragm	Nitrile	Nitrile
9	Piston	Stainless Steel	Stainless Steel
10	Padlock	Brass	Brass
11	Nut	Stainless Steel	Stainless Steel
12	Locknut	Stainless Steel	Stainless Steel
13	Locking Ring	Stainless Steel	Stainless Steel
14	Spring	Carbon Steel	Stainless Steel
15	Spring Carrier	Stainless Steel	Stainless Steel
16	Adjusting Screw	Stainless Steel	Stainless Steel
17	Bonnet	Aluminium	Aluminium
18	Setscrew	Stainless Steel	Stainless Steel

Size	A	* B *	C	D
15NB	140	190	120	190
20NB	140	192	120	190
25NB	160	215	127	205
40NB	220	280	180	272
50NB	220	282	180	272

* This dimension is for ANSI300 RF flanges only. Where flange thickness differs from ANSI300 RF, the face to face should be adjusted accordingly.

These Items are recommended spares.

These Items are an optional extra.