



TYPE C9 PRESSURE REDUCING VALVE

The C9 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 4" with ends screwed female or alternatively flanged to customers requirements. The maximum inlet pressure is 82.0 Barg, reduced pressure ranges of 1.70 – 21.0 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

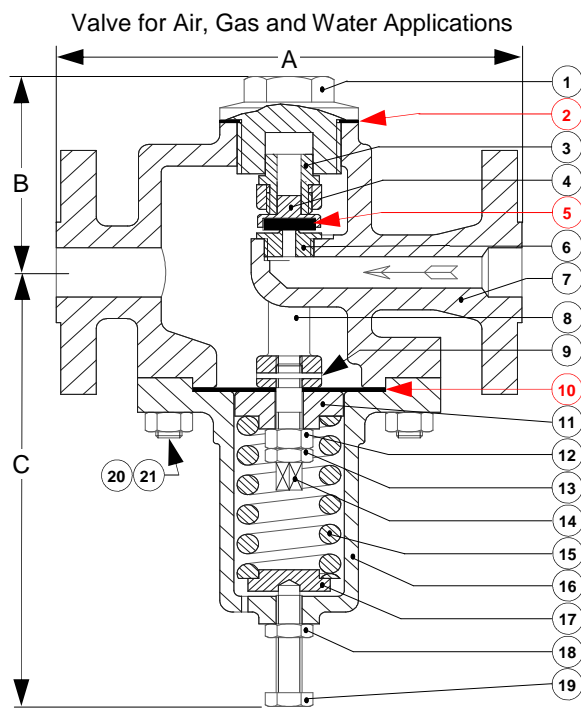
High pressure is admitted to the underside of the needle valve or disc valve. The spring is then compressed the requisite amount and the valve opened permitting pressure to pass to the service side. Expansion and consequent reduction of pressure takes place as it leaves the valve

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.



Disclaimer

The information, specifications and technical data contained in this catalogue are subject to change without notice. The user should verify all technical data and specifications prior to use. Broady Valves does not warrant that the material and information contained herein is current or correct and assumes no responsibility for the use or misuse of any such material and information by the user.

Item	Description	Material
1	Cap	Carbon Steel
2	Joint, Cap	Non-Asbestos
3	Saddle Cap	Stainless Steel
4	Disc Holder	Stainless Steel
5	Disc	Nitrile
6	Seat	Stainless Steel
7	Body	Carbon Steel
8	Saddle	Carbon Steel
9	Pin	Carbon Steel
10	Diaphragm	Nitrile
11	Piston	Carbon Steel
12	Nut	Stainless Steel
13	Locknut	Stainless Steel
14	Piston Bolt	Stainless Steel
15	Spring	Carbon Steel
16	Dome	Carbon Steel
17	Spring Carrier	Carbon Steel
18	Locknut	Stainless Steel
19	Adjusting Screw	Stainless Steel
20	Stud	Carbon Steel
21	Nut	Carbon Steel

Size	* A *	B	C
15NB	210	100	225
20NB	210	100	225
25NB	210	100	225
40NB	298	127	254
50NB	314	156	267
65NB	349	166	334
80NB	391	166	370
100NB	440	205	370

* 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.

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