

TYPE C3-L PRESSURE REDUCING VALVE

The **C3-L pressure reducing valves** are balanced inlet design, which are suitable for use on compressed air, gas, water and oil. These valves are ideally suitable for tank blanketing systems, where very low pressures are involved.

Valves are supplied in sizes ½" to 3" with ends screwed female or alternatively flanged to customers requirements. The maximum inlet pressure is 10.0 Barg, reduced pressure ranges of 0.015 – 1.0 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. Manufactured in Gunmetal, Stainless Steel and Carbon Steel.

Description of Action

High pressure is admitted to the underside of the 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

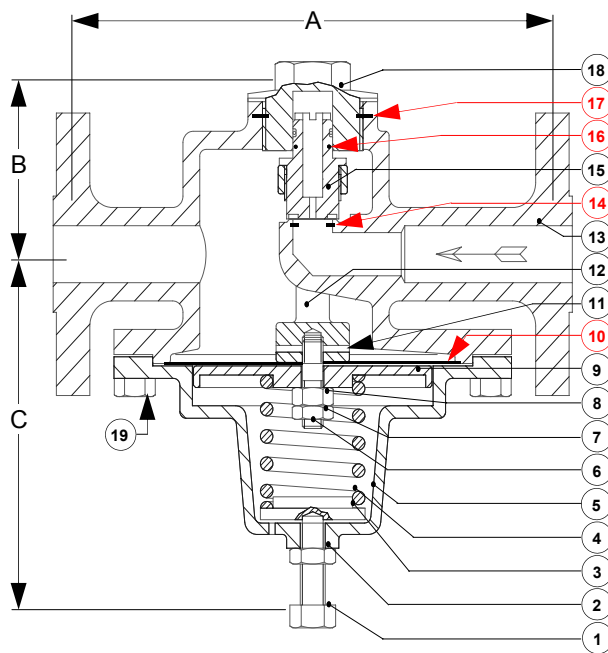
pressure is then controlled by the reaction of the spring to the reduced pressure acting upon the area of the piston. If the reduced pressure tends to fall, the spring, through the medium of the diaphragm, opens the valve and increases the orifice area. Conversely, if the pressure rises the valve closes 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 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



These items are recommended spares.

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 (GM)	Material (SS)
1	Adjusting Screw	Stainless Steel	Stainless Steel
2	Locknut	Stainless Steel	Stainless Steel
3	Spring Carrier	Brass	Stainless Steel
4	Spring	Carbon Steel	Stainless Steel
5	Dome	Gunmetal	Stainless Steel
6	Piston Bolt	Carbon Steel	Stainless Steel
7	Locknut	Brass	Stainless Steel
8	Nut	Brass	Stainless Steel
9	Piston	Gunmetal	Stainless Steel
10	Diaphragm	Nitrile	Nitrile
11	Pin	Brass	Stainless Steel
12	Saddle	Gunmetal	Stainless Steel
13	Body	Gunmetal	Stainless Steel
14	Disc	Nitrile	Nitrile
15	Disc Holder	Brass	Stainless Steel
16	O - Ring	Nitrile	Nitrile
17	Joint, Top Cap	Non - Asbestos	Non - Asbestos
18	Top Cap	Brass	Stainless Steel
19	Setscrews	Stainless Steel	Stainless Steel

Size	* A *	B	C
15NB	241	86	165
20NB	241	86	165
25NB	238	86	165
40NB	300	110	220
50NB	308	110	220
80NB	442	120	245

* This dimension is for Stainless Steel ANSI150 RF flanges only. Where flange thickness differs from Stainless Steel ANSI150 RF, the face to face should be adjusted accordingly.