TYPE C4 Fig 3 HIGH PRESSURE REDUCING VALVE

The C4 Fig 3 High pressure reducing valves are direct acting nozzle design, which are suitable for use on compressed air, gases, water and oil. These valves are used in a variety of applications throughout industry, where their outstanding accuracy and reliability have been proven.

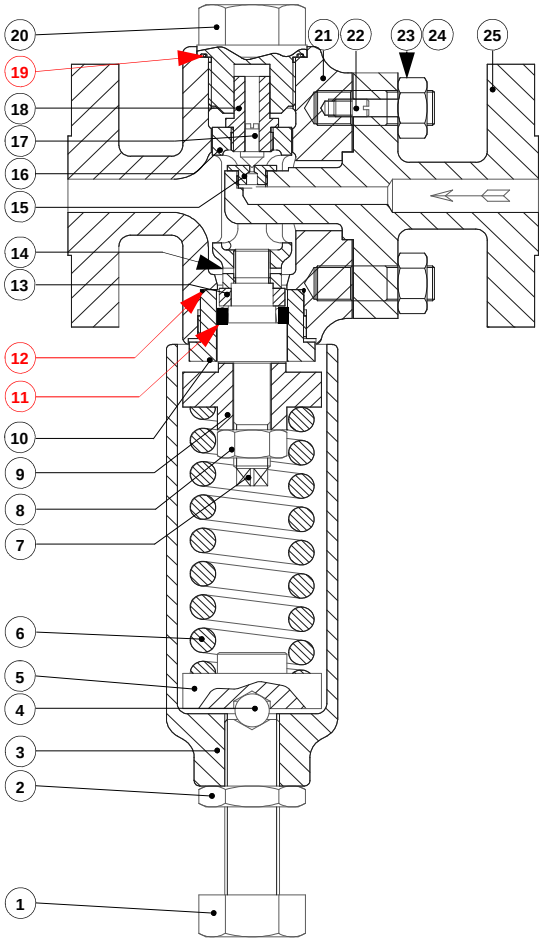
Manufactured in Bronze for inlet pressures up to 138 Bar g. For higher inlet pressures, valves are supplied in Carbon Steel or Stainless Steel. The reduced pressure range is from 7 Bar g to 70 Bar g, although higher or lower reduced pressures can be accommodated to suit a particular application. ***(Consult Broady Technical Sales Engineers for further information).***

Description of Action

High pressure is admitted to the underside of the needle 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 seal, 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.



These Items are recommended spares.

Item	Description	Material
1	Adjusting Screw	Stainless Steel
2	Locknut	Stainless Steel
3	Dome	Carbon Steel
4	Ball	Stainless Steel
5	Upper Spring Carrier	Carbon Steel
6	Spring	Carbon Steel
7	Piston	Stainless Steel
8	Nut	Stainless Steel
9	Lower Spring Carrier	Carbon Steel
10	Liner	Stainless Steel
11	Seal	PTFE
12	O-Ring	Nitrile
13	Seal Retainer	Stainless Steel
14	Pin	Stainless Steel
15	Seat	Stainless Steel
16	Saddle	Stainless Steel
17	Lid	Stainless Steel
18	Saddle Cap	Stainless Steel
19	O-Ring	Nitrile
20	Cap	Stainless Steel
21	Body	Carbon Steel
22	Locating Dowel	Stainless Steel
23	Nut	Carbon Steel
24	Stud	Carbon Steel
25	Nozzle	Stainless Steel

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