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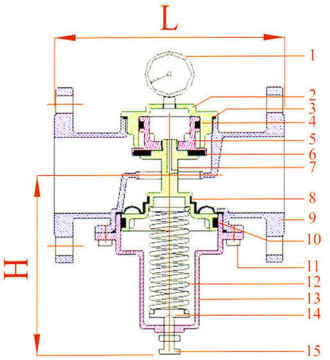
Stainless Steel Pressure Reducing Valve Flanged End



General Description :

Valve body is made by Stainless Steel #316, suitable for fluid, air and steam.The gate is balanced-pressure designed, which will not influence the outlet pressure caused by unstable inlet pressure. When the outlet pressure responds directly to the pressure control chamber and adjust the setting pressure, it responds quickly and adjusts the pressure accurately. Design of piston and diaphragm improves the inability of sustaining pressure and leakage.

Material

No	Part Name	Material
1	Gauge	Stainless Steel
2	Upper Cover	SS 316
3	O-ring	NBR / Viton
4	U-ring	NBR / Viton
5	Piston	SS 316
6	Sealing Spacer	NBR / Viton / Teflon
7	Shaft	SS 316
8	Diaphragm	NBR / Viton
9	Main Body	SS 316
10	UH-ring	NBR / Viton
11	Fixed Bolt	SS 304
12	Spring	Spring Steel
13	Lower Cover	SS 316
14	Washer	Brass
15	Adjusting Stem	SS 304

Features :

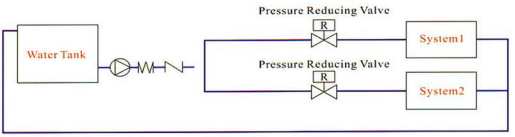
>Pressure Adjusting Range : 1~6 kgf/cm 2
2~10 kgf/cm 2
8~13 kgf/cm 2
>Pressure needed from fully-closed gate to fully-opened gate : 1.5 kgf/cm 2
>Applied Temperature : -15~100 deg C
100~180 deg C (for steam)
>Valve Body Testing Pressure : 35 kgf/cm 2
>Maximum Applied Pressure : 25 kgf/cm 2

Dimension (mm)

Size	H	L	Weight (kg)
2.1/2"	185	210	11.5
3"	185	225	12
4"	230	250	19

Applied condition of Direct-activated Pressure Reducing Valve：

- Installing pressure reducing valve directly in sub-pipe can reduce fluid pressure inside the pipe.
- Installing a filter in the inlet of pressure reducing valve can prevent block of valve gate caused by impurities and limescale.
- Installing pressure relief valve downstream pressure reducing valve can protect the system.
- While using screws to connect pressure reducing valve, joints should be installed in the inlet and outlet to make maintainance easy.



Pressure Setting and Flow Rate of Direct-activated Pressure Reducing Valve：

- Direct-activated pressure reducing valve directly opens and closes the valve gate by the outlet pressure. When outlet pressure is under setting pressure, valve gate automatically opens. To make valve gate fully open, adjustable pressure range and setting pressure are relative points.
- A：Pressure drop needed for fully-opened valve gate = $\frac{B}{4}$ ，B=Adjustable Pressure Range Maximum-Minimum

B：Adjustable Pressure Range (= Maximun Minimum Adjustable Pressure Rang)

C：Setting Pressure of Outlet

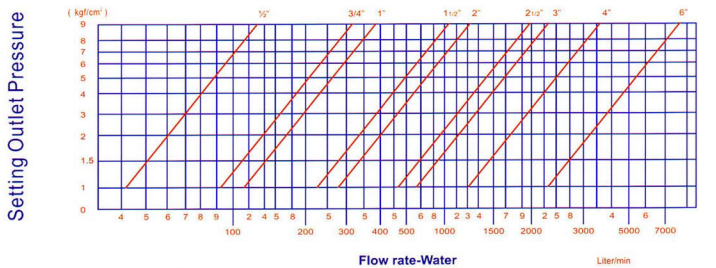
P：Pressure of fully-opened outlet valve gate, P=C-A

Example：

Pressure drop needed for fully-opened valve gate for adjusting pressure range 3～9 kgf/cm^2 of direct-activated pressure reducing valve. A=$\frac{B}{4}$=$\frac{9-3}{4}$=1.5 kgf/cm^2

If the setting pressure of outlet is 6 kgf/cm^2, pressure of fully-opened valve gate will be P=6-1.5= 4.5 kgf/cm^2 (Outlet pressure should go down under 4.5 kgf/cm^2 to make valve gate fully open)

Flow Chart of Direct-activated Pressure Reducing Valve



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