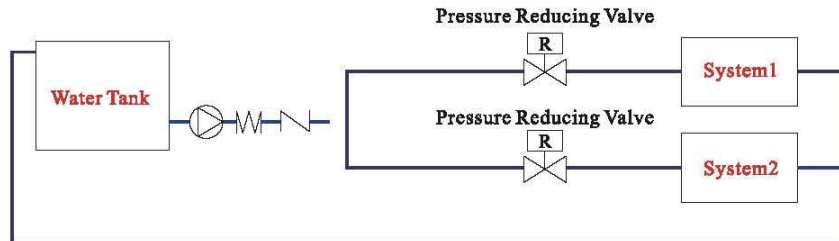




## Applied condition of Direct-activated Pressure Reducing Valve :

- ▶ 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 maintenance 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 (= Maximum 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<sup>2</sup> of direct-activated pressure reducing valve.  $A = \frac{B}{4} = \frac{9-3}{4} = 1.5 \text{ kgf/cm}^2$

If the setting pressure of outlet is 6 kgf/cm<sup>2</sup>, pressure of fully-opened valve gate will be

$P = 6 - 1.5 = 4.5 \text{ kgf/cm}^2$  (Outlet pressure should go down under 4.5 kgf/cm<sup>2</sup> to make valve gate fully open)

## Flow Chart of Direct-activated Pressure Reducing Valve

