

Pressure loss calculation in piston Valves

DN	φ	K _v
15	4	4,5
20	4	8
25	4	12,5
30	4	20,5
40	4	32
50	4	50
65	6	69
80	6	104
100	6	163
125	7,2	233
150	7,2	335
200	7,5	582

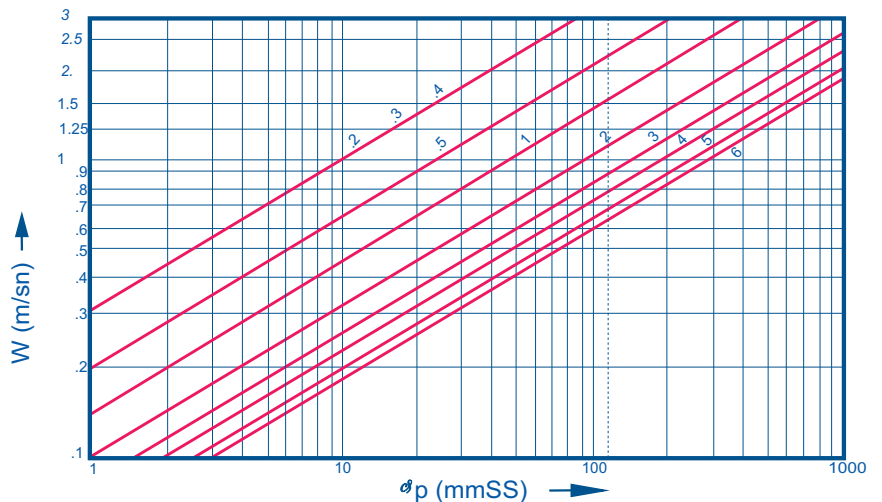
Pressure loss formula $\Delta p = \xi \frac{W^2}{2g} \rho$ (mmSS)

$$\Delta p = \xi \frac{W^2}{2g} \rho \text{ (mmSS)}$$

ξ = zeta-value
 W = fluid andlocity (m/s)
 2g = 20 m/s²

$$\Delta p = \left(\frac{Q}{K_v}\right)^2 \times \frac{\rho}{1000}$$

ρ = 1000 kg/m³
 K_v = flow coefficient (m³ /h). (p=10 mWC)
 flow when Pressure difference is 10 mWC
 Q = flow rate (m³ /h)



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