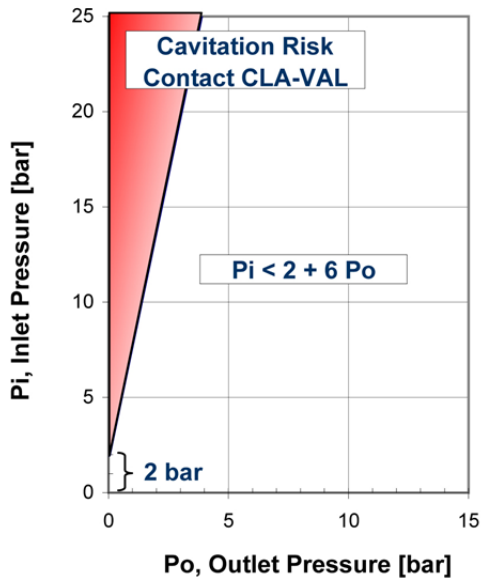


► Cavitation / Flow Chart



● Valve Sizing Example

Pipe Diameter : 100 [mm]

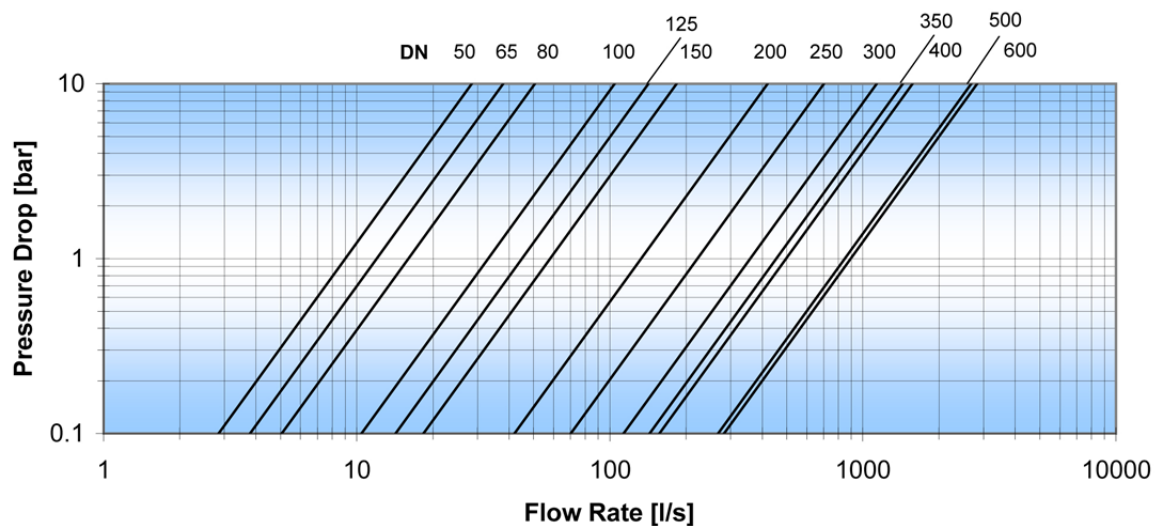
Peak Flow : 20 [l/s]

NGE DN 100 [mm]

Inlet Pressure : 15 [bar]

Outlet Pressure : 5 [bar]

Below Cavitation Risk



► Notes

- Diagram to be used as a guide only.

► More Information

- Quick Valve Selection
- Sizing Software

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► To obtain a more accurate calculation please contact CLA-VAL

► Performance Chart

Flanged [mm]	DN	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Screwed [in]	DN	1 1/4"	1 1/2"	2"	2 1/2"	3"	-	-	-	-	-	-	-	-	-	-	-
Hytrol NGE																	
Kv (m3/h)		-	-	32	43	58	119	162	209	479	799	1292	1638	1789	2298	3049	3222
Cv (l/s) @ 1 bar		-	-	9	12	16	33	45	58	133	222	359	455	497	638	847	895
ζ (-)		-	-	9.5	15.3	19.8	11.3	14.9	18.6	11.2	9.8	7.8	8.9	12.8	12.4	10.8	20.0
Normal Flow (l/s)																	
@ velocity 1 m/s		-	-	1.6	2.7	4	6	10	14	25	39	56	77	100	127	157	226
@ velocity 3 m/s		-	-	to 6	to 10	to 15	to 24	to 37	to 53	to 94	to 147	to 212	to 289	to 377	to 477	to 589	to 848
Max. Flow (l/s)																	
Continuous @ v=4 m/s		-	-	8	13	20	31	49	71	126	196	283	385	502	636	785	1130
Intermittent @ v=5.5 m/s		-	-	11	18	28	43	67	97	173	270	389	529	691	874	1079	1554

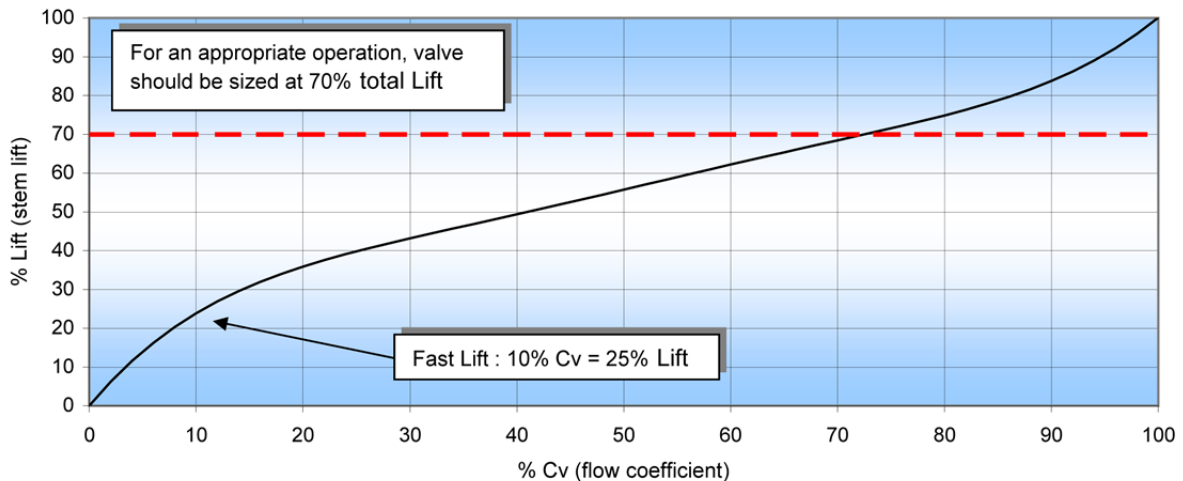
$$Q = Kv \sqrt{\Delta p}$$

$$Q = Cv \sqrt{\Delta p}$$

$$\Delta H = \zeta \frac{v^2}{2g}$$

Q : rate of flow (m3/h)
Kv : flow coefficient (m3/h)
Cv : flow coefficient (l/s)
Δp : head loss (bar)

ΔH : head loss (m)
v : average pipe velocity (m/s)
g : gravitational constant (9.81m/s²)
ζ : resistance coefficient (-)



► Notes

- Kv or Cv = m3/h or l/s @ 100kPa (1 bar) head loss with 15°C water (valve totally open).
- Minimum Opening Pressure: 0,2 [bar].
- Minimum Differential Pressure: 0,5 [bar].

► More Information

- Quick Valve Selection
- Sizing Software

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► For lower opening Pressure or differential pressure, please contact CLA-VAL