FLOW COEFFICIENTS

Flow coefficients are the same for both carbon steel and stainless steel bodies. Refer to main catalog for valve size offerings.

GATE VALVE Cv's

CLASS 150 (Figure 451 & 551)													
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	12''	14"	16"	18"	20"	24"
Cv	298	466	694	1,234	2,873	5,109	8,622	12,416	17,651	23,055	30,603	37,782	57,349

CLASS 300 (Figure 452 & 552)									
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	12''	
Cv	289	452	672	1,194	2,776	4,935	7,982	11,929	

GLOBE VALVE Cv's

CLASS 150 (Figure 461 & 561)								
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	12''
Cv	46	72	105	166	400	810	1,310	1,900

CLASS 300 (Figure 462 & 562)								
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	
Cv	46	84	104	165	436	692	1,120	

SWING CHECK VALVE Cv's

CLASS 150 (Figure 471 & 571)												
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	12''	14"	16"	18"	20"
Cv	218		499	903	2,032	3,679	5,857	8,435	11,708	15,293	19,754	24,912

CLASS 300 (Figure 472 & 572)									
SIZE	2''	2-1/2''	3''	4''	6''	8''	10''	12''	
Cv	211	330	482	858	1,963	3,549	5,546	8,128	

Cv is the volume of water in U.S. gallons per minute that passes through the valve at a pressure drop of 1 PSI at 68°F. Cv is in imperial units; in metric units, the same coefficient (often called the Flow Factor) is Kv and corresponds to the flow rate of water in cubic meters (m^3) per hour at a pressure drop of 100kPa (1 bar) at 20°C.

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FLOW COEFFICIENTS

The approximate corresponding formulas for flow are:

$$Q = Cv \times \sqrt{\frac{\triangle P \times 62.4}{D}}$$

Where:

- Q = Valve flow rate in gallons per minute (USGPM)
- $\triangle P$ = Pounds per square inch (PSI) pressure drop across the valve
- 62.4 = Conversion factor for fluids computed in relation to water
- D = Density of fluids in pounds per cubic foot

$$Q = Kv \times \sqrt{\frac{\triangle P \times 1000}{D}}$$

Where:

- Q = Valve flow rate in cubic meters per hour (m^3/h)
- $\triangle P$ = pressure drop across the valve in Bar
- 1000 = Conversion factor for fluids computed in relation to water
- D = Density of fluids in kilograms per cubic meter (kg/m^3)

The relationship between Cv and Kv, expressed in the above mentioned unit of measure, is as follows:

$$Kv = \frac{Cv}{1.16}$$

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