

# CONTROL VALVES

## Valve Flow Characteristics



General flow characteristics for on/off valve sizes are listed below. DO NOT use this data to size modulating valves. Refer to earlier sizing information in this brochure for sizing valves.

### FLOW CHARACTERISTICS:

Valve Size	US	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"	24"
	Metric	DN32	DN40	DN50	DN65	DN80	DN100	DN150	DN200	DN250	DN300	DN350	DN400	DN600
Globe Cv	US	23	27	47	68	120	200	450	760	1250	1940	2200	2850	6900
	Metric	5.5	6.5	11.3	16.3	28.7	47.9	108	182	299	465	527	683	1653
Angle Cv	US	30	35	65	87	160	270	550	1000	1600	2400	--	4000	--
	Metric	7.2	8.4	15.6	20.8	38.3	64.7	132	240	383	575	--	958	--

$$DP = sg \left( \frac{Q}{Cv} \right)^2$$

where:

Q = Flow Rate in USGPM (U.S.) or

Cv = Flow Rate in USGPM @ 1 psi pressure drop (U.S.) or

DP = Pressure drop in psi (U.S.) or

sg = specific gravity of line fluid

Q = Flow Rate in liters/sec (Metric)

Cv = Flow Rate in liter/sec @ 1 bar pressure drop (Metric)

DP = Pressure drop in bar (Metric)

## Reduced Port Valve Flow Characteristics



General flow characteristics for on/off valve sizes are listed below. DO NOT use this data to size modulating valves. Refer to earlier sizing information in this brochure for sizing valves.

### FLOW CHARACTERISTICS:

Flange Size (inches)	3"	4"	6"	8"	10"*	12"*	16"*	18"	20"	24"
Interior Port (inches)	2"	3"	4"	6"	8"	10"	12"	16"	16"	16"
Flange Size (Metric)	DN80	DN100	DN150	DN200	DN250	DN300	DN400	DN450	DN500	DN600
Interior Port (Metric)	50	80	100	150	200	250	300	400	400	400
Cv (US Gal @ 1 PSID)	70	135	215	480	--	--	--	3000	3300	3600
Cv (L/Sec @ 1 bar)	16.7	32.3	51.4	114.7	--	--	--	717	789	860

\*consult factory

$$DP = sg \left( \frac{Q}{Cv} \right)^2$$

where:

Q = Flow Rate in USGPM (U.S.) or

Cv = Flow Rate in USGPM @ 1 psi pressure drop (U.S.) or

DP = Pressure drop in psi (U.S.) or

sg = specific gravity of line fluid

Q = Flow Rate in liters/sec (Metric)

Cv = Flow Rate in liter/sec @ 1 bar pressure drop (Metric)

DP = Pressure drop in bar (Metric)