

VALVE SIZE	Cv VALUES OF CAM-CENTRIC RECTANGULAR PORTED PLUG VALVES AT VARIOUS PLUG POSITIONS								
	10°	20°	30°	40°	50°	60°	70°	80°	FULL OPEN
1	1	2	3	6	9	13	21	32	37
2	5	7	12	23	38	52	85	131	150
2 1/2	8	12	20	37	62	84	135	210	240
3	10	16	26	50	83	112	180	280	320
4	18	28	47	89	147	199	322	498	570
5	30	47	79	150	247	335	541	839	960
6	38	59	100	187	309	419	678	1048	1200
8	65	102	170	323	534	723	1170	1808	2070
10	103	160	268	510	838	1130	1840	2840	3250
12	150	233	392	740	1220	1660	2680	4150	4750
14	194	300	510	960	1580	2150	3470	5370	6150
16	250	400	665	1250	2070	2810	4540	7030	8050
18	325	500	840	1590	2620	3565	5755	8910	10200
20	400	620	1040	1960	3240	4400	7100	11000	12600
24	570	890	1500	2820	4650	6320	10200	15800	18100
30	890	1390	2340	4410	7270	9900	16000	24700	28300
36	1280	2000	3360	6340	10450	14200	23000	35500	40700

\* Cv = THE NUMBER OF U.S. GALLONS / MINUTE OF 60° WATER THAT WILL FLOW THRU THE VALVE WITH A 1 PSI PRESSURE DROP ACROSS THE VALVE.

THE FOLLOWING FORMULA CAN BE USED TO DETERMINE THE PRESSURE DROP ACROSS THE VALVE WHEN PLUG POSITION AND RATE OF FLOW ARE KNOWN.

$$\Delta P = Sg \left( \frac{Q}{Cv} \right)^2$$

WHERE:  $\Delta P$  = Pressure drop across valve (psi)  
 Q = Rate of flow (gpm)  
 Cv = Value from the above chart  
 Sg = Specific gravity of fluid (water = 1)

THE ABOVE CHART WAS COMPILED FROM INDEPENDENT LABORATORY TEST DATA.

Revised 5-15-03

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DATE 7-17-97

**VAL-MATIC®**

VALVE AND MANUFACTURING CORP.

DRWG. NO.

SS-1395