

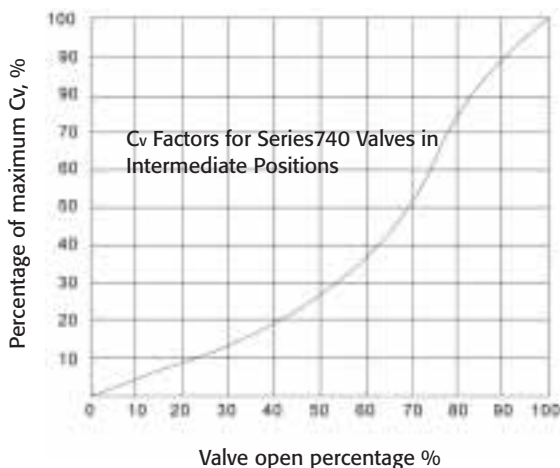
# Cv Values

The tables below provide the flow rate coefficients for Series 740 butterfly valves, in which the Cv values represent the flow rates, in term of an US unit (gallon / min), of water flowing through a full opening valve under a pressure difference of 1 PSI (0.07 Bar) at temperature 60°F (15.6°C).

Table 1 - Cv VALUES			
Series 740/741 Valves (ANSI Class 150#)			
VALVE SIZE		Cv VALUES [usgpm]	
Inch	mm	60°	90°
02-01-02	65	39	78
3	80	82.5	165
4	100	200	400
5	125	325	650
6	150	525	1050
8	200	1100	2200
10	250	1650	3300
12	300	2550	5100
14	350	2900	5800
16	400	4000	8000
18	450	5250	10500
20	500	7000	14000
24	600	10800	21600
28	700	14935	29870
30	750	17000	34000
32	800	20585	41170
36	900	27750	55500
42	1050	41325	82650
48	1200	54150	108300
54	1350	66750	133500
60	1500	79500	159000

Table 2 - Cv VALUES			
Series 742/743 Valves (ANSI Class 300#)			
VALVE SIZE		Cv [usgpm]	
Inch	mm	60°	90°
3	80	82.5	165
4	100	200	400
6	150	525	1050
8	200	900	1800
10	250	1575	3150
12	300	2375	4750
14	350	2600	5200
16	400	3450	6900
18	450	4650	9300
20	500	5650	11300
24	600	9250	18500
30	750	12785	25570
36	900	23750	47500

Figure 1. Change of max Cv percentage as a function of valves-opening position



To determine Cv values for valves under opening at any intermediate position:

- 1) To determine the percentage of maximum Cv value, defined as Cv %, from the plot in Figure 1 which corresponds to the opening position of the valves;
- 2) To multiply Cv % by the Cv value from the flux coefficients showed in the appropriate Tables I or II.

For example, for a valve of 10" (DN250) ANSI Class 150 under 80% open position:

- 1) The percentage of the maximum Cv value (Cv %) at 80% open position is 74%, according to the function shown in Figure 1;
- 2) The maximum Cv value is 3300 usgpm, according to Table I; Thus, the Cv % value (74 %) times the maximum Cv value (3300) at this position, the maximum Cv value at 74 % open position is equal to 2442 usgpm.