

ENGINEERING SPECS. VALVE SIZING DATA



WESLEY VALVE CO.



Cv Defined

Valve Cv is the industry standard for valve capacity or flow characteristic. Cv is defined by the maximum flow of 60 Deg water expressed in GPM which produces a one PSI pressure drop across the valve.

Valve Sizing or Cv Selection

For 2-Position "ON-Off" Service and 3-Way Modulating Service, Select line size or 10% of System Diff. Press for ΔP

For 2-Way Modulating (Throttle) Service Select 50% of System Diff. Press. for ΔP

A modulating valve can be line size and meet the pressure drop requirement by specifying the maximum disc opening.

Example—60% Maximum Disc Opening

Formula For Fluids

$$Cv = Q \cdot G / \sqrt{\Delta P}$$

Q = GPM ΔP = Press. Drop

G = Specific Gravity (Use 1)

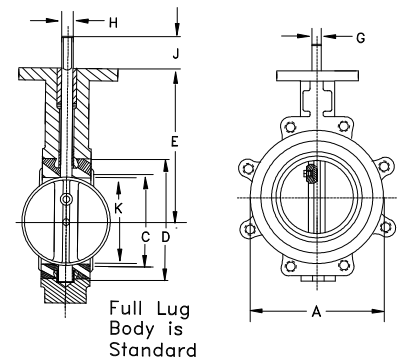
SIZE	Cv Values							
2"	144	84	61	43	27	16	7	1
2.5"	282	163	107	67	43	24	11	1.5
3"	461	267	154	96	61	35	15	2
4"	841	496	274	171	109	62	27	3
5"	1,376	775	428	268	170	98	43	5
6"	1,850	1,025	567	354	225	129	56	6
8"	3,316	1,862	1,081	680	421	241	102	12
10"	5,430	2,948	1,710	1,076	667	382	162	19
12"	8,077	4,393	2,563	1,594	1,005	555	235	27
14"	10,538	5,939	3,384	2,149	1,320	756	299	34
16"	13,966	7,867	4,483	2,847	1,749	1,001	397	45

The Cv Values shown double with a 4 PSI drop

SIZE	Valve Body Dimensions (In.)										Lug Data		
	A	B	D	E	F	G	H	J	K	Bolt Cir	Holes	Tap	
2"	3.69	1.62	2.84	5.50	3.54	.55	.39	1.25	1.32	4.75	4	5/8-11	
2.5"	4.19	1.75	3.34	6.00	3.54	.55	.39	1.25	1.91	5.50	4	5/8-11	
3"	4.88	1.75	4.03	6.25	3.54	.55	.39	1.25	2.55	6.00	4	5/8-11	
4"	6.06	2.00	5.16	7.00	3.54	.63	.43	1.25	3.57	7.50	8	5/8-11	
5"	7.12	2.12	6.16	7.50	3.54	.75	.51	1.25	4.63	8.50	8	3/4-10	
6"	8.12	2.12	7.02	8.00	3.54	.75	.51	1.25	5.45	9.50	8	3/4-10	
8"	10.50	2.50	9.47	9.50	5.91	.87	.63	1.25	7.45	11.75	8	3/4-10	
10"	12.75	2.50	11.47	10.75	5.91	1.18	.87	2.00	9.53	14.25	12	7/8-9	
12"	14.88	3.00	9.47	9.50	5.91	1.18	.87	2.00	11.47	17.00	12	7/9-9	
14"	17.05	3.00	15.28	13.62	5.91	1.38	N/A	2.00	13.04	18.75	12	1-8	
16"	19.21	4.00	17.41	14.75	5.91	1.38	N/A	2.00	14.85	21.25	16	1-8	

Total System Press = Ft. of Head x .433

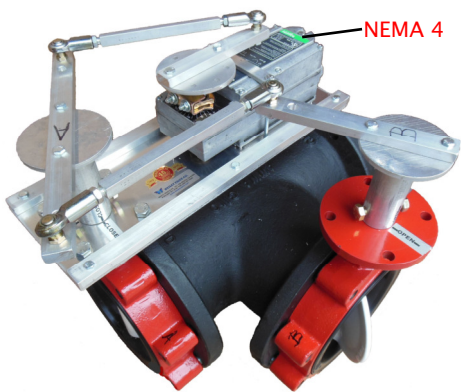
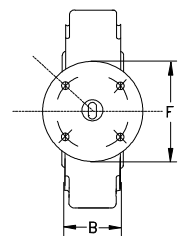
Standard Butterfly Valves can be used on Steam 10 PSIG or Less



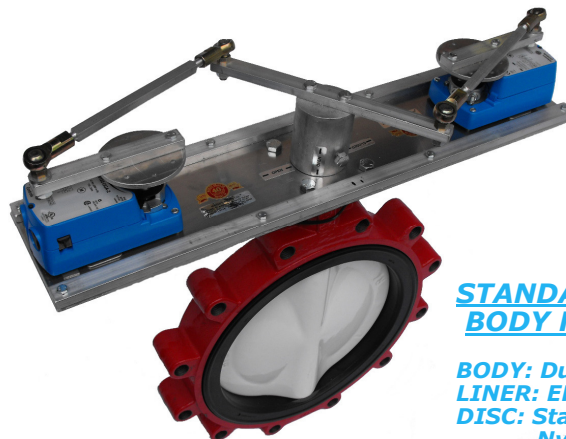
Full Lug Body is Standard

STANDARD VALVE BODY FEATURES

BODY: Ductile Iron
LINER: EPDM or Buna-N
DISC: Stainless Steel or Nylon Coated
STEM: 416 Stainless Steel



NEMA 4



Recommended for Chiller Head Press Control