

Bray®

SERIES 37/38 Wafer/Flanged
2" - 96" (50mm - 2400mm)

BUTTERFLY VALVES METAL SEATED DAMPER VALVE FOR NON-CORROSIVE & CORROSIVE GASES

2" - 96" (50mm - 2400mm)

Bray® Controls offers a complete line of wafer and flanged metal seated damper valves. This specialty valve is suitable for all corrosive and non-corrosive gas environments. Valves are manufactured to suit a variety of pipe and flange dimensions.

ACTUATOR MOUNTING FLANGE AND STEM CONNECTION

Designed for direct mounting of Bray power and manual actuators conforming to ISO 5211. Extended neck for insulation allows easy access without interference with pipe flanges.

BRAY'S DESIGN FEATURES

Flange reinforcing supports are provided on both wafer and flanged valves. The shaft packing is fully adjustable and self lubricating. Each valve is designed and manufactured to suite specific applications. Internal top and bottom bushing as well as a fully supported disc are provided. Standard valve laying lengths conform to ISO 5752 specification and may be altered to suit customer specifications. The thin profile disc design offers high capacity (C_v) with an equal percentage characteristic for control applications.

FEATURES

All valves are bi-directional and manufactured to be compatible with most flange standards – ANSI 125/150, BS/ODEE, DIN 10, and JIS 10. In addition all valves can be manufactured to comply with any customer specified bolt circle diameter. The Series 37 wafer valve offers a thin profile disc in sizes 2"-14". The Series 38 flanged version is offered in sizes 2"-96". The leakage rates on the metal seated design are to ANSI B16, 104 Class I through VI standards. A bubble tight version is also offered.

PRESSURE RATINGS

For bi-directional shut off, disc in closed position:
2"-96" (50mm-2400mm) 15psi (1 bar)

TEMPERATURE RANGE OF SEATS

Type	Max.	Min.
Metal Metal	+2000°F (1093°C)	-50°F (-46°C)
Metal EPDM	+250°F (121°C)	-40°F (-40°C)
Metal Buna-N	+212°F (100°C)	-0°F (-18°C)
Metal FKM*	+400°F (204°C)	-0°F (-18°C)
Metal Fiberglass	+1000°F (538°C)	-40°F (-40°C)

MATERIALS SELECTION

2"-96" (50mm-2400mm)

Body, Flanges, & Disc:

316 Stainless Steel ASTM A351 CF8M
Hastelloy® C -276 ASTM B575, B574
Monel ASTM B127, B164
Inconel 601 ASTM B168, B166

Stem: 316 Stainless Steel ASTM A351 CF8M

Bushings: Meehanite

Packing: PTFE

Alternate materials are available to suit specific applications.

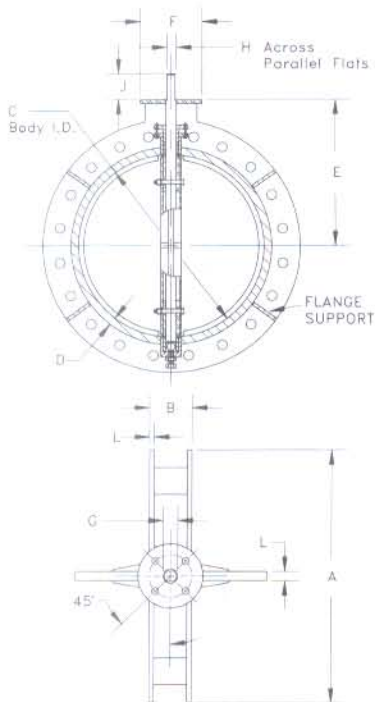
*FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon Elastomers (also called Fluoroelastomers).

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C_v VALUES-VALVE SIZING COEFFICIENT

Valve Size		Disc Position (degrees)								
ins	mm	90°	80°	70°	60°	50°	40°	30°	20°	10°
2	50	144	114	84	61	43	27	16	6.82	0.78
2 1/2	65	282	223	163	107	67	43	24	11	1.22
3	80	461	364	267	154	96	61	35	15	1.76
4	100	841	701	496	274	171	109	62	27	3.13
5	125	1376	1146	775	428	268	170	98	43	5
6	150	1850	1542	1025	567	354	225	129	56	6
8	200	3316	2842	1862	1081	680	421	241	102	12
10	250	5430	4525	2948	1710	1076	667	382	162	19
12	300	8077	6731	4393	2563	1594	1005	555	235	27
14	350	10538	8874	5939	3384	2149	1320	756	299	34
16	400	13966	11761	7867	4483	2847	1749	1001	397	45
18	450	17214	14496	10065	5736	3643	2237	1281	507	58
20	500	22339	18812	12535	7144	4536	2786	1595	632	72
24	600	32693	27718	17981	10421	6618	4064	2327	922	211
30	750	52905	44855	28458	16494	10474	6432	3684	1459	334
36	900	77785	65949	41331	23954	15211	9342	5350	2119	485
42	1050	102861	84574	54680	32803	20830	12793	7326	2901	665
48	1200	132794	108786	70485	43039	27331	16785	9612	4037	872
54	1350	168742	138235	89523	54664	34713	21319	12208	5127	1108
60	1500	204477	172379	110833	67677	42976	26394	15114	6348	1372

Please consult Bray factory for C_v and Dimensions on valve sizes 66" - 96"



DIMENSIONS

*K is the disc chordal dimension at valve face.

Valve Size		Stem Dia.	A	B	C	D	E	F	Lug Bolting Data			G	H	J	K	L	Wt lbs.
ins	mm								BC	No. Holes	Hole Dia.						
2	50	0.56	6.00	1.62	2.00	0.16	5.50	3.50	2.76	4	0.39	0.55	0.39	1.25	1.31	0.25	3.5
2 1/2	65	0.56	7.00	1.75	2.50	0.20	6.00	3.50	2.76	4	0.39	0.55	0.39	1.25	1.88	0.25	4.0
3	80	0.56	7.50	1.75	3.00	0.22	6.25	3.50	2.76	4	0.39	0.55	0.39	1.25	2.50	0.25	4.2
4	100	0.56	9.00	2.00	4.00	0.23	7.00	3.50	2.76	4	0.39	0.55	0.39	1.25	3.56	0.25	6.8
5	125	0.75	10.00	2.12	5.00	0.25	7.50	3.50	2.76	4	0.39	0.75	0.51	1.25	4.62	0.25	9.0
6	150	0.75	11.00	2.12	6.00	0.25	8.00	3.50	2.76	4	0.39	0.75	0.51	1.25	5.44	0.25	11.0
8	200	0.75	13.50	2.50	8.00	0.25	9.50	3.50	2.76	4	0.39	0.75	0.51	1.25	7.44	0.25	16.0
10	250	0.75	16.00	2.50	10.00	0.25	10.75	5.00	2.76	4	0.39	0.75	0.51	1.25	9.50	0.25	27.5
12	300	0.75	19.00	3.00	12.00	0.25	12.25	5.00	2.76	4	0.39	0.75	0.51	1.25	11.44	0.25	43.5
14	350	0.75	21.00	3.00	14.00	0.25	13.38	5.00	2.76	4	0.39	0.75	0.51	1.25	13.00	0.25	68.0
16	400	0.88	23.50	4.00	16.00	0.25	14.25	6.00	2.76	4	0.39	0.75	0.51	1.25	15.50	0.38	109
18	450	0.88	25.00	4.25	18.00	0.25	15.00	6.00	4.92	4	0.57	0.87	0.63	1.25	17.50	0.38	118
20	500	1.38	27.50	4.88	20.00	0.25	16.25	6.00	4.92	4	0.57	1.18	0.87	2.00	19.44	0.38	148
24	600	1.38	32.00	5.94	24.00	0.38	20.12	6.00	4.92	4	0.57	1.18	0.87	2.00	23.38	0.50	271
30	750	1.38	38.75	6.56	30.00	0.38	22.88	6.56	4.92	4	0.57	1.18	0.87	2.00	29.25	0.50	390
36	900	1.88	46.00	7.88	36.00	0.50	26.50	7.88	4.92	4	0.57	1.38	0.39	2.00	35.06	0.62	621
42	1050	1.88	53.00	9.88	42.00	0.50	30.25	9.88	4.92	4	0.57	1.38	0.39	2.00	40.75	0.62	862
48	1200	3.00	59.50	10.88	48.00	0.62	35.75	10.88	6.50	4	0.81	2.50	0.62	4.00	46.75	0.75	1342
54	1350	3.50	66.25	12.00	54.00	0.62	40.25	12.00	6.50	4	0.81	2.50	0.62	4.00	52.75	0.75	1715
60	1500	3.75	73.00	12.00	60.00	0.75	44.50	12.00	6.50	4	0.81	2.50	0.62	4.00	58.75	1.00	2715

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Bray CONTROLS

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