



Bray®

SERIES 36H Double Flanged
24" - 54" (600mm - 1350mm)
232 psi (16 Bar) Pressure Rating

MANUAL BUTTERFLY VALVES

LARGE DIAMETER HIGH PRESSURE RESILIENT SEATED

24"-54" (600mm-1350mm)

Bray Controls is proud to offer a line of superior quality, high pressure manual butterfly valves that meet many of today's requirements in the process industry. Series 36H large diameter, double flanged valves are rated for 232 psi (16 Bar) bi-directional dead end service.

FEATURES

- Series 36H flanged valves are drilled and tapped to meet ANSI Class 125/150 and PN 10 flanges.
- Valves are bi-directional and every valve is tested to 110% of full differential pressure rating before shipping.
- Disc edge sealing surface is spherically machined and hand polished to provide a bubble-tight shutoff, with minimum torque and extended seat cycle life.
- Unique "tongue and groove" seat design, bonded to the body by aerospace adhesive, is designed to seal with slip-on or weld-neck flanges. Seat totally encases the valve interior to isolate the line media from the body.
- Molded seat O-ring provides seal between valve and pipe flanges. Flange gaskets should not be used with this valve.

- Primary and secondary seals are interference fits between seat and disc hub, and stem and seat stem hole respectively.
- One piece through stem design is completely isolated from the flowing media and achieves high torsional strength. The stem ends are standardized for direct mounting and interchangeability with Bray operators.
- Tangential taper pins of 17-4 PH stainless steel are driven and mechanically locked for maximum torsional capacity and resistance to vibration. O-rings are installed with the driven-in taper pins to insure bubble-tight shutoff under pressure or vacuum conditions.
- To minimize bearing friction and operating torque, heavy wall bronze sleeve bearings are utilized.
- Mounting flange drilling pattern dimensions meet ISO 5211 standards.
- Due to a modular concept of design, Bray manual gear operators and pneumatic or electric actuators mount directly to Bray valves.



Available with the CE marking, signifying compliance with the Pressure Equipment Directive (PED)



SERIES 36H

DIFFERENTIAL PRESSURE RATINGS

For Bi-directional Bubble-tight Shut Off (Downstream Flanges Disc in Closed Position):

24" - 54" 600mm-1350mm	232 psi (16 Bar)
---------------------------	---------------------

Dead-End Service (No Downstream Flanges, Disc in Closed Position)

24" - 54" 600mm-1350mm	150 psi (10.3 Bar)
---------------------------	-----------------------

Temperature Range of Seats

Aerospace-Bonded EPDM

-40°F (-40°C) to 250°F (+121°C)

Aerospace-Bonded Buna-N (NBR)

0°F (-18°C) to 212°F (+100°C)

VELOCITY LIMITS FOR ON-OFF SERVICE:

Fluids: 30 ft/sec (9 m/s)

Gases: 175 ft/sec (53 m/s)

MATERIALS SELECTION*

BODY:

Ductile Iron, ASTM A536 Gr 65-45-12

DISC:

Ductile Iron, Nylon 11 Coated,

ASTM A536

Nickel Aluminum Bronze,

ASTM B148 Alloy C95800

Duplex Stainless Steels

such as ASTM A995 Grade 5A

Super Austenitic Stainless Steel

ASTM A351 Gr. CK3MCuN (254 SMO™)

STEM:

17-4 PH Stainless Steel,
ASTM A564 Type 630

Duplex/Super Austenitic Stainless Steel

ASTM A276 UNS No 8367 (AL-6XN®)

SEAT:

Aerospace-Bonded EPDM

Aerospace-Bonded Buna-N (NBR)

*Additional materials are available, please consult your Bray representative.

AL-6XN® is a registered of ATI Properties, Inc.

254 SMO™ is a registered trademark of Avesta AB.

DIMENSIONS ANSI Class 125/150 SERIES 36H Double Flanged, Sizes 24" - 54"

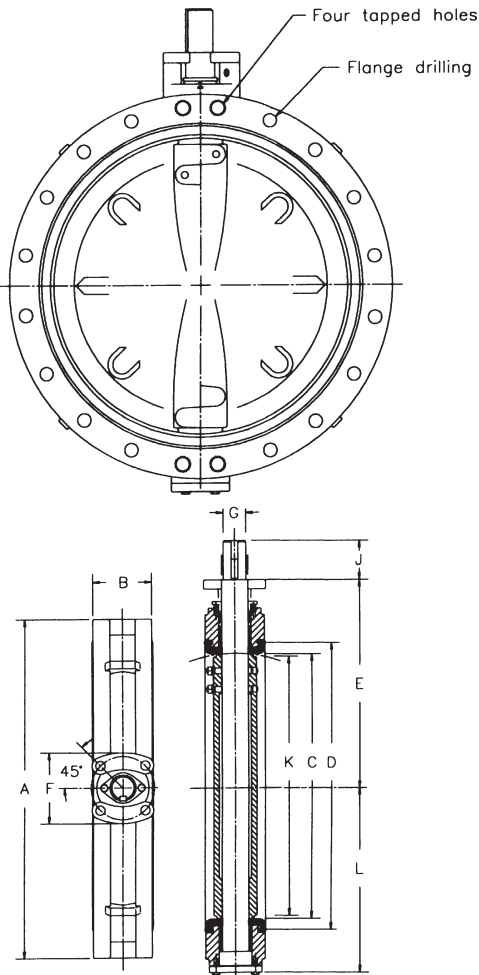
Valve Size	ins	mm	A	B	Flange Thick-ness	C	D	E	F	Mounting Flange Data			G	J	Key Size	K	L	Weight (lbs.)
										BC	No. Holes	Hole Dia.						
24	600	33.00	5.94	1.47	23.28	25.75	19.50	8.27	6.50	4	.81	2.50	4.00	.62x.62	22.70	17.56	500	
26	650	35.25	6.50	1.59	24.46	27.83	21.83	11.81	10.00	8	.71	2.50	4.00	.62x.62	23.76	18.82	675	
28	700	37.80	6.50	1.59	26.46	29.83	22.84	11.81	10.00	8	.71	2.50	4.00	.62x.62	25.78	19.83	735	
30	750	38.75	6.56	1.75	29.29	32.14	23.00	11.81	10.00	8	.71	3.00	4.00	.75x.75	28.73	20.81	855	
32	800	41.75	7.48	2.00	30.39	33.78	26.38	11.81	10.00	8	.71	3.00	4.00	.75x.75	29.65	21.94	1010	
34	850	44.69	7.88	2.00	33.00	35.82	26.93	13.78	11.73	8	.81	3.50	5.25	.88x.62	32.22	23.66	1165	
36	900	46.00	7.88	2.00	35.30	38.25	27.75	13.78	11.73	8	.81	3.50	5.25	.88x.62	34.62	24.94	1320	
40	1000	50.75	8.50	1.97	38.27	41.66	30.79	13.78	11.73	8	.81	4.00	5.25	1.00x.75	37.49	26.56	2140	
42	1050	53.00	9.88	2.62	41.25	44.62	32.00	13.78	11.73	8	.81	4.00	5.25	1.00x.75	40.25	27.81	2550	
44	1100	55.25	9.88	2.62	43.25	46.72	33.12	13.78	11.73	8	.81	4.00	5.25	1.00x.75	42.29	29.06	2800	
48	1200	59.50	10.88	2.75	47.25	50.62	36.00	16.34	14.02	8	1.28	5.00	6.00	1.25x.88	46.21	31.06	3200	
52	1300	Consult Factory																
54	1350	69.00	15.00	3.08	54.00	57.50	40.62	16.34	14.02	8	1.28	6.00	6.50	1.50x1.00	52.06	37.25	6000	

Bray reserves the right to change product dimensions without notice

C_v VALUES - VALVE SIZING COEFFICIENT

Valve Size	ins	mm	Disc Position (degrees)							20°	10°
			90°	80°	70°	60°	50°	40°	30°		
24	600	33,154	27,186	18,235	11,040	6,962	4,244	2,387	1,028	259	
26	650	36,220	29,700	19,921	12,496	7,824	4,890	2,752	1,141	289	
28	700	41,619	34,683	22,578	13,838	8,636	5,399	3,133	1,324	295	
30	750	52,443	43,003	28,844	18,090	11,328	7,080	3,986	1,652	420	
32	800	60,658	48,558	32,591	20,410	12,743	7,983	4,636	2,026	550	
34	850	68,374	55,438	36,648	22,741	14,194	8,834	5,210	2,304	533	
36	900	77,089	59,667	40,086	25,053	15,572	9,790	5,936	2,775	740	
40	1000	90,175	73,990	50,406	30,636	19,307	11,862	6,925	2,971	757	
42	1050	102,989	83,421	54,584	35,016	21,010	12,997	7,879	3,502	783	
44	1100	112,960	87,430	58,740	36,712	22,818	14,346	8,698	4,066	904	
48	1200	132,888	108,968	70,431	43,853	27,242	17,010	10,365	4,651	1,023	
52	1300	Consult Factory									
54	1350	168,700	138,334	89,411	55,671	34,583	21,594	13,158	5,904	1,299	

C_v is defined as the number of U.S.G.P.M. of water that will flow through a given restriction or valve opening with a pressure drop of one (1) p.s.i. at room temperature. Recommended control angles are between 25°-70° open.



All statements, technical information, and recommendations in this bulletin are for general use only. Consult Bray representatives or factory for the specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved.

Bray® is a registered trademark of BRAY INTERNATIONAL, Inc.
© 2009 Bray International. All rights reserved.

Bray CONTROLS

A Division of BRAY INTERNATIONAL, Inc.
13333 Westland East Blvd. Houston, Texas 77041
281.894.5454 FAX 281.894.9499 www.bray.com
B-1042_en_Series 36H_2009-01