

ML133E/ML233E/ML333E* 2"-12"



ABS Type Approved; Cat. A
CFR-46

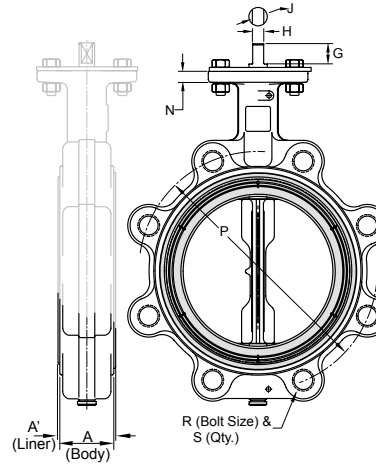
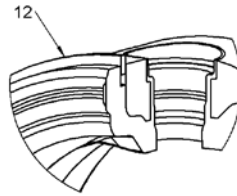
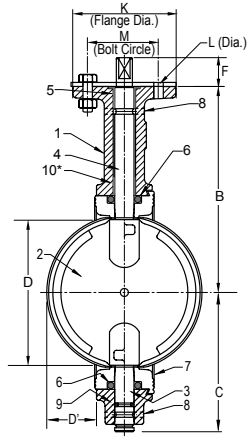
WQA tested and Certified against
NSF/ANSI 372 for "lead free" compliance.

Iron Butterfly Valve for Potable Water

200 psi Non-Shock WOG

Bi-Directional Dead End Service to 200 psi Max

Specifications: API-609 MSS SP-67 Type 1



MATERIALS LIST

ITEM	PART	MATERIALS
1	BODY	DUCTILE IRON-ASTM A536
2	DISC	ALUMINUM BRONZE-ASTM B 148**
3	BOTTOM STEM	STAINLESS STEEL TYPE 416
4	TOP STEM	STAINLESS STEEL TYPE 416
5	TOP BEARING	REINFORCED NYLON
6	SEAL	
7	LINER	EPDM
8	ROLL PIN	STAINLESS STEEL
9	STEM SEAL	EPDM, BUNA, VITON (1)
10	LOWER BEARING	REINFORCED NYLON
11	OPERATOR	LEVER HANDLE
		EPOXY COATED LEVER HANDLE
		GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
		ACTUATOR-AIR/AIR ACTUATOR-AIR/SPRING ACTUATOR-ELECTRIC
12	RETAINING RING	1066 SPRING STEEL (65Mn)

*Same design as Hammond 6411 series.

**Recommend Aluminum Bronze disc in water service.

DIMENSIONS

		VALVE SIZE									
		2	2-1/2	3	4	5	6	8	10	12	
A (Body)	INCHES	1.69	1.81	1.81	2.07	2.19	2.19	2.38	2.69	3.06	
	mm	43	46	46	52	55	55	60	68	78	
A ¹ (Body)	INCHES	1.82	1.94	1.94	2.20	2.32	2.32	2.51	2.82	3.21	
	mm	46	49	49	55	58	58	63	71	82	
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06	
	mm	139	152	158	177	191	203	238	268	306	
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	5.56	7.88	9.25	
	mm	77	84	95	108	125	141	166	200	235	
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68	
	mm	37	51	67	93	119	143	196	246	296	
D ¹ (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50	
	mm	7	11	17	27	38	49	72	93	114	
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50	
	mm	28	28	28	28	28	28	38	38	38	
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06	
	mm	20	20	20	20	20	20	27	27	27	
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71	
	mm	8	8	8	10	10	11	13	18	18	
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00	
	mm	12	12	12	14	14	14	19	25	25	
K	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56	
	mm	11	11	11	11	11	11	14	14	14	
L (Dia)	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00	
	mm	82	82	82	82	82	82	127	127	127	
M	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	
	mm	11	11	11	11	11	11	12	12	12	
N	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00	
	mm	120	139	152	190	215	241	298	362	431	
P	INCHES	5/8-11	5/8-11	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	7/8-9	7/8-9	
	mm	4	4	4	8	8	8	8	12	12	
R	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56	
	mm	11	11	11	11	11	11	14	14	14	
S	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	
	mm	11	11	11	11	11	11	12	12	12	
T	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00	
	mm	120	139	152	190	215	241	298	362	431	
U	INCHES	5/8-11	5/8-11	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	7/8-9	7/8-9	
	mm	4	4	4	8	8	8	8	12	12	

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Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

The information presented on this sheet is correct at the time of publication. Milwaukee Valve reserves the right to change design, and/or material specifications without notice. For the Installation, Operation and Maintenance Manual (IOM) see the Technical/Service Information section on our website. For the most current information access www.milwaukeevalve.com



M**L****2****3****4****E****A****VALVE SERIES****BODY STYLE****OPERATOR****BODY MATERIAL****DISC MATERIAL****LINER MATERIAL****SPECIAL OPTIONS**

H - H SERIES (250 PSI)
M - M SERIES
O - O SERIES
U - U SERIES (75 psi)

L - LUG BODY
W - WAFER BODY

1 - VALVE ONLY
2 - LEVER HANDLE
3 - GEAR OPERATOR
5 - GEAR w/MEMORY STOP
9 - GEAR w/LOCK
N - BURIED SERVICE GEAR
 OPERATION w/2" SQ. NUT

- PNEUMATIC AND ELECTRIC
 ACTUATION OPTIONS AVAILABLE.
 PLEASE CONSULT FACTORY.

2 - CAST IRON*
3 - DUCTILE IRON

*MILWAUKEE VALVE
 RESERVES THE RIGHT TO
 UPGRADE TO DI BODY
 WITHOUT NOTICE FOR NO
 ADDITIONAL COST.

2 - NICKEL PLATED DUCTILE IRON
3 - ALUMINUM/BRONZE
4 - CF8M(316) STAINLESS STEEL
7 - NYLON COATED DUCTILE IRON
8 - EPOXY COATED DUCTILE IRON

B - BUNA-N
E - EPDM
H - HYPALON
NB - FDA BLACK NEOPRENE
NW - FDA WHITE NEOPRENE
T - TEFLON OVER BUNA
 (AVAILABLE w/SS DISC ONLY)
V - VITON

S - 316 STEM W/AB OR NP DISC
A - EPOXY COATED BODY
AD - ASSEMBLE DRY-NO