

# ML133E/ML233E/ML333E\* 2"-12"

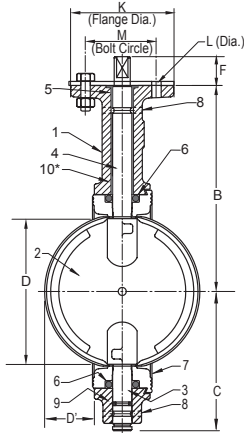


Tested and Certified by IAPMO R&T to NSF/ANSI 372 for lead free compliance.



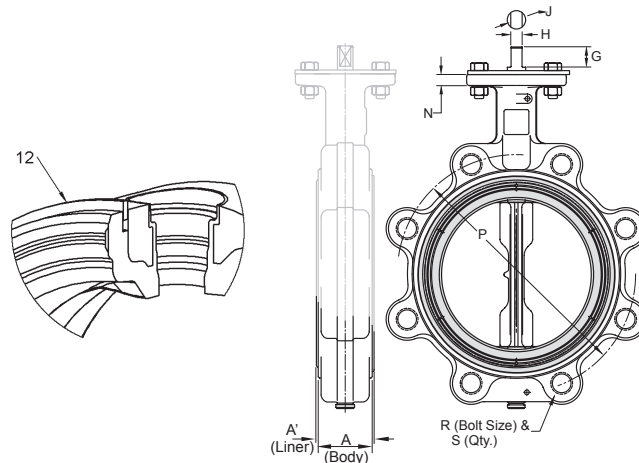
ABS Type Approved, Cat. A CFR-46

**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**



Approved by U.S. Coast Guard for use in Category A service as described in Title 46 Code of Federal Regulations 56.20-15.

**Bi-Directional Dead End Service to 200 PSI Max.**  
**EPDM Only.**



## 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
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)

\*Provided on 8", 10" and 12".

## DIMENSIONS

	INCHES DN	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 <sup>1</sup> (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 <sup>1</sup> (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	4	4	4	4	4	4	6	6	6	
	mm	101.6	101.6	101.6	101.6	101.6	101.6	152.4	152.4	152.4	
L (Dia)	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	
M	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	
N	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	
P	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	
R	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	15.875	15.875	15.875	15.875	19.05	19.05	19.05	19.05	19.05	
S	INCHES	4	4	4	8	8	8	8	12	12	
	mm	101.6	101.6	101.6	203.2	203.2	203.2	203.2	304.8	304.8	

**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 ≤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](http://www.milwaukeevalve.com)



**M****L****2****3****4****E****A****VALVE SERIES**

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

**BODY STYLE**

**L** - LUG BODY  
**W** - WAFER BODY

**OPERATOR**

**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.

**BODY MATERIAL**

**2** - CAST IRON\*  
**3** - DUCTILE IRON

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

**DISC MATERIAL**

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

**LINER MATERIAL**

**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

**SPECIAL OPTIONS**

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