

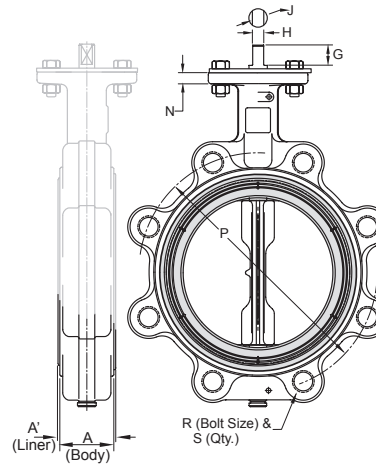
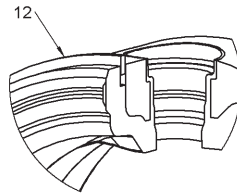
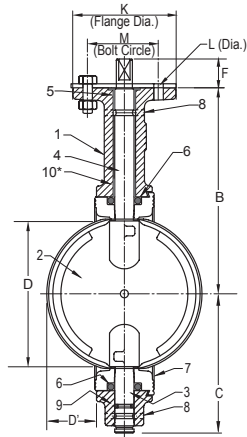
ML133E/ML233E/ML333E** 2"-12"



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 Bi-Directional Dead End Service to 200 PSI Max Specifications: API-609 MSS SP-67 Type 1



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)
		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"

**Same design as Hammond 6411 series.

***Recommend Aluminum Bronze disc in water service.

Milwaukee Valve Company
16550 W. Stratton Drive
New Berlin, WI 53151
Phone: 262-432-2700
Fax: 262-432-2701

DIMENSIONS

	INCHES DN	VALVE SIZE									
		2 50	2-1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	
A (Body)	INCHES mm	1.69 43	1.81 46	1.81 46	2.07 52	2.19 55	2.19 55	2.38 60	2.69 68	3.06 78	
A' (Body)	INCHES mm	1.82 46	1.94 49	1.94 49	2.20 55	2.32 58	2.31 58	2.51 63	2.82 71	3.21 82	
B	INCHES mm	5.50 139	6.00 152	6.25 158	7.00 177	7.53 191	8.00 203	9.38 238	10.56 268	12.06 306	
C	INCHES mm	3.06 77	3.31 84	3.75 95	4.25 108	4.94 125	5.56 141	5.56 166	7.88 200	9.25 235	
D (Chord Dia)	INCHES mm	1.49 37	2.01 51	2.64 67	3.67 93	4.71 119	5.66 143	7.72 196	9.70 246	11.68 296	
D' (Intrusion)	INCHES mm	0.28 7	0.44 11	0.69 17	1.06 27	1.50 38	1.94 49	2.84 72	3.69 93	4.50 114	
F	INCHES mm	1.13 28	1.13 28	1.13 28	1.13 28	1.13 28	1.13 28	1.50 38	1.50 38	1.50 38	
G	INCHES mm	0.81 20	0.81 20	0.81 20	0.81 20	0.81 20	0.81 20	1.06 27	1.06 27	1.06 27	
H	INCHES mm	0.35 8	0.35 8	0.35 8	0.40 10	0.40 10	0.44 11	0.53 13	0.71 18	0.71 18	
J	INCHES mm	0.50 12	0.50 12	0.50 12	0.56 14	0.56 14	0.62 14	0.75 19	1.00 25	1.00 25	
K		4	4	4	4	4	4	6	6	6	
L (Dia)	INCHES mm	0.44 11	0.44 11	0.44 11	0.44 11	0.44 11	0.44 11	0.56 14	0.56 14	0.56 14	
M	INCHES mm	3.25 82	3.25 82	3.25 82	3.25 82	3.25 82	3.25 82	5.00 127	5.00 127	5.00 127	
N	INCHES mm	0.44 11	0.44 11	0.44 11	0.44 11	0.44 11	0.44 11	0.50 12	0.50 12	0.50 12	
P	INCHES mm	4.75 120	5.50 139	6.00 152	7.50 190	8.50 215	9.50 240	11.75 298	14.25 362	17.00 431	
R		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	
S		4	4	4	8	8	8	8	12	12	

Rev. 10

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).

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ML133E/ML333E* 14"-24"



ABS Type Approved; Cat. A
CFR-46

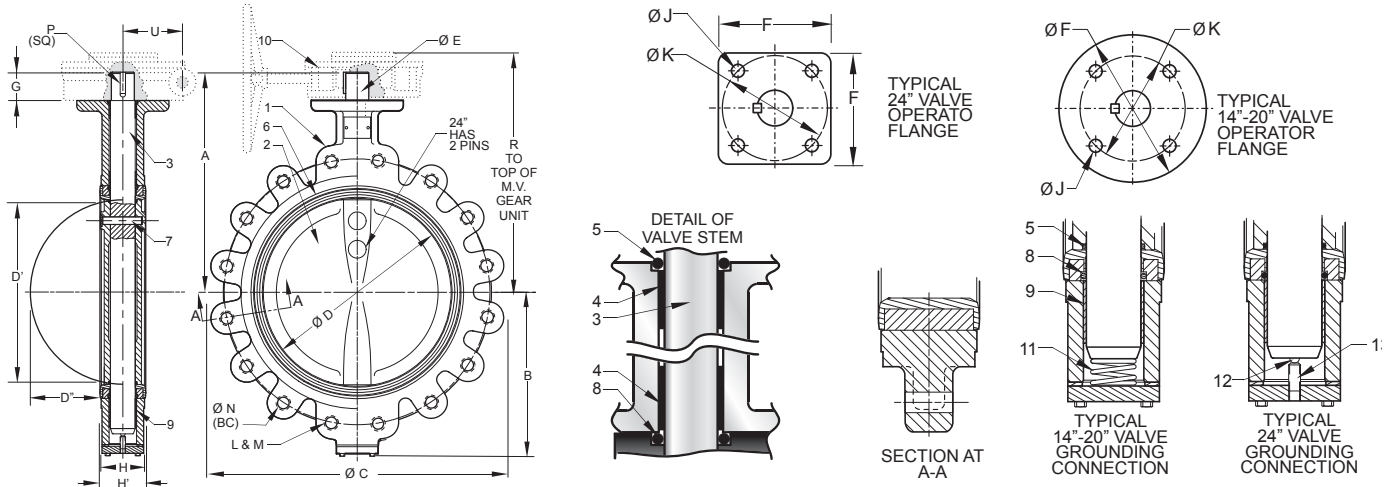
WQA tested and Certified
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for "lead free" compliance.

Iron Butterfly Valve For Potable Water

150 PSI Non-Shock

Dead End service to 150 PSI

Specifications: API-609 MSS SP-67 Type 1



MAJOR COMPONENTS LIST

ITEM	PARTS NAME	MATERIAL
1	BODY	CAST IRON ASTM A126 CL.B
		CAST IRON EPOXY COATED
		DUCTILE IRON ASTM A536
		DUCTILE IRON EPOXY COATED
2	DISC	NP DUCTILE IRON-ASTM A536
		ALUMINUM BRONZE-ASTM B148 **
		STAINLESS STEEL ASTM A351 CF8M
3	STEM	STAINLESS STEEL TYPE 416
		STAINLESS STEEL TYPE 316 (3)
4	TOP BEARING	REINFORCED NYLON
5	STEM O-RING	EPDM, BUNA, VITON (1)
6	LINER	BUNA
		EPDM
		VITON
		HYPALON
7	STEM PIN	ANSI 4140 OR AISI 6150
8	LINER O-RING	EPDM, BUNA, VITON (1)
9	LOWER BEARING	REINFORCED NYLON
10	OPERATOR	GEAR OPERATOR
		GEAR OP W/ MEMORY STOP
		GEAR OP W/ LOCK
		ACTUATOR AIR/AIR (2) ACTUATOR AIR/SPRING (2) ACTUATOR ELECTRIC (2)
11 14"-20"	GROUNDING SPRING	STAINLESS STEEL TYPE 302
12 24" ONLY	GROUNDING BALL	AISI - 1022
13 24" ONLY	TENSION SCREW	AISI - 1020

(1)- O-Ring Matches Liner; Viton Default if no Direct Match. MW_valg_mat.XLS

(2)- Consult Automation Department.

(3)- 316 Stainless Stem used with CF8M Disc.

** Recommend Aluminum Bronze Disc in Water Service.

DIMENSIONS

	INCHES DN	VALVE SIZE				
		14	16	18	20	24
A	INCHES	15.50	16.75	18.5	19.75	22.43
	mm	398	425	469	501	569
B	INCHES	11.56	12.69	13.63	15.13	18.06
	mm	258	322	346	384	458
C	INCHES	21.00	23.50	25.00	27.50	32.10
	mm	533	596	635	698	815
D	INCHES	13.25	15.50	17.25	19.25	23.38
	mm	336	398	438	489	598
D'(Chord Dia.)	INCHES	13.53	14.97	16.91	18.84	22.76
	mm	343	380	429	478	578
D"(Intrusion)	INCHES	5.0	5.8	6.4	7.1	8.7
	mm	127	146	162	181	220
E	INCHES	1.625	1.625	2.125	2.125	2.125
	mm	41	41	54	54	54
F	INCHES	6.50	6.50	9.50	9.50	7.50
	mm	165	165	241	241	190
G	INCHES	2.00	2.00	3.00	3.00	3.06
	mm	50	50	76	76	77
H (Body)	INCHES	3.06	4.00	4.50	5.00	6.06
	mm	77	101	114	127	153
H' (Liner)	INCHES	3.19	4.13	4.63	5.13	6.19
	mm	81	104	117	130	157
J	INCHES	0.688	0.688	0.813	0.813	0.813
	mm	17	17	20	20	20
K	INCHES	5.250	5.250	7.500	7.500	7.500
	mm	133	133	190	190	190
L	No. of Holes	12	16	16	20	20
M	Thread Size	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7
N	INCHES	18.75	21.25	22.75	25.00	29.50
	mm	476	530	577	635	749
P (Key Size)	INCHES	0.375	0.375	0.500	0.500	0.500
	mm	9	9	12	12	12
R	INCHES	17.25	18.75	19.63	20.88	25.00
	mm	438	476	498	530	635
U	INCHES	3.13	3.13	4.50	4.50	4.63
	mm	79	79	114	114	117

*Same design as
Hammond 6411 series.

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Rev. 1

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M**L****2****3****4****V****A**

VALVE SERIES	BODY STYLE	OPERATOR	BODY MATERIAL	DISC MATERIAL	LINER MATERIAL	SPECIAL OPTIONS
C - C SERIES	1 - LUG BODY	1 - VALVE ONLY	2 - CAST IRON*	2 - NICKEL PLATED DUCTILE IRON	B - BUNA-N	S - 316 STEM W/AB OR NP DISC
H - H SERIES (250 psi)	2 - WAFER BODY	2 - LEVER HANDLE	3 - DUCTILE IRON	3 - ALUMINUM/BRONZE	E - EPDM	A - EPOXY COATED BODY
M - M SERIES		3 - GEAR OPERATOR		4 - CF8M(316) STAINLESS STEEL	H - HYPALON	AD - ASSEMBLE DRY
O - O SERIES		5 - GEAR W/MEMORY STOP	* MILWAUKEE VALVE RESERVES THE	7 - NYLON COATED DUCTILE IRON	NB - FDA BLACK NEOPRENE	LF - LOW FRICTION (Consult Factory)
U - U SERIES (50 psi)		9 - GEAR W/LOCKOUT	RIGHT TO UPGRADE TO DI BODY	8 - EPOXY COATED DUCTILE IRON	NW - FDA WHITE NEOPRENE	
		N - BURIED SERVICE GEAR	WITHOUT NOTICE FOR NO ADDITIONAL		T - TEFLON (BUNA SUBSTITUTE)	
		OPERATION W/2"	COST.		(AVAILABLE W/SS DISC AND	
		SQUARE NUT			STEM ONLY)	
					V - VITON	

C-SERIES IS AVAILABLE ONLY IN CAST IRON WAFER OR LUG BODY WITH AL/BRZ DISC, EODM LINER, LEVER OR GEAR OPERATOR.