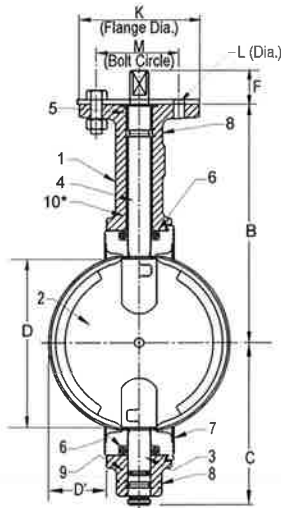


# BUTTERFLY VALVE

# ML SERIES-REV. D\*

2"-12" - 200 PSI (1380 kPa)

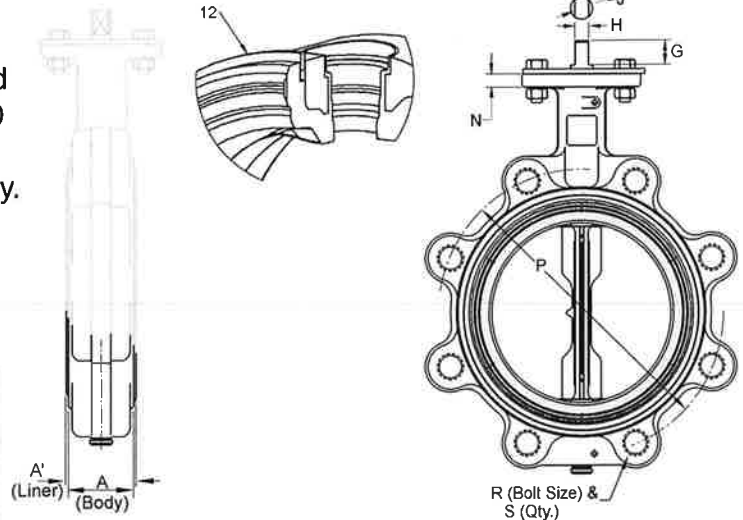
Specifications: API-609  
MSS SP-67



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

U Series with undercut disc available @ 50 psi, please consult factory.

Bi-Directional Dead End Service to 200 PSI Max.  
Buna & EPDM Only.  
All Others 150 PSI Uni-Directional.  
Field Repairable.



ITEM	PARTS NAME	MATERIAL
1	BODY	CAST IRON-ASTM A126 CL B
		CAST IRON EPOXY COATED
		CAST IRON-NYLON COATED
		DUCTILE IRON-ASTM A536
		DUCTILE IRON -EPOXY COATED
		DUCTILE IRON-NYLON COATED
2	DISC	NP DUCTILE IRON-ASTM ASTM A536
		ALUMINUM BRONZE- ASTM A351 B 148 ***
		STAINLESS STEEL ASTM A351 CF8M
		NYLON COATED DUCTILE IRON
		EPOXY COATED DUCTILE IRON
3	BOTTOM STEM	STAINLESS STEEL TYPE 416
		STAINLESS STEEL 316 (2)
4	TOP STEM	STAINLESS STEEL TYPE 416
		STAINLESS STEEL 316 (2)
5	TOP BEARING	REINFORCED NYLON
6	SEAL	EPDM, BUNA, VITON (1)
7	LINER	BUNA
		EPDM
		VITON
		HYPALON
		NEOPRENE BLACK-FDA
		NEOPRENE WHITE-FDA
		TEFLON OVER BUNA (150# WOG)
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)

## DIMENSIONS

	INCHES	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	42.9	46.1	46.0	52.5	55.6	55.6	60.3	68.3	78.0
A' (Liner)	INCHES	1.82	1.94	1.94	2.20	2.32	2.31	2.51	2.82	3.21
	mm	46.1	49.1	49.1	55.8	58.8	58.7	63.6	71.5	82.0
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06
	mm	139.7	152.4	158.8	177.8	191.3	203.2	238.1	268.3	306.4
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	6.56	7.88	9.25
	mm	77.8	84.1	95.3	108.0	125.4	141.3	166.7	200.0	235.0
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68
	mm	37.8	51.1	67.1	93.2	119.6	143.8	196.1	246.4	296.7
D' (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50
	mm	7.1	11.1	17.5	27.0	38.1	49.2	72.2	93.7	114.3
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50
	mm	28.6	28.6	28.6	28.6	28.6	28.6	38.1	38.1	38.1
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06
	mm	20.6	20.6	20.6	20.6	20.6	20.6	27.0	27.0	27.0
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71
	mm	8.9	8.9	8.9	10.2	10.2	11.2	13.5	18.0	18.0
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00
	mm	12.6	12.6	12.6	14.2	14.2	15.8	19.0	25.4	25.4
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	11.1	11.1	11.1	11.1	11.1	11.1	14.3	14.3	14.3
M	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00
	mm	82.6	82.6	82.6	82.6	82.6	82.6	127.0	127.0	127.0
N	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50
	mm	11.1	11.1	11.1	11.1	11.1	11.1	12.7	12.7	12.7
P	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00
	mm	120.7	139.7	152.4	190.5	215.9	241.3	298.5	362.0	431.8
R	INCHES	5/8-11	5/8-11	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	3/4-10	7/8-9
	mm	15.875	15.875	15.875	15.875	19.050	19.050	19.050	19.050	22.225
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

(1) VITON O-RINGS ARE USED WITH HYPALON, NEOPRENE, AND TEFLON LINERS. \* PROVIDED ON 8", 10" AND 12".

(2) 316 STEM USED WITH CF8M DISC

\*\* EPDM AND BUNA LINER ONLY

**\*Note:** The wetted surface of this product (In any material combination,) contacted by consumable water contains less than one quarter of one percent (.25%) of lead by weight.

\*\*\*Recommend Aluminum Bronze Disc in Water Service.

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 engineering section on our website. For the most current information access [www.milwaukeevalve.com](http://www.milwaukeevalve.com)



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 RIGHT TO UPGRADE TO DI BODY WITHOUT NOTICE FOR NO ADDITIONAL COST.	NB - FDA BLACK NEOPRENE	LF - LOW FRICTION (Consult Factory)
U - U SERIES (50 psi)		9 - GEAR W/LOCKOUT		7 - NYLON COATED DUCTILE IRON	MW - FDA WHITE NEOPRENE	
		N - BURIED SERVICE GEAR OPERATION W/2" SQUARE NUT		8 - EPOXY COATED DUCTILE IRON	T - TEFLON (BUNA SUBSTITUTE) (AVAILABLE W/SS DISC AND STEM ONLY)	
					V - VITON	

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