



# RESILIENT SEATED MR BUTTERFLY VALVES



# MR HIGH PERFORMANCE

## MR SPECIFICATIONS & FEATURES

Available in lug or wafer style body.  
ANSI 125/150 body rating.

- ASTM A536 Ductile Iron or ASTM A351 CF8M.
- Mounting is ISO5211/square shaft.
- Bubble tight/B1-directional shutoff.
- Phenolic backed cartridge seat/replacable.



## DESIGN STANDARDS

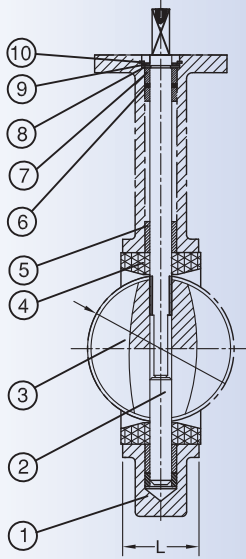
API598 pressure tested  
ISO5211 mounting pad  
MTRS available  
API 609, ASME B16.42



10080 Commerce Park Dr.  
Cincinnati OH, 45246  
513-499-3820  
www.m-zcontrols.com

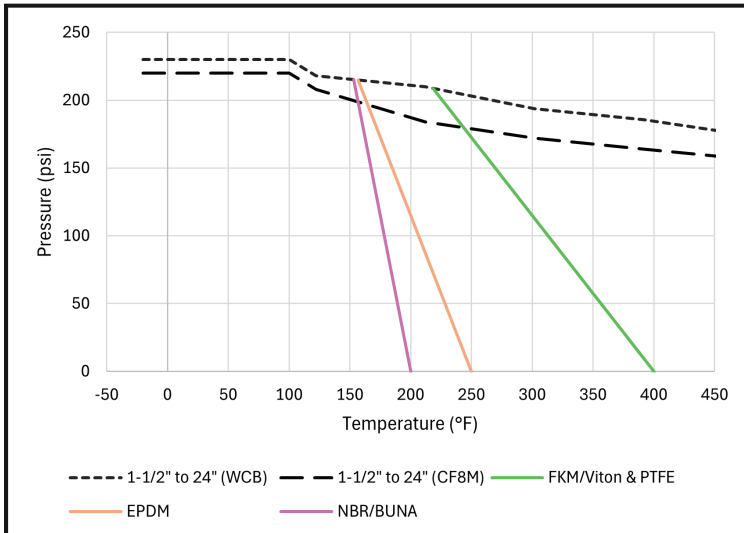
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# MR INFORMATION & OPTIONS



#	PART	MATERIALS	QTY.
1	BODY   150# LUG	ASTM A351 Grade CF8M, ASTM A536 65-45-12	1
1	BODY   150# GUIDE HOLE WAFER	ASTM A351 Grade CF8M, ASTM A536 65-45-12	1
2	LOWER STEM   BUSHING	FRP	1
3	SEAT	EPDM, NBR, FKM	1
4	LOWER STEM	SS431	1
5	DISC	ASTM A351 Grade CF8M, Ductile Iron, Nylon Coated Ductile Iron, Aluminum Bronze, Nickel Plated Ductile Iron	1
6	UPPER STEM	SS431	1
7	UPPER STEM   BUSHING	FRP	1
8	UPPER STEM   O-RING	NBR	1
9	UPPER STEM   HALF RING	AISI 304	2
10	UPPER STEM   WASHER	AISI 304	1
11	UPPER STEM   SNAP RING	SK7	1

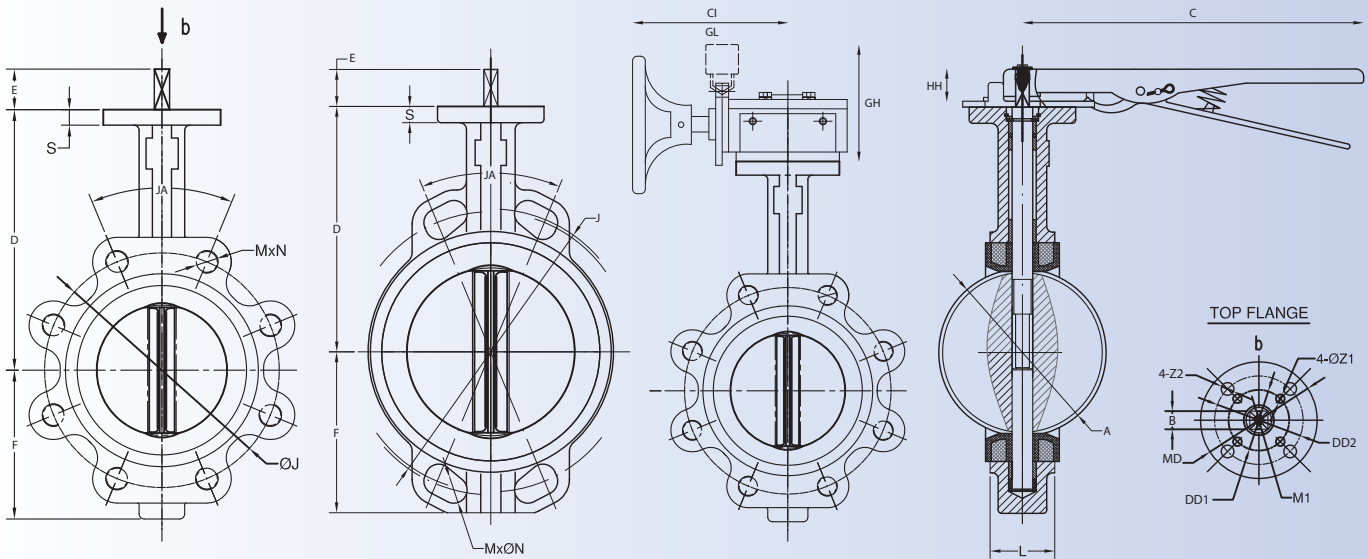
## PRESSURE VS. TEMPERATURE SERIES MR 1-1/2" TO 24"



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# MR DIMENSIONS



## DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	J	JA	L	M	M1	MD	N	S	DD1	DD2	Z1	Z2	ISO 5211	LBS
1-1/2"	1.69	0.354	10.24	4.72	0.63	2.56	3.874	3.54	1.3	0.16	M5	3.54	0.63	0.55	2.756	-	0.39	-	F07	-
2"	2.08	0.354	10.24	5.51	0.63	3.15	4.752	3.54	1.69	0.16	M5	3.54	0.79	0.55	2.756	-	0.39	-	F07	-
2-1/2"	2.56	0.354	10.24	5.91	0.63	3.5	5.5	3.54	1.81	0.16	M5	3.54	0.79	0.55	2.756	-	0.39	-	F07	-
3"	3.12	0.354	10.24	6.22	0.63	3.74	6	3.54	1.81	0.16	M5	3.54	0.79	0.55	2.756	-	0.39	-	F07	-
4"	4.11	0.433	10.24	6.93	0.63	4.49	7.5	1.77	2.05	0.16	M5	3.54	0.79	0.55	2.756	-	0.39	-	F07	-
5"	4.87	0.551	10.24	7.48	0.71	5	8.5	1.77	2.2	0.16	M5	3.54	0.91	0.55	2.756	-	0.39	-	F07	-
6"	6.15	0.551	14.17	8.35	0.71	5.47	9.5	1.77	2.2	0.16	M5	4.92	0.91	0.55	2.756	4.016	0.39	0.47	F07/F10	-
8"	7.99	0.669	22.05	9.29	0.71	6.85	11.752	1.77	2.36	0.16	M8	6.89	0.91	0.59	4.016	5.512	0.47	0.71	F10/F14	-
10"	9.88	0.866	22.05	10.43	0.94	7.99	14.252	1.18	2.68	0.16	M8	6.89	1.02	0.67	4.016	5.512	0.47	0.71	F10/F14	-
12"	11.89	0.866	22.05	12.01	0.94	9.53	17	1.18	3.07	0.16	M8	6.89	1.02	0.67	4.016	5.512	0.47	0.71	F10/F14	-



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# MR OPTIONS

## HOW TO ORDER

1) Series	2) Body Material	3) Connection	4) Size	5) Seat Material
MR	S - Stainless Steel B - Ductile Iron	L1 - 150# Lug W1 - 150# Waffer with Guide Holes	0150 - 1-1/2" 0200 - 2" 0250 - 2-1/2" 0300 - 3" 0400 - 4" 0500 - 5" 0600 - 6" 0800 - 8" 1000 - 10" 1200 - 12" 1400 - 14" 1600 - 16" 1800 - 18" 2000 - 20" 2400 - 24"	E - EPDM B - NBR/BUNA V - FKM/VITON P - PTFE
6) Disc	7) Stem Material	8) Stem Bushing	9) Operator	
N - Nylon Coated Ductile Iron S - Stainless Steel B - Aluminum Bronze D - Nickle Plated Ductile Iron	X - ASTM A276 431	F - FRP B - BRASS	X - None G - Gear Operator P - 10-Position Handle	

**How to Order:** {1}{2}-{3}-{4}-{5}{6}{7}{8}-{9}  
**Example:** MRS-L1-0150-ESXF-P



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# MR TORQUE

## TORQUE (in-lbs) MR-CLASS 150

SERIES MR CLASS 150 TORQUES						
SIZE	100		150		225	
	WET	DRY	WET	DRY	WET	DRY
1-1/2"	95	153	106	165	116	170
2"	115	184	126	198	140	205
2-1/2"	134	235	138	265	154	285
3"	176	363	201	365	221	387
4"	303	585	345	610	365	635
5"	482	830	532	889	556	899
6"	754	1317	886	1465	1065	1512
8"	1365	2398	1592	2636	1947	2730
10"	2204	3864	2532	4312	2920	4642
12"	3285	5454	3813	6185	4602	6480
14"	4212	6218	4872	7409	-	-
16"	5914	8390	6855	10120	-	-
18"	7758	11215	9524	13450	-	-
20"	10620	14890	13650	18560	-	-
24"	15340	22290	19870	28160	-	-

## CV (°OPEN) MR-CLASS 150

SERIES MR CLASS 150 CV									
SIZE	10	20	30	40	50	60	70	80	90
1-1/2"	-	-	-	-	-	-	-	-	-
2"	0.1	5	12	24	45	64	90	125	135
2-1/2"	0.2	8	20	37	65	98	144	204	220
3"	0.3	12	22	39	70	116	183	275	302
4"	0.5	17	36	78	139	230	364	546	600
5"	0.8	29	61	133	237	392	620	930	1022
6"	2	45	95	205	366	605	958	1437	1579
8"	3	89	188	408	727	1202	1903	2854	3136
10"	4	151	320	694	1237	2047	3240	4859	5340
12"	5	234	495	1072	1911	3162	5005	7507	8250
14"	6	338	715	1549	2761	4568	7230	10844	11917
16"	8	464	983	2130	3797	6282	9942	14913	16388
18"	11	615	1302	2822	5028	8320	13168	19752	21705
20"	14	971	1674	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116



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