



# SERIES MV8B

**Three-Piece  
1/2" to 4"  
1000/1500 PSI**



## DESIGN ADVANTAGES

- Three-piece swing out design allows for in-line repairs.
- Available in stainless steel.

## END CONNECTIONS

- Threaded
- Socket Weld
- Butt Weld
- Extended Butt Weld

## STANDARDS

- ASME B16.34
- ASME BPE-2024
- API 598
- ISO 5211

## SPECIFICATIONS

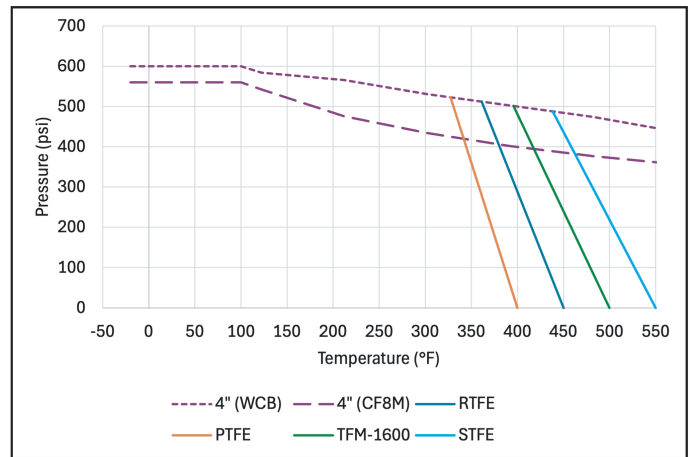
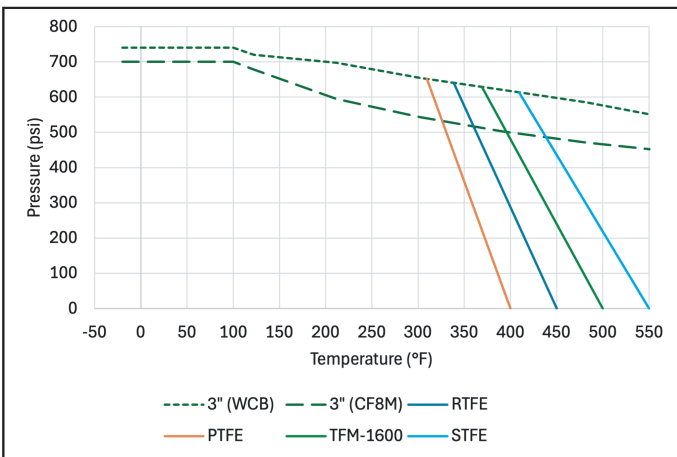
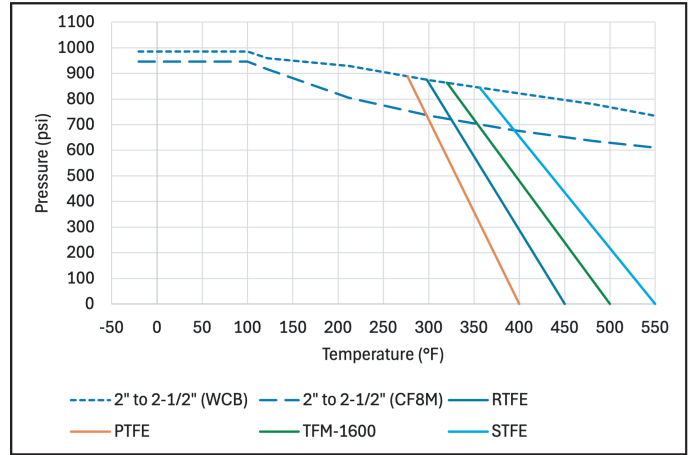
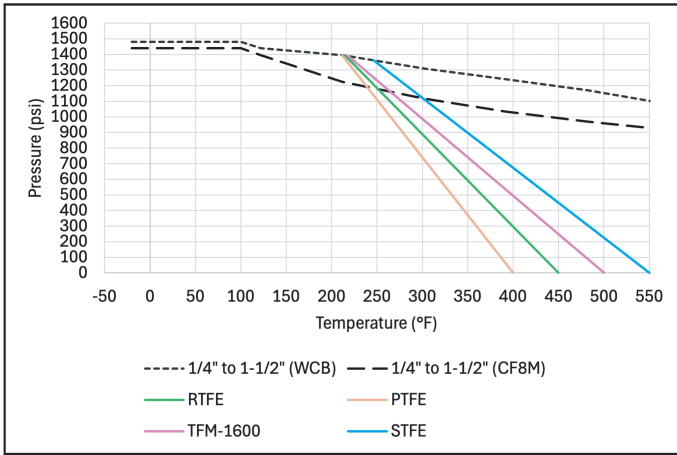
**CONSTRUCTION:** Three-Piece Body  
**SIZE:** 1/2" to 4"    **STEM:** 316 SS  
**BODY:** CF8M/WCB    **SEAT:** TFM-1600  
**BALL:** 316 SS/CF8M  
**PRESSURE RATING:** 1000/1500 PSI



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Cincinnati OH, 45246  
513-499-3820  
[www.m-zcontrols.com](http://www.m-zcontrols.com)

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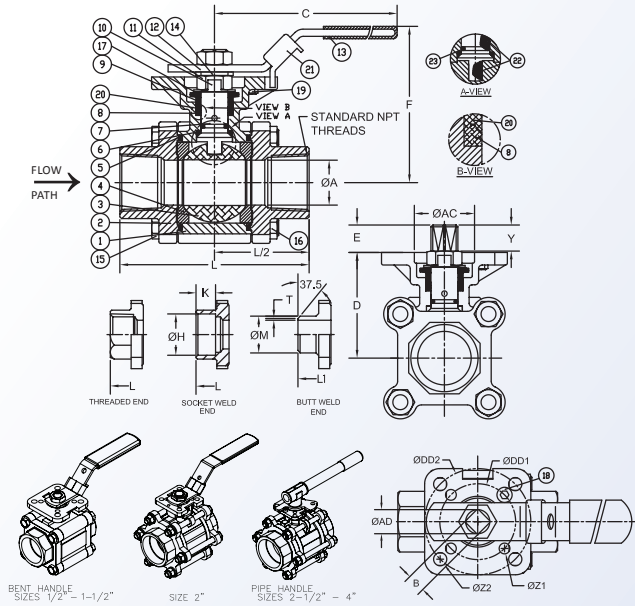
# MV8B PRESSURE VS. TEMPERATURE CHARTS



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## MV8B MATERIALS LIST



NO.	PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS	QTY.
1	Body	ASTM A351 Grade CF8M, ASTM A216 Grade WCB		1
2	Body End Cap (Threaded)	ASTM A351 Grade CF8M, ASTM A216 Grade WCB		2
2	Body End Cap Socket (Socket Weld)	ASTM A351 Grade CF8M, ASTM A216 Grade WCB		2
2	Body End Cap Butt (Butt Weld)	ASTM A351 Grade CF8M, ASTM A216 Grade WCB		1
3	Ball	ASTM A276 316SS, ASTM A351 Grade CF8M		1
4	Stem	ASTM A276 316SS		2
5	Stem Nut	AISI 304		2
6	Stem Packing Belleville Washer	AISI 304		1
7	Handle	AISI 304		2
8	Seat	TFM™-1600	PTFE, STFE, CTFE, STFM	1
9	Stem Packing Gland	AISI 304		1
10	Stem Packing Washer	AISI 304		1
11	Stem Seal	TFM™-1600		1
12	Stem Lock Handle	AISI 304		2
13	Body Joint Gasket	TFM™-1600		*
14	Body Bolt	ASTM A193 Grade B8		1
15	Handle Stop Bolt	AISI 304		1
16	Handle Sleeve	VINYL		*
17	Body Bolt Nut	ASTM A194 Grade 8		1
18	Stem Washer	AISI 304		1
19	Stem Packing	PTFE		1
20	Handle Lock	AISI 304		2
21	Handle Stop Bolt Nut	AISI 304		1
22	Handle Stop Bolt Washer	AISI 304		*
23	Anti-Static Device	AISI 316		1
24	Stem O-Ring	FKM/Viton®		1

14" 1/2" to 1-1/2": 4 Bolts, 2": 6 Bolts, 2-1/2" to 4": 6 Studs  
 17" 1/2" to 1-1/2": 4 Nuts, 2": 6 Nuts, 2-1/2" to 4": 12 Nuts

## DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	H	K	L	M	T	Y	DD1	Z1	AC	AD	L1	L2	ISO 5211	LBS
1/4"	0.46	0.256	5.12	1.15	0.78	2.95	0.56	0.39	2.51	0.64	0.06	0.29	1.417	M5	0.98	0.374	2.47	5.43	F03	1.4
3/8"	0.5	0.256	5.12	1.15	0.78	2.95	0.69	0.39	2.51	0.69	0.06	0.29	1.417	M5	0.98	0.374	2.47	5.43	F03	1.4
1/2"	0.59	0.256	5.12	1.15	0.71	2.95	0.86	0.39	2.59	0.89	0.06	0.25	1.417	M5	0.98	0.374	2.59	5.43	F03	1.4
3/4"	0.79	0.256	5.12	1.28	0.8	3.03	1.07	0.51	3	1.08	0.06	0.32	1.417	M5	0.98	0.374	3	5.94	F03	1.7
1"	0.98	0.315	6.3	1.53	0.81	3.35	1.33	0.51	3.39	1.34	0.06	0.48	1.654	M5	1.18	0.433	3.39	6.46	F04	2.4
1-1/4"	1.26	0.315	6.3	1.59	0.98	3.62	1.69	0.51	4.05	1.68	0.06	0.45	1.654	M5	1.18	0.433	4.05	6.77	F04	3.7
1-1/2"	1.5	0.382	7.28	1.82	1.22	4.02	1.93	0.51	4.7	1.91	0.06	0.54	1.969	M6	1.38	0.551	4.7	6.97	F05	5.5
2"	1.97	0.382	7.28	2.15	1.22	4.33	2.41	0.63	5.17	2.38	0.06	0.54	1.969	M6	1.38	0.551	5.17	7.87	F05	8
2-1/2"	2.56	0.472	10.24	2.81	1.68	5.91	2.91	0.63	6.46	3	0.08	0.91	2.756	M8	2.17	0.748	6.46	8.86	F07	16.2
3"	3.15	0.472	10.24	3.33	1.55	6.38	3.54	0.63	7.19	3.54	0.08	0.74	4.016	M10	2.76	0.748	7.19	9.33	F10	23.5
4"	3.94	0.591	11.42	4.19	2.06	7.48	4.55	0.79	9.28	4.57	0.14	1.35	4.016	M10	2.76	0.945	9.3	10.94	F10	43.7



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MV8B

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### Breakaway Torque (RPTFE)&Cv Value for MV8B

SIZE	PORT	0	15	20	30	40	50	60	70	80	90	100
1/2"	15°	0	0	0	0.1	0.2	0.3	0.5	0.8	1.1	1.5	1.9
	30°	0	0.1	0.1	0.2	0.3	0.5	0.8	1.1	1.6	2.2	2.6
	60°	0	0.1	0.1	0.3	0.5	0.9	1.4	2	3.3	4.4	6
	90°	0	0.1	0.2	0.4	0.6	0.9	1.5	2.2	3.8	5.4	6.9
3/4"	15°	0	0	0	0.1	0.3	0.6	1	1.5	2.1	2.8	3.6
	30°	0	0.1	0.2	0.5	0.7	1.1	1.8	2.4	3.3	4.5	5.4
	60°	0	0.1	0.2	0.7	1	1.7	2.8	4	6.5	9	12
	90°	0	0.2	0.4	0.8	1.2	2	3.1	4.6	8	11.3	14
1"	15°	0	0	0	0.2	0.7	1.4	2.2	3.2	4.5	6	8
	30°	0	0.1	0.3	0.8	1.3	2.3	3.5	5.1	8.5	9.8	10
	60°	0	0.2	0.4	1.1	1.8	3.4	5.3	7.9	12.3	15.3	21
	90°	0	0.2	0.6	1.8	3.4	5.1	8.1	11.4	16	21	29
1-1/4"	15°	0	0	0.03	0.6	1.4	2.4	3.6	5.2	7.1	9.4	12
	30°	0	0.2	0.4	1.1	2	3.7	5.5	8	10	13	15
	60°	0	0.2	0.6	1.8	3	5.5	9.5	12.8	19	26	39
	90°	0	0.3	0.8	2	5	8	14	19	28	39	55
1-1/2"	15°	0	0	0.3	1.2	2.4	3.9	5.7	7.9	10.7	14	18.1
	30°	0	0.3	0.6	1.6	3	5	7.5	11	14	17	20
	60°	0	0.4	0.8	2.5	4	8	13	19	27	40	52
	90°	0	0.4	0.9	3.5	7	13	20	31	42	63	78
2"	15°	0	0	0.8	2.4	4.4	7	10.2	14.1	18.8	24.4	30.9
	30°	0	0.4	1.2	3.8	6	10	15	23	31	43	60
	60°	0	0.4	1.5	4.6	9	16.5	27	39	55	83	110
	90°	0	0.5	2	6	12	22	35	45	70	105	135
2-1/2"	15°	0	0	0.8	3.9	7.1	11.2	16.2	22.3	29.8	38.3	48.1
	30°	0	0.4	1	4	8	12	18	28	37	62	75
	60°	0	0.4	1.5	5	10	21	34	53	75	103	150
	90°	0	0.5	1.7	7	14	28	48	70	106	160	218
3"	15°	0	0.4	1	3.9	7.5	13	20	31	41	58	72.2
	30°	0	0.5	1.2	4	8	14	23	33	46	65	82
	60°	0	0.5	2.5	6	14	25	40	65	91	128	165
	90°	0	0.7	3.5	8	18	35	60	90	135	205	310
4"	15°	0	0.5	1.5	5	14	25	41.5	56.4	74.7	94.5	118.9
	30°	0	0.6	2	6	15	29	48	71	100	130	159
	60°	0	0.7	3	11	25	40	59	90	141	212	356
	90°	0	1	3.5	16	40	75	125	190	265	442	670
6"	30°	0	0.9	3.2	14	33	60	103	155	220	280	350
	60°	0	2	5	22	60	110	190	285	416	586	800
	90°	0	3	8	35	90	160	280	425	650	970	1480
	FL	0	0.96	0.95	0.94	0.93	0.92	0.9	0.88	0.86	0.82	0.75
	XT	0	0.98	0.77	0.71	0.67	0.64	0.63	0.62	0.55	0.43	0.4
	FD	0	0.6	0.65	0.71	0.79	0.89	0.92	0.93	0.95	0.97	0.98

### HOW TO ORDER MV8B

1) Series	2) Body Material	3) Connections	4) Size	5) Seat Material	6) Ball Material	7) Stem Material	8) O-Ring	9) Operators
MV8	S - Stainless Steel C - Carbon Steel	TH - Threaded SW - Socket Weld BW - Butt Weld	0050 - 1/2" 0075 - 3/4" 0100 - 1" 0125 - 1-1/4" 0150 - 1-1/2" 0200 - 2" 0250 - 2-1/2" 0300 - 3" 0400 - 4"	P - PTFE S - 50/50 STFE C - CTFE T - TFM™-1600 A - STFM	1 - Stainless Steel 15° V-Port 3 - Stainless Steel 30° V-Port 6 - Stainless Steel 60° V-Port 9 - Stainless Steel 90° V-Port	X - Stainless Steel	V - FKM/Viton®	B - Bare Stem