

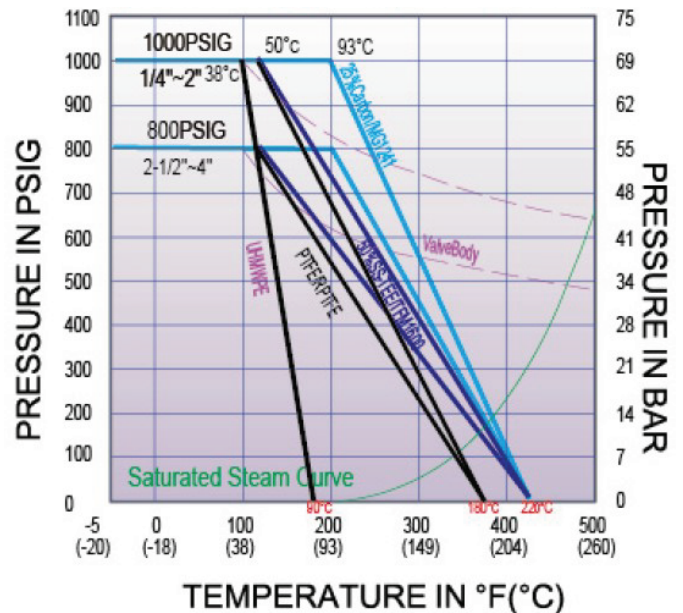


SERIES M7B

Sanitary Three-Piece Ball Valves 1/2" to 4" Full Port 393/1000 PSI



PRESSURE VS. TEMPERATURE CHART



DESIGN ADVANTAGES

- For general industrial, sanitary and chemical applications.
- Three-piece swing-out design allows in-line maintenance.
- Full port orifice minimizes pressure drop and prolongs life.
- Blow-out proof stem.
- Pyramidal stem packing.
- Available in stainless steel CF3M.
- Investment cast body construction.
- Direct mount.

END CONNECTIONS

- Sanitary Clamp
- Sanitary Clamp x Tube O.D.
- Tube O.D.
- No Ends

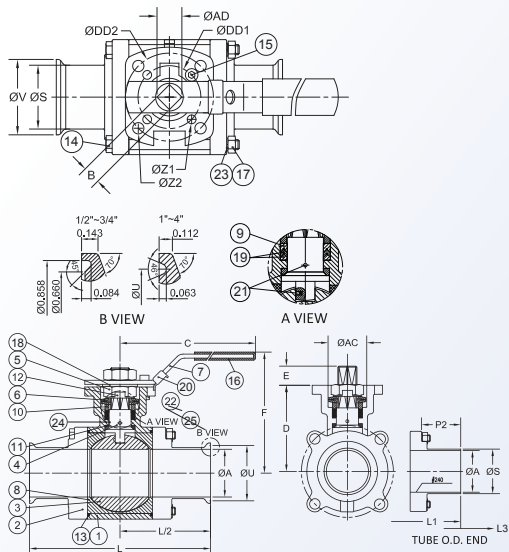
SPECIFICATIONS

CONSTRUCTION: Three-Piece Body, Full Bore
SIZE: 1/2" to 4" **BALL:** CF3M **SEAT:** PTFE
BODY: CF3M **STEM:** 316L S.S.
PRESSURE RATING: 393/1000 PSI

STANDARDS

DESIGN & CONSTRUCTION: ASME B16.11 | ASME B16.25 | ISO 5211 | ASME B16.34
THREAD & CONNECTION INTERFACES: ASME B1.20.1 | ISO 228-1 (BSPP) | ISO 7-1 (BSPT) | DIN 2999 | EN 1092-1 | ASME B16.5
TESTING & QUALIFICATION: API 598
PERFORMANCE & ENV. COMPLIANCE: NACE MR0175 / ISO 15156 | SIL 3 | TA-Luft | ATEX 2014/34/EU
IDENTIFICATION & MARKING: ISO 5209
CERTIFICATION & DOCUMENTATION: EN 10204-3.1 | CE 0343 PED 2014/68/EU Cat. II Mod. D1

M7B MATERIALS LIST



NO.	PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS	QTY.
1	Body	ASTM A351 Grade CF3M	ASTM B575 UNS N10276 (Hastelloy C-276), Electro-polished SST, A890 Grade 5A CE3MN (Super Duplex)	1
2	Body End Cap (Sanitary Clamp)	ASTM A351 Grade CF3M	ASTM B575 UNS N10276 (Hastelloy C-276), Electro-polished SST, A890 Grade 5A CE3MN (Super Duplex)	2
2	Body End Cap (Tube O.D.)	ASTM A351 Grade CF3M	ASTM B575 UNS N10276 (Hastelloy C-276), Electro-polished SST, A890 Grade 5A CE3MN (Super Duplex)	2
3	Ball	ASTM A351 Grade CF3M, ASTM A276 316SST	Monel, ASTM B575 UNS N10276 (Hastelloy C-276), A890 Grade 4A CD3MN (Duplex), A890 Grade 5A CE3MN (Super Duplex), Hard Coated (HMF)	1
4	Stem	ASTM A276 316SST	Monel, A890 Grade 4A CD3MN (Duplex), A890 Grade 5A CE3MN (Super Duplex)	1
5	Stem Nut	AISI 304	Duplex	2
6	Stem Packing Belleville Washer	AISI 301		2
7	Handle	AISI 304		1
8	Seat	PTFE		2
9	Stem Packing Gland	PTFE	RTFE, UHMEPE, TFM™-1600	1
10	Stem Packing Washer	PTFE	TFM™-1600	1
11	Stem Seal	RTFE		1
12	Stem Lock Handle	AISI 304		1
13	Body Joint Gasket	PTFE		2
14	Body Bolt	AISI 304	TFM™-1600	*
15	Handle Stop Bolt	AISI 304		1
16	Handle Sleeve	VINYL		1
17	Body Bolt Nut	AISI 304		*
18	Stem Washer	AISI 304		1
19	Stem Packing	PTFE		1
20	Handle Lock	AISI 304	TFM™-1600	1
21	Anti-Static Device	ASTM A276 316SST		2
22	Handle Stop Bolt Nut	AISI 304		1
23	Body Bolt Washer	AISI 304		*
24	Stem O-Ring	FKM/Viton®		1
25	Handle Stop Bolt Washer	AISI 304		1

14" 1/2" to 2": 4 Bolts, 2-1/2" to 3": 4 Studs, 4": 6 Studs
 17" 1/2" to 2": 4 Nuts, 2-1/2" to 3": 8 Nuts, 4": 12 Nuts
 23" 1/2" to 2": 4 Washers, 2-1/2" to 3": 8 Washers, 4": 12 Washers

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	L3	P2	S	U	V	AC	AD	DD1	DD2	Z1	Z2	ISO 5211	LBS
1/2"	0.37	0.354	5.47	1.66	0.32	3.03	3.51	5.5	1.92	0.5	-	0.99	0.92	0.43	1.417	1.654	0.24	0.24	F03/F04	1.5
3/4"	0.62	0.354	5.47	1.89	0.32	3.27	4	5.75	1.96	0.75	-	0.99	0.92	0.43	1.417	1.654	0.24	0.24	F03/F04	1.8
1"	0.87	0.433	6.5	2.23	0.44	3.74	4.51	6.25	2	1	1.71	1.99	1.14	0.563	1.654	1.969	0.24	0.28	F04/F05	2.7
1 1/2"	1.37	0.551	8.47	3.05	0.56	5	5.52	7.5	2.23	1.5	1.71	1.99	1.54	0.744	1.969	2.756	0.28	0.34	F05/F07	7
2"	1.87	0.551	8.47	3.35	0.56	5.28	6.26	8.5	2.46	2	2.2	2.52	1.54	0.744	1.969	2.756	0.28	0.34	F05/F07	9.8
2 1/2"	2.37	0.669	11.81	4.28	0.67	6.54	6.85	9.75	2.55	2.5	2.78	3.05	2.07	0.885	2.756	4.016	0.34	0.47	F07/F10	19.6
3"	2.87	0.669	14.57	4.63	0.71	6.93	7.61	10.5	2.69	3	3.28	3.58	2.07	0.885	2.756	4.016	0.34	0.47	F07/F10	25.9
4"	3.83	0.669	14.57	5.22	0.67	7.48	8.9	12.5	3.14	4	4.34	4.68	2.07	0.885	2.756	4.016	0.34	0.47	F07/F10	47.4

HOW TO ORDER

1) Series	2) Body Material	3) Connection	4) Size
M7B	S - Stainless Steel T - HASTELLOY E - Electropolisher SST G - CE3MN	SA - Sanitary Clamp DA - Tube O.D. SD - Sanitary Clamp x Tube O.D. NE - No Ends	0050 - 1/2" 0075 - 3/4" 0100 - 1" 0150 - 1-1/2" 0200 - 2" 0250 - 2-1/2" 0300 - 3" 0400 - 4"
5) Seats	6) Ball	7) Stem	
P - PTFE U - UHMWPE S - 50/50 STFE T - TFM™-1600 A - STFM F - PTFE Cavity Filler H - TFM Cavity Filler J - STFE Cavity Filler E - RTFE Cavity Filler	X - Stainless Steel R - Monel T - Hastelloy C-276 D - Duplex SST G - Super Duplex SST H - Hard Coated (HMF)	X - Stainless Steel R - MONEL D - DUPLEX SS G - SUPER DUPLEX SS	
8) O-Ring	9) Operator	How to Order: {1}{2}-{3}-{4}-{5}{6}{7}{8}-{9} Example: M7BS-SA-0050-PXXX-X	
X - Not Required	X - Manual Handle O - Oval Handle L - Stem Extension B - Bare Stem		

Breakaway Torque (PTFE)&Cv Value

SIZE	PTFE		Valve Cv
	MAX	Cavity Filled PTFE MAX	
1/2"	58	69	10
3/4"	69	83	30
1"	127	152	65
1-1/2"	173	207	200
2"	323	387	410
2-1/2"	518	621	600
3"	806	967	1050
4"	1014	1217	1900



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