



Series M1-CS & SS

3-Piece Steel Ball Valve with "Live-Load" Stem Packing



FEATURES

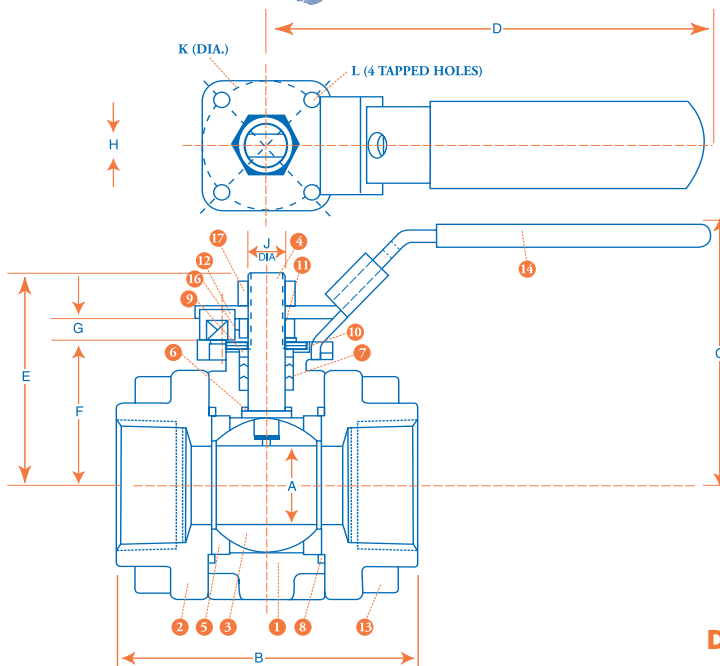
- 3-Piece, 4 Bolt Construction
- Standard Electrically Grounded Ball & Stem
- Live-Load PTFE Stem Packing
- NACE MR01-75 Compliant
- ISO 5211 4 Bolt Mounting
- Standard 316SS Ball & Stem
- Standard 304SS Latch Lock Handles
- 1/4"-4" Full Port
- Female NPT and Socket-Weld Ends Available
- 304SS Packing Clip Secures Packing Adjustment

RATINGS

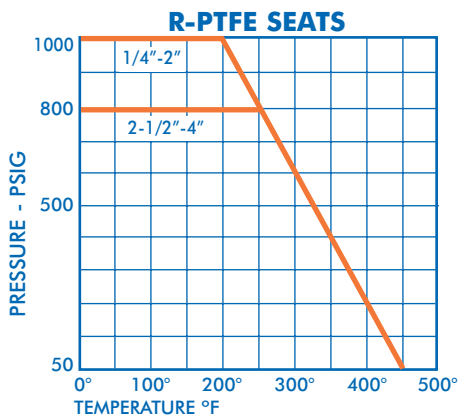
1/4"-2": 1000WOG
2-1/2"-4": 800WOG
All Sizes: 200 PSIG WSP

MATERIALS OF CONSTRUCTION

PART	QTY.	DESCRIPTION	STANDARD MATERIAL
1	1	BODY	ASTM A351 GR CF8M OR A216 GR WCB
2	2	TAILPIECE	ASTM A351 GR CF3M OR A216 GR WCB
3	1	BALL	ASTM A276 GR 316 OR CF8M
4	1	STEM	ASTM A276 GR 316 OR CF8M
5	2	SEAT	R-TFM (R-PTFE)
6	1	THRUST WASHER	R-PTFE
7	1	PACKING SET	TFE
8	2	BODY SEAL	R-PTFE
9	1	GLAND	ASTM A276 GR 316 SS
10	2	BELLEVILLE WASHER	STAINLESS STEEL
11	1	PACKING NUT	ASTM A276 GR 304 SS
12	1	STOP PIN	ASTM A276 GR 304 SS
13	8	BODY BOLT & NUT	304SS
14	1	HANDLE ASSY	304SS
16	1	PACKING CLIP	304SS
17	1	HANDLE NUT	304SS



DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE



SIZE	A (PORT)	B	C	D	E	F	G	H	J	K (DIA)	L	ISO PATTERN	WT. (LBS)	CV	Torque IN-LBS
1/4"-3/8"	0.43	2.49	2.36	4.17	1.84	1.14	0.35	0.20	0.31	1.42	1/4"-20UNC	F03	1.1	10	50
1/2"	0.56	2.76	2.36	4.17	1.90	1.14	0.37	0.20	0.31	1.42	1/4"-20UNC	F03	1.1	16	75
3/4"	0.81	3.03	2.83	5.04	2.37	1.34	0.48	0.20	0.44	1.65	1/4"-20UNC	F04	1.4	32	120
1"	1.00	3.62	3.06	5.04	2.68	1.58	0.48	0.28	0.50	1.65	1/4"-20UNC	F04	2.1	62	180
1-1/4"	1.25	4.13	3.40	7.83	3.13	1.79	0.57	0.31	0.62	1.97	1/4"-20UNC	F05	3.3	115	300
1-1/2"	1.50	4.72	3.66	7.83	3.39	2.05	0.57	0.39	0.62	1.97	1/4"-20UNC	F05	4.3	140	400
2"	2.00	5.43	4.61	7.83	3.71	2.41	0.53	0.39	0.62	1.97	1/4"-20UNC	F05	6.6	365	600
2-1/2"	2.50	6.69	5.37	10.00	4.96	2.89	0.73	0.39	0.62	2.76	5/16"-18UNC	F07	10.8	450	1050
3"	3.00	7.52	5.76	10.00	5.47	3.29	0.72	0.39	0.62	2.76	5/16"-18UNC	F07	33	1100	1350
4"	4.00	8.54	6.88	11.93	6.82	4.21	0.91	0.47	0.62	4.02	3/8"-16UNC	F10	55	2200	2200

Quadrant[®]

VALVE & ACTUATOR, LLC

SERIES M1-CS & SS

REV.
05/07

NUMBERING SYSTEM ... HOW TO ORDER:

M1 F C S R Z SL TT 100

SERIES	PORT SIZE	BODY & TAILPIECE MATERIAL	BALL/STEM MAT'L	SEAT MAT'L	SEAL MAT'L	HANDLE TYPE	ENDS	SIZE
M1	F = FULL	C = A216 WCB CARBON STEEL S = A351 GR CR8M STAINLESS A = A351 GR CN7M ALLOY 20	S = ASTM A276 GR 316 SS A = A351 GR CN7M ALLOY 20	R = R-PTFE U = UHMW	Z = LIVE LOADED PTFE PACKING, R-PTFE THRUST WASHER, R-PTFE SEALS X = LIVE LOADED GRAPHITE PACKING, R-PTFE THRUST WASHER, GRAPHITE SEALS	SL = STAINLESS LATCH LOCK SO = STAINLESS OVAL LO = STAINLESS LOCKING OVAL PA = DOUBLE ACTING PNEUMATIC SA = SPRING RETURN PNEUMATIC XH = EXTENDED TOPWORKS	TT = FNPT WW = SOCKET WELD WT = SOCKET WELD x FNPT	025 = 1/4" 038 = 3/8" 050 = 1/2" 075 = 3/4" 100 = 1" 125 = 1-1/4" 150 = 1-1/2" 200 = 2" 250 = 2-1/2" 300 = 3" 400 = 4"



2" M1-SS with Quadrant
C-Series Actuator



1" M1-SS with 304 SS
Locking Oval Handle