

Series 13

Direct Mount 3-Piece Ball Valve

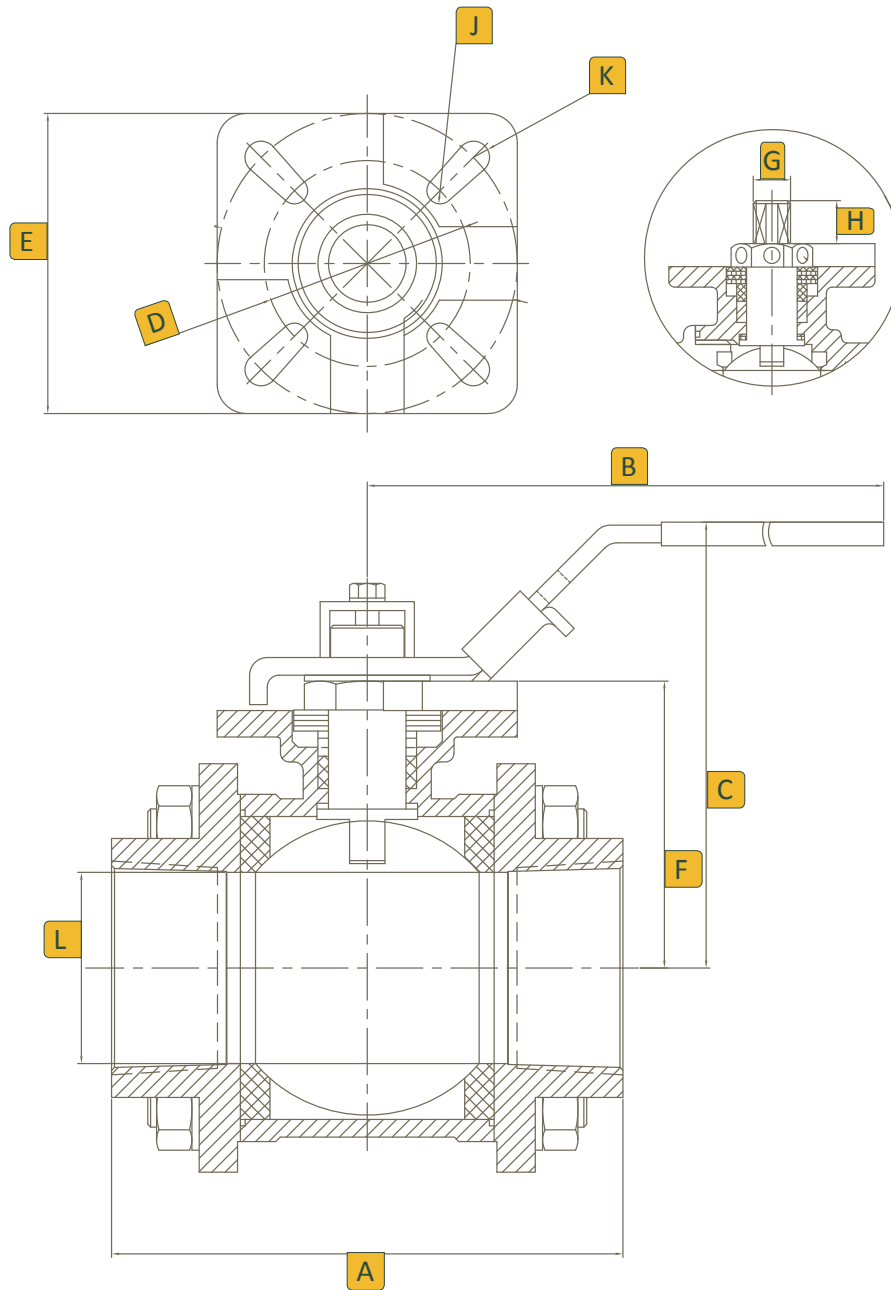


Valves, Automation & Controls

Features

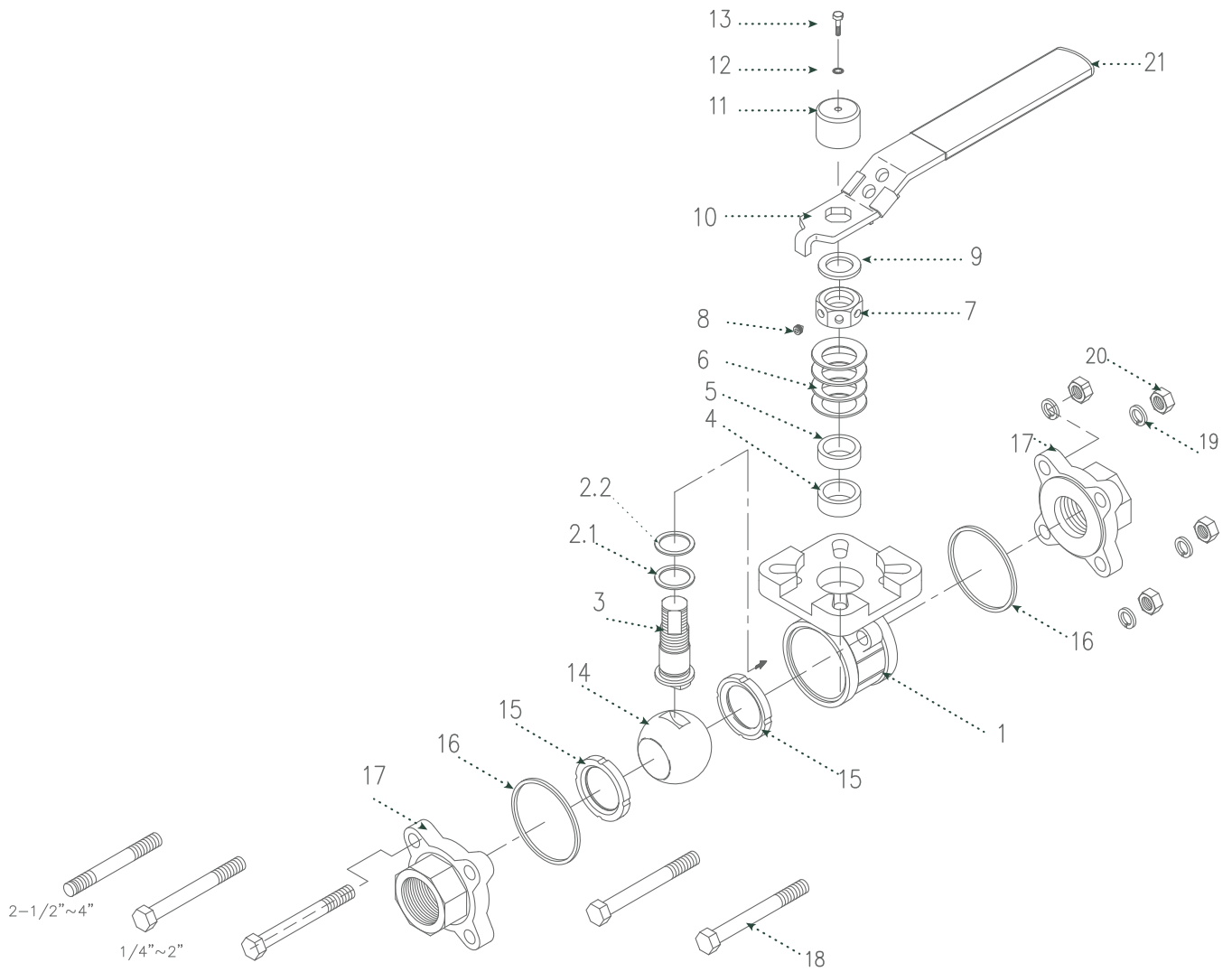
- 1000 psi
- 150 WSP (mounting bracket must be used for steam applications)
- Full port
- Vented ball
- ISO 5211 mounting pad
- High cycle stem design
- Patented system allows for stem packing nut adjustments without removing the actuator
- Compact design
- Actuator Options
 - 4X4® - Four Piston Actuator
 - SPN II - Two Piston Actuator
 - Electric Actuator





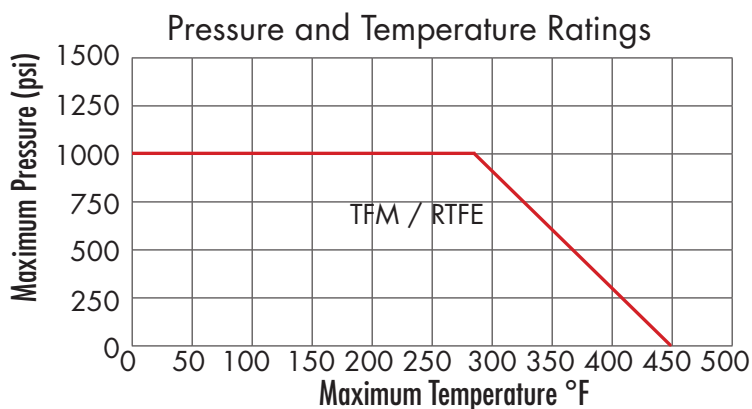
Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	J	K	L
1/4	2.56	4.92	2.41	1.42	1.65	1.50	0.44	0.43	0.11	0.11	0.46
3/8	2.56	4.92	2.41	1.42	1.65	1.50	0.44	0.43	0.11	0.11	0.50
1/2	2.83	4.92	2.41	1.42	1.65	1.50	0.44	0.43	0.11	0.11	0.59
3/4	3.35	4.92	2.73	1.65	1.97	1.85	0.43	0.44	0.12	0.12	0.79
1	3.62	7.48	3.18	1.97	2.76	2.20	0.43	0.57	0.14	0.18	1.00
1-1/4	4.33	7.48	3.26	1.97	2.76	2.60	0.50	0.63	0.14	0.18	1.26
1-1/2	4.83	7.48	3.46	1.97	2.76	2.81	0.50	0.63	0.14	0.18	1.50
2	5.58	7.48	3.84	1.97	2.76	3.17	0.50	0.63	0.14	0.18	2.00
2-1/2	6.84	9.84	5.91	2.76	4.02	3.84	0.88	0.79	0.18	0.22	2.56
3	7.57	9.84	6.30	2.76	4.02	4.25	0.88	0.79	0.18	0.22	2.95
4	10.78	14.96	6.93	4.02	4.92	4.86	0.88	1.00	0.22	0.26	3.94



No.	Part Name	Qty	Material
1	Body	1	Carbon Steel ASTM A216 WCB or 316 Stainless Steel ASTM A351 CF8M
2.1	Thrust Washer	1	Peek
2.2	Thrust Washer	1	Nova
3	Stem	1	316 Stainless Steel
4	Stem Seal	1	RTFE
5	Gland	1	304 Stainless Steel
6	Spring Washers	4	301 Stainless Steel
7	Packing Nut	1	304 Stainless Steel
8	Setscrew	1	304 Stainless Steel
9	Handle Washers	1	304 Stainless Steel
10	Handle	1	304 Stainless Steel
11	Stem Cover	1	304 Stainless Steel
12	Teeth Washer	1	304 Stainless Steel
13	Stem Bolt	1	304 Stainless Steel
14	Ball	1	316 Stainless Steel
15	Seat	2	TFM (1/4" to 2") RTFE (2-1/2" to 4")
16	Body Seal	2	PTFE
17	Ends	2	Carbon Steel ASTM A216 WCB or 316 Stainless Steel ASTM A351 CF8M
18	Body Bolt	4 (1/4" to 2") / 6 (2-1/2" to 4")	304 Stainless Steel
19	Bolt Washer	4 (1/4" to 2") / 6 (2-1/2" to 4")	304 Stainless Steel
20	Body Nut	4 (1/4" to 2") / 6 (2-1/2" to 4")	304 Stainless Steel
21	Handle Sleeve	1	PVC

Size	CV	Break Away Torque / Lbs
1/4	8	40
3/8	8	40
1/2	38	40
3/4	71	80
1	110	110
1-1/4	230	160
1-1/2	350	190
2	600	250
2-1/2	320	500
3	580	720
4	820	800



Ordering

Fig: 3/4 - 13 - 6 - 6TE - M - X60 - SR2

Description: 3/4" - Series 12 - Stainless Steel Ball & Stem - Stainless Steel Ends Threaded - TFM Seat - 4X4® X60 Actuator - 2 Springs

Size	Series	Body Ball & Stem	Ends	Seat	Pneumatic Actuator	Spring	Electric Actuator	Options		
1/4	13	6 316 Stainless Steel	Material	M R	TFM RTFE	4X4®	DA Double Acting (No Springs)	SEA 1 SEA 3 SEA 4 SEA 8 SEA 13	4X4®	
3/8			6 316 Stainless Steel						P1 High Temp Viton Seals -15°F to 300°F	
1/2			4 Carbon Steel						P2 Low Temp EPDM Actuator -40°F to 176°F	
3/4			Connection						P3 Actuator Locking Device	
1			TE Threaded						P4 Reverse Rotation	
1-1/4			SW Socket Weld						SPN II	
1-1/2			BW Butt Weld (Sch 5, 20 or 40)						P1 High Temp Viton Seals -15°F to 300°F	P2 Low Temp EPDM Actuator -40°F to 176°F
2									P3 Electroless Nickel Treatment	P4 Epoxy Coating
3									P5 Actuator Locking Device	P6 Reverse Rotation
4									SEA	
			1 220V							
			2 24V							
			3 12 VDC							
			4 24 VDC							
			AS Auxiliary Switches							
			FP Feedback Potentiometer							
			CR Control Relays							
			HT Heater & Thermostat							
			BD Breather & Drain							
			PP Proportional Positioner							
			FT Feedback Transmitter							
			SC Speed Control							
			TR Timers							
			TS Torque Sensor							
			Solenoids							
			1	4/12 NEMA 4X 120 VAC						
			2	4/22 NEMA 4X 240 VAC						
			3	4/2A NEMA 4X 24 VAC						
			5	7/12 NEMA 7/9 120 VAC						
			6	7/22 NEMA 7/9 240 VAC						
			8	7/2A NEMA 7/9 24 VAC						