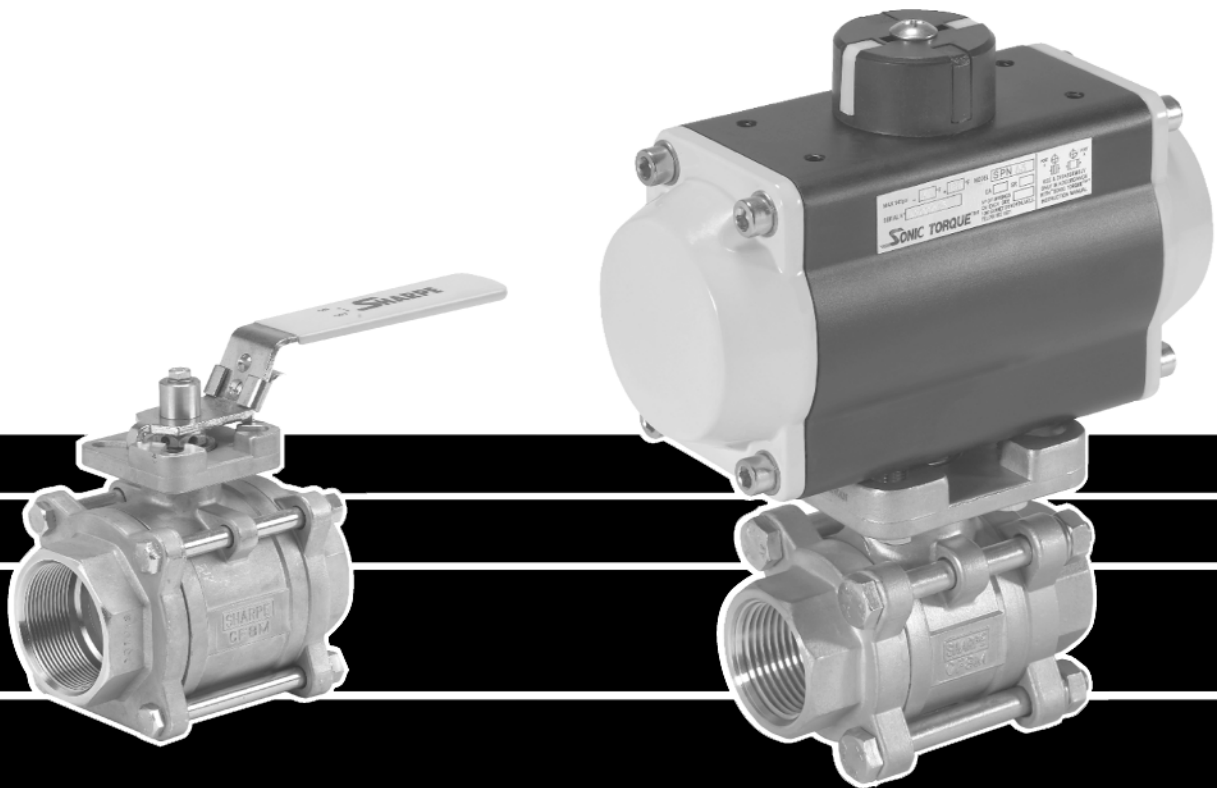


SHARPE[®] VALVES



**SERIES 13
DIR-ACT[®]
3 PIECE BALL VALVES**

SHARPE® SERIES 13 DIR-ACT® 3 PIECE BALL VALVES

STANDARD FEATURES

Compact Dependable Automated Assemblies

In-Service Adjustable Stem Packing

Live Loaded Multiple Packing Stem Seal System

Heavy Duty Large Diameter Stem

Integral ISO Mounting Pads

Steam Rated

Vented Ball

Full Port Design 1000 WOG

Three Piece Body Design 1/4" - 4"

Option - Manual

ADVANTAGES

Actuator Bracket couplings are eliminated resulting in a lower profile and reliable automated assembly.

The large oversized packing nut, "Mc-Nut" is drilled on each flat. This allows the use of a standard allen wrench to make stem packing nut adjustments while the valve is in service and without removal of the actuator , **U.S. Patent No. 6,446,935 B1.**

The stem seal system uses a combination of an internal thrust washer, an internal stem seal made from Peek, and Nova, two large Nova upper stem seals, and four Belleville spring washers to insure high cycle leak free service.

The heavy duty stem is larger than comparable valves, which insures extended service life, less down time and overall lower cost.

The cast mounting pad is precision machined to ISO standards and will allow for actuation variations depending on application requirements.

TFM® and RTFE seats are designed to handle 150 lb. steam.

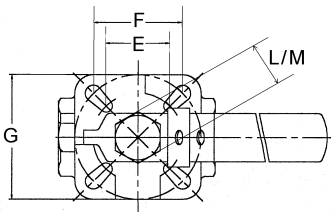
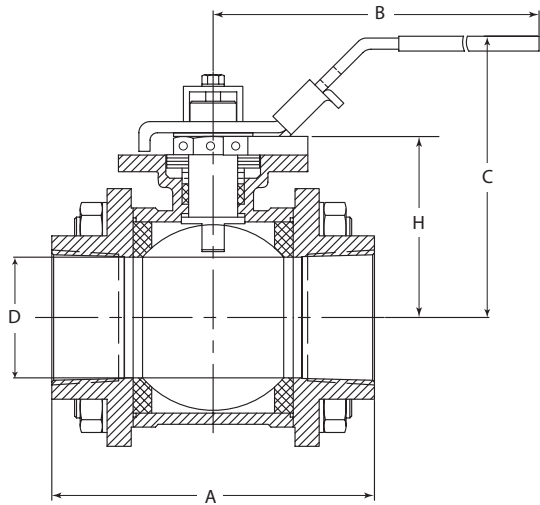
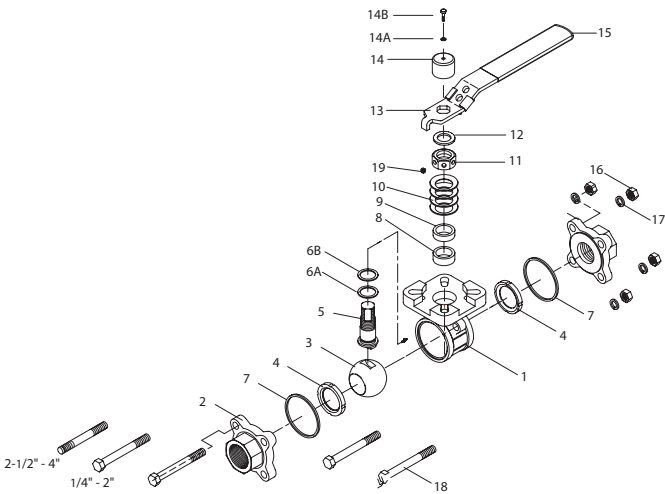
Drilled stem slot insures the ball cavity is vented to the process stream. This prevents cavity over-presurization especially in steam service.

The full port design insures full flow and minimal cavitation or pressure drop in critical applications. The valve carries a pressure rating of 1000 WOG.

The three piece body design provides a stable compact valve platform, with a variety of end connection options.

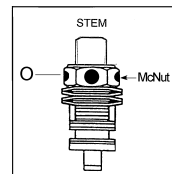
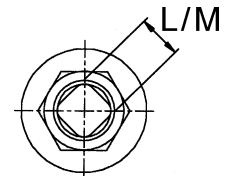
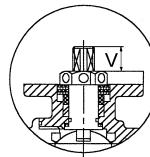
Regular lever handle is available, also oval handle that extends 2-1/4" high.

SERIES 13 PARTS AND DIMENSIONS

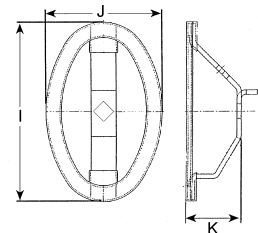


PART NO.	PART	QTY.	MATERIAL	
1	Body	1	316 Stainless Steel Carbon Steel	ASTM A351 CF8M ASTM A216 WCB
2	Pipe Ends	2	316 Stainless Steel Carbon Steel	ASTM A351 CF8M ASTM A216 WCB
3	Ball	1	316 Stainless Steel	
4	Seat	2	TFM® (1/4" - 2) RTFE (2-1/2" - 4")	
5	Stem	1	316 Stainless Steel	
6A	Thrust Bearing	1	PEEK	
6B	Thrust Bearing	1	Nova	
7	Body Seal	2	TFE	
8	Stem Packing	1	Nova	
9	Gland Packing	1	304 Stainless Steel	
10	Belleville Washers	4	Stainless Steel	
11	McNut® (Packing Nut)	1	316 Stainless Steel	
12	Handle Washer	1	Stainless Steel	
13	Handle	1	Stainless Steel	
14	Stem Cover	1	304 Stainless Steel	
14A	Washer	1	304 Stainless Steel	
14B	Cover (Bolt)	1	304 Stainless Steel	
15	Handle Sleeve	1	PVC	
16	Bolt Nut	4/8/12"	Stainless Steel	
17	Bolt Washer	4/8/12"	304 Stainless Steel	
18	Bolt	4/8/12"	304 Stainless Steel	
19	Set Screw	1	Stainless Steel	

* 4 = 1/4"-2", 8 = 2-1/2"-3", 12 = 4"

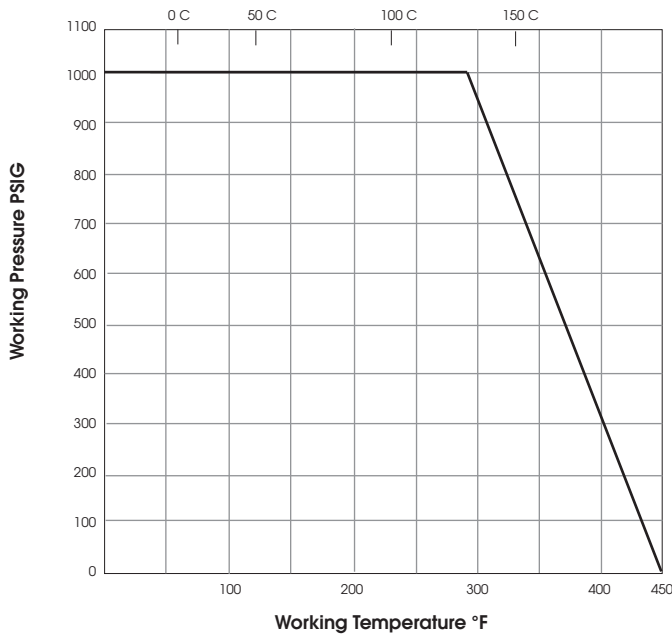


STEM ARRANGEMENTS



SIZE	A	B	C	D	E	F	G	H	I	J	K	L/M	O	V
1/4"	2.55	4.93	2.42	0.45	1.00	1.17	1.65	1.50	3.90	2.50	2.50	0.35	9/64	0.43
3/8"	2.55	4.93	2.42	0.50	1.00	1.17	1.65	1.50	3.90	2.50	2.50	0.35	9/64	0.43
1/2"	2.84	4.93	2.42	0.60	1.00	1.17	1.65	1.50	3.90	2.50	2.50	0.35	9/64	0.43
3/4"	3.35	4.93	2.74	0.78	1.17	1.39	1.97	1.85	4.15	2.50	2.50	0.35	9/64	0.45
1"	3.62	7.50	3.19	1.00	1.39	1.95	2.75	2.20	4.15	2.50	2.50	0.35	9/64	0.58
1-1/4"	4.34	7.50	3.26	1.25	1.39	1.95	2.75	2.55	6.45	4.15	2.50	0.43	9/64	0.63
1-1/2"	4.84	7.50	3.47	1.50	1.39	1.95	2.75	2.75	6.45	4.15	2.50	0.43	9/64	0.63
2"	5.58	7.50	3.84	2.00	1.39	1.95	2.75	3.15	6.45	4.15	2.50	0.43	9/64	0.63
2-1/2"	6.84	9.85	5.90	2.50	1.95	2.84	4.00	3.85	X	X	X	0.67	7/32	0.78
3"	7.59	9.85	6.30	3.00	1.95	2.84	4.00	4.25	X	X	X	0.67	7/32	0.78
4"	10.77	15.00	6.90	4.00	2.84	3.48	4.90	4.90	X	X	X	0.67	7/32	1.00

PRESSURE TEMPERATURE RATINGS



PERFORMANCE DATA

SIZE	CV	BREAKAWAY TORQUE*
1/4"	8	40 LB. IN.
3/8"	8	40 LB. IN.
1/2"	38	40 LB. IN.
3/4"	71	80 LB. IN.
1"	110	110 LB. IN.
1-1/4"	230	160 LB. IN.
1-1/2"	350	190 LB. IN.
2"	600	250 LB. IN.
2-1/2"	320	500 LB. IN.
3"	580	720 LB. IN.
4"	820	800 LB. IN.

* THE TORQUE CAN VARY DUE TO PRESSURE AND TEMPERATURE. THE TORQUE FIGURES REPRESENT MAXIMUM LINE PRESSURE.

HOW TO ORDER

VALVE SIZE	VALVE SERIES	BODY BALL & STEM	ENDS	SEATS	PNEUMATIC ACTUATOR	DOUBLE ACTING & SPRING RETURN	ELECTRIC ACTUATOR	OPTIONS
1/4" 3/8" 1/2" 3/4" 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"	13	6 = 316 Stainless	6 = 316 Stainless 4 = Carbon Steel TE = Threaded Ends SW = Socket Weld BW = Butt Weld SCH 5, 10, 40	M = TFM® R = RTFE	SPN 032 SPN 050 SPN 063 SPN 075 SPN 085 SPN 100 SPN 125 SPN 145 SPN 160	DA= Double Acting SR5 = Spring Return 5 Springs SR6 = Spring Return 6 Springs SR7 = Spring Return 7 Springs SR8 = Spring Return 8 Springs SR9 = Spring Return 9 Springs SR10 = Spring Return 10 Springs SR11 = Spring Return 11 Springs SR12 = Spring Return 12 Springs	SEA II RX (100 IN. LB.) SEA II SX (200 IN. LB.) SEA II SXX (300 IN. LB.) SEA II MRX (675 IN. LB.) SEA II MLX (1000 IN. LB.) SEA II MHX (1500 IN. LB.)	<u>Pneumatic</u> Hi-Temp V = VITON O-Rings <u>Electric</u> S = 2 Aux. Individually Adjustable M = Modulating 4-20mA, 0-10 VDC ² H = Heater A = Indicator Arrow T = Override T-Handle <u>B = External Battery Back-up</u> L = Regular Lever, OH = Oval Handle 7 = 17-4PH Stem

3/4" 13 6 6TE M SPN 050 DA

SHARPE® VALVES

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