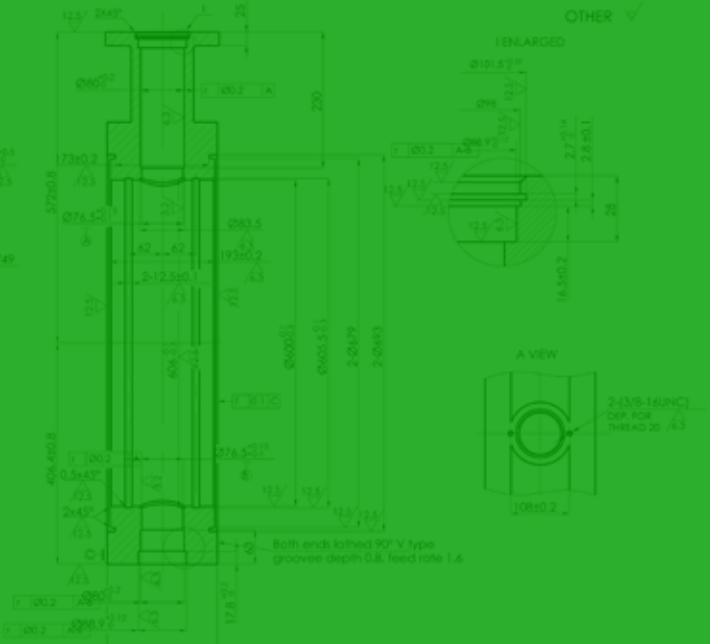


VSI

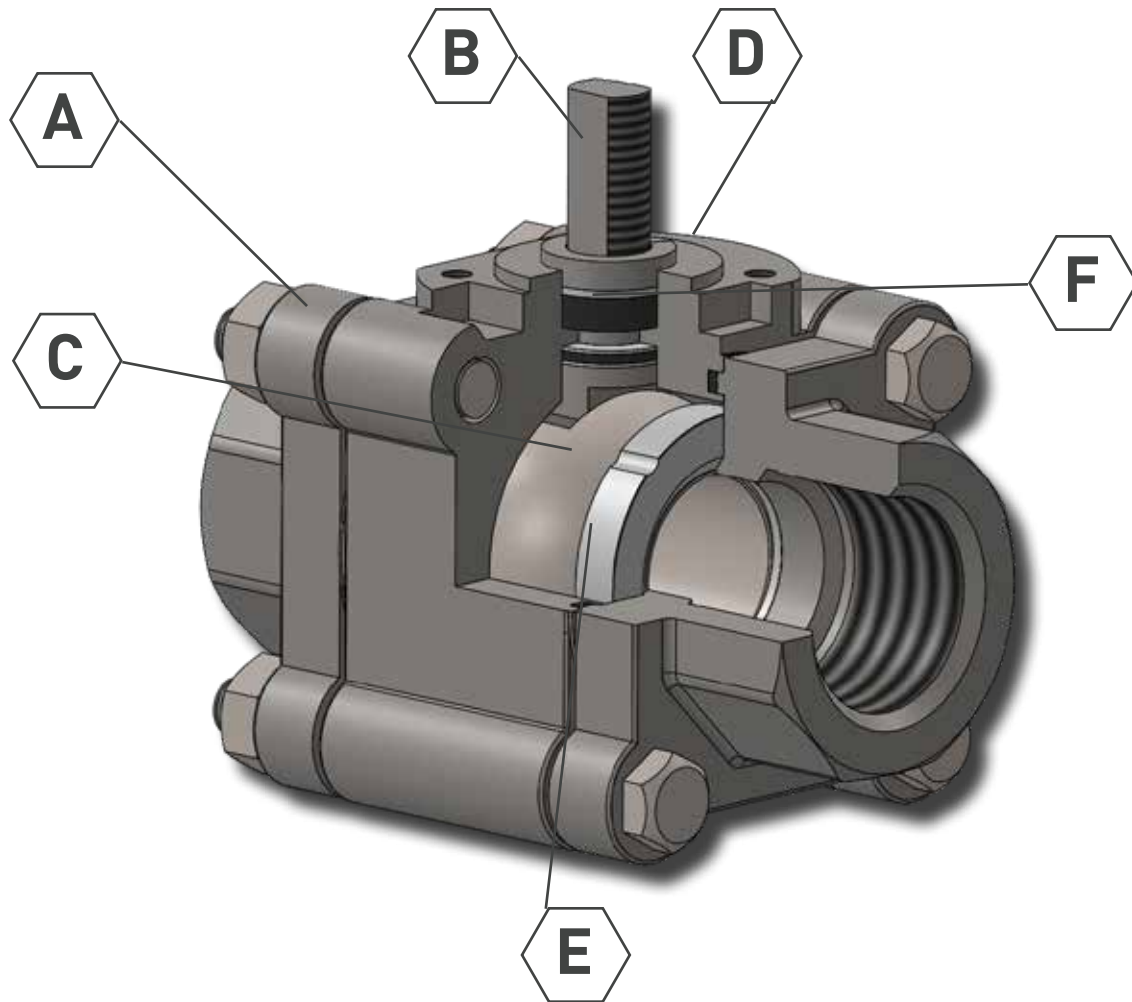


SERIES 7400 THREE PIECE BALL VALVES

1/4" - 2"



DESIGN FEATURES



[A] BODY

- Stainless Steel (A351-CF8M)
- Carbon Steel (A216-WCB)

The three piece body allows the valve to be easily disassembled. In addition, the body is designed for high pressure applications. Optional API 607 4th Edition Fire Safe Design available.

[B] ANTI-STATIC STEM

The stem is designed with an anti-static ball device that maintains constant metal contact with body and ball/stem assembly. This constant contact eliminates the possibility of static spark, if the body and pipe are properly grounded.

[C] BALL

- 316 Stainless Steel

Each investment cast Stainless Steel 316 ball is precision machined before being mirror polished to lower operating torque and extend seat life. A hole in the stem slot helps equalize pressure between the body cavity and the line media.

[D] ISO 511 MOUNTING PLATE

The integrally cast mounting plate is designed to the ISO 5211 standard for the direct mounting of actuators, most gear operators and accessories.



DESIGN FEATURES (CONTINUED)

[E] SEATS

- TFM*
- RPTFE
- PEEK
- ALTA

The Series 7400 features double seats and a bi-directional seating design. Seats designs are bubble tight even at low temperatures or vacuum.

[F] PACKING

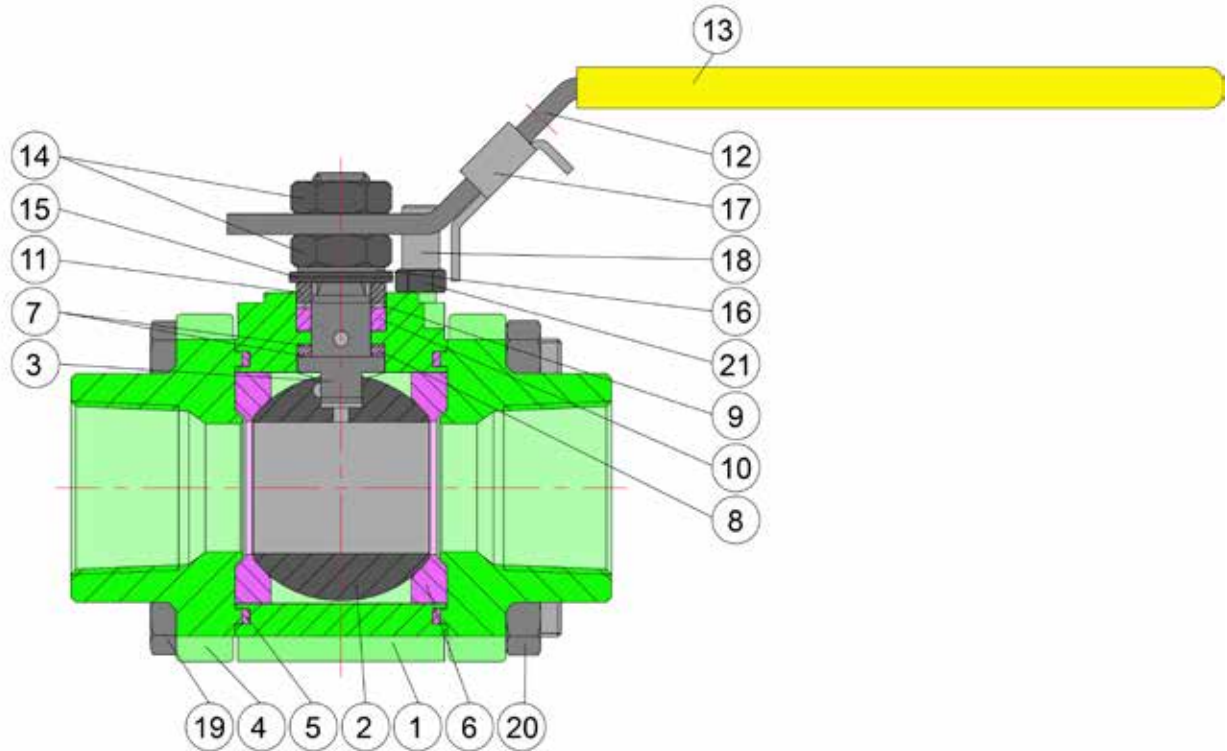
- PTFE*
- Graphite

The packing offers proper alignment for the stem in the valve body and reduces the torque of the valve. The V-cup packing design offers great sealing properties with the stem and body. All packing sets are adjustable for long life and field replaceable. Firesafe and auxiliary secondary packings are available for extreme service

DESIGN STANDARDS

Size Range	1/4"-2"
Connections	NPT: ANSI B1.20.1 SW: ANSI B16.11 BW: ANSI B16.25 FL: ANSI B16.5 CL150 or CL300
Design	ANSI B16.34 NACE MR0175 MSS-SP-110 API 607 (when equipped with firesafe option)
Testing	API 598 MSS SP-72
Leakage	ANSI FCI 70-2 Class VI
Shutoff	2000 PSI CWP (1/4"-1") 1500 PSI CWP (1 1/4"-2")
Temperature	See Pressure/Temperature Table
Mounting	ISO 5221

MATERIALS OF CONSTRUCTION



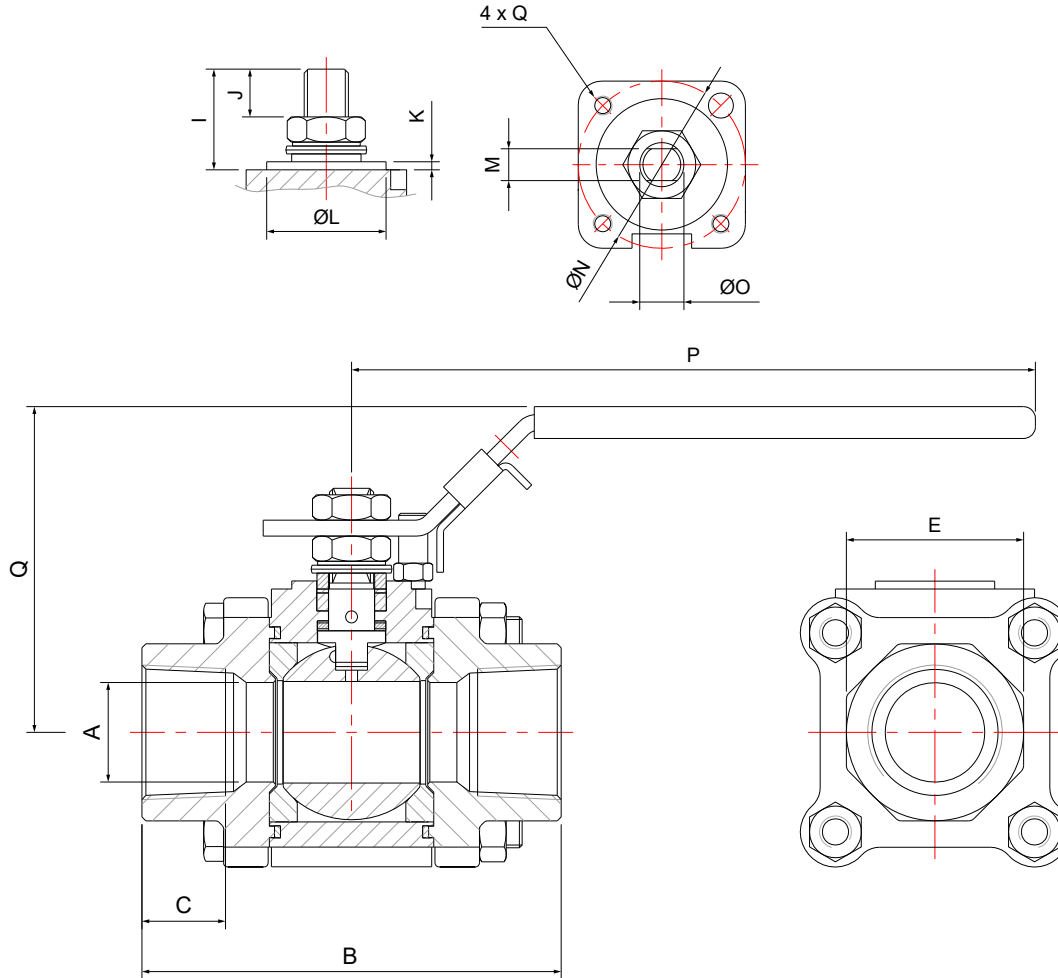
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Item	Description	Materials Available	Standard
1	Body	Carbon Steel	ASTM A216 WCB ⁽¹⁾
		Stainless Steel 316	ASTM A351 CF8M
2	Ball	Stainless Steel 316	ASTM A351 CF8M
3	Stem	Stainless Steel 316	ASTM A276 316
4	Cap	Same as Body	
5	Gasket	Graphite	Commercial
		TFM ⁽²⁾⁽³⁾	
		RPTFE	
		PEEK	
		ALTA	
6	Seat	PTFE	
		ALTA	
		PTFE	
		PTFE	
7	Thrust Washer	RPTFE	Commercial
8	Thrust Washer	Graphite	Commercial
9	Packing #1	RPTFE ⁽²⁾⁽³⁾	Commercial
		Graphite	Commercial

Item	Description	Materials Available	Standard
10	Packing #2	Graphite	Commercial
11	Sleeve	Stainless Steel 304	Commercial
12	Lever	Stainless Steel 304	Commercial
13	Lever Cover	Vinyl	Commercial
14	Stem Nut	Stainless Steel 304	ASTM A276 304
15	Belleville Washer	Stainless Steel 304	Commercial
16	Lock Washer	Stainless Steel 304	Commercial
17	Lever Lock	Stainless Steel 304	Commercial
18	Lever Stop	Stainless Steel 304	Commercial
19	Body Bolt	Carbon Steel ⁽²⁾	ASTM A193 B7
		Stainless Steel 304 ⁽³⁾	ASTM A193 B8
20	Body Nut	Same as Body Bolt	
21	Lever Stop Nut	Stainless Steel 304	Commercial

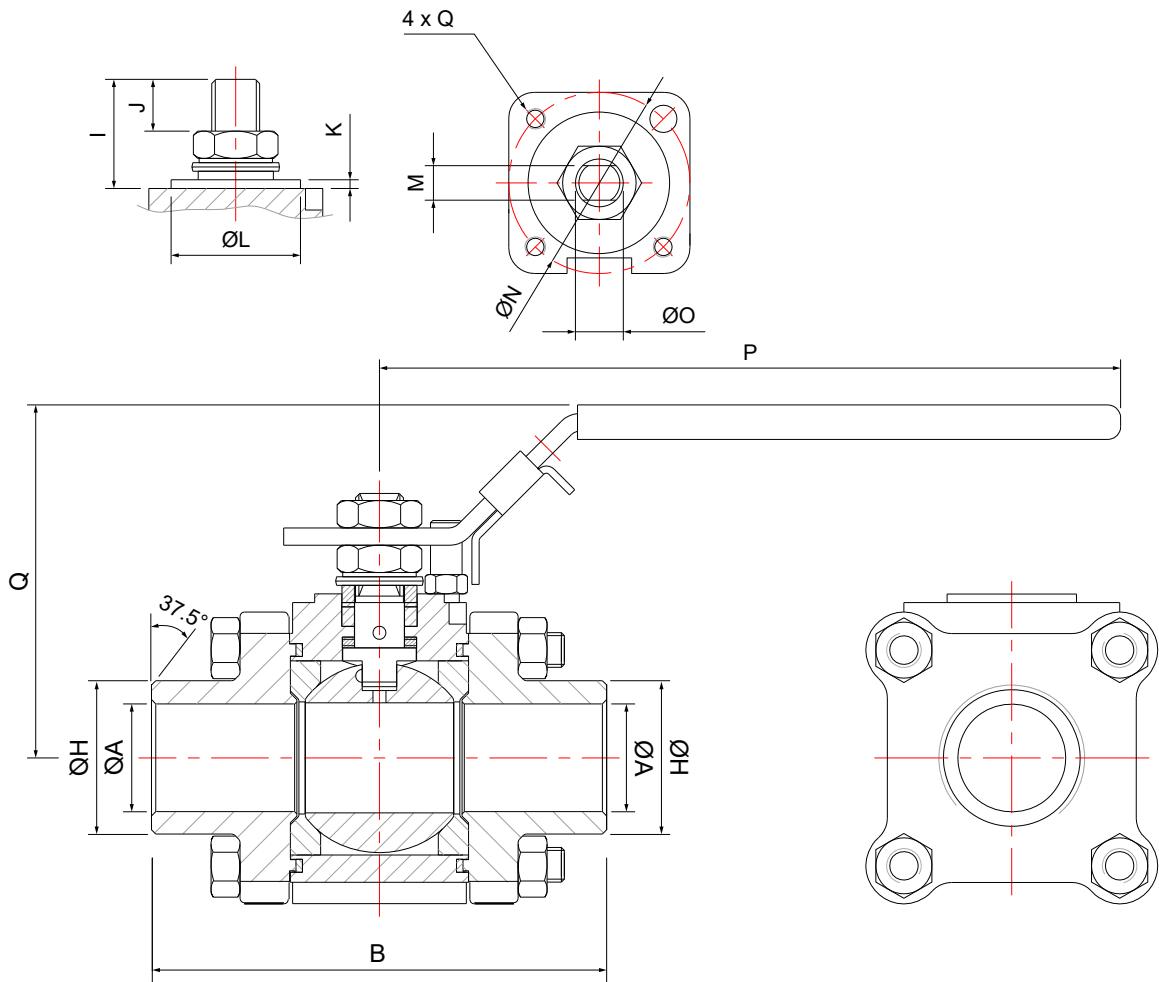
- 1. Phosphate Coated
 - 2. Standard material option for Carbon Steel Body valves
 - 3. Standard material option for Stainless Steel Body valves
- Additional material options available as special order

NPT DIMENSIONS - 7400



SIZE	A	B	C	I	J	K	L	M	N	O	P	Q	R	ISO
1/4"	0.39	2.55	0.63	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
3/8"	0.39	2.55	0.63	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
1/2"	0.59	2.85	0.66	0.65	0.31	0.08	0.98	0.26	1.42	0.37	5.23	2.72	M5x0.8	F03
3/4"	0.79	3.36	0.71	0.70	0.35	0.08	0.98	0.26	1.42	0.37	5.23	2.89	M5x0.8	F03
1"	0.98	4.15	0.83	1.00	0.47	0.08	1.18	0.31	1.65	0.44	6.76	3.22	M5x0.8	F04
1 1/4"	1.26	4.37	0.87	1.02	0.46	0.08	1.18	0.31	1.65	0.44	6.76	3.42	M5x0.8	F04
1 1/2"	1.50	5.01	0.98	1.25	0.59	0.09	1.38	0.38	1.97	0.56	8.04	3.84	M6x1.0	F05
2"	1.97	5.72	1.07	1.13	0.61	0.07	2.17	0.47	2.76	0.74	8.35	5.00	M8x1.25	F07

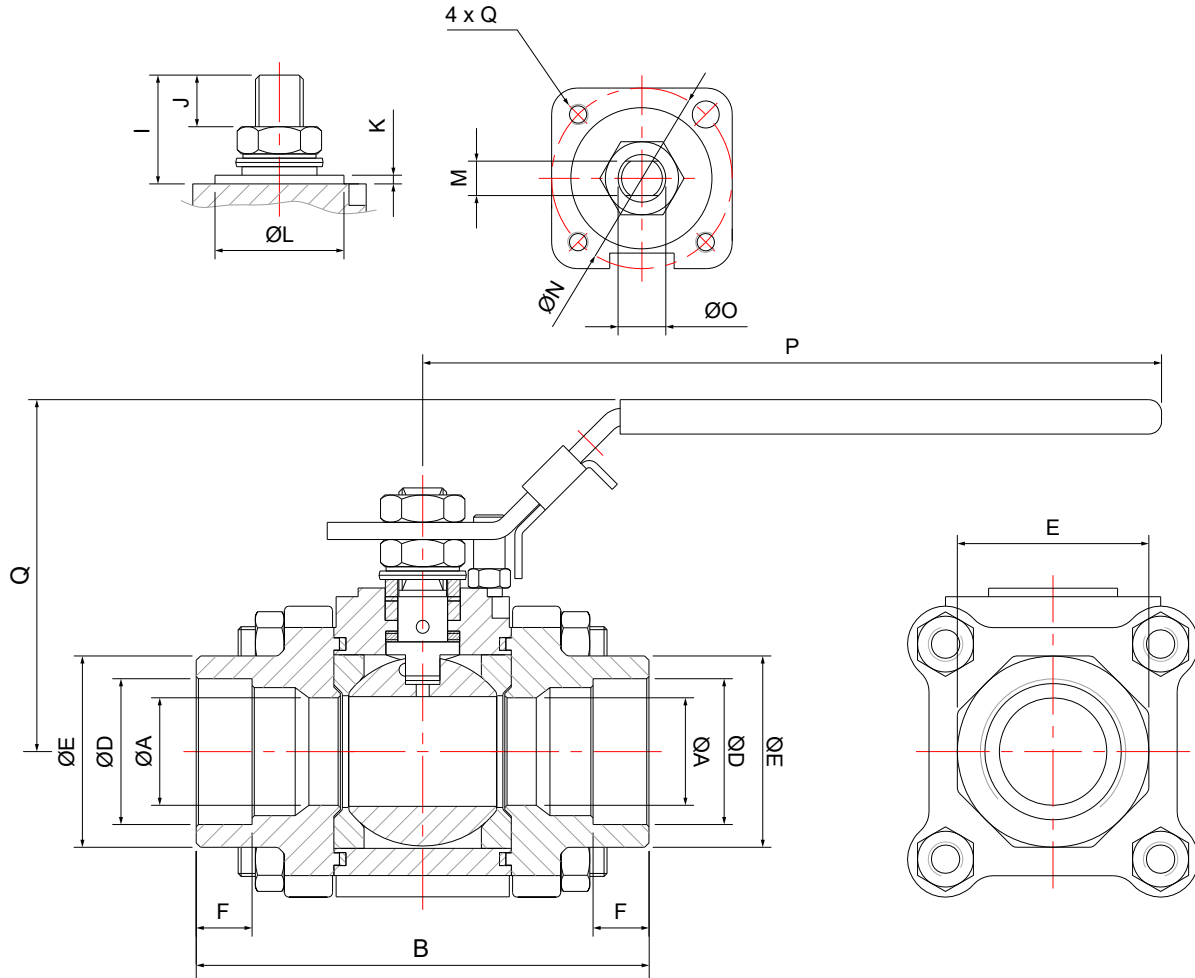
BUTT WELD DIMENSIONS - 7401



PAGE 6

SIZE	A	B	H	I	J	K	L	M	N	O	P	Q	R	ISO
1/4"	0.39	2.55	0.70	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
3/8"	0.39	2.55	0.70	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
1/2"	0.59	2.85	0.89	0.65	0.31	0.08	0.98	0.26	1.42	0.37	5.23	2.72	M5x0.8	F03
3/4"	0.79	3.36	1.07	0.70	0.35	0.08	0.98	0.26	1.42	0.37	5.23	2.89	M5x0.8	F03
1"	0.98	4.15	1.33	1.00	0.47	0.08	1.18	0.31	1.65	0.44	6.76	3.22	M5x0.8	F04
1 1/4"	1.26	4.37	1.69	1.02	0.46	0.08	1.18	0.31	1.65	0.44	6.76	3.42	M5x0.8	F04
1 1/2"	1.50	5.01	1.92	1.25	0.59	0.09	1.38	0.38	1.97	0.56	8.04	3.84	M6x1.0	F05
2"	1.97	5.72	2.41	1.13	0.61	0.07	2.17	0.47	2.76	0.74	8.35	5.00	M8x1.25	F07

SOCKET WELD DIMENSIONS - 7402



SIZE	A	B	D	E	F	I	J	K	L	M	N	O	P	Q	R	ISO
1/4"	0.39	2.55	0.56	1.16	0.39	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
3/8"	0.39	2.55	0.69	1.16	0.39	0.33	0.25	0.02	0.98	0.26	1.42	0.37	5.23	2.45	M5x0.8	F03
1/2"	0.59	2.85	0.85	1.18	0.39	0.65	0.31	0.08	0.98	0.26	1.42	0.37	5.23	2.72	M5x0.8	F03
3/4"	0.79	3.36	1.07	1.42	0.51	0.70	0.35	0.08	0.98	0.26	1.42	0.37	5.23	2.89	M5x0.8	F03
1"	0.98	4.15	1.33	1.75	0.51	1.00	0.47	0.08	1.18	0.31	1.65	0.44	6.76	3.22	M5x0.8	F04
1 1/4"	1.26	4.37	1.69	2.13	0.51	1.02	0.46	0.08	1.18	0.31	1.65	0.44	6.76	3.42	M5x0.8	F04
1 1/2"	1.50	5.01	1.92	2.36	0.51	1.25	0.59	0.09	1.38	0.38	1.97	0.56	8.04	3.84	M6x1.0	F05
2"	1.97	5.72	2.41	2.87	0.63	1.13	0.61	0.07	2.17	0.47	2.76	0.74	8.35	5.00	M8x1.25	F07



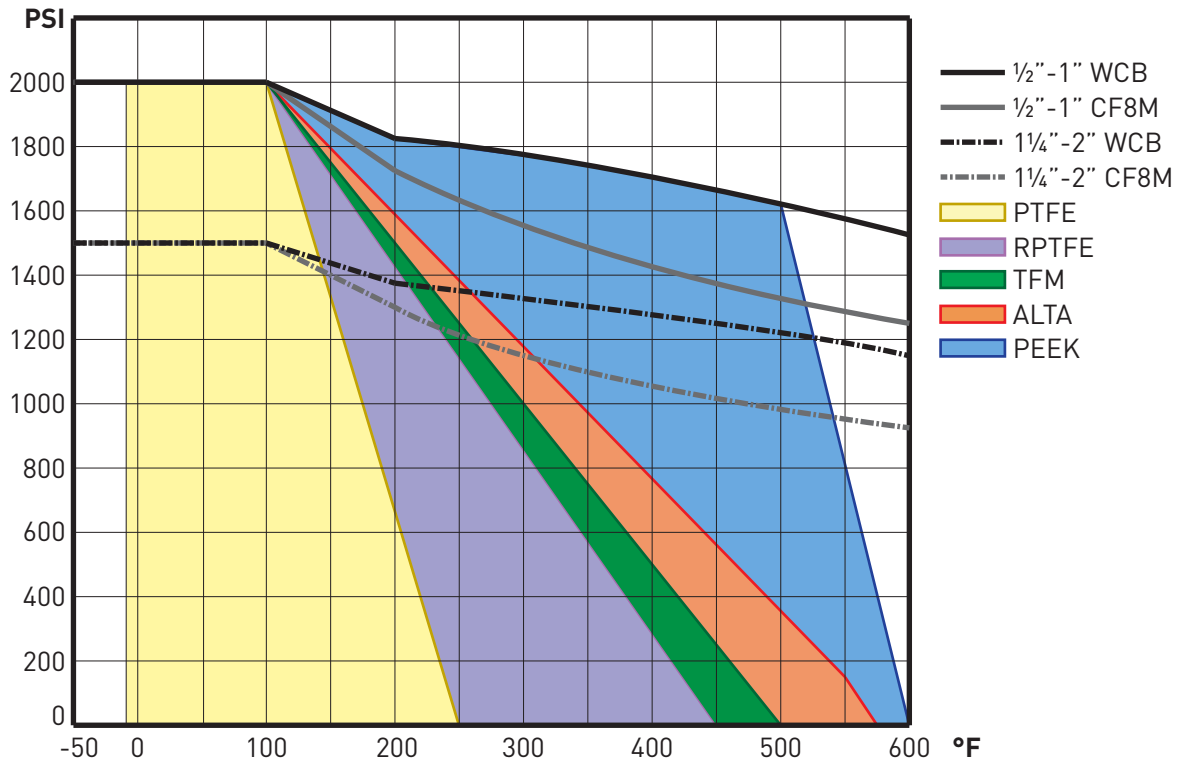
VALVE WEIGHTS

SIZE	POUNDS	KGS
1/4"	1.4	0.6
3/8"	1.7	0.8
1/2"	2.0	0.9
3/4"	3.0	1.4
1"	4.5	2.0
1 1/4"	6.1	2.8
1 1/2"	9.0	4.1
2"	15.6	7.1

VALVE TORQUES

SIZE	IN-LBF	Nm
1/4"	54	6.10
3/8"	54	6.10
1/2"	54	6.10
3/4"	77	8.75
1"	155	17.5
1 1/4"	275	31.0
1 1/2"	429	48.5
2"	626	70.7

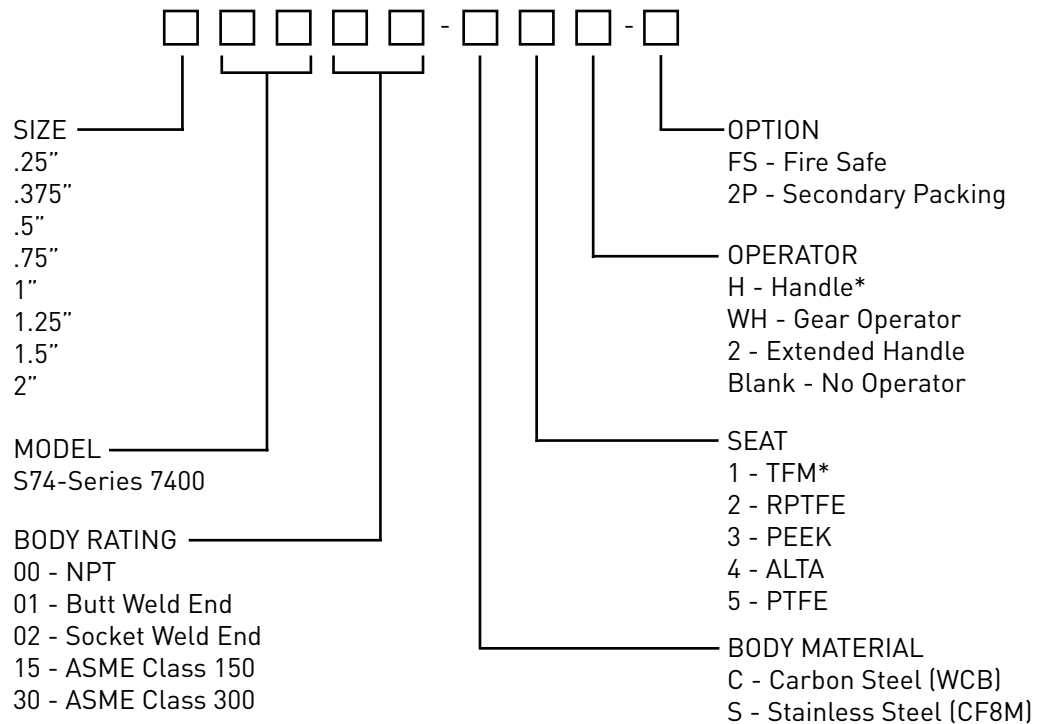
SEAT PRESSURE/TEMPERATURE RATINGS



SEAT TEMPERATURE RATINGS

MATERIAL	TEMPERATURE RATING °F [°C]
TFM	-4°F to 500°F [-20°C to 260°C]
RPTFE	-4°F to 450°F [-20°C to 232°C]
PEEK	-4°F to 600°F [-20°C to 315°C]
ALTA	-4°F to 575°F [-20°C to 302°C]
PTFE	40°F to 250°F [4°C to 121°C]

PART NUMBER MATRIX



* Standard Material

EXAMPLE:

2"S7400-S1H-FS

A 2" Series 7400, NPT, SS316 body, TFM seat, Handle operator, with firesafe accommodation

OTHER PART NUMBER INFORMATION

ASSEMBLIES

The part numbers above represent only the part number for the valve without any actuator or accessories. When purchased with an actuator as part of an assembly the entire part number will be formatted as the valve part number, forward slash, then the actuator and accessory part numbers.

Example: 2"S7400-S1/C-SR125/ALS-100

The above valve is a 2" valve model S7400 with a C-SR125 spring return pneumatic actuator and ALS-100 switch-box



WARRANTY

This limited warranty applies in the United States to products manufactured by VSI, LLC. VSI, LLC. warrants the product purchased from it or its authorized reseller to be free from defects in material and workmanship under normal use during the two year warranty period from the date of its purchase. Other products not manufactured by VSI, LLC. which are provided as part of an assembly may carry additional warranties from that manufacturer or supplier.

During the warranty period, VSI, LLC. will repair or replace defective parts of the product, or, at VSI, LLC. sole option, issue a credit for the original purchase price of the product. Repaired or replaced product will be warranted hereunder only for the remaining portion of the original warranty period. All exchanged products under this Limited Warranty will become the property of VSI, LLC. A proper Return Material Authorization (RMA) number will have to be obtained for all products to be returned under this Limited Warranty. Any claim under this Limited Warranty must include a description of the problem encountered and any relevant information that may assist VSI, LLC. in the replication or resolution of the problem.

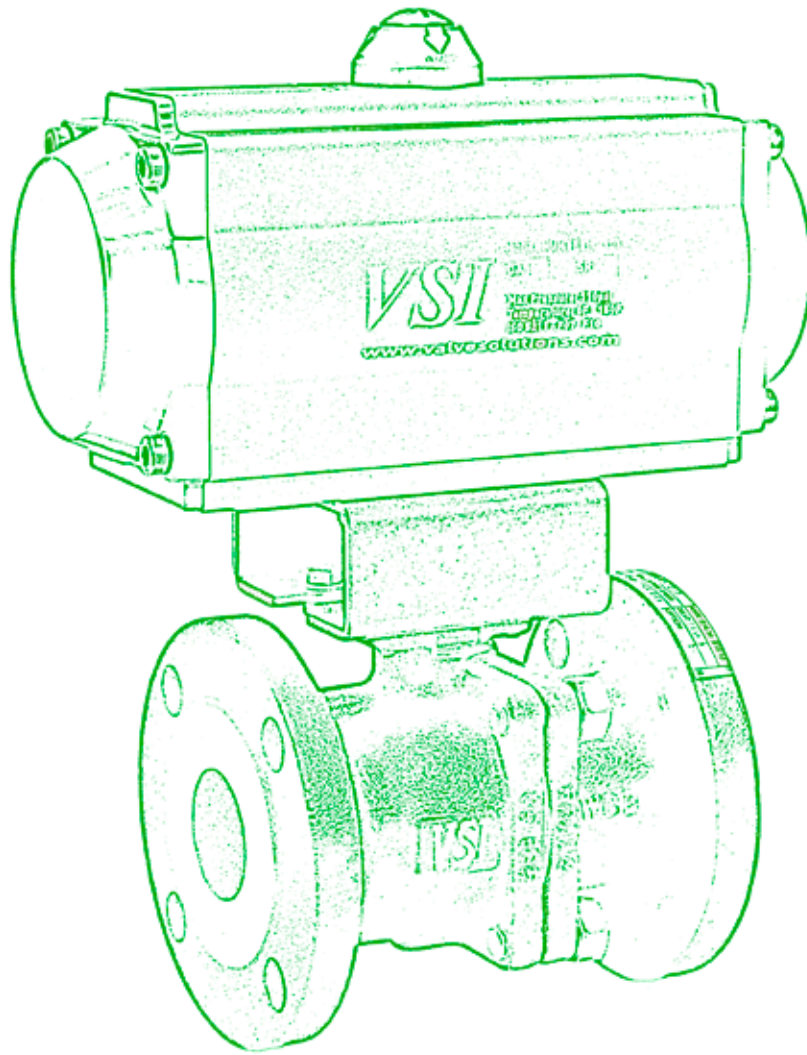
This Limited Warranty is transferable during its term to the end user of the product. Any transfer shall not extend or alter the terms of this Limited Warranty.

This Limited Warranty extends only to products purchased from VSI, LLC. or its authorized reseller and does not extend to any product that has been damaged or rendered defective as a result of (a) modification, repair, alteration or improper installation by any person other than VSI, LLC. or its authorized representative; (b) unreasonable or improper use or storage, use beyond rated conditions, operation other than per VSI, LLC. or the manufacturer's instructions, or being otherwise subjected to improper maintenance, negligence or accident; or (c) any use of the product after purchaser has knowledge of any defect in the product.

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NOTES



Valve Solutions, Inc
tel: 1 (770) 740 0800
fax: 1 (770) 740 8777
email: sales@valvesolutions.com

VSI

www.ValveSolutions.com

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