

## For Commercial and Industrial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series S-FBV-1

## 2-Piece, Full Port, Stainless Steel Ball Valves

**Sizes: 1/4" – 3" (8 – 80mm)**

Series S-FBV-1 2-Piece, Full Port, Stainless Steel Ball Valves are suitable for a full range of liquids and gases. The S-FBV-1's full port orifice ensures maximum flow capacity, while reinforced PTFE seats, PTFE stem packing, thrust washer and body seal provide maximum safety and high operating pressure/temperature limits.

### Features:

- Pressure rated at 1000psi (70 bars) WOG non-shock and 125psi (8.6 bars) WSP
- Adjustable stem packing
- Bottom loaded, blowout proof stem
- Drilled and tapped mounting pads
- Standard Latch-Lok handle to lock in open or close position
- PTFE stem packing, thrust washer and body seal
- Reinforced PTFE seat
- Vinyl insulator on heavy duty 304SS handles
- Low operating torque
- Each valve factory tested
- Conforms to MSS-SP-110 and API-598

### Specifications

A 2-piece full port stainless steel ball valve to be installed as indicated on the plans. The valve must have an adjustable stem packing, reinforced PTFE seats, PTFE stem packing, thrust washer and body seal. Pressure rating no less than 1000psi (70 bars) WOG non-shock, 125psi (8.6 bars) WSP. Valve must conform to MSS-SP-110. Valve shall be a Watts Regulator Company Series S-FBV-1.



### Pressure – Temperature

Temperature Range: 0°F - 400°F (-18°C – 204°C)

Maximum Working Pressure: 1000psi (70 bars) WOG non-shock; 125psi (8.6 bars) WSP

ISO 9001  
CERTIFIED

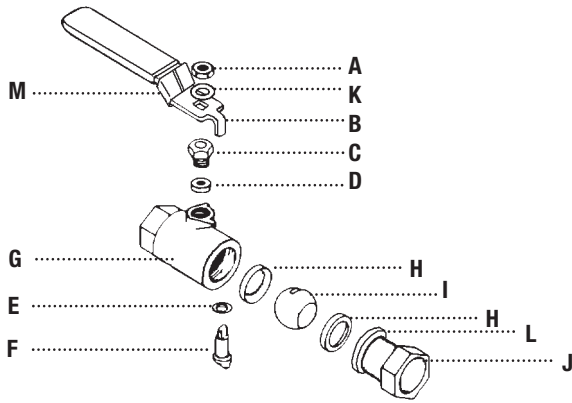
**WATTS<sup>®</sup>**  
**REGULATOR**

USA: 815 Chestnut St., No. Andover, MA 01845-6098; [www.wattsreg.com](http://www.wattsreg.com)

Canada: 5435 North Service Rd., Burlington, ONT L7L 5H7; [www.wattscanada.ca](http://www.wattscanada.ca)

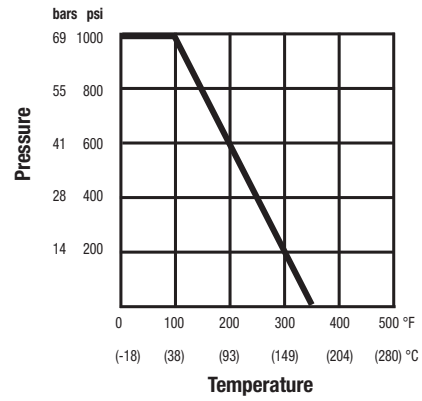
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## Materials

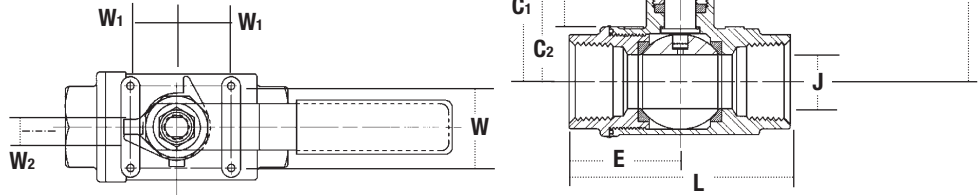


<b>A</b>	<b>Handle Nut</b>	AISI 304
<b>B</b>	<b>Handle</b>	AISI 304 with Vinyl Insulator
<b>C</b>	<b>Packing Nut</b>	AISI 304
<b>D</b>	<b>Stem Packing</b>	PTFE
<b>E</b>	<b>Thrust Washer</b>	PTFE
<b>F</b>	<b>Stem</b>	AISI 316
<b>G</b>	<b>Body</b>	ASTM A351 gr.CF8M
<b>H</b>	<b>Seats</b>	Reinforced PTFE
<b>I</b>	<b>Ball</b>	ASTM A351 gr.CF8M
<b>J</b>	<b>Adapter</b>	ASTM A351 gr.CFM
<b>K</b>	<b>Lock Washer</b>	AISI 304
<b>L</b>	<b>Body Seals</b>	PTFE
<b>M</b>	<b>Latch-Lok</b>	AISI 304

## Valve Seat Rating



Size		CV	Torque	
in.	mm	Rating	in. - lbs.	N - m
1/4"	8	6	36	4.07
3/8"	10	12	36	4.07
1/2"	15	19	43	4.86
3/4"	20	37	65	7.34
1"	25	64	102	11.53
1 1/4"	32	103	160	18.08
1 1/2"	40	143	188	21.24
2"	50	360	340	25.99
2 1/2"	65	440	430	48.59
3"	80	520	780	88.06



## Dimensions – Weights

SIZE (DN)		DIMENSION													
in.	mm	C Center to Handle		C1 Stem Top		C2 Bottom of Stem Flat		C3 Mounting Pad to Stem Top		C4 Stem Flat Height		E Center to End		H Radius to Handle	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
1/4	8	1 3/4	44	1 9/16	40	1	25	7/8	22	9/16	14	1 1/16	27	3 15/16	100
3/8	10	1 3/4	44	1 9/16	40	1	25	7/8	22	9/16	14	1 1/16	27	3 15/16	100
1/2	15	2	51	1 3/4	44	1 1/16	30	1 1/8	29	9/16	14	1 3/16	30	4 1/2	114
3/4	20	2	51	2	51	1 3/8	35	1 1/8	29	9/16	14	1 5/16	33	4 1/2	114
1	25	2 1/2	64	2 1/4	57	1 11/16	43	1 1/16	33	5/8	16	1 9/16	41	4 15/16	125
1 1/4	32	2 3/4	70	2 1/2	64	1 7/8	48	1 5/16	33	5/8	16	1 3/4	44	4 15/16	125
1 1/2	40	3 5/16	84	3	76	2 1/8	54	1 1/16	40	7/8	22	2 1/4	57	6 5/16	160
2	50	3 5/8	92	3 1/4	83	2 1/2	64	1 5/8	41	3/4	19	2 1/2	64	6 5/16	160
2 1/2	65	4 1/2	114	4 1/2	114	3 5/16	84	2 1/8	54	1 1/4	32	3 1/4	83	9 1/16	230
3	80	5	125	4 15/16	125	3 3/4	95	2 1/8	54	1 3/16	30	3 1/2	89	9 1/16	230

SIZE (DN)		DIMENSION										WEIGHT			
in.	mm	J Ball Orifice		K1 Stem Diameter		L End to End		W		W1		W2 Across Flats		lbs.	kg.
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
1/4	8	1/4	6	5/16	8	2 1/16	52	1 1/8	28	1/2	13	3/16	5	.68	.31
3/8	10	3/8	10	5/16	8	2 1/16	52	1 1/8	28	1/2	13	3/16	5	.68	.31
1/2	15	1/2	13	3/8	9	2 3/8	60	1 1/8	28	1/2	13	1/4	7	.90	.41
3/4	20	3/4	19	3/8	9	2 5/8	67	1 1/8	35	7/8	22	1/4	7	1.39	.63
1	25	1	25	7/16	11	3 1/4	83	1 3/8	35	7/8	22	5/16	8	1.98	.90
1 1/4	32	1 1/4	32	7/16	11	3 3/8	92	1 1/2	38	1 5/16	24	5/16	8	3.21	1.48
1 1/2	40	1 1/2	38	5/8	15	4 3/8	111	1 1/2	38	1 5/16	24	3/8	10	4.50	2.04
2	50	2	51	5/8	15	4 15/16	125	1 1/2	38	1 5/16	24	3/8	10	7.17	3.25
2 1/2	65	2 1/2	64	3/4	19	6 7/16	164	2 1/16	55	1 3/8	35	1/2	13	15.4	7.0
3	80	3	76	3/4	19	6 7/16	164	2 1/16	55	1 3/8	35	1/2	13	21.17	9.6