

## For Residential and Commercial Applications

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series FBV-4, FBVS-4

## 2-Piece, Full Port, Brass Ball Valves

Sizes: 1/4" – 3" (8 – 80mm)

Series FBV-4, FBVS-4 2-Piece, Full Port, Brass Ball Valves are suitable for a full range of liquids and gases in residential and commercial applications.

These valves feature an adjustable packing for longer service life, a bottom loaded blow-out proof stem for safety, a fluorocarbon elastomer stem O-ring to prevent stem leaking at installation, and are rated to 600psi WOG/150psi WSP 1/4"–2" (8–50mm) and 400psi WOG/125psi WSP 2 1/2"–3" (65–80mm).

### Features

- CSA approved threaded valves only 1/4" – 3"
- Certified to NSF/ANSI Standard 61/8
- Metal-to-metal adapter body seal to eliminate adapter leaks after soldering
- Fluorocarbon elastomer stem O-ring prevents stem leaks
- Adjustable stem packing gland provides longer service life
- Bottom loaded blowout proof stem
- PTFE stem packing seal and seats
- Machined chrome-plated brass ball
- Complies with MSS-SP-110

### Models

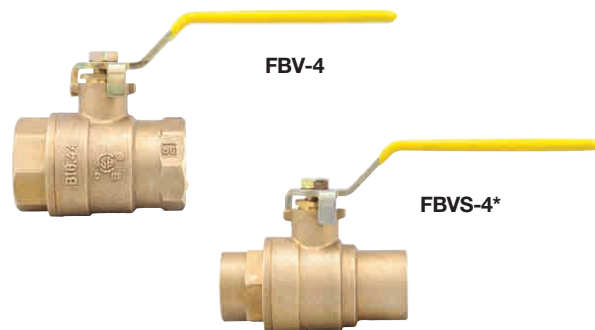
FBV-4 1/4" – 3" (8 – 80mm) threaded end connections

FBVS-4 1/2" – 3" (15 – 80mm) solder end connections\*

### Specifications

Approved valves shall be 2-piece full port design constructed of a forged brass body and end adapter. Seats and stem packing shall be PTFE. Stem to be bottom-loaded, blowout proof design with a fluorocarbon elastomer O-ring to prevent stem leakage.

Valves required to have an adjustable packing gland and chrome-plated brass ball. Threaded valves 1/2" – 3" shall be CSA approved to 1/2 psig and 5 psig and certified to NSF/ANSI Standard 61/8 by NSF. Solder valves also required to be certified by NSF to NSF/ANSI Standard 61/8. Valve sizes 1/4" – 2" pressure rated to 600 psi WOG and 150 psi WSP. Valve sizes 2 1/2" – 3" pressure rated to 400 psi WOG and 125 WSP. Valves specified are Watts Series FBV-4 or FBVS-4.



### Approvals

1/4" – 3" FBV-4



1/2" – 3" FBVS-4

Certified to NSF/ANSI Standard 61/8  
Domestic cold water at 73°F

### Gas Approvals (Threaded Valves Only)

1/4" – 3"

CSA

1/2 psig, 5 psig  
@ -40°F to 125°F



### Pressure – Temperature

Temperature Range: -40°F to 400°F (-40°C to 204°C)

Pressure Rating: 1/4"–2" (8–50mm)

600psi (41.4 bar) WOG non-shock  
150psi (10.3 bar) WSP

2 1/2"–3" (65–80mm)

400psi (27.6 bar) WOG non-shock  
125psi (8.6 bar) WSP

### Installation Information

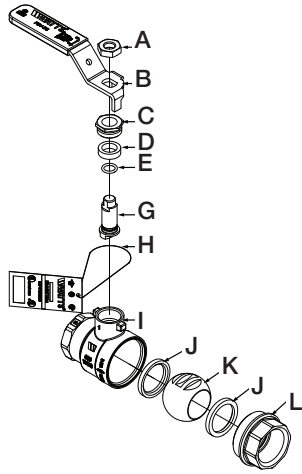
Apply heat with the flame directed **AWAY** from the center of the valve body. Excessive heat can harm the seats. After soldering, the packing nut may have to be tightened.

\*This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder to 420°F (216°C). Higher temperature solders may damage the seat material.

### ⚠ WARNING

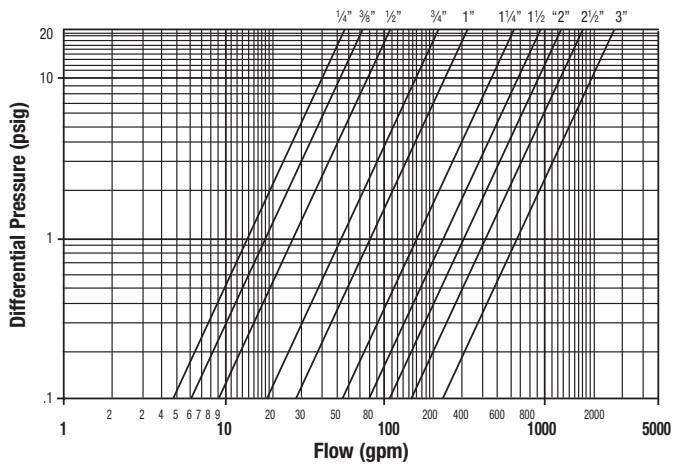
It is illegal to use this product in any plumbing system providing water for human consumption, such as drinking or dishwashing, in the United States. Before installing standard material product, consult your local water authority, building and plumbing codes.

## Materials

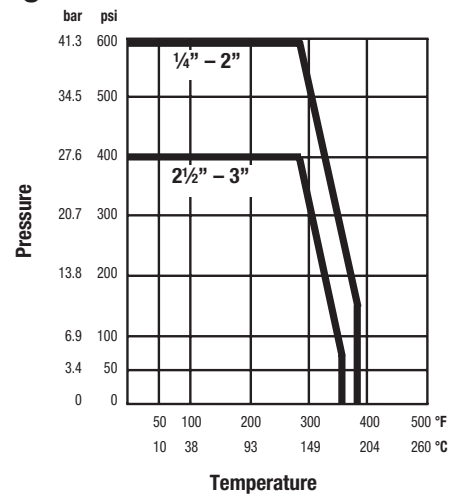


- |                           |   |
|---------------------------|---|
| <b>A. Handle Nut</b>      | Zinc plated carbon steel                      |
| <b>B. Handle Assembly</b> | Zinc plated carbon steel with vinyl insulator |
| <b>C. Packing Nut</b>     | Brass   |
| <b>D. Stem Packing</b>    | Virgin PTFE                                   |
| <b>E. O-Ring</b>          | Fluorocarbon elastomer (FKM)                  |
| <b>G. Stem</b>            | Machined Brass                                |
| <b>H. Tag</b>             | Cardboard, Mylar coated both sides            |
| <b>I. Body</b>            | Forged brass                                  |
| <b>J. Seats</b>           | Virgin PTFE                                   |
| <b>K. Ball</b>            | Chrome plated brass                           |
| <b>L. Adaptor</b>         | Forged brass                                  |

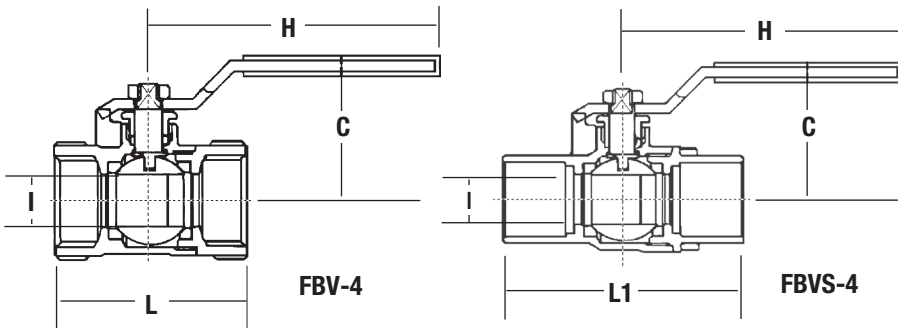
## Flow Curves



## Valve Seat Rating



## Dimensions-Weights



SIZE (DN)		DIMENSIONS										WEIGHT			
in.	mm	C		H		I		L		L1		FBV-4		FBVS-4	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.	lbs.	kg.
1/4	8	1 13/16	46	3 7/16	87	7/16	11	1 3/4	45	—	—	0.4	0.16	—	—
3/8	10	1 13/16	46	3 7/16	87	1/2	13	1 3/4	44.7	—	—	0.4	0.17	—	—
1/2	15	1 13/16	46	3 7/16	87	1/2	13	2	50	2 1/16	53	0.4	0.18	0.4	0.16
3/4	20	2 1/16	53	3 15/16	101	1 1/16	18	2 1/4	57	2 5/8	67	0.6	0.27	0.5	0.24
1	25	2 7/16	62	4 1/4	108	1 5/16	24	2 13/16	71	3 4/16	83	1.1	0.49	1.0	0.44
1 1/4	32	2 1/2	64	4 1/4	108	1 3/16	31	3 3/8	80	3 11/16	93	1.5	0.68	1.4	0.64
1 1/2	40	3	76	5 5/16	135	1 7/16	37	3 7/16	88	4 3/16	107	2.3	1.06	2.1	0.95
2	50	3 1/2	89	6	153	2	51	4 1/8	105	5 5/16	135	3.7	1.69	3.8	1.74
2 1/2	65	4 1/16	104	7 3/8	188	2 1/2	64	5 5/16	134	6 3/16	158	7.9	3.57	7.2	3.27
3	80	4 1/2	114	7 3/4	197	3	76	6 1/8	155	7 1/4	184	11.8	5.37	11.0	4.99



A Watts Water Technologies Company

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