

## For Commercial and Industrial Applications

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series B6800, B6801

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

Sizes: 1/4" – 2" (8 – 50mm)

Series B6800, B6801 3-Piece, Full Port, Brass Ball Valves feature an in-line maintenance design that offers serviceability of all operating parts without disturbing the rigid pipeline system. The B6800, B6801's full port orifice ensures maximum flow capacity, while Durafill® seats, chrome plated brass ball and blow-out proof stem provide maximum safety and highest operating pressure and temperature limits.

### Features

- 3-piece, lift-out design
- Carbon/glass reinforced PTFE Durafill® valve seats
- Chrome plated brass ball
- Blow-out proof, pressure retaining stem
- Standard actuator mounting pads
- High cycle life reinforced PTFE stem packing seal and thrust washer
- Vinyl insulator on heavy duty, zinc plated carbon steel handles
- Low operating torque
- Adjustable stem packing gland
- Each valve factory tested

### Models

B6800 1/4" – 2" (8 – 50mm) threaded NPT end connections

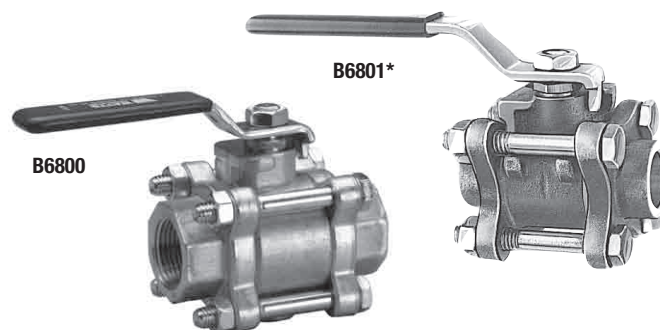
B6801 1/2" – 2" (15 – 50mm) solder end connections\*

### Specifications

A 3-piece full port brass ball valve to be installed as indicated on the plans. The valve must have a blowout proof stem, reinforced Durafill seats, reinforced PTFE stem packing, and chrome plated brass ball. Pressure rating no less than 600psi (41 bar) WOG non-shock, 150psi (10 bar) WSP for 1/4" – 1" and 400psi (28 bar) WOG non-shock, 125psi (8.6 bar) WSP for 1 1/4" – 2". Valve must conform to MSS-SP-110 and shall be a Watts Series B6800 (threaded) or B6801 (solder).

\*This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder (420°F/216°C). Other solders such as 95/5 tin antimony (460°F/238°C) can be used. However, extreme caution must be used to prevent seat damage. Higher temperature solders will damage the seat material. ANSI B.16.18 states that the maximum operating pressure of 50-50 solder connections is 200psi (14 bar) at 100°F (38°C) and decreases with higher temperatures.

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.



### BAA/ARRA Compliant\*\*

\*\*This product complies with the Buy American Act and The American Recovery and Reinvestment Act. For more information, visit watts.com.

### Options

Suffix

Z15 – Less lever and nut

XH – Extended handle

G – Grounded ball

GS – Grounded ball and stem

SS – 316 Stainless steel ball and stem

OV – Oval handle

RH – Round handle

SH – Stainless steel handle and nut

SE – Safety exhaust (unidirectional), see literature ES-B6800SE

(01) VT – Virgin PTFE seat and seal

BS – Balancing handle stops

LL – Latch-Lok handle (304 SS)

TH – Tee handle

LC – Latch-Lok handles latch and lock in "closed" position only



Exclusive Latch-Lok Handle (option LL)

### Pressure – Temperature

Temperature Range: 0°F – 450°F (-18°C – 232°C)

1/4" – 1" (8 – 25mm)

600psi (41 bar) WOG non-shock

150psi (10 bar) WSP

1 1/4" – 2" (32 – 50mm)

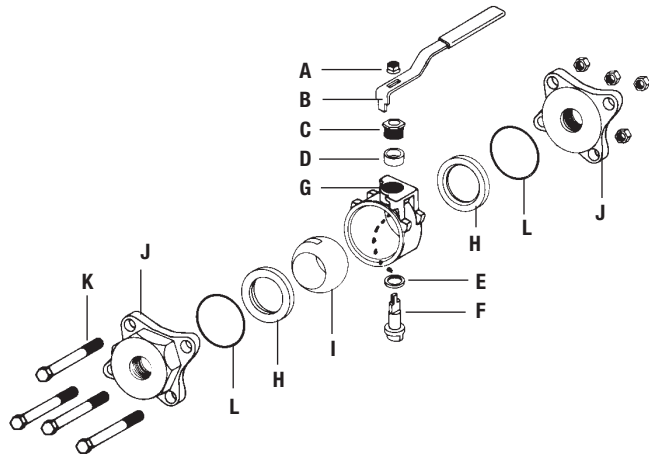
400psi (28 bar) WOG non-shock

125psi (8.6 bar) WSP

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

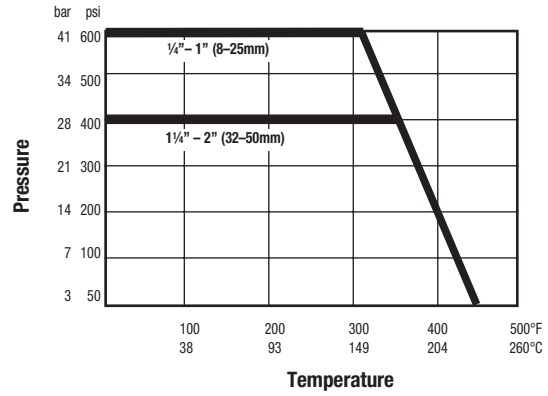
**WATTS®**

## Materials

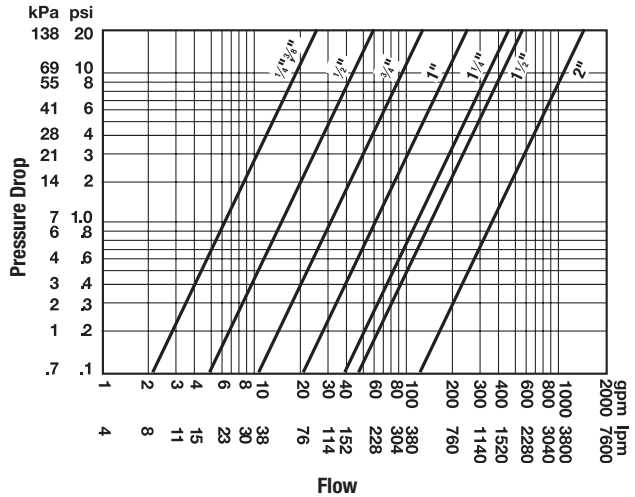


<b>A Handle Nut</b>	Zinc Plated Carbon Steel
<b>B Handle</b>	Zinc Plated Carbon Steel with Vinyl Insulator
<b>C Packing Nut</b>	Brass ASTM B16, C36000
<b>D Stem Packing</b>	Glass Reinforced PTFE
<b>E Thrust Bearing</b>	Glass Reinforced PTFE
<b>F Stem</b>	Brass ASTM B16, C36000
<b>G Body</b>	Forged Brass ASTM B124
<b>H Seats</b>	Carbon/Glass Reinforced PTFE Durafill®
<b>I Ball</b>	Chrome Plated Brass
<b>J Adapter</b>	Forged Brass ASTM B124
<b>K Body Bolts &amp; Nuts</b>	Zinc Plated Carbon Steel
<b>L Body Seals</b>	PTFE

## Valve Seat Rating



## Pressure Drop vs. Flow



## Dimensions – Weights

### B6800

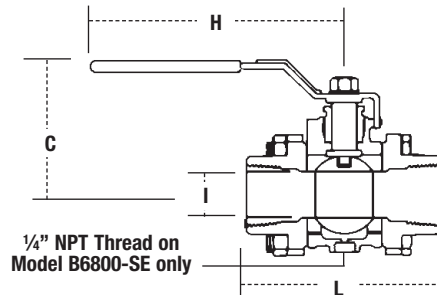
SIZE (DN)		WEIGHT								
In.	mm	C Center to Handle	H Radius of Handle	I Ball Orifice	L End to End					
In.	mm	In.	mm	In.	mm	In.	mm	Lbs.	Kg.	
1/4	8	1 3/4	44	3 7/8	98	3 3/8	10	2 3/8	60	1.1 .5
3/8	10	1 3/4	44	3 7/8	98	3 3/8	10	2 3/8	60	1.1 .5
1/2	15	1 3/4	44	3 7/8	98	1/2	13	2 3/8	60	1.1 .5
3/4	20	2 1/4	57	4 1/2	114	3/4	19	3 1/4	83	2.5 1.1
1	25	2 3/4	70	6 1/8	156	1	25	3 7/8	98	4.1 1.9
1 1/4	32	3	76	6 1/8	156	1 1/4	32	4 1/2	114	6.3 2.9
1 1/2	40	3 1/2	89	8	203	1 1/2	38	5	127	9.3 4.2
2	50	3 7/8	98	8	203	2	51	6 5/8	168	13.8 6.3

### \*B6801

1/2	15	1 3/4	44	3 7/8	98	1/2	13	2 3/8	60	1.1 .5
3/4	20	2 1/4	57	4 1/2	114	3/4	19	3 1/4	83	2.5 1.1
1	25	2 3/4	70	6 1/8	156	1	25	3 7/8	98	4.1 1.9
1 1/4	32	3	76	6 1/8	156	1 1/4	32	4 1/2	114	6.3 2.9
1 1/2	40	3 1/2	89	8	203	1 1/2	38	5	127	9.3 4.2
2	50	3 7/8	98	8	203	2	51	6 5/8	168	13.8 6.3

\*See solder instructions on front.

SIZE (DN)		TORQUE		
In.	mm	In.-Lbs.	N-m	Cv
1/4-3/8	8-10	60	6.8	6
1/2	15	60	6.8	15
3/4	20	150	16.9	30
1	25	200	22.6	60
1 1/4	32	250	28.2	110
1 1/2	40	320	36.2	130
2	50	500	56.5	360



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