

## 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

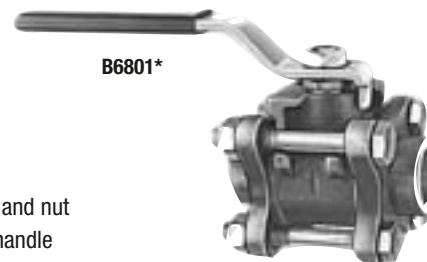
A 3-piece full port brass ball valve to be installed as indicated on the plans. The valve must have a blowout proof stem, reinforced Durafill seats, reinforced PTFE stem packing, and chrome plated brass ball. Pressure rating no less than 600psi (41 bar) WOG non-shock, 150psi (10 bar) WSP for 1/4" – 1" 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 Regulator Company 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.



B6800



B6801\*

### 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

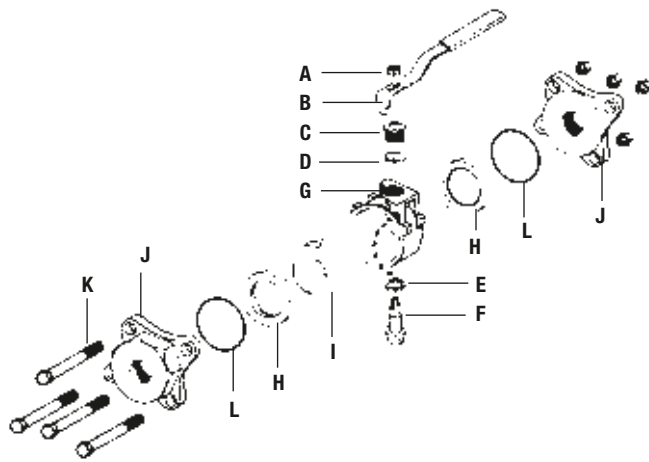
125psi (8.6 bar) WSP

Use stainless steel trim (option SS) for steam pressures over 150psi (10 bar).



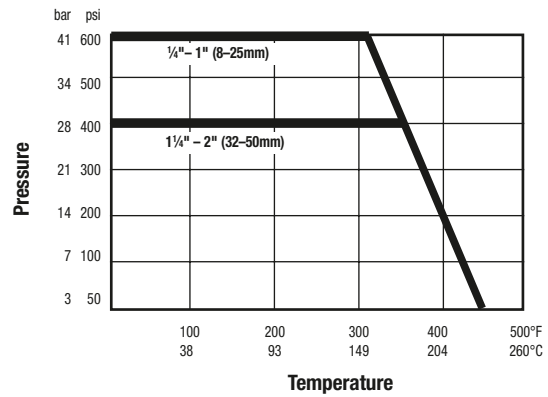
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior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

## Materials

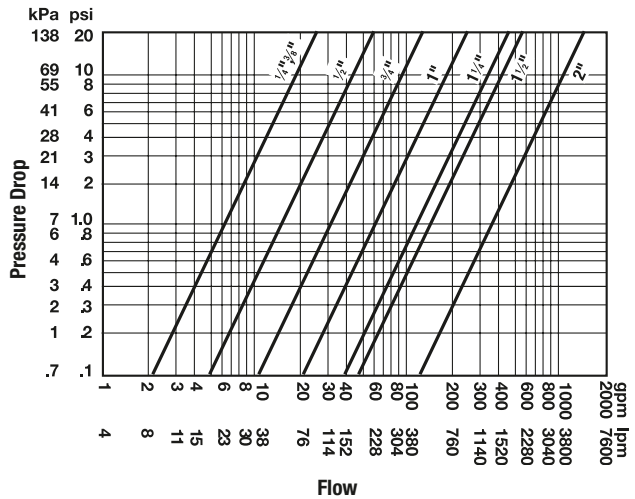


<b>A Handle Nut</b>	Zinc Plated Carbon Steel
<b>B Handle</b>	Zinc Plated Carbon Steel with Vinyl Insulator
<b>C Packing Nut</b>	Brass ASTM B16, C36000
<b>D Stem Packing</b>	Glass Reinforced PTFE
<b>E Thrust Bearing</b>	Glass Reinforced PTFE
<b>F Stem</b>	Brass ASTM B16, C36000
<b>G Body</b>	Forged Brass 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

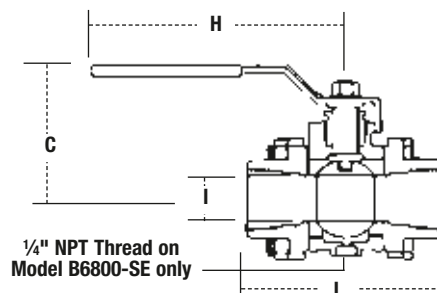
SIZE (DN)		WEIGHT									
In.	mm	C Center to Handle		H Radius of Handle		I Ball Orifice		L End to End		Lbs.	Kg.
		In.	mm	In.	mm	In.	mm	In.	mm		
1/4	8	1 3/4	44	3 7/8	98	3/8	10	2 3/8	60	1.1	.5
3/8	10	1 3/4	44	3 7/8	98	3/8	10	2 3/8	60	1.1	.5
1/2	15	1 3/4	44	3 7/8	98	1/2	13	2 3/8	60	1.1	.5
3/4	20	2 1/4	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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