For Commercial and Industrial Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

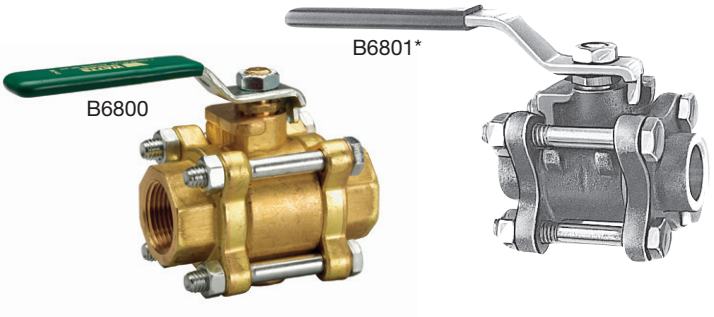
Approval _____ Representative _____

Series B6800, B6801

3-Piece, Full Port, Brass Ball Valves

Sizes: ¼" – 2"

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 ¼" – 2" threaded NPT end connections

B6801 ½" – 2" 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 ¼" – 1" and 400psi (28 bar) WOG non-shock, 125psi (8.6 bar) WSP for 1¼" – 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.

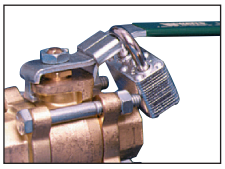
⚠ WARNING

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.

Please refer to watts.com for BAA information on specific models.

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)

¼" – 1"
600psi (41 bar) WOG non-shock
150psi (10 bar) WSP

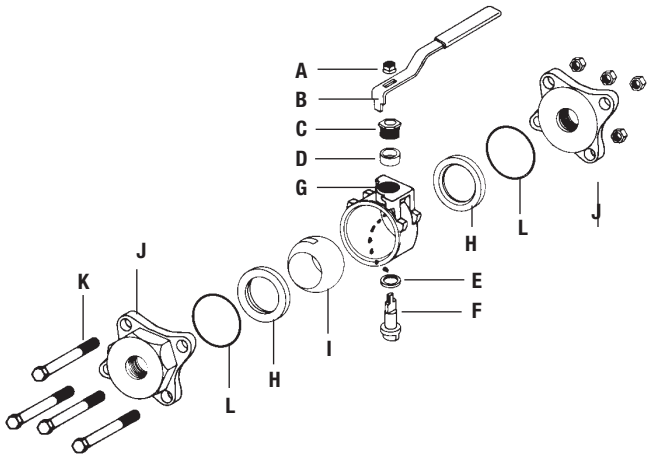
1¼" – 2"
400psi (28 bar) WOG non-shock
125psi (8.6 bar) WSP

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

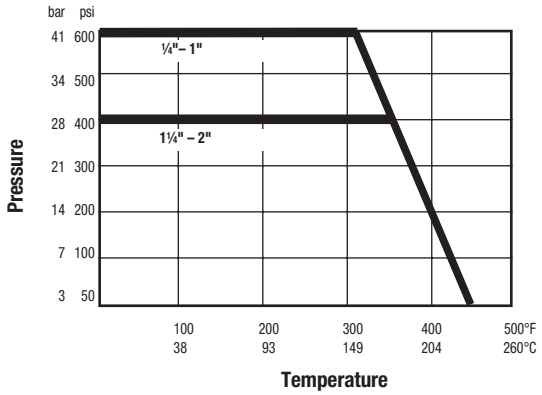
WATTS®

Materials

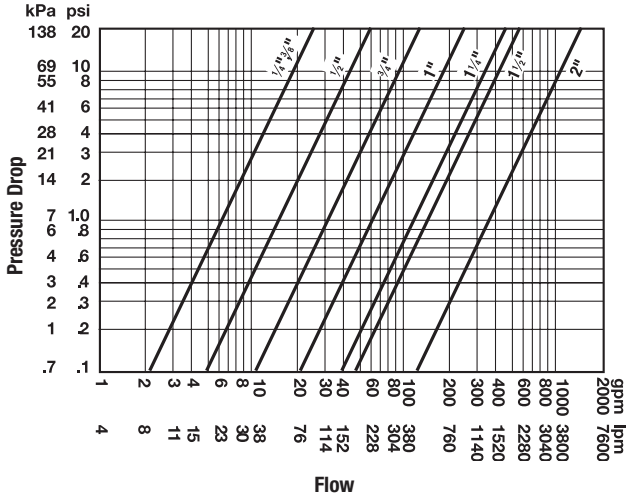


A	**Handle Nut**	Zinc Plated Carbon Steel
B	**Handle**	Zinc Plated Carbon Steel with Vinyl Insulator
C	**Packing Nut**	Brass ASTM B16, C36000
D	**Stem Packing**	Glass Reinforced PTFE
E	**Thrust Bearing**	Glass Reinforced PTFE
F	**Stem**	Brass ASTM B16, C36000
G	**Body**	Forged Brass ASTM B124
H	**Seats**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

Valve Seat Rating



Pressure Drop vs. Flow



Dimensions – Weights

B6800

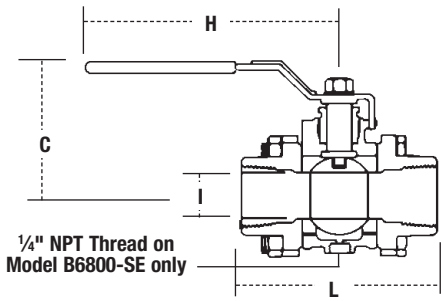
SIZE	DIMENSIONS								WEIGHT	
	C Center to Handle		H Radius of Handle		I Ball Orifice		L End to End			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kg*
¼	1¾	44	3⅞	98	⅜	10	2⅜	60	1.1	.5
⅜	1¾	44	3⅞	98	⅜	10	2⅜	60	1.1	.5
½	1¾	44	3⅞	98	½	13	2⅜	60	1.1	.5
¾	2¼	57	4½	114	¾	19	3¼	83	2.5	1.1
1	2¾	70	6⅛	156	1	25	3⅞	98	4.1	1.9
1¼	3	76	6⅛	156	1¼	32	4½	114	6.3	2.9
1½	3½	89	8	203	1½	38	5	127	9.3	4.2
2	3⅞	98	8	203	2	51	6⅝	168	13.8	6.3

**B6801*

½	1¾	44	3⅞	98	½	13	2⅜	60	1.1	.5
¾	2¼	57	4½	114	¾	19	3¼	83	2.5	1.1
1	2¾	70	6⅛	156	1	25	3⅞	98	4.1	1.9
1¼	3	76	6⅛	156	1¼	32	4½	114	6.3	2.9
1½	3½	89	8	203	1½	38	5	127	9.3	4.2
2	3⅞	98	8	203	2	51	6⅝	168	13.8	6.3

*See solder instructions on front

SIZE	TORQUE		
in.	*in.-lbs.*	*N-m*	*Cv*
¼-⅜	60	6.8	6
½	60	6.8	15
¾	150	16.9	30
1	200	22.6	60
1¼	250	28.2	110
1½	320	36.2	130
2	500	56.5	360



USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com
Canada: T: (888) 208-8927 • F: (888) 479-2887 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com