For Commercial and Industrial Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

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

Approval _____ Representative _____

Series B6080, B6081

2-Piece, Full Port, Bronze Ball Valves

Sizes: ½" – 2" (15 – 50mm)

Series B6080, B6081 2-Piece, Full Port, Bronze Ball Valves feature virgin PTFE seats and seals. The B6080, B6081's full port orifice ensures minimal pressure drop, while virgin PTFE stem packing seal, thrust washer and chrome plated brass ball provide lasting service.

Features

- Virgin PTFE seats and seals are standard
- Suitable for a full range of liquids and gases
- Minimal pressure drop due to full port design
- Blowout proof pressure retaining stem
- Pressure rated at 600psi (41 bar) WOG non-shock; 150psi (10 bar) WSP
- Virgin PTFE stem packing seal and thrust washer
- Vinyl insulator on heavy duty, zinc-plated carbon steel handles
- Fast quarter-turn open or close operation
- Excellent for throttling and balancing applications of non-abrasive fluids where minimum flow is 20% to 100% of valve capacity
- Low operating torque
- Adjustable stem packing
- Each valve factory tested

Models

B6080 ½" – 2" (15 – 50mm) threaded NPT end connections

B6081 ½" –2" (15 – 50mm) solder end connections

Specifications

A 2-piece full port bronze ball valve to be installed as indicated on the plans. The valve must have a blowout proof pressure retaining stem, chrome plated brass ball, virgin PTFE seats, seals, stem packing seal and thrust washer. Valve must have adjustable packing. Valves with O-ring stem seal only is not acceptable. Pressure rating no less than 600psi (41 bar) WOG non-shock, 150psi (10 bar) WSP. Valve shall be manufactured to the MSS-SP-110 standard and shall be a Watts Regulator Company Series B6080 (threaded) or B6081 (solder).

B6080

B6081

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	
SS –	Stainless steel ball and stem
OV –	Oval handle
RH –	Round handle
SH –	304 Stainless steel handle and nut
BS –	Balancing stop
XH –	Extended handle
TH –	Tee handle
G –	All SS models (grounded ball & stem)
GS –	Ground washer

**This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder 420°F (215°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.15.18 states that the maximum operating pressure of 50-50 solder connections is 200psi (14 bar) at 100°F (38°C) and decreases with higher temperature.

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.

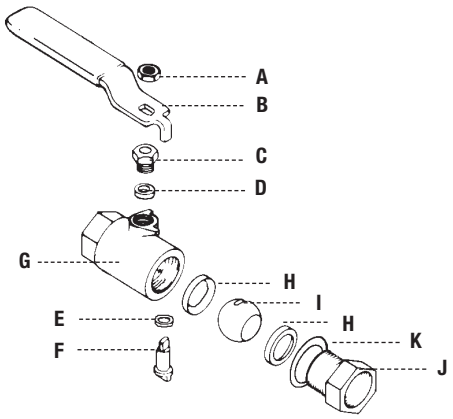
Pressure — Temperature

Temperature Range: 0°F - 350°F (-18°C – 177°C) @ 50psi (3.5 bar)

Maximum Working Pressure: 600psi (41 bar) WOG non-shock; 150psi (10 bar) WSP

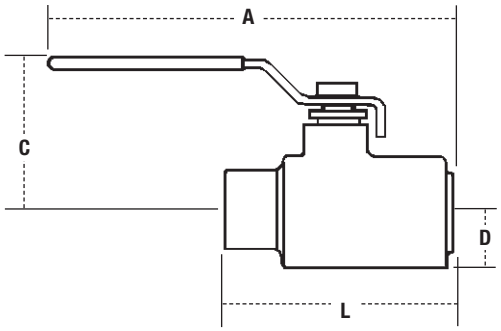
WATTS®

Materials

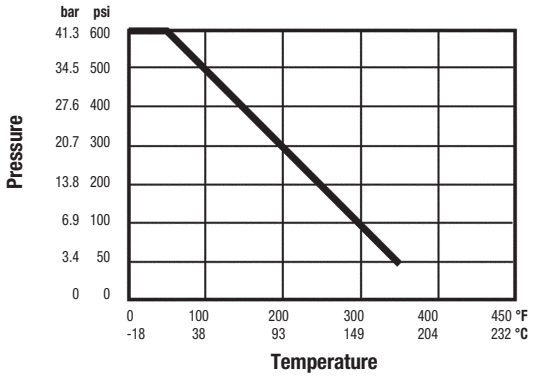


A	**Handle Nut**	Zinc Plated Carbon Steel
B	**Handle**	Zinc Plated Carbon Steel with Vinyl Insulator
C	**Packing Nut**	Brass ASTM B16, C36000
D	**Stem Packing**	PTFE
E	**Thrust Washer**	PTFE
F	**Stem**	Brass ASTM B16, C36000
G	**Body**	Bronze ASTM B584, C84400
H	**Seats**	Virgin PTFE
I	**Ball**	Chrome Plated Brass
J	**Adapter**	Brass ASTM B16, C36000
K	**Body Seal**	PTFE (1¼" – 2")

Dimensions — Weights



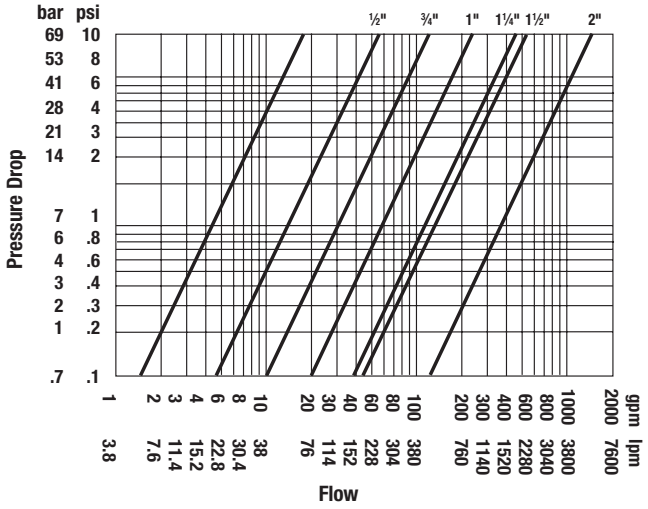
Valve Seat Rating



Valve Torque Rating

SIZE (DN)		OPERATING TORQUE		
in.	*mm*	*in.– lbs.*	*N-m*	*Cv*
½	15	60	6.8	15
¾	20	150	16.95	30
1	25	200	22.60	60
1¼	32	250	28.25	110
1½	40	320	36.16	130
2	50	500	56.50	360

Pressure Drop vs. Flow



SIZE (DN)		DIMENSIONS														WEIGHTS	
		Ball Orifice		A (B6080)		A (B6081)		C		D		L (B6080)		L (B6081)			
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
½	15	½	13	4 25/32	121	4 7/8	124	1 5/8	41	7/8	22	2 9/32	58	2 9/16	65	0.6	0.3
¾	20	¾	19	5	127	5 5/16	135	1 3/4	45	1	25	2 13/16	71	2 13/16	71	1.0	0.5
1	25	1	25	5 7/16	138	5 11/16	145	2	51	1 1/4	32	3 9/16	91	3 7/8	98	1.8	0.8
1¼	32	1¼	32	7 9/16	192	7 9/16	192	2 7/8	73	1½	38	4 1/8	105	4 5/16	110	4.0	1.8
1½	40	1½	38	7 11/16	195	7 7/8	200	3	76	1 5/8	41	4 7/16	113	4 3/4	121	5.5	2.5
2	50	2	51	10 11/16	272	11	279	4	102	2	51	5 3/8	137	6	152	10.0	4.5

WATTS®

A Watts Water Technologies Company

ISO 9001-2008 CERTIFIED

USA: No. Andover, MA • Tel. (978) 688-1811 • Fax: (978) 794-1848 • www.watts.com
Canada: Burlington, ONT. • Tel. (905) 332-4090 • Fax: (905) 332-7068 • www.wattscanada.ca