

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"

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" threaded NPT end connections

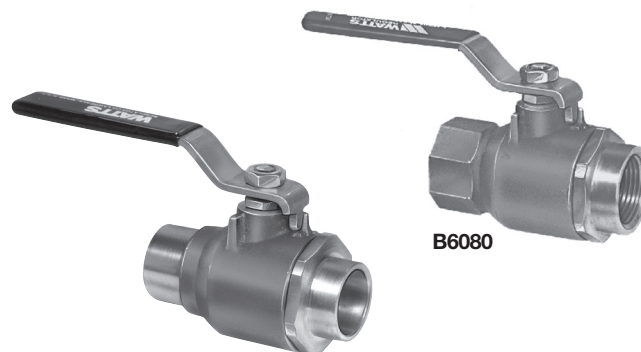
B6081 ½" – 2" solder end connections

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 Series B6080 (threaded) or B6081 (solder).

⚠ 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.



B6081

B6080

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

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

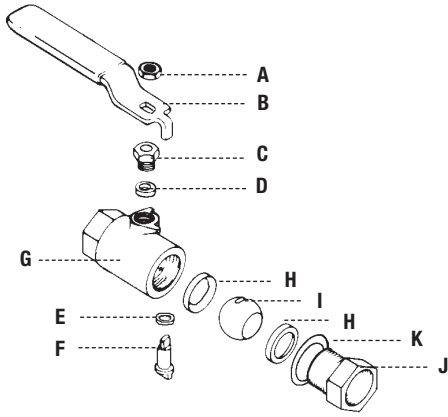
NOTICE

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 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.

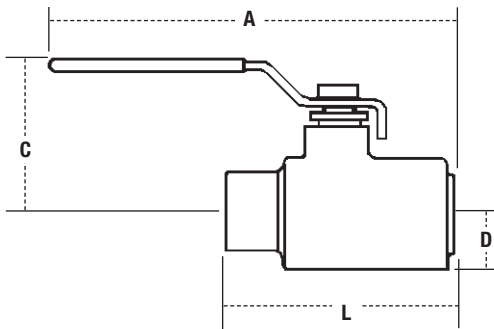
WATTS®

Materials

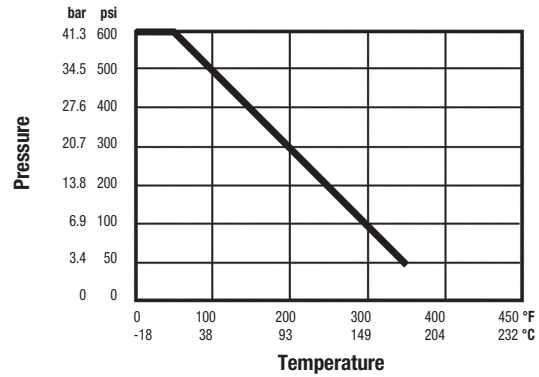


- A Handle Nut Zinc Plated Carbon Steel
- B Handle Zinc Plated Carbon Steel with Vinyl Insulator
- C Packing Nut Brass ASTM B16, C36000
- D Stem Packing PTFE
- E Thrust Washer PTFE
- F Stem Brass ASTM B16, C36000
- G Body Bronze ASTM B584, C84400
- H Seats Virgin PTFE
- I Ball Chrome Plated Brass
- J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

Dimensions — Weights



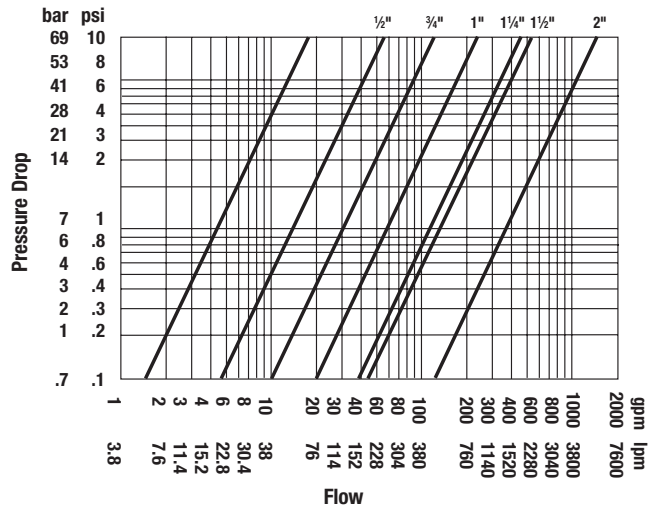
Valve Seat Rating



Valve Torque Rating

SIZE	OPERATING TORQUE		
	in. - lbs.	N-m	Cv
½	60	6.8	15
¾	150	16.95	30
1	200	22.60	60
1¼	250	28.25	110
1½	320	36.16	130
2	500	56.50	360

Pressure Drop vs. Flow



SIZE	DIMENSIONS												WEIGHTS			
	Ball Orifice		A (B6080)		A (B6081)		C		D		L (B6080)		L (B6081)		lbs.	kgs.
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
½	½	13	4 ²⁵ / ₃₂	121	4 ⁷ / ₈	124	1 ⁵ / ₈	41	7 ⁸ / ₁₆	22	2 ⁹ / ₃₂	58	2 ⁹ / ₁₆	65	0.6	0.3
¾	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	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	1¼	32	7 ⁹ / ₁₆	192	7 ⁹ / ₁₆	192	2 ⁷ / ₈	73	1 ¹ / ₂	38	4 ¹ / ₈	105	4 ⁵ / ₁₆	110	4.0	1.8
1½	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	2	51	10 ¹¹ / ₁₆	272	11	279	4	102	2	51	5 ³ / ₈	137	6	152	10.0	4.5



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