

IMI PBM BOLTED INSTRUMENT VALVES

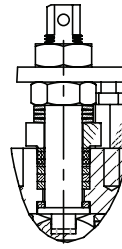
IB Series, Sizes 1/2" - 2"



DESIGN FEATURES:

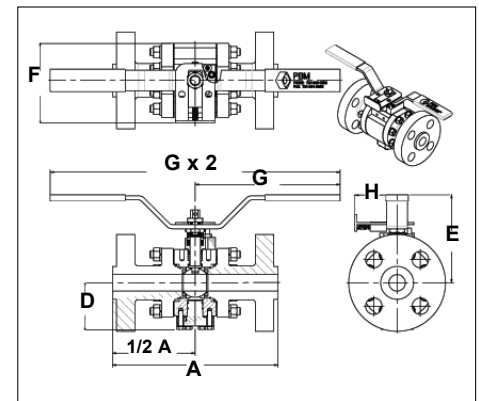
- End Connection design and fabrication flexibility
- **IB Series Instrument valves may have o-rings. Consult factory.**
- Full and reduced port designs
- Customizable end connections
- Quarter turn operation
- Bleed or gauge ports available
- Bolted Body
- Tested to API-607 Fire Rated
- Braided Graphite Packing
- API-641 Low-E, standard
- Gear operated recommended for 1-1/2" and above

The high temperature valve version consists of carbide coating on the ball and seats.



| SPECIFICATIONS | | Bolted (IB Series) Instrument Valves | |
|--------------------------|--|--------------------------------------|--|
| Sizes | 1/2" - 2" | | |
| Material | 316 Stainless Steel, Hastelloys Duplex SS, Carbon Steels, Monel or others | | |
| Temperatures | Ambient to 800°F depending on material | | |
| End Connections | Thread Pipe, Buttweld, Socket Weld, Instrument Adapter Flange, Others | | |
| Seats & Seals | V-TEF™, C-TEF™, S-TEF®, PEEK®, Stellite, Tungsten or Chrome Carbide Coated S/S Balls & Seats | | |
| Stem Packing Material | Braided graphite, V-TEF™, C-TEF™ or S-TEF®, API-622 Low-E Stem Packing Standard | | |
| Maximum Working Pressure | Maximum CWP depends on class and valve material of construction per ASME B16.34 | | |

| Size | Ends | Units Inches | A | | D | | E | | F | | G | | H | | |
|--------------|------------|--------------|----------------|-------------------------------|--------------------------|-------------------------|---------------|-------------------------|------------|-----------|------------|----------|-------|--------|--|
| | | | Overall Length | CL to Bottom of Valve (2-Way) | Distance to Top of Valve | Body Width without Ends | Handle Radius | CL to Locking Mechanism | | | | | | | |
| | | | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | |
| 1/2" DN 15 | Female NPT | in (mm) | 6.5 (165) | 8.5 (216) | 1.72 (44) | 5.2 (132) | 2.4 (61) | 3.47 (88) | 1.61 (41) | | | | | | |
| | | in (mm) | 4.75 (121) | | | | | | | | | | | | |
| | | Others | in (mm) | 8.5 (216) | | | | | | | | | | | |
| 3/4" DN 20 | Female NPT | in (mm) | 7.5 (191) | 9 (229) | 2.33 (59) | 3.96 (101) | 3.75 (95) | 5 (127) | 2.08 (53) | | | | | | |
| | | in (mm) | 5.5 (140) | | | | | | | | | | | | |
| | | Others | in (mm) | 9 (229) | | | | | | | | | | | |
| 1" DN 25 | Female NPT | in (mm) | 8.5 (216) | 10 (254) | 2.92 (74) | 5.2 (132) | 4.5 (114) | 8.81 (224) | 2.57 (65) | | | | | | |
| | | in (mm) | 6 (152) | | | | | | | | | | | | |
| | | Others | in (mm) | 10 (254) | | | | | | | | | | | |
| 1-1/2" DN 40 | Female NPT | in (mm) | 9.5 (241) | 12 (305) | 2.82 (72) | 4.17 (106) | 5.76 (146) | 7.18 (182) | 5.38 (137) | 7.5 (191) | 11.8 (300) | 12 (305) | N/A | | |
| | | in (mm) | 6.5 (165) | 7.5 (191) | | | | | | | | | | | |
| | | Others | in (mm) | 12 (305) | | | | | | | | | | | |
| 2" DN 50 | Female NPT | in (mm) | 11.5 (292) | 14.5 (368) | 3.42 (87) | 4.82 (122) | 6.13 (156) | 7.43 (189) | 6.25 (159) | 8 (203) | 11.8 (300) | 12 (305) | N/A | | |
| | | in (mm) | 8 (203) | 10 (254) | | | | | | | | | | | |
| | | Others | in (mm) | 14.5 (368) | | | | | | | | | | | |



How To Order:

| PRODUCT (1-2) MATERIAL (3-4) | SIZE (5) VALVE TYPE SERIES (6) | 1ST END CONN. TYPE (7) (HP) | 2ND END CONN. TYPE (8) (LP DOWNSTREAM) | SEAT/STEM PACKINGS/O-RINGS (9) | 1ST END CONN. SIZE (10) | 2ND END CONN. SIZE (11) | OPERATOR OPTIONS | | |
|--|---------------------------------|-----------------------------|--|--------------------------------|---|---------------------------|---------------------------|----------------------------|--|
| IB = 316 S/S Body & End Conn. | C = 600# Class | 6 | B = Ext. Buttweld Sch. 40 | B = Ext. Buttweld Sch. 40 | G = V-TEF™ / Graphite / RKM | 1 = 1/2 inch, Full Port | 1 = 1/2 inch, Full Port | -- No Bleed or Gauge Ports | -- Manual Lever Handle |
| HH = 316H (High Temp) S/S Body & End Conn. | D = 900# Class | | D = Ext. Buttweld Sch. 10 | D = Ext. Buttweld Sch. 10 | H = S-TEF® / Graphite / RKM | E = 3/4 inch, Full Port | E = 3/4 inch, Full Port | | 02 = With Handle, Stem Prep for Automation |
| E7 = A-105 Carbon Steel Body & End Connections | E = 1500# Class | | L = RF Flange | L = RF Flange | N = PEEK / Graphite / Kalrez | 4 = 1 inch, Full Port | 4 = 1 inch, Full Port | | 04 = Manual Locking Lever Handle |
| C = Hastelloy C-276 Body & End Connections | Consult Factory for DBB Valves. | | N = Extended Male NPT | N = Extended Male NPT | Q = Carbon Graphite / Graphite - 750° F. Seals - 800° F. Max. | G = 1-1/2 inch, Full Port | G = 1-1/2 inch, Full Port | | 05 = Manual Oval Hand Wheel |
| C1 = Hastelloy B-2 Body & End Connections | | | P = Male NPT | P = Male NPT | S = Stellite Ball & Seats / Graphite | H = 2 inch, Full Port | H = 2 inch, Full Port | | 06 = Gear operator |
| Y = Hastelloy C-22 Body & End Connections | | | Q = Female NPT | Q = Female NPT | T = Tungsten Carb. Old Ball & Seats/ Graphite Seals - 800° F. Max | | | | 17 = Extended Lockable Lever Handle |
| M = Monel Body & End Connections | | | R = Extended Female NPT | R = Extended Female NPT | U = Chrome Carb. Old Ball & Seats/ Graphite Seals - 800° F. Max | | | | 18 = Extended Lockable Oval Handle |
| P = AL6XN Body & End Connections | | | S = Female Comp. Thread * | S = Female Comp. Thread * | V = Chrome Carb. Old Ball & Seats/ Graphite Seals - 800° F. Max | | | | 20 = 80 PSIG Double Acting Actuator |
| 22 = Duplex 2205 Body & End Connections | | | J = Ext. Female Socket Weld | J = Ext. Female Socket Weld | Y = C-TEF™ / Graphite / RKM | | | | 27 = 60 PSIG Double Acting Actuator |
| 25 = 254 SMO 6 Moly Body & End Connections | | | V = Ext. Male Socket Weld | V = Ext. Male Socket Weld | | | | | 34 = 80 PSIG Spring Return Actuator |
| F9 = A182 Gr. F9 Carbon Steel Body & End Conn. | | | W = RTJ Flange | W = RTJ Flange | | | | | 41 = 60 PSIG Spring Return Actuator |

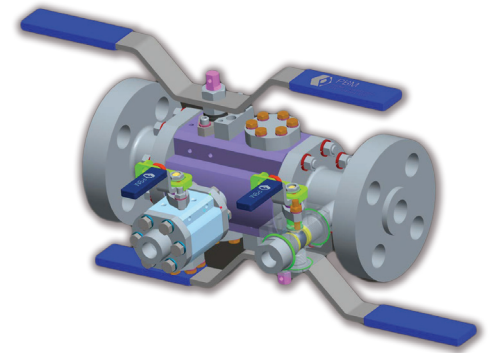
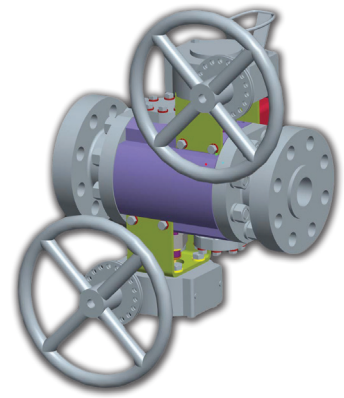
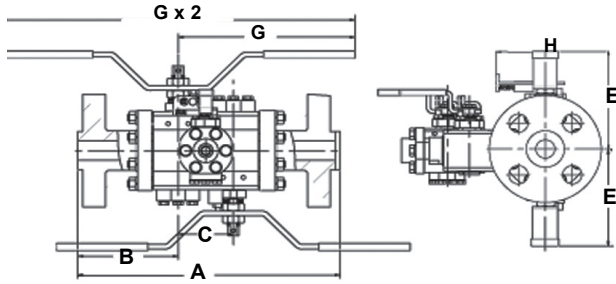
Note: Other materials of construction available.

* Ferrules Not Included
Note: Other end connection types available.

Valves seal HP to LP.
Consult PBM for other configurations.

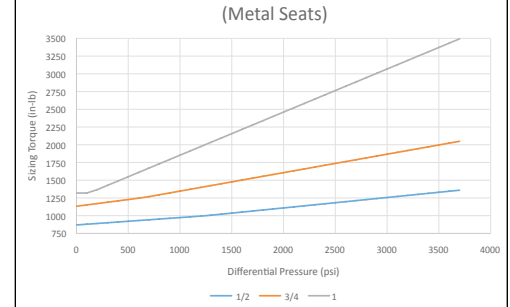
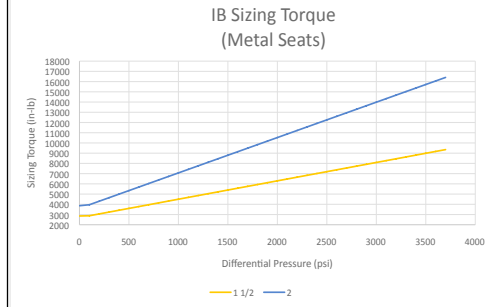
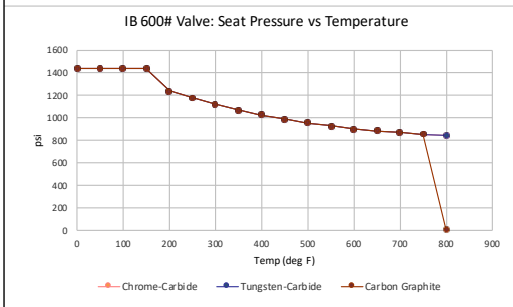
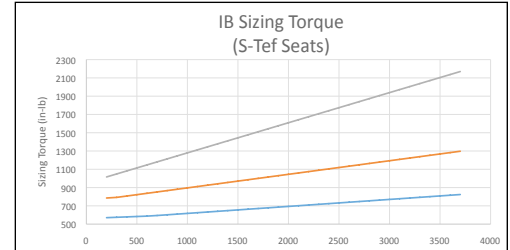
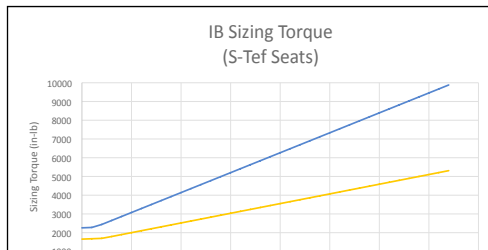
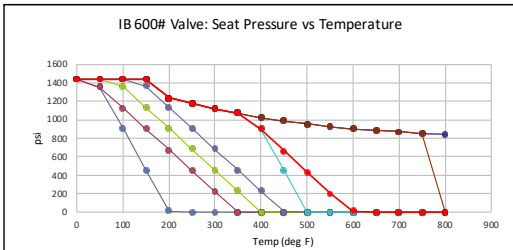
Note: Additional operator options available.

IMI PBM Bolted Instrument Valves



| Size | Ends | Units | A | | B | | C | | E | | G | | H | | | |
|-----------------|------------|---------|----------------|-------------|------------|------------|-----------------|------------|--------------------------|------------|-------------------------|----------|---------------|--------|------------------------|--------|
| | | | Overall Length | | Q to End | | Ball Separation | | Distance to Top of Valve | | Body Width without Ends | | Handle Radius | | Q to Locking Mechanism | |
| | | | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 | CL600 | CL1500 |
| 1/2" DN 15 | Flanged | in (mm) | 8.25 (210) | 10.25 (260) | 3.25 (83) | 4.25 (108) | 1.75 (44) | 5.2 (132) | 2.4 (61) | 3.47 (88) | 1.61 (41) | | | | | |
| | Female NPT | in (mm) | 6.5 (165) | | 2.375 (60) | | | | | | | | | | | |
| | Others | in (mm) | 10.25 (260) | | 4.25 (108) | | | | | | | | | | | |
| 3/4" DN 20 | Flanged | in (mm) | 9.75 (248) | 11.25 (286) | 3.75 (95) | 4.5 (114) | 2.25 (57) | 3.96 (101) | 3.75 (95) | 5 (127) | 2.08 (53) | | | | | |
| | Female NPT | in (mm) | 7.75 (197) | | 2.75 (70) | | | | | | | | | | | |
| | Others | in (mm) | 11.25 (286) | | 4.5 (114) | | | | | | | | | | | |
| 1" DN 25 | Flanged | in (mm) | 11.25 (286) | 12.75 (324) | 4.25 (108) | 5 (127) | 2.75 (70) | 5.2 (132) | 4.5 (114) | 8.81 (224) | 2.57 (65) | | | | | |
| | Female NPT | in (mm) | 8.75 (222) | | 3 (76) | | | | | | | | | | | |
| | Others | in (mm) | 12.75 (324) | | 5 (127) | | | | | | | | | | | |
| 1-1/2" DN 40 | Flanged | in (mm) | 13.25 (337) | 15.75 (400) | 4.75 (121) | 6 (152) | 3.75 (95) | 5.76 (146) | 7.18 (182) | 6 (152) | 7.5 (191) | 12 (305) | N/A | | | |
| | Female NPT | in (mm) | 10.25 (260) | 11.25 (286) | 3.25 (83) | 3.75 (95) | | | | | | | | | | |
| | Others | in (mm) | 15.75 (400) | | 6 (152) | | | | | | | | | | | |
| 2" DN 50 | Flanged | in (mm) | 15.25 (387) | 18.5 (470) | 5.75 (146) | 7.25 (184) | 3.75 (95) | 6.13 (156) | 7.43 (189) | 6.75 (171) | 8 (203) | 12 (305) | N/A | | | |
| | Female NPT | in (mm) | 11.75 (298) | 14 (356) | 4 (102) | 5 (127) | | | | | | | | | | |
| | Others | in (mm) | 18.5 (470) | | 7.25 (184) | | | | | | | | | | | |

BOLTED INSTRUMENT VALVES PRESSURE/TEMPERATURE AND TORQUE CHARTS



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