

# IMI PBM INSTRUMENT VALVES

## IM Series, Sizes 1/2" - 2"



### DESIGN FEATURES:

- Used for process isolation of isolation of pressure gauges, orifice plates, flush rings and various measurement instruments
- **IM Series Instrument valves DO NOT have o-rings.**
- Designed to ASME B16.34
- Tested to API-607 Fire Rated
- Higher performance solution to needle valves
- Can comply with API-6D if specified
- Testing and Documentation - Material test reports, PMI, LP, radiographic examination, pressure testing per API598, Magnetic particle examination, ultrasonic examination
- Certified SIL-3 capable per IEC 61503
- Certified to API-622/API-641



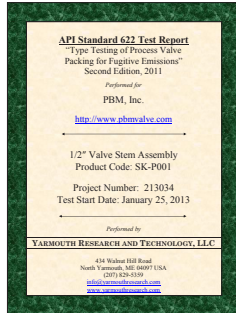
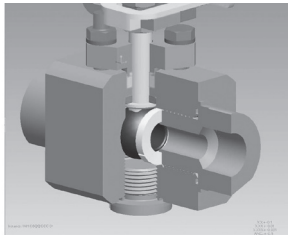
SPECIFICATIONS	Instrument Isolation Valves
Sizes	1/2" and 3/4" Up to ANSI Class 2500 (CL 1500 standard)
Material	316 Stainless Steel, Hastelloys Duplex SS, Carbon Steels, Monel or others
Temperatures	From 350°F to 800°F depending on material
End Connections	Thread Pipe, Buttweld, Socket Weld, Compression, Instrument Adapter Flange, Others
Seats & Seals	C-TEF™, V-TEF™, S-TEF®, PEEK®, Stellite, Tungsten or Chrome Carbide, Coated S/S Ball/Seats
Stem Packing Material	Die molded graphite V-TEF™, C-TEF™ or S-TEF®, API-622 Low-E Stem Packing Standard in 1/2" and 3/4" sizes with .41 bore. It is optional in larger sizes.
Maximum Working Pressure	Maximum CWP depending on seating and valve material of construction

### IMI PBM's New Style Instrument Valves are tested and proven to the API 622 Standard

#### What makes IMI PBM valves Fugitive Emission compliant?

IMI PBM's Instrument (IM) new style valves standardize on a product offering which certifies IMI PBM valves for low emission technology. The low emission valve packing features:

- Average stem packing leakage ≤ 10 ppmv for the duration of the test (100 ppm allowable)
- API-607 fire tested
- Packing successfully passed API-622 testing
- Valve passed API-641. Both test reports available upon request



2-WAY VALVE with .41 dia. port End Fitting	inch (mm)
Ext. Male NPT	6.50 (165)
Male NPT	4.75 (121)
Female NPT	4.00 (102)
Ext. Female Socket Weld	6.50 (165)
Buttweld for Sch. 40 Pipe	6.50 (165)
Buttweld for Tube	6.50 (165)

Note:  
Design is rodable with rod out tool.

#### How To Order:

PRODUCT (1-2) MATERIAL (3-4)	TYPE (5) SERIES (6)	1 <sup>ST</sup> END CONN. (HP / UPSTREAM) (7) 2 <sup>ND</sup> END CONN. TYPE (LP / DOWNSTREAM) (8)	SEAT / STEM PACKINGS (GRAPHITE STEM PACKING FOR ALL) (9)	1 <sup>ST</sup> END CONN. PORT (HP / UPSTREAM) (10) 2 <sup>ND</sup> END CONN. PORT (LP / DOWN- STREAM) (11)	BLEED PORT OPTIONS "A" THRU "P" ONLY (12)	OPERATOR OPTIONS (13-14)	BLEED/ GAUGE VALVE OPTIONS (15)
IM H = 316 S/S Body & End Conn. 1H1 = 316H (High Temp) S/S Body & End Conn. E7 = A-105 Carbon Steel Body & End Connections C = Hastelloy C-276 Body & End Connections Y = Hastelloy C-22 Body & End Connections F9 = A182 Gr. F9 Carbon Steel Body & End Conn. P = AL6XN Body & End Connections 22 = Duplex 2205 Body & End Connections 25 = 254 SMO 6 Moly Body & End Connections Note: Other materials of construction avail.	C = 600# Class D = 900# Class E = 1500# Class F = 2500# Class <b>VALVE TYPE</b> <b>DOUBLE BLOCK</b> M = 600# Class N = 900# Class O = 1500# Class P = 2500# Class	G = Ext. Buttweld Sch. 40 D = Ext. Buttweld Sch. 10 L = RF Flange N = Extended Male NPT P = Male NPT Q = Female NPT R = Extended Female NPT S = Female Comp. Thread J = Ext. Female Socket Weld V = Ext. Male Socket Weld W = RTJ Flange * Ferrules Not Included Other end conn. types avail.	G = V-TEF™ / Graphite H = S-TEF® / Graphite N = PEEK / Graphite Q = Carbon Graphite / Graphite - 750° F S = Stellite Ball & Seats / Graphite Seals - 800° F. Max. T = Tungsten Carb. Ctd Ball & Seats/ Graphite Seals - 800° F. Max U = Chrome Carb. Ctd Ball & Seats/ Graphite Seals - 800° F. Max Y = C-TEF™ / Graphite Valves seal HP to LP. Consult PBM for other configurations.	A = 1/4 inch, .41 Dia. Port B = 3/8 inch, .41 Dia. Port C = 1/2 inch, .41 Dia. Port D = 3/4 inch, .41 Dia. Port 2 = 1 inch, .41 Dia. Port	= No Bleed Port (2-Way Only) A = 1/4" FNPT Port 90° from Stem B = 1/4" FNPT Ports 180° from Stem C = 3/8" FNPT Port 90° from Stem D = 3/8" FNPT Ports 180° from Stem E = 1/2" FNPT Port 90° from Stem F = 1/2" FNPT Ports 180° from Stem J = 1/4" SW Port 90° from Stem K = 1/4" SW Port 180° from Stem L = 3/8" SW Port 90° from Stem M = 3/8" SW Port 180° from Stem N = 1/2" SW Port 90° from Stem P = 1/2" SW Port 180° from Stem Note: "A" option is standard	= Manual Lever Handle 02 = W/O Handle, Stem Prep for Auto. 03 = With Handle, Stem Prep for Auto. 04 = Manual Locking Lever Handle 05 = Manual Oval Hand Wheel 17 = Extended Lockable Lever Handle 18 = Extended Lockable Oval Handle 20 = 80 PSIG Double Acting Actuator 27 = 60 PSIG Double Acting Actuator 34 = 80 PSIG Spring Return Actuator 41 = 60 PSIG Spring Return Actuator Note: Additional options avail.	= No Bleed (Gauge Valve) A = 1/4" FNPT Ball Valve B = 3/8" FNPT Ball Valve C = 1/2" FNPT Ball Valve E = 1/4" FNPT Needle Valve G = 3/8" FNPT Needle Valve H = 1/2" FNPT Needle Valve

# IMI PBM Double Block and Bleed Valves

## The IMI PBM difference - True Double Positive Isolation

IMI PBM double block and bleed valves provide true double positive isolation:

- Two independent sealing members (two ball and seat combinations)
- Two separate actuating mechanisms (two stems and handles or actuators)

This configuration provides the best technology for the most severe isolation services where double block and bleed is required.

Double Positive Isolation when safety is critical.

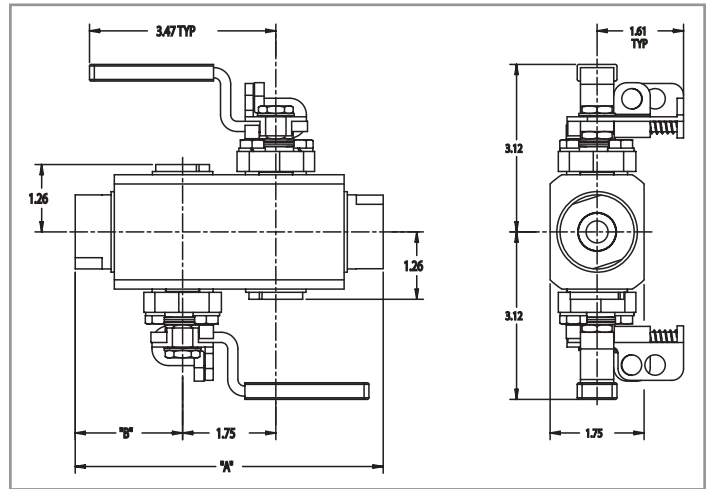
**IMI PBM DBB/DPI IM (Instrument valve)**  
with locking lever handles and ends and API 622 Low E-packing

Temp: <800°F  
Pressure: CL 2500  
Sizes: 1/2" - 1 inch  
Ends: Any



**IMI PBM Standard/DPI IM (Instrument valve)**  
with locking lever handles

Temp: <800°F  
Pressure: 2000 WOG  
Sizes: 1/4" - 1 inch  
Ends: Any



DBB VALVE .41 dia. port End Fitting	A inch (mm)	B inch (mm)
Extended Male NPT	8.25 (210)	4.13 (105)
Male NPT	6.50 (165)	3.25 (83)
Female NPT	5.75 (146)	2.88 (73)
Ext. Female Socket Weld	8.25 (210)	4.13 (105)
Buttweld for Sch. 40 Pipe	8.25 (210)	4.13 (105)
Buttweld for Tube	8.25 (210)	4.13 (105)

Notes:  
Dimensions shown for 1/2" valves only.  
Design is rodable with rod out tool.

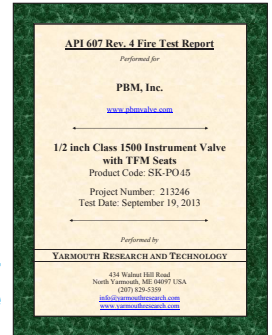
True DPI in 5 configurable body styles:

- Smaller than traditional 2 valve designs
- Lower potential emissions due to less flange connections
- 1/2 Inch through 12 inch
- Full or standard (reduced) port
- Fire rated to API 607
- API-622/641 low emissions standard
- Various bleed or purge options available
- Extended handles available
- 1/4 turn ball valve enables easy open/close and visual indication of valve position.



**Certified SIL-3 Capable per IEC 61508**

**API-607 Fire Rated**



[www.PBMValve.com](http://www.PBMValve.com)

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**IMI Critical Engineering**

