

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
- 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



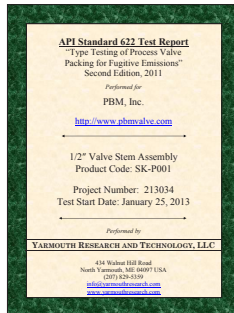
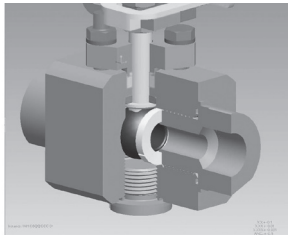
SPECIFICATIONS	Instrument Isolation Valves
Sizes	1/2" and 3/4" Up to ANSI Class 2500 (CL 1500 standard)
Material	316 Stainless Steel, Hastelloys Duplex SS, Carbon Steels, Monel or others
Temperatures	From 350°F to 800°F depending on material
End Connections	Thread Pipe, Butt weld, Socket Weld, Compression, Instrument Adapter Flange, Others
Seats & Seals	C-TEF™, TFM™, S-TEF™, PEEK®, Stellite, Tungsten or Chrome Carbide, Coated S/S Ball/Seats
Stem Packing Material	Die molded graphite TFM™, 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

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

What makes PBM valves Fugitive Emission compliant?

PBM's Instrument (IM) new style valves standardize on a product offering which certifies 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 ST END CONN. (HP / UPSTREAM) (7) 2 ND END CONN. TYPE (LP / DOWNSTREAM) (8)	SEAT / STEM PACKINGS (GRAPHITE STEM PACKING FOR ALL) (9)	1 ST END CONN. PORT (HP / UPSTREAM) (10) 2 ND 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.	C = 600# Class	6 B = Ext. Butt weld Sch. 40	G = TFM™ / Graphite	A = 1/4 inch, 41 Dia. Port	= No Bleed Port (2-Way Only)	= Manual Lever Handle	= No Bleed /Gauge Valve
HH = 316H (High Temp) S/S Body & End Conn.	D = 900# Class	D = Ext. Butt weld Sch. 10	H = S-TEF® / Graphite	B = 3/8 inch, 41 Dia. Port	A = 1/4" FNPT Port 90° from Stem	02 = W/O Handle, Stem Prep for Auto	A = 1/4" FNPT Ball Valve
E7 = A-105 Carbon Steel Body & End Connections	E = 1500# Class	L = RF Flange	N = PEEK / Graphite	C = 1/2 inch, 41 Dia. Port	B = 1/4" FNPT Ports 180° from Stem	03 = With Handle, Stem Prep for Auto	B = 3/8" FNPT Ball Valve
C = Hastelloy C-276 Body & End Connections	F = 2500# Class	N = Extended Male NPT	Q = Carbon Graphite / Graphite - 750°F	D = 3/4 inch, 41 Dia. Port	C = 3/8" FNPT Port 90° from Stem	04 = Manual Locking Lever Handle	C = 1/2" FNPT Ball Valve
Y = Hastelloy C-22 Body & End Connections	VALVE TYPE DOUBLE BLOCK	P = Male NPT	S = Stellite Ball & Seats / Graphite	2 = 1 inch, 41 Dia. Port	D = 3/8" FNPT Ports 180° from Stem	05 = Manual Oval Hand Wheel	F = 1/4" FNPT Needle Valve
F9 = A182 Gr. F9 Carbon Steel Body & End Conn.		Q = Female NPT	Seals - 800° F. Max.		E = 1/2" FNPT Port 90° from Stem	17 = Extended Lockable Lever Handle	G = 3/8" FNPT Needle Valve
R = AL6XN Body & End Connections	M = 600# Class	R = Extended Female NPT	T = Tungsten Carb. Cld Ball & Seats/ Graphite Seals - 800° F. Max	F = 1/2" FNPT Ports 180° from Stem	18 = Extended Lockable Oval Handle	H = 1/2" FNPT Needle Valve	
22 = Duplex 2205 Body & End Connections	N = 900# Class	S = Female Comp. Thread *	U = Chrome Carb. Cld Ball & Seats/ Graphite Seals - 800° F. Max	J = 1/4" SW Port 90° from Stem	20 = 80 PSIG Double Acting Actuator		
25 = 254 SMO 6 Moly Body & End Connections	O = 1500# Class	J = Ext. Female Socket Weld	V = Ext. Male Socket Weld	K = 1/4" SW Port 180° from Stem	27 = 60 PSIG Double Acting Actuator		
Note: Other materials of construction available.	P = 2500# Class	V = Ext. Male Socket Weld	Y = C-TEF™ / Graphite	L = 3/8" SW Port 90° from Stem	34 = 80 PSIG Spring Return Actuator		
		W = RTJ Flange		M = 3/8" SW Port 180° from Stem	41 = 60 PSIG Spring Return Actuator		
				N = 1/2" SW Port 90° from Stem			
				P = 1/2" SW Port 180° from Stem			

* Ferrules Not Included
Other end connection
types available.

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

Note: "A" option is standard

PBM Double Block and Bleed Valves

The PBM difference - True Double Positive Isolation

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

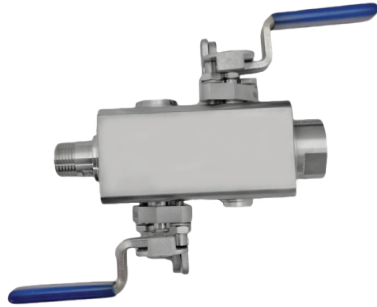
- Two independent sealing members (two ball and seat combinations)
- Two separate actuating mechanisms (two stems and handles or actuators)

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.

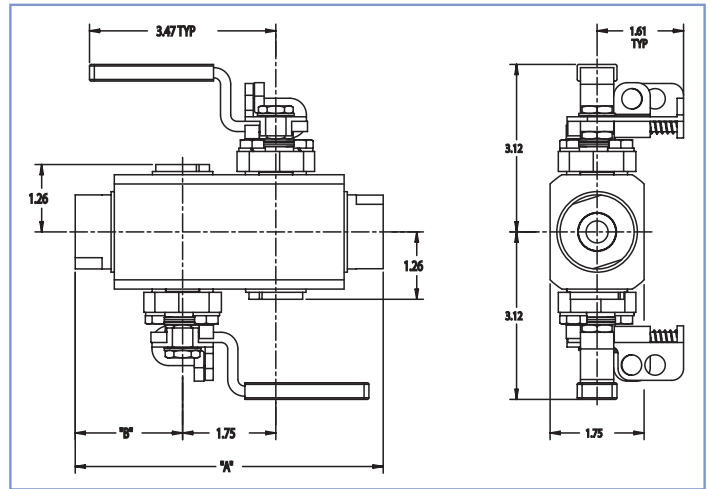
PBM DBB/DPI IM (Instrument valve) with locking lever handles and ends and API 622 Low E packing

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



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.

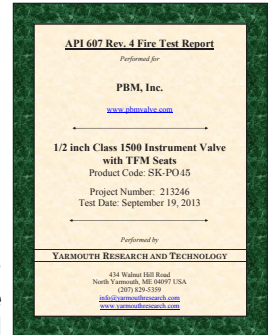
True DPI in 5 configurable body styles:

- 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



<http://www.pbmvalve.com/valves/instrument-isolation-valve-0>

<http://pbmvalve.com/maintenance-instructions>

www.PBMValve.com

PBM, Inc. • 1070 Sandy Hill Road, Irwin, PA 15642
Phone: 800.967.4PBM • 724.863.0550
E-mail: info@pbmvalve.com