Instrument Valves

PBM
Valve Solutions

Instrument Isolation
Transmitter Isolation
Double Block
Double and Triple Redundant
Sampling

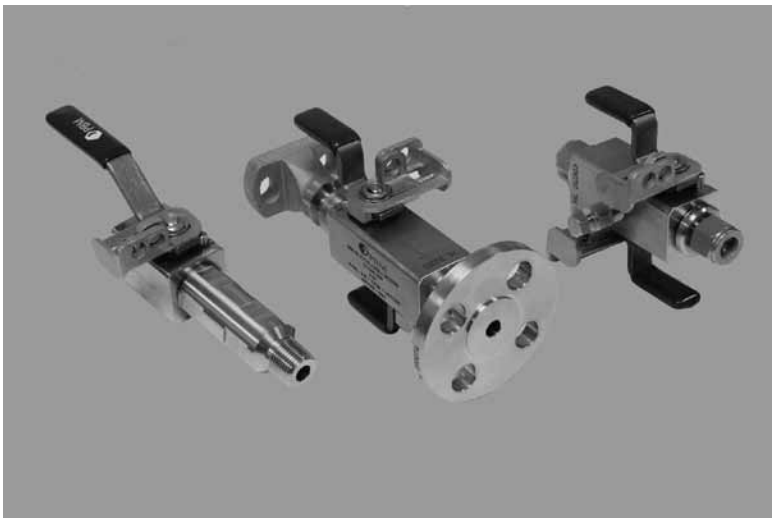
Safety • Reliability • Value • Increased Flow

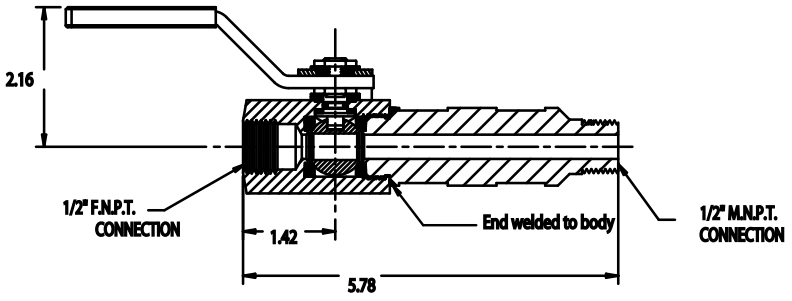
Instrument Isolation Valves

An instrument valve is used for isolation of pressure gauges, orifice plates, flush rings, and various measurement instruments. The instrument valve normally "lives" in the open position and is closed only to isolate the instrument for service or replacement.

Features

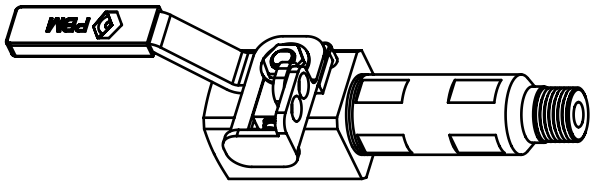
- Easy 1/4-turn operation
- 1/2"- 1" Sizes, API 607 qualified in 316 SS
- Class 2500#
- Rod-out capability
- Variety of end connections
- Materials of construction: most high alloy stainless steels, duplex, hastelloy, inconel, and titanium
- Seats and seals to meet the most stringent temperature and corrosion requirements
- Welded tamperproof body design
- Visual position indication
- Lockable manual handles standard and automation available
- Unique applications welcome
- Rod-out tool available
- Comply with power piping ANSI/ASME B 31.1





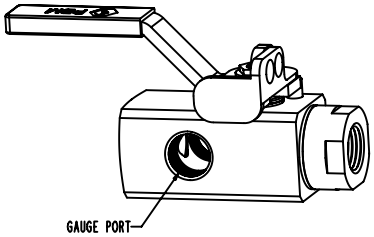
NO GAUGE PORTS

1/2" 2-way 316L stainless steel, male x female NPT, TFM® seats, locking lever handle



GAUGE PORTS

1/2" 2-way 316L stainless steel, female x female NPT, TFM seats, locking lever handle, with (2) each 1/2" FNPT gauge port.



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Double Block Valves

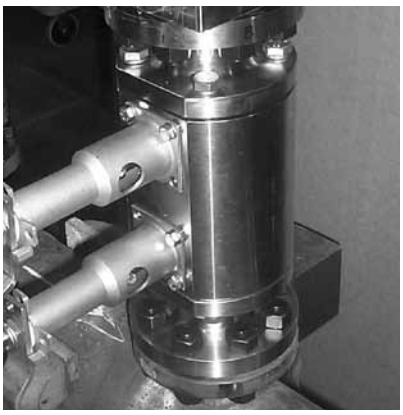
Sizes:
- 1/4″ - 6″

Pressure Class:
- 1/4″ - 3/4″ ANSI Class 2500
- 1 -2″ ANSI Class 600
- 3″, 4″, 6″ ANSI Class 150, 300

Materials:
- All Alloy Stainless Steel
- Duplex Stainless Steel
- Monel
- Hastelloy
- Carbon Steel
- Others if requested

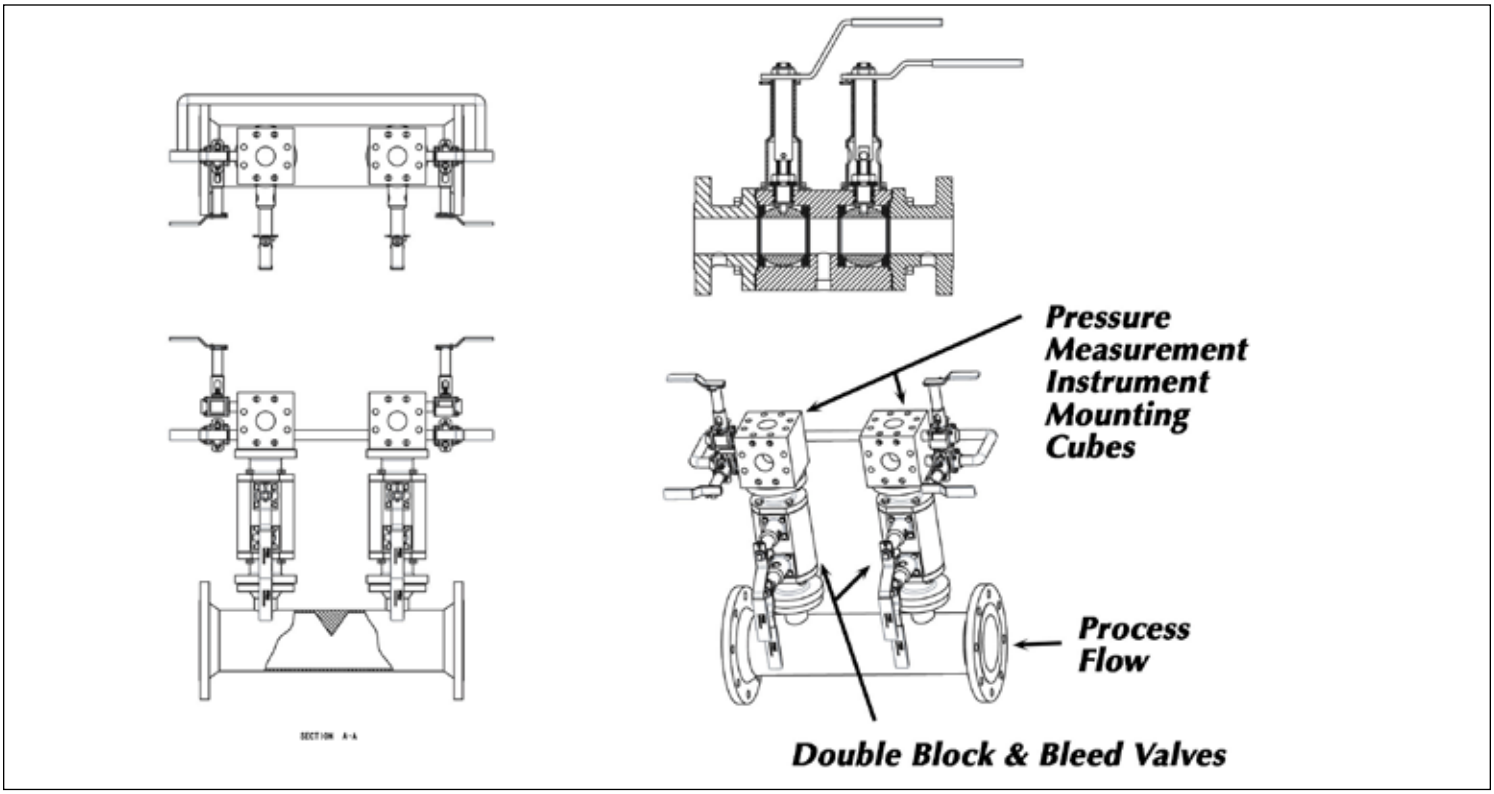
End Connections:
- Thread Pipe, male or female
- Flanged
- Buttweld
- Socket Weld
- Bleed or Gauge Ports available
- Others if requested

Sealing:
- TFM®
- PEEK
- Stellite
- Carbon Graphite
- Celazole



1/2 Length, 1/2 Weight & 1/2 Cost vs. gate valves

Features:
- Full or Reduced Port
- Quarter Turn Operation
- Optional Extended Handle with Lock out
- Locking Handle Standard
- Welded or Bolted Body
- Cryogenic Design Available



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Transmitter Isolation Valves

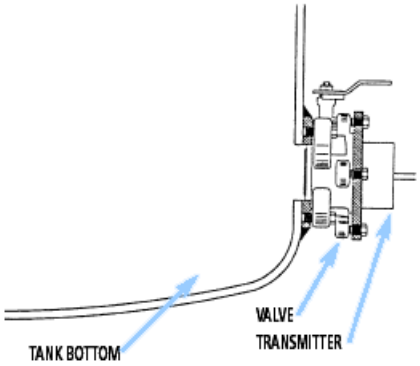
A Transmitter Isolation Valve is a valve that is used to isolate media in a tank from a pressure / level transmitter. The pressure measurement allows calculation of the level of liquid in a tank. The TIV lives in the open position thus creating a communication between the media in the tank and the transmitter. The valve is only closed when the transmitter needs to be isolated for service or replacement.

2-Way ball valve features minimal dead space and positive shut-off. Calibration Port, CIP Port, 150# Flange, and Locking Handle standard.

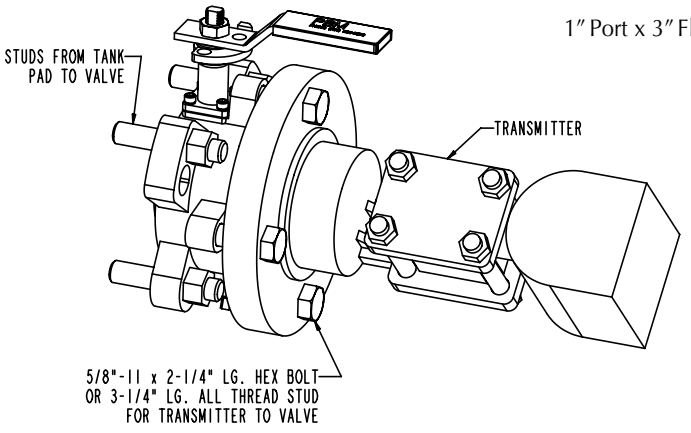
Sizes:
- 1", 2-1/2"

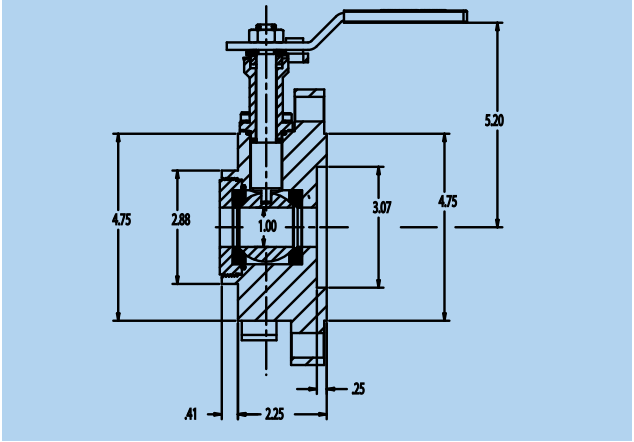
Materials:
- 316 & 317L S/S
- Titanium
- Hastelloy
- Others

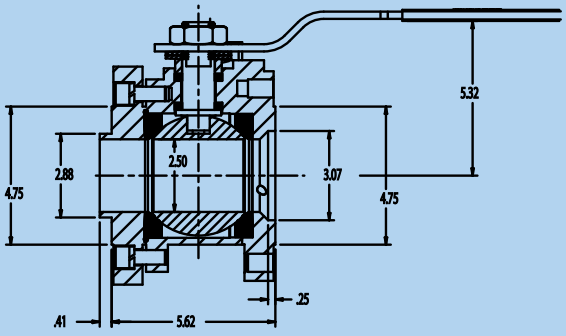
Options:
- Milled Ball Flats
- 17-4 PH Stem

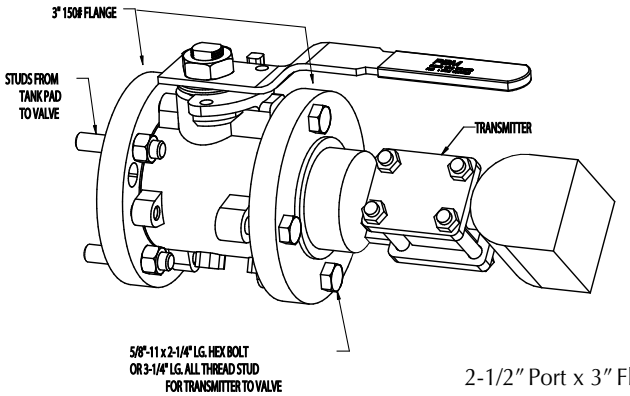


1" Port x 3" Flanged









2-1/2" Port x 3" Flanged

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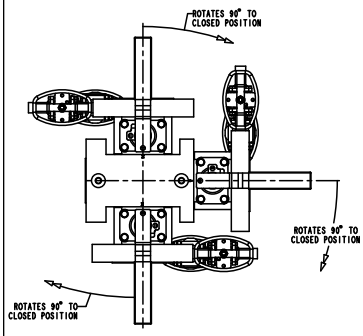
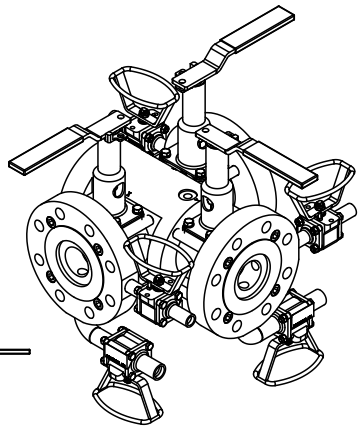
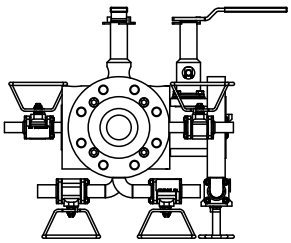
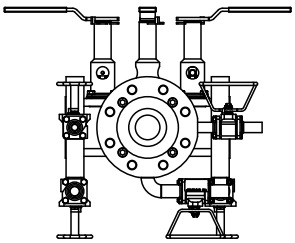
Triple Redundant Valves

A major international petrochemical company was looking for a triple-redundant method of isolating transmitters used to provide vital feedback on petrochemicals stored in tanks. The valves required to insolate transmitters had to be fire rated and capable of providing a tight shutoff against corrosive and high-temperature petrochemicals. Each assembly contained 3 transmitter isolation valves, each with two fire-rated valves on the purge connections to facilitate cleaning the valve bodies and calibrating the transmitters.



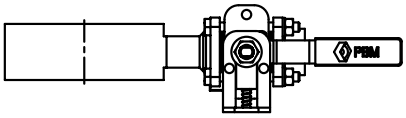


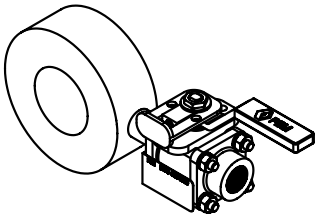


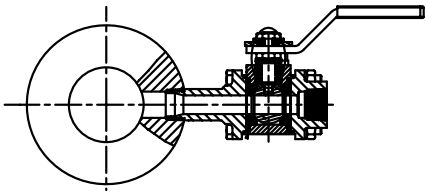


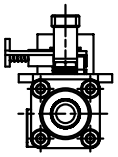
Flush Rings & Bleed Rings

Flush rings & Bleed rings to customer material and pressure class specifications designed to fit between standard flanges using conventional flange gaskets. Integral ball valve allows venting, purging, sampling and instrument isolation.









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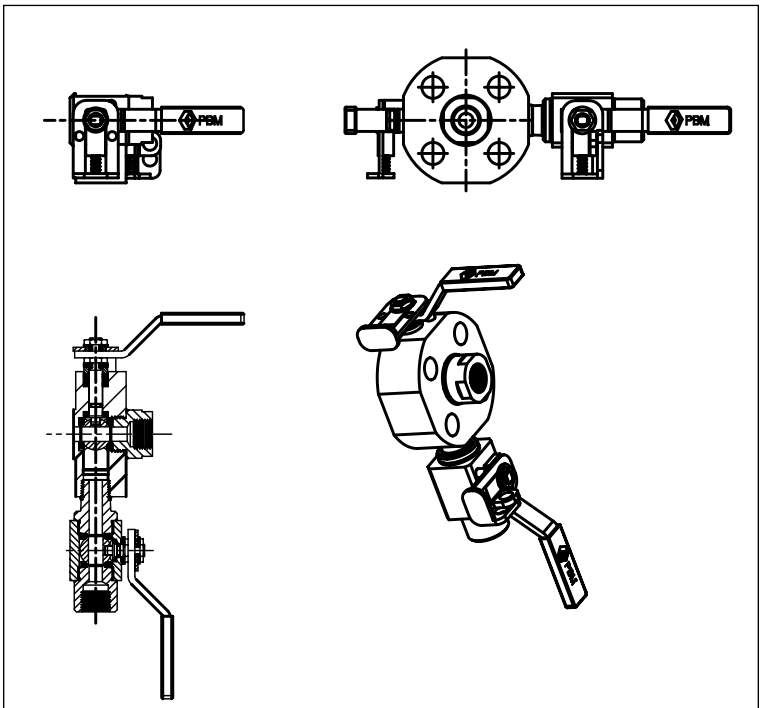
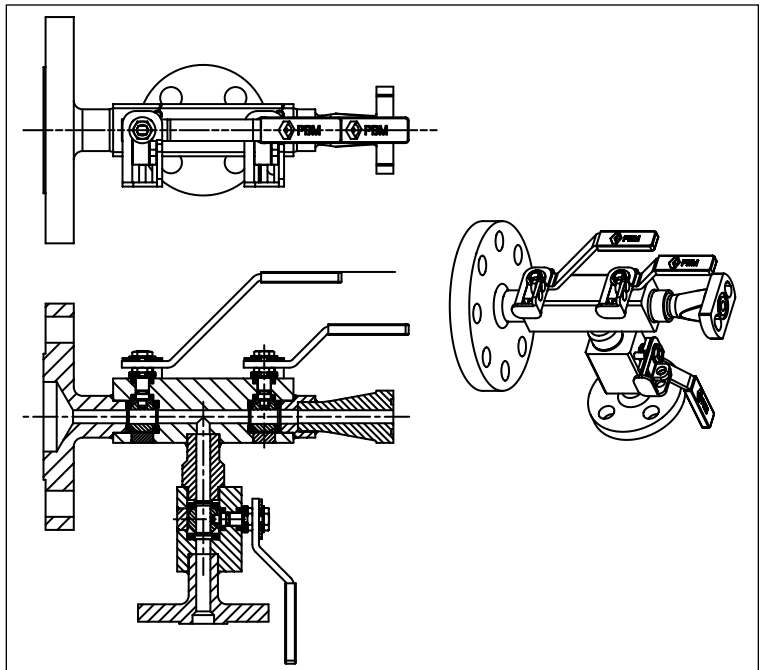
Instrument Valve Applications

Fire Safe instrument ball valves are used in pairs for flow meter installations.

- 1/4 turn
- Customer specified end fittings
- Easily mounted on 2-1/8″ centers



PBM's Monoflange ball valves provide compact instrument single and double block and bleed configurations.



Double block and bleed ball valve available with FNPT, MNPT, and flanged end connections in stainless, duplex and exotic materials.

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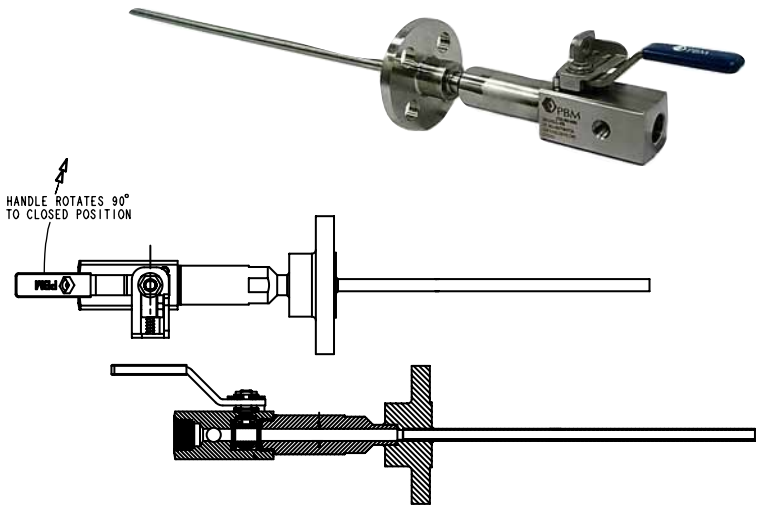
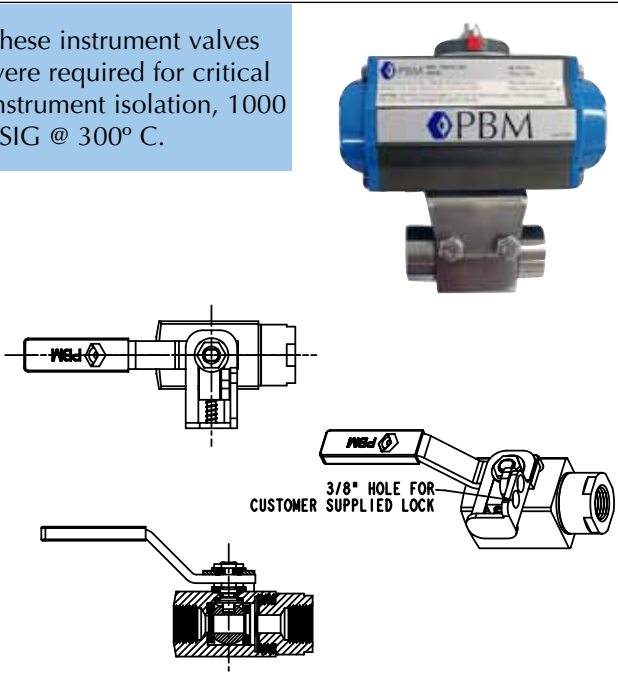
Instrument Valve Applications

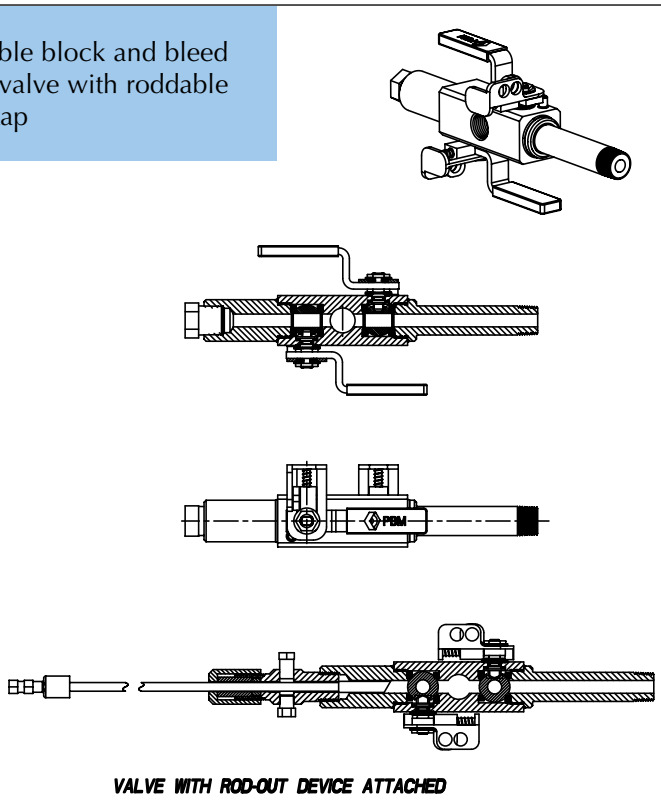
Sampling valve removes sample directly from the process stream at system pressure. Available in single and double block configurations.



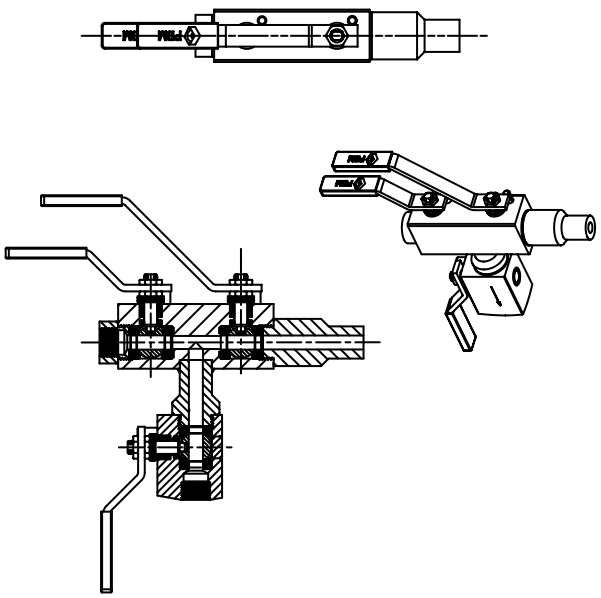
These instrument valves were required for critical instrument isolation, 1000 PSIG @ 300° C.



Double block and bleed ball valve with roddable hot tap



Double block and bleed ball valves available with FNPT, MNPT, and flanged end connections in stainless, duplex and exotic materials.



Safety • Reliability • Value • Increased Flow

How to order

1/4" - 3/4" High Pressure 2-Way and Double Block Valves Class 2500# Max.

Series		Material (Body and End Connections)		Size		Style		End fittings**		Seat material		Handle Operator		Bleed or Gauge Port		Operator*	
IM	Instrument Valve	H-	316 Stainless Steel	A	1/4-inch	A	2-way	PQ	male x female NPT	G	TFM®	-	Right Hand Operation (CW)	- -	No Bleed or Gauge Ports	00	oval handwheel with locking device
		HL	316L Stainless	B	3/8-inch	B	2-way High Temperature (Stellite seats)	Q-	female NPT	P	PEEK Seats 500°F	L	Left Hand Operation (CCW)	-A	One 1/4" FNPT Bleed or Gauge Port Opposite Stem	04	lever handle with locking device
		E-	Carbon Steel	C	1/2-inch	C	Diverter Port - Bottom Entry Only	P-	male NPT	Q	Carbon Graphite Seats 700°F			-B	One 1/4" FNPT Bleed or Gauge Port 90° from Stem	17	4" extended locking oval handwheel
		C-	Hastelloy C-276	D	3/4-inch	D	Diverter Port - Bottom Entry Only* High Temperature	E-	Extended Female NPT	S	Stellite Seats 1000°F			-C	Two 1/4" FNPT Bleed or Gauge Ports 90° from Stem	18	4" extended locking lever handle
		Y-	Hastelloy C-22			O	Double Block	F-	Extended Male NPT	C	Celazole PBI 600°F			-D	One 3/8" FNPT Bleed or Gauge Port Opposite Stem	20	80 psig DA actuator
		M-	Monel			P	Double Block High Temperature	EF	Extended Female NPT x Extended Male NPT					-E	One 3/8" FNPT Bleed or Gauge Port 90° from Stem	27	60 psig DA actuator
		P-	AL6XN					L-	150# flange					-F	Two 3/8" FNPT Bleed or Gauge Ports 90° from Stem	34	80 psig SR actuator
		22	Duplex 2205					M-	300# flange					-C	One 1/2" FNPT Bleed or Gauge Port Opposite Stem	41	60 psig SR actuator
		25	254 SMO 6 Moly					N-	600# flange					-H	One 1/2" FNPT Bleed or Gauge Port 90° from Stem		
								O-	900# flange					-J	Two 1/2" FNPT Bleed or Gauge Ports 90° from Stem		
								W-	1500# flange								
								X-	2500# flange								
								T-	Extended Socket Weld								
								U-	Socket Weld								
								S-	Male Compression Thread (Ferrule provided by purchaser)								

1" - 6" Double Block Valves Class 600# Max.

Series		Material		Size		Style		End Fittings**		Seat Material		Handle Operator			Bleed or Gauge Port	Operator*	
IM	Instrument Valve	HL	316L Stainless	E	1-inch	O	double block	Q-	Female NPT	G	TFM	-	Right Hand Operation (CW)	- -	No Bleed or Gauge Ports	00	oval handwheel with locking device
		M-	Monel 400	G	1-1/2 inch	P	double block high temperature	P-	Male NPT	E	Graphite filled PTFE Seats	L	Left Hand Operation (CCW)	-A	One 1/2"FNPT opposite stems	04	lever handle with locking device
		C-	Hastelloy C276	H	2-inch			PQ	Male NPT x Female NPT	P	PEEK Seats 500°F.			-B	One 1/2" FNPT 90° from stems	17	4" extended locking oval handwheel
		Y-	Hastelloy C22	J	2-1/2 inch			L-	150# flanged	Q	Carbon Graphite Seats 700°F.					18	4" extended locking lever handle
		P-	AL6XN	K	3-inch			M-	300# flanged	C	Celazole PBI (1 thru 3" size only) 600° F.					20	80 psig DA actuator
		E	Carbon	L	4-inch			N-	300# flanged							27	60 psig DA actuator
		22	2205 duplex	M	6-inch			U-	Socket Weld							34	80 psig SR actuator
		25	6 moly													41	60 psig SR actuator
																08	gear operator (sizes over 3")

*Actuator or gear operator required on larger sizes/ pressures - Consult Factory.
** for multiple ends, use both codes

Transmitter Isolation Valves

Series		Material		Size		Style		End Fittings**		Seat Material		Purge Ports		Stem Options		Operator		Ball Flats	
TI	Transmitter Isolation Valve	H	316 Stainless	E	1" port X 3" flanged	5	PBM Series 5 design	L-	150# flanged	G	TFM	-	(4) Standard	-	Standard	---	Lever Handle with Locking Device	A	Ball flats facing downstream in ball-closed position
		H2	317L Stainless	J	2-1/2" port X 3" flg	6	Series 6 design fire rated	M-	300# flanged	H	S-tef (50% stainless PTFE)			G	17-4 PH Stem Operator			B	Ball flats facing upstream in ball-closed position
		C-	Hastelloy C276							P	PEEK							C	Ball flats facing upstream in ball-open position
		T-	Titanium, Gr. 5							A	RTFE							D	Ball flats facing downstream in ball-open position
		P-	AL6XN															E	Ball flats up & downstream in ball-open position

Worldwide Representation

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