



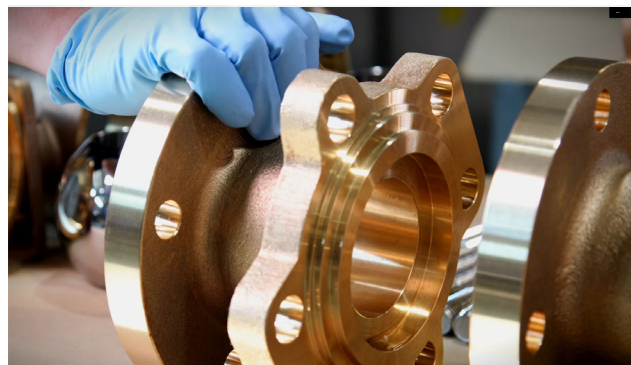
[Valve Solutions]

www.pbmvalve.com

- Chemical & Petrochemical
- Food & Beverage
- LNG & Cryogenic
- Marine & Offshore
- Mining
- NQA-Qualified
- Oil & Gas
- Paint & Resins
- Personal Care
- Pharmaceutical & Biotech
- Power
- Pulp & Paper
- Refining
- Steel

IMI PBM has solutions to your valve application needs.

IMI PBM (PITTSBURGH BRASS MANUFACTURING) is a company that began as a non-ferrous foundry in 1899 along the Monongahela River in Pittsburgh. The first ball valve was shipped in 1960. In 1968 IMI PBM moved to its present site in Irwin, 20 mi (32 km) southeast of Pittsburgh, PA. To support our growth, we've recently added 19,000 sq. ft (1,800 sq. m) of manufacturing space increasing our total footprint to 58,000 sq. ft (5,400 sq. m). In 2019, IMI PBM was acquired by IMI plc. allowing us greater opportunities to expand our services globally.



IMI PBM Valves combine specific application requirements with creative engineering and quality manufacturing practices. We offer the convenience of standard features with the option of customizing for specific processes. Most IMI PBM valves incorporate our Adjust-O-Seal® design and many include the True-Bore® design. IMI PBM has the ability to provide clean-in-place/steam-in-place capability without process interruption. These are just a few of the innovations that help reduce processing costs and improve efficiency for our customers.

INDUSTRIAL VALVES

- 2-Way Ball Valves
- ANSI Ball Valves
- Tank Bottom Valves
- Trunnion Mounted
- Diverter Port Ball Valve
- Multi-Port Ball Valves
- Control Valves

SANITARY VALVES

BPE COMPLIANT

- Clean Steam Valves
- Self Cleaning Ball Valves
- 2-Way Ball Valves
- Tank Bottom Valves
- Diverter Port Ball Valve
- Multi-Port Ball Valves
- Pinch Valves
- Spray Ball Valves

SPECIALTY VALVES

- Marine valves
- Check Valves
- Cryogenic Valves
- Instrument Valves
- Manifold Assemblies
- NQA-1 COMPLIANT
- Radial Diaphragm
- Rising Stem Sampling

AUTOMATION

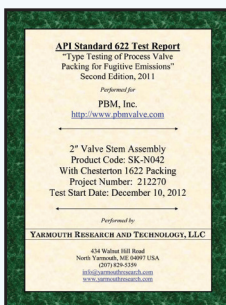
- Electric & Pneumatic
- Direct Mount Pneumatic
- Torque outputs accommodate full range of valve sizes
- Bi-Directional Travel Stop Adjustments
- Position monitors with Visual Indication
- Full range of solenoid valves direct mount, tube mount, or mounted in switchbox



ISO 9001



SIL 3 CAPABLE



API 622
LOW E TESTING



ABS APPROVAL



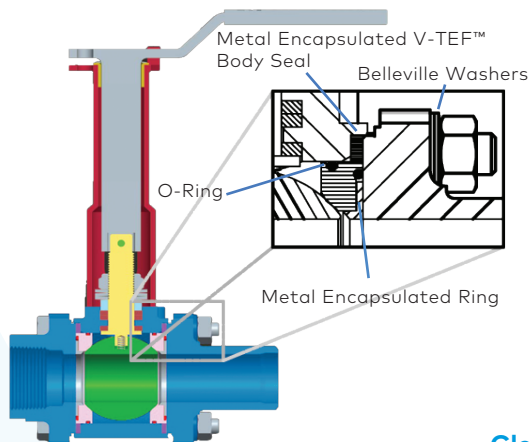
CRN
REGISTRATIONS



PED 2014/68/EU

DESIGN FEATURES:

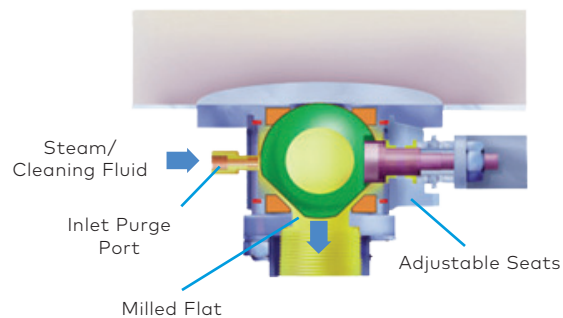
Clean Steam Ball Valves



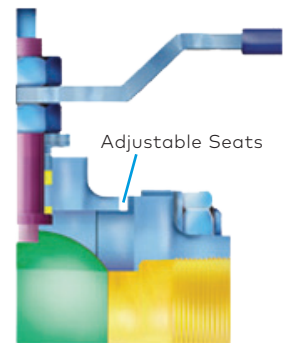
Benefits

- **Metal Encapsulated Ring:** Minimize effects of thermal cycling
- **O-ring Primary Seal:** Provides spring effect to combat teflon's lack of memory property
- **Metal Encapsulated V-TEF™:** Body gasket and seat are two body seal separate items that lets the seat move independent of gasket.
- **Belleville Washers:** Help maintain pre-load on body bolts during thermal cycling

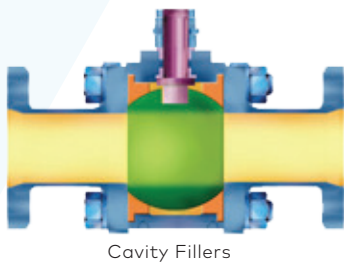
Clean-in-place/Steam-in-place



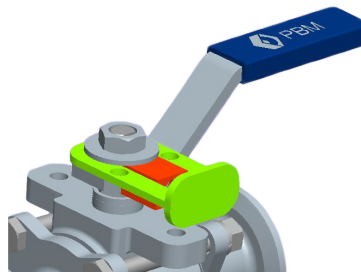
Adjustable Sealing



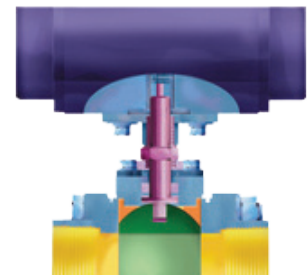
Cavity Fillers



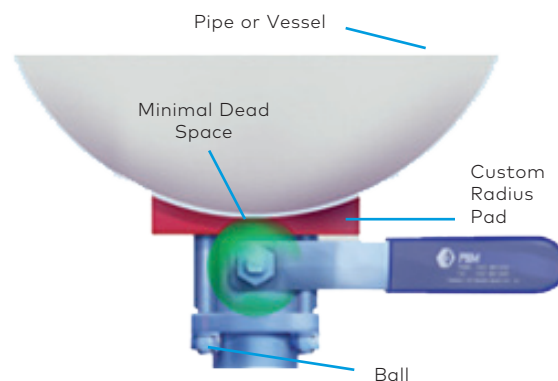
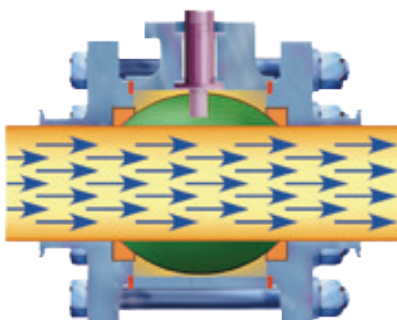
Locking Lever Handle



Direct Mount Actuation



True-Bore® port diameter same as pipe or tube diameter



Cylindrical Radius Pad

INDUSTRIAL VALVES

Whether the application is in a chemical plant, paper mill, food plant, manufacturing environment, or other industrial setting, IMI PBM'S line of Industrial valves can handle all types of rigorous and general purpose applications.

Materials

- 316/316L S/S
- Carbon Steel
- Bronze
- Hastelloy®
- AL6XN®
- Others

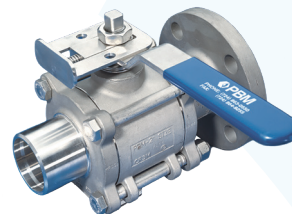
End Connections

- Threaded
- Extended Butt Weld
- Socket Weld
- Flanged
- Compression
- Others

Options

- Actuation
- Fire-Rated
- CIP/SIP
- Cavity Fillers
- Locking Handle
- Steam Seats
- Polishing & Electropolishing
- Special Pads (Flush Tank)
- Multiple Flow Patterns (Diverter & Multi-Port)
- V-ball for flow control
- Variety of Soft and Metal Seats

2-Way Ball Valves



Sizes

1/4" - 10" (DN8 - DN250)

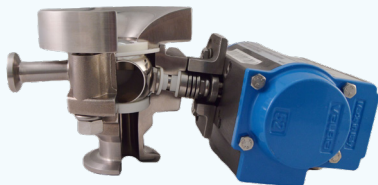
Diverter Port Ball Valves



Sizes

1/2" - 6" (DN15 - DN150)

Angle Stem Flush Tank Ball Valves



Sizes

1" - 6" (DN25 - DN150)

Multi-Port Ball Valves



Sizes

1" - 6" (DN25 - DN150)

PSV Switching Valves



Sizes

1/2" - 6" (DN15 - DN150)

Tank Bottom Ball Valves



Sizes

1" - 6" (DN25 - DN150)

Control Ball Valves



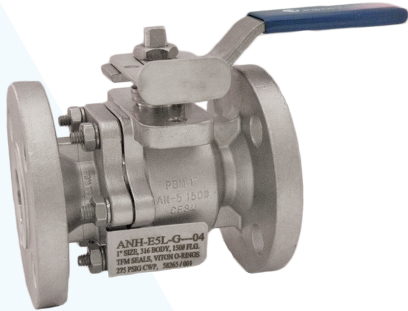
V-Balls for Control Valves feature characterized balls with various port shapes.

ANSI Ball Valves

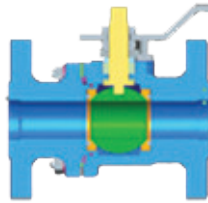
ASME B16.10 Full Port, 150# Flanged valves are used for heavy duty industrial applications. Adjustable sealing standard.

Sizes

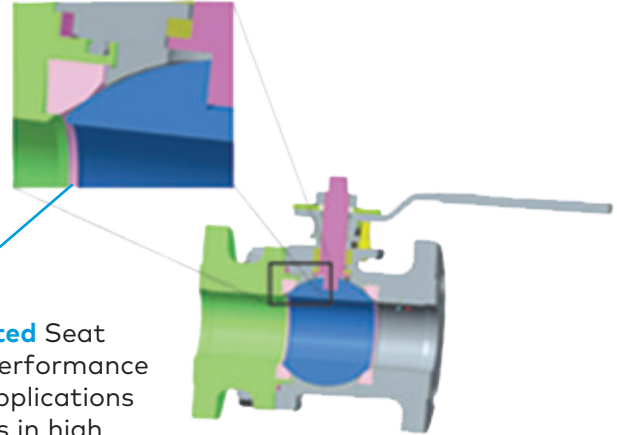
1/2" - 10" (DN15 - DN250)
Class 150 & 300



Metal Seats



Metal Encapsulated Seat Rings facilitate performance in high velocity applications and contain seats in high temperature applications.



NQA-1 RATED Valves are manufactured, tested, and certified in strict accordance with ASME NQA-1. IMI PBM's quality assurance program is in accordance with 10 CFR 50 Appendix B, ASME NQA-1.0

Sizes

1/2" - 4" (DN15 - DN100)

Cryogenic Valves

Cryogenic valves have a unique design that accommodates leak-free operation through cooling and heating cycles.

Materials

- 1/2" - 4" (DN15 - DN100)

Materials

- 316/316L S/S
- Others

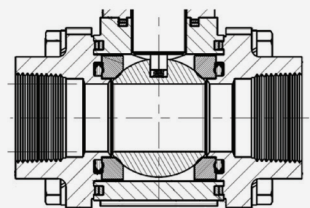
Materials

- Fire Safe to API 607
- Temperatures from 400°F (205°C) down to -320°F (-200°C)
- ANSI 300# Class



What Makes It Work

An extended bonnet with an upper set of **live loaded** stem packings. As metal shrinks, it keeps pressure on seals as temperature goes through cooling and heating cycles. A vented ball allows explosive gas expansion to vent upstream.



Leakage Rate Comparison

Cryogenic Allowable Leakage Rate Comparison Allowable He scc/min			
NPS	DN	MSS-SP134-2010	BS 6364-1984
1/2	15	37.5	90
3/4	20	56.25	120
1	25	75	150
1-1/2	40	112.5	240
2	50	150	300
3	80	225	480
4	100	300	600

Instrument Valves are used for isolation for pressure gauges, orifice plates, flush rings and various measurement instruments.

Sizes

- 1/2" and 3/4" (DN15 and DN20) with 0.41 bore

Pressure Class

- 1/4" - 3/4" (DN8 - DN20) Up to ANSI Class 2500 (Class 1500 Standard)

Features

- Quarter Turn Operation
- Optional Extended Handle
- Bleed or Gauge Ports
- Low-E Packing to API 622
- SIL-3 Capable per IEC 61508

Materials

- 316 L S/S
- Hastelloy®
- Carbon Steels
- Duplex
- Inconel
- Others

Instrument Valves



Obtain accurate transmitter readings and replace leaky knife gate valves with IMI PBM's **Transmitter Isolation Valve**. Ideal for Pulp & Paper and Chemical applications, these 2-Way Ball Valves feature minimal dead space and positive shut-off. Calibration Port, CIP Port, 150# Flange, and Locking Handle.

Sizes

- 2" with 1" Port
- 3" with 2-1/2" Port
- 3" with 1" Port
- Others

Materials

- 316 & 317L S/S
- Hastelloy®
- Titanium
- Others

Transmitter Isolation Valves

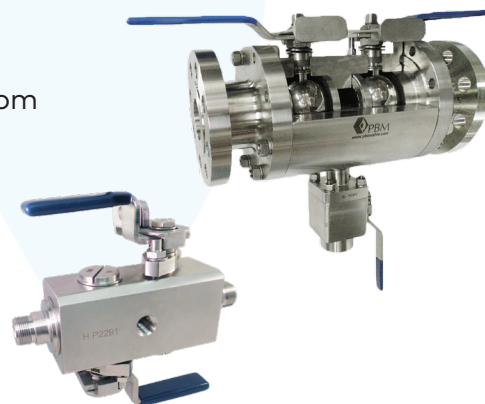


Double Block & Bleed Valves

IMI PBM Double Block & Bleed Valves are custom engineered from standard components in a variety of alloys and pressure classifications to meet customer specifications. IMI PBM valves are trusted by major oil refineries where safety and reliability are critical. Valves are designed to ASME B16.34. Optional Low E to API 622.

Sizes

- 1/4" - 10" (DN8 - DN250)



Fabflex® Manifold Assemblies

Fabflex Manifolds are space-saving pipe and valve configurations designed to accommodate special applications. These valves can be shipped in lengths up to 18 ft (5.49 m) with multiple manual and automated valves pre-installed. 100% tested before shipment ensures proper performance.

Sizes

- 1/4" - 6" (DN8 - DN150)

Materials

- 316/316L S/S
- Carbon Steel
- Hastelloy®
- Others



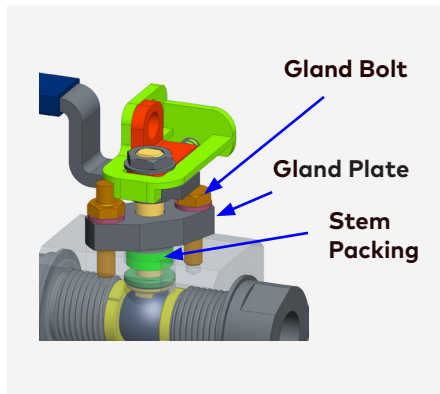
IMI PBM valves with Low-E Packing offer solutions to emission reduction

Design Features:

- Average stem packing leakage ≤ 10 ppmv for the duration of the test (100 ppm allowable)
- Stem packing is suitable for service at temperatures of -400° to 850°F (-240° to 450°C)
- API 607 Fire Tested
- ASME Class 1500 Weld Design standard



API 622
Low E Testing



Bolted Instrument Valve

IMI PBM's Bolted Instrument Valve design allows end connection design and fabrication flexibility. It is available in a wide range of materials for a variety of temperature and pressure classes to meet your most stringent process applications.



Sizes

- 1/2" - 2" (DN15 - DN50)
Class 600#, 900# and 1500#

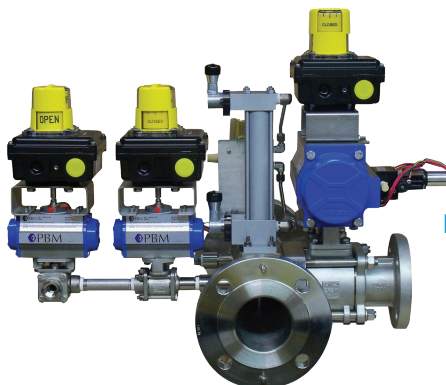
Features

- Full & Reduced Port
- Braided Graphite Packing
- API-607 Fire Rated
- API-622 Low-E Stem Packing Standard
- Bleed or Gauge Ports Available
- Gear Operator recommended for 1-1/2" and above

Custom Configurations:



3-Way 120°
Pigging Valve



Pig Launcher

Bronze 2-Way Valves

Sizes

- 1/2" - 10"
(DN15 - DN250)

Features

- Actuation
- USCG Category A
- Locking Handle
- Cavity Fillers
- MIL V 24509



ANSI Trunion Ball Valve



SANITARY VALVES

IMI PBM's Igenix® line of sanitary valves are ideally suited for pure process applications where dead space within the valve needs to be minimized. IMI PBM valves exhibit high performance in Pharmaceutical, Biotechnological, Food, Beverage, Cosmetic, and other sanitary and clean steam applications and validation systems.

Sizes

1/4" - 6" (DN8 - DN150)

Materials

- 316L S/S Forged and Low Ferrite Castings
- Hastelloy®
- AL6XN®
- Others

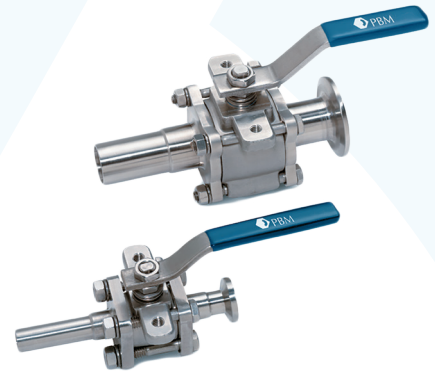
End Connections

- Hygienic Clamp
- Extended Butt Weld Tube
- Compression
- Others

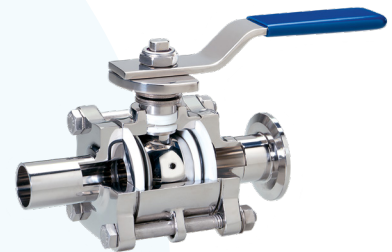
Options

- Actuation
- Fire-Rated
- Compression Ends
- CIP/SIP
- Steam Seats
- Cavity Fillers
- Locking Handle
- Polishing & Electropolishing
- Special Pads (Flush Tank)
- Multiple Flow Patterns (Diverter & Multi-Port)

Igenix® 2-Way Ball Valves



Clean Steam Ball Valves

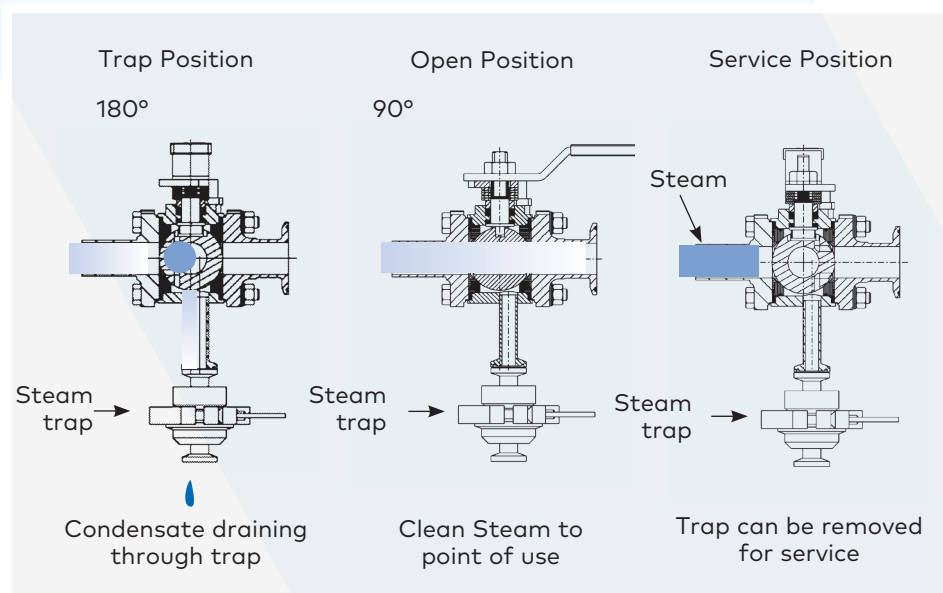


2-Way Clean Steam Trap Ball Valves

2-Way Clean Steam Trap Valves use body purge ports and ball purge holes to direct flow to the trap while shutting off flow downstream. These valves permit sampling of steam for purity and safely isolate trap for ease of maintenance. Low Ferrite Cast or Forged options. True-Bore® standard. Vertical or horizontal installation available.

Sizes

1/2" - 6" (DN 15 - DN150)



Spring-less Sanitary Check Valves

Patented



- Horizontal or Vertical
- Installation Models
- Hygienic Clamp & Ext. Butt Weld for Tube
- Polishing & Electropolishing

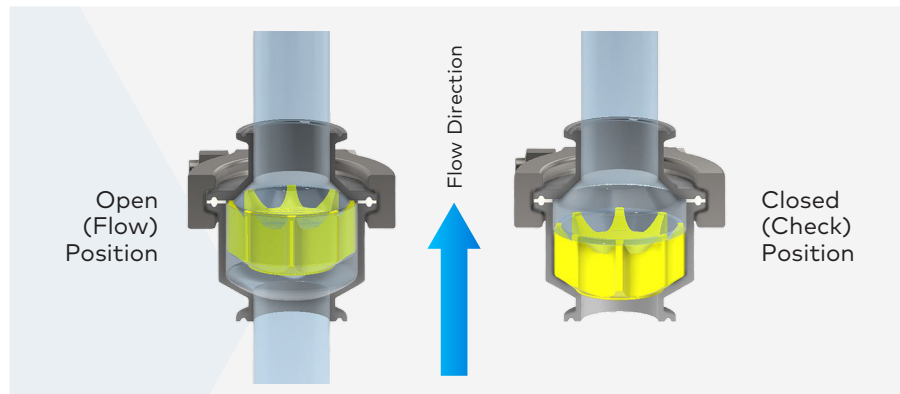
Materials

- 316L S/S
- Hastelloy®
- Others

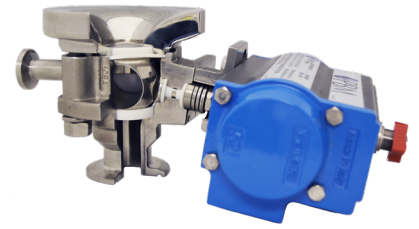
Optional drain port or drain holes for vertical installations

Sizes

- 1/2" - 4" (DN15 - DN100)



Angle Stem Flush Tank Ball Valves



Sizes

1/2" - 6" (DN 15 - DN150)

Spray Ball Valves

Thoroughly clean the insides of tanks, mixers, and other vessels with IMI PBM's Spray Ball Valve. Design minimizes nozzle exposure and potential for clogging, and accommodates many standard spray nozzles.



Sizes

1/2" - 6" (DN 15 - DN150)

Fabflex® Manifold Assemblies

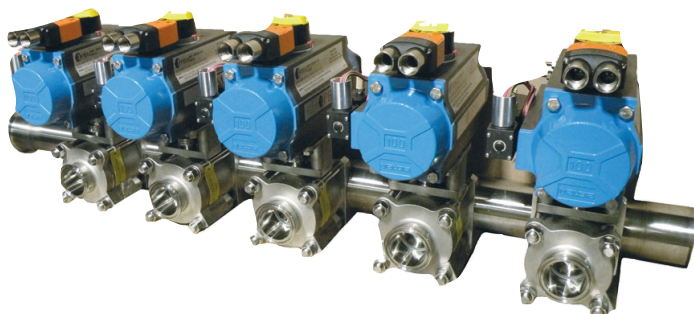
Fabflex® Manifold Assemblies are space-saving pipe and valve configurations designed to accommodate special industrial and sanitary applications. Can be shipped in lengths up to 18 ft (5.49m), with multiple manual and automated valves pre-installed. 100% tested before shipment ensures proper performance. Minimal dead space reduces areas where media could become trapped. Blank valve pads can be provided to accommodate future process expansion.

Sizes

- 1/4" - 6" (DN8 - DN150)

Materials

- 316/316L S/S
- Carbon Steel
- Hastelloy®



Diverter Port Ball Valves



Multi-Port Ball Valves



Sizes

- 1/2" - 8" (DN15 - DN200)

Igenix® Radial Diaphragm Tank Outlet Valves

- Smooth sloping design for complete drainage
- 45° and 2° sloped outlet
- Pressure rating 175 psi/12 bar
- Machined by IMI PBM from wrought material
- Standard finish 15 Ra with EP (BPE SF4)
- Optional purge port and tank connections available
- Platinum cured Silicone or V-Tef™ diaphragms

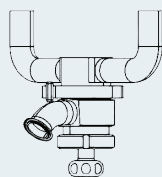
Sizes

1/2" - 3" (DN15 - DN80)

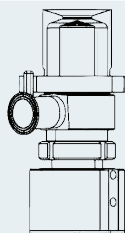
RDV Configurations



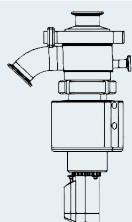
Polypropylene Body



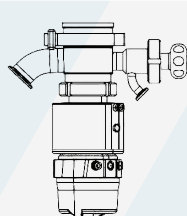
Point of use



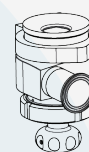
Extended Weld Pad



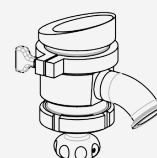
Clamp on with purge port



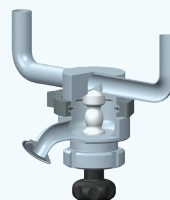
Standard Weld Pad with satellite valve



Tangential



Igenix® Satellite Valves offer seating against the body of our Radial Diaphragm Valve eliminating dead leg and allowing the introduction of CIP / SIP into the valve.



Point of Use Valve Zero Dead Leg



Pinch Valves

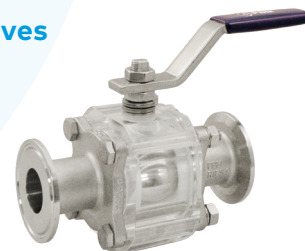
- True "Fail Closed"
- Modular Safety Cover
- Fits over existing silicone clear and braided tubing
- No contact with any process media
- Manual or Automated
- Optional manual override and position indicators
- Actuator pressure as low as 60 psig with a variety of limit switches



Self-Cleaning Ball Valves

Sizes

1/2" - 6" (DN15 - DN150)



Rising Stem Sampling Valves

Sizes

1/4" bore diameter

Materials

- 316L S/S
- Others

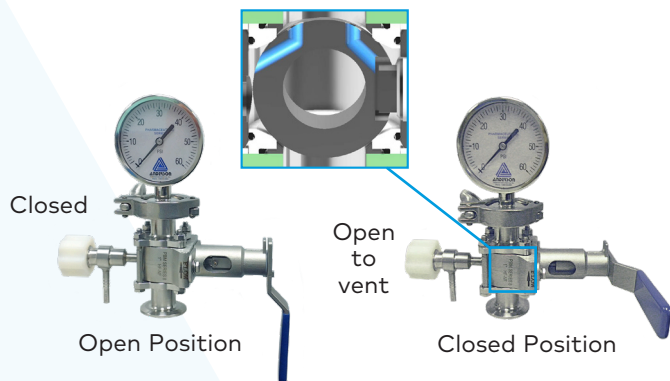


Options

- Actuation
- Polishing
- Butt Weld
- Swickle (1/4" only)
- Hose Barb
- Clamp Outlet

Sanitary Block & Bleed

- Adjust-O-Seal® design safely allows for process isolation and instrument bleed
- Ability to isolate bleed off pressure and safely remove instruments which are in service on continuous service (...ie clean steam lines)
- Allows instruments to be removed for calibration or replacement without shutting down main process lines.



IMI PBM Automation Completes the Solution

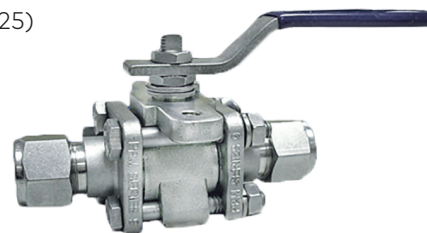
- Pneumatic and electric (multiple voltages and area classifications)
- Direct mount pneumatic actuator eliminates tube bracket and couplings
- Direct mount adapts to ISO bolt patterns
- Torque outputs to accommodate full range of valve sizes
- Bi-directional travel stop adjustments
- Full range of solenoid valves, direct mount, tube mount, or mounted in switchbox
- Position monitors with visual indication in multiple area classifications
- Pneumatic and electro-pneumatic positioners for flow control



2-Way Valves with Compression Ends

Sizes

1/2" - 1" (DN15 - DN25)



Process Break Valve

Sizes

1/2" - 2" (DN15 - DN50)



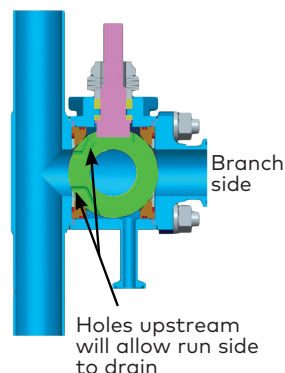
Z-ball® Zero Dead Leg Design

Sizes

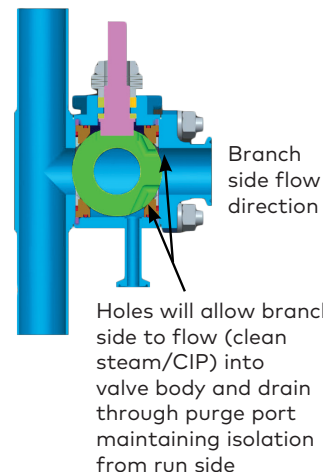
1/2" - 4" (DN15 - DN100)



Run side
(upstream)



Run side



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