





- Petrochemical
- Mining
- Oil & Gas



Breakthrough Engineering

- Power Generation
- Pulp & Paper
- Refining



METAL SEATED BALL VALVES

Applications

Metal Seated Valve Applications include steam service, high temperature/pressure service, abrasion resistance and modulating service.

- High Temperature up to 800°F
- Corrosive Medias
- Erosive Medias

- Steam Service
- Abrasive Medias
- Modulation Service*
 *specific applications

Design Features



www.pbmvalve.com

- 1/2" through 6", 150#/300# class, 1/2" through 2", 600# through 1500# available
- Design capabilities to provide custom valve configurations to address severe service applications including thermal expansion
- Quick ship 1/2" through 4" split body ANSI Class 150/300 and 3-piece design 2-Way and 3-Way Diverter Valves
- Temps up to 800°F/427°C
- Class V shut-off, Class VI available as an option with limited cycle life
- · Live-loaded packing ensures long maintenance-free operation
- IMI PBM's metal seated valves are fundamentally firesafe
- Valves with weld end fittings can be welded without disassembly
- Optional patented locking lever handle or gear operator and complete line of automation and controls
- Complete repair services available
 fast turn around on valve repair
- SIL-3 capable per IEC 61508
- Extended handles and automation brackets available for higher temperature services
- Optional API622 packing design available to address Low-E requirements up to 800°F
- Stem design, sizing torque and pinned rigid actuator linkage per application eliminate stem twist and ensure alignment in high torque applications



PBM SERIAL HO

PBM

CHROME CARBIDE

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TYPICAL COMPOSITION, WT%	
Nickel	20%
Chrome	
Chrome	Balance
Carbide	
COATING CHARACTERISTICS	
Bond	>10,000/
Strength, PSI	690 bar
Hardness	67
Porosity	2%
Max Service	800°F
Temperature	427°C

TUNGSTEN CARBIDE		
TYPICAL COMPOSITION, WT%		
Carbon	3.7%	
Iron	0.5%	
Nickel	10.0%	
Tungsten	Balance	
Carbide		
COATING CHARACTERISTICS		
Bond	>10,000/	
Strength, PSI	690 bar	
Hardness	65-58 RC	
Porosity	<1%	
Max Service	800°F	
Temperature	427°C	



Coatings

Specially designed carbide and/or ceramic thermal spray coatings are a valve industry standard. All of the coatings are applied in the USA to ensure consistently high quality coatings.

www.pbmvalve.com



THE SEAL IS COATED AND LAPPED TO MATCH BALL, CREATING A POSITIVE SEAL.

Options

Chrome Carbide | 20% Nickel/Chrome

A hard coating that does not oxidize at high temperatures. Provides good abrasion, particle erosion cavitation and fretting resistance in high temperature environments. Good corrosion resistance and sliding properties.

Tungsten Carbide | 10% Nickel

A hard, dense coating to resist high abrasive conditions, as

GENERATION well as particle erosion and fretting, while providing the corrosion resistance of nickel with minimal loss of heat resistance.

Surfaces

- Thermal Spray Coating applied to noted surfaces
- Ground and lapped surfaces
- Excellent sealing between ball and seats
- Anti-galling coating



4" METAL SEATED ANSI TRUNNION

STAINLESS STEEL

BALL VALVE USED IN POWER

www.pbmvalve.com

Optional Coating Testing

- Available upon request
- Please contact IMI PBM with any special requirements or requests.

Thermal Spray Coatings

We can offer various thermal spray coatings for your corrosion and wear resistance needs. The fully automated Thermal Spray System offers high level consistency in the Thermal Spray Process. We also utilize a large amount of exotic alloys.

Special Applications

IMI PBM's **Special Application Valves** solve unique or challenging processing problems.

CLOSE

♦PBN

PBM

Certificate / Certificat

Zertifikat / 合格証

PBM 1111013 C003

IM Series Ball Valves

IMI Critical Engr PBM LLC Irwin, PA - USA

IEC 61508 : 2010 Parts 1-2

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CROB

Evaluating As

Certifying As

Junja

firms that the

Certified SIL 3 Capable

• IB Series Ball Valves

- AN Series Ball Valves
- IM Series Ball Valves



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