

PHANTOM PORT BALL [®]

Innovative Ball Design for Severe Services



The Jarecki Phantom Port Ball is a unique design. It can be added to any Jarecki ball. The Phantom Port can be used for applications in the Power, Chemical and Pulp and Paper Industries.

Standard Applications:

Blow Down Valve
Green Liquor
Black Liquor
Red Liquor
Saturated Steam
Feedwater

Abrasive Media
Acid Service
Chlorine Service
High Cycle

Design

Pressure Rating

- 150# to 1500# Sizes 1/2" to 12"
- 1700# to 2500# Sizes 1/2" to 6"
- 3300# to 4500# Sizes 1/2" to 6"

Ball Size

- 1/2" to 12" Full Port
- 3/4" to 14" Reduced Port

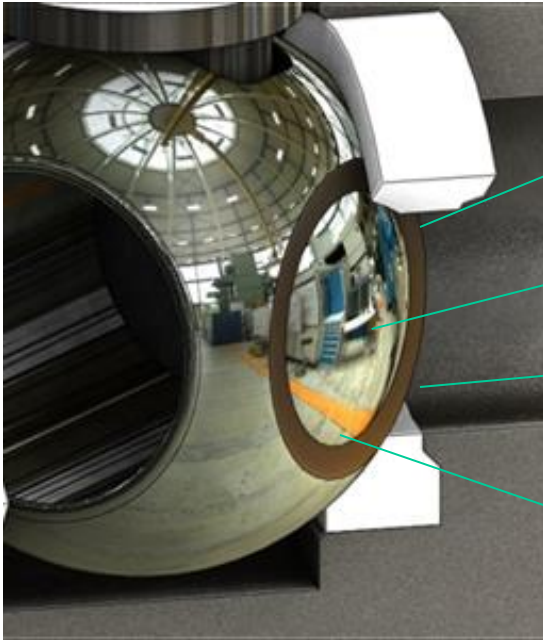
Available For These Seat Designs

- Bi-Direction Metal Seat O-Seal (standard)
- Bi-Direction RTFE Seats
- Bi-Direction Metal Seats
- Uni-Directional Metal Seats

Service Conditions

- Temperatures Up to 1500F
- Pressures as low as Vacuum Service
- Pressures as High as 12000 psi
- Abrasive and Viscous Flow Media
- Corrosive Services
- Media which Adheres to Ball Surface
- Cavitation
- Wire Draw

FEATURES



Recess machined into the ball

Dome configuration maintains ball strength

Edge acts like a scraper to help clean the seat sealing surface

75% less surface area in contact with the seats

MEDIA DEPOSITS

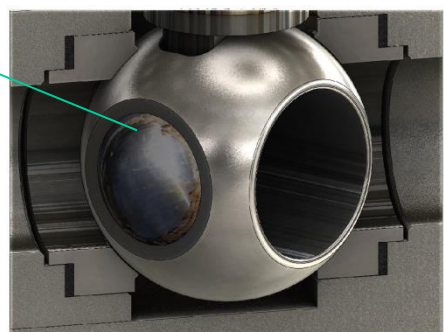
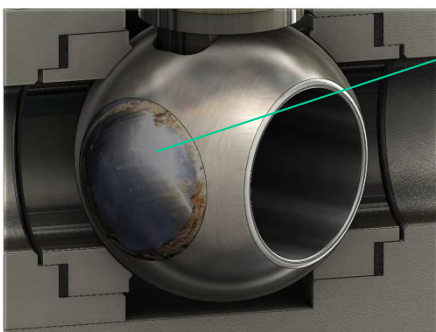
STANDARD BALL

Valves that handle fluids and gasses that tend to deposit crustations or leave residue on the inner valve surfaces will become hard to operate. With the Ball Valve in the closed position for lengthy time periods, the buildup of deposits adhere to the ball face within the seat boundaries causing interference with the valve seats during attempts to cycle the valve. Only a few thousandths deposit on the ball face will increase turning torque and damage the seats. Excessive crustations or residue on the ball face will make the valve inoperative. Example: Green Liquor Service.

PHANTOM PORT

The Phantom Port solves this problem. This feature is a circular recessed area machined into the ball. It is machined in dome configuration to maintain ball strength. Since this area is below the ball OD, the media residue passes safely below the seat when the valve cycles. Because less area is contacting the seat when the valve cycles, there is 75% less seat wear on every cycle. Also, there is a cleaning action every time the valve cycles. Since flow travels around both sides of the ball, media is washed off the ball surface.

Media buildup on ball surface



CORROSIVE SERVICES

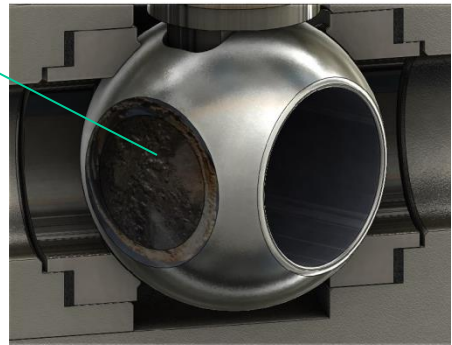
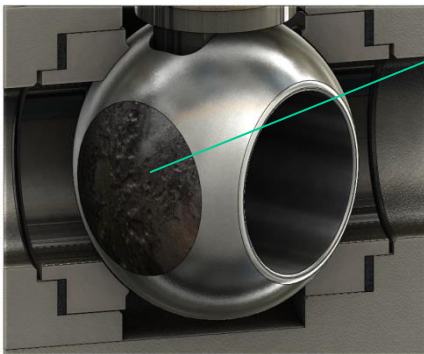
STANDARD BALL

Valves that handle fluids and gasses that tend to pit the surface of the ball will become hard to operate. With the Ball Valve in the closed position for lengthy time periods, the media attacks the ball substrate which craters the surface. The jagged edges from this attack is very damaging to the seat sealing surface. When the valve cycles the pitting will scrape across the seats and ruin the sealing surface. This leads to higher torque and seat leakage.

PHANTOM PORT

The Phantom Port solves this problem. This feature is a circular recessed area machined into the ball. It is machined in dome configuration to maintain ball strength. Since this area is below the ball OD, the sharp raised metal from the affected area passes safely below the seat when the valve cycles. Because less area is contacting the seat when the valve cycles, there is 75% less seat wear on every cycle.

Pitting on ball surface

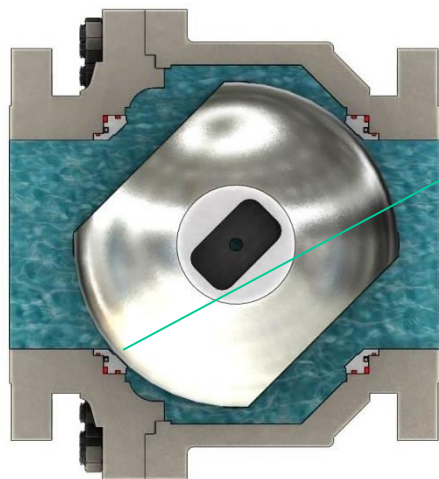


HIGH CYCLE

In a standard ball design, the entire outer diameter of the ball contacts the seats on every cycle. Wear occurs to a small degree every time the valve turns. This small wear is usually insignificant to a low cycle valve. However, the more the valve cycles, the more wear occurs. Decreasing the life of the valve

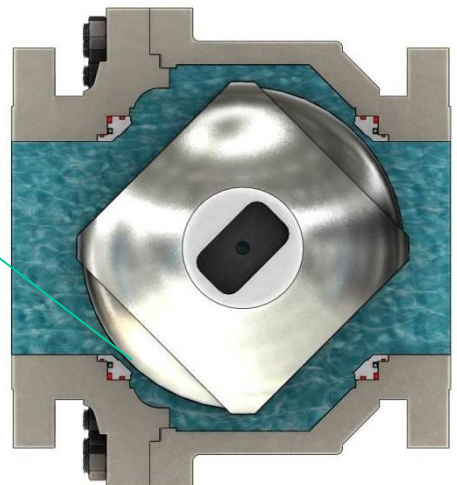
The Phantom Port takes care of this problem. This feature is a circular recessed area machined into the ball. It is machined in dome configuration to maintain ball strength. Since this area is below the ball OD, there is no contact with the seat. This means about 75% less seat wear on every cycle. This feature has proven to increase valve life by 3x that of a standard ball.

STANDARD BALL



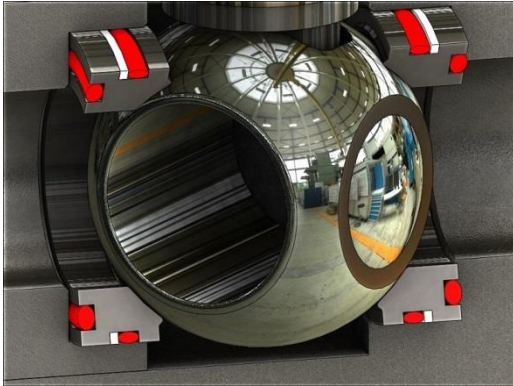
Surface Contact

PHANTOM PORT



AVAILABLE IN THESE SEAT STYLES

O Seal – O Ring Sealed Seat (standard)



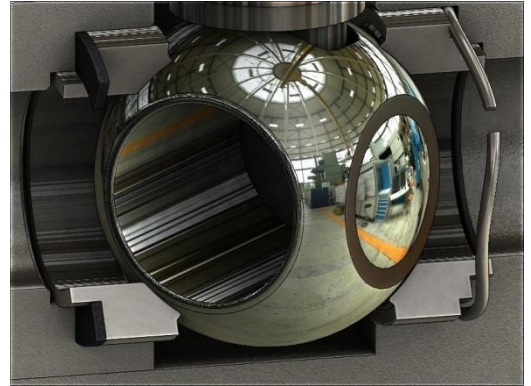
A double seal design providing both spring loading and excellent sealing capabilities. There is no area for media to build up behind the seat, which prevents the valve from locking up.

Temperature Range: --40 to 650 deg F

Application: Green Liquor, Black Liquor, Steam, Abrasion, Low Pressure Differentials, Fine Solids, Emulsions, Condensation, Natural Gas

Shut-Off: Class V, Class VI, Bubble Tight

P Seat - Spring Loaded



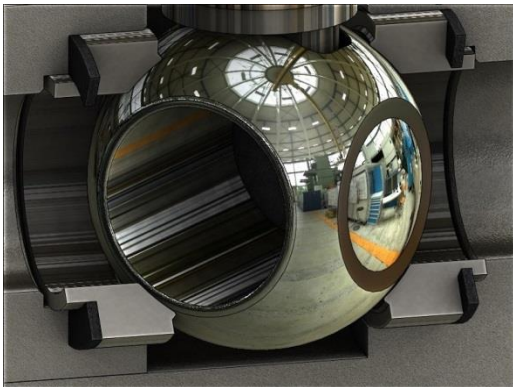
For unidirectional applications. The sealing seat is available as a separate seat ring for reparability, or integral with the tailpiece for high temperature applications. The spring seat OD seal prevents media from building up between the spring and the back of the seat.

Temperature Range: -40 to 1000 deg F

Application: Steam, Hot Air, Gases, Low Pressure Differentials, High Temperatures

Shut-Off: Class IV

G Seal - Graphite Sealed Seat



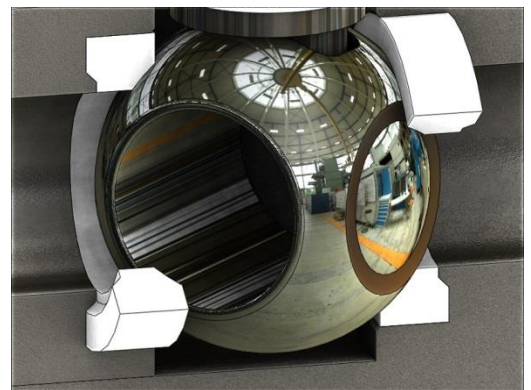
A series of Graphite seal rings behind the metal seat prevents media from building up behind the seat. The rings also allow for expansion of the internal valve components in high temperature applications. This design is great for applications involving fine solids as the graphite prevents the media from building up behind the seats.

Temperature Range: -20 to 1000 deg F

Application: Steam, Abrasion, High Temperatures, Fine Solids, Slurry

Shut-Off: Class V, Class VI, Bubble Tight

T Seat - Reinforced TFE Seat



The T Seat Style designates a soft seat material. There are many seat materials available with TFM being the standard option. A metal lip on the body and tailpiece provides fire safety and meets API 607 requirements.

Temperature Range: -20 to 450 deg F

Application: Steam, Low Pressure Differentials, Emulsions, Nonabrasive Media

Shut-Off: Class VI, Bubble Tight

ABOUT US

Jarecki Valves has been an American valve manufacturer and rebuilder for more than 40 years, providing customers with high quality metal and soft seated ball, control, and check valves. Jarecki Valves got its start engineering and manufacturing valves for the Navy Nuclear Industry, which involved working with exotic materials and manufacturing valves for critical service. In 1980 Jarecki Valves worked closely with Hammermill Paper and developed the HSU series to handle all the critical applications at the mill. Jarecki is now using the experience in providing quality valves for today's industries.

Jarecki supplies valves to a variety of industries. Some of which include Pulp and Paper, Chemical, Petrochemical, Power, Oil and Gas, Mining, and Municipal.



ORDERING INFORMATION

| SIZE | - | SERIES | PORT SIZE | SEAT | SEAT MATERIAL | BALL | BALL COATING | BODY | - | CLASS | END CONNECTION | OPTIONS |
|------|---|--------|-----------|------------|--------------------|-------------|--------------------|------------|---|----------|----------------|-----------------|
| 1/2" | | 2000 F | FULL | 0 NONMETAL | B Boronizing | A 316SST | B Boronizing | A 316 | - | 01 150# | D BUTTWELD | 08 Phantom Port |
| TO | | 3000 R | REDUCED | 1 O SEAT | C COLMONOY | D Inconel | C CHROME | B A105 | - | 03 300# | E SOCKET WELD | |
| 12" | | 5000 | | 2 G SEAL | G Graphite | F Hastelloy | E ENP | C F-22 | - | 06 600# | | |
| | | 7000 | | 4 P SEAT | M Tantalum | G Incoloy | M Tantalum | H Alloy 20 | - | 09 900# | | |
| | | SV | | 5 P SEAT | Chrome Oxide | H Alloy 20 | Chrome Oxide | X 2205 SST | - | 15 1500# | | |
| | | W | | <1050deg F | P PEEK | I Monel | L Colmonoy | | - | 17 1700# | | |
| | | HTV | | 6 P SEAT | R CHROME CARBIDE | X 2205 SST | R CHROME CARBIDE | | - | 25 2500# | | |
| | | | | <1300deg F | S STELLITE | | S STELLITE | | - | 33 3300# | | |
| | | | | | T TFE | | T TFE | | - | 45 4500# | | |
| | | | | | U UHMWPE | | W TUNGSTEN CARBIDE | | - | | | |
| | | | | | W TUNGSTEN CARBIDE | | O no coating | | - | | | |

Example: 2" 3000 Series, Full Port, Spring Loaded Unidirectional Seats, Stellite Seats, 316ss Ball with Chrome Plating, CF8M body, 1500# butt weld, With Phantom Port

2 - 3 F 4 S A C A - 15 D 8