

SV SERIES 2-PIECE BALL VALVES

Split Body metal seated ball valves for industrial and process applications.



The Jarecki SV Series ball valve is an economical choice for your high temperature and abrasive media valve needs. SV Series valves are used for applications in the Chemical, Power, Pulp and Paper, Petrochemical, Oil and Gas, and Mining Industries.

Standard Applications:

Green, Black, White Liquor
Hot Oil
Saturated Steam
Feedwater
Abrasive Media
Chlorine
Nitrogen
TICL4

Seat Leakage Class:

RTFE Seats Bubble Tight
RTFE Seats API 598
Metal Seats Class V - **Standard**
Metal Seats Class VI
Metal Seats Zero Leakage
Metal Seats API 598
Metal Seats ISO 5208

Design

Pressure Rating

- 150# Available in Sizes ½" to 12"
- 300# Available in Sizes ½" to 12"

Valve Size

- 1/2" to 12" Full Port
- 6" to 12" Reduced Port

End Connections

- Flanged
- Butt weld Available On Request

Valve Construction

- 2 Piece Valve Design
- Investment Cast Body Size ½" to 4"
- Split Body
- Floating Ball
- Spiral Wound Body Gasket with Secondary Metal to Metal Seal
- Actuator Mounting Pad
- Live Loaded Stem Packing
- Designed to B16.34
- Blow Out Proof Stem
- Heavy Duty Stem For High Torque

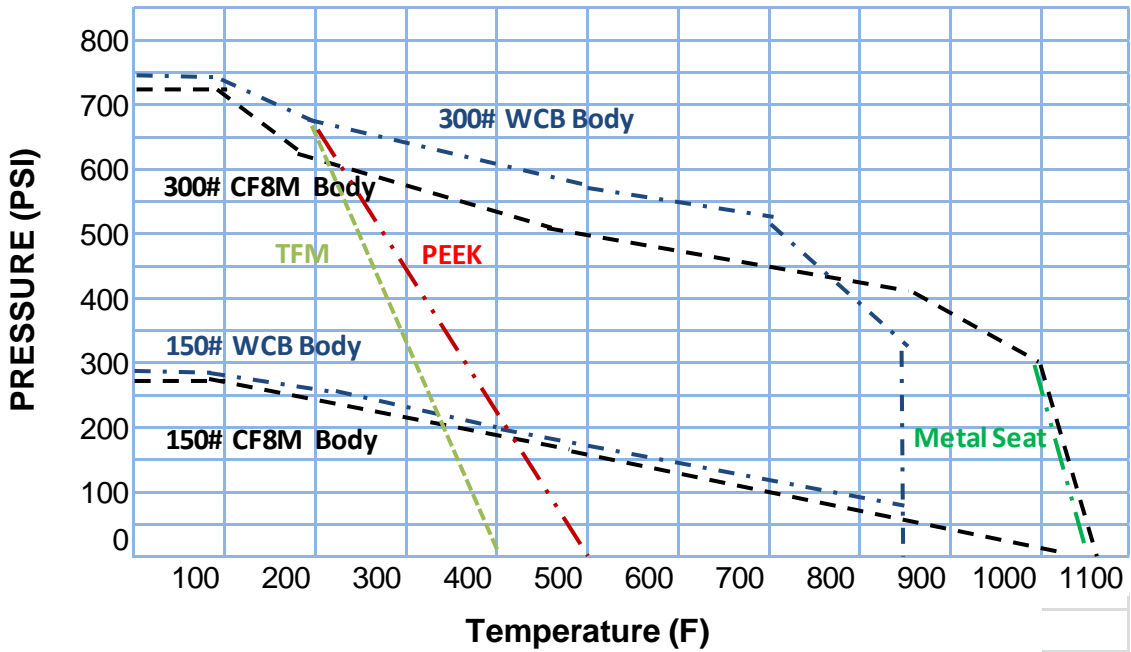
Seat Designs

- Bi-Direction RTFE Seats
- Bi-Direction Metal Seats
- Uni-Directional Metal Seats – **Standard**

Service Conditions

- Temperatures Up to 1000 deg F
- Pressures as low as Vacuum Service
- Pressures as High as 740 psi
- For Clean and Abrasive Services

PRESSURE / TEMPERATURE CHART



Live Loaded Packing System

- Blow-Out proof stem design to ensure workman safety.
- Live-Loaded stem packing to compensate for temperature fluctuations and normal wear.
- Care is taken not to over torque the stem packing at the testing facility.

Reliable Body Seal

- The body and end connections are bolted with a metal to metal contact to ensure that proper compression on the body gasket is achieved.
- This metal to metal contact also guarantees that the dimensions inside the valve are correct. The torque is constant, and both the body and seat seal gaskets will always have the proper compression.

Specifications

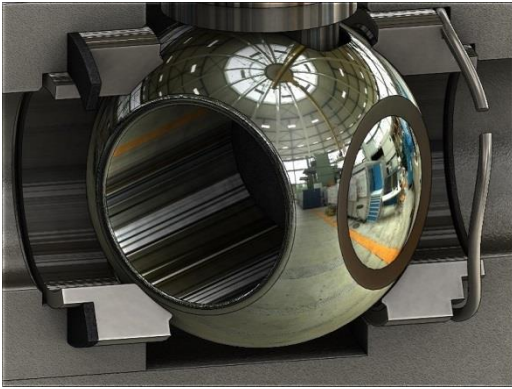
Valves covered in this bulletin are available to conform to the following industry standards and specifications

- Flanged Ends meet ANSI B16.10 and B16.5
- Butt Weld end connections meet MSS SP72
- Pressure Testing Of Valves MSS-SP-61
- Standard Marking for Valves MSS-SP-25
- Valves are tested per ANSI FCI 70-2-1976
- Minimum wall thickness meets ANSI B16.34
- Valves are tested per ANSI FCI 70-2-1991 and B16.34
- ASME B31.1 Power Piping
- ASME B31.3 Chemical Plant Piping
- MSS SP-55 Quality Standards For Castings
- MSS SP-6 Standard Finishes for Contact Faces of Pipe Flanges
- API 607 Fire Test For Soft Seated Valves
- NACE MRO175 Sulfide Stress Cracking Resistant Materials For oilfied Equipment*
- API 6D Specifications for Pipeline Valves

* Must specify this as a requirement at time of order

SEAT STYLES

P Seat - Spring Loaded (Standard)



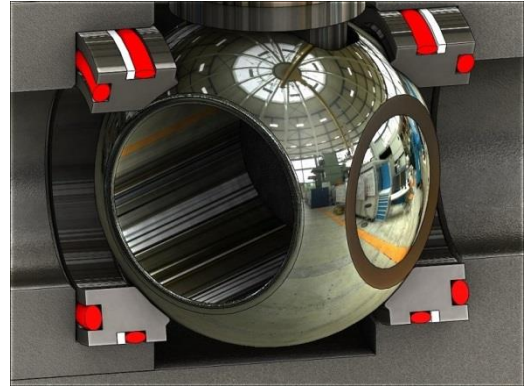
For unidirectional applications. The sealing seat is available as a separate seat ring for reparability, or integral with the tailpiece for high temperature applications. The spring seat OD seal prevents media from building up between the spring and the back of the seat.

Temperature Range: -40 to 1000 deg F

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

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

O Seal – O Ring Sealed Seat



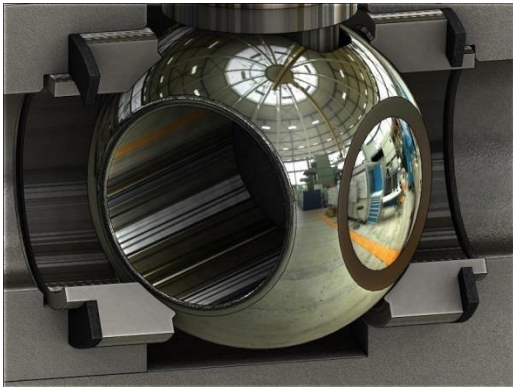
A double seal design providing both spring loading and excellent sealing capabilities. There is no area for media to build up behind the seat, which prevents the valve from locking up.

Temperature Range: --40 to 650 deg F

Application: Steam, Abrasion, Low Pressure Differentials, Fine Solids, Emulsions

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

G Seal - Graphite Sealed Seat



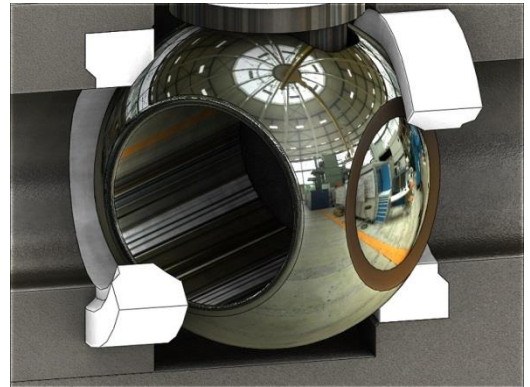
A series of Graphite seal rings behind the metal seat prevents media from building up behind the seat. The rings also allow for expansion of the internal valve components in high temperature applications. This design is great for applications involving fine solids as the graphite prevents the media from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

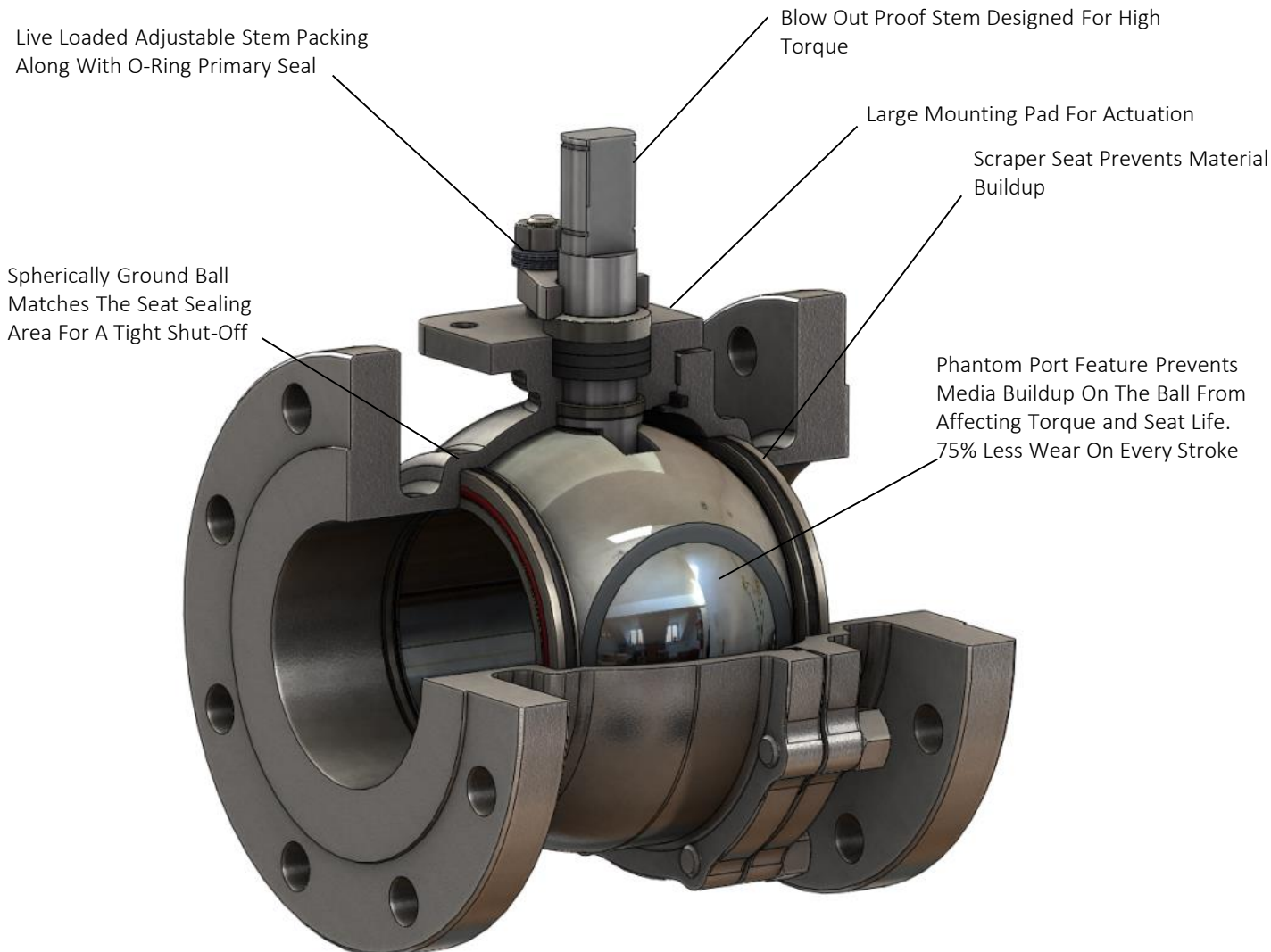
FEATURES

Reliable Shut-Off

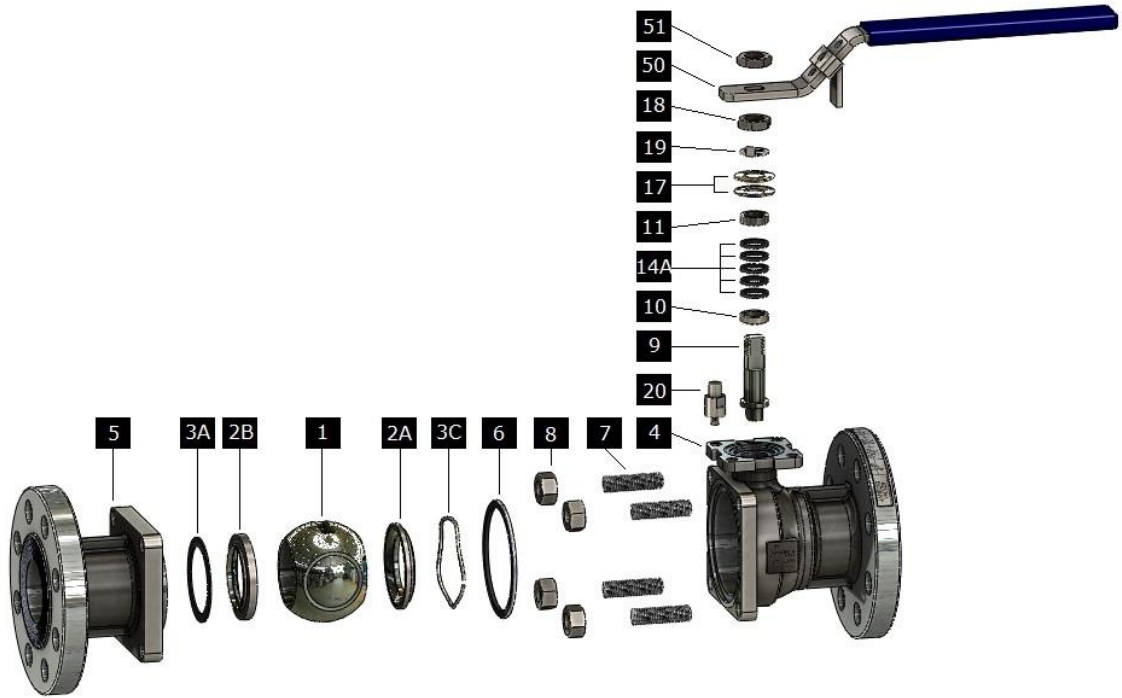
- Tight shut-off is accomplished by grinding every ball to very tight tolerances and excellent finish, generating a true radius each individual seat to its mating ball, and then carefully lapping them together through our proven polishing process.
- Every valve that leaves the plant has both a hydrostatic, torque and cycle test, and seat leakage test performed on it.
- Standard Shut-Off is Class V. ISO 5208 Rate A,B,C and ANSI Class VI available As Options.

Quality

- Jarecki Valves is an ISO 9000 Company and quality is an important part of our culture
- In Metal Seat Valves, .003 Thousands of an inch can make all the difference in torque, shut-off and overall valve performance. Our quality system requires this.
- At Jarecki Valves, 95% of our business is metal seated ball valves. The employees understand and excel at producing the highest quality metal seated valves available.



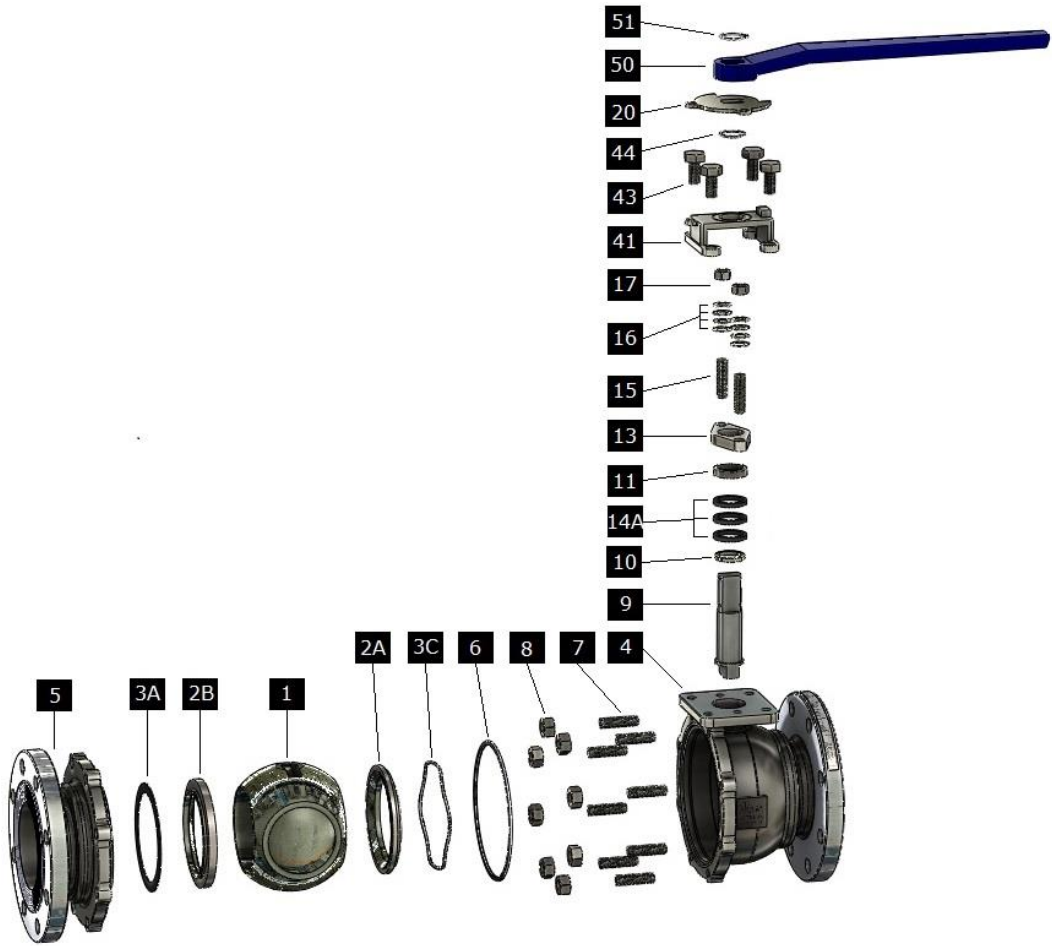
BILL OF MATERIAL



| ITEM NO. | NAME | STAINLESS STEEL | CARBON STEEL | ALLOY 20 | DUPLEX |
|----------|-----------------------------|----------------------------|----------------------------|------------------------------|---------------------------------|
| 1 | BALL | 316 W/ HARD CHROME* | 316 W/ HARD CHROME* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 2A | GUIDE SEAT (IF APPLICABLE) | 316 W/ STELLITE HF* | 316 W/ STELLITE HF* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 2B | SEALING SEAT | 316 W/ STELLITE HF* | 316 W/ STELLITE HF* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 3A | SEAT SEAL | TFE/Viton/Graphite | TFE/Viton/Graphite | TFE/Viton/Graphite | TFE/Viton/Graphite |
| 3C | SEAT SPRING (IF APPLICABLE) | 17-7 SST/ A286 | 17-7 SST/ A286 | ALLOY 20 | 2205 DUPLEX SST |
| 4 | BODY | A351 CF8M | A216 WCB | A351 2 CN7M | A351 CD3MN |
| 5 | TAILPIECE | A351 CF8M | A216 WCB | A351 2 CN7M | A351 CD3MN |
| 6 | BODY GASKET | 316sst w/ Graphite Filler* | 316sst w/ Graphite Filler* | ALLOY 20 w/ Graphite Filler* | 2205sst w/ Graphite Filler* |
| 7 | BODY STUD | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 |
| 8 | BODY NUT | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 |
| 9 | STEM | 17-4SST/XM-19* | 17-4SST/XM-19* | ALLOY 20* | 2205 DUPLEX SST* |
| 10 | THRUST WASHER | Nitronic 60/TFE* | Nitronic 60/TFE* | STELLITE* | STELLITE* |
| 11 | COMPRESSION RING | 316 SST | 316 SST | ALLOY 20 | 2205 DUPLEX SST |
| 14A | STEM PACKING | TFE/GRAPHITE | TFE/GRAPHITE | TFE/GRAPHITE | TFE/GRAPHITE |
| 16 | GLAND NUT | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 |
| 17 | BELLEVILLE WASHER | 301 SST | 301 SST | 301 SST | 301 SST |
| 18 | PACKING NUT | 304 SST | 304 SST | 304 SST | 304 SST |
| 19 | PACKING NUT LOCK | 304 SST | 304 SST | 304 SST | 304 SST |
| 50 | LEVER W/ LOCKING DEVICE | 304 SST | 304 SST | 304 SST | 304 SST |
| 51 | NUT | 304 SST | 304 SST | 304 SST | 304 SST |

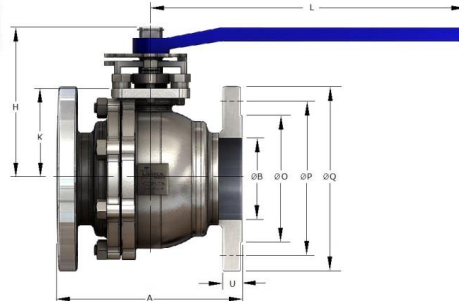
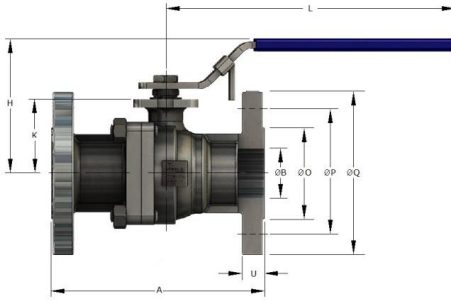
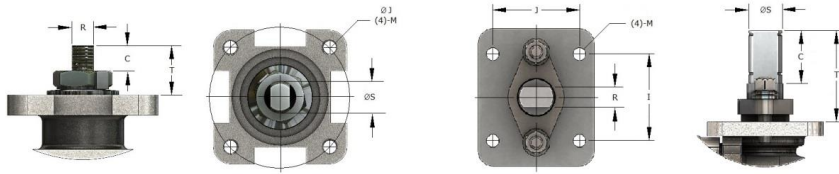
* Other materials and coatings available upon request

BILL OF MATERIAL



| ITEM NO. | NAME | STAINLESS STEEL | CARBON STEEL | ALLOY 20 | DUPLEX |
|----------|-----------------------------|----------------------------|----------------------------|------------------------------|---------------------------------|
| 1 | BALL | 316 W/ HARD CHROME* | 316 W/ HARD CHROME* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 2A | GUIDE SEAT (IF APPLICABLE) | 316 W/ STELLITE HF* | 316 W/ STELLITE HF* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 2B | SEALING SEAT | 316 W/ STELLITE HF* | 316 W/ STELLITE HF* | ALLOY 20 W/ COLMONOY* | 2205 W/ Tantalum Chrome Oxide * |
| 3A | SEAT SEAL | TFE/Viton/Graphite | TFE/Viton/Graphite | TFE/Viton/Graphite | TFE/Viton/Graphite |
| 3C | SEAT SPRING (IF APPLICABLE) | 17-7 SST/ A286 | 17-7 SST/ A286 | ALLOY 20 | 2205 DUPLEX SST |
| 4 | BODY | A351 CF8M | A216 WCB | A182 CN7M | A351 CD3MN |
| 5 | TAILPIECE | A351 CF8M | A216 WCB | A182 CN7M | A351 CD3MN |
| 6 | BODY GASKET | 316sst w/ Graphite Filler* | 316sst w/ Graphite Filler* | ALLOY 20 w/ Graphite Filler* | 2205sst w/ Graphite Filler* |
| 7 | BODY STUD | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 |
| 8 | BODY NUT | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 |
| 9 | STEM | 17-4SST/XM-19* | 17-4SST/XM-19* | 2205 DUPLEX SST* | 2205 DUPLEX SST* |
| 10 | THRUST WASHER | Nitronic 60/TFE | Nitronic 60/TFE | STELLITE | STELLITE |
| 11 | COMPRESSION RING | 316 SST | 316 SST | ALLOY 20* | 2205 DUPLEX SST* |
| 13 | COMPRESSION PLATE | 304 SST | 304 SST | 304 SST | 304 SST |
| 14a | STEM PACKING | TFE/GRAPHITE | TFE/GRAPHITE | TFE/GRAPHITE | TFE/GRAPHITE |
| 15 | GLAND STUD | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 | ASTM A193 B8 |
| 16 | BELLEVILLE WASHER | 301 SST | 301 SST | 301 SST | 301 SST |
| 17 | GLAND NUT | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 | ATM A194 Gr. 8 |
| 20 | TRAVEL STOP | 304 SST | 304 SST | 304 SST | 304 SST |
| 41 | STOP HOUSING | 304 SST | 304 SST | 304 SST | 304 SST |
| 43 | BOLTS | 304 SST | 304 SST | 304 SST | 304 SST |
| 44 | SNAP RING | 301 SST | 301 SST | 301 SST | 301 SST |
| 50 | LEVER | DUCTILE IRON | DUCTILE IRON | DUCTILE IRON | DUCTILE IRON |
| 51 | SNAP RING | 301 SST | 301 SST | 301 SST | 301 SST |

DIMENSIONS



Size 1/2" to 2"

Size 3" to 12"

ANSI 150# FULL PORT

| SIZE | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A | 4.25 | 4.61 | 5.00 | 5.50 | 6.50 | 7.00 | 7.85 | 8.00 | 9.00 | 14.00 | 15.50 | 18.00 | 21.00 | 24.00 |
| ØB | 0.58 | 0.78 | 1.00 | 1.25 | 1.50 | 2.00 | 2.55 | 3.00 | 4.00 | 5.00 | 5.99 | 7.90 | 9.85 | 11.82 |
| ØO | 1.38 | 1.69 | 2.00 | 2.50 | 2.88 | 3.62 | 4.12 | 5.00 | 6.19 | 7.31 | 8.50 | 10.62 | 12.75 | 15.00 |
| ØP | 2.38 | 2.75 | 3.12 | 3.50 | 3.88 | 4.75 | 5.50 | 6.00 | 7.50 | 8.50 | 9.50 | 11.75 | 14.25 | 17.00 |
| ØQ | 3.50 | 3.88 | 4.25 | 4.62 | 5.00 | 6.00 | 7.00 | 7.50 | 9.00 | 10.00 | 11.00 | 13.50 | 16.00 | 19.00 |
| H | 2.60 | 2.91 | 3.43 | 3.62 | 4.13 | 4.53 | 6.22 | 6.54 | 7.20 | 10.00 | 11.20 | 11.60 | 14.40 | 16.10 |
| K | 1.54 | 1.70 | 2.06 | 2.35 | 2.65 | 2.90 | 3.39 | 3.67 | 4.40 | 6.50 | 7.20 | 7.60 | 9.88 | 11.50 |
| L | 6.50 | 6.50 | 7.87 | 7.87 | 9.84 | 10.40 | 15.40 | 15.40 | 15.40 | 25.60 | 25.60 | 37.40 | 38.00 | 38.00 |
| Cv | 20 | 45 | 80 | 150 | 260 | 410 | 650 | 1000 | 1730 | 3650 | 5250 | 10075 | 15250 | 21500 |
| WEIGHT | 5 | 6 | 8 | 11 | 15 | 25 | 39 | 43 | 69 | 110 | 182 | 305 | 555 | 672 |

ANSI 300# FULL PORT

| SIZE | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.50 | 9.50 | 11.12 | 12.00 | 15.00 | 15.88 | 19.75 | 22.40 | 25.50 |
| ØB | 0.58 | 0.78 | 1.00 | 1.25 | 1.50 | 1.98 | 2.55 | 2.99 | 3.99 | 5.00 | 5.98 | 7.88 | 9.85 | 11.82 |
| ØO | 1.38 | 1.69 | 2.00 | 2.50 | 2.88 | 6.32 | 4.12 | 5.00 | 6.19 | 7.31 | 8.50 | 10.62 | 12.75 | 15.00 |
| ØP | 2.62 | 3.25 | 3.50 | 3.88 | 4.50 | 5.00 | 5.88 | 6.62 | 7.88 | 9.25 | 10.62 | 13.00 | 15.25 | 17.75 |
| ØQ | 3.75 | 4.62 | 4.88 | 5.25 | 6.12 | 6.50 | 7.50 | 8.25 | 10.00 | 11.00 | 12.50 | 15.00 | 17.50 | 20.50 |
| H | 2.60 | 2.91 | 3.43 | 3.62 | 4.13 | 4.53 | 6.22 | 6.54 | 7.20 | 10.00 | 11.20 | 11.60 | 14.40 | 16.10 |
| K | 1.54 | 1.70 | 2.06 | 2.35 | 2.65 | 2.90 | 3.39 | 3.67 | 4.40 | 6.50 | 7.20 | 7.60 | 9.88 | 11.50 |
| L | 6.50 | 6.50 | 7.87 | 7.87 | 9.84 | 10.40 | 15.40 | 15.40 | 15.40 | 25.60 | 25.60 | 37.40 | 38.00 | 38.00 |
| Cv | 15 | 40 | 75 | 140 | 255 | 405 | 645 | 990 | 1715 | 3500 | 5000 | 10000 | 15000 | 21000 |
| WEIGHT | 6 | 8 | 11 | 14 | 23 | 28 | 47 | 74 | 106 | 160 | 255 | 395 | 715 | 875 |

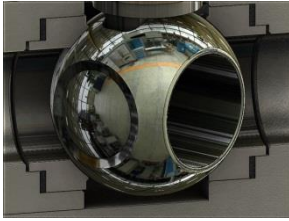
MOUNTING DIMENSIONS

ANSI 150# REDUCED PORT

| SIZE | 6 | 8 | 10 | 12 |
|--------|-------|-------|-------|-------|
| A | 10.50 | 11.50 | 13.00 | 14.00 |
| ØB | 5.98 | 7.88 | 9.85 | 11.82 |
| ØR | 8.50 | 10.62 | 12.75 | 15.00 |
| ØS | 10.62 | 13.00 | 15.25 | 17.75 |
| ØF | 12.50 | 15.00 | 17.50 | 20.50 |
| Cv | 1795 | 4835 | 10398 | 17852 |
| WEIGHT | 85 | 199 | 335 | 530 |

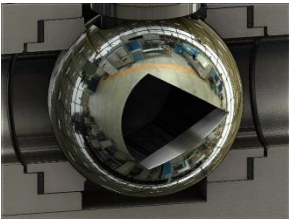
| SIZE | 1/2 - 3/4" | 1" | 1 1/2" - 2" | 2 1/2" - 4" | 6" | 8" | 10 - 12" |
|------|------------|----------|-------------|-------------|----------|----------|-----------|
| ØJ | 1.650 | 1.970 | 2.760 | 4.020 | NA | NA | NA |
| J | NA | NA | NA | NA | 3.370 | 3.370 | 4.530 |
| I | NA | NA | NA | NA | 3.370 | 3.370 | 4.530 |
| C | 0.320 | 0.430 | 0.550 | 1.750 | 1.610 | 1.610 | 2.130 |
| T | 0.550 | 0.750 | 0.910 | 3.070 | 3.580 | 3.580 | 3.860 |
| ØS | 0.366 | 0.429 | 0.618 | 1.102 | 1.713 | 1.713 | 1.969 |
| R | 0.250 | 0.315 | 0.374 | 0.669 | 1.024 | 1.024 | 1.378 |
| M | #10-24 | 1/4 - 20 | 5/16-18 | 1/2 - 13 | 1/2 - 13 | 1/2 - 13 | 5/8" - 11 |
| ISO | F04 | F05 | F07 | F10 | F12 | F12 | F16 |

OTHER BALL DESIGNS AVAILABLE



Patented Phantom Port

- Greatly extends valve life in corrosive applications
- Seat sealing area protected from flow media which adheres to the ball diameter
- Proven to last three times longer than a standard ball in difficult services
- 75% less wear on seats
- Excellent choice for Green and Black Liquor



V Port Control Valve

- Accurately Cut V-Port For Excellent Control
- Jarecki's V-Port Design Offers Great Rangeability
- Tight Stem To Ball Contact Provides A Valve With Very Low Hysteresis
- V-Port Ball Design Provides Both Excellent Shut-Off And Control

ORDERING INFORMATION

| SIZE | SERIES | PORT SIZE | SEAT | SEAT MATERIAL | BALL | BALL COATING | BODY | CLASS | END CONNECTION |
|------|--------|-----------|-----------------|--------------------|-------------|--------------------|------------|---------|----------------|
| 1/2" | SV | F FULL | 0 NONMETAL | A AlCrN | A 316SST | A AlCrN | A CF8M | 01 150# | B FLANGED |
| TO | | R REDUCED | 1 O SEAT | B Boronizing | F Hastelloy | B Boronizing | B WCB | 03 300# | D BUTTWELD |
| 12" | | | 2 G SEAL | C COLMONOY | G Incoloy | C CHROME | H Alloy 20 | | |
| | | | 4 P SEAT | G Graphite | H Alloy 20 | E ENP | X 2205 SST | | |
| | | | 3 G SEAL | M Tantalum | I Monel | I Ceramic | | | |
| | | | w/ OD O-RING | Chrome Oxide | X 2205 SST | M Tantalum | | | |
| | | | 5 P SEAT | N HARD CARBON | | Chrome Oxide | | | |
| | | | > 750 F | P PEEK | | N HARD CARBON | | | |
| | | | 6 G SEAL | Q CERAMIC | | L Colmonoy | | | |
| | | | <1300 deg F | R CHROME CARBIDE | | Q CERAMIC | | | |
| | | | Uni-Directional | S STELLITE | | R CHROME CARBIDE | | | |
| | | | 7 G SEAL | T TFE | | S STELLITE | | | |
| | | | Uni-Directional | U UHMWPE | | T TFE | | | |
| | | | 9 P Seat | W TUNGSTEN CARBIDE | | U Micro Tuff™ | | | |
| | | | OD O-Ring | | | w TUNGSTEN CARBIDE | | | |
| | | | | | | O no coating | | | |

Example: 4" SV Series, Full Port, O-Ring Seat Seals, Stellite Seats, 316ss Ball with Hard Chrome Plating, CF8M body, 150# Flanged RF

4 - SV F 1 S A C A - 01 B