

# HSV SERIES 2-PIECE BALL VALVES

Split Body metal seated ball valves for the Pulp and Paper and Power Industry.



The Jarecki HSV Series ball valve is a premium valve for very demanding services . HSV Series valves are used for applications in the Power and Pulp and Paper Industries.

#### Standard Applications:

Blow Down Valve Green Liquor Saturated Steam Feedwater Abrasive Media

### 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 3" to 8"
- 300# Available in Sizes 3" to 8"

#### Valve Size

• 3" to 8" Full Port

#### **End Connections**

• Flanged

#### Valve Construction

- 2 Piece Valve Design
- Oversized Boy Bolting To Withstand Pressure Surges, Vibration, Water Hammer
- Cast Valve
- Split Body
- Trunnion Mounted Ball Option
- 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

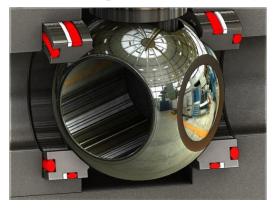
- Bi-Direction Metal Seat O-Seal (standard)
- Bi-Direction RTFE Seats
- Bi-Direction Metal Seats
- Uni-Directional Metal Seats

#### Service Conditions

- Temperatures Up to 1000F
- Pressures as low as Vacuum Service
- Pressures as High as 740 psi
- Abrasive and Viscous Flow Media

# 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



## 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

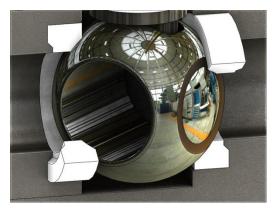
P Seat - Spring Loaded



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.

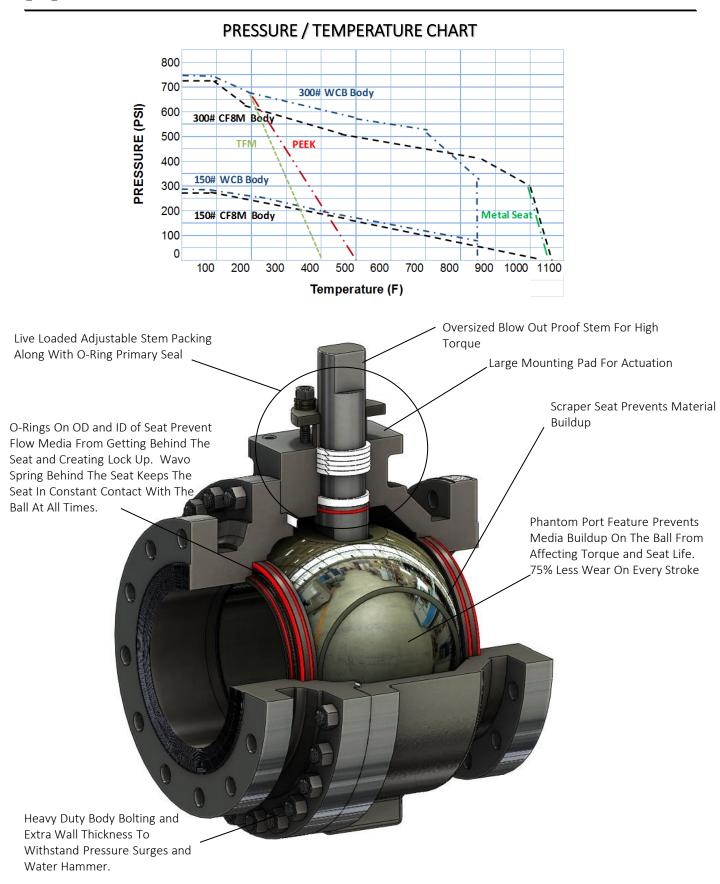
**Temperature Range:** -40 to 1000 deg F **Application:** Steam, Hot Air, Gases, Low Pressure Differentials, High Temperatures **Shut-Off:** Class IV

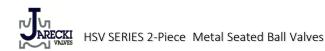
## T Seat - Reinforced TFE Seat



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





# PHANTOM PORT ®

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. 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.





## SPECIFICATIONS

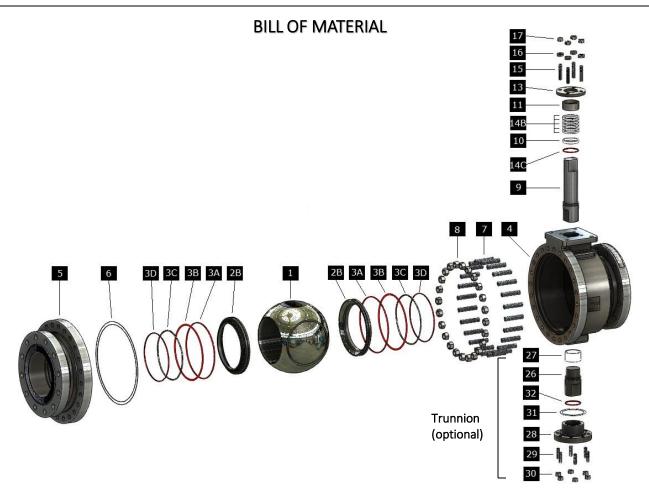
Valves covered in this bulletin are available to conform to the following industry standards and specifications

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



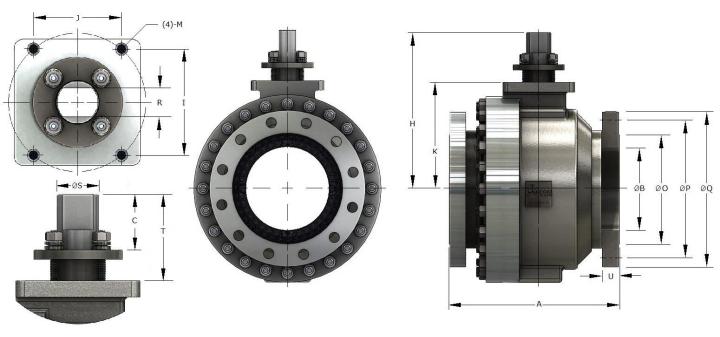


ITEM NO.	NAME	STAINLESS STEEL	CARBON STEEL	DUPLEX
1	BALL	316 W/ HARD CHROME*	316 W/ HARD CHROME*	2205 W/ Tantalum Chrome Oxide *
2	SEAT	316 W/ STELLITE HF*	316 W/ STELLITE HF*	2205 W/ Tantalum Chrome Oxide *
3a	SEAT FACE SEAL	TFE/Viton/Graphite	TFE/Viton/Graphite	TFE/Viton/Graphite
3b1	SEAT OD SEAL	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ
3b1	SEAT OD SEAL	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ
3C	SEAT SPRING (IF APPLICABLE)	17-7 SST	17-7 SST	2205 DUPLEX SST
4	BODY	A351 CF8M	A216 WCB	A182 F51
5	TAILPIECE	A351 CF8M	A216 WCB	A182 F51
6	BODY GASKET	316sst w/ Graphite Filler*	316sst w/ Graphite Filler*	2205sst w/ Graphite Filler*
7	BODY STUD	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8
8	BODY NUT	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*
10	THRUST WASHER	Nitronic 60/TFE	Nitronic 60/TFE	STELLITE
11	COMPRESSION RING	316 SST	316 SST	2205 DUPLEX SST*
13	COMPRESSION PLATE	316 SST	316 SST	2205 DUPLEX SST*
14B	STEM PACKING	TFE/GRAPHITE	TFE/GRAPHITE	TFE/GRAPHITE
14C	STEM SEAL	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ
15	GLAND STUD	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8
16	GLAND NUT	ATM A194 Gr. 8	ATM A194 Gr. 8	ATM A194 Gr. 8
17	BELLEVILLE WASHER	301 SST	301 SST	301 SST
26	TRUNNION	316SST	316SST	2205 DUPLEX SST
27	TRUNNION BEARING	Nitronic 60/TFE/STELLITE	Nitronic 60/TFE/STELLITE	Nitronic 60/TFE/STELLITE
29	TRUNNION STUD	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8
30	TRUNNION NUT	ATM A194 Gr. 8	ATM A194 Gr. 8	ATM A194 Gr. 8
31	TRUNNION GASKET	316sst w/ Graphite Filler*	316sst w/ Graphite Filler*	2205sst w/ Graphite Filler*
32	TRUNNION SEAL	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ	VITON/ TFE/ CHEMRAZ

\* Other materials and coatings available upon request



# DIMENSIONS



## ANSI 150# FULL PORT

Α	ØВ	н	К	ØO	ØР	ØQ	U	R	ØS	С	т	М	J	1	Cv	WEIGHT
8.00	3.0	7.13	4.45	5.00	6.00	8.25	0.94	0.669	1.100	1.75	2.76	1/2"-13	1.874	3.543	1125.00	105.00
9.00	4.0	9.41	5.53	6.19	7.50	10.75	0.94	0.669	1.100	2.03	2.91	1/2"-13	1.874	3.543	1850.00	195.00
15.50	6.0	12.21	7.31	8.50	9.50	11.00	1.00	1.350	2.000	2.00	4.90	5/8"-11	4.000	6.000	4700.00	350.00
16.50	8.0	15.30	10.30	10.62	11.75	13.50	1.12	1.600	2.360	2.00	4.90	5/8"-11	4.880	5.880	10100.00	525.00
	9.00 15.50	8.00 3.0   9.00 4.0   15.50 6.0	8.00 3.0 7.13   9.00 4.0 9.41   15.50 6.0 12.21	8.00 3.0 7.13 4.45   9.00 4.0 9.41 5.53   15.50 6.0 12.21 7.31	8.00 3.0 7.13 4.45 5.00   9.00 4.0 9.41 5.53 6.19   15.50 6.0 12.21 7.31 8.50	8.00 3.0 7.13 4.45 5.00 6.00   9.00 4.0 9.41 5.53 6.19 7.50   15.50 6.0 12.21 7.31 8.50 9.50	8.00 3.0 7.13 4.45 5.00 6.00 8.25   9.00 4.0 9.41 5.53 6.19 7.50 10.75   15.50 6.0 12.21 7.31 8.50 9.50 11.00	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.00	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.00 1.350	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.00 1.350 2.000	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 2.03   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.001	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75 2.76   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 1.75 2.76   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.00 4.90	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75 2.76 1/2"-13   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 2.03 2.91 1/2"-13   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.00 4.90 5/8"-11	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75 2.76 1/2"-13 1.874   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 2.03 2.91 1/2"-13 1.874   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.00 4.90 5/8"-11 4.000	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75 2.76 1/2"-13 1.874 3.543   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 1.75 2.76 1/2"-13 1.874 3.543   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.00 4.90 5/8"-11 4.000 6.000	8.00 3.0 7.13 4.45 5.00 6.00 8.25 0.94 0.669 1.100 1.75 2.76 1/2"-13 1.874 3.543 1125.00   9.00 4.0 9.41 5.53 6.19 7.50 10.75 0.94 0.669 1.100 2.03 2.91 1/2"-13 1.874 3.543 1850.00   15.50 6.0 12.21 7.31 8.50 9.50 11.00 1.350 2.000 2.00 4.90 5/8"-11 4.000 6.000 4700.00

### ANSI 300# FULL PORT

SIZE	Α	ØВ	н	к	ØO	ØР	ØQ	U	R	ØS	С	т	м	J	1	Cv	WEIGHT
3"	11.12	3.0	7.13	4.45	5.00	6.62	8.25	1.12	0.669	1.100	1.75	2.76	1/2"-13	1.874	3.543	1095.00	117.00
4"	12.00	4.0	9.41	5.53	6.19	7.88	10.00	1.25	0.669	1.100	2.03	2.91	1/2"-13	1.874	3.543	1790.00	205.00
6"	15.88	6.0	12.21	7.31	8.50	10.62	12.50	1.44	1.350	2.000	2.00	4.90	5/8"-11	4.000	6.000	4695.00	375.00
8"	16.50	8.0	15.30	10.30	10.62	13.00	15.00	1.62	1.600	2.360	2.00	4.90	5/8"-11	4.880	5.880	10100.00	550.00

# 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.

# 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 HSV 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.





MAKE DESIGN IMPROVEMENTS

# ORDERING INFORMATION

SIZE	-	SERIES	P	ORT SIZE		SEAT	S	EAT MATERIAL		BALL	BAL	L COATING	BO	DY	-	CL/	ASS	END	CONNECTIC
3"		HSV	F	FULL	0	NONMETAL	В	Boronizing	А	316SST	В	Boronizing	А	CF8M		01	150#	В	RF Flanged
TO			R	REDUCED	1	O SEAT	С	COLMONOY	F	Hastelloy	С	CHROME	В	WCB		03	300#		
12"					2	G SEAL	G	Graphite	G	Incoloy	Е	ENP	Х	2205 SST					
					А	TRUNNION	Μ	Tantalum	Н	Alloy 20	Μ	Tantalum							
						O SEAT		Chrome Oxide	I	Monel		Chrome Oxide							
							Ρ	PEEK	Х	2205 SST	L	Colmonoy							
							R	CHROME CARBIDE			R	CHROME CARBIDE							
							S	STELLITE			S	STELLITE							
							Т	TFE			Т	TFE							
							U	UHMWPE			w	TUNGSTEN CARBIDE							
							W	TUNGSTEN CARBIDE			0	no coating							
Example: <b>8</b>	-			s, Full Port, C <b>F</b>	)-KII	ing Seat Seals	s, Ste	ellite Seats, 316ss B <b>S</b>	aliw	A A	rome	e Plating, CF8IVI bo C	ау, з	A	акн –	F	03		В
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		st Ridge Ro	ad											AN	ND I	MAN	NUFACTURE	R RESE	ERVES THE
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