

3000 SERIES Welded Body BALL VALVES

Triple Body Seal ball valves for the Power Industry



The Jarecki 3000 Series ball valve is an excellent choice for your high temperature and pressure needs. 3000 Series valves are used for applications in the Power Industry and the Aerospace Industry.

Standard Applications:

Boiler Feedwater
Superheated Steam
Saturated Steam
Hot Air

Seat Leakage Class:

Metal Seats Class V - Standard
Metal Seats Class VI
Metal Seats Zero Leakage
Metal Seats API 598
Metal Seats ISO 5208

Design

Pressure Rating

- 600# to 1700# available in Sizes ½" to 6"
- 2500# to 4500# available in Sizes ½" to 3"

Valve Size

- 1/2" to 6" Full Port
- 3/4" to 6" Reduced Port

End Connections

- Socket Weld
- Butt Weld

Valve Construction

- 2 Piece Valve Design Seal Welded
- Forged Valve Body
- Floating Ball
- Trip Body Seal To Ensure No Body Leakage
- 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 Seats
- Uni-Directional Metal Seats – Standard

Service Conditions

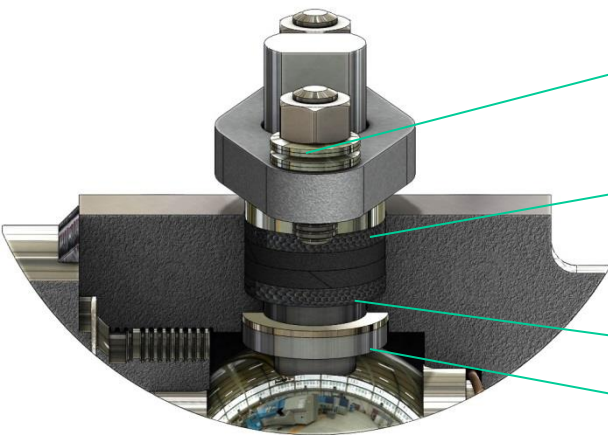
- Temperatures Up to 1500 deg F
- Pressures as low as Vacuum Service
- Pressures as High as 11,250 psi
- For Clean and Abrasive Services
- Boiler Feedwater

Specifications

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

- Butt Weld end connections meet MSS SP72
- 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
- API 6D Specifications for Pipeline Valves

QUALITY PACKING SYSTEM



A series of heavy duty Belleville washers live loads the packing

The highest quality Inconel reinforced stem packing is used in pressure classes over 600#. This provides the longest lasting stem packing available. Specifically designed for use in boiler feedwater service and superheated steam.

Stems are polished to a mirror finish.

Blow-Out proof stem design to ensure workman safety.

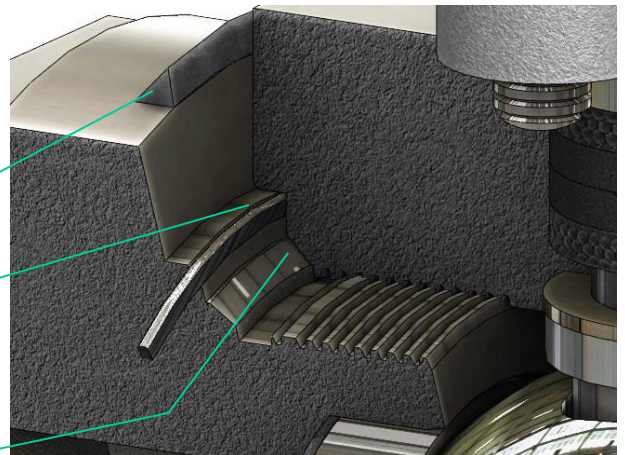
TRIPLE BODY SEAL

The Triple Body Seal consists of a primary seal as well as a back-up seal. This ensures that no leakage through the body can occur. A must for high flow boiler feedwater service.

SEAL ONE: The body and tailpiece are seal welded together insuring that no body leakage will occur.

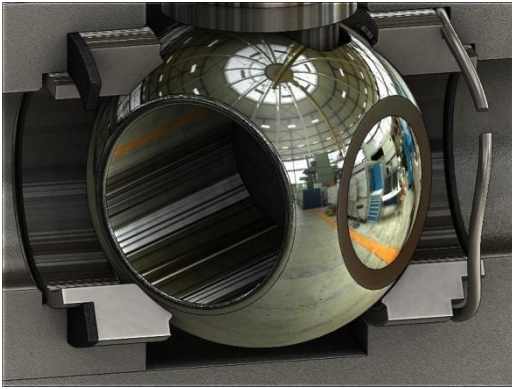
SEAL TWO: A flexitallic gasket provides the main seal

SEAL THREE: The body and tailpiece each have a metal sealing surface. When the two are threaded together and torqued, this provides a metal to metal seal.



SEAT STYLES

P Seat - Spring Loaded (Standard)



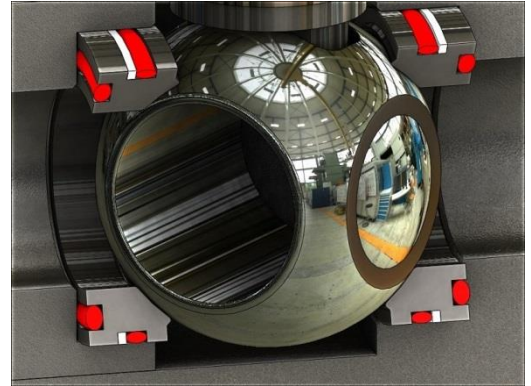
For unidirectional applications. The sealing seat is available as a separate seat ring for reparability, or integral with the tailpiece for high temperature applications. The spring seat OD seal prevents media from building up between the spring and the back of the seat.

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



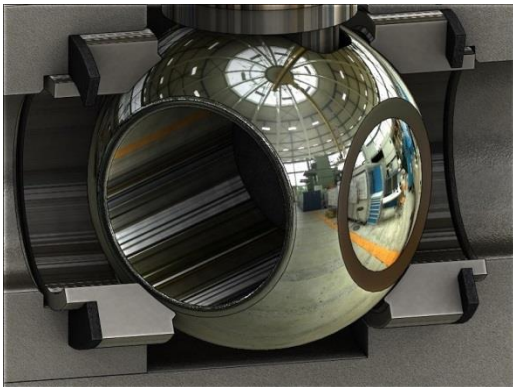
A double seal design providing both spring loading and excellent sealing capabilities. There is no area for media to build up behind the seat, which prevents the valve from locking up.

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



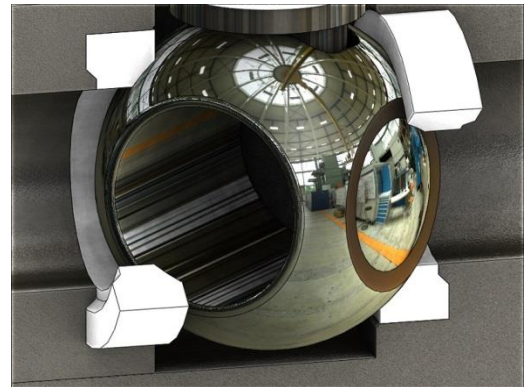
A series of Graphite seal rings behind the metal seat prevents media from building up behind the seat. The rings also allow for expansion of the internal valve components in high temperature applications. This design is great for applications involving fine solids as the graphite prevents the media from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

PHANTOM FLOW

The Patented Phantom Port feature greatly reduces the effects of cavitation and wire draw on feed water applications. This provides a valve for long and reliable service life.

0-5 deg Rotation

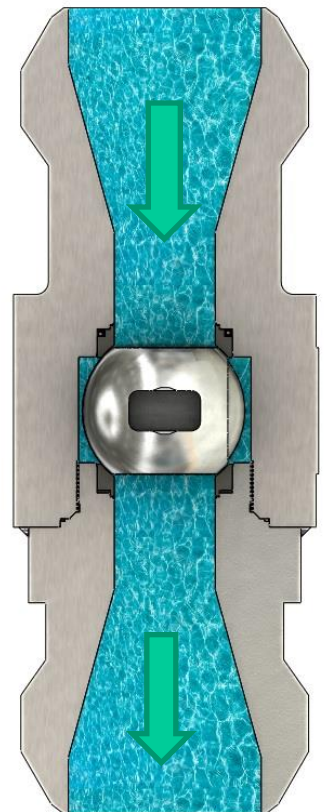
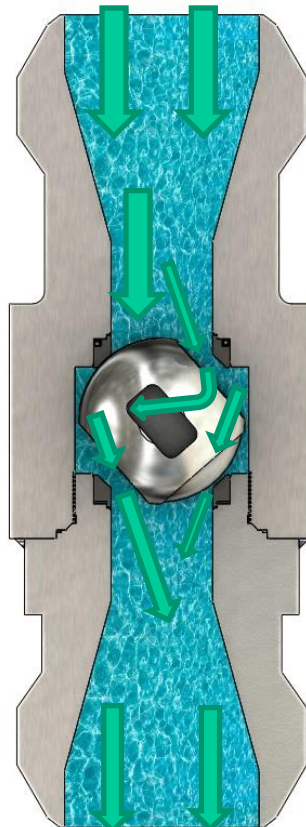
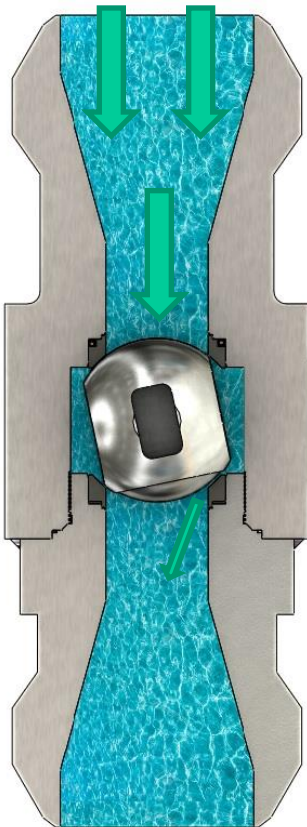
As the valve just starts to open, the downstream side releases any internal body pressure. This is due to the Phantom Port feature. Because the downstream is already open, velocity will be higher at the upstream – non sealing seat.

5-20 deg Rotation

Flow passes through the valve as it starts to open. There is more volume at the exit of the valve trim due to the dual flow path created by the Phantom Port. Reducing affects of Wire Draw and Cavitation.

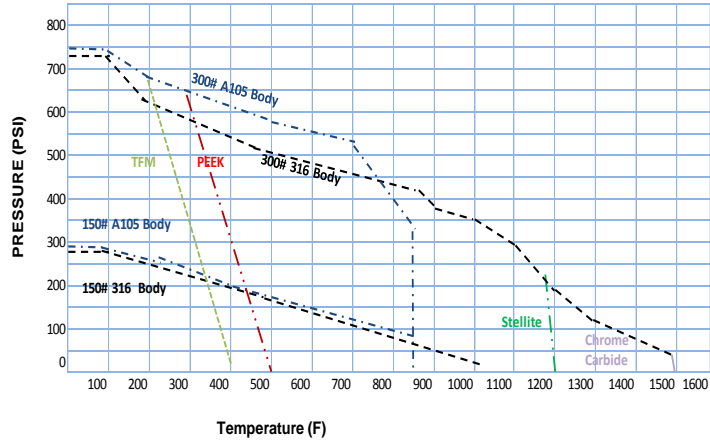
Full Open

Full Port and Reduced Port Valves Offer a higher Cv than globe valves. The sealing surface of the seats are protected in the open position from wear.

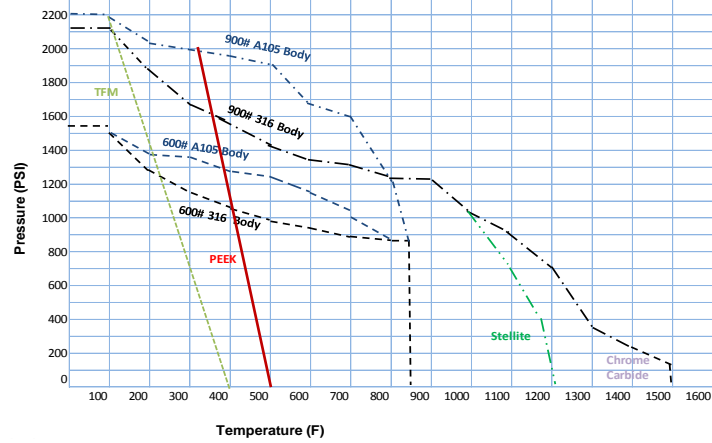




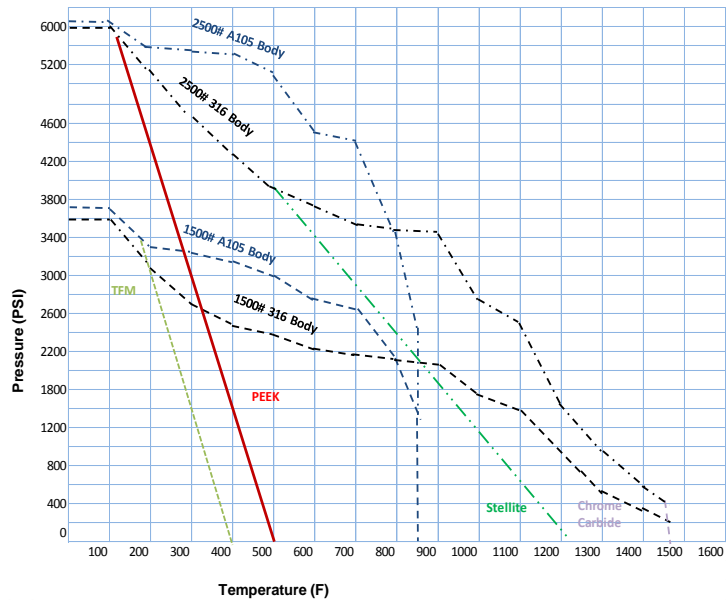
150# & 300# Pressure / Temperature Chart



600# & 900# Pressure / Temperature Chart



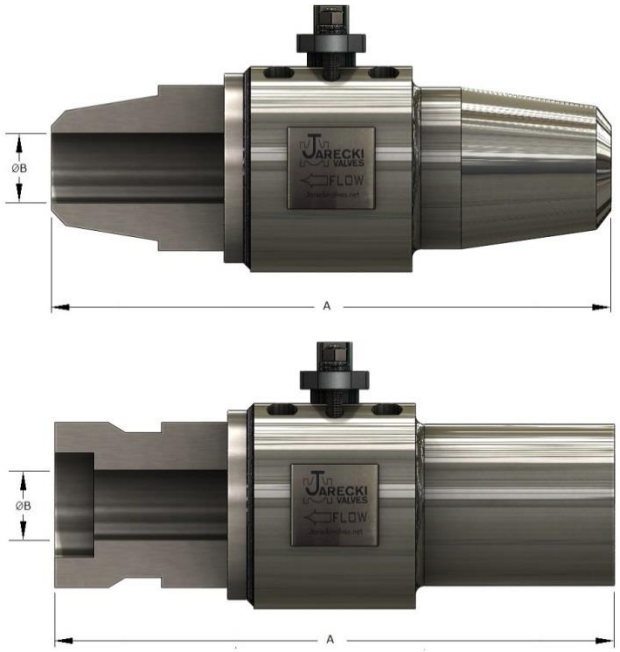
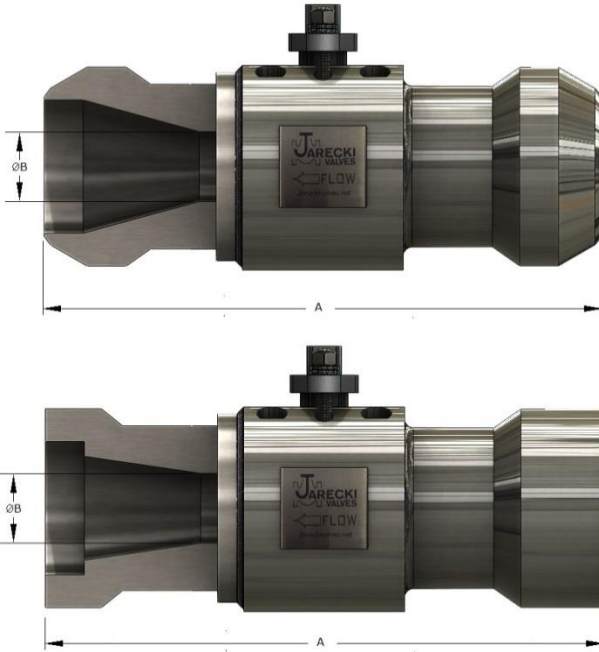
1500# & 2500# Pressure / Temperature Chart



DIMENSIONS

REDUCED PORT

FULL PORT



ANSI CLASS 600#

ANSI CLASS 900#

ANSI CLASS 1500#

SIZE	A-S.W.	A-BW	B(dia)
1/2	5.00	6.50	0.50
3/4	5.00	7.50	0.75
1	5.00	8.50	0.96
1 1/2	8.50	9.50	1.50
2	8.50	11.50	1.94
3	10.50	14.00	2.90
4		17.00	3.83
6		22.00	5.76

SIZE	A-S.W.	A-BW	B(dia)
1/2	5.00	8.50	0.50
3/4	5.00	9.00	0.75
1	5.00	10.00	0.96
1 1/2	8.50	12.00	1.50
2	8.50	14.50	1.94
3	10.50	15.00	2.90
4		18.00	3.83
6		24.00	5.76

SIZE	A-S.W.	A-BW	B(dia)
1/2	5.00	8.50	0.50
3/4	5.00	9.00	0.75
1	5.00	10.00	0.96
1 1/2	8.50	12.00	1.50
2	8.50	14.50	1.94
3	10.50	18.50	2.90
4		21.50	3.83
6		27.75	5.76

ANSI CLASS 1700#

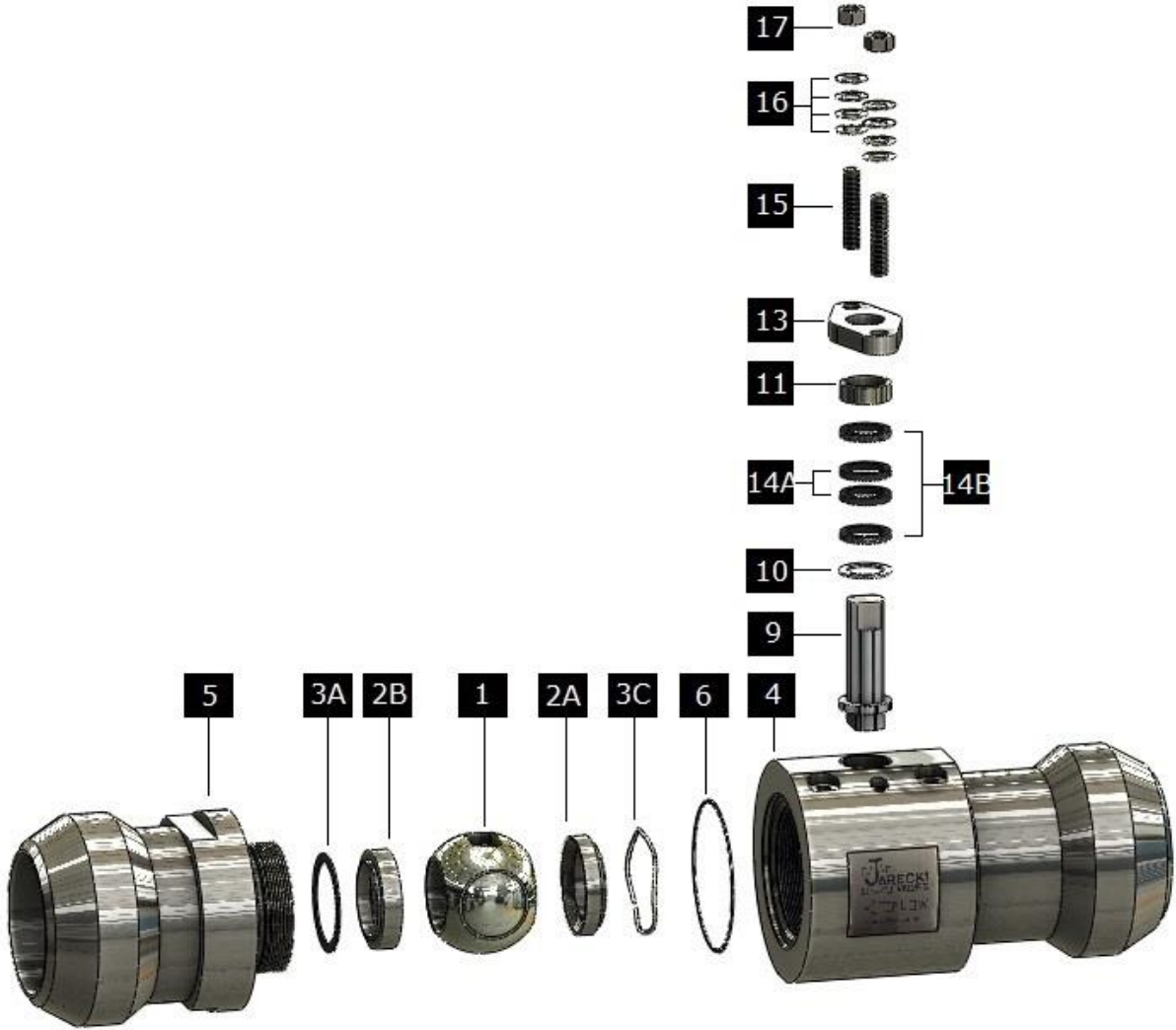
ANSI CLASS 2500#

ANSI CLASS 4500#

SIZE	A-S.W.	A-BW	B(dia)
1/2	5.00	8.50	0.50
3/4	5.00	9.00	0.75
1	5.00	10.00	0.96
1 1/2	8.50	12.00	1.50
2	8.50	14.50	1.94
3	10.50	18.50	2.90
4		21.50	3.83
6		27.75	5.76

SIZE	A-S.W.	A-BW	B(dia)
1/2	5.00	8.50	0.50
3/4	5.00	9.00	0.63
1	5.00	10.00	0.63
1 1/2	6.00	12.00	1.00
2	8.50	14.50	1.50
3	10.50	18.50	2.50

SIZE	A-BW	B(dia)
1/2	7.00	0.25
3/4	7.00	0.43
1	7.00	0.60
1 1/2	8.50	0.75
2	12.00	1.00
3	19.00	2.00



ITEM NO.	NAME	STAINLESS STEEL	A105	ALLOY 20	DUPLEX	F-22
1	BALL	316 W/ HARD CHROME*	316 W/ HARD CHROME*	ALLOY 20 W/ COLMONOY*	2205 W/ Tantalum Chrome Oxide *	718 W/ CHROME CARBIDE
2A	GUIDE SEAT (IF APPLICABLE)	316 W/ STELLITE HF*	316 W/ STELLITE HF*	ALLOY 20 W/ COLMONOY*	2205 W/ Tantalum Chrome Oxide *	316 W/ CHROME CARBIDE
2B	SEALING SEAT	316 W/ STELLITE HF*	316 W/ STELLITE HF*	ALLOY 20 W/ COLMONOY*	2205 W/ Tantalum Chrome Oxide *	316 W/ CHROME CARBIDE
3A	SEAT SEAL	TFE/Viton/Graphite	TFE/Viton/Graphite	TFE/Viton/Graphite	TFE/Viton/Graphite	GRAPHITE
3C	SEAT SPRING (IF APPLICABLE)	17-7 SST/ A286	17-7 SST/ A286	ALLOY 20	2205 DUPLEX SST	A-286
4	BODY	316 SST	A105	A182 CN7M	A351 CD3MN	F-22
5	TAILPIECE	316 SST	A105	A182 CN7M	A351 CD3MN	F-22
6	BODY GASKET	316sst w/ Graphite Filler*	316sst w/ Graphite Filler*	ALLOY 20 w/ Graphite Filler*	2205sst w/ Graphite Filler*	316sst w/ Graphite Filler*
7	BODY STUD	ASTM A193 B8	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	ATM A194 Gr. 8
9	STEM	17-4SST/XM-19*	17-4SST/XM-19*	2205 DUPLEX SST*	2205 DUPLEX SST*	718 INCONEL
10	THRUST WASHER	Nitronic 60/TFE	Nitronic 60/TFE	STELLITE	STELLITE	STELLITE
11	COMPRESSION RING	316 SST	316 SST	ALLOY 20*	2205 DUPLEX SST*	316 SST
13	COMPRESSION PLATE	304 SST	304 SST	304 SST	304 SST	304 SST
14a	STEM PACKING	TFE/GRAPHITE	TFE/GRAPHITE	TFE/GRAPHITE	TFE/GRAPHITE	TFE/GRAPHITE
15	GLAND STUD	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8
16	BELLEVILLE WASHER	301 SST	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	ATM A194 Gr. 8

* Other materials and coatings available upon request



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. Jarecki Valves has had high temperature valves in Power Plants since the mid 1980's

Jarecki supplies valves to a variety of industries. Some of which include Aerospace, 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"	3	3000	F FULL	0 NONMETAL	B Boronizing	A 316SST	B Boronizing	A 316	01 150#	D BUTTWELD	08 Phantom Port
TO			R REDUCED	1 O SEAT	C COLMONOY	D Inconel	C CHROME	B A105	03 300#	E SOCKET WELD	
6"				2 G SEAL	G Graphite	F Hastelloy	E ENP	C F-22	06 600#		
				4 P SEAT	M Tantalum	G Incoloy	M Tantalum	D Inconel	09 900#		
				5 P SEAT	Chrome Oxide	H Alloy 20	Chrome Oxide	F Hastelloy	15 1500#		
				750 F TO 1000 F	P PEEK	I Monel	L Colmonoy	G Incoloy	17 1700#		
				6 G SEAL	R CHROME CARBIDE	J 410 SST	R CHROME CARBIDE	H Alloy 20	25 2500#		
				<1300 deg F	S STELLITE	O Inconel 625	S STELLITE	I Monel	33 3300#		
				Uni-Direction	T TFE	P 17-4 PH	T TFE	O Inconel 625	45 4500#		
				7 G SEAL	U UHMWPE	X 2205 SST	w TUNGSTEN CARBIDE	X 2205 SST			
				Uni-Direction	W TUNGSTEN CARBIDE		O no coating				
				8 G SEAL							
				<1500 deg F							
				Uni-Directional							
				9 P Seat							
				OD O-Ring							
				P Phantom Flow							

Example: 2" 3000 Series, Full Port, Phantom Flow Design For Feedwater Service, Stellite Seats, 316ss Ball with Chrome Plating, CF8M body, 1500# butt weld

2 - 3 F P C A C A - 15 D 8

