

2000 SERIES HEAVY DUTY BALL VALVES

2-Piece Body metal seated ball valves for industrial and process applications.



The Jarecki 2000 Series ball valve is an excellent choice for your high temperature and pressure needs. 2000 Series valves are used for difficult applications in the Power, Chemical, Pulp and Paper and the Aerospace Industry.

Standard Applications:

Superheated Steam
 Abrasive Media
 Chlorine
 Nitrogen
 Hot Air
 Acid Service
 Brine
 Salt Water
 titanium tetrachloride
 Titanium Dioxide
 Biofuel
 Chlorine Dioxide

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

- 150# Through 2500#

Valve Size

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

End Connections

- Flanged RF
- Flanged RTJ
- Socket Weld
- Butt Weld
- Threaded

Valve Construction

- 2 Piece Valve Design Seal Welded
- Forged Valve Body
- Floating Ball
- Extra Body Bolting For Added Strength
- 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

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
- Face to Face ANSI B16.10
- Metal Seated Ball Valves in On/Off Service API 608
- Flanged Dimensions Per B16.5
- ASME B31.1 Power Piping
- ASME B31.3 Chemical Plant Piping
- API 6D Specifications for Pipeline Valves
- 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 oilfield Equipment*

* Must specify this as a requirement at time of order

FEATURES

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.

Stems are polished to a mirror finish.

Blow-Out proof stem design to ensure workman safety.

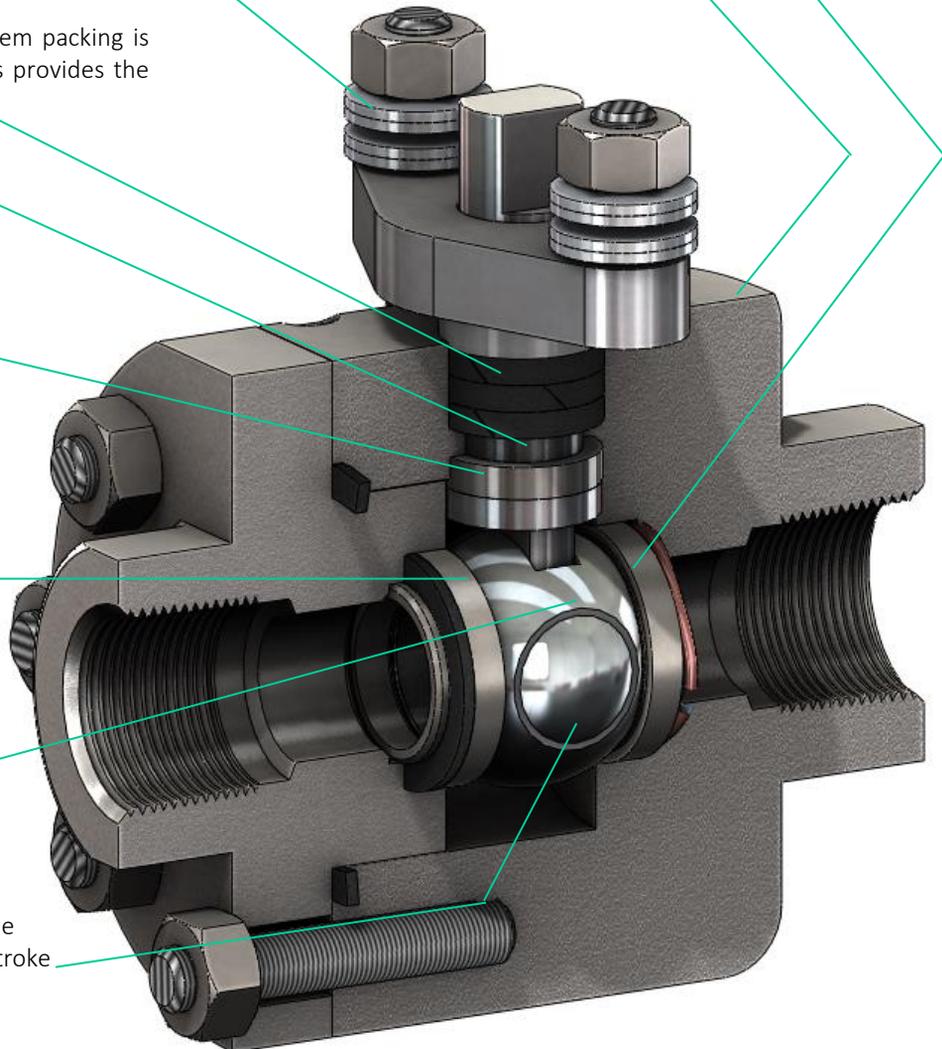
Seats have a large seating area to reduce torque and provide a large sealing position. Stops don't have to be set perfect for the valve to Seal.

Spherically Ground Ball to ensure the tightest shut-off and lowest torque

Phantom Port Feature Prevents Media Buildup On The Ball From Affecting Torque and Seat Life. 75% Less Wear On Every Stroke

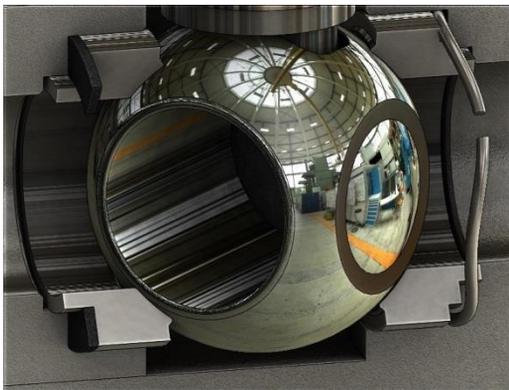
Scraper Seat Prevents Material Buildup

Large Mounting Pad For Actuation



SEAT STYLES

P Seat - Spring Loaded (Standard)



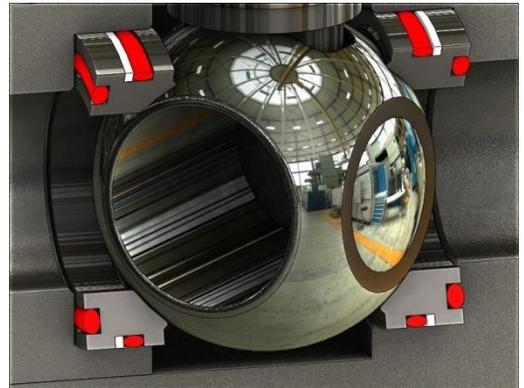
For unidirectional applications. The sealing seat is available as a separate seat ring for reparability, or integral with the tailpiece for high temperature applications. The spring seat OD seal prevents media from building up between the spring and the back of the seat.

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



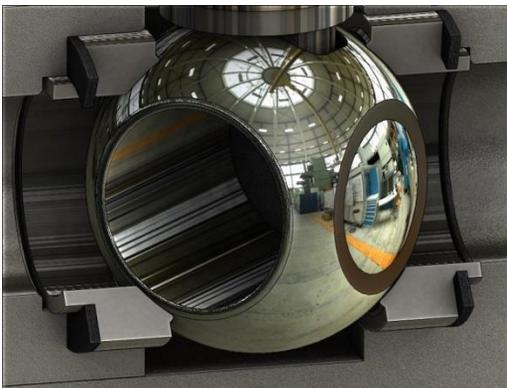
A double seal design providing both spring loading and excellent sealing capabilities. There is no area for media to build up behind the seat, which prevents the valve from locking up.

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



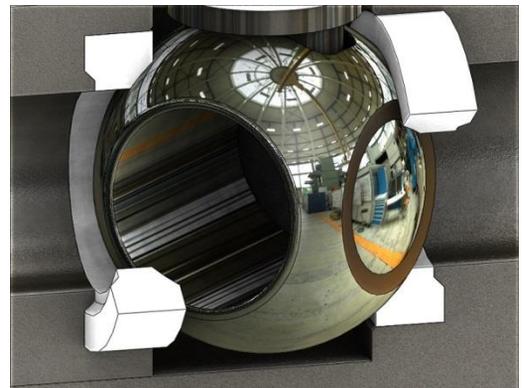
A series of Graphite seal rings behind the metal seat prevents media from building up behind the seat. The rings also allow for expansion of the internal valve components in high temperature applications. This design is great for applications involving fine solids as the graphite prevents the media from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

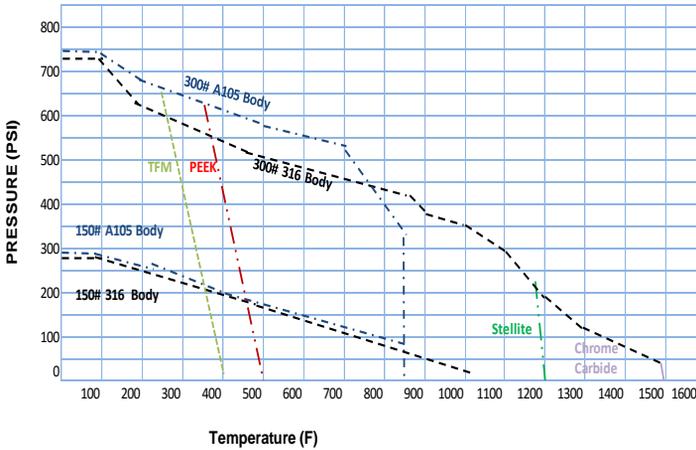
Temperature Range: -20 to 450 deg F

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

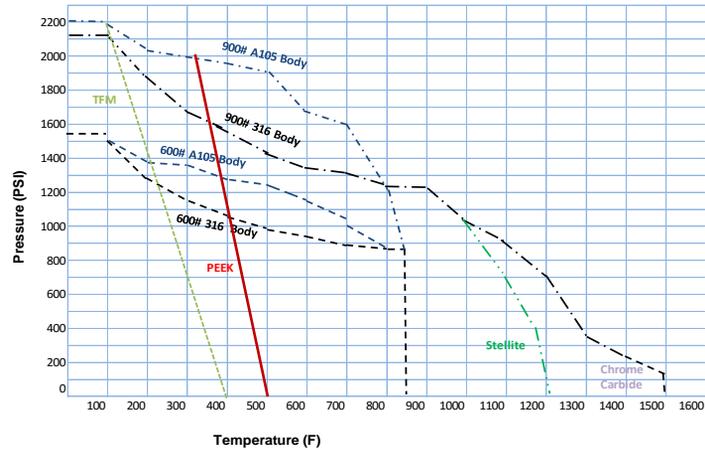
Shut-Off: Class VI, Bubble Tight

Pressure Temperature Charts

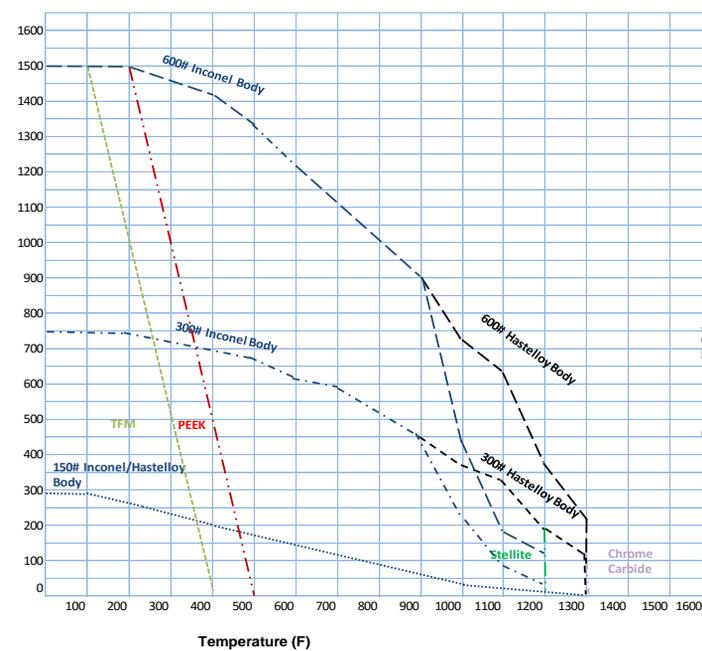
150# & 300# Pressure / Temperature Chart



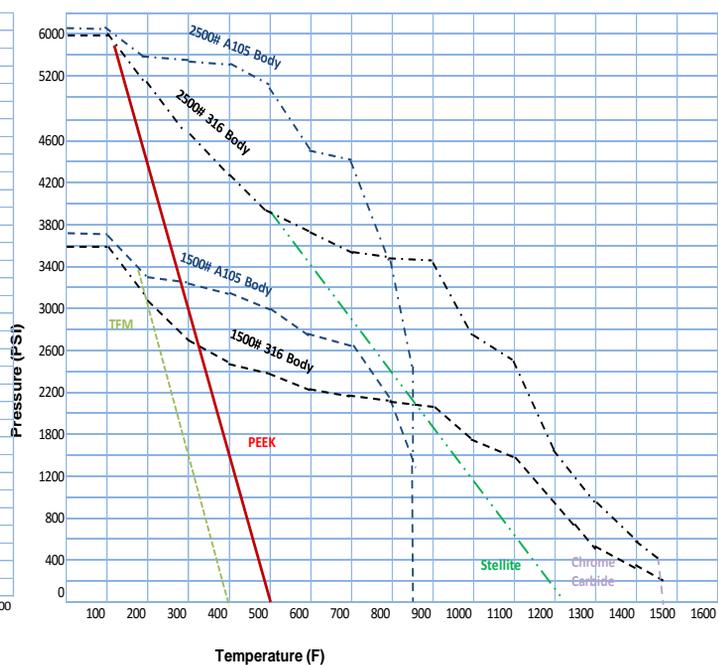
600# & 900# Pressure / Temperature Chart



Inconel / Hastelloy Temperature Chart



1500# & 2500# Pressure / Temperature Chart

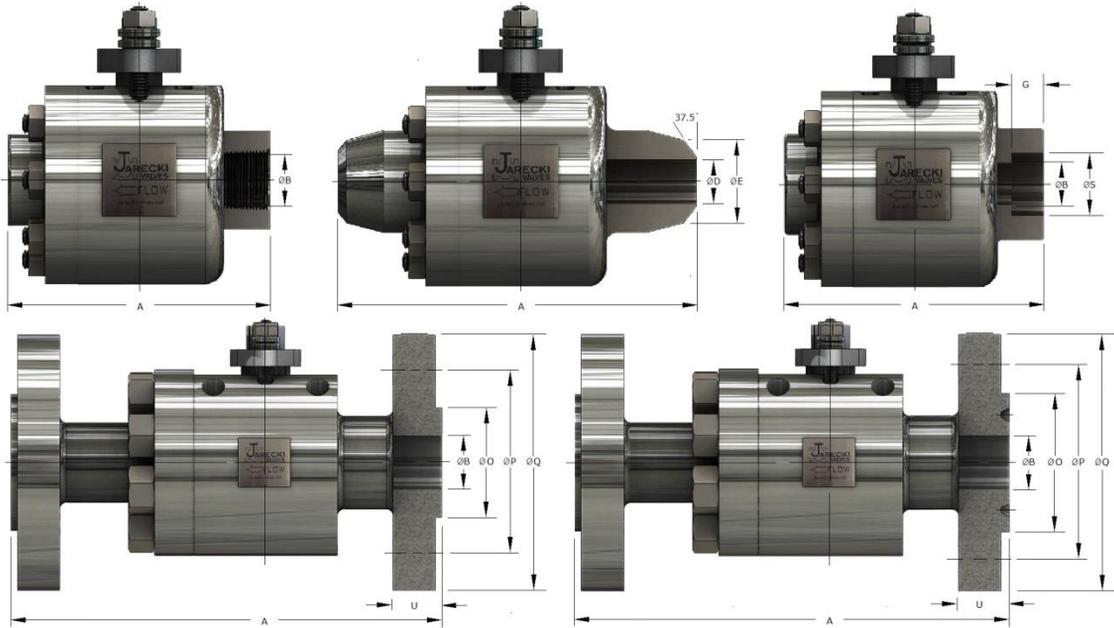


Phantom Port



The Phantom Port solves problems involving media crustations and chemical attack which creates corrosion pitting on the ball surface. 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 and chemically attached surface 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. This feature is also great for high cycle metal seated applications.

DIMENSIONS



ANSI 150# FULL PORT

SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12
A-RF	4.25	4.62	5.00	5.50	6.50	7.00	7.50	8.00	9.00	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	5.99	7.90	9.85	11.82
ØQ	3.50	3.88	4.25	4.62	5.00	6.00	7.00	7.50	9.00	11.00	13.50	16.00	19.00
ØO	1.38	1.69	2.00	2.50	2.88	3.62	4.12	5.00	6.19	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	9.50	11.75	14.25	17.00
U	0.44	0.50	0.56	0.62	0.69	0.75	0.88	0.94	0.94	1.00	1.12	1.19	1.25

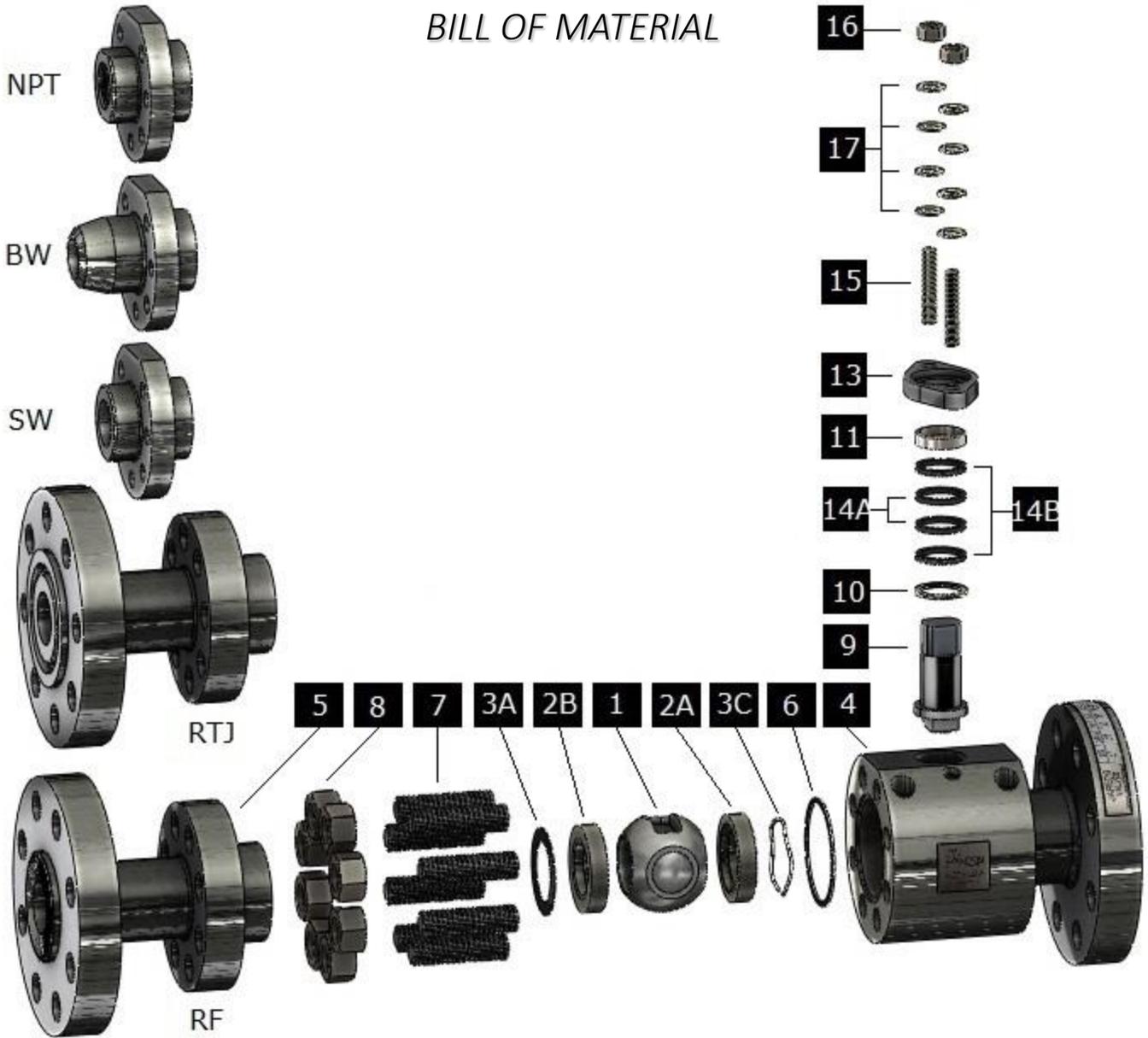
ANSI 300# FULL PORT

SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12
A-RF	5.50	6.00	6.50	7.00	7.50	8.50	9.50	11.12	12.00	15.88	19.75	22.38	25.50
ØB	0.58	0.78	1.00	1.25	1.50	1.98	2.55	2.99	3.99	5.98	7.88	9.85	11.82
ØQ	3.75	4.62	4.88	5.25	6.12	6.50	7.50	8.25	10.00	12.50	15.00	17.50	20.50
ØO	1.38	1.69	2.00	2.50	2.88	3.62	4.12	5.00	6.19	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	10.62	13.00	15.25	17.75
U	0.56	0.62	0.69	0.75	0.81	0.88	1.00	1.12	1.25	1.44	1.62	1.88	2.00

ANSI 600# FULL PORT

SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12
A-RF	6.50	7.50	8.50	9.00	9.50	11.50	CF	14.00	16.00	19.50	23.50	26.50	30.00
A-SW	5.00	5.00	5.00	8.50	8.50	8.50	CF	10.50	NA	NA	NA	NA	NA
A-BW	6.50	7.50	8.50	8.50	9.50	11.50	CF	14.00	17.00	22.00	23.50	26.50	30.00
ØB	0.58	0.78	1.00	1.25	1.50	1.98	2.55	2.99	3.99	5.98	7.88	9.85	11.82
ØQ	3.75	4.62	4.88	5.25	6.12	6.50	7.50	8.25	10.75	14.00	16.50	20.00	22.00
ØS	0.85	1.07	1.33	1.67	1.91	2.41	2.91	3.52	NA	NA	NA	NA	NA
G	0.39	0.51	0.51	0.51	0.51	0.63	0.98	0.98	NA	NA	NA	NA	NA
ØO	1.38	1.69	2.00	2.50	2.88	3.62	4.12	5.00	6.19	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	8.50	11.50	13.75	17.00	19.25
ØE	0.85	1.07	1.34	1.69	1.91	2.38	2.87	3.50	4.50	6.62	8.62	10.75	12.75
U	0.56	0.62	0.69	0.75	0.81	0.88	1.00	1.25	1.50	1.88	2.19	2.50	2.62

BILL OF MATERIAL



STANDARD OPTIONS

ITEM NO.	NAME	STAINLESS STEEL	A105	ALLOY 20	DUPLEX	F-22	Titanium	Inconel
1	BALL	316 W/ HARD CHROME*	316 W/ HARD CHROME*	ALLOY 20 W/ COLMONOY*	2205 W/ Tantalum Chrome Oxide *	718 W/ CHROME CARBIDE	Titanium Gr. 2	Inconel 600
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	RTFE	Colmonoy
2B	SEALING SEAT	316 W/ STELLITE HF*	316 W/ STELLITE HF*	ALLOY 20 W/ COLMONOY*	2205 W/ Tantalum Chrome Oxide *	316 W/ CHROME CARBIDE	RTFE	Colmonoy
3A	SEAT SEAL	TFE/Viton/Graphite	TFE/Viton/Graphite	TFE/Viton/Graphite	TFE/Viton/Graphite	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	A-286	NA	AZ86
4	BODY	316 SST	A105	A182 CN7M	A351 CD3MN	F-22	Titanium Gr. 2	Inconel 600
5	TAILPIECE	316 SST	A105	A182 CN7M	A351 CD3MN	F-22	Titanium Gr. 2	Inconel 600
6	BODY GASKET	316sst w/ Graphite Filler*	316sst w/ Graphite Filler*	ALLOY 20 w/ Graphite Fille	2205sst w/ Graphite Filler*	316sst w/ Graphite Filler*	TFE	Inconel w/ Graphite Filler
7	BODY STUD	ASTM A193 B8	ASTM A193 B8	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			
9	STEM	17-4SST/XM-19*	17-4SST/XM-19*	2205 DUPLEX SST*	2205 DUPLEX SST*	718 INCONEL	Titanium Gr. 2	Inconel 600
10	THRUST WASHER	Nitronic 60/TFE	Nitronic 60/TFE	STELLITE	STELLITE	STELLITE	RTFE	Stellite
11	COMPRESSION RING	316 SST	316 SST	ALLOY 20*	2205 DUPLEX SST*	316 SST	Titanium Gr. 2	Inconel 600
13	COMPRESSION PLATE	304 SST	304 SST	304 SST	304 SST	304 SST	304 SST	304 SST
14a	STEM PACKING	TFE/GRAPHITE	TFE/GRAPHITE	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	ASTM A193 B8	ASTM A193 B8
16	BELLEVILLE WASHER	301 SST	301 SST	301 SST	301 SST	718 Inconel	301 SST	301 SST
17	GLAND NUT	ATM A194 Gr. 8	ATM A194 Gr. 8	ATM A194 Gr. 8	ATM A194 Gr. 8			

Other materials 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. It has been producing high alloy valves for the Chemical Industry since 1989.

Jarecki supplies metal seated ball 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 STYLE	SEAT MATERIAL	BALL	BALL COATING	BODY	-	CLASS	END CONNECTION
1/2"	2	2000	F FULL	0 NONMETAL	A AlCrN	A 316SST	A AlCrN	A 316SST	01	150#	A THREADED
TO			R REDUCED	1 O SEAT	B Boronizing	B A105	B Boronizing	B A105	03	300#	B FLANGED
12"				2 G SEAL	C COLMONOY	C F-22	C CHROME	C F-22	06	600#	D BUTT WELD
				3 G SEAL	G Graphite	D Inconel	E ENP	D Inconel	09	900#	J JIC
				w/ OD O-RING	M Tantalum	E 304SST	M Tantalum	E 304SST	15	1500#	E SOCKET WELD
				4 P SEAT	Chrome Oxide	F Hastelloy	Chrome Oxide	F Hastelloy	17	1700#	D BUTT WELD
				5 P SEAT	N HARD CARBON	G Incoloy	L Colmonoy	G Incoloy	25	2500#	T TUBE
				750 F TO 1100 F	P PEEK	H Alloy 20	R CHROME CARBIDE	H Alloy 20			S SWAGELOK
				6 G SEAL	Q CERAMIC	I Monel	S STELLITE	I Monel			
				<1300 deg F	R CHROME CARBIDE	J 410 SST	T TFE	J 316H			
				Uni-Directional	S STELLITE	K Nickel 200	w TUNGSTEN CARBIDE	K Nickel 200			
				7 G SEAL	T TFE	L 316L	O no coating	L 316L			
				Uni-Directional	U UHMWPE	M Inconel 825		M Inconel 825			
				8 G SEAL	W TUNGSTEN CARBID	N Ni-Al-Bronze		N Ni-Al-Bronze			
				<1500 deg F		O Inconel 625		O Inconel 625			
				Uni-Directional		P 17-4 PH		Q 304H			
				9 P Seat		Q 304H		R F-91			
				OD O-Ring		R F-91		S 4130			
				A P SEAT		T Titanium		T Titanium			
				<1200 F		U A286		X Duplex			
				B P SEAT		X Duplex					
				<1200 F/Oxidizing							
				P Phantom Flow							

Example: 2" 2000 Series, Full Port, Spring Loaded Unidirectional Seats, Colmonoy Seat Material, Inconel Ball with Chrome Plating, Inconel Body, 600# NPT Threaded Ends

2 - 2 F 4 C D C D - 06 A



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