

W SERIES 3-PIECE BALL VALVES

In-Line repairable metal seated ball valves for industrial and process applications.



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

Standard Applications:

Hot Air
Hot Oil
Saturated Steam
Feedwater
Abrasive Media
Chlorine
Nitrogen

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

- 3000 WOG Available In Sizes ¼" to 3/4"
- 2250 WOG Available In Sizes 1" to 4"
- 4500 WOG Available In Sizes 1/2" to 2"
- ANSI 600# Flanged ½" to 4" Full Port
- ANSI 1500#/900# Flanged ½" To 1 ½" Full Port

Valve Size

- ¼" to 4" Full Port
- ½" to 4" Reduced Port

End Connections

- Socket Weld
- Threaded
- Butt weld
- Flanged
- Tube
- Swagelok
- JIC

Valve Construction

- 3 Piece Valve Design
- Investment Cast Body and Tailpieces
- In-Line Repairable
- Double Body Seal
- Designed to B16.34
- Balanced Packing System – Live Loaded
- Blow Out Proof Stem
- Heavy Duty Stem For High Torque

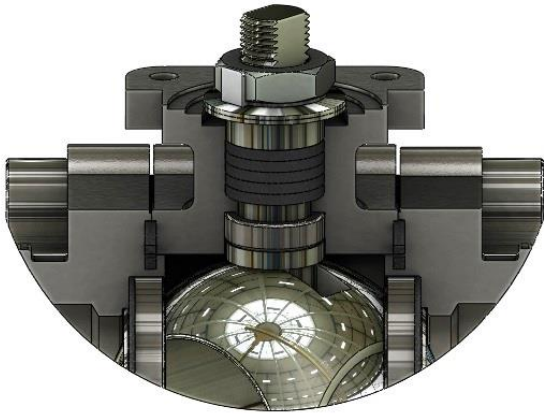
Seat Designs

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

Specifications

- Class 600 Flanged Ends meet ANSI B16.10 and B16.5
- Class 600 Flanged Ends meet ANSI B16.10 and B16.5
- Butt Weld end connections meet MSS SP72
- Socket Weld end connections meet ANSI B16.11
- Threaded end connections meet ANSI B1.20.1 NPT
- Minimum wall thickness meets ANSI B16.34
- Valve Materials meet NACE MR0175
- Valves meet API 607
- Valves are tested per ANSI FCI 70-2-1991 and B16.34

Balanced Packing System



- Blow-Out proof stem design to ensure workman safety.
- Tight tolerance between the stem and the stem thrust washer allow for precise stem to ball contact.
- 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. This provides the customer with the longest packing life possible. At the same time, it keeps the valve torque at a minimum.
- Single nut design provides for even compression when tightening the packing.

Reliable Shut-Off

- Tight shut-off is accomplished by grinding every ball to very tight tolerances, carefully radiusing each individual seat to its mating ball, and then carefully lapping them together.
- Every valve that leaves the plant has both a hydrostatic and seat leakage test performed on it. Also, any actuation which is mounted on the valve is tested at our facility as well. The customer is assured a good valve when it is put in service.

In-line Repairable

- The three piece design enables the center section to be removed while the end caps remain connected to the piping system. This allows repair or inspection of the valve trim without having to cut the valve out of line.

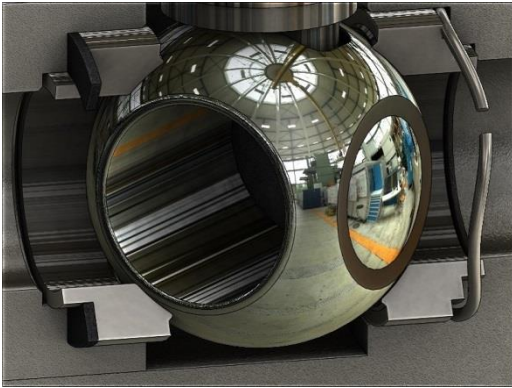
Double Body Seal

- The double body seal consists of a primary seal as well as a back-up seal. This ensures that no leakage through the body can occur.
- 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.
- The body gaskets are completely contained making it impossible for gasket blow-out to occur.



SEAT STYLES

P Seat - Spring Loaded (Standard)



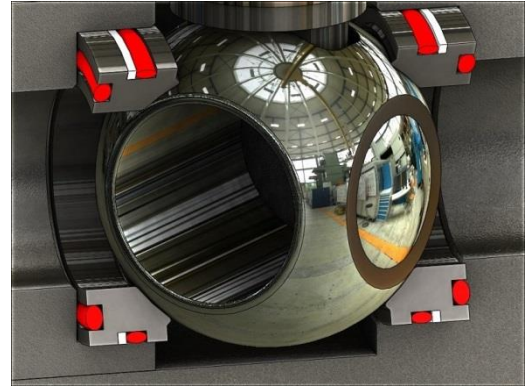
For unidirectional applications. The sealing seat is available as a separate seat ring for reparability, or integral with the tailpiece for high temperature applications. The spring seat OD seal prevents media from building up between the spring and the back of the seat.

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



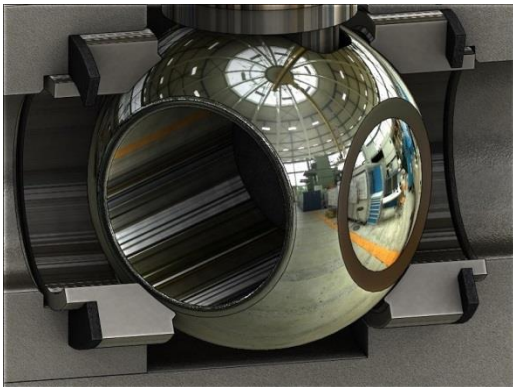
A double seal design providing both spring loading and excellent sealing capabilities. There is no area for media to build up behind the seat, which prevents the valve from locking up.

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



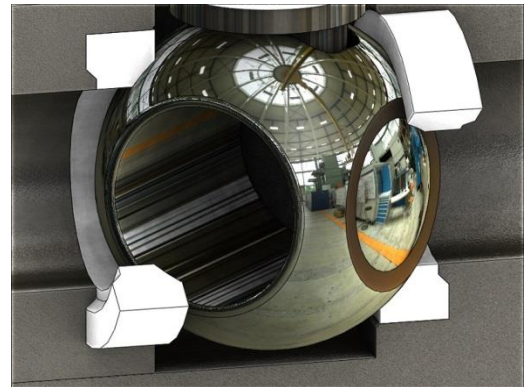
A series of Graphite seal rings behind the metal seat prevents media from building up behind the seat. The rings also allow for expansion of the internal valve components in high temperature applications. This design is great for applications involving fine solids as the graphite prevents the media from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

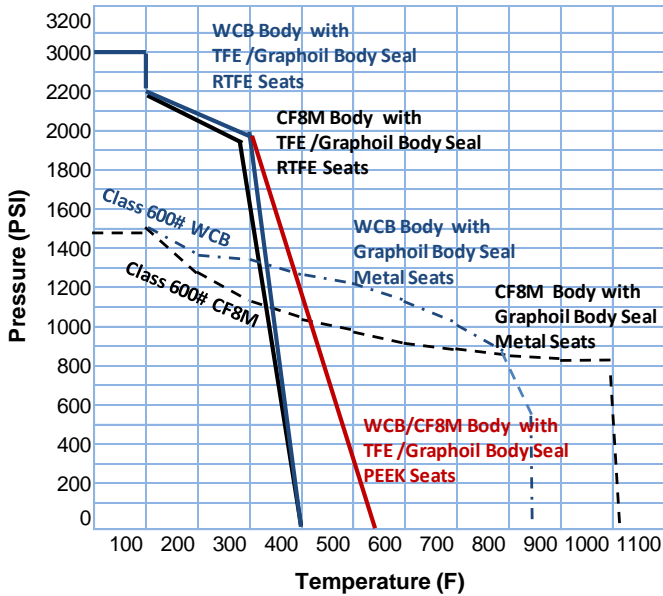
Temperature Range: -20 to 450 deg F

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

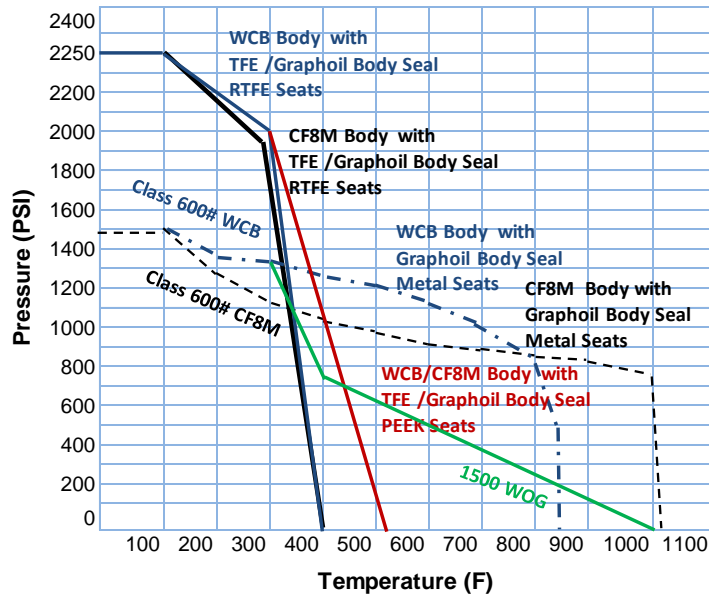
Shut-Off: Class VI, Bubble Tight

VALVE BODY PRESSURE TEMPERATURE CHART

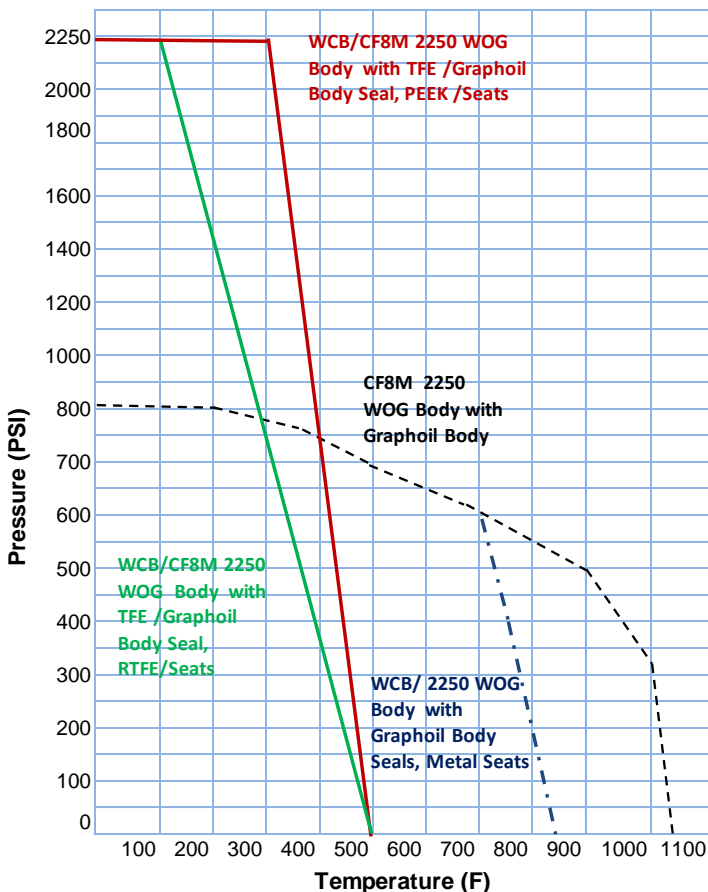
(1/2" & 3/4") 3000 WOG



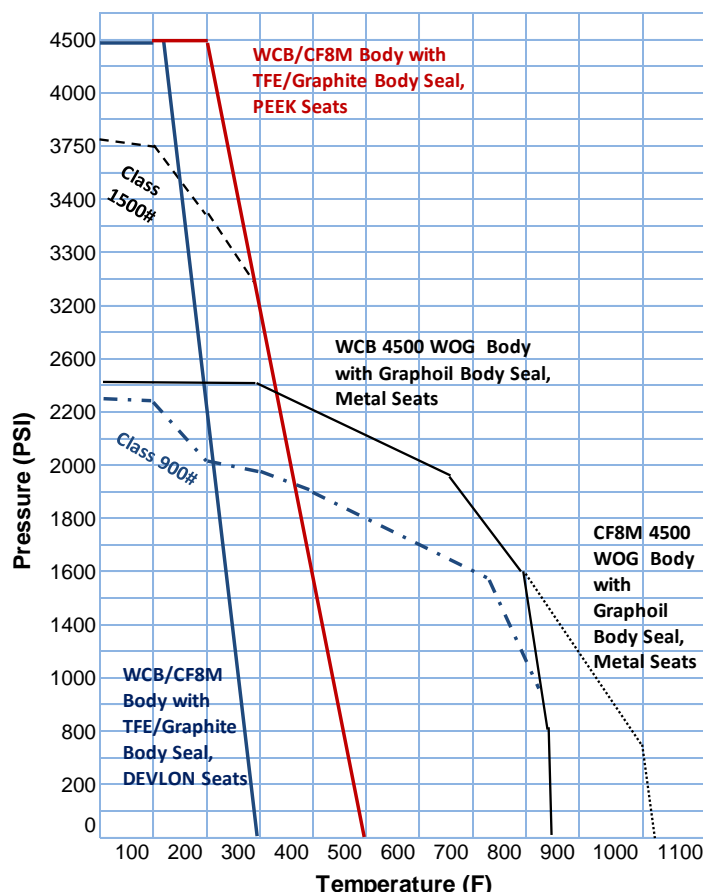
(1" to 1 1/2") 1500 / 2250 WOG



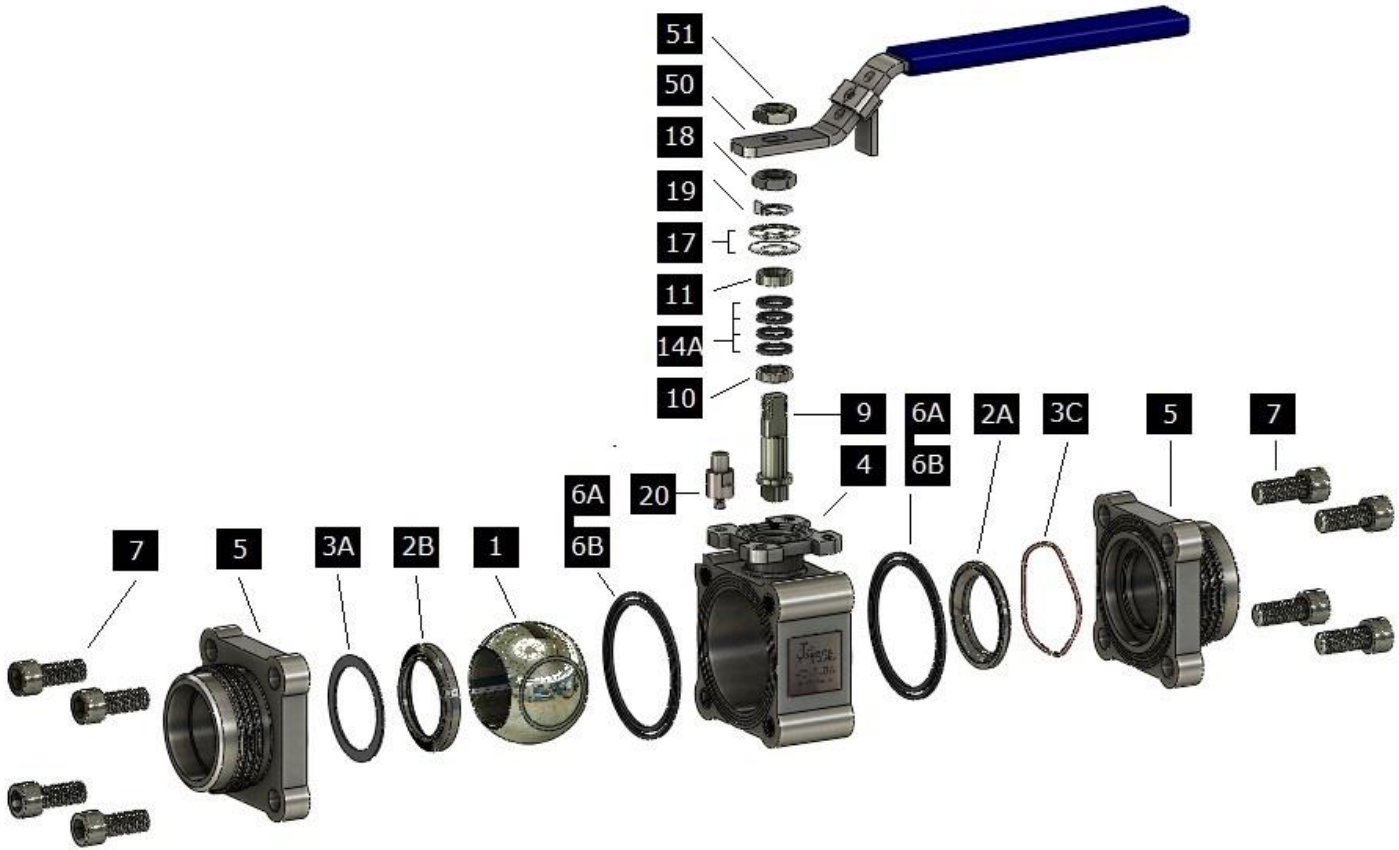
(2" to 4") 2250 WOG



(1/2" to 2") 4500 WOG



BILL OF MATERIAL

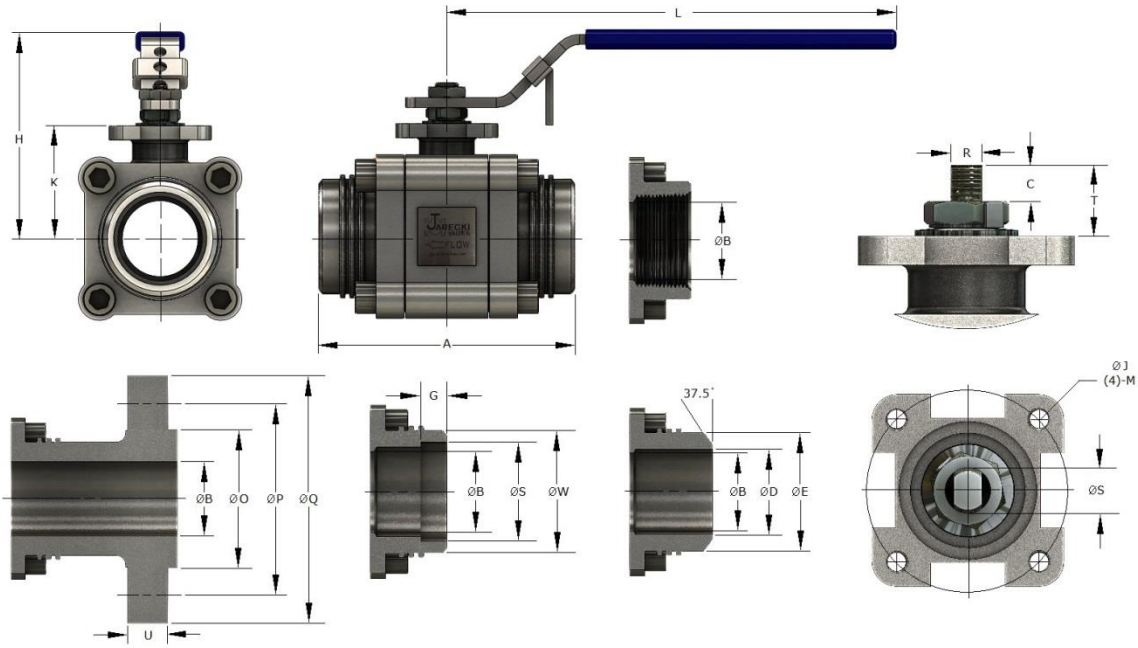


STANDARD OPTIONS

ITEM NO.	NAME	STAINLESS STEEL	CARBON STEEL	Alloy 20	Duplex Stainless Steel
1	BALL	316SST / 316 + HARD CHROME*	316SST / 316 + HARD CHROME*	Alloy 20 / Alloy 20 + Colmonoy*	2205 SST / 2205 SST + HARD CHROME*
2A	GUIDE SEAT	316 + STELLITE HF / DEVLON / RTFE *	316 + STELLITE HF / DEVLON / RTFE *	ALLOY 20 + STELLITE HF / RTFE *	2205 SST + STELLITE HF / RTFE *
2B	SEAL SEAT	316 + STELLITE HF / DEVLON / RTFE *	316 + STELLITE HF / DEVLON / RTFE *	ALLOY 20 + STELLITE HF / RTFE *	2205 + STELLITE HF / RTFE *
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	A286	A286
4	BODY	A351 CF8M	A216 WCB	A351 CN7M	A351 CD3MN
5	TAILPIECE	A351 CF8M	A216 WCB	A351 CN7M	A351 CD3MN
6A	INNER BODY SEAL	TFE / GRAPHITE	TFE / GRAPHITE	TFE / GRAPHITE	TFE / GRAPHITE
6B	OUTER BODY SEAL	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
7	BODY BOLT	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8	ASTM A193 B8
9	STEM	17-4SST / XM-19*	17-4SST / XM-19*	ALLOY 20	2205 SST
10	THRUST WASHER	Nitronic 60 / TFE	Nitronic 60 / TFE	TFE / STELLITE	TFE / STELLITE
11	COMPRESSION RING	316 SST	316 SST	ALLOY 20	2205 SST
14A	STEM PACKING	TFE / GRAPHITE	TFE / GRAPHITE	TFE / GRAPHITE	TFE / GRAPHITE
17	BELLEVILLE WASHER	301 SST	301SST	301SST	301SST
18	STEM NUT	304 SST	304 SST	304 SST	304 SST
19	STEM LOCK WASHER	304 SST	304 SST	304 SST	304 SST
20	STOP	304 SST	304 SST	304 SST	304 SST
50	HAND LEVER	304 SST W/ VINYL SLEEVE	304 SST W/ VINYL SLEEVE	304 SST W/ VINYL SLEEVE	304 SST W/ VINYL SLEEVE
51	LEVER NUT	304SST	304SST	304SST	304SST

* Other materials and coatings available upon request

1500/2250/3000 WOG DIMENSIONS



FULL PORT NPT/SW/BW

DIMENSIONS ARE IN INCHES

SIZE	A NPT	A BW,SW	ØB	C	K	L	ØD	ØS	ØE	ØW	G	R	ØJ	C	T	M	ØJ	Cv	WEIGHT
1/2"	2.91	4.89	0.5	2.80	1.54	6.50	0.59	0.85	0.85	1.24	0.39	0.250	0.472	0.28	0.53	#10-24	1.654	20.00	5.00
3/4"	3.40	5.16	0.8	2.95	1.70	6.50	0.79	1.07	1.07	1.52	0.51	0.250	0.472	0.28	0.53	#10-24	1.654	44.00	6.00
1"	3.69	5.25	1.0	3.64	2.06	8.00	0.98	1.33	1.34	1.69	0.51	0.315	0.551	0.44	0.74	1/4"-20	1.969	75.00	7.00
1 1/4"	4.09	5.73	1.3	3.74	2.19	8.00	1.26	1.26	1.69	2.17	0.51	0.315	0.551	0.44	0.74	1/4"-20	1.969	125.00	11.00
1 1/2"	4.60	6.20	1.5	4.45	2.65	10.00	1.57	1.91	1.91	2.44	0.51	0.375	0.630	0.53	0.88	5/16"-18	2.756	215.00	14.00
2"	5.15	6.62	2.0	4.45	2.91	10.00	1.97	2.41	2.38	2.99	0.63	0.375	0.630	0.53	0.88	5/16"-18	2.756	350.00	18.00
2 1/2"	7.28	8.78	2.5	6.22	3.39	15.37	2.32	2.91	2.87	3.62	0.98	CONSULT FACTORY					655.00	35.00	
3"	8.75	10.00	3.0	7.13	4.45	15.37	2.99	3.54	3.50	4.29	0.98	0.669	1.100	1.75	2.76	1/2"-13	4.020	960.00	65.00
4"	13.49	17.00	4.0	9.41	5.53	22.50	3.82	4.54	4.50	5.31	1.18	0.669	1.100	2.03	2.91	1/2"-13	4.920	1615.00	95.00

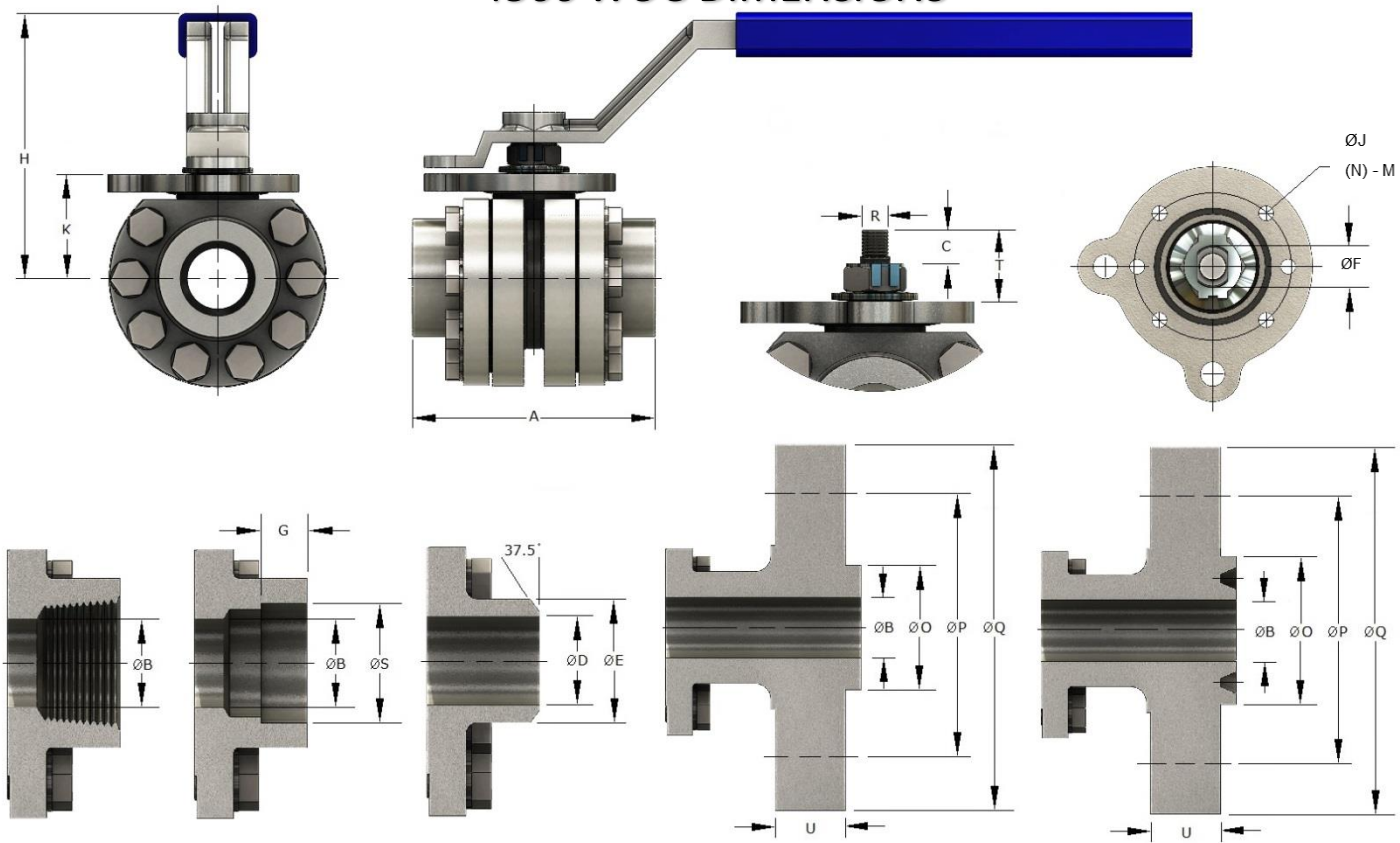
REDUCED PORT NPT/SW/BW

SIZE	A NPT	A BW,SW	ØB	C	K	L	ØD	ØS	ØE	ØW	G	R	ØJ	C	T	M	ØJ	Cv	WEIGHT
1/2"	2.88	4.84	0.4	2.80	1.54	6.50	0.55	0.85	0.84	1.14	0.39	0.250	0.472	0.28	0.53	#10-24	1.654	18.00	4.00
3/4"	3.12	4.89	0.5	2.80	1.54	6.50	0.74	1.07	1.05	1.38	0.51	0.250	0.472	0.28	0.53	#10-24	1.654	23.00	6.00
1"	3.63	5.16	0.8	2.95	1.70	6.50	0.96	1.33	1.31	1.69	0.51	0.250	0.551	0.28	0.53	#10-24	1.654	43.00	7.00
1 1/4"	4.12	5.73	1.0	3.74	2.19	8.00	1.50	1.91	1.90	2.36	0.51	0.315	0.630	0.44	0.74	1/4"-20	1.969	119.00	13.00
2"	4.75	6.19	1.5	4.45	2.65	10.00	1.94	2.41	2.37	2.83	0.63	0.375	0.630	0.53	0.88	1/4"-20	2.756	200.00	17.00
2 1/2"	5.90	8.77	2.0	4.45	2.91	10.00	2.33	2.91	2.87	3.46	0.98	0.375	0.472	0.53	0.88	5/16"-18	2.756	300.00	32.00
3"	9.06	9.57	2.5	6.22	3.39	15.30	2.90	3.54	3.50	4.18	0.98	CONSULT FACTORY					645.00	55.00	
4"	13.49	12.01	3.0	7.12	4.45	15.49	3.94	4.59	4.50	5.31	1.18	0.669	1.100	1.75	2.76	1/2"-13	4.020	900.00	65.00

FULL PORT ANSI 600# R.F. FLANGED

SIZE	A	ØB	F	K	L	ØD	ØO	ØP	ØQ	U	R	ØJ	C	T	M	ØJ	Cv	WEIGHT
1/2"	6.5	0.5	2.80	1.54	6.50	0.55	1.38	2.62	3.75	0.56	0.250	0.472	0.28	0.53	#10-24	1.654	20.00	15.00
3/4"	7.5	0.8	2.95	1.70	6.50	0.74	1.69	3.25	4.62	0.62	0.250	0.472	0.28	0.53	#10-24	1.654	44.00	15.00
1"	8.5	1.0	3.64	2.06	8.00	0.96	2.00	3.50	4.88	0.69	0.315	0.551	0.44	0.74	1/4"-20	1.969	75.00	16.00
1 1/4"	9.0	1.3	3.74	2.19	8.00	1.25	2.50	3.88	5.25	0.81	0.315	0.551	0.44	0.74	1/4"-20	1.969	125.00	28.00
1 1/2"	9.5	1.5	4.45	2.65	10.00	1.50	2.88	4.50	6.12	0.88	0.375	0.630	0.53	0.88	5/16"-18	2.756	215.00	28.00
2"	11.5	2.0	4.45	2.91	10.00	1.94	3.62	5.00	6.50	1.00	0.375	0.630	0.53	0.88	5/16"-18	2.756	350.00	60.00
2 1/2"	13.0	2.5	6.22	3.39	15.37	2.33	4.12	5.88	7.50	1.12	CONSULT FACTORY					655.00	88.00	
3"	14.0	3.0	7.13	4.45	15.37	2.90	5.00	6.62	8.25	1.25	0.669	1.100	1.75	2.76	1/2"-13	4.020	960.00	117.00
4"	17.0	4.0	9.41	5.53	22.50	3.94	6.19	8.50	10.75	1.50	0.669	1.100	2.03	2.91	1/2"-13	4.920	1615.00	205.00

4500 WOG DIMENSIONS



NPT/SW/BW

SIZE	A		ØB	H	K	L	ØD	ØS	ØE	G	Cv	WEIGHT
	NPT	BW,SW										
1/2"	3.35	3.35	0.59	3.67	1.65	6.30	0.496	0.860	0.882	0.39	16.00	5
3/4"	4.13	4.13	0.78	3.97	1.65	6.30	0.638	1.070	1.094	0.51	36.00	6
1"	4.73	4.73	0.97	4.22	1.97	7.87	0.846	1.330	1.366	0.51	69.00	8
1 1/2"	5.92	5.92	1.50	5.57	2.76	10.50	1.272	1.910	1.941	0.51	156.00	23
2"	6.30	6.30	1.50	5.57	2.76	10.50	1.630	2.410	2.417	0.63	156.00	24

DIMENSIONS ARE IN INCHES

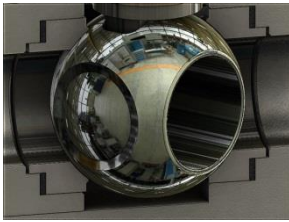
ANSI 900#/1500# FLANGED

SIZE	A		H	K	L	ØD	ØO		ØP	ØQ	Cv	WEIGHT
	R.F.	RTJ					R.F.	RTJ				
1/2"	8.50	8.50	3.67	1.65	6.30	0.496	1.380	2.380	3.250	4.75	16.00	13
3/4"	9.00	9.00	3.97	1.65	6.30	0.638	1.690	2.620	3.500	5.12	36.00	16
1"	10.00	10.00	4.22	1.97	7.87	0.846	2.000	2.810	4.000	5.88	69.00	24
1 1/2"	12.00	12.00	5.57	2.76	10.50	1.272	2.880	3.620	4.880	7.00	156.00	49
2"	14.50	14.62	5.57	2.76	10.50	1.630	3.620	4.880	6.500	8.50	156.00	71

MOUNTING DIMENSIONS

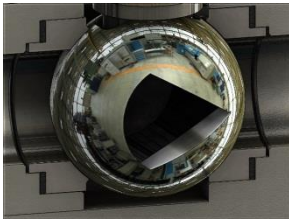
SIZE	C	ØJ	N	M	R	ØF	T	ISO
1/2"	0.450	1.650	6	M5	0.280	M10	0.650	F04
3/4"	0.480	1.650	6	M5	0.330	M12	0.780	F04
1"	0.680	1.970	6	M6	0.390	M14	1.070	F05
1 1/2"	0.720	2.760	8	M8	0.470	3/4 - 10NC	1.120	F07
2"	0.720	2.760	8	M8	0.470	3/4 - 10NC	1.120	F07

OTHER BALL DESIGNS AVAILABLE



Patented Phantom Port

- Greatly extends valve life in corrosive applications
- Proven to last three times longer than a standard ball in difficult services
- 75% less wear on seats



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"	W	F FULL	0 NONMETAL	A AlCrN	A 316SST	A AlCrN	A CF8M	W1 1500 WOG	A THREADED
TO		R REDUCED	1 O SEAT	B Boronizing	F Hastelloy	B Boronizing	B WCB	W2 2250 WOG / ANSI 600#	B FLANGED*
4			2 G SEAL	C Colmonoy	G Incoloy	C Chrome	H Alloy 20	W3 3000 WOG/ ANSI 600#	D BUTT WELD
			4 P SEAT	G Graphite	H Alloy 20	E ENP	X 2205 SST	W4 4500 WOG / ANSI 900#/1500#	J JIC
			5 P SEAT	M Tantalum	I Monel	M Tantalum			E SOCKET WELD
			>750 F	Chrome Oxide	X 2205 SST	Chrome Oxide			D BUTT WELD
			7 G SEAL	N Hard Carbon		N Hard Carbon			T TUBE
			UNI-DIRECTIONAL	P PEEK		L Colmonoy			S SWAGELOK
			1000 F MAX	Q CERAMIC		Q CERAMIC			
				R CHROME CARBIDE		R CHROME CARBIDE			
				S Stellite		S STELLITE			
				T TFE		T TFE			
				U UHMWPE		U Micro Tuff™			
				W Tungsten Carbide		w TUNGSTEN CARBIDE			
						O no coating			

Example: 2" W Series, Full Port, Spring Loaded Unidirectional Seats, Stellite Seats, 316ss Ball with Chrome Plating, CF8M body, 2250 WOG with Threaded Ends

2 - W F 4 S A C A - W2 A