

TV SERIES 2-PIECE TRUNNION CONTROL VALVES

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



The Jarecki TV Series V Port Control valve is good choice for your high temperature and abrasive media valve needs. TV Series valves are used for applications in the Chemical, Power, Pulp and Paper, Petrochemical, Oil and Gas, and Mining Industries.

Standard Applications:

Condensate
Hot Oil
Saturated Steam
Feedwater
Abrasive Media
Natural Gas
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

- 600# Available in Sizes ½" to 12"
- 900# Available in Sizes ½" to 12"
- 1500# Available in Sizes ½" to 12"

Valve Size

- 2" to 12" Full Port
- 3" to 12" Reduced Port

End Connections

- Flanged
- Butt weld Available On Request

Valve Construction

- 2 Piece Valve Design
- Cast Body and Forged
- Split Body
- Trunnion Mounted 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

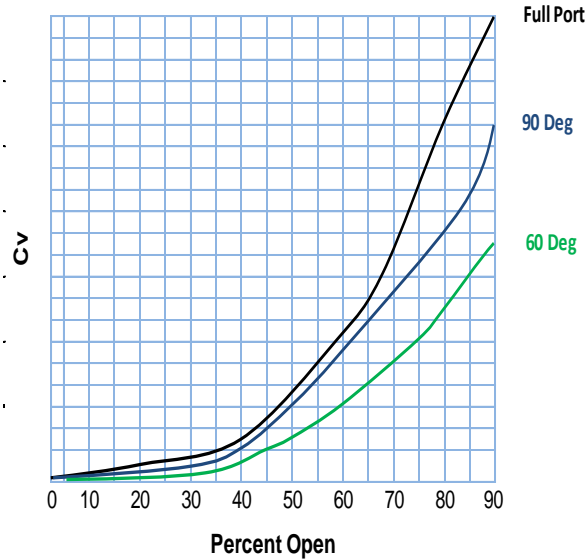
Seat Designs

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

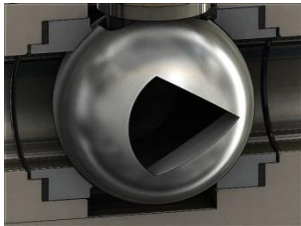
Service Conditions

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

MODIFIED EQUAL PERCENTAGE CURVE



Modified Equal Percentage



- 90 Deg V Port
- 60 Deg V Port
- 30 Deg V Port.
- 15 Deg V Port
- 10 Deg V Port
- 5 Deg V Port

Linear Flow

- .0156" Slot
- .0313" Slot
- .0625" Slot
- .0125" Slot
- Special Designed Shapes

Other

- . Special Designed Shapes

V PORT ADVANTAGE

- Great Rangeability, can exceed 800:1.
- V-Port Ball design provides both excellent control and tight shut-off.
- Higher flow rates than similar sized globe valves means smaller pipeline sizes required.
- Capable of higher temperatures than other control valves
- Increased Linear Response due to direct flow pattern through the valve body.
- Slotted Ball ports available for micro control
- Modified shapes available on request
- Precise and accurate control



V BALL VALVE FLOW COEFFICIENT Cv CHART

V-Port Ball Valves

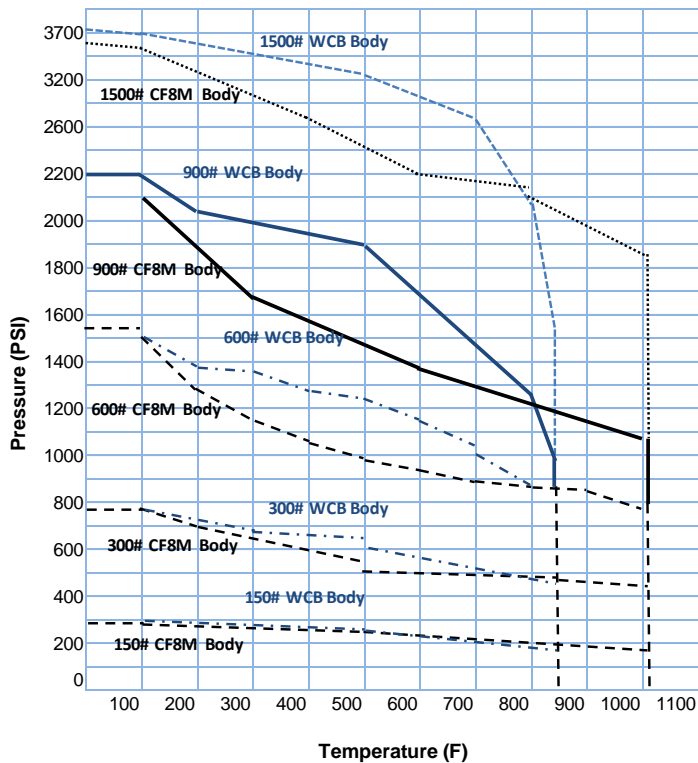
Valve Size	V-Port Angle	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
		9	18	27	36	45	54	63	72	81	90
1/2"	15	0.03	0.17	0.43	0.68	0.98	1.63	2.11	2.84	3.63	4.29
1/2"	30	0.03	0.23	0.46	0.76	1.18	1.81	2.46	3.42	4.66	5.57
1/2"	60	0.04	0.28	0.72	1.11	1.84	2.91	4.28	6.99	9.43	12.77
1/2"	90	0.05	0.46	0.84	1.27	2.04	3.23	4.74	8.24	11.62	14.73
3/4"	15	0.04	0.23	0.55	0.89	1.33	2.14	2.74	3.75	4.74	5.54
3/4"	30	0.06	0.29	0.61	0.98	1.55	2.42	3.23	4.51	6.11	7.34
3/4"	60	0.07	0.34	0.92	1.45	2.41	3.84	5.63	9.22	12.42	16.27
3/4"	90	0.08	0.58	1.11	1.68	2.68	4.26	6.22	10.84	15.27	19.38
1"	15	0.05	0.31	0.94	1.48	2.33	3.81	4.69	6.49	8.49	9.85
1"	30	0.07	0.45	1.24	2.05	3.53	5.31	7.71	10.48	12.83	15.47
1"	60	0.08	0.67	1.73	2.77	5.12	8.01	11.87	18.69	23.21	32.85
1"	90	0.11	0.93	2.77	5.08	7.73	12.21	17.32	24.47	26.78	43.88
1-1/4"	15	0.02	0.26	0.82	1.64	2.8	4.08	5.89	7.98	10.85	12.86
1-1/4"	30	0.05	0.48	1.37	2.47	4.12	6.09	8.83	11.76	14.88	17.38
1-1/4"	60	0.07	0.66	2.03	3.42	6.48	10.79	15.38	22.34	33.36	44.19
1-1/4"	90	0.09	0.78	2.93	5.42	10.23	17.28	19.48	34.94	51.75	66.01
1-1/2"	15	0.05	0.38	1.16	2.28	3.84	5.59	8.11	10.98	18.86	17.85
1-1/2"	30	0.07	0.64	1.87	3.41	5.67	8.35	12.13	16.18	20.43	23.89
1-1/2"	60	0.09	0.91	2.8	4.69	8.88	14.86	21.16	30.72	45.89	59.75
1-1/2"	90	0.11	1.06	4.02	7.43	14.05	23.77	26.77	48.02	71.16	90.51
2"	15	0.05	0.68	2.25	4.44	7.29	10.68	15.41	21.38	28.76	35.06
2"	30	0.08	1.18	3.78	7.53	12.26	17.82	26.43	36.45	48.08	55.92
2"	60	0.11	1.52	5.79	10.39	20.59	33.99	48.76	69.03	104.24	136.51
2"	90	0.16	1.88	7.29	13.57	25.38	42.29	55.55	87.05	129.76	167.33
2-1/2"	15	0.08	1.76	2.43	5.24	8.09	11.74	16.43	22.36	27.23	32.11
2-1/2"	30	0.09	1.14	4.42	7.92	13.4	20.04	30.42	41.92	69.76	77.19
2-1/2"	60	0.13	1.45	5.91	11.91	23.23	37.93	59.32	83.28	113.65	162.5
2-1/2"	90	0.18	1.82	7.28	16.45	31.15	53.54	77.89	118.29	177.32	240.11
3"	15	0.07	0.91	2.99	6.64	9.59	13.49	19.62	26.68	31.8	38.39
3"	30	0.12	1.21	4.14	9.48	15.97	26.77	38.92	53.32	69.76	85.92
3"	60	0.16	2.88	6.69	15.83	29.36	46.33	73.59	106.73	149.89	193.19
3"	90	0.2	4.11	8.66	21.08	41.08	69.28	105.92	161.03	237.22	360.22
4"	15	0.11	1.39	3.76	8.88	16.78	27.91	41.86	59.27	75.54	97.06
4"	30	0.18	1.74	7.83	18.58	35.22	58.59	87.88	124.42	158.52	197.09
4"	60	0.26	2.19	12.45	33.67	62.98	106.25	160.5	233.97	329.49	437.3
4"	90	0.35	4.36	19.68	50.28	91.82	157.42	240.52	365.16	546.61	830.86
6"	15	0.22	2.49	6.66	15.78	29.89	49.74	74.55	105.55	134.47	172.06
6"	30	0.29	3.12	13.96	33.15	62.69	104.36	156.54	221.57	282.32	349.7
6"	60	0.46	5.42	22.14	59.98	112.16	189.23	285.82	416.69	586.82	800.79
6"	90	0.68	7.79	35.06	89.57	163.56	280.37	428.33	650.33	973.49	1479.25
8"	15	0.33	4.24	11.32	26.87	50.79	84.6	126.89	395.08	503.39	292.35
8"	30	0.51	5.33	23.77	56.36	106.69	177.63	266.38	377.05	480.46	595.19
8"	60	0.8	6.67	23.82	102.06	190.87	322.05	486.42	709.12	998.69	1325.4
8"	90	1.07	13.25	59.63	152.42	278.32	477.14	728.95	1106.68	1656.78	2518.19
10"	15	0.52	6.65	17.69	41.98	79.59	132.2	198.19	617.29	786.49	457.11
10"	30	0.77	8.31	37.13	88.06	166.74	277.52	416.23	589.15	750.73	930.09
10"	60	1.24	10.42	37.19	159.46	298.24	503.21	760.01	1107.99	1560.44	2070.89
10"	90	1.67	20.73	93.19	238.14	434.91	745.52	1139.01	1729.19	2588.69	3934.66
12"	15	0.75	9.39	24.79	58.79	111.16	185.01	277.5	864.21	1101.06	640.49
12"	30	1.09	11.62	52.01	123.26	233.41	388.53	582.72	824.83	1051.03	1301.81
12"	60	1.73	14.57	52.08	223.24	417.53	704.52	1064.02	1551.18	2184.64	2910.26
12"	90	2.32	29.99	132.09	338.39	610.75	1045.59	1601.01	2449.25	3640.21	5505.25
FL		0.96	0.95	0.94	0.93	0.92	0.90	0.89	0.86	0.82	0.75
Xt		0.98	0.77	0.71	0.67	0.64	0.63	0.62	0.55	0.43	0.40

Valve Flow Coefficient (Cv):

Number of U.S. gallons per minute of 60 deg F water that will flow through a valve with a one psi pressure drop.

Ball Valves have an inherent equal percentage characteristic flow curve which is very desirable for a majority of control applications. The V Profile provides a more linear equal percentage flow characteristic.

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.

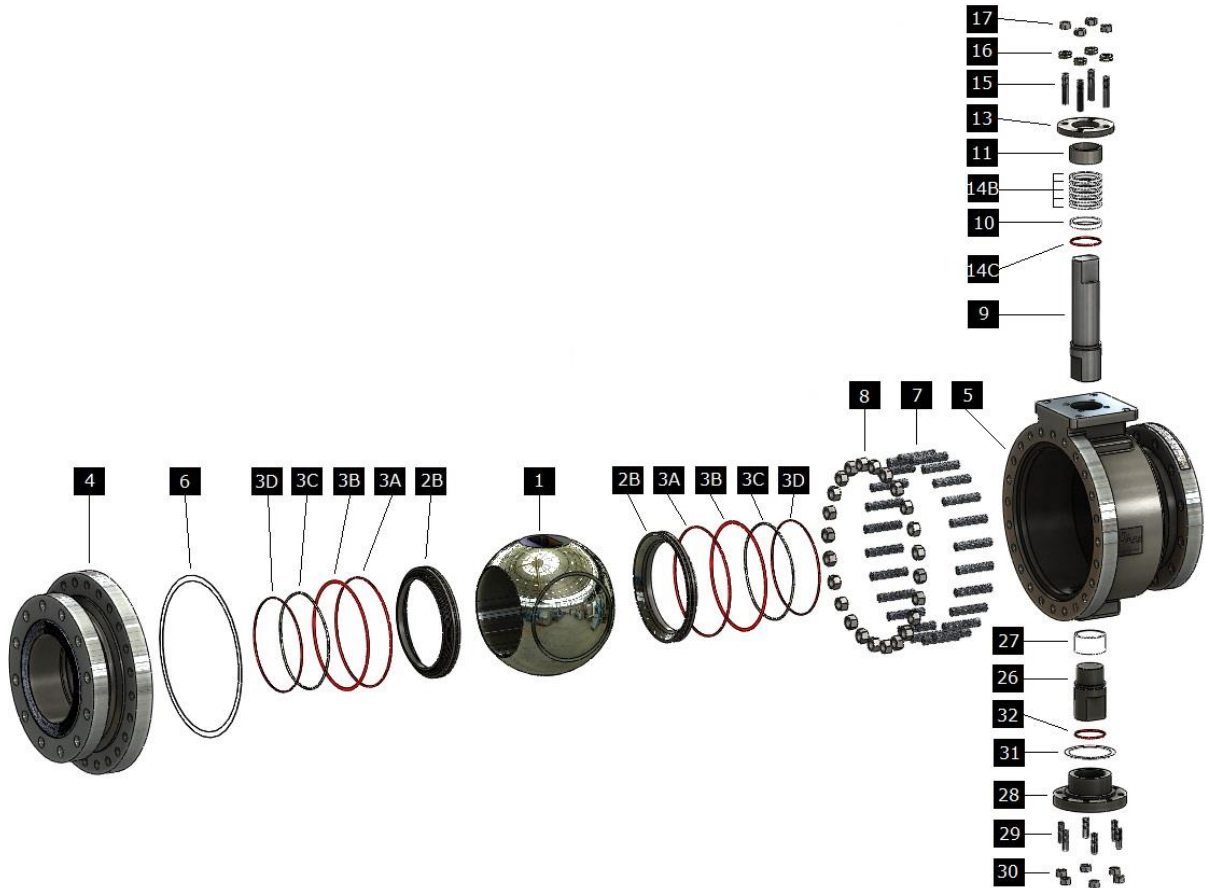
Specifications

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 70-2-1976 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

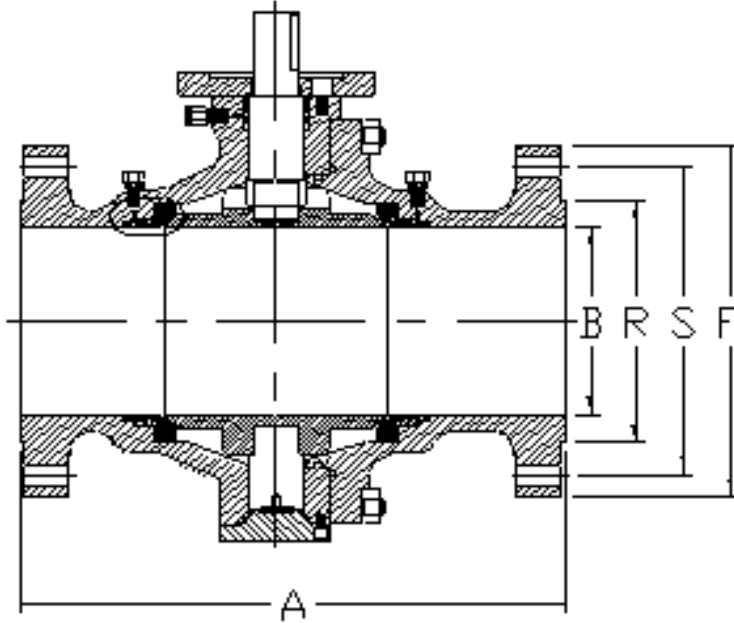
BILL OF MATERIAL



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 600# FULL PORT

SIZE	2	3	4	6	8	10	12
A	11.50	14.00	17.00	22.00	28.00	31.00	33.00
ØB	2.00	3.00	4.00	6.00	8.00	10.00	12.00
ØR	3.62	5.00	6.19	8.50	10.62	12.75	15.00
ØS	5.00	6.62	8.50	11.50	13.75	17.00	19.25
ØF	6.50	8.25	10.75	14.00	16.50	20.00	22.00
Cv	400	980	1700	5000	9980	14750	20500
WEIGHT	65	125	215	455	470	790	1355

ANSI 900# FULL PORT

SIZE	2	3	4	6	8	10	12
A	14.50	15.00	18.00	24.00	29.00	33.00	38.00
ØB	2.00	3.00	4.00	6.00	8.00	10.00	12.00
ØR	3.63	5.00	6.19	8.50	10.63	12.75	15.00
ØS	6.50	7.50	9.25	12.50	15.50	18.50	21.00
ØF	8.50	9.50	11.50	15.00	18.50	21.50	24.00
Cv	385	960	1675	4950	9950	14720	20400
WEIGHT	115	225	515	935	1400	2175	3550

ANSI 1500# FULL PORT

SIZE	2	3	4	6	8	10	12
A	14.50	18.50	21.50	27.80	32.80	39.00	44.50
ØB	2.00	3.00	4.00	6.00	8.00	10.00	12.00
ØR	3.63	5.00	6.19	8.50	10.63	12.75	15.00
ØS	6.50	7.50	9.50	12.50	15.50	19.00	22.50
ØF	8.50	10.50	12.25	15.50	19.00	23.00	26.50
Cv	370	940	1650	4920	9900	14680	20240
WEIGHT	130	385	765	15701	2350	3655	4405

ANSI 600# REDUCED PORT

SIZE	2	3	4	6	8	10	12
A	11.50	14.00	17.00	22.00	28.00	31.00	33.00
ØB	1.50	2.50	3.00	4.00	6.00	8.00	10.00
ØR	3.62	5.00	6.19	8.50	10.62	12.75	15.00
ØS	5.00	6.62	8.50	11.50	13.75	17.00	19.25
ØF	6.50	8.25	10.75	14.00	16.50	20.00	22.00
Cv	400	980	1700	5000	9980	14750	20500
WEIGHT	65	125	215	455	470	790	1355

ANSI 900# REDUCED PORT

SIZE	2	3	4	6	8	10	12
A	14.50	15.00	18.00	24.00	29.00	33.00	38.00
ØB	1.50	2.50	3.00	4.00	6.00	8.00	10.00
ØR	3.63	5.00	6.19	8.50	10.63	12.75	15.00
ØS	6.50	7.50	9.25	12.50	15.50	18.50	21.00
ØF	8.50	9.50	11.50	15.00	18.50	21.50	24.00
Cv	385	960	1675	4950	9950	14720	20400
WEIGHT	115	225	515	935	1400	2175	3550

ANSI 1500# REDUCED PORT

SIZE	2	3	4	6	8	10	12
A	14.50	18.50	21.50	27.80	32.80	39.00	44.50
ØB	1.50	2.50	3.00	4.00	6.00	8.00	10.00
ØR	3.63	5.00	6.19	8.50	10.63	12.75	15.00
ØS	6.50	7.50	9.50	12.50	15.50	19.00	22.50
ØF	8.50	10.50	12.25	15.50	19.00	23.00	26.50
Cv	370	940	1650	4920	9900	14680	20240
WEIGHT	130	385	765	15701	2350	3655	4405



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 a specially designed valve for Green and Black Liquor 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	SEAT MATERIAL	BALL	BALL COATING	BODY	-	CLASS	END CONNECTION	OPTIONS
2"		TV	F FULL	0 No Seat Seal	A AICrN	A 316SS	A AICrN	A CF8M		01 150#	B RF Flanged	V90 90 Deg V
TO			R REDUCED	1 O SEAT	B Boronizing	F Hastelloy	B Boronizing	B WCB		03 300#	C RTJ Flanged	V60 60 Deg V
12"				2 G SEAL	C COLMONOY	G Incoloy	C CHROME	H Alloy 20		06 600#	D BUTTWELD	V30 30 Deg V
					G Graphite	H Alloy 20	E ENP	X 2205 SST		09 900#		V15 15 Deg V
					M Tantalum	I Monel	I Ceramic			15 1500#		SL.12 Slot .125
					Chrome Oxide	X 2205 SST	M Tantalum					SL.063 Slot .063
					N HARD CARBON		Chrome Oxide					SG Segmented
					P PEEK		N HARD CARBON					
					Q CERAMIC		L Colmonoy					
					R CHROME CARBIDE		Q CERAMIC					
					S STELLITE		R CHROME CARBIDE					
					T TFE		S STELLITE					
					U UHMWPE		T TFE					
					W TUNGSTEN CARBIDE		U Micro Tuff™					
							w TUNGSTEN CARBIDE					
							O no coating					

Example: 4" TV Series, Full Port, O-Ring Seat Seals, Stellite Seats, 316ss Ball with Tungsten Carbide Coating, WCB body, 900# Flanged RF, With 90 Deg V Port

2 - TV F 1 W A W B - 09 B V90

