

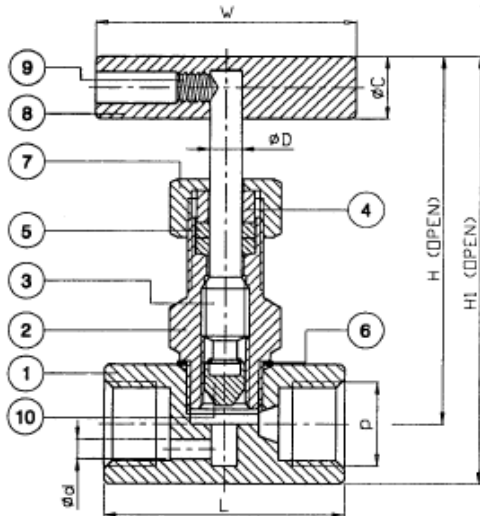


**VALVES**

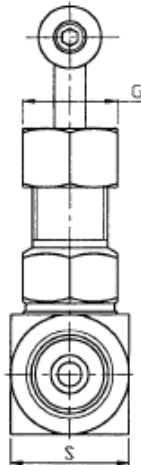


**STAINLESS NEEDLE GLOBE**

**6000 PSI W.O.G.  
THREADED ENDS - F X F NPT**

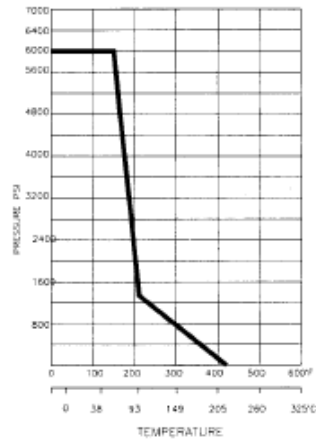


**FIGURE NO. 9066**



No.	Part Name	Material
1.	Body	AISI 316
2.	Bonnet	AISI 316
3.	Stem	AISI 316
4.	Gland Ring	AISI 316
5.	Packing	PTFE
6.	Gasket	PTFE
7.	Gland Nut	AISI 316
8.	Handle	AISI 410
9.	Set Screw	Alloy Steel
10.	Disc	AISI 316

PRESSURE TEMPERATURE RATING

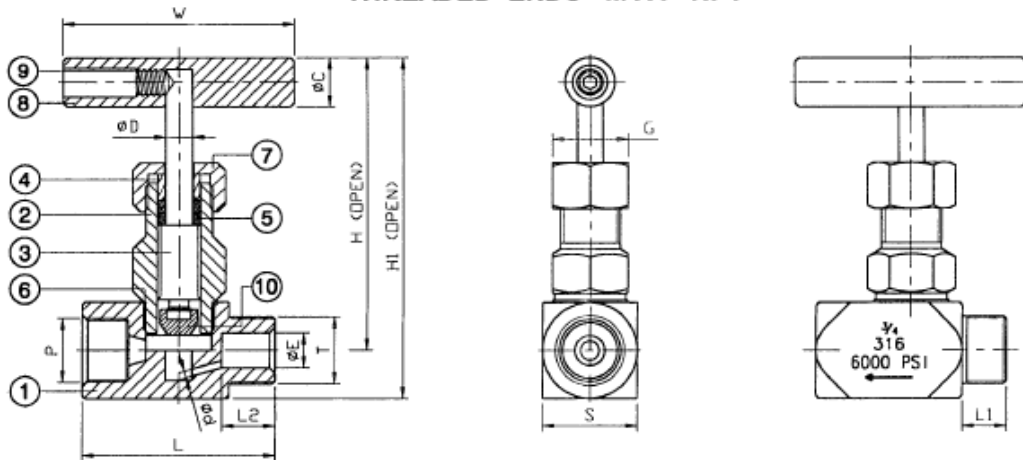


Size	L	H	H1	W	d	D	S	C	G	P	Cv Factor Approx.	Weight lbs.
1/8"	1.77	2.76	3.23	2.38	0.12	0.28	0.87	0.51	0.63	1/8"	0.7	0.60
1/4"	1.77	2.76	3.23	2.36	0.12	0.28	0.87	0.51	0.63	1/4"	0.8	0.60
3/8"	1.97	2.83	3.36	2.36	0.12	0.28	0.98	0.51	0.63	3/8"	0.9	0.71
1/2"	2.36	3.39	4.19	2.58	0.16	0.31	1.18	0.63	0.94	1/2"	1.2	1.17
3/4"	2.58	3.62	4.37	2.58	0.20	0.31	1.38	0.63	0.94	3/4"	1.3	1.45
1"	3.27	4.41	5.31	3.15	0.28	0.39	1.81	0.75	1.18	1"	1.8	3.09



## VALVES STAINLESS NEEDLE GLOBE

**6000 PSI W.O.G.  
THREADED ENDS - M X F NPT**



**FIGURE NO. 9066**

No.	Part Name	Material
1.	Body	AISI 316
2.	Bonnet	AISI 316
3.	Stem	AISI 316
4.	Gland Ring	AISI 316
5.	Packing	PTFE
6.	Gasket	PTFE
7.	Gland Nut	AISI 316
8.	Handle	AISI 410
9.	Set Screw	Alloy Steel
10.	Disc	AISI 316

Size	L	L1	L2	H	H1	W	d	D	S	C	E	G	P	T	Cv Factor Approx.	Weight lbs.
1/8"	2.05	0.59	0.59	2.76	3.23	2.36	0.12	0.28	0.87	0.51	0.12	0.83	1/8"	1/8"	0.7	0.57
1/4"	2.05	0.59	0.59	2.76	3.23	2.36	0.12	0.28	0.87	0.51	0.12	0.83	1/4"	1/4"	0.8	0.57
3/8"	2.24	0.59	0.67	2.83	3.36	2.36	0.12	0.28	0.98	0.51	0.12	0.83	3/8"	3/8"	0.9	0.71
1/2"	2.80	0.79	0.79	3.39	4.19	2.56	0.16	0.31	1.18	0.63	0.16	0.94	1/2"	1/2"	1.2	1.21
3/4"	2.99	0.79	0.87	3.62	4.37	2.56	0.20	0.31	1.38	0.63	0.59	0.94	3/4"	3/4"	1.3	1.50
1"	3.82	1.02	1.00	4.41	5.31	3.15	0.28	0.39	1.81	0.75	0.79	1.18	1"	1"	1.8	3.20

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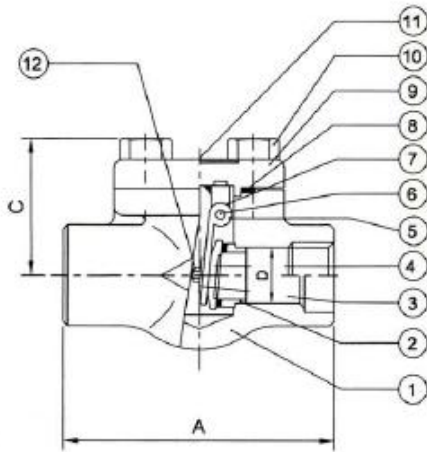
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## FORGED STAINLESS STEEL SWING CHECK VALVES

CLASS 800 & 1500  
CONVENTIONAL PORT

BOLTED CAP  
THREADED OR SOCKET WELD



No.	Parts	Materials	ASTM
1.	Body	Forged Steel	A182-F316L
2.	Seating	Stainless Steel	A276-316HF*
3.	Disc Washer	Stainless Steel	A276-316
4.	Disc	Stainless Steel	A276-316
5.	Hinge	Stainless Steel	A351-CF8M
6.	Hinge Pin	Stainless Steel	A276-316
7.	Support	Stainless Steel	A276-316
8.	Gasket	Spiral Wound Type 316 + Graphite	
9.	Cover	Forged Steel	A182-F316L
10.	Cover Bolt	Stainless Steel	A193-B8
11.	Name Plate	Stainless Steel	A240-304
12.	Disc Nut	Stainless Steel	

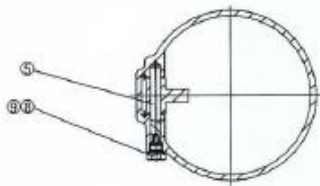
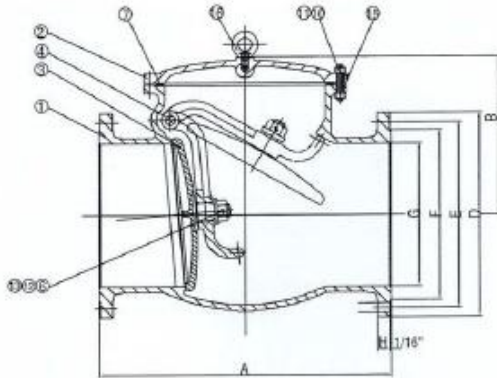
\*Stellite #6

CLASS 800 FIGURE NUMBER 803HF  
CLASS 1500 FIGURE NUMBER 1503HF

Size (Inch)	End to End A		Center to Top (open) Approx. C		Port Diameter D		Weight lbs.	
	800	1500	800	1500	800	1500	800	1500
1/4	2.99		1.81		0.25		2.20	
3/8	2.99		1.81		0.38		2.20	
1/2	2.99	3.62	1.81	2.20	0.38	0.38	2.20	3.31
3/4	3.62	4.09	2.20	2.72	0.50	0.50	3.31	4.41
1	4.09	5.51	2.60	3.35	0.73	0.71	4.41	9.04
1 - 1/4	4.53	5.75	2.95	3.98	0.94	1.13	9.04	14.11
1 - 1/2	4.53	5.75	2.95	3.98	1.20	1.13	9.04	14.11
2	5.75	8.27	3.98	4.92	1.50	1.48	14.10	21.61



**STAINLESS STEEL CAST CHECK VALVES  
1/2"-24" CLASS 150**



No.	Part Name	Material
1.	Body	ASTM A351 CF8M
2.	Cover	ASTM A351 CF8M
3.	Disc	ASTM A351 CF8M
4.	Hinge	ASTM A351 CF8M
5.	Hinge Pin	ASTM A276-316
6.	Washer	ASTM A276-316
7.	Gasket	PTFE
8.	Plug	ASTM A162-F316
9.	Washer	ASTM A276-316
10.	Stud	ASTM A193 B8
11.	Nut	ASTM A194 B
12.	Disc Nut	ASTM A194 8M
13.	Pin	ASTM A276-316
15.	Name Plate	SS
16.	Hook Screw	ASTM A193 B8

**FIGURE NUMBER 3156**

**Applicable Standards**

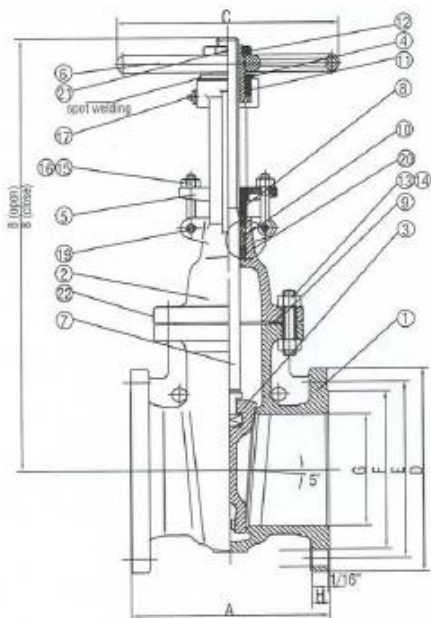
Shell wall thickness: ANSI B16.34  
 Face to Face Dimensions: ANSI B16.10  
 End Flange Dimensions: ANSI B16.5  
 Pressure-Temperature Rating: ANSI B16.34  
 Hook Screw only for 6" and larger

Size	A	B	D	E	F	G	H	Number of Flange Bolt Holes and Diameter	Cv Value Approx.	Weight (lbs.) Approx.
1/2"	4.25	3.54	3.50	2.38	1.28	0.50	0.44	4-5/8"	5.2	7
3/4"	4.63	3.54	3.88	2.75	1.69	0.75	0.44	4-5/8"	12	8
1"	5.00	3.70	4.25	3.12	2.00	1.00	0.44	4-5/8"	21	11
1-1/2"	6.50	4.06	5.00	3.88	2.68	1.50	0.56	4-5/8"	47	15
2"	8.00	4.50	6.00	4.75	3.62	2.00	0.62	4-3/4"	84	23
2-1/2"	8.50	6.00	7.00	5.50	4.12	2.50	0.69	4-3/4"	132	33
3"	9.50	6.59	7.50	6.00	5.00	3.00	0.75	4-3/4"	190	48
4"	11.50	7.34	9.00	7.50	6.19	4.00	0.94	8-3/4"	330	74
5"	13.00	8.66	10.00	8.50	7.31	5.00	1.00	8-7/8"	530	108
6"	14.00	11.42	11.00	9.50	8.50	6.00	1.00	8-7/8"	1076	134
8"	19.50	14.13	13.50	11.75	10.62	8.00	1.12	8-7/8"	1700	233
10"	24.50	15.35	16.00	14.25	12.75	10.00	1.19	12-1"	2400	343
12"	27.50	16.65	19.00	17.00	15.00	12.00	1.25	12-1"	3200	503
14"	31.00	17.83	21.00	18.75	16.25	13.25	1.38	12-1-1/8"	4000	642
16"	34.00	20.35	23.50	21.25	18.50	15.25	1.44	16-1-1/8"	4900	1247
18"	38.50	23.28	25.00	22.75	21.00	17.25	1.58	16-1-1/4"	5900	1555
20"	38.50	24.69	27.50	25.00	23.00	19.25	1.69	20-1-1/4"	6900	1653
24"	51.00	29.21	32.00	29.50	27.25	23.28	1.88	20-1-3/8"	9100	3440

\*Graphite Packing & Gasket Available  
 \*CF8 (304), CN7M (A20) & Special Alloys Available



## STAINLESS STEEL CAST GATE VALVES 1/2"-24" CLASS 150



No.	Part Name	Material
1.	Body	ASTM A351 CF8M
2.	Bonnet	ASTM A351 CF8M
3.	Wedge	ASTM A351 CF8M
4.	Yoke Sleeve	ASTM A438 D 2C
5.	Gland Flange	ASTM A351 CF8
6.	Handwheel	A536 Ductile Iron
7.	Stem	ASTM A276-316
8.	Gland	ASTM A276-316
9.	Gasket	PTFE
10.	Packing	PTFE
11.	Yoke Cap	ASTM A276-304
12.	Handwheel Nut	ASTM A194 B
13.	Stud	ASTM A193 B9
14.	Nut	ASTM A194 B
15.	Eye Bolt	ASTM A193 B9
16.	Nut	ASTM A194 B
17.	Grease Fitting	CR Plated Steel
19.	Pin	ASTM A193 B9
20.	Spacer Ring	ASTM A182-F316
21.	Set Screw	SS
22.	Name Plate	SS

\*1/2" - 3" solid wedge; 4" & larger flexible wedge  
 \*10" & larger yoke arms are A351 CF8  
 \*14" & larger yoke is equipped with thrust ball bearings

### Applicable Standards

Shell wall thickness: ANSI B16.34  
 Face to Face Dimensions: ANSI B16.10  
 End Flange Dimensions: ANSI B16.5  
 Pressure-Temperature Rating: ANSI B16.34

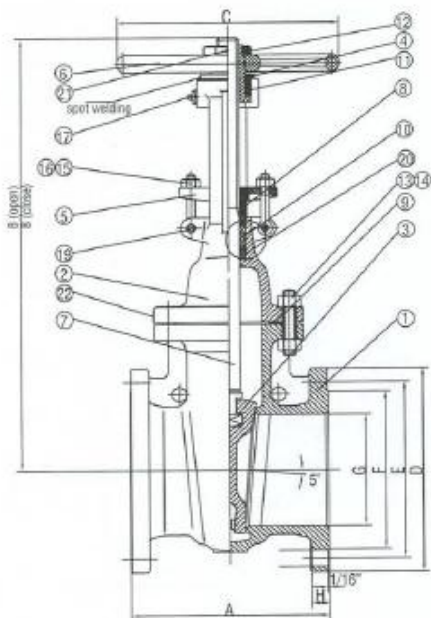
FIGURE NUMBER 1156

Size	A	B Open Approx.	B Closed Approx.	C	D	E	F	G	H	Number of Flange Bolt Holes and Diameter	Cv Value Approx.	Weight (lbs.) Approx.
1/2"	4.25	9.21	8.15	6.30	3.50	2.38	1.38	0.50	0.38	4-5/8"	11	5
3/4"	4.62	9.21	8.15	7.10	3.88	2.75	1.69	0.75	0.41	4-5/8"	27	6
1"	5.00	9.96	8.66	4.72	4.25	3.12	2.00	1.00	0.44	4-5/8"	49	7
1-1/2"	6.50	11.61	9.76	6.30	5.00	3.88	2.88	1.50	0.56	4-5/8"	110	20
2"	7.00	13.74	11.41	7.10	6.00	4.75	3.62	2.00	0.62	4-3/4"	210	31
2-1/2"	7.50	16.14	13.19	7.10	7.00	5.50	4.12	2.50	0.69	4-3/4"	360	42
3"	8.00	18.66	15.20	7.90	7.50	6.00	5.00	3.00	0.75	4-3/4"	560	52
4"	9.00	22.04	17.52	9.80	9.00	7.50	6.19	4.00	0.94	8-3/4"	1200	81
5"	10.00	25.83	20.28	11.80	10.00	8.50	7.31	5.00	0.94	8-7/8"	2253	106
6"	10.50	29.80	23.27	11.80	11.00	9.50	8.50	6.00	1.00	8-7/8"	3500	141
8"	11.50	37.40	28.74	13.80	13.50	11.75	10.82	8.00	1.12	8-7/8"	5700	224
10"	13.00	45.16	34.17	15.80	16.00	14.25	12.75	10.00	1.19	12-1"	8600	322
12"	14.00	53.11	39.96	17.80	19.00	17.00	15.00	12.00	1.25	12-1"	11700	458
14"	15.00	58.58	44.53	19.70	21.00	18.75	16.25	13.25	1.38	12-1-1/8"	14700	657
16"	16.00	66.65	50.59	21.65	23.50	21.25	18.50	15.25	1.44	16-1-1/8"	19000	825
18"	17.00	74.49	56.30	23.60	25.00	22.75	21.00	17.25	1.56	16-1-1/4"	21600	1466
20"	18.00	83.23	63.15	26.80	27.50	25.00	23.00	19.25	1.69	20-1-1/4"	25400	1940
24"	20.00	98.43	73.94	30.00	32.00	29.50	27.25	23.25	1.88	20-1-3/8"	32800	2194

\*Graphite Packing & Gasket Available  
 \*CF8 (304), CN7M (A20) & Special Alloys Available



## STAINLESS STEEL CAST GATE VALVES 1/2"-24" CLASS 150



No.	Part Name	Material
1.	Body	ASTM A351 CF8M
2.	Bonnet	ASTM A351 CF8M
3.	Wedge	ASTM A351 CF8M
4.	Yoke Sleeve	ASTM A438 D 2C
5.	Gland Flange	ASTM A351 CF8
6.	Handwheel	A536 Ductile Iron
7.	Stem	ASTM A276-316
8.	Gland	ASTM A276-316
9.	Gasket	PTFE
10.	Packing	PTFE
11.	Yoke Cap	ASTM A276-304
12.	Handwheel Nut	ASTM A194 B
13.	Stud	ASTM A193 B9
14.	Nut	ASTM A194 B
15.	Eye Bolt	ASTM A193 B9
16.	Nut	ASTM A194 B
17.	Grease Fitting	CR Plated Steel
19.	Pin	ASTM A193 B9
20.	Spacer Ring	ASTM A182-F316
21.	Set Screw	SS
22.	Name Plate	SS

\*1/2" - 3" solid wedge; 4" & larger flexible wedge  
 \*10" & larger yoke arms are A351 CF8  
 \*14" & larger yoke is equipped with thrust ball bearings

### Applicable Standards

Shell wall thickness: ANSI B16.34  
 Face to Face Dimensions: ANSI B16.10  
 End Flange Dimensions: ANSI B16.5  
 Pressure-Temperature Rating: ANSI B16.34

FIGURE NUMBER 1156

Size	A	B Open Approx.	B Closed Approx.	C	D	E	F	G	H	Number of Flange Bolt Holes and Diameter	Cv Value Approx.	Weight (lbs.) Approx.
1/2"	4.25	9.21	8.15	6.30	3.50	2.38	1.38	0.50	0.38	4-5/8"	11	5
3/4"	4.62	9.21	8.15	7.10	3.88	2.75	1.69	0.75	0.41	4-5/8"	27	6
1"	5.00	9.96	8.66	4.72	4.25	3.12	2.00	1.00	0.44	4-5/8"	49	7
1-1/2"	6.50	11.61	9.76	6.30	5.00	3.88	2.88	1.50	0.56	4-5/8"	110	20
2"	7.00	13.74	11.41	7.10	6.00	4.75	3.62	2.00	0.62	4-3/4"	210	31
2-1/2"	7.50	16.14	13.19	7.10	7.00	5.50	4.12	2.50	0.69	4-3/4"	360	42
3"	8.00	18.66	15.20	7.90	7.50	6.00	5.00	3.00	0.75	4-3/4"	560	52
4"	9.00	22.04	17.52	9.80	9.00	7.50	6.19	4.00	0.94	8-3/4"	1200	81
5"	10.00	25.83	20.28	11.80	10.00	8.50	7.31	5.00	0.94	8-7/8"	2253	106
6"	10.50	29.80	23.27	11.80	11.00	9.50	8.50	6.00	1.00	8-7/8"	3500	141
8"	11.50	37.40	28.74	13.80	13.50	11.75	10.82	8.00	1.12	8-7/8"	5700	224
10"	13.00	45.16	34.17	15.80	16.00	14.25	12.75	10.00	1.19	12-1"	8600	322
12"	14.00	53.11	39.96	17.80	19.00	17.00	15.00	12.00	1.25	12-1"	11700	458
14"	15.00	58.58	44.53	19.70	21.00	18.75	16.25	13.25	1.38	12-1-1/8"	14700	657
16"	16.00	66.65	50.59	21.65	23.50	21.25	18.50	15.25	1.44	16-1-1/8"	19000	825
18"	17.00	74.49	56.30	23.60	25.00	22.75	21.00	17.25	1.56	16-1-1/4"	21600	1466
20"	18.00	83.23	63.15	26.80	27.50	25.00	23.00	19.25	1.69	20-1-1/4"	25400	1940
24"	20.00	98.43	73.94	30.00	32.00	29.50	27.25	23.25	1.88	20-1-3/8"	32800	2194

\*Graphite Packing & Gasket Available  
 \*CF8 (304), CN7M (A20) & Special Alloys Available



# VALVES

## FORGED STAINLESS STEEL GATE VALVES

**CLASS 800 & 1500**

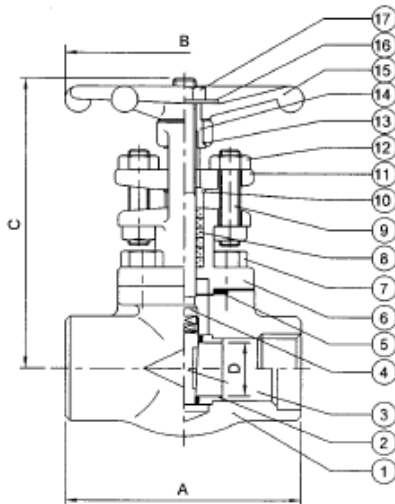
**BOLTED BONNET**

**CONVENTIONAL PORT**

**THREADED OR SOCKET WELD**

**OUTSIDE SCREW & YOKE**

**API 602**



No.	Parts	Materials	ASTM
1.	Body	Forged Steel	A182-F316L
2.	Seating	Stainless Steel	A276-316HF *
3.	Wedge	Stainless Steel	A351-CF8M
4.	Stem	Stainless Steel	A276-316
5.	Gasket	Spiral Wound Type 316 + Graphite	
6.	Bonnet	Forged Steel	A182-F316L
7.	Bonnet Bolt	Stainless Steel	A193-B8
8.	Gland Packing	Flexible Graphite	
9.	Gland Bolt	Stainless Steel	A193-B8
10.	Gland	Stainless Steel	A276-304
11.	Gland Flange	Forged Steel	A182-F304
12.	Gland Nut	Stainless Steel	A194-8
13.	Sleeve Washer	13Cr Stainless Steel	A276-410
14.	Yoke Sleeve	13Cr Stainless Steel	A582-416
15.	Handwheel	Malleable Iron	A197
16.	Name Plate	Stainless Steel	A240-304
17.	Handwheel Nut	Carbon Steel	

\*Stellite #6

**CLASS 800 FIGURE NUMBER 801HF**  
**CLASS 1500 FIGURE NUMBER 1501HF**

Size (Inch)	End to End A		Handwheel Diameter B		Center to Top (open) Approx. C		Port Diameter D		Weight lbs.	
	800	1500	800	1500	800	1500	800	1500	800	1500
1/4	2.99		3.31		5.43		0.25		3.31	
3/8	2.99		3.31		5.43		0.38		3.31	
1/2	2.99	3.62	3.31	3.82	5.43	5.59	0.38	0.38	3.31	4.63
3/4	3.62	4.09	3.82	3.82	5.79	6.14	0.50	0.50	4.63	6.39
1	4.09	4.53	3.82	5.39	6.85	8.15	0.71	0.71	6.17	11.02
1 - 1/4	4.53	5.75	3.39	6.18	8.54	9.69	0.94	1.13	11.02	15.20
1 - 1/2	4.53	5.75	3.39	6.18	8.54	9.69	1.13	1.13	10.59	18.30
2	5.75	8.27	6.18	6.18	10.28	11.93	1.48	1.48	18.09	26.23

NOTE: 304L, 347, 321 & Alloy 20 available upon request.





# VALVES

## STAINLESS STEEL ANSI 150 DUAL PLATE WAFER CHECK 1-1/2" - 5"

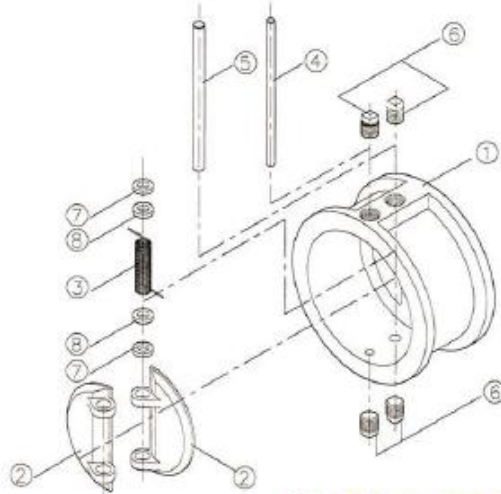
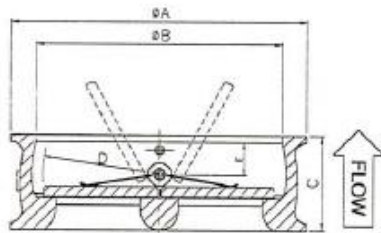


FIGURE NUMBER 8156

No.	Part Name	Material
1.	Body	ASTM A351-CF8M
2.	Plate	ASTM A351-CF8M
3.	Spring	Inconel X750
4.	Hinge Pin	AISI 316
5.	Stop Pin	AISI 316
6.	Plug	AISI 316
7.	Body Bearing	PTFE
8.	Plate Bearing	PTFE

Design Standards	
General Body Design	B16.34
Pressure Temperature Rating	B16.34
Visual Examination	MSS SP-55
Pressure Testing	API 598



SECTION A-A

Size	A	B	C	D	E	Cv Values Approx.	Weight
1-1/2"	3.39	2.36	2.36	1.06	1.30	52.6	4.4
2"	4.13	2.40	2.36	1.06	1.30	52.6	6.6
2-1/2"	4.88	2.87	2.64	1.30	1.26	83.2	8.8
3"	5.39	3.50	2.87	1.61	1.42	139	13.2
4"	6.89	4.49	2.87	2.13	1.50	271	17.6
5"	7.76	5.55	3.39	2.56	1.61	483	22.1

# warren

## VALVES

### STAINLESS STEEL ANSI 150 DUAL PLATE WAFER CHECK

6" - 20"

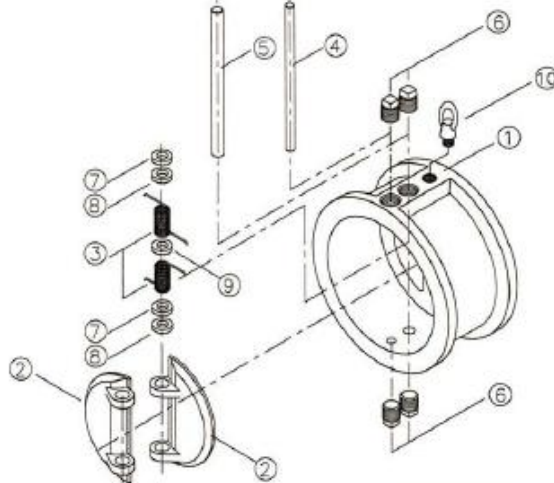
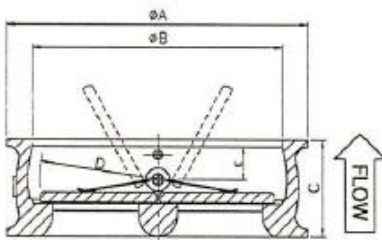


FIGURE NUMBER 8156

No.	Part Name	Material
1.	Body	ASTM A351-CF8M
2.	Plate	ASTM A351-CF8M
3.	Spring	Inconel X750
4.	Hinge Pin	AISI 316
5.	Stop Pin	AISI 316
6.	Plug	AISI 316
7.	Body Bearing	PTFE
8.	Plate Bearing	PTFE
9.	Spring Bearing	PTFE
10.	Eye-Bolt	SS 41

Design Standards	
General Body Design	B16.34
Pressure Temperature Rating	B16.34
Visual Examination	MSS SP-55
Pressure Testing	API 598



SECTION A-A

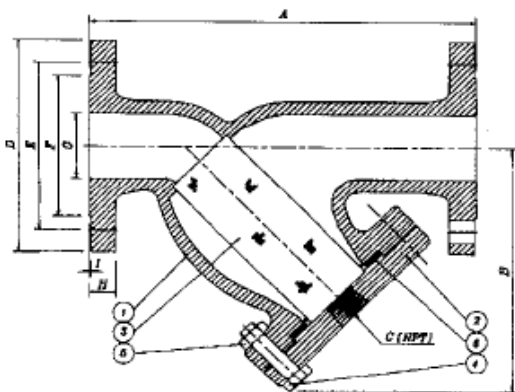
Size	A	B	C	D	E	Cv Values Approx.	Weight
6"	8.74	6.61	3.86	3.11	1.73	800	35.3
8"	10.98	8.62	5.00	4.02	1.89	1509	70.6
10"	13.39	10.75	5.75	4.96	2.20	2640	103.6
12"	16.14	12.76	7.13	5.98	2.76	4073	185.2
14"	17.76	14.02	7.24	6.69	3.54	5303	213.9
16"	20.24	15.98	7.52	7.68	3.39	7342	350.6
18"	21.61	17.99	7.99	8.62	3.39	9946	407.9
20"	23.86	20.00	8.62	9.61	3.50	12960	535.8



# VALVES

## STAINLESS STEEL Y-PATTERN STRAINER

1-1/2" - 8" CLASS 150



No.	PART NAME	MATERIAL
1.	Body	A351 CF8M
2.	Cover	A351 CF8M
3.	Screen	A276 304
4.	Cover Bolt	A193 B8
5.	Cover Nut	A194 8
6.	Gasket	PTFE

### Applicable Standards

Shell wall thickness: ANSI B16.34  
 End Flange Dimensions: ANSI B16.5  
 Pressure-Temperature Rating: ANSI B16.34

FIGURE NO. 7156

### Perforated Screen Dimensions

Nominal Size	Hole Diameter	Number of Holes	Open Area
up to 4"	.062"	132/Sq. Inch	48%
6" and Larger	.125"	36/Sq. Inch	39%

Valve Size	A	B	C	D	E	F	G	H	I	Number of Holes and Diameter	Weight lbs. Approx.
1-1/2"	9.45	5.91	1/2	5.00	3.88	2.88	1.50	0.56	1/16	4-5/8"	22
2"	10.24	6.69	1/2	6.00	4.75	3.62	2.00	0.62	1/16	4-3/4"	26
2-1/2"	10.83	7.28	1	7.00	5.50	4.12	2.50	0.69	1/16	4-3/4"	44
3"	11.42	8.66	1	7.50	6.00	5.00	3.00	0.75	1/16	4-3/4"	50
4"	13.19	12.80	1-1/2	9.00	7.50	6.19	4.00	0.94	1/16	6-3/4"	88
6"	20.47	14.96	2	11.00	9.50	8.50	6.00	1.00	1/16	8-7/8"	176
8"	22.83	19.69	2	13.50	11.75	10.62	8.00	1.12	1/16	8-7/8"	308



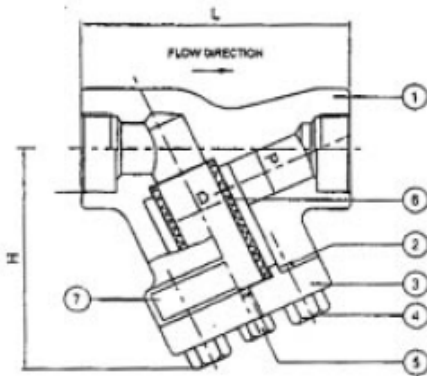
# VALVES

## FORGED STAINLESS STEEL Y-TYPE STRAINER

CLASS 800

BOLTED COVER

THREADED OR SOCKET WELD



No.	PARTS	MATERIALS	ASTM
1.	Body	Forged Steel	A182-F316L
2.	Gasket	Spiral Wound Type 316 + Graphite	
3.	Cover	Forged Steel	A182-F316L
4.	Cover Bolt	Stainless Steel	A193-B8
5.	Plug	Stainless Steel	Type 316
6.	Screen	Stainless Steel	Type 316
7.	Name plate	Stainless Steel	A240-304

FIGURE NUMBER 7806

### DESIGN STANDARDS

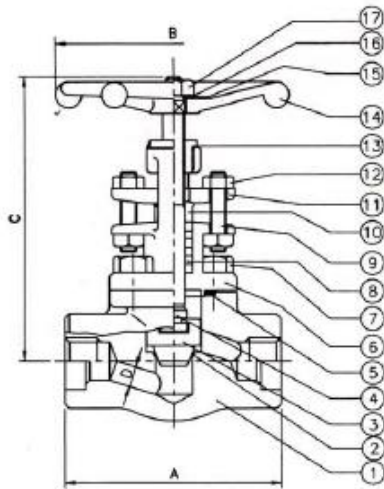
ITEM	ANSI Class	STANDARD
General Design	800 & 1500	ANSI B16.34
Pressure Temp Rating	800 & 1500	ANSI B16.34
Inspection & Pressure Test	800 & 1500	API 598
Pipe Threads - NPT	800 & 1500	ANSI B1.20.1
Socket Depth	800 & 1500	ANSI B16.11

Size (Inch)	H (open)	L	Port Diameter P	D	Drain Plug	Screen Perforation	Cv value Approx.	weight (LBS)
1/4	2.74	2.99	0.25	0.47	1/4 NPT	Hole 0.03	3.5	2.6
3/8	2.74	2.99	0.38	0.47	1/4 NPT	Hole 0.03	5.0	2.6
1/2	2.74	2.99	0.47	0.47	1/4 NPT	Hole 0.03	6.0	2.6
3/4	3.17	3.54	0.59	0.55	1/4 NPT	Hole 0.03	14.0	3.1
1	3.33	4.02	0.71	0.79	1/4 NPT	Hole 0.03	19.5	5.3
1-1/4	4.30	4.88	1.18	1.18	1/4 NPT	1Hole 0.03	27.0	11.5
1-1/2	4.30	4.88	1.18	1.18	1/4 NPT	Hole 0.03	40.0	11.5
2	4.30	5.98	1.37	1.37	1/4 NPT	Hole 0.03	60.0	15.4



**FORGED STAINLESS STEEL GLOBE VALVES**  
**CLASS 800 & 1500**  
**CONVENTIONAL PORT**  
**OUTSIDE SCREW & YOKE**

**BOLTED BONNET**  
**THREADED OR SOCKET WELD**



No.	Parts	Materials	ASTM
1.	Body	Forged Steel	A182-F316L
2.	Seat	Stellite #6	
3.	Disc	Stainless Steel	A351-CF8M
4.	Stem	Stainless Steel	A276-316
5.	Gasket	Spiral Wound Type 316 + Graphite	
6.	Bonnet	Forged Steel	A182-F316L
7.	Bonnet Bolt	Stainless Steel	A193-B8
8.	Gland Packing	Flexible Graphite	
9.	Gland Bolt	Stainless Steel	A193-B8
10.	Gland	Stainless Steel	A276-304
11.	Gland Flange	Forged Steel	A182-F304
12.	Gland Nut	Stainless Steel	A194-8
13.	Yoke Bush	13Cr Stainless Steel	A582-416
14.	Handwheel	Malleable Iron	A197
15.	Name Plate	Stainless Steel	A240-304
16.	Handwheel Washer	Carbon Steel	
17.	Handwheel Nut	Carbon Steel	

**CLASS 800 FIGURE NUMBER 802HF**  
**CLASS 1500 FIGURE NUMBER 1502HF**

Size (Inch)	End to End A		Handwheel Diameter B		Center to Top (open) Approx. C		Port Diameter D		Weight lbs.	
	800	1500	800	1500	800	1500	800	1500	800	1500
1/4	2.99		3.31		5.43		0.25		3.31	
3/8	2.99		3.31		5.43		0.38		3.31	
1/2	2.99	3.62	3.31	3.82	5.43	5.91	0.38	0.37	3.31	5.07
3/4	3.62	4.09	3.82	3.82	5.79	7.05	0.50	0.50	4.63	7.05
1	4.09	5.51	3.82	5.39	6.85	9.09	0.71	0.63	6.17	13.45
1 - 1/4	4.53	5.75	5.38	6.18	8.54	10.08	0.94	0.87	11.02	23.15
1 - 1/2	4.53	5.75	5.39	6.18	8.54	10.08	1.13	1.06	10.58	23.15
2	5.75	8.27	6.18	6.18	10.28	11.85	1.48	1.38	18.08	28.68



# VALVES

## Series W20 Seal Welded Ball Valves 1/4" - 2" 2000 WOG

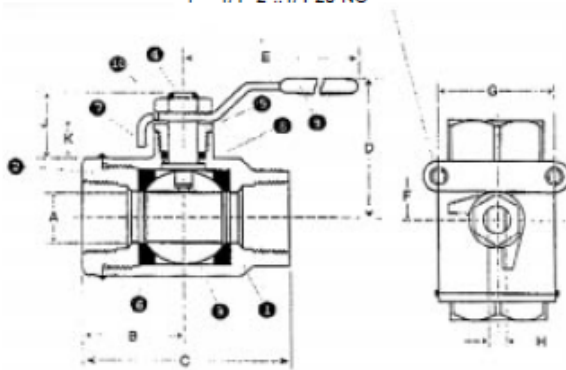


### FEATURES

- SEAL WELDED CONSTRUCTION
- 2000 WOG Rating on all sizes
- NACE MR-01-75 Compliant
- CF8M Bodies and Tailpieces, 316 Stainless Steel Internals
- Available in Male X Female Construction in 1/4"-1" Sizes
- Standard Actuator Mounting Pads on all sizes
- Standard Locking Stainless Steel Handles
- Locking Stainless Steel Oval Handles Available
- The Ultimate in Safe Design

MOUNTING HOLES  
1/4" - 1" .....10-24 NC  
1" - 1/4"-2".....1/4-20 NC

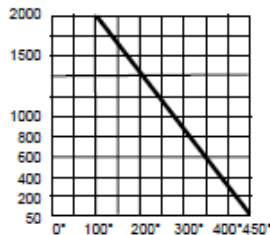
**RATINGS**  
2000 PSIG @ 100F WATER, OIL, GAS  
150 PSIG SATURATED STEAM



### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL	OPTIONAL MATERIAL
1	BODY	ASTM A351 Gr.CF8M	ASTM A351 GR. CF8M
2	TAILPIECE	ASTM A351 Gr.CF8M	ASTM A351 GR. CF8M
3	BALL	ASTM A276 Gr.316	Alloy 20
4	STEM	ASTM A276 Gr.316	Alloy 20
5	PACKING NUT	ASTM A276 Gr.316	Alloy 20
6	SEATs (2)	R-PTFE	Steam Seats, PEEK
7	PACKING	R-PTFE	Graphite, PEEK
8	THRUST WASHER	R-PTFE	PEEK
9	HANDLE ASSY	Stainless Steel w/Vinyl	Stainless Locking Oval
10	HANDLE NUT	Stainless Steel	

### R-PTFE SEATS



### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A	B	C	D	E	F	G	H	J	K	WEIGHT LBS.	Cv Value	MAX TORQUE
1/4-3/8"	0.38	1.10	2.20	1.80	4.40	0.50	1.12	0.20	0.86	0.50	0.50	9	40 IN-LB
1/2"	0.50	1.20	2.40	2.00	4.40	0.50	1.12	0.20	0.96	0.55	0.66	16	75 IN-LB
3/4"	0.69	1.40	2.80	2.40	5.90	0.87	1.38	0.28	1.32	0.71	1.32	27	120 IN-LB
1"	0.87	1.60	3.20	2.60	5.90	0.87	1.38	0.28	1.31	0.70	1.81	42	140 IN-LB
1-1/4"	1.00	1.80	3.60	2.80	7.80	0.93	1.50	0.35	1.42	0.76	2.51	52	250 IN-LB
1-1/2"	1.30	2.10	4.10	3.00	7.80	0.93	1.50	0.35	1.42	0.76	3.74	80	300 IN-LB
2"	1.50	2.30	4.60	3.20	7.80	0.93	1.50	0.35	1.42	0.77	5.53	115	320 IN-LB

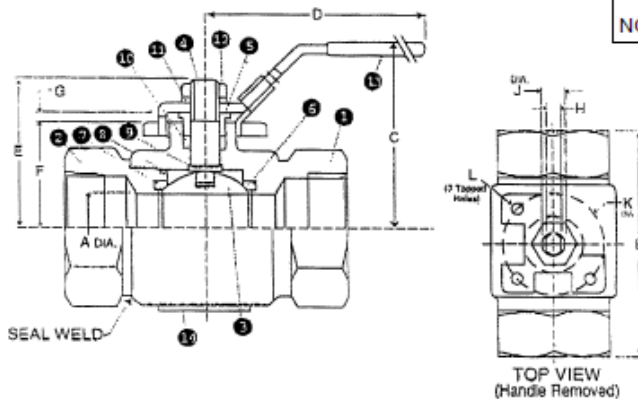
# Warren® VALVES

## Series W50

### Seal Welded High Pressure Ball Valves 1/4" - 2" 5000 WOG

#### FEATURES

- SEAL WELDED CONSTRUCTION
- Full Port and Reduced Port Available
- All Stainless Construction - CF8M Bodies & Tailpieces, 316SS Internals
- 5000 WOG Rating on all sizes
- Derlin Seats and Viton Seals are Standard
- NACE MR-01-75 Compliant
- API 607 Fourth Edition Fire Safe
- Standard ISO Actuator Mounting Pads on all sizes
- Standard Locking Stainless Steel Handles
- The Ultimate Valve for Safe High Pressure Service

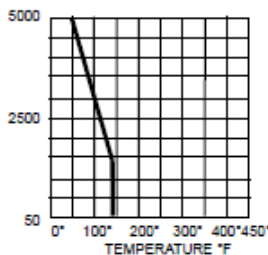


**RATINGS**  
5000 PSIG @ 100F WATER, OIL, GAS  
NO STEAM SERVICE RATING (DELIRIN SEATS)

#### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A351 Gr.CF8M
2	TAILPIECE	ASTM A351 Gr.CF8M
3	BALL	ASTM A276 Gr.316 SS
4	STEM	ASTM A276 Gr.316 SS (1/4"-1") 174-PH (1-1/2"-2")
5	PACKING NUT	ASTM A276 Gr.316 SS
6	SEATS (2)	DELIRIN 100AF
7	SEAT SEAL (2)	VITON
8	TAILPIECE SEAL	GRAPHITE
9	THRUST WASHER	PTFE
10	STEM PACKING	GRAPHITE
11	LOCK WASHER	304 SS
12	HANDLE ASSY	304 SS
13	HANDLE NUT	304 SS

#### DELIRIN SEATS



#### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A	B	C	D	E	F	G	H	J	K	L	ISO	WEIGHT	Cv	MAX
												PATTERN	LBS		TORQUE
1/4-3/8"	0.25	3.00	2.30	5.00	1.62	0.89	0.33	0.20	0.31	1.42	1/4"-20 UNC	F03	1.60	10	75 IN-LB
1/2"	0.50	4.00	2.30	5.00	1.62	0.89	0.33	0.20	0.31	1.42	1/4"-20 UNC	F03	1.60	15	75 IN-LB
3/4"	0.75	4.30	2.90	5.80	2.21	1.29	0.41	0.28	0.43	1.65	1/4"-20 UNC	F04	2.70	32	120 IN-LB
1"	0.75	4.30	2.90	5.80	2.21	1.29	0.41	0.28	0.43	1.65	1/4"-20 UNC	F04	3.00	44	200 IN-LB
1-1/4"	1.00	4.80	3.50	7.40	2.79	1.65	0.43	0.35	0.56	1.97	1/4"-20 UNC	F05	6.20	62	400 IN-LB
1-1/2"	1.50	5.30	4.50	14.0	3.87	2.51	0.49	0.39	0.62	2.76	5/16"-18 UNC	F07	11.3	140	750 IN-LB
2"	1.50	6.30	4.50	14.0	3.87	2.51	0.49	0.39	0.62	2.76	5/16"-18 UNC	F07	11.7	120	750 IN-LB



# VALVES

## STAINLESS STEEL SWING CHECK

200 PSI W.O.G. AT 350°F  
 SCREWED COVER  
 THREADED ENDS - ASME B1.20.1 (NPT)  
 INVESTMENT CASING

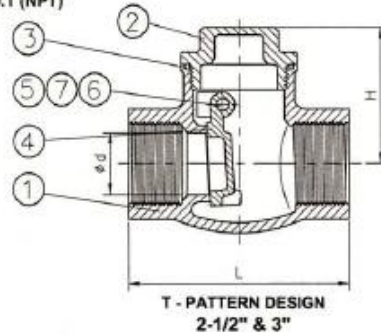
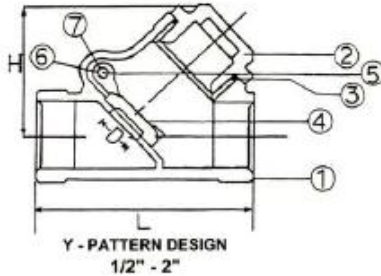


FIGURE NUMBER 223

NO.	PART NAME	MATERIAL
1.	Body	ASTM - A351 CF8M
2.	Cover	ASTM - A351 CF8M
3.	Gasket	PTFE
4.	Disc	ASTM - A351 CF8M
5.	Pin	316
6.	Plug	316
7.	Washer	PTFE

Hydrostatic Shell Test 300 PSI  
 Hydrostatic Seat Test 220 PSI

Size	L	H	D	Weight Lbs. Approx.
1/2"	2.75	1.75	.50	.7
3/4"	3.38	2.13	.75	1.1
1"	3.88	2.19	1.00	1.4
1-1/4"	4.50	2.63	1.25	2.2
1-1/2"	5.13	3.19	1.50	3.3
2"	6.06	3.63	2.00	4.6
2-1/2"	6.26	3.54	2.56	8.4
3"	7.48	4.09	3.15	13

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## WARREN VALVE CORPORATION

### Headquarters and National Warehouse

Houston, Texas

Local (713) 672-9416

Toll Free (800) 231-6680

Fax (713) 672-8549

Website: [www.warrenalloy.com](http://www.warrenalloy.com)

E-Mail: [Warralloy@aol.com](mailto:Warralloy@aol.com)

Mexico Toll Free 001-888-263-8613

### Regional Warehouses

Charlotte, North Carolina  
 Salt Lake City, Utah

Local (704) 521-4478  
 Local (801) 975-1919

Toll Free (800) 331-3672  
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Fax (704) 521-8243  
 Fax (801) 975-9111





# VALVES

## STAINLESS STEEL SWING CHECK

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 THREADED ENDS - ASME B1.20.1 (NPT)  
 INVESTMENT CASING

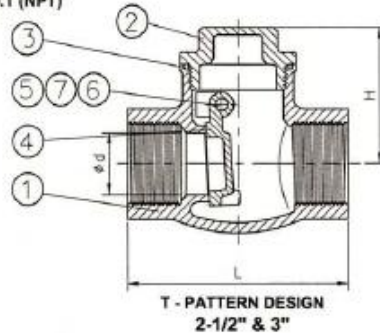
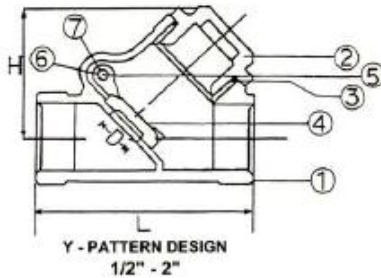


FIGURE NUMBER 223

NO.	PART NAME	MATERIAL
1.	Body	ASTM - A351 CF8M
2.	Cover	ASTM - A351 CF8M
3.	Gasket	PTFE
4.	Disc	ASTM - A351 CF8M
5.	Pin	316
6.	Plug	316
7.	Washer	PTFE

Hydrostatic Shell Test 300 PSI  
 Hydrostatic Seat Test 220 PSI

Size	L	H	D	Weight Lbs. Approx.
1/2"	2.75	1.75	.50	.7
3/4"	3.38	2.13	.75	1.1
1"	3.88	2.19	1.00	1.4
1-1/4"	4.50	2.63	1.25	2.2
1-1/2"	5.13	3.19	1.50	3.3
2"	6.06	3.63	2.00	4.6
2-1/2"	6.26	3.54	2.56	8.4
3"	7.48	4.09	3.15	13

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# VALVES

## STAINLESS STEEL SWING CHECK

200 PSI W.O.G. AT 350°F  
 SCREWED COVER  
 THREADED ENDS - ASME B1.20.1 (NPT)  
 INVESTMENT CASING

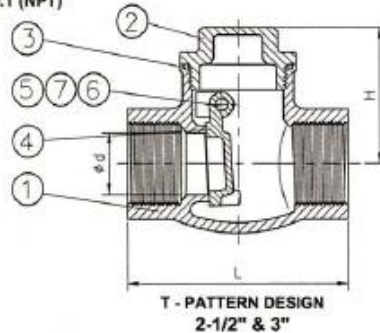
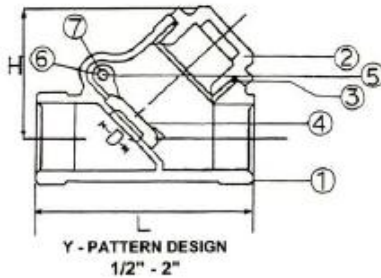


FIGURE NUMBER 223

NO.	PART NAME	MATERIAL
1.	Body	ASTM - A351 CF8M
2.	Cover	ASTM - A351 CF8M
3.	Gasket	PTFE
4.	Disc	ASTM - A351 CF8M
5.	Pin	316
6.	Plug	316
7.	Washer	PTFE

Hydrostatic Shell Test 300 PSI  
 Hydrostatic Seat Test 220 PSI

Size	L	H	D	Weight Lbs. Approx.
1/2"	2.75	1.75	.50	.7
3/4"	3.38	2.13	.75	1.1
1"	3.88	2.19	1.00	1.4
1-1/4"	4.50	2.63	1.25	2.2
1-1/2"	5.13	3.19	1.50	3.3
2"	6.06	3.63	2.00	4.6
2-1/2"	6.26	3.54	2.56	8.4
3"	7.48	4.09	3.15	13

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Fax (704) 521-8243  
 Fax (801) 975-9111

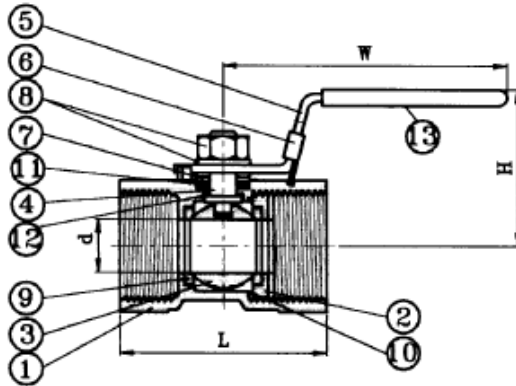


# VALVES

## STAINLESS STEEL ONE PIECE BALL VALVE

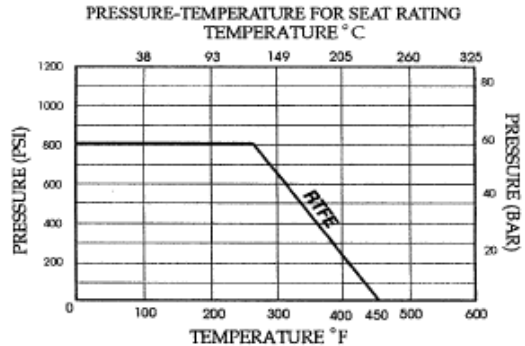
**800 PSI W.O.G.  
THREADED ENDS**

**BLOW - OUT PROOF STEM  
LOCKING DEVICE**



ITEM	PART NAME	MATERIAL
1	Body	ASTM A351-CF8M
2	Retainer	ASTM A351-CF8M
3	Ball	ASTM A351-CF8M
4	Stem	AISI 316
5	Handle	AISI 304
6	Locking Device	AISI 304
7	Disc	AISI 304
8	Nut & Washer	AISI 304
9	Ball Seat	RTFE
10	Body Seal	PTFE
11	Stem Packing	PTFE
12	Thrust Washer	PTFE
13	Handle Sleeve	VINYL

FIGURE NUMBER 1010



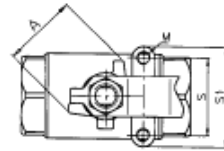
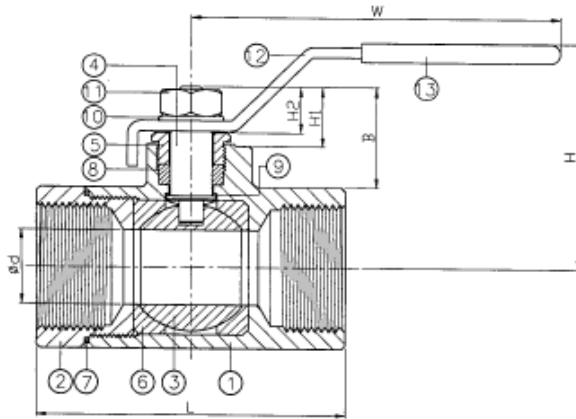
Size	L	W	H	d	CV Factor Approx.	Wt. (Lbs.) Approx.
1/4"	1.535	2.362	1.299	0.197	2.5	0.163
3/8"	1.732	2.952	1.377	0.276	4.5	0.251
1/2"	2.204	3.503	1.653	0.354	7	0.427
3/4"	2.283	3.503	1.811	0.492	9	0.599
1"	2.755	4.173	1.968	0.629	16	0.992
1-1/4"	3.031	4.173	2.204	0.787	24	1.433
1-1/2"	3.228	5.039	2.598	0.964	37	1.895
2"	3.897	5.039	2.834	1.269	68	3.174



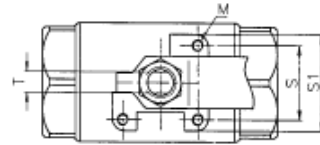
# VALVES

## STAINLESS STEEL TWO PIECE BALL VALVE

1/4" - 1" 2000 PSI W.O.G.  
 1-1/4" - 2" 2000 PSI W.O.G.  
**Blow-Out PROOF STEM  
 LOCKING DEVICE**



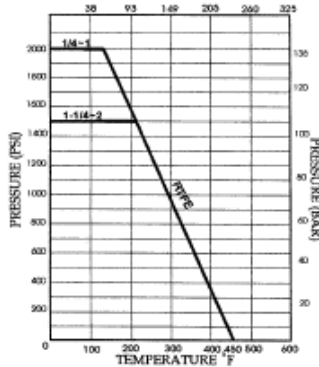
1/4" - 1"



1-1/4" - 2"

FIGURE NUMBER 1020

PRESSURE-TEMPERATURE FOR SEAT RATING  
 TEMPERATURE °C



ITEM	PART NAME	MATERIAL
1	Body	ASTM A351 CF8M
2	Cap	ASTM A351 CF8M
3	Ball	ASTM A351 CF8M
4	Stem	ASTM A276-316
5	Gland Nut	AISI 304
6	Ball Seat	PTFE
7	Body Seal	PTFE
8	Packing	PTFE
9	Thrust Washer	PTFE
10	Stem Washer	AISI 304
11	Nut	AISI 304
12	Handle	AISI 304
13	Handle Sleeve	PVC

Size	d	L	W	H	H1	H2	A	B	S	S1	M	T	Torque* In - Lb.	CV Factor Approx.	Wt. (Lbs.) Approx.
3/8"	0.50	2.24	3.94	2.01	0.54	0.43	1.10	0.98	1.11	1.57	3/16" - 24 UNC	0.22	35	9.8	0.70
1/2"	0.50	2.36	3.94	2.01	0.61	0.43	1.10	0.98	1.11	1.57	3/16" - 24 UNC	0.22	38	9.8	0.68
3/4"	0.69	3.11	4.84	2.44	0.75	0.55	1.34	1.18	1.37	1.77	3/16" - 24 UNC	0.25	65	25	1.36
1"	0.88	3.35	4.84	2.64	0.75	0.55	1.34	1.18	1.37	1.77	3/16" - 24 UNC	0.25	110	35	1.69
1-1/4"	1.00	4.02	5.67	3.31	1.13	0.75	-	-	1.40	2.01	1/4" - 20 UNC	0.37	220	47	2.75
1-1/2"	1.25	4.37	5.67	3.50	1.13	0.75	-	-	1.40	2.01	1/4" - 20 UNC	0.37	215	81	4.07
2"	1.50	5.39	7.09	3.70	1.05	0.75	-	-	1.40	2.01	1/4" - 20 UNC	0.37	240	105	5.96

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.



# VALVES

## 2PC BALL VALVE FULL PORT

1/4" - 4" 1000 PSI W.O.G  
LOCKING DEVICE

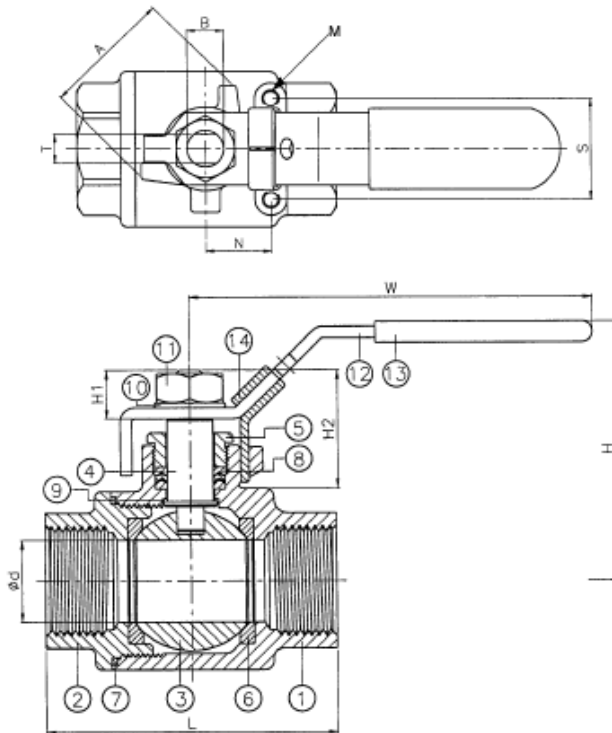
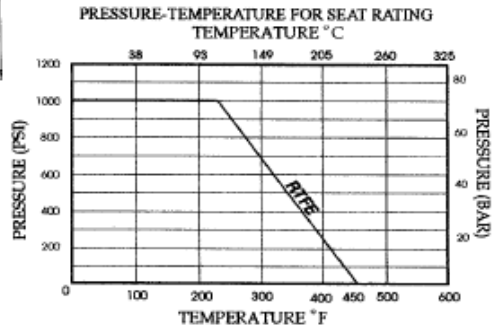


FIGURE NUMBER 1022

ITEM	PART NAME	MATERIAL
1	Body	ASTM A351 CF8M
2	Cap	ASTM A351 CF8M
3	Ball	ASTM A351 CF8M
4	Stem	ASTM A276-316
5	Gland Ring	AISI 304
6	Ball Seat	RTFE
7	Body Seal	PTFE
8	Packing	PTFE
9	Thrust Washer	AISI 304
10	Stem Washer	AISI 304
11	Nut	AISI 304
12	Handle	AISI 304
13	Handle Sleeve	PVC
14	Lock Device	AISI 304



Size	d	L	W	H	H1	H2	A	B	T	N	S	M	Torque* Inch / Lbs.	CV Factor Approx.	Wt. (Lbs.) Approx.
3/4"	0.79	3.03	4.92	2.36	0.53	1.20	1.22	3/8"	0.26	0.83	1.37	1/4" - 20 UNC	65	51	1.16
1"	0.98	3.54	6.30	2.91	0.61	1.49	1.48	7/16"	0.31	0.91	1.37	1/4" - 20 UNC	80	68	1.98
1-1/4"	1.26	3.94	6.30	3.15	0.81	1.49	1.48	7/16"	0.31	0.91	1.37	1/4" - 20 UNC	140	120	2.88
1-1/2"	1.50	4.65	7.48	3.62	0.87	1.71	1.74	1/2"	0.35	0.91	1.46	1/4" - 20 UNC	180	170	4.19
2"	1.97	5.43	7.48	3.98	0.87	1.58	1.83	1/2"	0.35	1.35	1.50	1/4" - 20 UNC	215	378	7.05
2-1/2"	2.56	6.57	9.65	5.12	1.18	2.17	2.40	3/4"	0.47	1.42	2.13	1/4" - 20 UNC	700	510	14.90
3"	3.15	7.89	9.65	5.58	1.18	2.17	2.40	3/4"	0.47	1.42	2.24	5/16" - 18 UNC	816	996	26.40
4"	3.94	10.24	12.80	6.85	1.52	2.97	2.90	1"	0.63	1.95	2.44	5/16" - 18 UNC	850	1893	50.70

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.



# VALVES

## STAINLESS STEEL THREE PIECE BALL VALVE

1/4" - 2" 1500 PSI W.O.G.  
 2-1/2" - 4" 1000 PSI W.O.G.  
 THREADED & SOCKETWELD  
 ACTUATOR MOUNTING PAD (3/4"-4" SIZES)

FULL PORT  
 BLOW-OUT PROOF STEM  
 LOCKING DEVICE

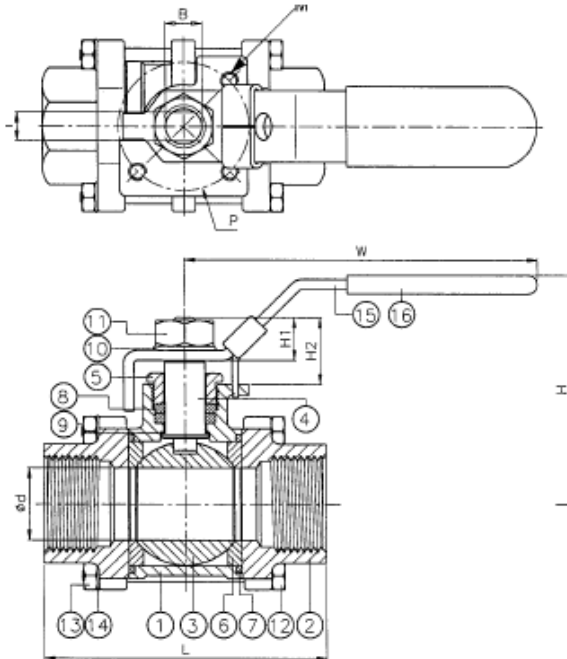
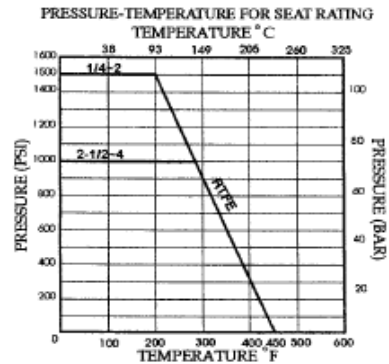


FIGURE NUMBER 1030

ITEM	PART NAME	MATERIAL
1	Body	ASTM A351 CF8M
2	Cap	ASTM A351 CF8M
3	Ball	ASTM A351 CF8M
4	Stem	ASTM A276 316
5	Gland Nut	AISI 304
6	Ball Seat	RTFE
7	Body Seal	PTFE
8	Packing	PTFE
9	Thrust Washer	PTFE
10	Stem Washer	AISI 304
11	Stem Nut	AISI 304
12	Bolt	AISI 304
13	Bolt Nut	AISI 304
14	Spring Washer	AISI 304
15	Handle	AISI 304
16	Handle Sleeve	PVC



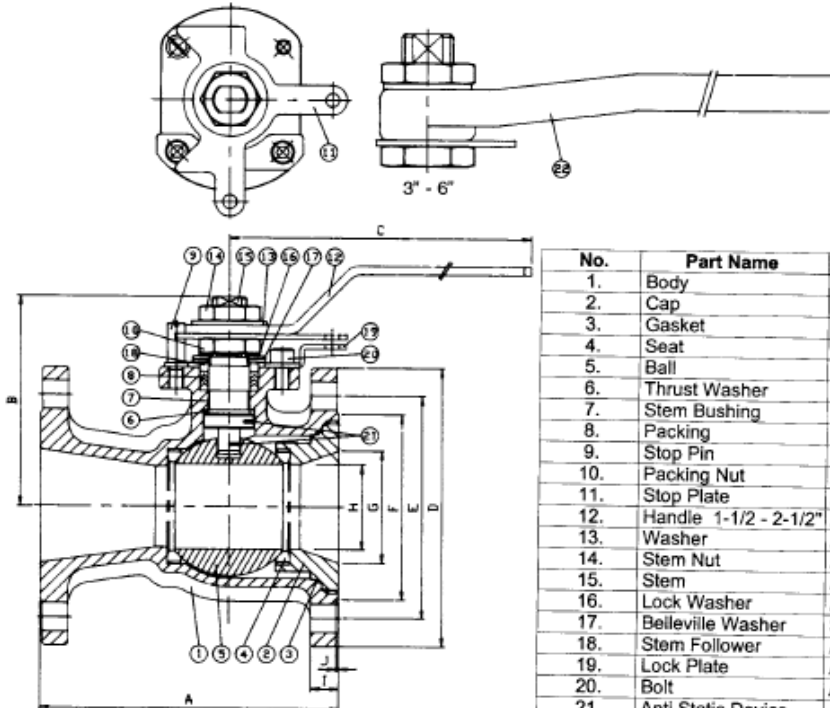
Size	d	L	W	H	H1	H2	B	T	P	M	Torque * Inch / lb.	CV Factor Approx.	Wt. (Lbs.) Approx.
1/4"	0.46	2.56	4.13	2.01	0.40	0.55	5/16"	0.20	1.4	3/16" - 24 UNC	36	8.1	0.90
3/8"	0.50	2.56	4.13	2.01	0.40	0.55	5/16"	0.20	1.4	3/16" - 24 UNC	37	14	0.88
1/2"	0.59	2.60	4.92	2.17	0.50	0.73	3/8"	0.26	1.4	3/16" - 24 UNC	50	26	1.43
3/4"	0.79	3.19	4.92	2.36	0.53	0.79	3/8"	0.28	1.4	3/16" - 24 UNC	116	51	1.76
1"	0.98	3.74	6.30	2.91	0.63	0.94	7/16"	0.31	1.7	3/16" - 24 UNC	160	68	2.64
1-1/4"	1.26	4.29	6.30	3.15	0.83	0.94	7/16"	0.31	2	1/4" - 20 UNC	186	120	4.51
1-1/2"	1.50	5.12	7.48	3.62	0.87	1.02	1/2"	0.35	2	1/4" - 20 UNC	240	170	6.16
2"	2.00	5.94	7.48	3.98	0.87	1.02	1/2"	0.35	2.8	5/16" - 18 UNC	380	376	9.57
2-1/2"	2.56	7.09	9.65	5.12	1.16	1.61	3/4"	0.47	2.8	5/16" - 18 UNC	486	510	18.48
3"	3.15	8.11	9.65	5.59	1.16	1.61	3/4"	0.47	4	3/8" - 16 UNC	840	996	31.9
4"	3.94	10.37	12.80	6.85	1.47	1.89	1"	0.63	4	3/8" - 16 UNC	990	1893	58.3

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.

# warren VALVES

## STAINLESS STEEL CAST BALL VALVES

### 1-1/2" - 6" CLASS 150 REDUCED PORT



No.	Part Name	Material
1.	Body	ASTM A351 Gr. CF8M
2.	Cap	ASTM A351 Gr. CF8M
3.	Gasket	RTFE
4.	Seat	RTFE
5.	Ball	ASTM A351 Gr. CF8M
6.	Thrust Washer	RTFE
7.	Stem Bushing	RTFE
8.	Packing	PTFE
9.	Stop Pin	ASTM 276 Gr. 304
10.	Packing Nut	ASTM A194 Gr.8
11.	Stop Plate	ASTM A276 Gr. 304
12.	Handle 1-1/2 - 2-1/2"	ASTM A276 Gr. 304
13.	Washer	ASTM A276 Gr. 304
14.	Stem Nut	ASTM A194 Gr. 8
15.	Stem	ASTM A276 Gr. 316
16.	Lock Washer	ASTM A276 Gr. 304
17.	Belleville Washer	Stainless Steel
18.	Stem Follower	ASTM A276 Gr. 316
19.	Lock Plate	ASTM A276 Gr. 304
20.	Bolt	ASTM A193 Gr. B8
21.	Anti Static Device	ASTM A276 Gr. 304
22.	Handle 3" - 6"	ASTM A536 Gr. FCD45

**FIGURE NUMBER 5156**

**Features**

- Blow Out Proof Stem
- Anti Static Device
- Locking Device
- ISO 5211 Actuator Mounting Pad

**Applicable Standards**

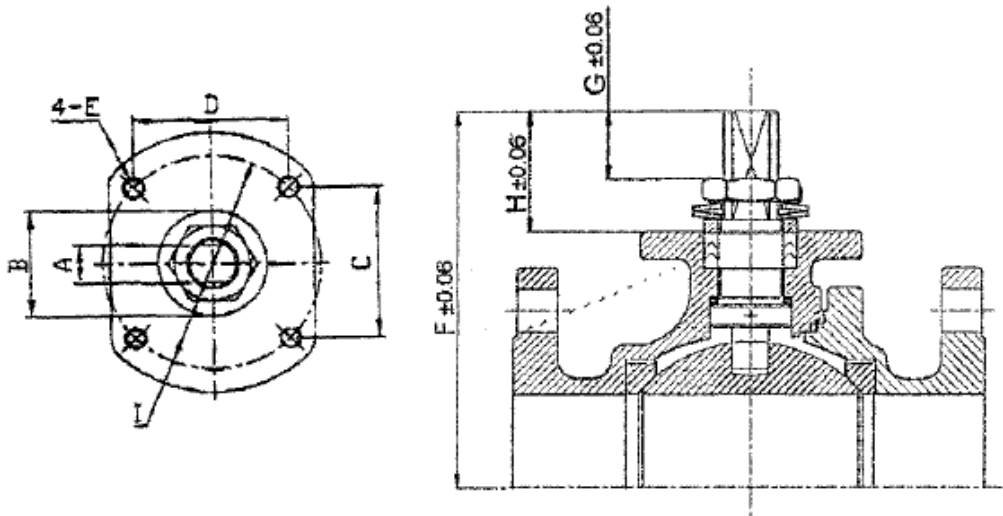
- Shell wall thickness ANSI B16.34
- Face-to-Face Dimensions ANSI B16.10
- End Flange Dimensions ANSI B16.5
- Pressure Temperature Rating (valve shell) ANSI B16.34
- Pressure Test API 598

Valve Size	A	B	C	D	E	F	G	H	I	J	Cv Values Approx.	Torque Values * (In. - Lbs.)	Number of Holes & Diameter	Weight (Lbs.) Approx.
1-1/2"	6.50	3.31	5.60	5.00	3.88	2.88	1.50	1.25	0.56	1/16	125	180	4-5/8"	11
2"	7.00	4.35	7.90	6.00	4.75	3.62	2.00	1.50	0.62	1/16	165	200	4-3/4"	16
2-1/2"	7.50	4.61	7.90	7.00	5.50	4.12	2.50	2.00	0.69	1/16	240	325	4-3/4"	24
3"	8.00	6.30	13.80	7.50	6.00	5.00	3.00	2.50	0.75	1/16	290	550	4-3/4"	31
4"	9.00	7.25	13.80	9.00	7.50	6.19	4.00	3.25	0.94	1/16	690	800	8-3/4"	52
6"	10.50	9.85	30.00	11.00	9.50	8.50	6.00	4.50	1.00	1/16	900	1500	8-7/8"	100

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.

# Warren® VALVES

## MOUNTING PAD DIMENSIONS CLASS 150



### REDUCED PORT 150

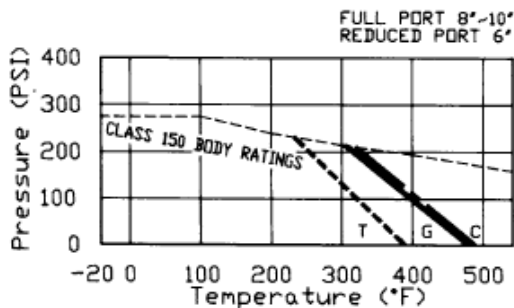
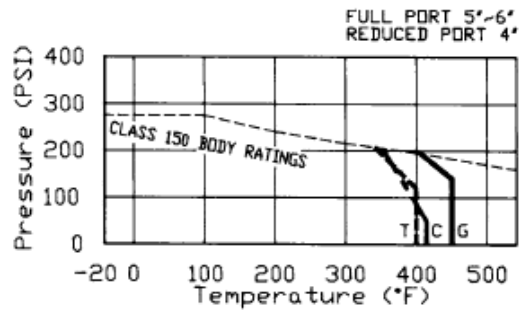
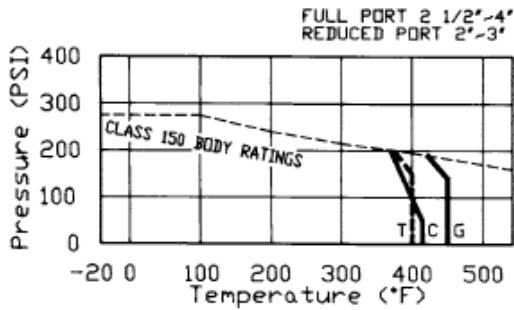
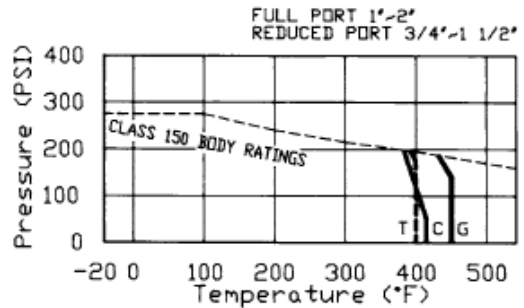
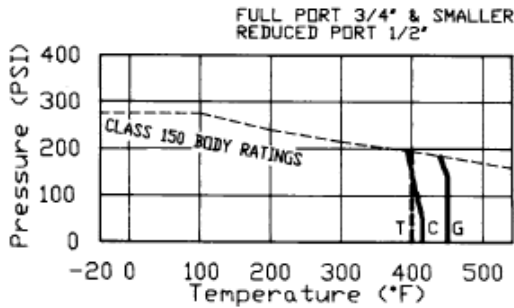
Size	A	B	C & D	E	F	G	H	I	ISO 5211
1-1/2"	0.475	1.260	1.394	1/4" - 20UNC	3.287	0.551	1.043	1.969	F07
2"	0.512	1.260	1.949	5/16" - 18UNC	4.350	0.807	1.595	2.756	F07
2-1/2"	0.512	1.260	1.949	5/16" - 18UNC	4.646	0.807	1.595	2.756	F07
3"	0.713	1.969	2.840	3/8" - 18UNC	6.319	1.693	2.658	4.016	F10
4"	0.713	1.969	2.840	3/8" - 18UNC	7.205	1.575	2.480	4.016	F10
6"	1.124	2.756	3.480	1/2" - 13UNC	9.843	2.658	3.661	4.921	F12



# Warren VALVES

## PRESSURE TEMPERATURE RATINGS

### CLASS 150



#### SEAT MATERIALS:

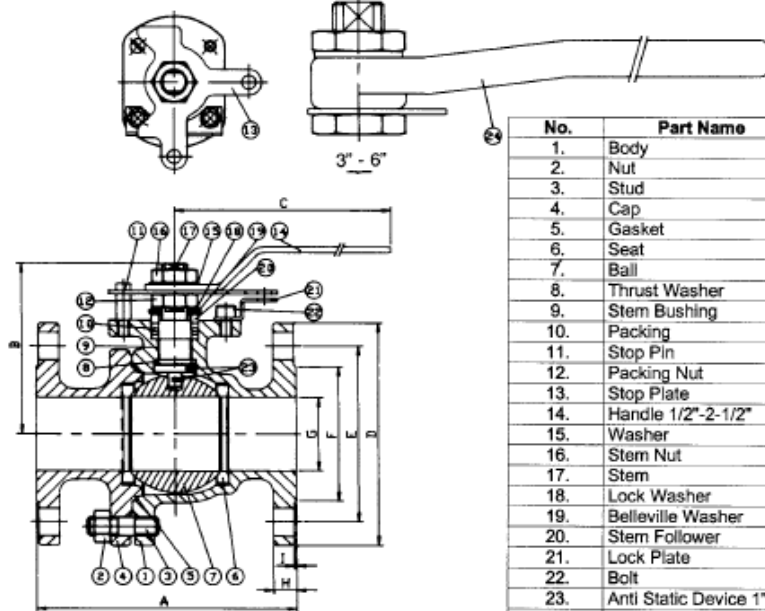
- T Virgin PTFE
- G Glass Filled PTFE
- C Carbon Filled PTFE

Body ratings are  
for ASTM A351 Gr. CF8M

# warren VALVES

## STAINLESS STEEL CAST BALL VALVES

### 1/2" - 6" CLASS 150 FULLPORT



**FIGURE NUMBER 6156**

No.	Part Name	Material
1.	Body	ASTM A351 Gr. CF8M
2.	Nut	ASTM A194 Gr. 8
3.	Stud	ASTM A193 Gr. B8
4.	Cap	ASTM A351 Gr. CF8M
5.	Gasket	RTFE
6.	Seat	RTFE
7.	Ball	ASTM A351 Gr. CF8M
8.	Thrust Washer	RTFE
9.	Stem Bushing	RTFE
10.	Packing	PTFE
11.	Stop Pin	ASTM A276 Gr. 304
12.	Packing Nut	ASTM A194 Gr. 8
13.	Stop Plate	ASTM A276 Gr. 304
14.	Handle 1/2"-2-1/2"	ASTM A276 Gr. 304
15.	Washer	ASTM A276 Gr. 304
16.	Stem Nut	ASTM A194 Gr. 8
17.	Stem	ASTM A276 Gr. 316
18.	Lock Washer	ASTM A276 Gr. 304
19.	Belleville Washer	Stainless Steel
20.	Stem Follower	ASTM A276 Gr. 316
21.	Lock Plate	ASTM A276 Gr. 304
22.	Bolt	ASTM A193 Gr. B8
23.	Anti Static Device 1" - 6"	ASTM A276 Gr. 304
24.	Handle 3"-6"	ASTM A536 Gr. FCD45

#### Features

Blow Out Proof Stem  
Anti Static Device  
Locking Device  
ISO 5211 Actuator Mounting Pad

#### Applicable Standards

Shell wall thickness ANSI B16.34  
Face-to-Face Dimensions ANSI B16.10  
End Flange Dimensions ANSI B16.5  
Pressure Temperature Rating (valve shell) ANSI B16.34  
Pressure Test API 598

Valve Size	A	B	C	D	E	F	G	H	I	Cv Values Approx.	Torque Values * (In. - Lbs.)	Number of Holes & Diameter	Weight (Lbs.) Approx.
1/2"	4.25	2.54	5.60	3.50	2.38	1.38	0.50	0.44	1/16	15	50	4-5/8"	5
3/4"	4.62	2.65	5.60	3.88	2.75	1.69	0.75	0.44	1/16	61	65	4-5/8"	6
1"	5.00	3.10	5.60	4.25	3.12	2.00	1.00	0.44	1/16	110	80	4-5/8"	8
1-1/2"	6.50	4.35	7.90	5.00	3.88	2.88	1.50	0.56	1/16	270	200	4-5/8"	16
2"	7.00	4.65	7.90	6.00	4.75	3.62	2.00	0.62	1/16	500	325	4-3/4"	21
2-1/2"	7.50	5.35	7.90	7.00	5.50	4.12	2.50	0.69	1/16	800	450	4-3/4"	32
3"	8.00	6.85	13.80	7.50	6.00	5.00	3.00	0.75	1/16	1160	600	4-3/4"	42
4"	9.00	7.74	13.80	9.00	7.50	6.19	4.00	0.94	1/16	2120	1150	8-3/4"	68
6"	15.50	10.87	30.00	11.00	9.50	8.50	6.00	1.00	1/16	5070	3000	8-7/8"	166

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.

# warren VALVES

## STAINLESS STEEL CAST BALL VALVES

### 8" - 10" CLASS 150 FULLPORT

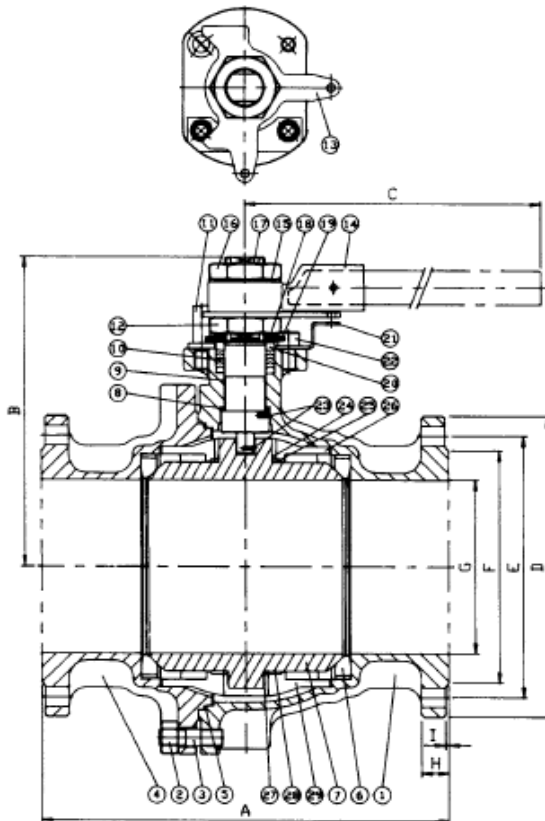


FIGURE NUMBER 6156

#### Features

Blow Out Proof Stem  
Anti Static Device  
Locking Device  
4- Bolt Design Actuator Mounting Pad

#### Applicable Standards

Shell wall thickness ANSI B16.34  
Face-to-Face Dimensions ANSI B16.10  
End Flange Dimensions ANSI B16.5  
Pressure Temperature Rating (valve shell) ANSI B16.34  
Pressure Test API 598

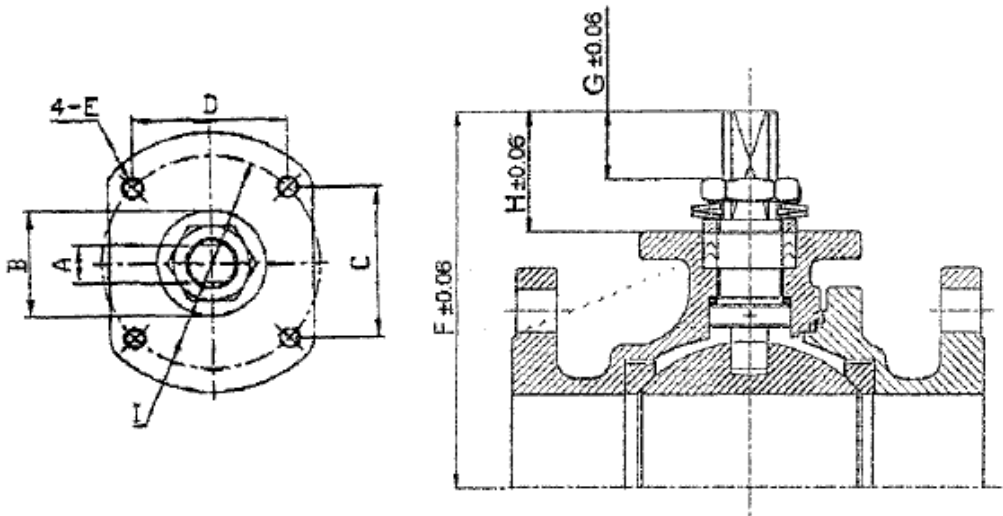
No.	Part Name	Material
1.	Body	ASTM A351 Gr. CF8M
2.	Nut	ASTM A194 Gr. 8
3.	Stud	ASTM A193 Gr. B8
4.	Cap	ASTM A351 Gr. CF8M
5.	Gasket	RTFE
6.	Seat	RTFE
7.	Ball	ASTM A351 Gr. CF8M
8.	Thrust Washer	RTFE
9.	Stem Bushing	RTFE
10.	Packing	PTFE
11.	Stop Pin	ASTM A276 Gr. 304
12.	Packing Nut	ASTM A194 Gr. 8
13.	Stop Plate	ASTM A276 Gr. 304
14.	Handle Adapter	ASTM A351 Gr. CF8
15.	Washer	ASTM A276 Gr. 304
16.	Stem Nut	ASTM A194 Gr. 8
17.	Stem	ASTM A276 Gr. 316
18.	Lock Washer	ASTM A276 Gr. 304
19.	Belleville Washer	Stainless Steel
20.	Stem Follower	ASTM A276 Gr. 316
21.	Lock Plate	ASTM A276 Gr. 304
22.	Bolt	ASTM A193 Gr. B8
23.	Anti Static Device	ASTM A276 Gr. 304
24.	Bearing	PTFE
25.	Gasket	MG-1241
26.	Support	ASTM A351 Gr. CF8M
27.	Bearing	PTFE
28.	Gasket	MG-1241
29.	Support	ASTM A351 Gr. CF8M

Valve Size	A	B	C	D	E	F	G	H	I	Cv Values Approx.	Number Torque Values (In. - Lbs.)	Number of Holes & Diameter	Weight (Lbs.) Approx.
8"	18.00	13.90	30.00	13.50	11.75	10.62	8.00	1.12	1/16	9340	8300	8-7/8"	358
10"	21.00	15.40	40.00	16.00	14.25	12.75	10.00	1.19	1/16	14589	17000	12-1"	547

\*Estimated torque factors are at full differential pressure and clean service. Certain applications can alter the valve torque significantly. Please take into consideration your service conditions, differential pressure, frequency of operation, temperature, etc. when sizing actuators for our valves.

# Warren® VALVES

## MOUNTING PAD DIMENSIONS CLASS 150



FULL PORT CLASS 150

Size	A	B	C & D	E	F	G	H	I	ISO 5211
1/2"	0.354	0.984	1.169	1/4" - 20UNC	2.598	0.650	0.906	1.653	F04
3/4"	0.354	0.984	1.169	1/4" - 20UNC	2.717	0.669	0.925	1.653	F04
1"	0.475	1.260	1.394	1/4" - 20UNC	3.071	0.610	1.024	1.969	F05
1-1/2"	0.512	1.260	1.949	5/16" - 18UNC	4.350	0.787	1.575	2.756	F07
2"	0.512	1.260	1.949	5/16" - 18UNC	4.646	0.787	1.575	2.756	F07
2-1/2"	0.512	1.260	1.949	5/16" - 18UNC	5.498	0.752	1.536	2.756	F07
3"	0.713	1.969	2.840	3/8" - 16UNC	6.969	1.614	2.520	4.016	F10
4"	0.713	1.969	2.840	3/8" - 16UNC	7.717	1.535	2.441	4.016	F10
6"	1.124	2.756	3.480	1/2" - 13UNC	10.787	2.600	3.661	4.921	F12
8"	1.260	3.543	3.898	5/8" - 11UNC	14.000	2.980	4.095	5.512	F14
10"	1.575	4.488	4.593	3/4" - 10UNC	15.453	2.913	4.626	6.500	F16



# VALVES

## Series W10 Seal Welded Ball Valves 1/4" - 3" 1000 WOG

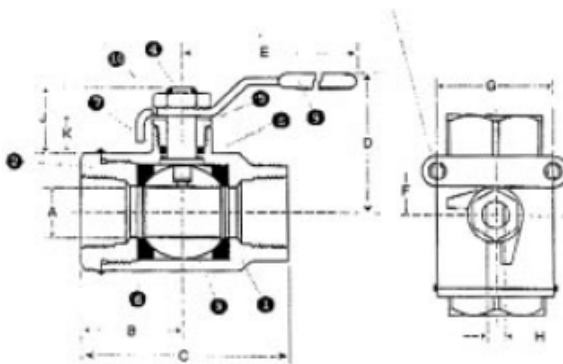


### FEATURES

- SEAL WELDED CONSTRUCTION
- All sizes are Full Port
- 1000 WOG Rating
- NACE MR-01-75 Compliant
- CF8M Bodies and Tailpieces, 316 Stainless Steel Internals
- Standard Actuator Mounting Pads on all sizes
- Standard Locking Stainless Steel Handles
- Locking Stainless Steel Oval Handles Available
- The Ultimate in Safe Design

MOUNTING HOLES  
1/4" - 3/4".....10-24 NC  
1" - 3".....1/4-20 NC

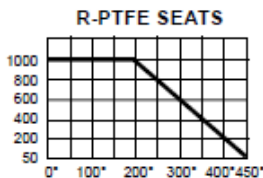
**RATINGS**  
1000 PSIG @ 100F WATER, OIL, GAS  
150 PSIG SATURATED STEAM



### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL	OPTIONAL MATERIAL
1	BODY	ASTM A351 Gr.CF8M	
2	TAILPIECE	ASTM A351 Gr.CF8M	
3	BALL	ASTM A276 Gr.316	
4	STEM	ASTM A276 Gr.316	
5	PACKING NUT	ASTM A276 Gr.316	
6	SEATS (2)	R-PTFE	Steam Seats
7	PACKING	R-PTFE	Graphite
8	THRUST WASHER	R-PTFE	
9	HANDLE ASSY	Stainless Steel w/Vnyl	Stainless Locking Oval
10	HANDLE NUT	Stainless Steel	

### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

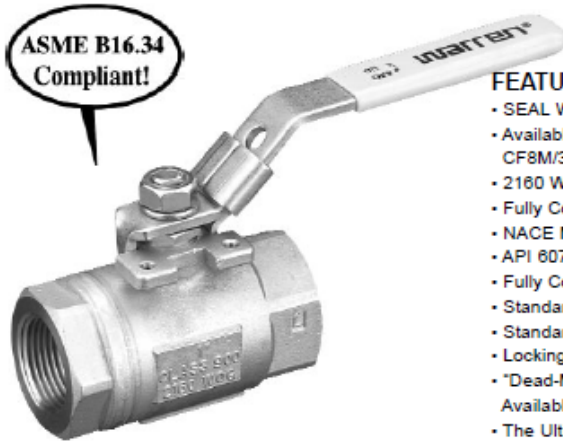


SIZE	A	B	C	D	E	F	G	H	J	K	WEIGHT LBS.	Cv Value	MAX TORQUE
1/4-3/8"	0.43	1.10	2.20	2.20	4.20	0.50	1.12	0.20	0.82	0.49	0.58	10	60 IN-LB
1/2"	0.56	1.30	2.60	2.30	4.30	0.50	1.38	0.20	0.98	0.58	0.75	16	60 IN-LB
3/4"	0.81	1.50	3.00	2.60	5.80	0.87	1.38	0.28	1.32	0.71	1.47	32	120 IN-LB
1"	1.00	1.70	3.50	3.00	5.80	0.87	1.50	0.28	1.32	0.71	2.23	62	160 IN-LB
1-1/4"	1.25	2.00	4.00	3.60	7.50	0.93	1.50	0.35	1.44	0.81	3.47	115	180 IN-LB
1-1/2"	1.50	2.20	4.40	3.90	7.50	0.93	1.50	0.35	1.46	0.81	5.35	140	260 IN-LB
2"	2.00	2.50	5.00	4.30	8.10	1.00	1.50	0.35	1.46	0.82	7.99	365	350 IN-LB
2-1/2"	2.50	3.30	6.60	5.00	10	1.37	2.75	0.39	1.87	0.94	15.1	450	420 IN-LB
3"	3.00	3.60	7.20	5.40	10	1.37	2.75	0.39	1.80	0.85	22.1	1100	800 IN-LB

# Warren® VALVES

## Series W21

### Seal Welded High Pressure Ball Valves 1/4" - 2" ASME Class 900

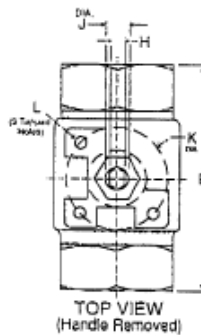
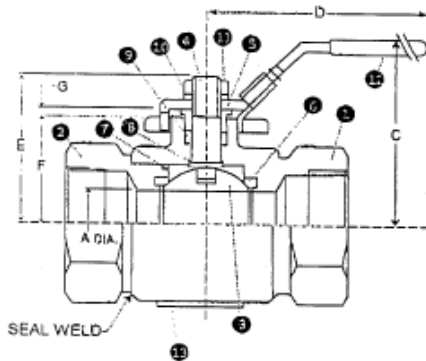


#### FEATURES

- SEAL WELDED CONSTRUCTION
- Available in WCB Carbon Steel with 316SS Trim, or Full CF8M/316 Stainless
- 2160 WOG Rating on CF8M, 2220 WOG on WCB
- Fully Compliant with ASME B16.34 Class 900
- NACE MR-01-75 Compliant
- API 607 Fourth Edition Fire Safe
- Fully Compliant with API 608
- Standard ISO Actuator Mounting Pads on all sizes
- Standard Locking Stainless Steel Handles
- Locking Stainless Steel Oval Handles Available
- "Dead-Man" Spring Return Stainless Steel Handle Available 1/4"-1" Sizes
- The Ultimate Valve for Safe High Pressure Service

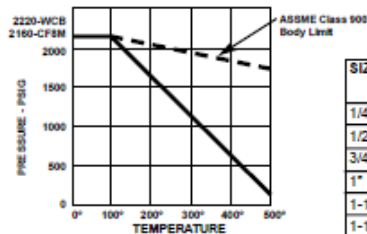
#### RATINGS

2160 PSIG @ 100F WATER, OIL, GAS (CF8M)  
2220 PSIG @ 100F WATER, OIL, GAS (WCB)  
250 PSIG SAT. STEAM



#### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	CF8M or WCB
2	TAILPIECE	CF8M or WCB
3	BALL	ASTM A276 Gr.316 SS
4	STEM	ASTM A276 Gr.316 SS
5	PACKING NUT	ASTM A276 Gr.316 SS
6	SEATS (2)	R-PTFE
7	TAILPIECE SEAL	GRAPHITE
8	THRUST WASHER	R-PTFE
9	STEM PACKING	GRAPHITE
10	LOCK WASHER	304 SS
11	HANDLE ASSY	304 SS
12	HANDLE NUT	304 SS
13	NAME PLATE	304 SS



#### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A	B	C	D	E	F	G	H	J	K	L	ISO	WEIGHT	Cv	MAX
										DIA	(2 tapped holes)	PATTERN	LBS.		TORQUE
1/4-3/8"	0.43	2.65	2.23	5.04	1.53	0.78	0.35	0.20	0.31	1.42	1/4"-20 UNC	F03	1.00	10	40 IN-LB
1/2"	0.43	2.65	2.23	5.04	1.53	0.78	0.35	0.20	0.31	1.42	1/4"-20 UNC	F03	1.00	16	75 IN-LB
3/4"	0.59	3.08	2.72	5.75	2.06	1.03	0.43	0.28	0.44	1.65	1/4"-20 UNC	F04	1.80	27	120 IN-LB
1"	0.81	3.54	2.87	5.75	2.33	1.34	0.40	0.28	0.44	1.65	1/4"-20 UNC	F04	2.50	42	140 IN-LB
1-1/4"	1.00	4.01	3.47	7.36	2.76	1.61	0.45	0.35	0.56	1.97	1/4"-20 UNC	F05	3.90	52	250 IN-LB
1-1/2"	1.25	4.26	3.69	7.36	2.98	1.83	0.45	0.35	0.56	1.97	1/4"-20 UNC	F05	5.50	80	300 IN-LB
2"	1.50	4.94	3.39	7.36	3.18	2.00	0.47	0.35	0.56	1.97	1/4"-20 UNC	F05	8.50	115	320 IN-LB

# Warren® VALVES

## Series W36

### Seal Welded HIGH Pressure Ball Valves 1/4" - 2" ASME Class 1500

#### FEATURES

- SEAL WELDED CONSTRUCTION
  - Full Port and Reduced Port Available
  - Available in WCB Carbon Steel with 316SS Trim, or CF8M/316 Stainless
  - 3600 WOG Rating on CF8M, 3705 WOG on WCB
  - Fully Compliant with ASME B16.34 Class 1500
  - NPT Ends Standard with Delrin Seats & Viton Seals
- Socket Weld Ends Standard with PEEK Seats & Viton Seals
  - NACE MR-01-75 Compliant
  - API 607 Fourth Edition Fire Safe
  - Fully Compliant with API 608
  - Standard ISO Actuator Mounting Pads on all sizes
  - Standard Locking Stainless Steel Handles
  - "Dead-Man" Spring Return Stainless Steel Handle Available
  - 1/4"-1" Sizes
  - The Ultimate Valve for Safe High Pressure Service

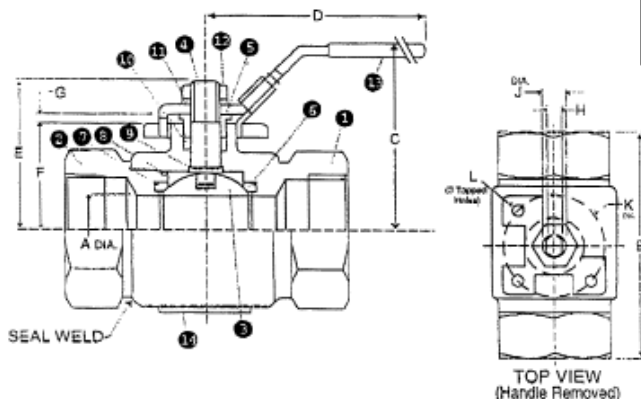


ASME B16.34 Compliant!

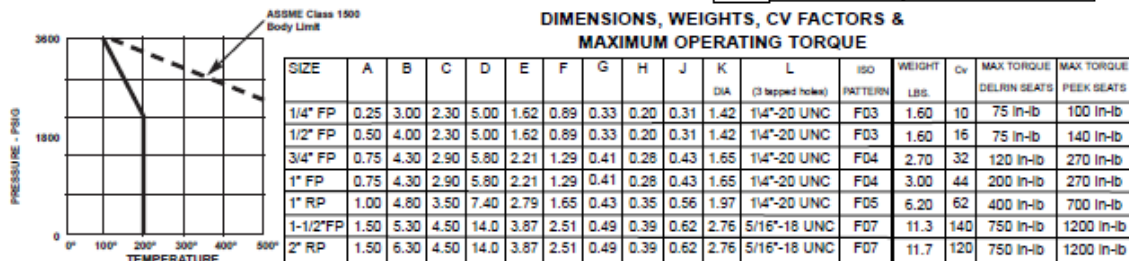
**RATINGS**  
3800 PSIG @ 100F WATER, OIL, GAS (CF8M)  
3705 PSIG @ 100F WATER, OIL, GAS (WCB)  
NO STEAM SERVICE RATING (DELTRIN SEATS)

#### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	CF8M OR WCB
2	TAILPIECE	CF8M OR WCB
3	BALL	ASTM A276 Gr-316 SS
4	STEM	ASTM A276 Gr-316 SS (1/4"-1") 174-PH (1-1/2"-2")
5	PACKING NUT	ASTM A276 Gr-316 SS
6	SEATS (2)	Delrin 100AF (NPT ends) PEEK (Socket Weld ends)
7	SEAT SEAL (2)	VITON
8	TAILPIECE SEAL	GRAPHITE
9	THRUST WASHER	PTFE
10	STEM PACKING	GRAPHITE
11	LOCK WASHER	304 SS
12	HANDLE ASSY	304 SS
13	HANDLE NUT	304 SS
14	NAME PLATE	300 SS



#### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE





# VALVES

## Series W20 Seal Welded Ball Valves 1/4" - 2" 2000 WOG

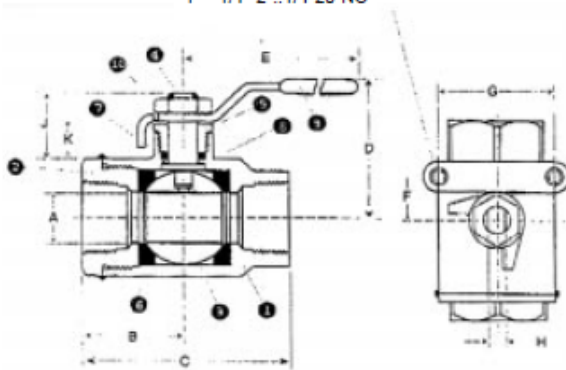


### FEATURES

- SEAL WELDED CONSTRUCTION
- 2000 WOG Rating on all sizes
- NACE MR-01-75 Compliant
- CF8M Bodies and Tailpieces, 316 Stainless Steel Internals
- Available in Male X Female Construction in 1/4"-1" Sizes
- Standard Actuator Mounting Pads on all sizes
- Standard Locking Stainless Steel Handles
- Locking Stainless Steel Oval Handles Available
- The Ultimate in Safe Design

MOUNTING HOLES  
1/4" - 1".....10-24 NC  
1" - 1/4"-2".....1/4-20 NC

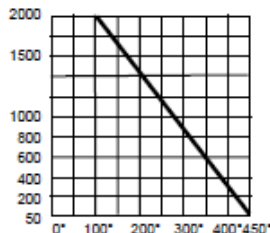
**RATINGS**  
2000 PSIG @ 100F WATER, OIL, GAS  
150 PSIG SATURATED STEAM



### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL	OPTIONAL MATERIAL
1	BODY	ASTM A351 Gr.CF8M	ASTM A351 GR. CF8M
2	TAILPIECE	ASTM A351 Gr.CF8M	ASTM A351 GR. CF8M
3	BALL	ASTM A276 Gr.316	Alloy 20
4	STEM	ASTM A276 Gr.316	Alloy 20
5	PACKING NUT	ASTM A276 Gr.316	Alloy 20
6	SEATS (2)	R-PTFE	Steam Seats, PEEK
7	PACKING	R-PTFE	Graphite, PEEK
8	THRUST WASHER	R-PTFE	PEEK
9	HANDLE ASSY	Stainless Steel w/Vinyl	Stainless Locking Oval
10	HANDLE NUT	Stainless Steel	

### R-PTFE SEATS



### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

SIZE	A	B	C	D	E	F	G	H	J	K	WEIGHT LBS.	Cv Value	MAX TORQUE
1/4-3/8"	0.38	1.10	2.20	1.80	4.40	0.50	1.12	0.20	0.86	0.50	0.50	9	40 IN-LB
1/2"	0.50	1.20	2.40	2.00	4.40	0.50	1.12	0.20	0.96	0.55	0.66	16	75 IN-LB
3/4"	0.69	1.40	2.80	2.40	5.90	0.87	1.38	0.28	1.32	0.71	1.32	27	120 IN-LB
1"	0.87	1.60	3.20	2.60	5.90	0.87	1.38	0.28	1.31	0.70	1.81	42	140 IN-LB
1-1/4"	1.00	1.80	3.60	2.80	7.80	0.93	1.50	0.35	1.42	0.76	2.51	52	250 IN-LB
1-1/2"	1.30	2.10	4.10	3.00	7.80	0.93	1.50	0.35	1.42	0.76	3.74	80	300 IN-LB
2"	1.50	2.30	4.60	3.20	7.80	0.93	1.50	0.35	1.42	0.77	5.53	115	320 IN-LB



# warren® VALVES

## Series W60 Seal Welded Extreme Pressure Ball Valves 1/4" - 2" ASME CLASS 2500

### FEATURES

- SEAL WELDED CONSTRUCTION
- Full Port and Reduced Port Available
- Available in WCB Carbon Steel with 316SS Trim, or CF8M/316 Stainless
- 6000 WOG Rating on CF8M, 6170 WOG on WCB
- Fully Compliant with ASME B16.34 Class 2500
- PEEK Seats and Viton Seats are Standard
- NPT, MxF NPT and Socket Weld Ends Available
- NACE MR-01-75 Compliant
- API 607 Fourth Edition Fire Safe
- Fully Compliant with API 608
- Standard ISO Actuator Mounting Pads on all Sizes
- Standard Locking Stainless Steel Handles
- The Ultimate Valve for Safe Extreme Pressure Service



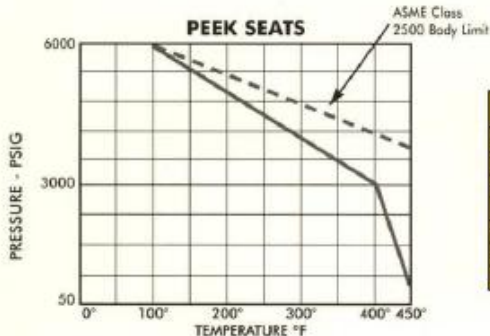
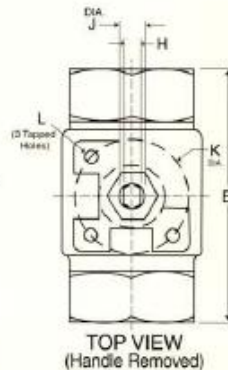
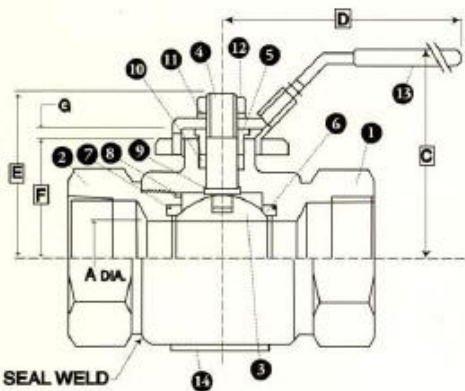
**ASME B16.34 Compliant!**

### RATINGS

6000 PSIG @ 100F WATER, OIL, GAS (CF8M)  
6170 PSIG @ 100F WATER, OIL, GAS (WCB)  
250 PSIG SATURATED STEAM (PEEK SEATS)

### MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	CF8M OR WCB
2	TAILPIECE	CF8M OR WCB
3	BALL	ASTM A276 GR. 316 SS
4	STEM	ASTM A276 GR. 316 SS (1/4" - 1 1/2") 174-PH (1 1/2" - 2")
5	PACKING NUT	ASTM A276 GR. 316 SS
6	SEATS (2)	PEEK
8	TAILPIECE SEAL	GRAPHITE
9	THRUST WASHER	PEEK
10	STEM PACKING	GRAPHITE
11	LOCK WASHER	304 SS
12	HANDLE NUT	304 SS
13	HANDLE ASSY.	304 SS
14	NAME PLATE	300 SS



### DIMENSIONS, WEIGHTS, CV FACTORS & MAXIMUM OPERATING TORQUE

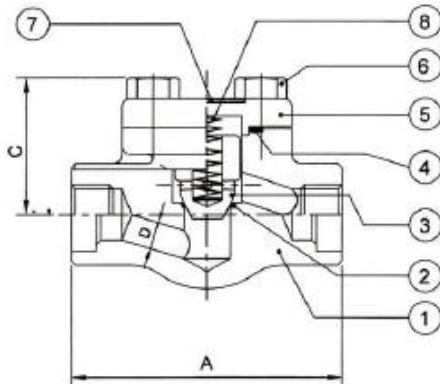
SIZE	A	B	C	D	E	F	G	H	J	K	L	ISO	WEIGHT	CV	MAX TORQUE
											(Ø SAPPED HOLES)	(PATTERN)	LB.		in-lb
1/4" FP	.25	3.0	2.3	5.0	1.62	.89	.33	.20	.31	1.42	1/4"-20 UNC	F03	1.7	10	100 in-lb
1/2" FP	.50	4.0	2.3	5.0	1.62	.89	.33	.20	.31	1.42	1/4"-20 UNC	F03	1.7	16	140 in-lb
3/4" FP	.75	4.3	2.9	5.8	2.21	1.29	.41	.28	.43	1.65	1/4"-20 UNC	F04	3.5	32	270 in-lb
1" RP	.75	4.3	2.9	5.8	2.21	1.29	.41	.28	.43	1.65	1/4"-20 UNC	F04	3.6	44	270 in-lb
1" FP	1.0	4.8	3.5	7.4	2.79	1.65	.43	.35	.56	1.97	1/4"-20 UNC	F05	6.8	62	700 in-lb
1-1/2" FP	1.5	5.3	4.5	14.0	3.87	2.51	.49	.39	.62	2.76	5/16"-18UNC	F07	15.7	140	1200 in-lb
2" RP	1.5	6.3	4.5	14.0	3.87	2.51	.49	.39	.62	2.76	5/16"-18UNC	F07	16.0	120	1200 in-lb



## FORGED STAINLESS STEEL LIFT CHECK VALVES

CLASS 800 & 1500  
CONVENTIONAL PORT  
BOLTED CAP

SPRING LOADED  
THREADED OR SOCKET WELD



No.	Parts	Materials	ASTM
1.	Body	Forged Steel	A182-F316L
2.	Seat	Stellite #6	
3.	Disc	Stainless Steel	A351-CF8M
4.	Gasket	Spiral Wound Type 316 + Graphite	
5.	Cover	Forged Steel	A182-F316L
6.	Cover Bolt	Stainless Steel	A193-B8
7.	Name Plate	Stainless Steel	A240-304
8.	Spring	316 Stainless Steel	

CLASS 800 FIGURE NUMBER 804HF  
CLASS 1500 FIGURE NUMBER 1504HF

Size (Inch)	End to End A		Center to Top (open) Approx. C		Port Diameter D		Weight lbs.	
	800	1500	800	1500	800	1500	800	1500
1/4	2.99		1.81		0.25		2.20	
3/8	2.99		1.81		0.37		2.20	
1/2	2.99	3.62	1.81	2.20	0.37	0.37	2.20	3.31
3/4	3.62	4.09	2.20	2.72	0.49	0.50	3.31	4.41
1	4.09	5.51	2.60	3.35	0.73	0.63	4.41	9.04
1 - 1/4	5.51	5.75	2.95	3.98	0.93	0.87	9.04	14.11
1 - 1/2	5.51	5.75	2.95	3.98	1.20	1.06	9.04	14.11
2	5.75	8.27	3.98	4.92	1.42	1.38	14.11	21.61