



CAST STEEL GATE VALVES

Premium technical presentation for industrial valve supply, procurement and project coordination across Latin American energy markets.

API 600 / ASME B16.34

CL150 - CL2500

RF / RTJ / BW ENDS

PRIMARY APPLICATIONS	Oil & gas pipelines petrochemical mining chemical process
PRODUCT SCOPE	Cast steel gate valves with bolted bonnet and pressure seal options
CONTACT	www.petrogasperu.com mail@petrogasperu.com

ENGINEERED SOLUTIONS. DELIVERED FAST.

High-performance industrial products for critical operations in **Oil & Gas**, **Chemical**, **Mining**, and **Water Treatment** across Latin America.



FAST-TRACK
DELIVERIES



INDUSTRIAL
GRADE QUALITY



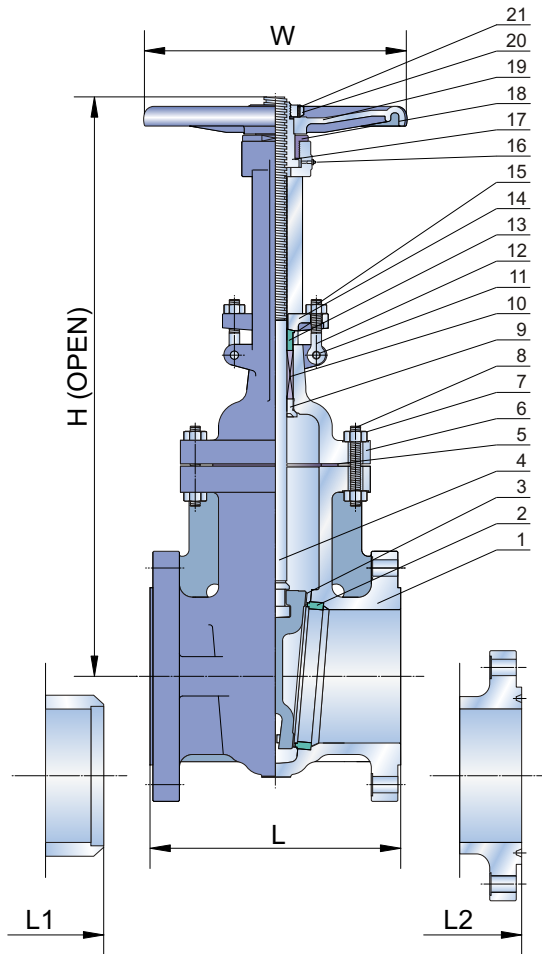
RELIABLE
PARTNER



RESPONSIVE
SERVICE

OUR PRODUCTS

- FORGINGS & CASTINGS
- SAFETY VALVES
- BREATHER VALVES
- FLAME ARRESTORS



FEATURES

OS & Y, Rising Stem
Bolted Bonnet
Flexible Wedge (2" Solid)
Extended Bonnet for Cryogenic Services
By Pass On Request
Locking Device Optional

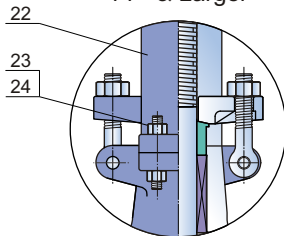
SPECIFICATIONS

Design	ASME B16.34/API 600
Face to Face	ASME B16.10
End to End	ASME B16.10
End Flange	ASME B16.5/B16.47
BW End	ASME B16.25
Test	API 598
Special	NACE MR-01-75

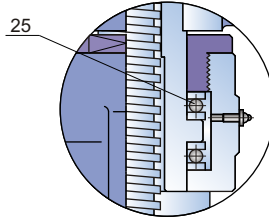
STANDARD MATERIALS OF PARTS

ITEM	PART NAME	MATERIAL
1	Body	ASTM A216 GR.WCB
2	Seat Ring	ASTM A105+Stellite Faced
3	Disc	ASTM A216 GR.WCB+13Cr Faced
4	Stem	ASTM A182 GR.F6a
5	Gasket	Soft Iron+Graphite
6	Bonnet	ASTM A216 GR.WCB
7	Bonnet Bolt Nuts	ASTM A194 GR.2H
8	Bonnet Bolts	ASTM A193 GR.B7
9	Backseat Bushing	ASTM A276 Type 410
10	Stem Packing	Braided Graphite & Die formed Graphite Ring
11	Eye Bolt Pins	Carbon Steel
12	Gland Eye Bolts	ASTM A307 GR.B
13	Gland	ASTM A276 Type 410
14	Gland Flange	ASTM A216 GR.WCB
15	Eye Bolt Nuts	ASTM A194 GR.2H
16	Grease Nipple	Carbon Steel
17	Stem Nut	ASTM A439 GR.D-2
18	Retaining Nut	Carbon Steel
19	Handwheel	Ductile Iron
20	Handwheel Nut	Carbon Steel
21	Screw	Carbon Steel
22	Yoke	ASTM A216 GR.WCB
23	Yoke Pan Bolt Nuts	ASTM A194 GR.2H
24	Yoke Pan Bolts	ASTM A193 GR.B7
25	Bearing	Steel

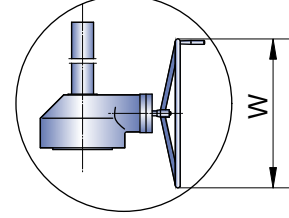
Yoke for 14" & Larger



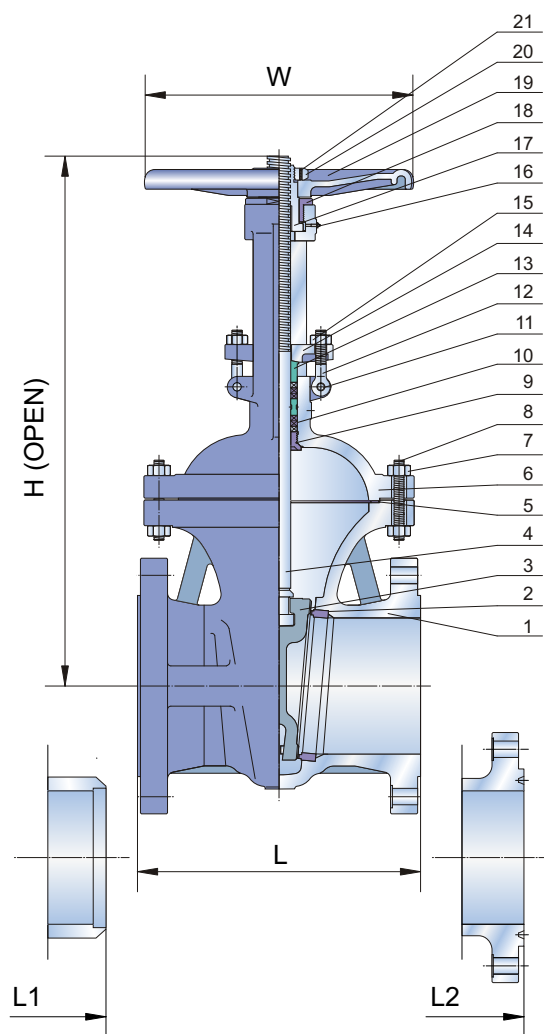
Bearing for 16" & Larger



Gear Standard for 26" & Larger



Dimensions and Weights																			Class 150				
SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"	
L	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200	
	mm	7.00	7.50	8.00	9.00	10.50	11.50	13.00	14.00	15.00	16.00	17.00	18.00	20.00	22.00	24.00	24.00	28.00	28.00	30.00	31.00	34.00	
L1	mm	178	191	203	229	267	292	330	356	381	406	432	457	508	559	610	610	660	711	762	787	864	
	mm	8.50	9.50	11.12	12.00	15.88	16.50	18.00	19.75	22.50	24.00	26.00	28.00	32.00	34.00	36.00	36.00	38.00	40.00	42.00	43.00	46.00	
L2	mm	216	241	283	305	403	419	457	502	572	610	660	711	813	864	914	914	965	1016	1067	1092	1168	
	mm	7.50	8.00	8.50	9.50	11.00	12.00	13.50	14.50	15.50	16.50	17.50	18.50	20.50	—	—	—	—	—	—	—	—	
H	mm	191	203	216	241	279	305	343	368	394	419	445	470	521	—	—	—	—	—	—	—	—	
	mm	15.31	17.28	19.69	23.43	30.59	38.39	45.67	54.72	61.22	71.30	82.80	90.55	102.72	109.45	130.98	141.97	145.98	154.49	168.50	175.39	193.31	
W	mm	389	439	500	595	777	975	1160	1390	1555	1811	2103	2300	2609	2780	3327	3606	3708	3924	4280	4455	4910	
	mm	8	8	10	10	14	14	16	18	22	24	25	27	30	24	24	24	24	24	24	32	32	
Weight RF	kg	17	23	29	47	80	129	192	287	410	571	720	1170	1466	1699	1931	2380	2490	3600	4580	4710	6500	



FEATURES

OS & Y, Rising Stem
Bolted Bonnet
Flexible Wedge (2" Solid)
Extended Bonnet for Cryogenic Services
By Pass On Request
Locking Device Optional

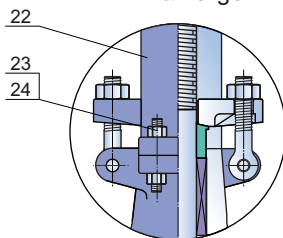
SPECIFICATIONS

Design	ASME B16.34/API 600
Face to Face	ASME B16.10
End to End	ASME B16.10
End Flange	ASME B16.5/B16.47
BW End	ASME B16.25
Test	API 598
Special	NACE MR-01-75

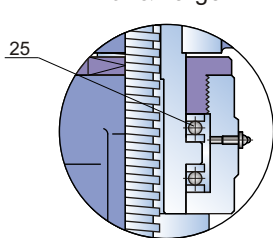
STANDARD MATERIALS OF PARTS

ITEM	PART NAME	MATERIAL
1	Body	ASTM A216 GR.WCB
2	Seat Ring	ASTM A105 + Stellite Faced
3	Disc	ASTM A216 GR.WCB+13Cr Faced
4	Stem	ASTM A182 GR.F6a
5	Gasket	Soft Iron+Graphite
6	Bonnet	ASTM A216 GR.WCB
7	Bonnet Bolt Nuts	ASTM A194 GR.2H
8	Bonnet Bolts	ASTM A193 GR.B7
9	Backseat Bushing	ASTM A276 Type 410
10	Stem Packing	Braided Graphite & Die formed Graphite Ring
11	Eye Bolt Pins	Carbon Steel
12	Gland Eye Bolts	ASTM A307 GR.B
13	Gland	ASTM A276 Type 410
14	Gland Flange	ASTM A216 GR.WCB
15	Eye Bolt Nuts	ASTM A194 GR.2H
16	Grease Nipple	Carbon Steel
17	Stem Nut	ASTM A439 GR.D-2
18	Retaining Nut	Carbon Steel
19	Handwheel	Ductile Iron
20	Handwheel Nut	Carbon Steel
21	Screw	Carbon Steel
22	Yoke	ASTM A216 GR.WCB
23	Yoke Pan Bolt Nuts	ASTM A194 GR.2H
24	Yoke Pan Bolts	ASTM A193 GR.B7
25	Bearing	Steel
26	Lantern Ring On Request	ASTM A276 Type 410

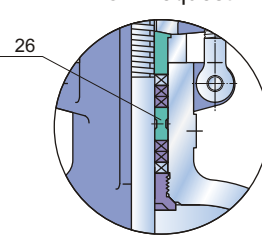
Yoke for 12" & Larger



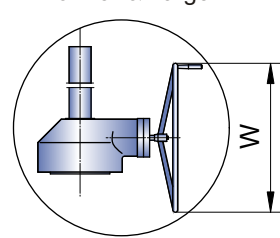
Bearing for 10" & Larger



Lantern Ring On Request



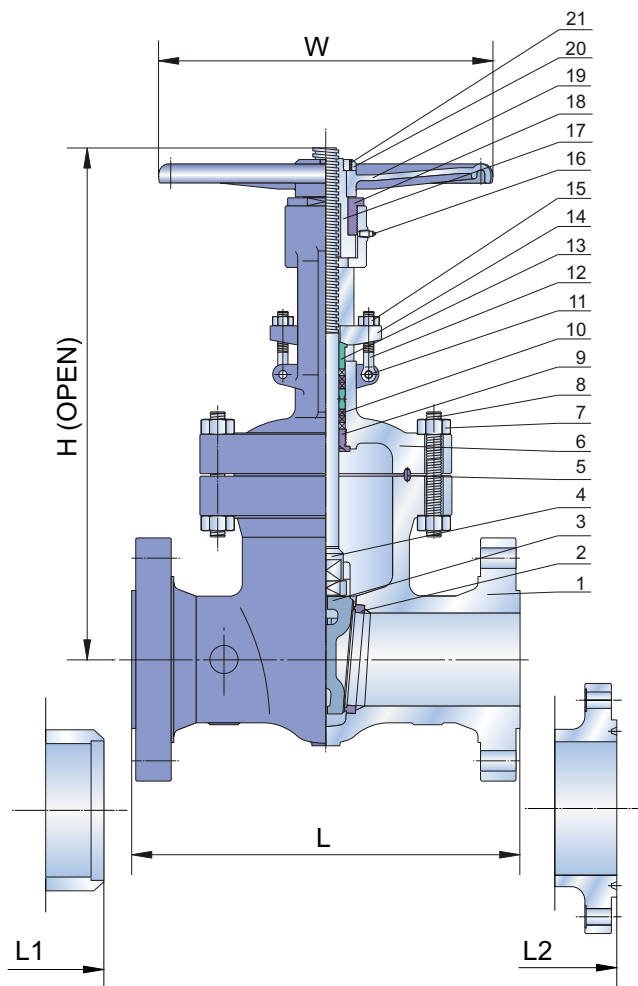
Gear Standard for 18" & Larger



Dimensions and Weights

Class 300

SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"
	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	900
L/L1	in	8.50	9.50	11.12	12.00	15.88	16.50	18.00	19.75	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	68.00
	mm	216	241	283	305	403	419	457	502	762	838	914	991	1143	1245	1346	1397	1524	1727
L2	in	9.12	10.12	11.74	12.62	16.50	17.12	18.62	20.37	30.62	33.62	36.62	39.75	45.88	50.00	54.00	56.00	61.12	69.12
	mm	232	257	298	321	419	435	473	517	778	854	930	1010	1165	1270	1372	1422	1552	1756
H	in	16.93	19.88	20.87	24.80	31.50	39.69	48.82	57.87	64.76	72.48	77.13	86.38	102.28	110.24	122.05	130.71	140.16	153.94
	mm	430	505	530	630	800	1008	1240	1470	1645	1841	1959	2194	2598	2800	3100	3320	3560	3910
W	in	8	10	10	10	14	16	18	20	24	24	24	24	24	24	24	32	32	32
	mm	200	250	250	250	350	400	450	500	600	600	610	610	610	610	610	810	810	810
Weight RF	kg	30	45	57	88	147	219	368	522	694	1080	1235	1655	2320	3100	3893	4930	5230	6885



FEATURES

OS & Y, Rising Stem
Bolted Bonnet
Flexible Wedge (2" Solid)
Extended Bonnet for Cryogenic Services
By Pass On Request
Locking Device Optional

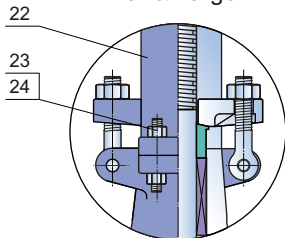
SPECIFICATIONS

Design	ASME B16.34/API 600
Face to Face	ASME B16.10
End to End	ASME B16.10
End Flange	ASME B16.5
BW End	ASME B16.25
Test	API 598
Special	NACE MR-01-75

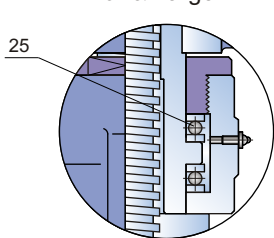
STANDARD MATERIALS OF PARTS

ITEM	PART NAME	MATERIAL
1	Body	ASTM A216 GR.WCB
2	Seat Ring	ASTM A105 + Stellite Faced
3	Disc	ASTM A216 GR.WCB+13Cr Faced
4	Stem	ASTM A182 GR.F6a
5	Gasket, Ring Joint	Soft Iron
6	Bonnet	ASTM A216 GR.WCB
7	Bonnet Bolt Nuts	ASTM A194 GR.2H
8	Bonnet Bolts	ASTM A193 GR.B7
9	Backseat Bushing	ASTM A276 Type 410
10	Stem Packing	Braided Graphite & Die formed Graphite Ring
11	Eye Bolt Pins	Carbon Steel
12	Gland Eye Bolts	ASTM A307 GR.B
13	Gland	ASTM A276 Type 410
14	Gland Flange	ASTM A216 GR.WCB
15	Eye Bolt Nuts	ASTM A194 GR.2H
16	Grease Nipple	Carbon Steel
17	Stem Nut	ASTM A439 GR.D-2
18	Retaining Nut	Carbon Steel
19	Handwheel	Ductile Iron
20	Handwheel Nut	Carbon Steel
21	Screw	Carbon Steel
22	Yoke	ASTM A216 GR.WCB
23	Yoke Pan Bolt Nuts	ASTM A194 GR.2H
24	Yoke Pan Bolts	ASTM A193 GR.B7
25	Bearing	Steel
26	Lantern Ring On Request	ASTM A276 Type 410

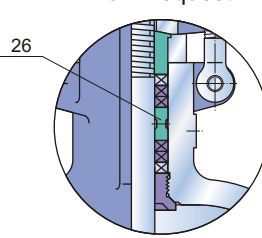
Yoke for 8" & Larger



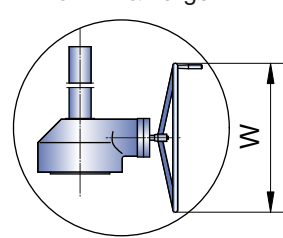
Bearing for 6" & Larger



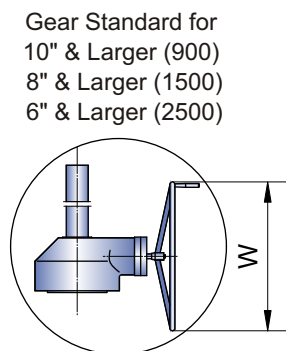
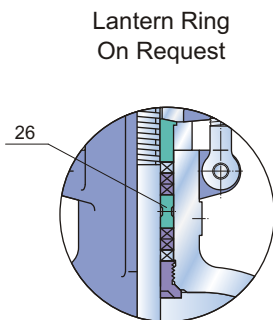
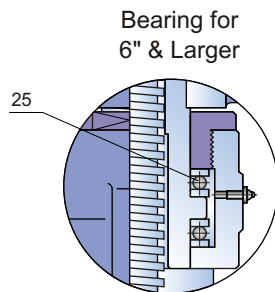
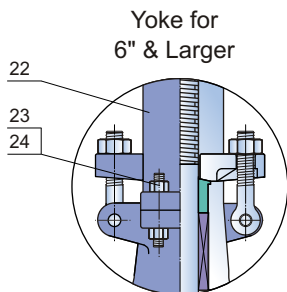
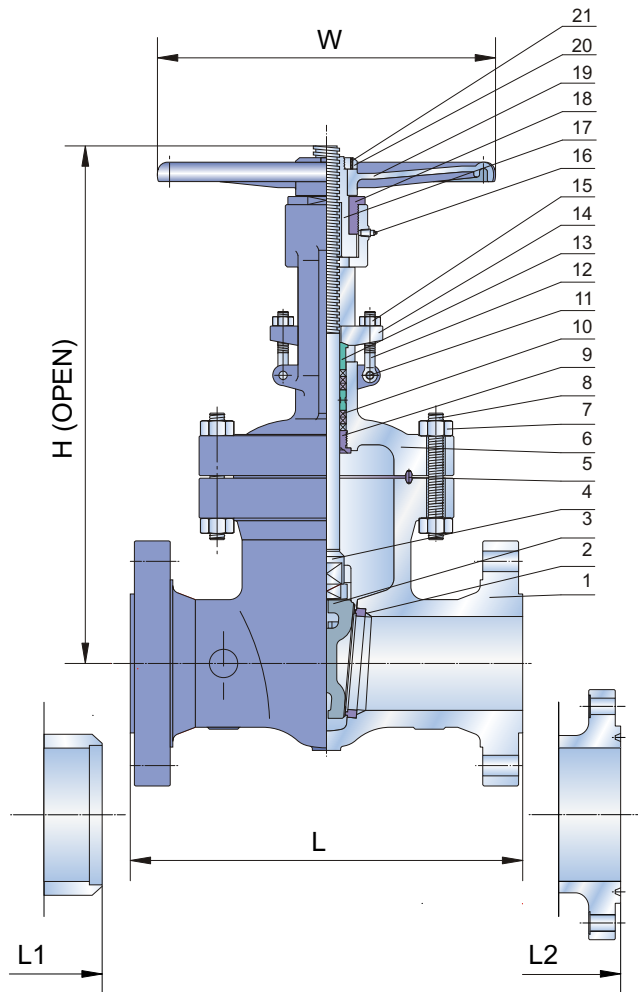
Lantern Ring On Request



Gear Standard for 14" & Larger



Dimensions and Weights													CLASS 600	
SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
L/L1	in	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397
L2	in	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38
	mm	295	333	359	435	562	663	790	841	892	994	1095	1200	1407
H	in	17.91	23.14	21.65	27.17	35.83	41.93	49.49	57.80	63.90	71.50	88.98	106.50	110.63
	mm	455	588	550	690	910	1065	1257	1468	1623	1816	2260	2705	2810
W	in	10	10	10	14	18	20	25	27	24	24	24	24	24
	mm	250	250	250	350	450	500	640	680	610	610	610	610	610
Weight RF	kg	45	55	76	127	277	485	754	936	1316	1672	2070	2405	4550



FEATURES

OS & Y, Rising Stem
Bolted Bonnet
Flexible Wedge (2" Solid)
Extended Bonnet for
Cryogenic Services
By Pass On Request
Locking Device Optional

SPECIFICATIONS

Design	ASME B16.34/API 600
Face to Face	ASME B16.10
End to End	ASME B16.10
End Flange	ASME B16.5
BW End	ASME B16.25
Test	API 598
Special	NACE MR-01-75

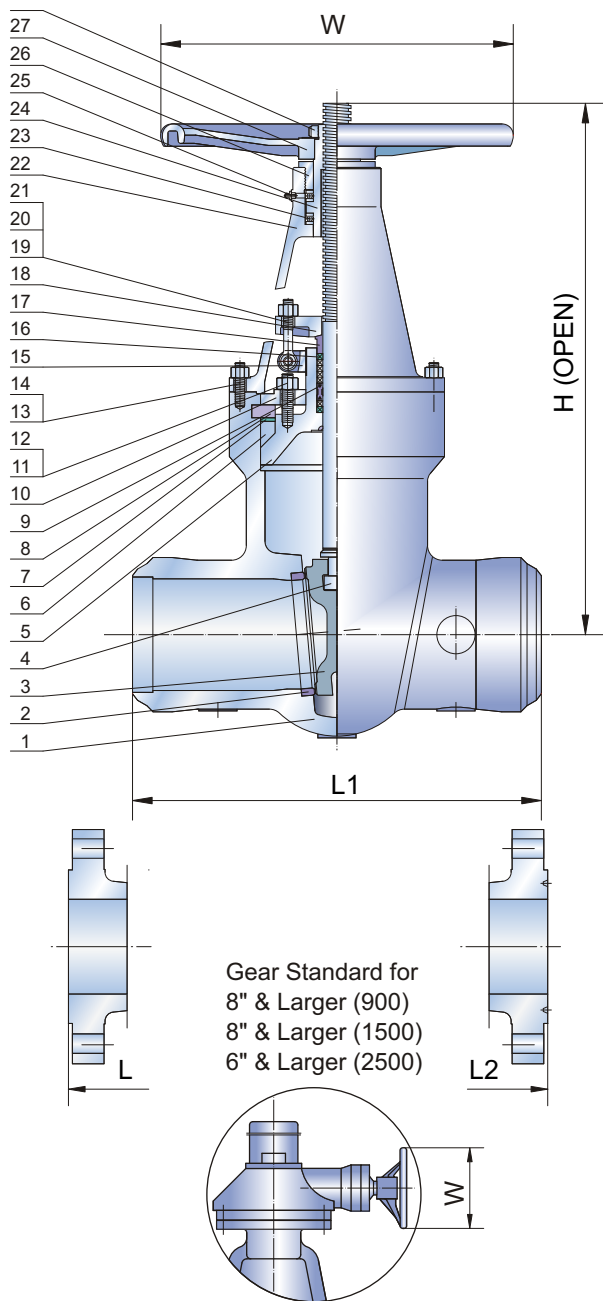
STANDARD MATERIALS OF PARTS

ITEM	PART NAME	MATERIAL
1	Body	ASTM A216 GR.WCB
2	Seat Ring	ASTM A105 + Stellite Faced
3	Disc	ASTM A216 GR.WCB+Stellite Faced
4	Stem	ASTM A182 GR.F6a
5	Gasket, Ring Joint	Soft Iron
6	Bonnet	ASTM A216 GR.WCB
7	Bonnet Bolt Nuts	ASTM A194 GR.2H
8	Bonnet Bolts	ASTM A193 GR.B7
9	Backseat Bushing	ASTM A276 Type 410
10	Stem Packing	Braided Graphite & Die formed Graphite Ring
11	Eye Bolt Pins	Carbon Steel
12	Gland Eye Bolts	ASTM A307 GR.B
13	Gland	ASTM A276 Type 410
14	Gland Flange	ASTM A216 GR.WCB
15	Eye Bolt Nuts	ASTM A194 GR.2H
16	Grease Nipple	Carbon Steel
17	Stem Nut	ASTM A439 GR.D-2
18	Retaining Nut	Carbon Steel
19	Handwheel	Ductile Iron
20	Handwheel Nut	Carbon Steel
21	Screw	Carbon Steel
22	Yoke	ASTM A216 GR.WCB
23	Yoke Pan Bolt Nuts	ASTM A194 GR.2H
24	Yoke Pan Bolts	ASTM A193 GR.B7
25	Bearing	Steel
26	Lantern Ring On Request	ASTM A276 Type 410

Dimensions and Weights		CLASS 900							
SIZE	in mm	2" 50	2.5" 65	3" 80	4" 100	6" 150	8" 200	10" 250	12" 300
L/L1	in mm	14.50 368	16.50 419	15.00 381	18.00 457	24.00 610	29.00 737	33.00 838	38.00 965
L2	in mm	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968
H	in mm	24.41 620	27.76 705	29.02 737	32.48 825	41.93 1065	47.99 1219	52.95 1345	72.44 1840
W	in mm	12 300	14 350	14 350	16 400	20 500	24 600	24 610	24 610
Weight RF	kg	95	108	125	194	378	635	900	1550

Dimensions and Weights		CLASS 1500							
SIZE	in mm	2" 50	2.5" 65	3" 80	4" 100	6" 150	8" 200	10" 250	12" 300
L/L1	in mm	14.50 368	16.50 419	18.50 470	21.50 546	27.75 705	32.75 832	39.00 991	44.50 1130
L2	in mm	14.62 371	16.62 422	18.62 473	21.62 549	28.00 711	33.13 842	39.38 1000	45.12 1146
H	in mm	27.36 695	27.76 705	30.31 770	34.33 872	42.99 1092	55.12 1400	62.99 1600	72.44 1840
W	in mm	14 350	16 400	16 400	20 500	24 600	24 610	24 610	24 610
Weight RF	kg	95	128	181	275	627	1000	2200	3300

Dimensions and Weights		CLASS 2500							
SIZE	in mm	2" 50	2.5" 65	3" 80	4" 100	6" 150	8" 200	10" 250	12" 300
L/L1	in mm	17.75 451	20.00 508	22.75 578	26.50 673	36.00 914	40.25 1022	50.00 1270	56.00 1422
L2	in mm	17.87 454	20.25 514	23.00 584	26.88 683	36.50 927	40.87 1038	50.88 1292	56.88 1445
H	in mm	27.56 700	29.53 750	34.92 887	43.19 1079	57.09 1450	63.39 1610	81.73 2076	89.80 2281
W	in mm	14 350	18 450	18 450	20 500	24 610	24 610	24 610	24 610
Weight RF	kg	135	210	271	506	1600	2450	4570	7150



FEATURES

OS & Y, Rising Stem
Pressure Seal
Flexible Wedge
Backseat Weld-Deposited
By Pass On Request
Locking Device Optional
Gear Optional

SPECIFICATIONS

Design	ASME B16.34
Face to Face	ASME B16.10
End to End	ASME B16.10
End Flange	ASME B16.5
BW End	ASME B16.25
Test	API 598
Special	NACE MR-01-75

STANDARD MATERIALS OF PARTS

ITEM	PART NAME	MATERIAL
1	Body	ASTM A216 GR.WCB
2	Seat Ring	ASTM A105+Stellite Faced
3	Disc	ASTM A216 GR.WCB+Stellite Faced
4	Stem	ASTM A182 GR.F6a
5	Bonnet	ASTM A216 GR.WCB+Stellite Faced
6	Gasket	ASTM A182 GR.F304
7	Thrust Ring	ASTM A276 Type 410
8	Separate Ring	Carbon Steel
9	Lantern Ring On Request	ASTM A276 Type 410
10	Bonnet Retainer	Carbon Steel
11	Bonnet Bolts	ASTM A193 GR.B7
12	Bonnet Bolt Nuts	ASTM A194 GR.2H
13	Yoke Bolts	ASTM A193 GR.B7
14	Yoke Bolt Nuts	ASTM A194 GR.2H
15	Gland Eye	ASTM A216 GR.WCB
16	Stem Packing	Braided Graphite & Die formed Graphite Ring
17	Gland	ASTM A276 Type 410
18	Gland Flange	ASTM A216 GR.WCB
19	Eye Bolt Pins	Carbon Steel
20	Gland Eye Bolts	ASTM A193 GR.B7
21	Eye Bolt Nuts	ASTM A194 GR.2H
22	Yoke	ASTM A216 GR.WCB
23	Bearing	Steel
24	Stem Nut	ASTM A439 GR.D-2
25	Grease Nipple	Carbon Steel
26	Retaining Nut	Carbon Steel
27	Handwheel	Ductile Iron
28	Handwheel Nut	Carbon Steel

Dimensions and Weights

CLASS 900

SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"
	mm	50	65	80	100	150	200	250	300
L	in	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00
	mm	368	419	381	457	610	737	838	965
L1	in	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00
	mm	216	254	305	356	508	660	787	914
L2	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12
	mm	371	422	384	460	613	740	841	968
H	in	24.00	30.00	30.71	33.86	40.35	50.63	60.63	70.28
	mm	610	762	780	860	1025	1286	1540	1785
W	in	12	14	14	16	20	24	24	24
	mm	300	350	350	400	500	610	610	610
Weight BW	kg	50	72	86	110	202	530	782	1135

Dimensions and Weights

CLASS 1500

SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"
	mm	50	65	80	100	150	200	250	300
L	in	14.50	16.50	18.50	21.50	27.75	32.75	39.00	44.50
	mm	368	419	470	546	705	832	991	1130
L1	in	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00
	mm	216	254	305	406	559	711	864	991
L2	in	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12
	mm	371	422	473	549	711	842	1000	1146
H	in	24.00	30.55	30.90	34.40	40.35	53.46	61.74	74.50
	mm	610	776	785	874	1025	1358	1568	1892
W	in	12	16	16	20	24	24	24	24
	mm	300	400	400	500	600	610	610	610
Weight BW	kg	50	78	92	145	230	540	1060	1184

Dimensions and Weights

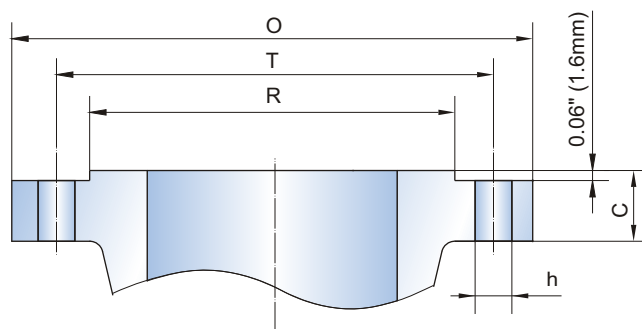
CLASS 2500

SIZE	in	2"	2.5"	3"	4"	6"	8"	10"	12"
	mm	50	65	80	100	150	200	250	300
L	in	17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00
	mm	451	508	578	673	914	1022	1270	1422
L1	in	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00
	mm	279	330	368	457	610	762	914	1041
L2	in	17.87	20.25	23.00	26.88	36.50	40.87	50.88	56.88
	mm	454	514	584	683	927	1038	1292	1445
H	in	24.00	30.55	30.90	34.40	44.02	53.46	66.14	74.50
	mm	610	776	785	874	1118	1358	1680	1892
W	in	14	18	18	20	24	24	24	24
	mm	350	450	450	500	610	610	610	610
Weight BW	kg	60	112	122	192	480	830	1678	2320

CAST STEEL GATE VALVE STANDARD MATERIALS OF PARTS

ITEM	PART NAME	CARBON STEEL			ALLOY STEEL			STAINLESS STEEL				
1	Body	A216 WCB	A352 LCB	A352 LCC	A217 WC1	A217 WC6	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CF8C
2	Seat Ring	A105	A350 LF2	A350 LF2	A182 F1	A182 F11	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L	A182 F321
3	Disc	A216 WCB	A352 LCB	A352 LCC	A217 WC1	A217 WC6	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CF8C
4	Stem	A182 F6a	A182 F304	A182 F304	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L	A182 F321
5	Gasket	CL150-600	Soft Iron +Graphite		304+Graphite		304+Graphite		304+Graphite		316+Graphite	
		CL900-2500 Ring Joint	Soft Iron		304		304		304		316	
6	Bonnet	A216 WCB	A352 LCB	A352 LCC	A217 WC1	A217 WC6	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CF8C
7	Bonnet Bolt Nuts	A194 2H	A194 4	A194 4	A194 2H	A194 4	A194 4	A194 8				
8	Bonnet Bolts	A193 B7	A320 L7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B8				
9	Backseat Bushing	A276 410	A276 304	A276 304		A276 410		A276 304	A276 316	A276 304L	A276 316L	A276 321
10	Stem Packing	Braided Graphite & Die formed Graphite Ring			Braided Graphite & Die formed Graphite Ring			Braided Graphite & Die formed Graphite Ring				
11	Eye Bolt Pins	Carbon Steel			A276 410			Stainless Steel				
12	Gland Eye Bolts	A307 B	A320 L7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B8				
13	Gland	A276 410	A276 304	A276 304		A276 410		A276 304	A276 316	A276 304L	A276 316L	A276 321
14	Gland Flange	A216 WCB	A352 LCB	A352 LCC	A217 WC1	A217 WC6	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CF8C
15	Eye Bolt Nuts	A194 2H	A194 4	A194 4	A194 2H	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8	A194 8
16	Grease Nipple	Carbon Steel			Carbon Steel			Stainless Steel				
17	Stem Nut	A439 D-2			A439 D-2			A439 D-2				
18	Retaining Nut	Carbon Steel			Carbon Steel			Stainless Steel				
19	Handwheel	Ductile Iron			Ductile Iron			Ductile Iron				
20	Handwheel Nut	Carbon Steel			Carbon Steel			Stainless Steel				
21	Screw	Carbon Steel			Carbon Steel			Stainless Steel				
22	Yoke	A216 WCB	A352 LCB	A352 LCC	A216 WCB	A216 WCB	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CF8C
23	Yoke Pan Bolt Nuts	A194 2H	A194 4	A194 4	A194 2H	A194 4	A194 4	A194 8				
24	Yoke Pan Bolts	A193 B7	A320 L7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B8				
25	Bearing	Steel			Steel			Steel				
26	Lantern Ring On Request	A276 410	A276 304	A276 304		A276 410		A276 304	A276 316	A276 304L	A276 316L	A276 321

CLASS 150 300 RF



CLASS	SIZE		O		R		C		T		h		Bolt	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	QTY.	Diameter
150	2	50	6.00	152	3.62	92	0.62	16	4.75	120.5	0.75	19	4	5/8
	2 1/2	65	7.00	178	4.12	105	0.69	18	5.50	139.5	0.75	19	4	5/8
	3	80	7.50	190	5.00	127	0.75	19	6.00	152.5	0.75	19	4	5/8
	4	100	9.00	229	6.19	157	0.94	24	7.50	190.5	0.75	19	8	5/8
	6	150	11.00	279	8.50	216	1.00	26	9.50	241.5	0.88	22	8	3/4
	8	200	13.50	343	10.62	270	1.12	29	11.75	298.5	0.88	22	8	3/4
	10	250	16.00	406	12.75	324	1.19	31	14.25	362	1.00	25	12	7/8
	12	300	19.00	483	15.00	381	1.25	32	17.00	432	1.00	25	12	7/8
	14	350	21.00	533	16.25	413	1.38	35	18.75	476	1.12	29	12	1
	16	400	23.50	597	18.50	470	1.44	37	21.25	540	1.12	29	16	1
	18	450	25.00	635	21.00	533	1.56	40	22.75	578	1.25	32	16	1 1/8
	20	500	27.50	699	23.00	584	1.69	43	25.00	635	1.25	32	20	1 1/8
	24	600	32.00	813	27.25	692	1.88	48	29.50	749.5	1.38	35	20	1 1/4
	26	650	34.25	870	29.50	749	2.69	69	31.75	806.5	1.38	35	24	1 1/4
	28	700	36.50	927	31.50	800	2.81	72	34.00	863.5	1.38	35	28	1 1/4
	30	750	38.75	984	33.75	857	2.94	75	36.00	914.5	1.38	35	28	1 1/4
	32	800	41.75	1060	36.00	914	3.19	81	38.50	978	1.62	41	28	1 1/2
	36	900	46.00	1168	40.25	1022	3.56	91	42.75	1086	1.62	41	32	1 1/2
300	40	1000	50.75	1289	44.25	1124	3.56	91	47.25	1200	1.62	41	36	1 1/2
	42	1050	53.00	1346	47.00	1194	3.81	97	49.50	1257.5	1.62	41	36	1 1/2
	48	1200	59.50	1511	53.50	1359	4.25	108	56.00	1422.5	1.62	41	44	1 1/2
	2	50	6.50	165	3.62	92	0.88	23	5.00	127	0.75	19	8	5/8
	2 1/2	65	7.50	190	4.12	105	1.00	26	5.88	149	0.88	22	8	3/4
	3	80	8.25	210	5.00	127	1.12	29	6.62	168.5	0.88	22	8	3/4
	4	100	10.00	254	6.19	157	1.25	32	7.88	200	0.88	22	8	3/4
	6	150	12.50	318	8.50	216	1.44	37	10.62	270	0.88	22	12	3/4
	8	200	15.00	381	10.62	270	1.62	42	13.00	330	1.00	25	12	7/8
	10	250	17.50	445	12.75	324	1.88	48	15.25	387.5	1.12	29	16	1
	12	300	20.50	521	15.00	381	2.00	51	17.75	451	1.25	32	16	1 1/8
	14	350	23.00	584	16.25	413	2.12	54	20.25	514.5	1.25	32	20	1 1/8
	16	400	25.50	648	18.50	470	2.25	58	22.50	571.5	1.38	35	20	1 1/4
	18	450	28.00	711	21.00	533	2.38	61	24.75	628.5	1.38	35	24	1 1/4
	20	500	30.50	775	23.00	584	2.50	64	27.00	686	1.38	35	24	1 1/4
	24	600	36.00	914	27.25	692	2.75	70	32.00	813	1.62	41	24	1 1/2
	26	650	38.25	972	29.50	749	3.12	80	34.50	876.5	1.75	45	28	1 5/8
	28	700	40.75	1035	31.50	800	3.38	86	37.00	940	1.75	45	28	1 5/8
	30	750	43.00	1092	33.75	857	3.62	92	39.25	997	1.88	48	28	1 3/4
	32	800	45.25	1149	36.00	914	3.88	98	41.50	1054	2.00	51	28	1 7/8
	36	900	50.00	1270	40.25	1022	4.12	105	46.00	1168.5	2.12	54	32	2

End Flange Dimensions:

Size 2"-24" to ASME B16.5, Size 26"-48" to ASME B16.47 A.

Tolerances: Unit inch

Thickness C:

NPS ≤ 18" +0.12, -0

NPS ≥ 20" +0.19, -0

Drilling and Facing:

Bolt Circle Diameter h: ± 0.06

Center to Center of Adjacent Bolt Holes: ± 0.03

Eccentricity Between Bolt Circle Diameter and Machined Facing Diameters:

NPS ≤ 2 1/2" ± 0.03

NPS ≥ 3" ± 0.06

Outside Diameter R:

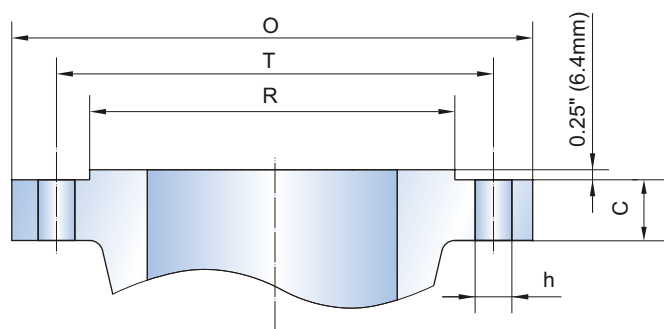
0.06 Raised Face: NPS 2"-24" ± 0.03

0.25 Raised Face: NPS 2"-24" ± 0.02

NPS ≥ 26" ± 0.08

NPS ≥ 26" ± 0.04

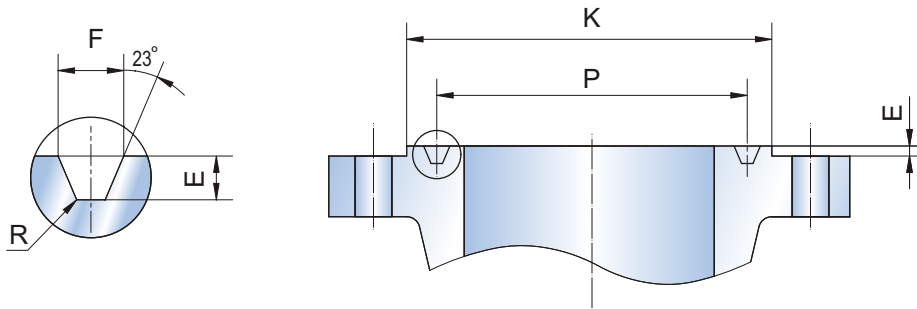
CLASS 600-2500 RF



CLASS	SIZE		O		R		C		T		h		Bolt	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	QTY.	Diameter
600	2	50	6.50	165	3.62	92	1.00	26	5.00	127	0.75	19	8	5/8
	2 1/2	65	7.50	190	4.12	105	1.12	29	5.88	149	0.88	22	8	3/4
	3	80	8.25	210	5.00	127	1.25	32	6.62	168	0.88	22	8	3/4
	4	100	10.75	273	6.19	157	1.50	38	8.50	216	1.00	25	8	7/8
	6	150	14.00	356	8.50	216	1.88	48	11.50	292	1.12	29	12	1
	8	200	16.50	419	10.62	270	2.19	56	13.75	349	1.25	32	12	1 1/8
	10	250	20.00	508	12.75	324	2.50	64	17.00	432	1.38	35	16	1 1/4
	12	300	22.00	559	15.00	381	2.62	67	19.25	489	1.38	35	20	1 1/4
	14	350	23.75	603	16.25	413	2.75	70	20.75	527	1.50	38	20	1 3/8
	16	400	27.00	686	18.50	470	3.00	77	23.75	603	1.62	41	20	1 1/2
	18	450	29.25	743	21.00	533	3.25	83	25.75	654	1.75	44	20	1 5/8
	20	500	32.00	813	23.00	584	3.50	89	28.50	724	1.75	44	24	1 5/8
	24	600	37.00	940	27.25	692	4.00	102	33.00	838	2.00	51	24	1 7/8
900	2	50	8.50	216	3.62	92	1.50	38.5	6.50	165.1	1.00	26	8	7/8
	2 1/2	65	9.62	244	4.12	105	1.62	41.5	7.50	190.5	1.12	29	8	1
	3	80	9.50	241	5.00	127	1.50	38.5	7.50	190.5	1.00	26	8	7/8
	4	100	11.50	292	6.19	157	1.75	44.5	9.25	234.9	1.25	32	8	1 1/8
	6	150	15.00	381	8.50	216	2.19	56.0	12.50	317.5	1.25	32	12	1 1/8
	8	200	18.50	470	10.62	270	2.50	63.5	15.50	393.7	1.50	39	12	1 3/8
	10	250	21.50	545	12.75	324	2.75	70.0	18.50	469.9	1.50	39	16	1 3/8
	12	300	24.00	610	15.00	381	3.12	79.5	21.00	533.4	1.50	39	20	1 3/8
	14	350	25.25	640	16.25	413	3.38	86.0	22.00	558.8	1.62	42	20	1 1/2
	16	400	27.75	705	18.50	470	3.50	89.0	24.25	615.9	1.75	45	20	1 5/8
	18	450	31.00	785	21.00	533	4.00	102.0	27.00	685.8	2.00	51	20	1 7/8
	20	500	33.75	855	23.00	584	4.25	108.0	29.50	749.3	2.12	54	20	2
	24	600	41.00	1040	27.25	692	5.50	140.0	35.50	901.7	2.62	67	20	2 1/2
1500	2	50	8.50	216	3.62	92	1.50	38.5	6.50	165.1	1.00	26	8	7/8
	2 1/2	65	9.62	244	4.12	105	1.62	41.5	7.50	190.5	1.12	29	8	1
	3	80	10.50	267	5.00	127	1.88	48.0	8.00	203.2	1.25	32	8	1 1/8
	4	100	12.25	311	6.19	157	2.12	54.0	9.50	241.3	1.38	35	8	1 1/4
	6	150	15.50	394	8.50	216	3.25	83.0	12.50	317.5	1.50	39	12	1 3/8
	8	200	19.00	483	10.62	270	3.62	92.9	15.50	393.7	1.75	45	12	1 5/8
	10	250	23.00	585	12.75	324	4.25	108.0	19.00	482.6	2.00	51	12	1 7/8
	12	300	26.50	675	15.00	381	4.88	124.0	22.50	571.5	2.12	54	16	2
	14	350	29.50	750	16.25	413	5.25	133.5	25.00	635.0	2.38	61	16	2 1/4
	16	400	32.50	825	18.50	470	5.75	146.5	27.75	704.8	2.62	67	16	2 1/2
	18	450	36.00	915	21.00	533	6.38	162.0	30.50	774.7	2.88	74	16	2 3/4
	20	500	38.75	985	23.00	584	7.00	178.0	32.75	831.8	3.12	80	16	3
	24	600	46.00	1170	27.25	692	8.00	203.5	39.00	990.6	3.62	93	16	3 1/2
2500	2	50	9.25	235	3.62	92	2.00	51.0	6.75	171.4	1.12	29	8	1
	2 1/2	65	10.50	267	4.12	105	2.25	57.5	7.75	196.8	1.25	32	8	1 1/8
	3	80	12.00	305	5.00	127	2.62	67.0	9.00	228.6	1.38	35	8	1 1/4
	4	100	14.00	356	6.19	157	3.00	76.5	10.75	273.0	1.62	42	8	1 1/2
	6	150	19.00	483	8.50	216	4.25	108.0	14.50	368.3	2.12	54	8	2
	8	200	21.75	550	10.62	270	5.00	127.0	17.25	438.1	2.12	54	12	2
	10	250	26.50	675	12.75	324	6.50	165.5	21.25	539.7	2.62	67	12	2 1/2
	12	300	30.00	760	15.00	381	7.25	184.5	24.38	619.1	2.88	74	12	2 3/4

End Flange Dimensions: ASME B16.5
Tolerances: the Same as Class 150 300

CLASS 150-2500 RTJ



CLASS	SIZE		Ring No.	P		E		F		R		K	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
150	2	50	R22	3.250	82.55	0.250	6.35	0.344	8.74	0.03	0.8	4.00	102
	2 1/2	65	R25	4.000	101.60	0.250	6.35	0.344	8.74	0.03	0.8	4.75	121
	3	80	R29	4.500	114.30	0.250	6.35	0.344	8.74	0.03	0.8	5.25	133
	4	100	R36	5.875	149.22	0.250	6.35	0.344	8.74	0.03	0.8	6.75	171
	6	150	R43	7.625	193.68	0.250	6.35	0.344	8.74	0.03	0.8	8.62	219
	8	200	R48	9.750	247.65	0.250	6.35	0.344	8.74	0.03	0.8	10.75	273
	10	250	R52	12.000	304.80	0.250	6.35	0.344	8.74	0.03	0.8	13.00	330
	12	300	R56	15.000	381.00	0.250	6.35	0.344	8.74	0.03	0.8	16.00	406
	14	350	R59	15.625	396.88	0.250	6.35	0.344	8.74	0.03	0.8	16.75	425
	16	400	R64	17.875	454.02	0.250	6.35	0.344	8.74	0.03	0.8	19.00	483
	18	450	R68	20.375	517.52	0.250	6.35	0.344	8.74	0.03	0.8	21.50	546
	20	500	R72	22.000	558.80	0.250	6.35	0.344	8.74	0.03	0.8	23.50	597
	24	600	R76	26.500	673.10	0.250	6.35	0.344	8.74	0.03	0.8	28.00	711
300 600	2	50	R23	3.250	82.55	0.312	7.92	0.469	11.91	0.03	0.8	4.25	108
	2 1/2	65	R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.8	5.00	127
	3	80	R31	4.875	123.82	0.312	7.92	0.469	11.91	0.03	0.8	5.75	146
	4	100	R37	5.875	149.22	0.312	7.92	0.469	11.91	0.03	0.8	6.88	175
	6	150	R45	8.312	211.13	0.312	7.92	0.469	11.91	0.03	0.8	9.50	241
	8	200	R49	10.625	269.88	0.312	7.92	0.469	11.91	0.03	0.8	11.88	302
	10	250	R53	12.750	323.85	0.312	7.92	0.469	11.91	0.03	0.8	14.00	356
	12	300	R57	15.000	381.00	0.312	7.92	0.469	11.91	0.03	0.8	16.25	413
	14	350	R61	16.500	419.10	0.312	7.92	0.469	11.91	0.03	0.8	18.00	457
	16	400	R65	18.500	469.90	0.312	7.92	0.469	11.91	0.03	0.8	20.00	508
	18	450	R69	21.000	533.40	0.312	7.92	0.469	11.91	0.03	0.8	22.62	575
	20	500	R73	23.000	584.20	0.375	9.52	0.531	13.49	0.06	1.5	25.00	635
	24	600	R77	27.250	692.15	0.438	11.13	0.656	16.66	0.06	1.5	29.50	749
	26	650	R93	29.500	749.30	0.500	12.7	0.781	19.84	0.06	1.5	31.88	861
	28	700	R94	31.500	800.10	0.500	12.7	0.781	19.84	0.06	1.5	33.88	861
	30	750	R95	33.750	857.25	0.500	12.7	0.781	19.84	0.06	1.5	36.12	917
	32	800	R96	36.000	914.40	0.562	14.27	0.906	23.01	0.06	1.5	38.75	984
	36	900	R98	40.250	1022.35	0.562	14.27	0.906	23.01	0.06	1.5	43.00	1092

CLASS	SIZE		Ring No.	P		E		F		R		K	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
900	2	50	R24	3.750	95.25	0.312	7.92	0.469	11.91	0.03	0.8	4.88	124
	2 1/2	65	R27	4.250	107.95	0.312	7.92	0.469	11.91	0.03	0.8	5.38	137
	3	80	R31	4.875	123.82	0.312	7.92	0.469	11.91	0.03	0.8	6.12	156
	4	100	R37	5.875	149.22	0.312	7.92	0.469	11.91	0.03	0.8	7.12	181
	6	150	R45	8.312	211.12	0.312	7.92	0.469	11.91	0.03	0.8	9.50	241
	8	200	R49	10.625	269.88	0.312	7.92	0.469	11.91	0.03	0.8	12.12	308
	10	250	R53	12.750	323.85	0.312	7.92	0.469	11.91	0.03	0.8	14.25	362
	12	300	R57	15.000	381.00	0.312	7.92	0.469	11.91	0.03	0.8	16.50	419
	14	350	R62	16.500	419.10	0.438	11.13	0.656	16.66	0.06	1.5	18.38	467
	16	400	R66	18.500	469.90	0.438	11.13	0.656	16.66	0.06	1.5	20.62	524
	18	450	R70	21.000	533.40	0.500	12.7	0.781	19.84	0.06	1.5	23.38	594
	20	500	R74	23.000	584.20	0.500	12.7	0.781	19.84	0.06	1.5	25.50	648
	24	600	R78	27.250	692.15	0.625	15.88	1.062	26.97	0.09	2.3	30.38	772
1500	2	50	R24	3.750	95.25	0.312	7.92	0.469	11.91	0.03	0.8	4.88	124
	2 1/2	65	R27	4.250	107.95	0.312	7.92	0.469	11.91	0.03	0.8	5.38	137
	3	80	R35	5.375	136.52	0.312	7.92	0.469	11.91	0.03	0.8	6.62	168
	4	100	R39	6.375	161.92	0.312	7.92	0.469	11.91	0.03	0.8	7.62	194
	6	150	R46	8.312	211.12	0.375	9.52	0.531	13.49	0.06	1.5	9.75	248
	8	200	R50	10.625	269.88	0.438	11.13	0.656	16.66	0.06	1.5	12.50	318
	10	250	R54	12.750	323.85	0.438	11.13	0.656	16.66	0.06	1.5	14.62	371
	12	300	R58	15.000	381.00	0.562	14.27	0.906	23.01	0.06	1.5	17.25	438
	14	350	R63	16.500	419.10	0.625	15.88	1.062	26.97	0.09	2.3	19.25	489
	16	400	R67	18.500	469.90	0.688	17.48	1.188	30.18	0.09	2.3	21.50	546
	18	450	R71	21.000	533.40	0.688	17.48	1.188	30.18	0.09	2.3	24.12	613
	20	500	R75	23.000	584.20	0.688	17.48	1.312	33.32	0.09	2.3	26.50	673
	24	600	R79	27.250	692.15	0.812	20.62	1.438	36.53	0.09	2.3	31.25	794
2500	2	50	R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.8	5.25	133
	2 1/2	65	R28	4.375	111.12	0.375	9.52	0.531	13.49	0.03	0.8	5.88	149
	3	80	R32	5.000	127.00	0.375	9.52	0.531	13.49	0.06	1.5	6.62	168
	4	100	R38	6.188	157.18	0.438	11.13	0.656	16.66	0.06	1.5	8.00	203
	6	150	R47	9.000	228.60	0.500	12.70	0.781	19.84	0.06	1.5	11.00	279
	8	200	R51	11.000	279.40	0.562	14.27	0.906	23.01	0.06	1.5	13.38	340
	10	250	R55	13.500	342.90	0.688	17.48	1.188	30.18	0.09	2.3	16.75	425
	12	300	R60	16.000	406.40	0.688	17.48	1.312	33.32	0.09	2.3	19.50	495

End Flange Dimensions:

Size 2"-24" to ASME B16.5, Size 26"-36" to ASME B16.47 A .

Tolerances: Unit inch

Depth E: + 0.016, -0

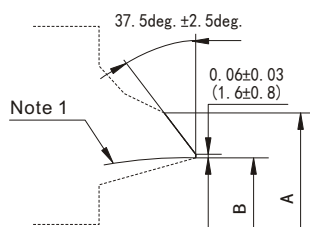
Width F: ± 0.008

Pith Diameter P: ± 0.005

Radius at Bottom R: $R \leq 0.06$ +0.03, -0

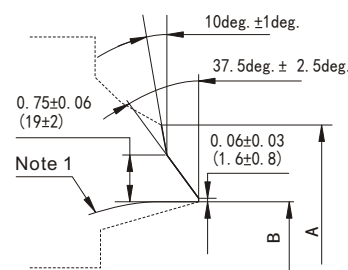
$R > 0.06$ ± 0.03

Angle 23 Deg.: ± 0.5 Deg.



Note 1 Internal surface may be as formed or machined for dimension B at root face. Contour within the envelope shall be in accordance with section.

Wall Thickness not Over 0.88in (22mm)
Welding End Detail for Joint Without Backing Ring



Wall Thickness Over 0.88in (22mm)
Welding End Detail for Joint Without Backing Ring

Nominal Pipe Size		Schedule No. [Note(1)]	O.D. at Welding Ends				B		C [Note(3)]		t	
			Wrought or Fabricated Components, A [Note(1)]		Cast Steel Valves, A [Note(2)]							
DN	NPS		mm	in	mm	in	mm	in	mm	in	mm	in
65	2 1/2	40	73.0	2.88	75	2.96	62.5	2.469	62.93	2.479	5.16	0.203
		80					59	2.323	59.69	2.351	7.01	0.276
		160					54	2.125	55.28	2.178	9.53	0.375
		XXS					45	1.771	47.43	1.868	14.02	0.552
80	3	40	88.9	3.50	91	3.59	78	3.068	78.25	3.081	5.49	0.216
		80					73.5	2.900	74.53	2.934	7.62	0.300
		160					66.5	2.624	68.38	2.692	11.13	0.438
		XXS					58.5	2.300	61.19	2.409	15.24	0.600
90	3 1/2	40	101.6	4.00	105	4.12	90	3.548	90.52	3.564	5.74	0.226
		80					85.5	3.364	86.42	3.402	8.08	0.318
100	4	40	114.3	4.50	117	4.62	102	4.026	102.73	4.044	6.02	0.237
		80					97	3.826	98.28	3.869	8.56	0.337
		120					92	3.624	93.78	3.692	11.13	0.438
		160					87.5	3.438	89.65	3.530	13.49	0.531
		XXS					80	3.152	83.30	3.279	17.12	0.674
125	5	40	141.3	5.56	144	5.69	128	5.047	128.80	5.070	6.55	0.258
		80					122	4.813	123.58	4.866	9.53	0.375
		120					116	4.563	118.04	4.647	12.70	0.500
		160					109.5	4.313	112.47	4.428	15.88	0.625
		XXS					103	4.063	106.92	4.209	19.05	0.750
150	6	40	168.3	6.62	172	6.78	154	6.065	154.82	6.094	7.11	0.280
		80					146.5	5.761	148.06	5.828	10.97	0.432
		120					140	5.501	142.29	5.600	14.27	0.562
		160					132	5.187	135.31	5.326	18.26	0.719
		XXS					124.5	4.897	128.85	5.072	21.95	0.864
200	8	40	219.1	8.62	223	8.78	203	7.981	203.75	8.020	8.18	0.322
		60					198.5	7.813	200.02	7.873	10.31	0.406
		80					193.5	7.625	195.84	7.709	12.70	0.500
		100					189	7.437	191.65	7.544	15.09	0.594
		120					182.5	7.187	186.11	7.326	18.26	0.719
		140					178	7.001	181.98	7.163	20.62	0.812
		XXS					174.5	6.875	179.16	7.053	22.23	0.875
		160					173	6.813	177.79	6.998	23.01	0.906
250	10	40	273.0	10.75	278	10.94	254.5	10.020	255.74	10.070	9.27	0.365
		60					247.5	9.750	249.74	9.834	12.70	0.500
		80					243	9.562	245.55	9.670	15.09	0.594
		100					236.5	9.312	240.01	9.451	18.26	0.719
		120					230	9.062	234.44	9.232	21.44	0.844
		140					222	8.750	227.51	8.959	25.40	1.000
		160					216	8.500	221.95	8.740	28.58	1.125
300	12	STD	323.8	12.75	329	12.97	305	12.000	306.08	12.053	9.53	0.375
		40					303	11.938	304.72	11.999	10.31	0.406
		XS					298.5	11.750	300.54	11.834	12.70	0.500
		60					295	11.626	297.79	11.725	14.27	0.562
		80					289	11.374	292.17	11.505	17.48	0.688
		100					281	11.062	285.24	11.232	21.44	0.844
		120					273	10.750	278.31	10.959	25.40	1.000
		140					266.5	10.500	272.75	10.740	28.58	1.125
		160					257	10.126	264.45	10.413	33.32	1.312
350	14	STD	355.6	14.00	362	14.25	336.5	13.250	337.88	13.303	9.53	0.375
		40					333.5	13.124	335.08	13.192	11.13	0.438
		XS					330	13.000	332.34	13.084	12.70	0.500
		60					325.5	12.812	328.15	12.920	15.09	0.594
		80					317.5	12.500	321.22	12.646	19.05	0.750
		100					308	12.124	312.86	12.318	23.83	0.938
		120					300	11.812	305.93	12.044	27.79	1.094
		140					292	11.500	299.00	11.771	31.75	1.250
		160					284	11.188	292.07	11.498	35.71	1.406

Nominal Pipe Size		Schedule No. [Note(1)]	O.D. at Welding Ends				B		C [Note(3)]		t	
			Wrought or Fabricated Components, A [Note(1)]		Cast Steel Valves, A [Note(2)]							
DN	NPS		mm	in	mm	in	mm	in	mm	in	mm	in
400	16	STD	406.4	16.00	413	16.25	387.5	15.250	388.68	15.303	9.53	0.375
		40					381	15.000	383.14	15.084	12.70	0.500
		60					373	14.688	376.21	14.811	16.66	0.656
		80					363.5	14.312	367.84	14.482	21.44	0.844
		100					354	13.938	359.53	14.155	26.19	1.031
		120					344.5	13.562	351.18	13.826	30.96	1.219
		140					333.5	13.124	341.43	13.422	36.53	1.438
		160					325.5	12.812	334.50	13.170	40.49	1.594
450	18	STD	457.2	18.00	464	18.28	438	17.250	439.48	17.303	9.53	0.375
		XS					432	17.000	433.94	17.084	12.70	0.500
		40					428.5	16.876	431.19	16.975	14.27	0.562
		60					419	16.500	422.82	16.646	19.05	0.750
		80					409.5	16.124	414.46	16.318	23.83	0.938
		100					398.5	15.688	404.78	15.936	29.36	1.156
		120					387.5	15.250	395.03	15.553	34.93	1.375
		140					378	14.876	386.77	15.225	39.67	1.562
500	20	STD	508.0	20.00	516	20.31	489	19.250	490.28	19.303	9.53	0.375
		XS					482.5	19.000	484.74	19.084	12.70	0.500
		40					478	18.812	480.55	18.920	15.09	0.594
		60					467	18.376	470.88	18.538	20.62	0.812
		80					455.5	17.938	461.13	18.155	26.19	1.031
		100					443	17.438	450.02	17.717	32.54	1.281
		120					432	17.000	440.29	17.334	38.10	1.500
		140					419	16.500	429.17	16.896	44.45	1.750
550	22	STD	558.8	22.00	567	22.34	539	21.250	541.08	21.303	9.53	0.375
		XS					533	21.000	535.54	21.084	12.70	0.500
		60					514	20.250	518.86	20.428	22.23	0.875
		80					501	19.750	507.75	19.990	28.58	1.125
		100					488.5	19.250	496.63	19.553	34.93	1.375
		120					476	18.750	485.52	19.115	41.28	1.625
		140					463	18.250	474.41	18.678	47.63	1.875
		160					450.5	17.750	463.30	18.240	53.98	2.125
600	24	STD	609.6	24.00	619	24.38	590.5	23.250	591.88	23.303	9.53	0.375
		XS					584	23.000	586.34	23.084	12.70	0.500
		30					581	22.876	583.59	22.975	14.27	0.562
		40					574.5	22.624	577.97	22.755	17.48	0.688
		60					560.5	22.062	565.49	22.263	24.61	0.969
		80					547.5	21.562	554.38	21.826	30.96	1.219
		100					532	20.938	540.49	21.280	38.89	1.531
		120					517.5	20.376	528.03	20.788	46.02	1.812
650	26	STD	660.4	26.00	670	26.38	645.5	25.376	645.50	25.413	9.53	0.375
		XS					635	25.000	637.14	25.084	12.70	0.500
		30					635	25.000	637.14	25.084	12.70	0.500
		40					625	24.609	627.03	24.687	12.70	0.500
		60					605	23.819	607.62	23.921	12.70	0.500
		80					585	23.028	587.15	23.130	12.70	0.500
		100					565	22.238	567.00	22.340	12.70	0.500
		120					545	21.447	546.93	21.549	12.70	0.500
700	28	STD	711.2	28.00	721	28.38	695.5	27.376	696.30	27.413	9.53	0.375
		XS					686	27.000	687.94	27.084	12.70	0.500
		30					679.5	26.750	682.37	26.865	15.88	0.625
		40					669.5	26.354	671.47	26.456	15.88	0.625
		60					649.5	25.563	651.45	25.665	15.88	0.625
		80					629.5	24.772	631.37	24.874	15.88	0.625
		100					609.5	23.981	611.29	24.083	15.88	0.625
		120					589.5	23.190	591.21	23.292	15.88	0.625
750	30	STD	762.0	30.00	772	30.38	746	29.376	747.10	29.413	9.53	0.375
		XS					736.5	29.000	738.74	29.084	12.70	0.500
		30					730	28.750	733.17	28.865	15.88	0.625
		40					719.5	28.323	721.47	28.425	15.88	0.625
		60					699.5	27.532	701.29	27.634	15.88	0.625
		80					679.5	26.741	681.21	26.843	15.88	0.625
		100					659.5	25.950	661.21	26.052	15.88	0.625
		120					639.5	25.159	641.21	25.261	15.88	0.625
800	32	STD	812.8	32.00	825	32.50	797	31.376	797.90	31.413	9.53	0.375
		XS					787.5	31.000	789.54	31.084	12.70	0.500
		30					781	30.750	783.97	30.865	15.88	0.625
		40					778	30.624	781.17	30.755	17.48	0.688
		60					757.5	29.833	759.29	29.935	15.88	0.625
		80					737.5	29.042	739.21	29.144	15.88	0.625
		100					717.5	28.251	719.21	28.353	15.88	0.625
		120					697.5	27.460	699.21	27.562	15.88	0.625
850	34	STD	863.6	34.00	876	34.50	848	33.376	848.70	33.413	9.53	0.375
		XS					838	33.000	840.34	33.084	12.70	0.500
		30					832	32.750	834.77	32.865	15.88	0.625
		40					828.5	32.624	831.97	32.755	17.48	0.688
		60					807.5	31.833	809.29	31.935	15.88	0.625
		80					787.5	31.042	789.21	31.144	15.88	0.625
		100					767.5	30.251	769.21	30.353	15.88	0.625
		120					747.5	29.460	749.21	29.562	15.88	0.625
900	36	STD	914.4	36.00	927	36.50	898.5	35.376	899.50	35.413	9.53	0.375
		XS					889	35.000	891.14	35.084	12.70	0.500
		30					882.5	34.750	885.57	34.865	15.88	0.625
		40					876.5	34.500	880.02	34.646	19.05	0.750
		60					855.5	33.708	857.29	33.810	15.88	0.625
		80					835.5	32.917	837.21	33.019	15.88	0.625
		100					815.5	32.126	817.21	32.228	15.88	0.625
		120					795.5	31.335	797.21	31.437	15.88	0.625

NOTES:

(1) Letter designations signify

(a) STD = standard wall thickness

(b) XS = extra-strong wall thickness

(c) XXS = double extra-strong wall thickness

(2) The diameters listed are not requirements. They are provided for the convenience of the user.

(3) Internal machining for continuous backing rings for sizes DN 50 (NPS 2) and smaller is not contemplated.