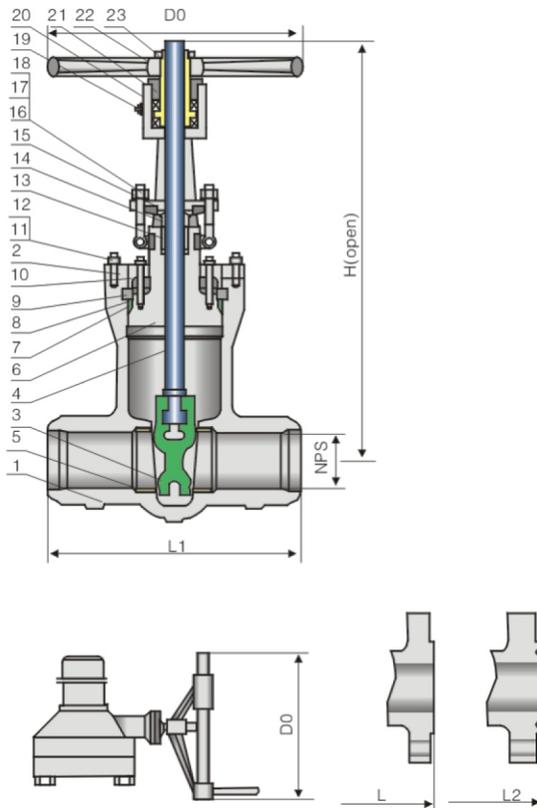


## Applicable Standards:

- STEEL GATE VALVES, API 600/API 6D
- STEEL GATE VALVES, ISO 10434/ISO 14313
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST ,API 598/API 6D

## Design descriptions:

- PSB, PRESSURE SEAL BONNET
- FLEXIBLE WEDGE, FULLY GUIDED
- CHOICE OF SOLID OR SPLIT WEDGE
- RENEWABLE SEAT RINGS
- FORGED T-HEAD STEM
- RISING STEM AND NON-RISING HANDWHEEL
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 <sup>1</sup> / <sub>4</sub> Cr-1 <sup>1</sup> / <sub>2</sub> Mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Yoke	A216-WCB	A217-WC6	A351-CF8M
3	Wedge	A216-WCB+HF	A217-WC6+HF	A351-CF8M+HF
4	Stem	A182-F6a	CR-MO-V	A182-316
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Bonnet	A105	A182-F11	A240-316
7	Bonnet Gasket	Steel Ring	304SS RING	316SS RING
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Yoke Cap	Carbon Steel	Alloy Steel	Stainless Steel
11	Bonnet Stud	A193-B7	A193-B16	A193-B8M
12	Bonnet Stud Nut	A194-2H	A194-7	A194-8M
13	Packing	Graphite		
14	Gland	A276-420	A276-304	A276-316L
15	Gland Flange	A216-WCB	A217-WC6	A351-CF8M
16	Eyebolt Pin	Carbon Steel	A276-420	A276-316
17	Eyebolt	Carbon Steel	A193-B7	A193-B8
18	Eyebolt Nut	Carbon Steel	A194-2H	A194-8
19	Grease Fitting	Brass+Steel		
20	Yokesleeve	Aluminum-Bronze <sup>2)</sup>		
21	Yokesleeve Jam Nut	Carbon Steel		Stainless Steel
22	Handwheel	Malleable Iron		
23	Handwheel Nut	Carbon steel		

Note: 1) Graphite optional  
 2) Ductile Ni-resist optional  
 3) Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

## Dimensional datas

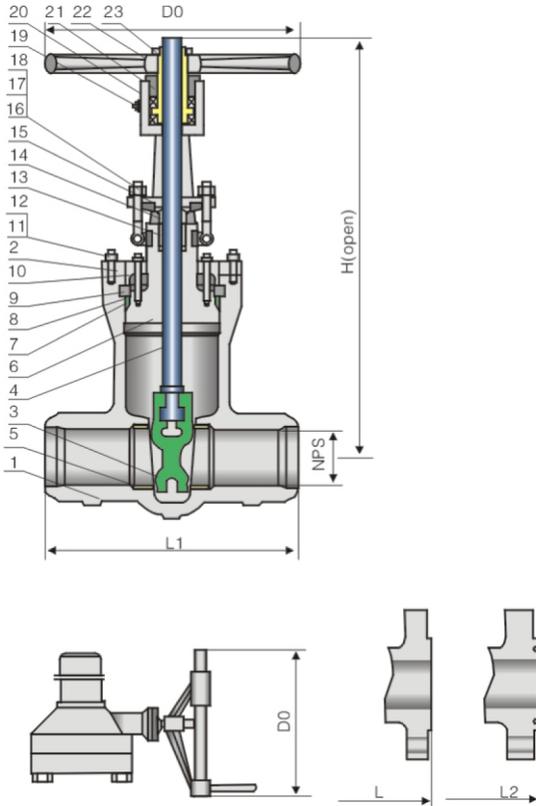
NPS DN	2 50	2 <sup>1</sup> / <sub>2</sub> 65	3 80	4 100	6 150	8 200	10 250	12 300	14 350	16 400	in mm
<b>ANSI Class 900Lb</b>											
L1 (BW)	8.50 216	10.00 254	12.00 305	14.00 356	20.00 508	26.00 660	31.00 787	36.00 914	39.00 991	43.00 1092	in mm
L (RF)	14.50 368	165.50 419	15.00 381	18.00 457	24.00 610	29.00 737	33.00 838	38.00 965	40.50 1029	44.50 1130	in mm
L2 (RTJ)	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968	40.88 1038	44.88 1140	in mm
H (open)	17.62 448	17.62 448	19.5 495	22.88 580	32.62 830	67.362 955	45.5 1165	53.12 1350	59 1500	70.5 1790	in mm
D0	14 350	14 350	14 350	14 350	18 450	24 600	28 700	34 850	34 850	34 850	in mm
WT(kg)	39 69	39 69	48 72	69 110	158 253	289 430	482 710	710 1025	998 1452	1390 1960	BW RF/RTJ

### Applicable Standards:

- STEEL GATE VALVES, API 600/API 6D
- STEEL GATE VALVES, ISO 10434/ISO 14313
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST ,API 598/API 6D

### Design descriptions:

- PSB, PRESSURE SEAL BONNET
- FLEXIBLE WEDGE, FULLY GUIDED
- CHOICE OF SOLID OR SPLIT WEDGE
- RENEWABLE SEAT RINGS
- FORGED T-HEAD STEM
- RISING STEM AND NON-RISING HANDWHEEL
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



### Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 <sup>1</sup> / <sub>4</sub> Cr-1 <sup>1</sup> / <sub>2</sub> mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Yoke	A216-WCB	A217-WC6	A351-CF8M
3	Wedge	A216-WCB+HF	A217-WC6+HF	A351-CF8M+HF
4	Stem	A182-F6a	CR-MO-V	A182-316
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Bonnet	A105	A182-F11	A240-316
7	Bonnet Gasket	Steel Ring	304SS RING	316SS RING
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Yoke Cap	Carbon Steel	Alloy Steel	Stainless Steel
11	Bonnet Stud	A193-B7	A193-B16	A193-B8M
12	Bonnet Stud Nut	A194-2H	A194-7	A194-8M
13	Packing	Graphite		
14	Gland	A276-420	A276-304	A276-316L
15	Gland Flange	A216-WCB	A217-WC6	A351-CF8M
16	Eyebolt Pin	Carbon Steel	A276-420	A276-316
17	Eyebolt	Carbon Steel	A193-B7	A193-B8
18	Eyebolt Nut	Carbon Steel	A194-2H	A194-8
19	Grease Fitting	Brass+Steel		
20	Yokesleeve	Aluminum-Bronze <sup>2)</sup>		
21	Yokesleeve Jam Nut	Carbon Steel		Stainless Steel
22	Handwheel	Malleable Iron		
23	Handwheel Nut	Carbon steel		

Note: 1) Graphite optional  
 2) Ductile Ni-resist optional  
 3) Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

### Dimensional datas

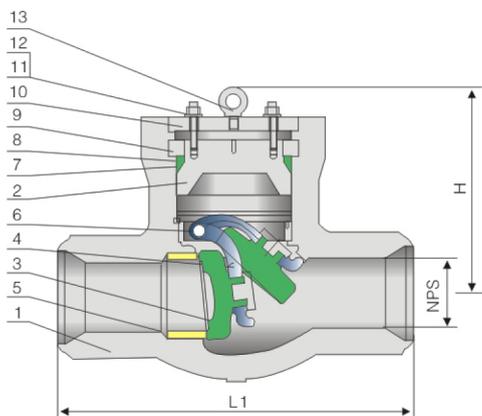
NPS DN	2	2 <sup>1</sup> / <sub>2</sub>	3	4	6	8	10	12	14	16	2	2 <sup>1</sup> / <sub>2</sub>	3	4	6	8	10	12	14	16	in mm
	50	65	80	100	150	200	250	300	350	400	50	65	80	100	150	200	250	300	350	400	
	<b>ANSI Class 1500Lb</b>										<b>ANSI Class 2500Lb</b>										
L1 (BW)	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00	42.00	47.00	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00	-	-	in
	216	254	305	406	559	711	864	991	1067	1194	279	330	368	457	610	762	914	1041	-	-	mm
L (RF)	14.50	16.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.050	17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00	-	-	in
	368	419	470	546	705	832	991	1130	1257	1384	451	508	578	673	914	1022	1270	1422	-	-	mm
L2 (RTJ)	15.50	16.62	18.62	21.62	28.00	33.12	39.38	45.12	50.25	55.38	17.88	20.50	23.00	26.88	36.50	40.88	50.88	56.88	-	-	in
	371	422	473	549	711	841	1000	1146	1276	1407	454	514	584	683	927	1038	1292	1445	-	-	mm
H (open)	17.62	17.62	21.62	25.25	33.5	38.62	46.5	62.25	70.5	78	22.5	22.5	25.62	30	36.62	41.38	44.88	60.25	-	-	in
	448	448	550	640	850	980	1180	1580	1790	1980	570	570	650	760	930	1050	1140	1530	-	-	mm
D0	14	14	14	18	24	28	34	34	34	34	14	14	18	24	28	34	34	34	-	-	in
	350	350	350	450	600	700	850	850	850	850	350	350	450	600	700	850	850	850	-	-	mm
WT(kg)	45	45	55	77	175	323	540	795	1115	1556	110	110	150	175	380	575	980	1570	-	-	BW
	80	80	95	123	283	481	795	1148	1626	2195	165	195	235	316	635	910	1780	2680	-	-	RF/RTJ

## Applicable Standards:

- STEEL CHECK VALVES, API 594/API 6D
- STEEL CHECK VALVES, ISO14313
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- INSPECTION AND TEST, API 598/API 6D

## Design descriptions:

- PSB, PRESSURE SEAL BONNET
- FLEXIBLE DISC, FULLY GUIDED
- RENEWABLE SEAT RINGS
- FLANGED OR BUTTWELDING ENDS

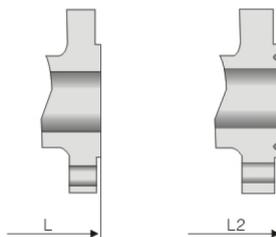


## Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 <sup>1</sup> / <sub>4</sub> Cr-1 <sup>1</sup> / <sub>2</sub> Mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Pres. Seal Bonnet	A216-WCB	A217-WC6	A351-CF8M
3	Disc	A105+HF	A182-F11+HF	A351-CF8M+HF
4	Hinge	A216-WCB	A217-WC6	A351-CF8M
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Hinge Pin	A276-420	A276-304	A276-316
7	Bonnet Gasket <sup>1)</sup>	Steel Ring	304SS Ring	316SS RING
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Cover	Carbon Steel	Alloy Steel	Stainless Steel
11	Stud	A193-B7	A193-B7	A193-B8M
12	Stud Nut	A194-2H	A194-2H	A194-8M
13	Eyebolt	Carbon Steel		

Note: 1) graphite optional

2) disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



## Dimensional datas

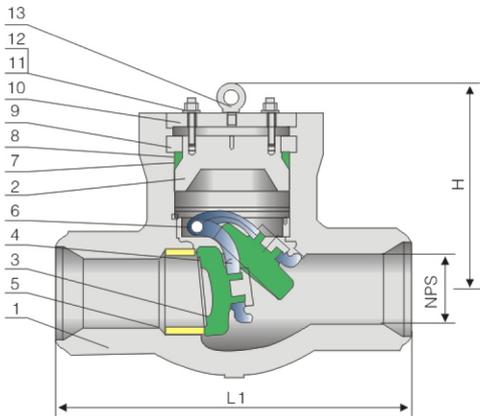
NPS DN	2 50	2 <sup>1</sup> / <sub>2</sub> 65	3 80	4 100	6 150	8 200	10 250	12 300	14 350	16 400	in mm
<b>ANSI Class900Lb</b>											
L1 (BW)	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00	39.00	43.00	in
	216	254	305	356	508	660	787	914	991	1092	mm
L (RF)	14.50	16.60	15.00	18.00	24.00	29.00	33.00	38.00	40.5	44.5	in
	368	419	381	457	610	737	838	965	1029	1130	mm
L2 (RTJ)	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	in
	371	422	384	460	613	740	841	968	1038	1140	mm
H	9.50	9.50	10.00	13.38	15.75	18.12	21.62	24.00	27.00	29.50	in
	240	240	255	340	400	460	550	610	685	750	mm
wt(kg)	22	34	38	71	176	485	761	1125	1345	1490	BW
	44	55	61	116	255	630	940	1433	1710	1820	RF/RTJ

### Applicable Standards:

- STEEL CHECK VALVES, BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

### Design descriptions:

- PSB, PRESSURE SEAL BONNET
- FLEXIBLE DISC, FULLY GUIDED
- RENEWABLE SEAT RINGS
- FLANGED OR BUTTWELDING ENDS

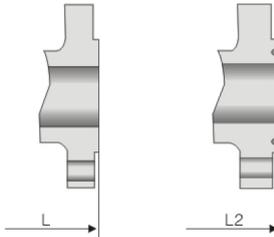


### Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 <sup>1</sup> / <sub>4</sub> Cr-1 <sup>1</sup> / <sub>2</sub> Mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Pres. Seal Bonnet	A216-WCB	A217-WC6	A351-CF8M
3	Disc	A105+HF	A182-F11+HF	A351-CF8M+HF
4	Hinge	A216-WCB	A217-WC6	A351-CF8M
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Hinge Pin	A276-420	A276-304	A276-316
7	Bonnet Gasket <sup>1)</sup>	Steel Ring	304SS Ring	316SS RING
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Cover	Carbon Steel	Alloy Steel	Stainless Steel
11	Bonnet Stud	A193-B7	A193-B7	A193-B8M
12	Bonnet Stud Nut	A194-2H	A194-2H	A194-8M
13	Eyebolt	Carbon Steel		

Note: 1) graphite optional

2) disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



### Dimensional datas

NPS DN	2	2 <sup>1</sup> / <sub>2</sub>	3	4	6	8	10	12	14	2	2 <sup>1</sup> / <sub>2</sub>	3	4	6	8	10	12	in mm
	50	65	80	100	150	200	250	300	350	50	65	80	100	150	200	250	300	
<b>ANSI Class 1500Lb</b>																		
L1 (BW)	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00	42.00	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00	in
	216	254	305	406	559	711	864	991	1067	279	330	368	457	610	762	914	1041	mm
L (RF)	14.50	16.50	18.50	21.50	27.75	32.75	39	44.5	49.5	17.75	20.00	22.75	26.50	36.00	40.25	50	56	in
	368	419	470	546	705	832	991	1130	1257	451	508	578	673	914	1022	1270	1422	mm
L2 (RTJ)	14.62	16.62	18.62	21.62	28.00	33.12	39.38	45.12	50.25	17.88	20.50	23.00	26.88	36.50	40.88	50.88	56.88	in
	371	422	473	549	711	842	1000	1146	1276	454	514	584	683	927	1038	1292	1445	mm
H	9.50	9.50	11.88	15.38	18.00	20.62	24.00	27.00	30.00	10.25	10.25	13.75	16.12	18.88	22.38	25.25	32.00	in
	240	240	300	390	455	525	610	685	760	260	260	350	410	480	570	640	815	mm
wt(kg)	22	37	45	78	245	530	815	1213	1555	55	78	95	182	300	630	825	1580	BW
	44	61	110	155	378	675	1160	1710	2315	93	130	170	315	618	1125	1760	2910	RF/RTJ

## Applicable Standards:

- STEEL GLOBE VALVES, BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST ,API 598

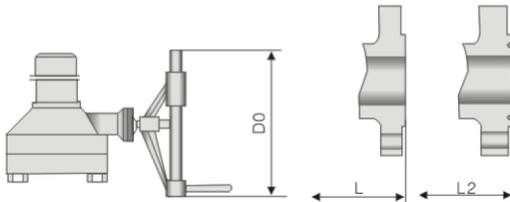
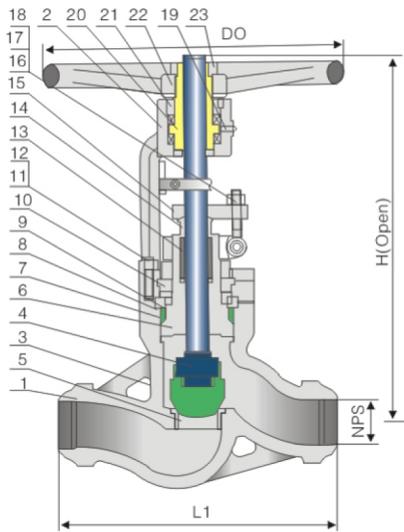
## Design descriptions:

- PSB, PRESSURE SEAL BONNET
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- RENEWABLE SEAT RINGS
- RISING STEM AND HANDWHEEL
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR

## Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 1/4Cr-1/2Mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Yoke	A216-WCB	A217-WC6	A351-CF8M
3	Disc	A216-WCB+HF	A217-WC6+HF	A351-CF8M+HF
4	Stem	A182-F6a	CR-MO-V	A182-316
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Bonnet	A105	A182-F11	A240-316
7	Bonnet Gasket <sup>1)</sup>	Steel Ring	304SS Ring	316SS Ring
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Yoke Cap	Carbon Steel	Alloy Steel	Stainless Steel
11	Bonnet Stud	A193-B7	A193-B16	A193-B8M
12	Bonnet Stud Nut	A194-2H	A194-7	A194-8M
13	Packing	Graphite		
14	Gland	A276-420	A276-304	A276-316L
15	Gland Flange	A216-WCB	A217-WC6	A351-CF8M
16	Eyebolt Pin	Carbon Steel	A276-420	A276-316
17	Eyebolt	Carbon Steel	A193-B7	A193-B8
18	Eyebolt Nut	Carbon Steel	A194-2H	A194-8
19	Grease Fitting	Brass+Steel		
20	Yokesleeve	Aluminum-Bronze <sup>2)</sup>		
21	Yokesleeve Jam Nut	Carbon Steel	Stainless Steel	
22	Handwheel	Malleable Iron		
23	Handwheel Nut	Carbon Steel		

Note: 1) Graphite optional  
 2) Ductile Ni-resist optional  
 3) Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



## Dimensional datas

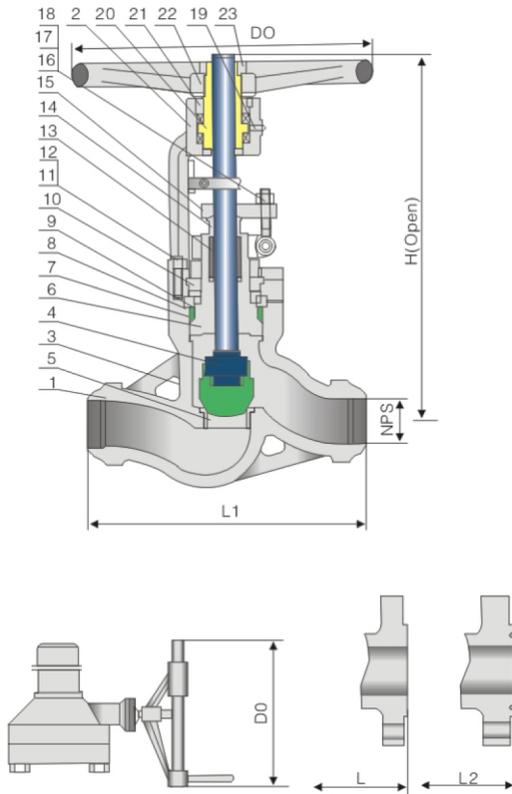
NPS DN	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	in mm
<b>ANSI Class 900Lb</b>									
L1 (BW)	8.50 216	10.00 254	12.00 305	14.00 356	20.00 508	26.00 660	31.00 787	36.00 914	in mm
L (RF)	14.50 368	16.50 419	15.00 381	18.00 457	24.00 610	29.00 737	33.00 838	38.00 965	in mm
L2 (RTJ)	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968	in mm
H (open)	22 557	22 557	22 557	27 685	36.38 925	43.38 1100	50.62 1285	57 1450	in mm
D0	16 400	16 400	16 400	16 400	28 700	28 700	36 900	36 900	in mm
WT(kg)	46 75	53 82	68 95	100 135	270 355	450 680	740 1050	1150 1480	BW RF/RTJ

## Applicable Standards:

- STEEL GLOBE VALVES, BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST ,API 598

## Design descriptions:

- PSB, PRESSURE SEAL BONNET
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- RENEWABLE SEAT RINGS
- RISING STEM AND HANDWHEEL
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

No	Part Name	ASTM Materials		
		Carbon Steel	1 1/4Cr- 1/2Mo	18Cr-9Ni-2Mo
1	Body	A216-WCB	A217-WC6	A351-CF8M
2	Yoke	A216-WCB	A217-WC6	A351-CF8M
3	Disc	A216-WCB+HF	A217-WC6+HF	A351-CF8M+HF
4	Stem	A182-F6a	CR-MO-V	A182-316
5	Seat Ring	A105+HF	A182-F11+HF	A240-316+HF
6	Bonnet	A105	A182-F11	A240-316
7	Bonnet Gasket <sup>1)</sup>	Steel Ring	304SS Ring	316SS Ring
8	Adapter Ring	Carbon Steel	A276-420	A276-316
9	Retainer	Carbon Steel	A276-420	A276-316
10	Yoke Cap	Carbon Steel	Alloy Steel	Stainless Steel
11	Bonnet Stud	A193-B7	A193-B16	A193-B8M
12	Bonnet Stud Nut	A194-2H	A194-7	A194-8M
13	Packing	Graphite		
14	Gland	A276-420	A276-304	A276-316L
15	Gland Flange	A216-WCB	A217-WC6	A351-CF8M
16	Eyebolt Pin	Carbon Steel	A276-420	A276-316
17	Eyebolt	Carbon Steel	A193-B7	A193-B8
18	Eyebolt Nut	Carbon Steel	A194-2H	A194-8
19	Grease Fitting	Brass+Steel		
20	Yokesleeve	Aluminum-Bronze <sup>2)</sup>		
21	Yokesleeve Jam Nut	Carbon Steel	Stainless Steel	
22	Handwheel	Malleable Iron		
23	Handwheel Nut	Carbon Steel		

Note: 1) Graphite optional  
 2) Ductile Ni-resist optional  
 3) Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

## Dimensional datas

NPS DN	2	2 1/2	3	4	6	8	2	2 1/2	3	4	6	in mm	
	50	65	80	100	150	200	50	65	80	100	150		
	<b>ANSI Class 1500Lb</b>						<b>ANSI Class 2500Lb</b>						
L1 (BW)	8.50 216	10.00 254	12.00 305	16.00 406	22.00 559	28.00 711	11.00 279	13.00 330	14.50 368	18.00 457	24.00 610	in mm	
L (RF)	14.50 368	16.50 419	18.50 470	21.50 546	27.75 705	32.75 832	17.75 451	20.00 508	22.75 578	26.50 673	36.00 914	in mm	
L2 (RTJ)	14.62 371	16.62 422	18.62 473	21.62 549	28.00 711	33.12 842	17.88 454	20.50 514	23.00 584	26.88 683	36.50 927	in mm	
H (open)	22 557	22 557	24.38 620	30 760	44.62 1135	54.75 1390	23.38 595	23.38 595	28 710	32.25 820	49.62 1260	in mm	
D0	16 400	18 450	20 500	24 600	28 700	36 900	16 400	20 500	24 600	28 700	36 900	in mm	
WT(kg)	57 86	65 112	90 162	190 240	450 580	730 950	65 115	78 136	125 205	155 275	480 860	BW RF/RTJ	