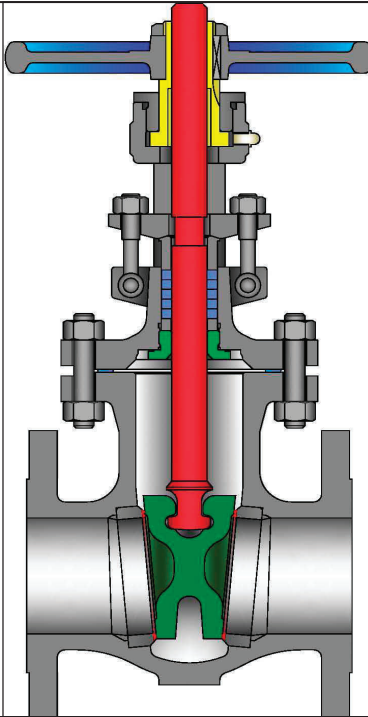




**API 600 GATE VALVES**  
BOLTED BONNET, ASME CLASSES 150 TO 1500  
CAST CARBON, STAINLESS STEEL OR ALLOY STEEL



Class	Fig. No.
150	1503
300	3003
600	6003
900	9003
1500	1303

STANDARD MATERIALS (Other materials available)				
PART	MATERIALS			
Body	A216 Gr. WCB (STANDARD)	A217 Gr. WC6	A217 Gr. WC9	A351 Gr. CF8M (1)
Bonnet / Yoke arm	A216 Gr. WCB	A217 Gr. WC6	A217 Gr. WC9	A351 Gr. CF8M
Wedge	A217 Gr CA15 or WCB + 13% CR Faced	WC6 + Stellite 6 Faced	WC9 + Stellite 6 Faced	A351 Gr. CF8M
Seat Ring	Carbon Steel + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced	SST 316
Stem	SST 410			SST 316
Stem Bushing	A 439 Ductile NI-Resist Gr. D2			
Stem Bushing Lock Nut	Steel			SST 316
Gland Flange	Carbon Steel			Series 300 SST
Eye Bolt	A193 Gr. B7			A193 Gr. B8
Eye Bolt Nut	A194 Gr. 2H			A194 Gr.8
Groove Pin	Steel			Series 300
Gland	SST 410			SST 316
Packing	Graphite			PTFE
Packing Washer / Packing Spacer	SST 410			SST 316
Gasket	Class 150: Corrugated SST Encapsulated w/ Graphite Class 300 to 600: Spiral Wound SST with Graphite Class 900-1500: RTJ			Class 150: PTFE Class 300-600: Spiral Wound SST with PTFE
Back Seat	SST 410			SST 316
Hand Wheel	Malleable Iron or Steel			
Hand Wheel Nut	Malleable Iron or Steel			
Key	Steel			
Lubricant Fitting	Steel			
Body / Bonnet Stud	A193 Gr. B7	A193 Gr. B16		A193 Gr. B8
Body / Bonnet Nut	A194 Gr. 2H	A194 Gr. 7		A194 Gr.8
Bearing Cap	Carbon Steel			Series 300 SST
Cap Screws	Steel			
Identification Plate	Series 300 SST			

**DESIGN FEATURES:**

- **Flexible Wedge** for improved seating and ease of operation, especially in high temperature service. Wedges are accurately guided thru the entire stroke.
- **Standard trim** is API trim 8 for carbon steel valves, API trim 5 for chrome alloy valves, and API trim 10 for CF8M (T316) valves for optimal performance under normal conditions. Other trim materials available on request.
- **Seat faces** lapped for smooth finish and superior sealing.
- **Stems** are non-rotating with surface finish to maximize packing seal for low fugitive emissions.
- **Bonnet and Yoke arms** designed for ease of gear, motor or cylinder actuator adaptation.
- **Each** valve is shell, seat and back-seat pressure tested per industry standard API 598.
- **Gland** is two piece gland / gland flange design for optimal alignment and uniform packing compression.

(1) Weld end valve body A351 Gr. CF3M

**Design Specifications**

Item	Applicable Specification
Wall thickness	API 600
Pressure - temperature ratings	ASME B16.34
General valve design	API 600 & B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

- **End Flanges** have the following raised faces per ASME B16.5:  
Classes 150-300: 1/16" (2mm).  
Classes 600-1500: 1/4" (7mm).
- **Weld ends** are available per ASME B16.25 or per customer's specification.
- **Each** valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test report, inspection report and certificate of conformance.
- **Other** available options as follows:  
-Alternate valve materials such as chrome and stainless steel alloys  
-Alternate trim materials  
-Bypass, drain and other auxiliary connections  
-Gear, motor, and cylinder actuators available  
-NACE service  
-Special cleaning for applications such as oxygen or chlorine  
-Other options available as specified

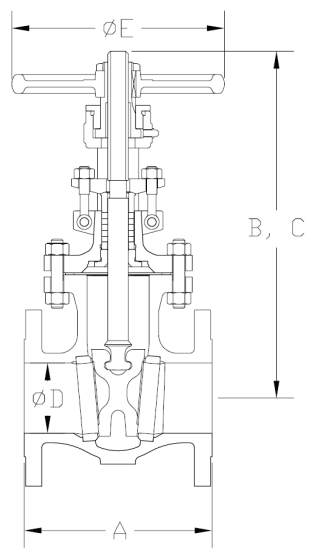
**GATE VALVE DIMENSIONS (CLASS 150–1500).**

SIZE	ASME 150						ASME 300					ASME 600				
	A		B(1)	C(1)	D	E	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
	in	mm					FE					WE				
1	5.00	5.00	8.6	9.8	1.00	4	6.50	8.6	9.8	1.00	4	-	-	-	-	-
25	127	127	217	248	25	114	165	217	248	25	114	-	-	-	-	-
1 ½	6.50	6.50	10.7	12.4	1.50	6	7.50	10.7	12.4	1.50	6	-	-	-	-	-
40	165	165	271	314	38	152	190	271	314	38	152	-	-	-	-	-
2	7.00	8.50	12.3	14.6	2.00	7	8.50	12.3	14.6	2.00	7	11.50	13.5	15.7	2.00	8
50	178	216	313	372	51	178	216	313	372	51	178	292	342	400	51	203
2 ½	7.50	9.50	12.8	15.6	2.50	7	9.50	12.8	15.6	2.50	7	13.00	18.1	21.9	2.50	12
65	190	241	324	395	64	178	241	324	395	64	178	330	461	555	64	305
3	8.00	11.12	14.8	18.1	3.00	9	11.12	15.9	19.3	3.00	9	14.00	19.2	22.8	3.00	12
80	203	282	375	459	76	230	282	405	490	76	230	356	487	580	76	305
4	9.00	12.00	17.7	22.1	4.00	10	12.00	19.0	23.3	4.00	10	17.00	23.0	27.5	4.00	14
100	229	305	450	561	102	254	305	482	593	102	254	432	585	698	102	356
5	10.00	15.00	24.4	31.1	5.00	12	15.00	26.5	33.1	5.00	14	-	-	-	-	-
125	254	381	620	789	127	305	381	674	842	127	356	-	-	-	-	-
6	10.50	15.88	24.4	31.1	6.00	12	15.88	26.5	33.1	6.00	14	22.00	32.5	39.1	6.00	20
150	267	403	620	789	152	305	403	674	842	152	356	559	825	993	152	508
8	11.50	16.50	30.7	39.2	8.00	14	16.50	32.8	41.4	8.00	16	26.00	35.0	45.4	7.87	22
200	292	419	780	996	203	356	419	833	1051	203	406	660	890	1154	200	560
10	13.00	18.00	36.4	47.2	10.00	16	18.00	39.4	50.3	10.00	20	31.00	41.9	52.4	9.75	24
250	330	457	925	1198	254	406	457	1002	1277	254	508	787	1065	1332	248	610
12	14.00	19.75	42.7	55.6	12.00	20	19.75	44.8	57.7	12.00	20	33.00	47.3	59.9	11.75	28
300	356	502	1084	1412	305	508	502	1139	1466	305	508	838	1202	1521	298	710
14	15.00	22.50	47.5	61.5	13.25	20	30.00	49.1	63.4	13.25	22	35.00	67.4 (1)	12.87	28	
350	381	572	1207	1562	337	508	762	1248	1611	337	560	889	1712	327	710	
16	16.00	24.00	51.7	67.8	15.25	22	33.00	54.5	70.7	15.25	24	39.00	75.2 (1)	14.75	36	
400	406	610	1313	1722	387	560	838	1384	1796	387	610	991	1910	375	915	
18	17.00	26.00	58.1	76.4	17.25	24	36.00	79.2 (1)	17.00	28	43.00	81.1 (1)	16.50	36		
450	432	660	1477	1940	438	610	914	2012	432	710	1092	2060	419	915		
20	18.00	28.00	63.3	83.3	19.25	28	39.00	87.3 (1)	19.00	28	47.00	87.3 (1)	18.25	28		
500	457	711	1615	2123	489	710	991	2217	483	710	1194	2217	464	710		
24	20.00	32.00	76.7	101.1	23.25	28	45.00	102.9 (1)	23.00	36	55.00	104.3 (1)	22.00	32		
600	508	813	1948	2568	591	710	1143	2614	584	915	1397	2649	559	810		
30	24.00	36.00	91.9	123.0	29.25	24	55.00	130.0 (1)	29.00	24						
750	610	914	2334	3125	743	610	1397	3302	737	610						

**ADDITIONAL SIZES, MATERIALS AND CLASSES AVAILABLE UPON REQUEST.**

SIZE	ASME 900					ASME 1500				
	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
	in					mm				
2	14.50	15.8	18.5	1.87	10	14.50	15.8	18.5	1.87	10
50	368	402	470	48	254	368	402	470	48	254
2 ½	16.50	18.7	22.1	2.25	12	16.50	18.7	22.1	2.25	12
65	419	475	561	57	305	419	475	561	57	305
3	15.00	19.5	23.1	2.87	14	18.50	20.4	24.1	2.75	16
80	381	495	588	73	350	470	518	613	70	400
4	18.00	21.4	25.8	3.87	14	21.50	22.1	26.5	3.62	16
100	457	543	655	98	350	546	561	674	92	400
6	24.00	30.4	37.3	5.75	22	27.75	32.9	40.2	5.37	24
150	610	773	948	146	560	705	836	1021	136	610
8	29.00	34.7	43.4	7.50	24	32.75	48.0	56.5	7.00	26
200	737	882	1102	191	610	832	1219	1435	178	660
10	33.00	40.6	51.2	9.37	30	39.00	57.8	68.2	8.75	30
250	838	1030	1300	238	762	991	1467	1734	224	762

- (1) Gear operators standard for 18" and up class 300 and 14" and up class 600. Height is to top of actuator.
- WE** = Butt weld ends
- FE** = Flanged ends
- B** = Center to top closed
- C** = Center to top open

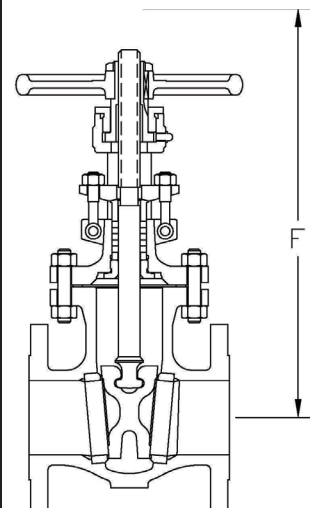


SIZE	ASME 150							ASME 300						ASME 600								
	in mm	F	in mm	WT FE	lb kg	WT WE	lb kg	C <sub>v</sub>	F	in mm	WT FE	lb kg	WT WE	lb kg	C <sub>v</sub>	F	in mm	WT FE	lb kg	WT WE	lb kg	C <sub>v</sub>
1	12.0			14		12		90	12.0			19		15	90	-			-		-	
25	305			6		5			305			9		7		-			-		-	
1 ½	15.5			25		22		190	15.5			34		25	190	-			-		-	
40	390			11		10			390			15		11		-			-		-	
2	19.0			35		33		240	19.0			42		33	240	20.0			77		57	240
50	475			16		15			475			19		15		505			35		26	
2 ½	19.5			49		44		390	19.5			55		44	390	26.0			148		126	390
65	500			22		20			500			25		20		655			67		57	
3	22.0			72		62		560	24.0			112		73	560	28.0			174		143	560
80	565			33		28			610			51		33		710			79		65	
4	26.5			112		97		1000	29.0			176		135	1000	33.5			315		251	1000
100	675			51		44			735			80		61		850			143		114	
5	36.0			142		-		1600	39.0			225		-	1600	-			-		-	
125	915			64		-			990			102		-		-			-		-	
6	36.0			203		190		2400	39.0			346		273	2400	46.5			677		573	2400
150	915			92		86			990			157		124		1185			307		260	
8	45.5			320		287		4500	48.5			540		430	4500	54.5			1096		942	4300
200	1155			145		130			1230			245		195		1380			497		427	
10	53.0			507		465		7000	58.5			838		692	7000	62.0			1574		1334	6700
250	1350			230		211			1480			380		314		1580			714		605	
12	63.0			721		662		10000	67.0			1162		955	10000	71.0			2000		1702	10000
300	1600			327		300			1705			527		433		1805			907		772	
14	70.5			988		966		13000	74.0			1555		1277	13000	76.0			2761		2373	12000
350	1795			448		438			1875			705		579		1935			1252		1076	
16	78.0			1191		1111		17000	82.0			1949		1663	17000	85.0			3616		3098	16000
400	1985			540		504			2080			884		754		2150			1640		1405	
18	85.0			1433		1299		23000	89.5			3790		2196	22000	91.5			4507		3861	21000
450	2150			650		589			2270			1720		996		2325			2044		1751	
20	95.0			1744		1678		28000	98.0			4230		2745	27000	100.0			4507		4279	25000
500	2415			791		761			2505			1918		1245		2520			2044		1941	
24	112.5			2580		2481		41000	116.0			6850		4500	40000	116.5			7949		7621	37000
600	2860			1170		1125			2945			3100		2040		2960			3605		3457	
30	133.5			5510		*		65000	132.5			7932		*	64000							
750	3395			2500		*			3365			3600		*								
36	155.5			7453		*		90000														
900	3950			3380		*																
42	192.0			11687		*		120000														
1050	4875			5300		*																

(\*) Weld ends are available on request.

**FE** = Flanged Ends  
**WE** = Weld Ends

**WT** = Weight  
**F** = Dismantling Dimension  
**C<sub>v</sub>** = Flow Coefficient



SIZE	ASME 900							ASME 1500							
	in mm	F	in mm	WT FE	lb kg	WT WE	lb kg	C <sub>v</sub>	F	in mm	WT FE	lb kg	WT WE	lb kg	C <sub>v</sub>
2	23.5			176		141		210	23.5			176		141	210
50	595			80		64			595			80		64	
2 ½	29.0			210		176		310	29.5			386		316	310
65	735			95		80			745			175		143	
3	29.0			210		176		510	29.5			387		316	470
80	735			95		80			745			175		143	
4	32.5			324		239		950	33.0			536		446	830
100	825			147		108			830			243		202	
6	46.0			794		644		2200	49.0			1365		1230	2000
150	1170			360		292			1235			619		558	
8	53.5			1320		1100		3900	57.0			2500		2200	3400
200	1355			599		499			1455			1134		998	
10	63.5			2340		2190		6200	69.0			5200		5000	5400
250	1615			1061		993			1745			2267		2313	