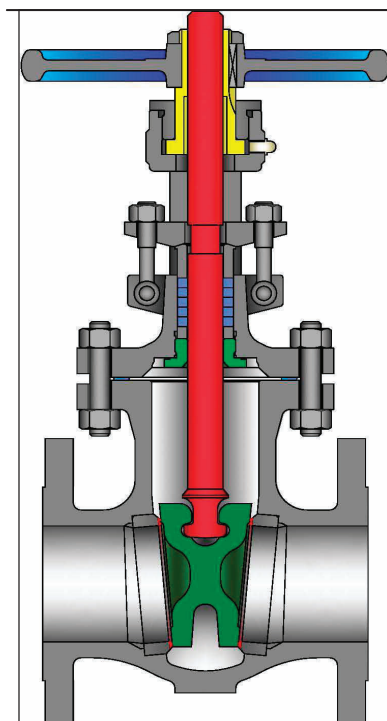




API 600 GATE VALVES
BOLTED BONNET, ASME CLASSES 150 TO 1500
CAST CARBON, STAINLESS STEEL OR ALLOY STEEL



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

NOTE: See page 52 for flow, safety and maintenance information.

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).

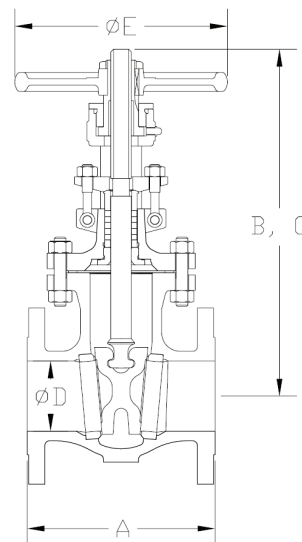
SIZE	ASME 150						ASME 300					ASME 600				
in	A		B(1)	C(1)	D	E	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
mm	FE	WE					WE/FE					WE/FE				
1	5.00	5.00	8.6	9.8	1.00	4	6.50	8.6	9.8	1.00	4	-	-	-	-	-
25	127	127	217	248	25	114	165	217	248	25	114	-	-	-	-	-
1 ½	6.50	6.50	10.7	12.4	1.50	6	7.50	10.7	12.4	1.50	6	-	-	-	-	-
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

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

SIZE	ASME 900					ASME 1500				
in	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
mm	WE/FE					WE/FE				
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



API 600 GATE VALVES

BOLTED BONNET, ASME CLASSES 150 TO 1500
CAST CARBON, STAINLESS STEEL OR ALLOY STEEL

SIZE	ASME 150							ASME 300							ASME 600						
in mm	F	in mm	WT FE	lb kg	WT WE	lb kg	C _v	F	in mm	WT FE	lb kg	WT WE	lb kg	C _v	F	in mm	WT FE	lb kg	WT WE	lb kg	C _v
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		*																

FE = Flanged Ends
WE = Weld Ends

(*) Weld ends are available on request.

WT = Weight
lb = Pounds
kg = Kilograms

(*) Weld ends are available on request.

FE = Flanged Ends
WE = Weld Ends

WT = Weight
F = Dismantling
Dimension
C_v = Flow Coefficient

SIZE	ASME 900							ASME 1500						
in	F	in	WT	lb	WT	lb	C _v	F	in	WT	lb	WT	lb	C _v
mm		mm	FE	kg	WE	kg			mm	FE	kg	WE	kg	
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		

