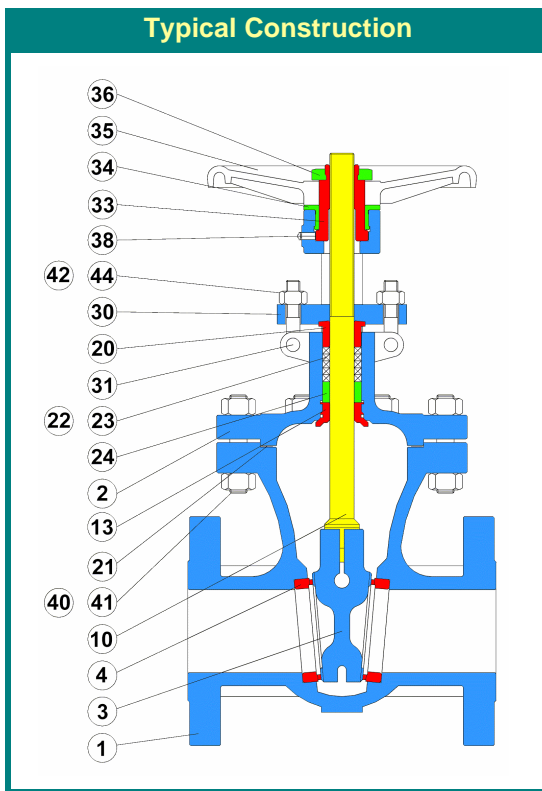


## GATE VALVE DESIGN FEATURES

- ◆ One-Piece Flexible Wedge Gate
- ◆ Bolted Bonnet Construction
- ◆ Outside Screw and Yoke
- ◆ Non-Rotating Rising Stem, Non-Rising Handwheel
- ◆ Manual Operation Standard, Actuation Available
- ◆ Threaded or Welded in Place Seat Rings
- ◆ Complete with Conical Stem Backseat

- ◆ Design : API 600 / BS 1414 / ISO 10434
- ◆ Shell Thickness : API 600 / BS 1414 / ISO 10434
- ◆ Flanged Ends : ASME B16.5 (Sizes ≤ 24")  
MSS SP-44 (Sizes > 24")  
API 605 (Sizes > 24")
- ◆ Face-to-Face : ASME B16.10
- ◆ Testing : API 598 / BS 6755 Part 1



No.	Part Name
1	Body
2	Bonnet
3	Gate
4	Seat Ring
10	Stem
13	Backseat Bushing
20	Gland
21	Bonnet Gasket
22 / 23	Stem / Wiper Packing
24	Bushing
30	Gland Flange
31	Gland Pin
33	Stem Nut
34	Threaded Bushing
35	Handwheel
36	Handwheel Nut
38	Lubrication Fitting
40 / 41	Bonnet Bolt / Nut
42 / 44	Gland Eyebolt / Nut

Note: Butt-welding end valves available upon request.

- ◆ Heavy duty BODY with full port diameter and shell thickness to API / BS standards (as applicable)
- ◆ SEAT RINGS and GATE ground and lapped to a mirror finish to provide matching sealing surfaces
- ◆ GATE fully guided and precision fitted to ensure tight sealing performance
- ◆ Heat treated stainless steel STEM with precision machined ACME threads for long-lasting service
- ◆ Precision machined BACKSEAT BUSHING to provide a secondary metal-to-metal stem seal

- ◆ RISING STEM for visual position indication
- ◆ Large diameter HANDWHEEL for easy operation
- ◆ Austenitic ductile iron STEM NUT to provide resistance to heat, corrosion and wear
- ◆ Two-piece self-aligning GLAND and GLAND FLANGE to prevent stem damage
- ◆ High strength alloy steel STUD BOLTS and heavy series HEX NUTS used
- ◆ Lubrication fitting for STEM NUT lubrication to minimize operation torque and stem wear

## STANDARD MATERIALS OF CONSTRUCTION

Part	ASME B16.34 Material Group				
	Carbon Steel	C-Mn Steel	Alloy Steel		
	1.1	1.2	1.9	1.10	1.13
Body / Bonnet / Yoke	A216 Gr. WCB	A352 Gr. LCC	A217 Gr. WC6	A217 Gr. WC9	A217 Gr. C5
Gland / Bushing	← 13% Chromium ASTM A182 Grade F6a →				
Bonnet Bolt / Nut	B7 / 2H	L7 / 7	← ASTM A193 Gr. B16 / ASTM A194 Gr. 2H →		
Stem Nut	← Austenitic Ductile Iron ASTM A439 Type D2 →				
Handwheel	← Ductile or Malleable Iron →				
Gland Flange	← Steel →				
Threaded Bushing	← Steel →				
Handwheel Nut	← Steel →				
Gland Eyebolt / Nut	← Carbon Steel ASTM A307 Grade B →				
Part	Corrosion-Resistant Steel				
	ASME B16.34 Material Group				Duplex
	2.1		2.2		UNS J92205
Body / Bonnet / Yoke	A351 Gr. CF8	A351 Gr. CF3	A351 Gr. CF8M	A351 Gr. CF3M	A890 Gr. 4A
Gland / Bushing	304	304L	316	316L	A182 Gr. F51
Bonnet Bolt / Nut	← Corrosion-Resistant Steel ASTM A193 Grade B8 / ASTM A194 Grade 8 →				
Stem Nut	← Austenitic Ductile Iron ASTM A439 Type D2 →				
Handwheel	← Ductile or Malleable Iron →				
Gland Flange	← Steel →				
Threaded Bushing	← Steel →				
Handwheel Nut	← Steel →				
Gland Eyebolt / Nut	← Corrosion-Resistant Steel ASTM A193 Grade B8 / ASTM A194 Grade 8 →				

Note: Other materials available upon request.

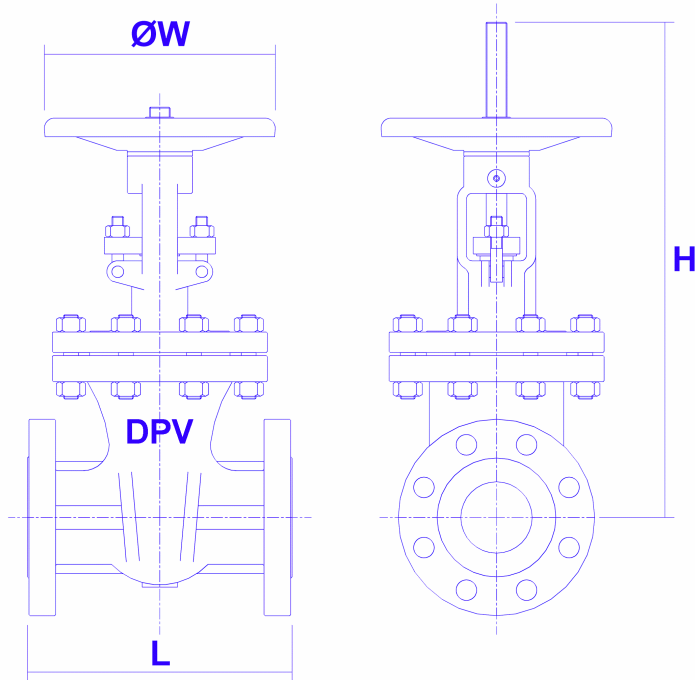
Trim Materials											
Part	API 600 Trim No.										
	1	2	5	6	8	9	10	11	12	13	14
Gate	13Cr	304	HF	NiCu	13Cr	NiCu	316	NiCu	316	Alloy 20	Alloy 20
Seat Ring	13Cr	304	HF	13Cr	HF	NiCu	316	HF	HF	Alloy 20	HF
Stem	13Cr	304	13Cr	13Cr	13Cr	NiCu	316	NiCu	316	Alloy 20	Alloy 20
Backseat	13Cr	304	13Cr	13Cr	13Cr	NiCu	316	NiCu	316	Alloy 20	Alloy 20
Part	DPV® Trim No.										
	A	B	C	D	E	F	G	H	I	J	K
Gate	304	HF	HF	HF	13Cr	13Cr	HF	HF	13Cr	13Cr	HF
Seat Ring	HF	HF	HF	HF	13Cr	HF	HF	HF	13Cr	HF	HF
Stem	304	304	316	NiCu	F51	F51	F51	F51	F51	F51	F51
Backseat	304	304	316	NiCu	13Cr	13Cr	13Cr	316	F51	F51	F51

Note: Trim will be supplied either as a base material equal to body with weld overlay or solid trim at manufacturer's option.



# GATE VALVES

## DIMENSIONS



### ANSI Class 150

Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	178	409	200	40	18
2½"	191	442	200	55	25
3"	203	508	250	75	34
4"	229	590	250	119	54
5"	254	610	300	148	67
6"	267	630	300	194	88
8"	292	960	350	318	144
10"	330	1,158	400	434	197
12"	356	1,378	450	657	298
14"	381	1,543	500	895	406
16"	406	1,738	600	1,155	524
18"	432	1,959	600	1,588	720
20"	457	2,214	680	2,463	1,117
24"	508	2,599	760	3,233	1,466
26"	559	2,750	800	3,607	1,636
28"	610	2,825	800	4,258	1,931
30"	610	3,180	800	4,540	2,059
32"	660	3,269	800	5,270	2,390
36"	711	3,736	800	7,365	3,340

### ANSI Class 300

Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	216	424	200	57	26
2½"	241	460	200	97	44
3"	283	535	250	117	53
4"	305	615	250	168	76
5"	381	662	300	203	92
6"	403	795	350	322	146
8"	419	1,012	400	481	218
10"	457	1,231	450	776	352
12"	502	1,450	500	1,041	472
14"	762	1,645	600	1,530	694
16"	838	1,841	600	2,381	1,080
18"	914	1,943	680	2,723	1,235
20"	991	2,154	800	3,649	1,655
24"	1,143	2,598	800	5,116	2,320

### DPV® Figure Numbers

Material	ANSI Class	
	150	300
A216 Gr. WCB	1512F	3012F
A217 Gr. WC1	1511F	3011F
A217 Gr. WC6	1516F	3016F
A217 Gr. WC9	1519F	3019F
A217 Gr. C5	1515F	3015F
A351 Gr. CF3	1514LF	3014LF
A351 Gr. CF3M	1513LF	3013LF
A351 Gr. CF8	1514F	3014F
A351 Gr. CF8M	1513F	3013F
A352 Gr. LCB	151BF	301BF
A352 Gr. LCC	151CF	301CF
A890 Gr. 4A	151DF	301DF

## DIMENSIONS

ANSI Class 600					
Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	292	458	250	101	46
2½"	330	508	250	121	55
3"	356	570	250	141	64
4"	432	690	350	282	128
6"	559	910	450	587	266
8"	660	1,064	500	924	419
10"	787	1,257	600	1,663	754
12"	838	1,468	680	2,163	981
14"	889	1,623	760	2,902	1,316
16"	991	1,816	760	3,687	1,672
18"	1,092	2,260	800	4,564	2,070
20"	1,194	2,705	800	5,303	2,405
24"	1,397	2,810	800	10,033	4,550

ANSI Class 900					
Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	368	620	300	209	95
3"	381	695	350	276	125
4"	457	825	400	423	192
6"	610	1,065	500	833	378
8"	737	1,320	600	1,400	635
10"	838	1,540	750	1,985	900
12"	965	1,840	800	3,418	1,550
14"	1,029	2,025	800	4,785	2,170
16"	1,130	2,170	800	6,769	3,070
18"	1,219	2,232	800	8,666	3,930
20"	1,321	2,435	800	11,290	5,120

ANSI Class 1500					
Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	368	559	250	214	97
3"	470	711	400	370	168
4"	546	838	500	611	277
6"	705	1,397	600	1,411	640
8"	832	1,822	800	2,602	1,180
10"	991	2,051	800	4,670	2,118
12"	1,130	2,134	800	7,153	3,244
14"	1,257	2,267	800	8,143	3,693
16"	1,384	2,420	800	10,782	4,890

ANSI Class 2500					
Size	Dimensions (mm)			Approx. Wt.	
	L	H	W	( lb. )	( kg. )
2"	451	700	350	298	135
3"	578	887	560	598	271
4"	673	1,079	720	1,116	506
6"	914	1,370	800	3,464	1,571
8"	1,022	1,530	800	5,294	2,401
10"	1,270	2,045	800	9,967	4,520

DPV® Figure Numbers				
Material	ANSI Class			
	600	900	1500	2500
A216 Gr. WCB	6012F	9012F	15012F	25012F
A217 Gr. WC1	6011F	9011F	15011F	25011F
A217 Gr. WC6	6016F	9016F	15016F	25016F
A217 Gr. WC9	6019F	9019F	15019F	25019F
A217 Gr. C5	6015F	9015F	15015F	25015F
A351 Gr. CF3	6014LF	9014LF	15014LF	25014LF
A351 Gr. CF3M	6013LF	9013LF	15013LF	25013LF
A351 Gr. CF8	6014F	9014F	15014F	25014F
A351 Gr. CF8M	6013F	9013F	15013F	25013F
A352 Gr. LCB	601BF	901BF	1501BF	2501BF
A352 Gr. LCC	601CF	901CF	1501CF	2501CF
A890 Gr. 4A	601DF	901DF	1501DF	2501DF