

A stylized green valve symbol consisting of two curved segments meeting at a central point, resembling a globe valve or a check valve. The symbol is positioned to the right of the text.

## 10. ANSI Gate, Globe & Check Valves

## Section 10. ANSI Gate, Globe and Check Valves

### Forged Gate, Globe & Check

#### Specifications

Design: **BS 5352, API 602**  
 SW dimension: **ANSI B 16.11**  
 NPT dimension: **ANSI B 1.20.1**  
 BW dimension: **ANSI B 16.25**  
 Flange dimension: **ANSI B 16.5**

### Cast Gate, Globe & Check

#### Specifications

Wall thickness and general valve design: **API 600, API 6D, BS1414, BS1873**  
 Pressure temperature rating: **ASME B16.34**  
 Face to face dimensions for butt weld and flanged valves: **ASME B16.10**  
 Flange design: **ASME B16.5**  
 Butt welding design: **ASME B16.25**  
 Test and Inspection: **API 598**

RATING	150lb	300lb	400lb	600lb	900lb	1,500lb	2,500lb
MAX. WORKING PRESSURE	285 PSI	740 PSI	990 PSI	1480 PSI	2220 PSI	3705 PSI	6170 PSI
TEST PRESSURE	450 PSI	1125 PSI	1500 PSI	2225 PSI	3350 PSI	5575 PSI	9275 PSI
OPERATING TEMPERATURE RANGE	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C

**MATERIAL REQUIREMENTS:** Carbon Steel, Alloy Steel, Stainless Steel, Duplex, Super Duplex, Inconel.

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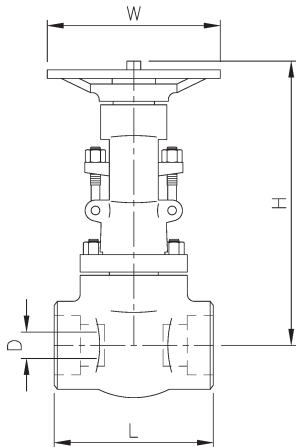
**GENERAL NOTE:** De-rating of maximum working pressure will occur as the operating temperature increases.

## Section 10. ANSI Gate, Globe and Check Valves

### Forged Steel Gate Valves



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**Table 10.1 Class 800**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	10	79	161	100	2.22
20(3/4")	13.6	92	163	100	2.39
25(1")	18	111	196	125	4.29
40(1 1/2")	29	120	251	160	7.05
50(2")	36.8	140	290	180	10.9

**Table 10.2 Class 1500**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	10.5	111	191	125	4.4
20(3/4")	13.5	111	192	125	5.1
25(1")	18	120	219	160	6
40(1 1/2")	29	140	296	180	11.4
50(2")	36.8	178	316	200	16

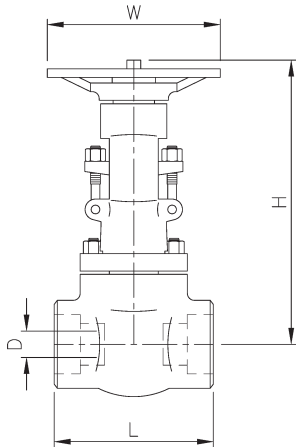
**Table 10.3 Class 2500**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	14	150	293	130	11
20(3/4")	14	150	300	130	11.3
25(1")	19	210	390	250	22.4
40(1 1/2")	30	235	435	300	38
50(2")	30	235	435	300	38

GENERAL NOTE: Dimensions are in mm.

## Section 10. ANSI Gate, Globe and Check Valves

### Forged Steel Globe Valves



**Table 10.4 Class 800**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	9	79	164	100	2.28
20(3/4")	13	92	164	100	2.37
25(1")	17.5	111	203	125	4.3
40(1 1/2")	30	152	260	160	7.8
50(2")	35	172	300	180	12.5

**Table 10.5 Class 1500**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	12	111	207	125	3.7
20(3/4")	15	111	207	125	4.6
25(1")	20	120	240	160	6.5
40(1 1/2")	32	172	330	180	11.6
50(2")	40	200	355	200	15

**Table 10.6 Class 2500**

Nominal R	D	L	H (Open)	W	Weight (kgs)
15(1/2")	11	150	293	130	10
20(3/4")	14	150	300	130	10.3
25(1")	19	210	390	250	22.4
40(1 1/2")	28	235	435	300	38
50(2")	35	235	435	300	38

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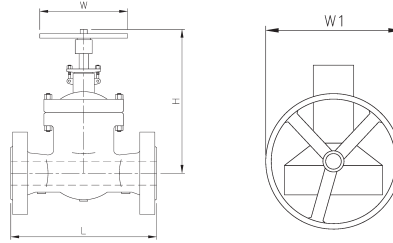
**GENERAL NOTE:** Dimensions are in mm.

## Section 10. ANSI Gate, Globe and Check Valves

### Cast Gate Valves



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**Table 10.7 Class 150**

Size	2	3	4	6	8	10	12	14	16	18	20	24	28	30	32	36
L-RF	7.0	8.0	9.0	10.0	11.5	13	14	15	16	17	18	20.0	24.0	24.0	28.0	28.0
L-RJ	7.5	8.5	9.5	11	12	13.5	14.5	15.5	16.5	17.5	18.5	20.5	-	-	-	-
H	15.3	19.7	23.4	30.6	38.4	45.7	54.7	61.2	71.3	82.8	90.5	102.7	131	142	146	154.5
W(HW)	8	10	10	14	14	16	18	22	24	25	27	30	-	-	-	-
W1 (Gear)	-	-	-	12.2	12.2	12.2	12.2	18.1	18.1	18.1	18.1	18.1	23.6	23.6	23.6	23.6
Wt (HW)	19	33	49	77	123	188	288	385	500	601	764	1007	-	-	-	-
Wt (Gear)	-	-	-	104	150	215	315	435	552	653	816	1185	1880	2300	2550	3390

**Table 10.8 Class 300**

Size	2	3	4	6	8	10	12	14	16	18	20	24	28	30
L-RF	8.5	11.1	12.0	15.9	16.5	18.0	19.7	30.0	33.0	36.0	39.0	45.0	53.0	55.0
L-RJ	9.1	11.7	12.6	16.5	17.1	18.6	20.4	30.6	33.6	36.6	39.7	45.9	54.0	56.0
H	16.9	20.9	24.8	31.5	39.7	48.8	57.9	64.8	72.5	77.1	86.4	102.3	122.0	130.7
W(HW)	8	10	11	14	16	18	20	24	24	26	30	36	-	-
W1 (Gear)	-	-	12.2	12.2	12.2	12.2	12.2	18.1	18.1	18.1	18.1	24	24	24
Wt (HW)	25	48	73	130	208	334	450	704	923	1131	1345	2122	-	-
Wt (Gear)	-	-	100	186	235	386	502	756	965	1224	1400	2385	3300	3550

**10.4** GENERAL NOTES: Dimensions are in inches. Weight in kg.

**Table 10.9 Class 600**

Size	2	3	4	6	8	10	12	14	16	18	20	24
L-RF	11.5	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0	43.0	47.0	55.0
L-RJ	11.6	14.1	17.1	22.1	26.1	31.1	33.1	35.1	39.1	43.1	47.3	55.4
H	17.9	23.7	27.2	35.8	41.9	49.5	57.8	63.9	71.5	89.0	106.5	110.6
W(HW)	10	11.1	12	18	20	26	30	36	36	-	-	-
W1 (Gear)	-	10	10	12.2	12.2	18.1	18.1	18.1	18.1	30	30	30
Wt (HW)	32	60	107	216	399	605	851	1177	1513	-	-	-
Wt (Gear)	-	87	134	268	451	657	893	1232	1568	1980	2480	3850

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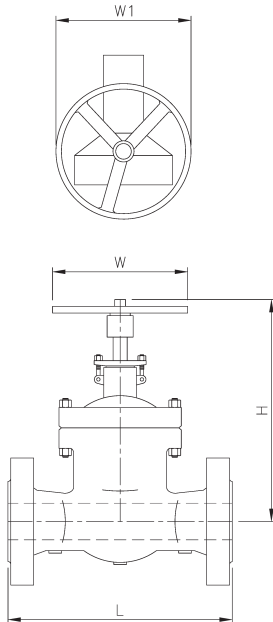
**GENERAL NOTES:** Dimensions are in inches.  
Weight in kg.

## Section 10. ANSI Gate, Globe and Check Valves

### Cast Gate Valves



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**Table 10.10 Class 900**

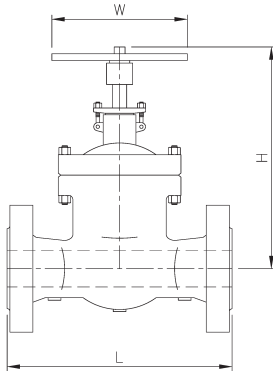
Size	2	3	4	6	8	10	12	14	16
L-RF	14.50	15.00	18.00	24.00	29.00	33.00	38.00	40.6	44.5
L-RJ	14.62	15.12	18.12	24.12	29.12	33.12	38.12	40.9	44.9
H	19.7	24.0	27.6	38.6	43.3	52.0	59.0	74.8	80.7
W(HW)	11.1	12	14	20	26	28	36	36	36
W1 (Gear)	-	10	12.2	18.1	18.1	18.1	18.1	24	24
Wt (HW)	70	140	200	358	550	1000	1215	1600	2150
Wt (Gear)	-	167	227	410	600	1100	1310	1700	2330

**Table 10.11 Class 1500**

Size	2	3	4	6	8	10	12	14	16
L-RF	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.5	54.5
L-RJ	14.62	18.62	21.62	28.00	33.13	39.38	45.12	50.2	55.4
H	20.1	24.4	28.7	39.4	44.5	65.4	72.44	-	-
W(HW)	11.1	14	16	20	30	36	36	-	-
W1 (Gear)	-	10	12.2	18.1	18.1	24	24	24	24
Wt (HW)	75	175	270	520	820	1560	1900	-	-
Wt (Gear)	99	202	300	575	915	1750	2120	2600	3450

GENERAL NOTES: Dimensions are in inches.

Weight in kg.



**Table 10.12 Class 2500**

Size	2	3	4	6	8	10	12
L-RF	17.75	22.75	26.50	36.00	40.25	50.00	56.00
L-RJ	17.87	23.00	26.88	36.50	40.87	50.88	56.88
H	27.56	34.92	43.19	57.09	63.39	81.73	89.80
W	14	18	20	24	24	24	24
Weight	135	271	650	1600	2450	4570	7150

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**GENERAL NOTES:** Dimensions are in inches.  
Weight in kg.

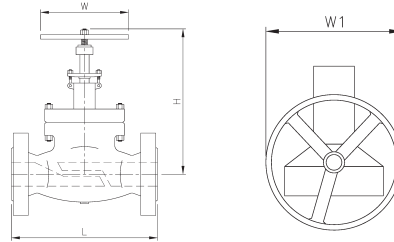


## Section 10. ANSI Gate, Globe and Check Valves

### Cast Globe Valves



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**Table 10.13 Class 150**

Size	2	2.5	3	4	6	8	10	12	14	16	18
L-RF	8.00	8.50	9.50	11.50	16.00	19.50	24.50	27.50	31.00	36.00	38.50
L-RJ	8.50	9.00	10.00	12.00	16.50	20.00	25.00	28.00	31.50	36.50	39.00
H	12.9	14.17	15.94	19.09	20.47	23.62	31.00	33.94	53.00	61.00	70.00
W(HW)	8	10	10	12	14	16	18	20	22	24	32
W1 (Gear)	-	-	-	-	-	16	16	18	20	24	30
Wt (HW)	22	32	38	62	104	154	308	539	819	1085	1294
Wt (Gear)	-	-	-	-	-	174	330	575	855	1185	1394

**Table 10.14 Class 300**

Size	2	2.5	3	4	6	8	10	12	14	16
L-RF	10.50	11.50	12.50	14.00	17.50	22.00	24.50	28.00	33.00	34.00
L-RJ	11.13	12.13	13.13	14.63	18.13	22.63	25.13	28.63	33.63	34.63
H	13.78	15.39	16.54	19.37	24.41	31.22	45.08	49.61	55.28	62.99
W(HW)	8	10	12	14	18	22	25	28	32	32
W1 (Gear)	-	-	-	-	16	20	22	24	30	30
Wt (HW)	28	48	56	82	154	240	319	632	946	1243
Wt (Gear)	-	-	-	-	178	270	352	672	1000	1350

10.8

GENERAL NOTES: Dimensions are in inches. Weight in kg.

**Table 10.15 Class 600**

Size	2	2.5	3	4	6	8	10	12
L-RF	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00
L-RJ	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12
H	15.4	17.0	18.8	20.8	26.6	28.4	38.3	42.3
W(HW)	10	11	12	16	22	26	28	30
W1 (Gear)	-	-	-	16	20	22	22	24
Wt (HW)	32	42	63	107	240	357	680	900
Wt (Gear)	-	-	-	135	275	425	750	1000

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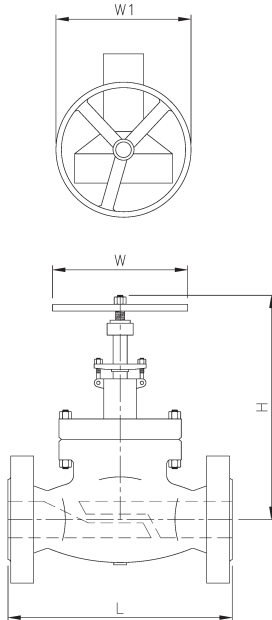
**GENERAL NOTES:** Dimensions are in inches.  
Weight in kg.

## Section 10. ANSI Gate, Globe and Check Valves

### Cast Globe Valves



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**Table 10.16 Class 900**

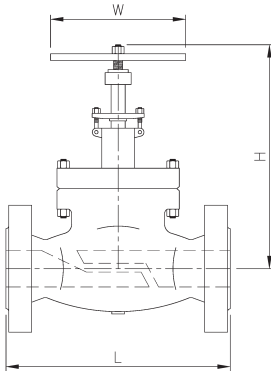
Size	2	2.5	3	4	6	8	10	12
L-RF	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00
L-RJ	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12
H	19.6	20.0	20.6	23.7	28.8	38.20	52.40	61.00
W (HW)	12.4	12.4	14	16	22	26	38.3	38
W1 (Gear)	-	-	12	15	20	22	24	28
Wt (HW)	55	68	95	138	390	774	1250	1535
Wt (Gear)	-	-	128	175	460	850	1325	1625

**Table 10.17 Class 1500**

Size	2	2.5	3	4	6	8	10
L-RF	14.50	16.50	18.50	21.50	27.75	32.75	39.00
L-RJ	14.62	16.62	18.62	21.62	28.00	33.12	39.38
H	22.4	25.5	28.5	32.75	40.15	46.53	53.0
W (HW)	16	16	20	24	28	34	48
W1 (Gear)	14	14	20	22	25	25	30
Wt (HW)	73	130	151	172	467	1225	1635
Wt (Gear)	105	178	201	235	540	1325	1750

GENERAL NOTES: Dimensions are in inches.

Weight in kg.



**Table 10.18 Class 2500**

Size	2	2.5	3	4	6	8
L-RF	17.75	20.00	22.75	26.50	36.00	40.25
L-RJ	17.87	20.25	23.00	26.88	36.50	40.87
H	28.35	31.50	34.84	49.61	75.00	97.05
W	16	20	22	25	25	25
Weight	176	264	308	759	1990	4390

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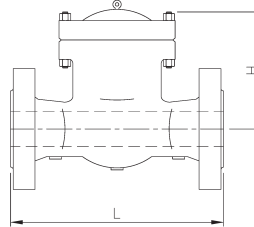
**GENERAL NOTES:** Dimensions are in inches.  
Weight in kg.

## Section 10. ANSI Gate, Globe and Check Valves

### Cast Check Valves



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**Table 10.19 Class 150**

Size	2	3	4	6	8	10	12	14	16	18	20	24	30	36
L-RF	8.00	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	51.00	60.00	77.00
L-RJ	8.50	10.00	12.00	14.50	20.00	25.00	28.00	31.50	34.50	39.00	39.00	51.50	60.50	77.50
H	6.10	7.10	8.66	10.55	12.20	13.70	14.90	15.80	18.10	19.85	22.20	26.75	36.00	41.50
Weight Kgs.	19	29	46	77	163	220	356	428	555	775	835	1180	1725	2800

**Table 10.20 Class 300**

Size	2	3	4	6	8	10	12	14	16	18	20	24	30	36
L-RF	10.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00	62.75	82.00
L-RJ	11.13	13.13	14.63	18.13	21.63	25.13	28.63	33.63	34.63	39.13	40.75	53.88	63.75	83.00
H	6.30	7.83	8.95	10.95	12.70	15.05	17.10	20.10	20.50	22.50	24.75	28.00	37.00	43.00
Weight Kgs.	21	39	69	125	210	307	450	680	840	1025	1320	1960	2515	4515

GENERAL NOTES: Dimensions are in inches.

Weight in kg.

**Table 10.21 Class 600**

Size	2	3	4	6	8	10	12	14	16	18	20	24
L-RF	11.50	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
L-RJ	11.63	14.13	17.13	22.13	26.13	31.13	33.13	35.13	39.13	43.13	47.25	55.38
H	7.20	8.95	10.25	12.80	15.50	19.30	20.80	22.60	26.00	28.40	29.40	38.00
Weight Kgs.	36	70	122	270	465	675	880	950	1230	1635	2140	3200

**Table 10.22 Class 900**

Size	2	3	4	6	8	10	12	14	16	18	20	24
L-RF	14.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00	61.00
L-RJ	14.63	15.13	18.13	24.13	29.13	33.13	38.13	40.87	44.87	48.50	52.50	61.75
H	10.50	11.50	12.10	13.30	18.20	19.75	22.90	25.60	28.00	31.00	33.50	36.80
Weight Kgs.	70	100	150	305	510	810	1120	1733	2395	3220	3960	5750

**Table 10.23 Class 1500**

Size	2	3	4	6	8	10	12	14	16	18	20	24
L-RF	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50	60.50	65.50	76.50
L-RJ	14.63	18.63	21.63	28.00	33.13	39.37	45.12	50.25	55.37	61.37	66.37	77.63
H	10.50	11.60	14.00	18.35	21.30	22.80	26.50	28.70	32.00	35.65	39.80	44.50
Weight Kgs.	85	150	245	550	1010	1550	2280	3210	4365	5877	7260	10470

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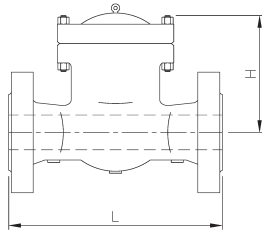
**GENERAL NOTES:** Dimensions are in inches.  
Weight in kg.

## Section 10. ANSI Gate, Globe and Check Valves

### Cast Check Valves



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**Table 10.24 Class 2500**

Size	2	3	4	6	8	10	12
L-RF	17.75	22.75	26.50	36.00	40.25	50.00	56.00
L-RJ	17.87	23.00	26.88	36.50	40.87	50.88	56.88
H	16.40	17.40	19.00	20.30	28.10	33.60	39.50
Weight Kgs	145	330	650	1400	2420	3750	5500

GENERAL NOTES: Dimensions are in inches.

Weight in kg.