

## Section 9. API 6A Gate Valves

Gate Valves are designed and manufactured in accordance with the following specifications:-

<b>API 6A</b>	Specification for Wellhead and Christmas Tree Equipment
<b>API 14D</b>	Specification for Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service
<b>ANSI B31.3</b>	Chemical Plant and Petroleum Refinery Piping
<b>ASME VIII</b>	Boiler and Pressure Vessel Code
<b>MSS-SP-55</b>	Quality Standard for Steel Castings for Valve, Flanges and Fittings and Other Piping Components
<b>NACE MR-01-75</b>	Sulphide Stress Cracking Resistant Metallic Materials for Oilfield Equipment

Gate Valves are available in manual or remote operation for use in the following pressure ratings and services:-

PRESSURE & TEMPERATURE RATINGS					
<b>MAX. WORKING PRESSURE</b>	<b>3,000 PSI</b>	<b>5,000PSI</b>	<b>10,000PSI</b>	<b>15,000PSI</b>	<b>20,000PSI</b>
TEST PRESSURE	4,500PSI	7,500PSI	15,000PSI	22,500PSI	30,000PSI
PRODUCT SPECIFICATION LEVELS	1,2,3 & 4	1,2,3 & 4	1,2,3 & 4	1,2,3 & 4	1,2,3 & 4
PRODUCT RATING	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2
API TEMPERATURE RATING	K (-60 DEG C) TO Y (+345 DEG C)	K (-60 DEG C) TO Y (+345 DEG C)	K (-60 DEG C) TO Y (+345 DEG C)	K (-60 DEG C) TO Y (+345 DEG C)	K (-60 DEG C) TO Y (+345 DEG C)

MATERIAL REQUIREMENTS		
MATERIAL CLASS	BoDY, BoNNET, END AND oUTLET CoNNECTIoNS	PRESSURE CoNTRoLLING PARTS E.G. STEMS
AA - GENERAL SERVICE	CARBON OR LOW ALLOY STEEL	CARBON OR LOW ALLOY STEEL
BB - GENERAL SERVICE	CARBON OR LOW ALLOY STEEL	STAINLESS STEEL
CC - GENERAL SERVICE	STAINLESS STEEL	STAINLESS STEEL
DD - SOUR SERVICE**	CARBON OR LOW ALLOY STEEL*	CARBON OR LOW ALLOY STEEL*
EE - SOUR SERVICE**	CARBON OR LOW ALLOY STEEL*	STAINLESS STEEL*
FF - SOUR SERVICE**	STAINLESS STEEL*	STAINLESS STEEL*
HH - SOUR SERVICE**	CORROSION RESISTANT ALLOYS*	CORROSION RESISTANT ALLOYS*

\*\*As defined in NACE MR-01-75 \*In accordance with NACE MR-01-75

GENERAL NOTE: Please contact GonPetro for any special material or dimensional requirements.

Max.working pressures stated are suitable for temperatures up to 121°C.

De-rating of max.working pressure will occur as the operating temperature increases above 121°C. Consult GonPetro for further details.

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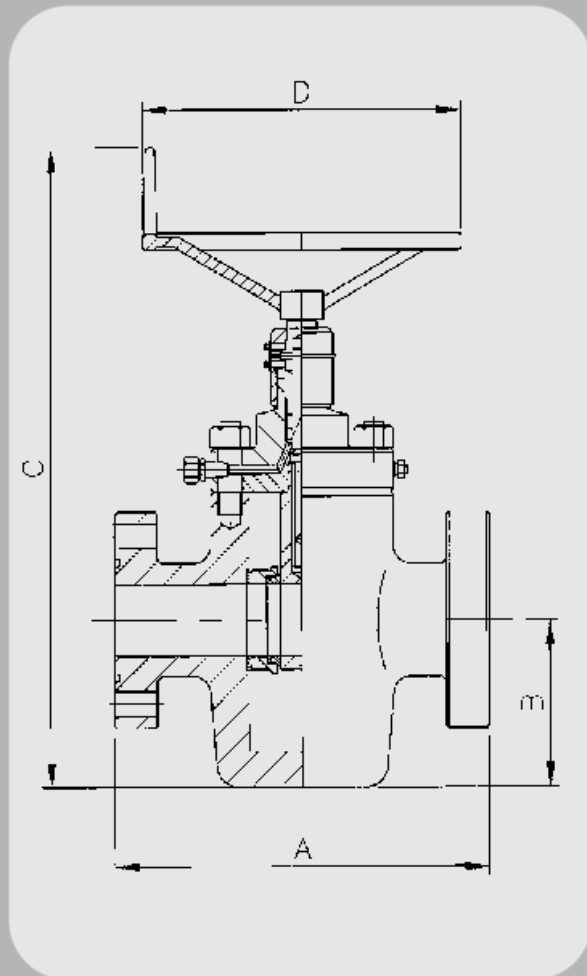


Table 9.1 Manual Gate Valve

Valve	Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns (± 1/4)	Weight (kg)
2	1/16-3K	R-24	14.62	27.89	6.45	14.00	12 3/8	91
2	3/16-3K	R-27	16.62	30.25	7.25	18.00	17 1/2	118
3	1/8-3K	R-31	17.12	32.18	7.56	18.00	18 3/4	200
4	1/16-3K	R-37	20.12	36.81	9.25	18.00	24 3/8	227
5	1/8-3K	R-41	24.12	43.37	11.44	22.00	29 3/8	364
	6-3K	R-45	24.12	49.21	13.96	22.00	29 1/4	409
6	3/8-3K	R-45	24.12	49.21	13.96	22.00	29 1/4	409
2	1/16-5K	R-24	14.62	27.89	6.45	14.00	12 3/8	91
2	3/16-5K	R-27	16.62	30.25	7.25	18.00	17 1/2	118
3	1/8-5K	R-35	18.62	32.18	7.56	18.00	18 3/4	200
4	1/16-5K	R-39	21.62	36.81	9.25	18.00	24 3/4	227
5	1/8-5K	R-44	28.62	43.37	11.44	22.00	29 3/8	364
6	1/8-5K	R-46	29.00	49.21	13.96	22.00	29 1/4	409
6	3/8-5K	R-46	29.00	49.21	13.96	22.00	29 1/4	409

GENERAL NOTE: Dimensions are in inches

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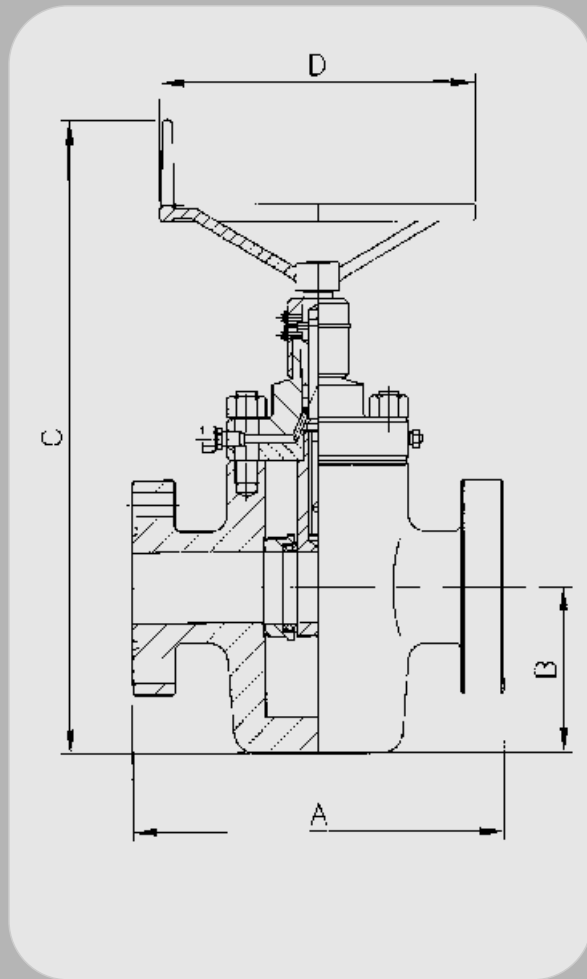
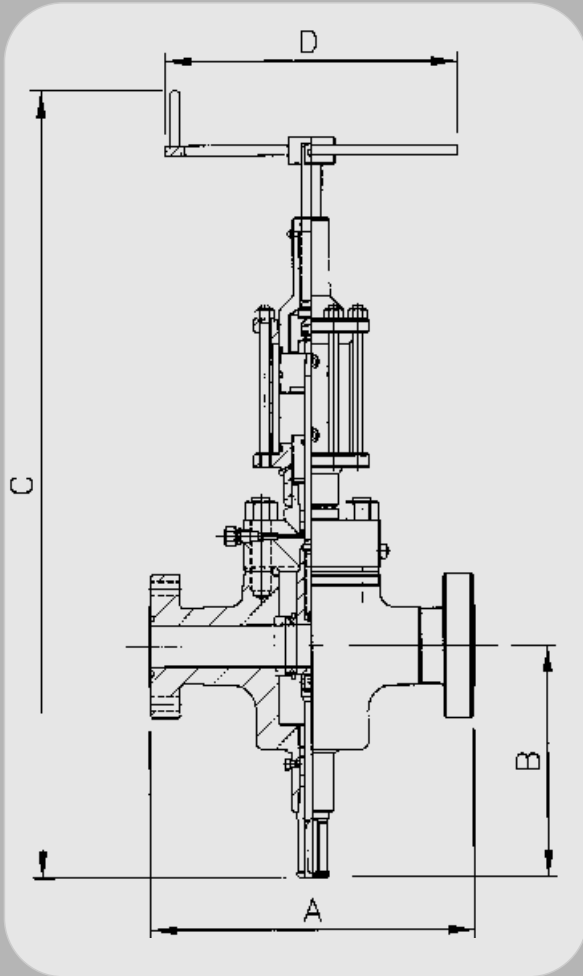


Table 9.2 Manual Gate Valve

Valve	Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns (± 1/4)	Weight (kg)
1	1 3/16-10K	BX-151	18.25	29.75	7.00	14.00	12 1/2	173
2	1/16-10K	BX-152	20.50	32.61	9.49	18.00	13 3/8	182
2	9/16-10K	BX-153	22.25	32.81	8.25	22.00	17 1/2	227
3	1/16-10K	BX-154	24.38	33.81	7.75	22.00	18 3/4	205
4	1/16-10K	BX-155	26.38	39.36	9.86	22.00	24 3/8	591
5	1/8-10K	BX-169	29.00	44.81	11.56	22.00	23 1/2	682
6	1/8-10K	BX-156	35.00	54.43	14.62	22.00	36 1/4	795
6	3/8-10K	BX-156	35.00	54.43	14.62	22.00	36 1/4	795
1	1 3/16-15K	BX-151	18.00	30.75	7.00	14.00	12 1/2	182
2	1/16-15K	BX-152	19.00	29.87	6.75	18.00	13 3/8	191
2	9/16-15K	BX-153	21.00	37.72	11.35	18.00	16 1/4	268
3	1/16-15K	BX-154	23.56	41.00	12.44	22.00	15 1/2	477
4	1/16-15K	BX-155	29.00	44.01	11.63	22.00	19 1/2	636
2	9/16-20K	BX-153	26.50	39.68	11.31	22.00	21	568

GENERAL NOTE: Dimensions are in inches

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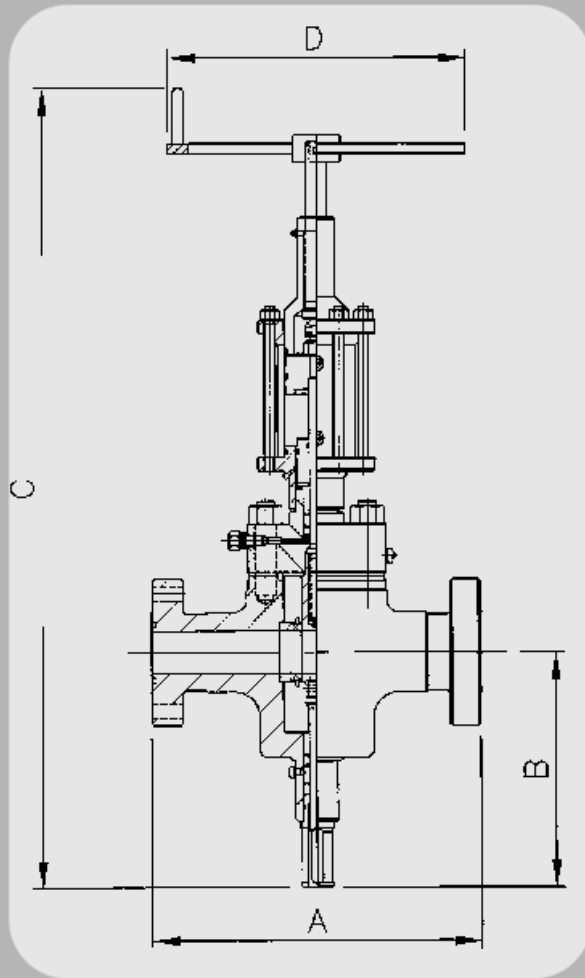


GENERAL NOTE: Dimensions are in inches

**Table 9.3 Hydraulic Gate Valve**

Valve	Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns ( $\pm 1/4$ )	Weight (kg)
2	1/16-3K	R-24	14.62	44.12	13.00	14.00	14 <sup>13</sup> / <sub>16</sub>	118
2	3/16-3K	R-27	16.62	52.75	14.00	18.00	19 <sup>1</sup> / <sub>2</sub>	145
3	1/8-3K	R-31	17.12	53.44	15.94	18.00	22 <sup>1</sup> / <sub>2</sub>	227
4	1/16-3K	R-37	20.12	63.06	19.06	18.00	29 <sup>3</sup> / <sub>4</sub>	273
5	1/8-3K	R-41	24.12	97.65	22.77	22.00	35 <sup>1</sup> / <sub>4</sub>	423
2	1/16-5K	R-24	14.62	44.12	13.00	14.00	14 <sup>13</sup> / <sub>16</sub>	118
2	3/16-5K	R-27	16.62	52.75	14.00	18.00	19 <sup>1</sup> / <sub>2</sub>	145
3	1/8-5K	R-35	18.62	53.44	15.94	18.00	22 <sup>1</sup> / <sub>2</sub>	227
4	1/16-5K	R-39	21.62	63.06	19.06	18.00	29 <sup>3</sup> / <sub>4</sub>	273
5	1/8-5K	R-44	28.62	97.65	22.77	22.00	35 <sup>1</sup> / <sub>4</sub>	423

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GENERAL NOTE: Dimensions are in inches

**Table 9.4 Hydraulic Gate Valve**

Valve	Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns ( $\pm 1/4$ )	Weight (kg)
1	1 <sup>3</sup> / <sub>16</sub> -10K	BX-151	18.25	41.00	11.00	14.00	12 <sup>1</sup> / <sub>2</sub>	227
2	1 <sup>1</sup> / <sub>16</sub> -10K	BX-152	20.50	47.34	13.47	18.00	15 <sup>3</sup> / <sub>4</sub>	250
2	9 <sup>1</sup> / <sub>16</sub> -10K	BX-153	22.25	52.75	14.00	18.00	19 <sup>1</sup> / <sub>2</sub>	282
3	1 <sup>1</sup> / <sub>16</sub> -10K	BX-154	24.38	51.56	12.81	22.00	22 <sup>1</sup> / <sub>2</sub>	295
4	1 <sup>1</sup> / <sub>16</sub> -10K	BX-155	26.38	60.96	16.03	22.00	29 <sup>3</sup> / <sub>4</sub>	705
5	1 <sup>1</sup> / <sub>8</sub> -10K	BX-169	29.00	97.65	22.77	22.00	35 <sup>3</sup> / <sub>4</sub>	795
1	1 <sup>3</sup> / <sub>16</sub> -15K	BX-151	18.00	41.00	11.00	18.00	12 <sup>1</sup> / <sub>2</sub>	227
2	1 <sup>1</sup> / <sub>16</sub> -15K	BX-152	19.00	47.34	13.47	18.00	15 <sup>3</sup> / <sub>4</sub>	250
2	1 <sup>1</sup> / <sub>16</sub> -15K	BX-153	21.00	53.53	14.41	18.00	19 <sup>1</sup> / <sub>2</sub>	295
3	1 <sup>1</sup> / <sub>16</sub> -15K	BX-154	23.56	60.52	17.65	22.00	23 <sup>3</sup> / <sub>4</sub>	591
4	1 <sup>1</sup> / <sub>16</sub> -15K	BX-155	29.00	65.11	20.18	22.00	29 <sup>3</sup> / <sub>4</sub>	750
2	9 <sup>1</sup> / <sub>16</sub> -20K	BX-153	26.50	55.87	16.00	22.00	21	636