



6. API Valves

API Gate Valves

Section 6. API Valves

Section 6a API Gate Valves

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

API 6A	Specification for Wellhead and Christmas Tree Equipment
API 14D	Specification for Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service
ANSI B31.3	Chemical Plant and Petroleum Refinery Piping
ASME VIII	Boiler and Pressure Vessel Code
MSS-SP-55	Quality Standard for Steel Castings for Valve, Flanges and Fittings and Other Piping Components
NACE MR-01-75	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					
MAX. WORKING PRESSURE	3,000 PSI	5,000PSI	10,000PSI	15,000PSI	20,000PSI
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

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GENERAL NOTE: Please contact RBV Energy 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.

Section 6a. API Gate Valves



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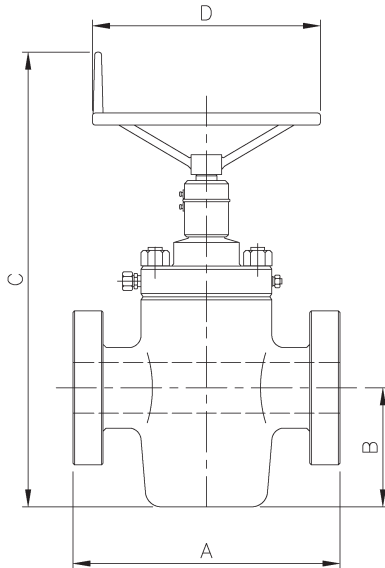


Table 6a.1 Manual Gate Valve

Valve Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns (± ¼)	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 / ₈	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

Section 6a. API Gate Valves

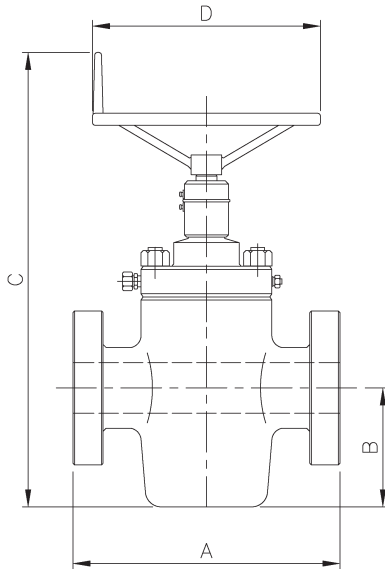


Table 6a.2 Manual Gate Valve

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

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GENERAL NOTE: Dimensions are in inches

Section 6a. API Gate Valves



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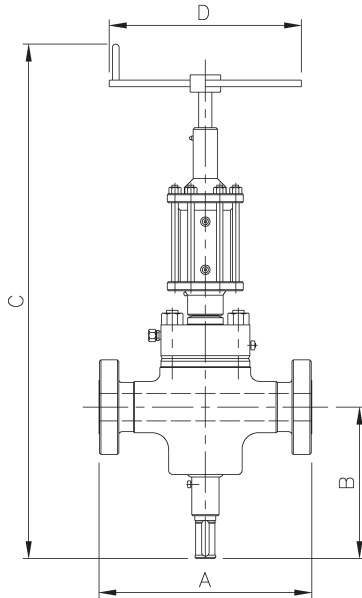


Table 6a.3 Hydraulic Gate Valve

Valve Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns (± ¼)	Weight (kg)
2 ¹ / ₁₆ -3K	R-24	14.62	44.12	13.00	14.00	14 ¹⁹ / ₁₆	118
2 ⁹ / ₁₆ -3K	R-27	16.62	52.75	14.00	18.00	19 ¹ / ₂	145
3 ¹ / ₈ -3K	R-31	17.12	53.44	15.94	18.00	22 ¹ / ₂	227
4 ¹ / ₁₆ -3K	R-37	20.12	63.06	19.06	18.00	29 ¹ / ₄	273
5 ¹ / ₈ -3K	R-41	24.12	97.65	22.77	22.00	35 ¹ / ₄	423
2 ¹ / ₁₆ -5K	R-24	14.62	44.12	13.00	14.00	14 ¹⁹ / ₁₆	118
2 ⁹ / ₁₆ -5K	R-27	16.62	52.75	14.00	18.00	19 ¹ / ₂	145
3 ¹ / ₈ -5K	R-35	18.62	53.44	15.94	18.00	22 ¹ / ₂	227
4 ¹ / ₁₆ -5K	R-39	21.62	63.06	19.06	18.00	29 ¹ / ₄	273
5 ¹ / ₈ -5K	R-44	28.62	97.65	22.77	22.00	35 ¹ / ₄	423

GENERAL NOTE: Dimensions are in inches

Section 6a. API Gate Valves

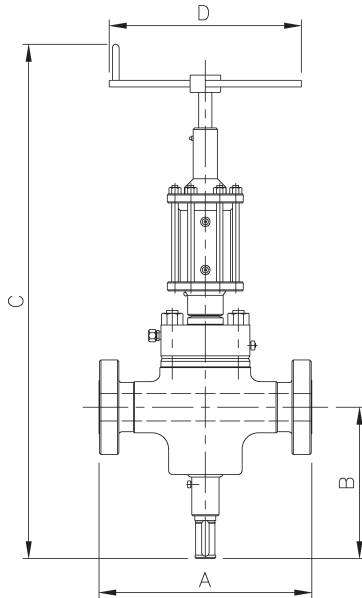


Table 6a.4 Hydraulic Gate Valve

Valve Size	API Ring Gasket	End to End 'A'	Bottom to Top 'C'	Centre to Bottom 'B'	Handwheel Dia 'D'	Number of Turns (± ¼)	Weight (kg)
1 ³ / ₁₆ -10K	BX-151	18.25	41.00	11.00	14.00	12½	227
2 ¹ / ₁₆ -10K	BX-152	20.50	47.34	13.47	18.00	15¾	250
2 ⁹ / ₁₆ -10K	BX-153	22.25	52.75	14.00	18.00	19½	282
3 ¹ / ₁₆ -10K	BX-154	24.38	51.56	12.81	22.00	22½	295
4 ¹ / ₁₆ -10K	BX-155	26.38	60.96	16.03	22.00	29¼	705
5 ¹ / ₁₆ -10K	BX-169	29.00	97.65	22.77	22.00	35¼	795
1 ³ / ₁₆ -15K	BX-151	18.00	41.00	11.00	18.00	12½	227
2 ¹ / ₁₆ -15K	BX-152	19.00	47.34	13.47	18.00	15¾	250
2 ⁹ / ₁₆ -15K	BX-153	21.00	53.53	14.41	18.00	19½	295
3 ¹ / ₁₆ -15K	BX-154	23.56	60.52	17.65	22.00	23¼	591
4 ¹ / ₁₆ -15K	BX-155	29.00	65.11	20.18	22.00	29¼	750
2 ⁹ / ₁₆ -20K	BX-153	26.50	55.87	16.00	22.00	21	636

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