

KO Wedge Gate Valves

Vtek ControlsTM

SERIES KO Wedge Gate Valves



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Features & Benefits / Standards / Applications & Industries

Features & Benefits

Applicable Standards

- Design and Manufacture: ASME B16.34
- Face to Face and End to End: ASME B16.10
- Flanged End: ASME B16.5
- But Welded End: ASME B16.25
- Test & Inspection: API 598, API 6D

Design Description

- Straight pattern body design
- Outside screw and yoke (OS & Y)
- Bolted Bonnet (BB)
- Yoke integral with bonnet
- Rising stem and handwheel
- Impact handwheel for NPS 10 and above
- Flanged or butt welded ends
- Available with bevel gear operation

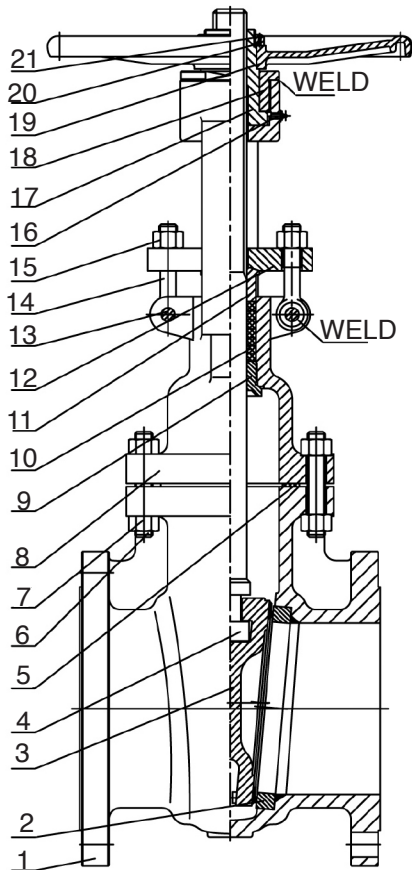
Main Materials

- WCB, LCB, WC6, WC9, CF8, CF8M, CF3, CF3M, A995 4A, A995 5A, A995 6A, Alloy 20, Monel, Inconel, C95800 (Nickel Aluminum Bronze)

Technical

- Oil and gas pipeline including high H₂ S/CO₂ content
- Produced water/brine
- Suction and discharge isolation
- Station isolation
- Meter isolation
- Blowdown
- Low- and high-temperature service
- Fluid and gas well injection

Parts



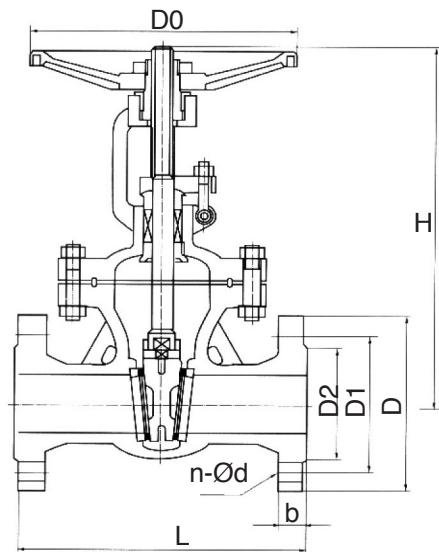
No	Part Name	Material
1	Body	ASTM A216 WCB
2	Seat	ASTM A105 + Steel
3	Wedge	ASTM A216
4	Stem	WCB + Steel
5	Gasket	ASTM A182 F6a
6	Bolt	Graphite + 304
7	Nut	ASTM A103 B7
8	Bonnet	ASTM A194 2H
9	Back Seat	ASTM A216 WCB
10	Packing	ASTM A182 F6a
11	Gland	Graphite
12	Gland Flange	ASTM A276 410
13	Pin	ASTM A216 WCB
14	Eyelet Bolt	ASTM 1035
15	Nut	ASTM A193 B7
16	Oil Cup	ASTM A194 2H
17	Stem Nut	Brass
18	Gland	ASTM C95200
19	Handwheel	ASTM 1025
20	Screw	ASTM 32510
21	Handwheel Nut	ASTM A1025

Testing

Nominal Pressure	Shell Test		Water Seal Test		Air Seal Test	
	PSI	LBf/in ₂	PSI	LBf/in ₂	PSI	LBf/in ₂
150	435	430	319	315	58 - 101	60 -100
300	1116	1110	826	815		
600	2219	2220	1638	1630		

Dimensions- 150 RF

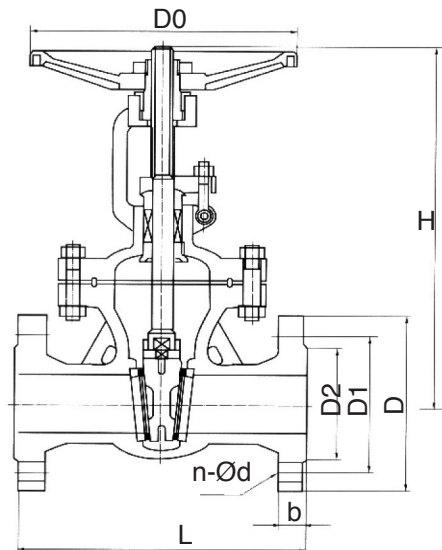
API STANDARD DIMENSIONS



Size	150 LB RF							
Inches	L	D	D1	D2	b	n-ØD	H	D0
1/2	4.29	3.53	2.40	1.39	0.40	0.16-0.64	6.71	3.97
3/4	4.64	3.89	2.78	1.71	0.42	0.16-0.64	7.62	3.97
1	5.04	4.29	3.14	2.02	0.46	0.16-0.64	9.13	4.76
1-1/4	5.56	4.64	3.53	2.54	0.52	0.16-0.64	9.77	4.76
1-1/2	6.55	5.04	3.91	2.90	0.58	0.16-0.64	11.2	5.95
2	7.07	6.03	4.79	3.65	0.64	0.16-0.75	12.8	7.94
2-1/2	7.54	7.07	5.55	4.17	0.71	0.16-0.75	13.8	7.94
3	8.06	7.54	6.05	5.04	0.77	0.16-0.75	15.2	9.92
4	9.09	9.09	7.56	6.23	0.95	0.32-0.75	18.1	11.1
5	10.1	10.1	8.58	7.38	0.95	0.32-0.89	25.1	11.1
6	10.6	11.1	9.58	8.58	1.01	0.32-0.89	25.2	11.9
8	11.6	13.6	11.9	10.7	1.13	0.32-0.89	30.3	13.9
10	13.1	16.1	14.4	12.9	1.20	0.48-1.01	35.4	15.9
12	15.1	19.2	17.1	15.1	1.27	0.48-1.01	42.9	17.9
14	16.1	21.2	18.9	16.4	1.39	0.48-1.15	51.4	19.9
16	17.2	23.7	21.4	18.7	1.45	0.64-1.15	57.0	19.9
18	18.2	25.2	22.9	21.2	1.57	0.79-1.27	64.6	19.9
20	20.2	27.8	25.2	23.2	1.71	0.79-1.39	64.7	23.8
24	22.2	32.3	29.8	27.5	1.94	0.79-1.39	86.4	23.8
26	24.2	31.2	29.6	27.8	2.03	1.43-0.89	88.7	25.8
28	24.2	33.2	31.6	30.3	1.77	1.59-0.89	91.7	27.8
30	27.8	35.2	33.6	32.3	1.77	1.75-0.89	107	27.8
32	28.2	37.4	35.7	34.3	1.83	1.91-0.89	147	--
36	30.6	42.0	40.1	38.6	2.08	1.59-1.01	156	--
40	32.2	46.7	44.5	42.9	2.21	1.75-1.01	171	--

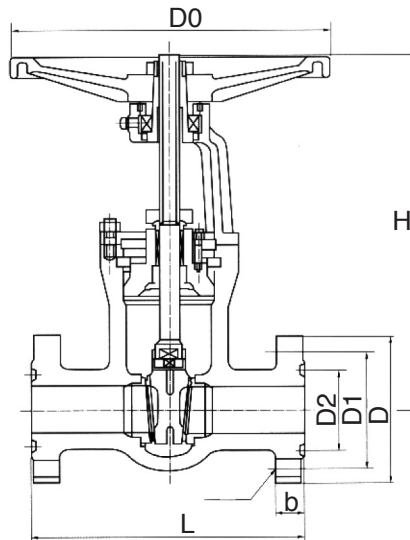
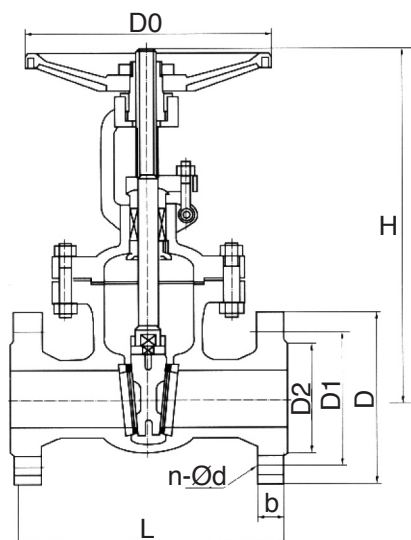
Dimensions - 300 RF

API STANDARD DIMENSIONS



Size	300 LB RF							
Inches	L	D	D1	D2	b	n-ØD	H	D0
1/2	5.56	3.77	2.64	1.39	0.56	0.16-0.64	6.71	4.76
3/4	6.03	4.64	3.28	1.71	0.64	0.16-0.75	7.66	5.95
1	6.55	4.88	3.53	2.02	0.69	0.16-0.75	9.13	5.95
1-1/4	7.07	5.28	3.91	2.50	0.75	0.16-0.75	9.77	6.35
1-1/2	7.54	6.15	4.54	3.02	0.82	0.16-0.89	11.2	7.15
2	8.58	6.55	5.04	3.65	0.89	0.32-0.75	13.1	7.94
2-1/2	9.57	7.54	5.93	4.17	1.01	0.32-0.89	14.6	7.94
3	11.2	8.34	6.67	5.04	1.13	0.32-0.89	15.6	9.92
4	12.1	10.1	7.95	6.23	1.26	0.32-0.89	18.8	11.1
5	15.1	11.1	9.33	7.38	1.39	0.32-0.89	26.2	11.9
6	16.0	12.6	10.7	8.58	1.45	0.48-0.89	28.2	13.9
8	16.6	15.1	13.1	10.7	1.64	0.48-1.01	32.3	15.9
10	18.1	17.6	15.4	12.9	1.90	0.64-1.13	39.8	17.9
12	19.9	20.7	17.9	15.1	2.02	0.64-1.27	45.1	19.9
14	30.3	23.2	20.4	16.4	2.14	0.79-1.27	59.1	23.8
16	33.3	25.7	22.7	18.7	2.27	0.79-1.39	63.1	25.8
18	36.3	28.2	25.0	21.2	2.40	0.95-1.39	80.1	27.8
20	39.3	30.8	27.2	23.2	2.52	0.95-1.39	88.5	27.8
24	45.4	36.3	32.3	27.5	2.78	0.95-1.63	105	29.8
26	49.4	34.4	31.9	29.2	3.57	1.27-1.39	127	29.8
28	53.4	36.6	34.0	31.3	3.57	1.43-1.39	134	--
30	55.5	39.3	35.8	33.5	3.72	1.43-1.51	140	--

Dimensions - 600 RF



Size	600 LB RF							
Inches	L	D	D1	D2	b	n-ØD	H	D0
1/2	6.55	3.77	2.64	1.39	0.83	0.16-0.64	6.71	6.35
3/4	7.54	4.64	3.28	1.71	0.89	0.16-0.75	7.66	7.40
1	8.58	4.92	3.53	2.02	0.95	0.16-0.75	9.13	7.94
1-1/4	9.09	5.28	3.91	2.50	1.09	0.16-0.75	9.77	7.94
1-1/2	9.57	6.19	4.54	2.90	1.15	0.16-0.89	11.2	9.53
2	11.6	6.55	5.04	3.65	1.27	0.32-0.75	16.9	7.94
2-1/2	13.1	7.54	5.93	4.17	1.39	0.32-0.89	19.3	9.92
3	14.1	8.34	6.67	5.04	1.53	0.32-0.89	20.3	11.1
4	17.2	10.8	8.58	6.23	1.77	0.32-1.01	24.2	11.9
5	20.2	13.1	10.6	7.38	2.02	0.32-1.13	27.8	13.9
6	22.2	14.1	11.6	8.58	2.16	0.48-1.13	32.6	17.9
8	26.2	16.6	13.9	10.7	2.46	0.48-1.27	36.5	19.9
10	31.2	20.2	18.3	12.9	2.78	0.64-1.39	42.9	25.8
12	33.3	22.2	19.4	15.1	2.90	0.79-1.39	48.4	29.8
14	35.3	23.9	20.9	16.4	3.04	0.79-1.51	58.5	31.8
16	39.3	27.2	24.0	18.7	3.28	0.79-1.63	65.5	35.7
18	43.4	29.5	26.0	21.2	3.53	0.79-1.77	68.6	--
20	47.4	32.3	28.7	23.2	3.79	0.95-1.77	80.2	--
24	55.5	37.3	33.3	27.5	4.29	0.95-2.02	85.6	--

Ordering

Model

Series	Body Material	Trim Material SS	Flanged End Connections
KO	2CS Carbon Steel	Stainless Steel 22	F150 ANSI 150
	3SS 316 Stainless Steel	Chrome Trim #1	F300 ANSI 300
	304 Stainless Steel	410 trim	F600 ANSI 600
	0LF2 LF2 Low Temp Carbon	#4 Hard 410	
	0LCC LCC Low Temp Carbon	#8 410 Hard faced	
	2WCC Alloy Steel		
	2WC6 Alloy Steel		



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