

Your Professional Valve Solution



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Slab gate valve



Tipvalve is specialized in industrial valves' production, research and development, sales and service.

Offer the valve solution in rigorous working condition for customers, especially in atrocious working condition, sea water and other corrosive media.

Tipvalve is widespread recognized relying on rich experiences and technical support.

TIPVALVE INDUSTRIAL GROUP LTD.



Introduction

The flat-plate gate valve is a slide valve with its closure member as a parallel wedge disc and the apparatus on the mouth of the petroleum and natural gas extracting well is just the said valve, with its closure member to be either a single wedge disc or a double one with an unfurling mechanism therein. The pressing force of the wedge disc towards the seat ring is controlled by the medium pressure acting on the floating wedge disc or seat ring. The said valve features a small flow resistance, similar to that of a short straight pipe and without necking. The flat-plate gate valve with diversion holes is mounted on a pipeline and can do pipe cleaning directly with a pipe cleaner. As the wedge disc slides on the surfaces of the two seat rings, so the flat-plate is also applicable for the medium with suspended grains. The sealing face of the said valve is positioned automatically in fact and will not get damaged along with the hot deformation of the body and overloaded along with the hot extension of the stem when the valve is closed in cold state. The flat-plate gate valve without diversion holes will not ask the closed position of the wedge disc for a higher precision when the valve is closed.

Design

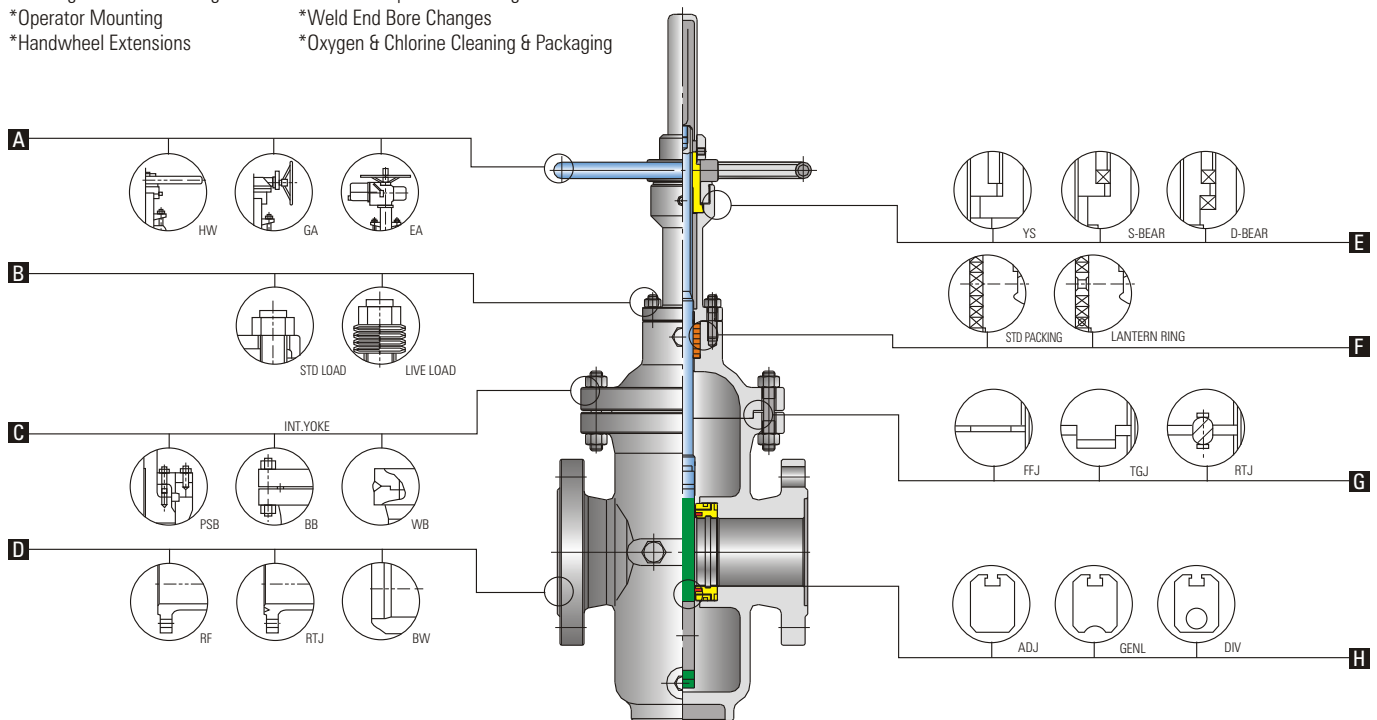
Advanced technology cast steel gate valves are designed and manufactured to provide maximum service life and dependability. All gate valves are full ported and meet the design requirements of American Petroleum Institute standard API 6D, British standard BS1414 & BS EN 1984 and generally, conform to American Society of Mechanical Engineers standard ASME B16.34. Valves are available in a complete range of body/bonnet materials and trims.

Range of Materials

Standard body/bonnet materials include carbon steel, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There's a full range of trim material to match any service. Optional packing and gasket materials are available for a full range of service conditions.

Available modifications for advanced technology cast steel valves

- *Trim Changes
- *End Connection Modifications
- *Packing and Gasket Changes
- *Operator Mounting
- *Handwheel Extensions
- *Pressure Equalizing
- *By-Pass
- *Customer Specified Coatings
- *Weld End Bore Changes
- *Oxygen & Chlorine Cleaning & Packaging



A Operating

Large handwheels for easy operation. Also available with gear, motor actuators, pneumatic or hydraulic actuators for more difficult services.

B Live Load Packing

In services requiring frequent cycling or with high pressure/temperature variations, live loading extends the service life between maintenance periods by requiring less settlements. Belleville springs are employed to provide constant packing gland stress.

C BB

Bolted bonnet, welded bonnet and pressure seal bonnet in services requiring frequent cycling or with high pressure/temperature variations.

D End Connections

A choice of flanged, RTJ flanged or buttwelding end for piping flexibility.

E Yokesleeve

Extra long thread engagement between yoke sleeve and stem provide long thread life. Valves of sizes larger than 150Lb-12", 300Lb-10", 600Lb-6", 900Lb/1500Lb/2500Lb-4" are regularly provided with roll bearing yokes.

F Lantern Ring And Double Packing Set

Lantern ring leak-off fitting connection and double packing stack is optionally available for critical services.

G Body-to-Bonnet Joint

A flat face gasket joint is used in the 150Lb valves. A male and female joint is used in 300Lb to 600Lb valves. Ring joint is used in the body to bonnet connections in 900Lb & higher rated valves.

H Disc

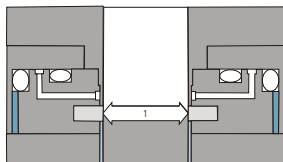
General disc, with small flow resisting, and light switch. Adjust disc, could adjust the flow and switch position randomly. Disc with flow guiding, used to clean the dirt medium.



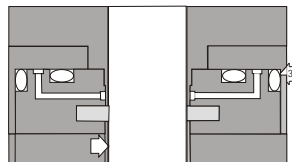
Products Performance Specification

Pressure		Testing pressure at constant temperature (Mpa)				Applicable temperature	Applicable medium	
		The shell testing	The left sealing	Right sealing	Low pressure air tightness		Ordinary type	Antisulphur type
(Lb) Pound grade (Class)	150	3.0	2.2	2.2	0.6	-29 ~ 121℃ or upon the user requirement	Petroleum, natural gas, water etc. non-corrosive media	Petroleum, natural gas, water etc. containing H ₂ S, CO ₂ corrosive media
	300	7.5	5.5	5.5	0.6			
	400	9.6	7.04		0.6			
	600	15.0	11.0	11.0	0.6			
	900	22.5	17.5	17.5	0.6			
	1500	37.5	27.5	27.5	0.6			
	2500	63.0	46.2	46.2	0.6			

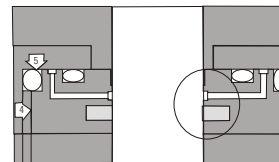
Working Principle



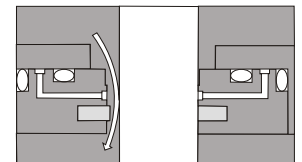
With equal pressure throughout the valve (and the gate in closed position), and initial seal (1) is formed with the raised PTFE ring on the faces of the seats. (The seat-inserts clean both sides of the gate each time the valve is opened or closed)



As line pressure (2) is applied to the valve. it acts on the gate, forcing it against the PTFE ring on the downstream seat, compressing it until the seat against the steel seat. Thus, a double seal is formed...first, a PTFE-to-metal seal; then, metal-to-metal. The seat is also forced firmly into its recess. The O-ring (3) prevents any downstream flow at this point.



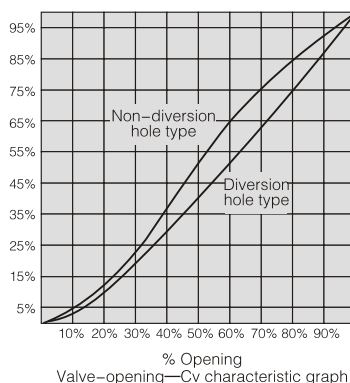
Upstream seal is provided when valve cavity pressure is bled off. This is caused by the force of line pressure acting against the upstream seat (4) moving the seat against the gate and providing a tight PTFE-to metal seal at this point. At the same time, the O-ring (5) forms a tight seal with the seat recess.



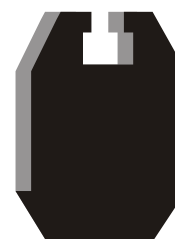
Valve automatically relieves itself of excessive valve cavity pressure. When valve cavity pressure exceeds line pressure...from such causes as thermal expansion...the upstream seat is forced back into its recess and the excess pressure in the valve cavity is bled between the seat and the gate into the line.

Flow Characteristic

The flow characteristic of slab gate valve with through conduit is equal to that of pipelines of the same specification. The characteristic is shown in per centum form. As for valves without a diversion hole, its cavity fly span is smaller than that of wedge gate valves and it is a regular cylindrical object, therefore, characteristics of the valves are similar except that they have a larger pressure loss. Besides, their flux adjustment behavior is better than that of the ones with a diversion hole.



Outside Drawing of Different Types of Shutter



Ordinary type



Adjustment type



Type with diversion hole

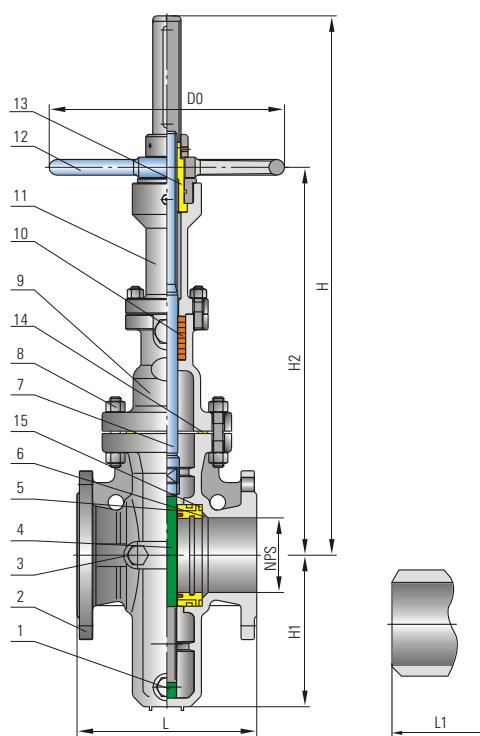


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A350-LF2	A182-304	A182-F316
2	Body	A216-WCB	A350-LCB	A351-CF8	A351-CF8M
3	Grease injection joint	A105 + Zn	A352-LCB	A182-304	A182-F316
4	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
5	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
6	O-ring	NBR			
7	Stem	A276-420	A182-F304	A182-304	A182-F316S
8	Nut	A194-2H	A194-4	A194-8	A194-8M
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Packing	PTFE	Graphite	Graphite	PTFE
11	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
12	Handwheel	A536-60-40-18			
13	Stem nut	C95500			
14	Gasket	Graphite F304			
15	O-Ring	NBR			

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 150Lb

NPS	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	in
DN	25	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	mm
L	5.00	5.51	6.50	7.00	7.48	8.00	9.00	10.51	11.50	13	14	15	16	17	18	20	24	26	28	32	in
	127	140	165	178	190	203	229	267	292	330	356	381	406	432	457	508	610	660	711	811	mm
L1	5.00	5.51	6.50	8.50	9.50	11.14	12	16	16.50	18	19.76	22.52	24	26	28	32	36	38	40	-	in
	127	140	165	216	241	283	305	403	419	457	502	572	610	660	711	813	914	965	1016	-	mm
H	14.17	14.76	16	17.71	21.65	24	27.56	35.23	44.50	51	58.27	65.35	72.83	81.90	90.55	105.51	121.26	134.3	157	170	in
	360	375	410	450	550	610	700	895	1130	1290	1480	1660	1850	2080	2300	2680	3080	3491	3897	4317	mm
H2	9.84	10	11.41	12.40	15.7	16.85	19.45	24.60	31	37	42.52	50.51	55.79	58.62	65.83	79.21	88.58	100	112	128	in
	250	260	290	315	420	428	494	625	784	937	1080	1283	1417	1489	1672	2012	2250	2550	2850	3250	mm
D0	7.10	7.10	10	10	12	12	12	14	14	15.75	17.71	19.68	19.69	23.62	27.56	31.50	31.50	39.37	39.37	47.24	in
	180	180	250	250	300	300	300	350	350	400	450	500	500	600	700	800	800	1000	1000	1200	mm

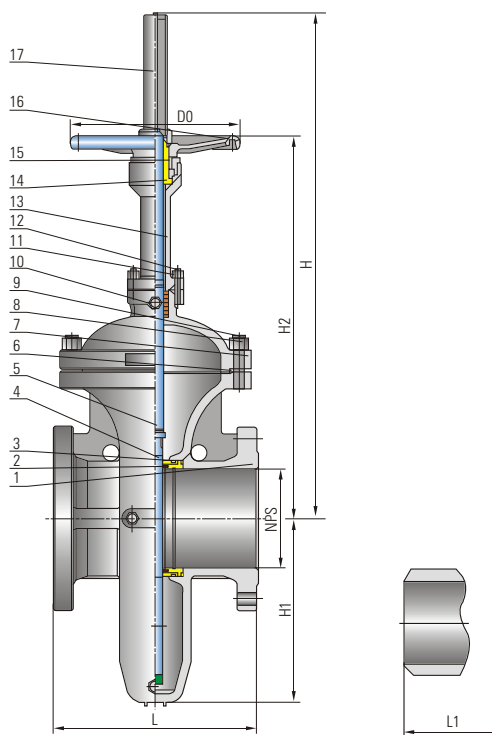


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS SP44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

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BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Seat	A105+PTFE	A352-LCB+PTFE	A182-F304+PTFE	A182-F316+PTFE
3	O-ring	Viton			
4	Disc	A105+ENP	A352-LCB+ENP	A240-304	A240-316
5	Stem	A276-420	A182-F304	A182-304	A182-F316S
6	Gasket	Graphite + 304			
7	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
8	Nut	A194-2H	A194-4	A194-8	A194-8
9	Stud	A193-B7	A320-L7	A193-B8	A193-B8
10	Packing	PTFE			
11	Nut	A194-2H	A194-4	A194-8	A194-8
12	Stud	A193-B7	A320-L7	A193-B8	A193-B8
13	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
14	Stem nut	C95500			
15	Gland	A105	A352-LCB	A182-F304	A182-F316
16	Handwheel	A536-60-40-18			
17	Indicator cover	A276-304			

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 300Lb

NPS	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	in
DN	25	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	mm
L	6.5	7.00	7.48	8.50	9.50	11.14	12	15.87	16.50	18	19.76	30	33	36	39	45	53	60	68	in
	165	178	190	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	mm
L ₁	6.5	7.00	7.48	8.50	9.50	11.14	12	15.87	16.50	18	19.76	30	33	36	39	45	53	60	68	in
	165	178	190	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	mm
H	14.57	15.16	16.53	18	21.85	24.21	27.95	35.43	44.69	55.16	62.20	-	-	-	-	-	-	-	-	in
	370	385	420	458	555	615	710	900	1135	1401	1580	-	-	-	-	-	-	-	-	mm
H ₂	10.23	10.63	11.81	12.80	16.54	17	19.68	24.61	31.10	41	45.28	-	-	-	-	-	-	-	-	in
	260	270	300	325	420	430	500	625	790	1040	1150	-	-	-	-	-	-	-	-	mm
D ₀	7.10	7.10	9.84	9.84	11.81	11.81	11.81	13.78	13.78	15.75	17.72	-	-	-	-	-	-	-	-	in
	180	180	250	250	300	300	300	350	350	400	450	-	-	-	-	-	-	-	-	mm

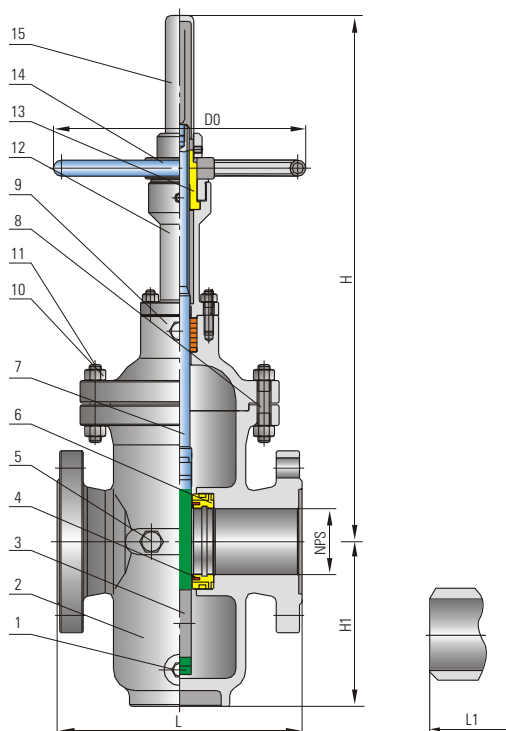


Applicable Standards

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STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

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Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A352-LF2	A182-304	A182-F316
2	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
5	Grease injection joint	A105 + Zn	A352-LCB	A182-304	A182-F316
6	O-ring	NBR			
7	Stem	A276-420	A182-F304	A182-304	A182-F316S
8	Gasket	Graphite + 304			
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Stud	A193-B7	A320-L7	A193-B8	A193-B8
11	Nut	A194-2H	A194-4	A194-8	A194-8
12	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
13	Stem nut	C95500			
14	Hand wheel	A536-60-40-18			
15	Indicating cover	A276-304			

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 600Lb

NPS	2	2 1/2	3	4	6	8	10	12	14	16	18	20	in
DN	50	65	80	100	150	200	250	300	350	400	450	500	mm
L	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	in
	292	330	356	432	559	660	787	838	889	991	1092	1194	mm
L1	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	in
	292	330	356	432	559	660	787	838	889	991	1092	1194	mm
H	18.43	22.24	24.61	28.35	35.83	45.08	55.55	62.60	-	-	-	-	in
	468	565	625	720	910	1145	1411	1590	-	-	-	-	mm
H2	13.19	16.93	17.32	20.00	24.80	31.50	41.34	45.67	-	-	-	-	in
	335	430	440	510	630	800	1050	1160	-	-	-	-	mm
D0	11.81	11.81	13.78	13.78	15.75	19.69	19.69	23.62	-	-	-	-	in
	300	300	350	350	400	500	500	600	-	-	-	-	mm

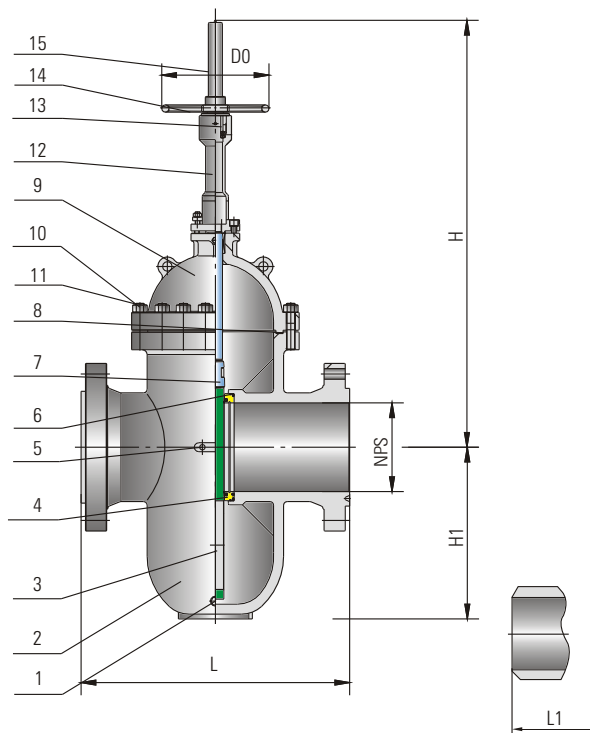


Applicable Standards

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STRUCTURAL CONNECTION: API 6D, ASME B16.10
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Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A352-LF2	A182-304	A182-F316
2	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
5	Grease injection joint	A105 + Zn	A352-LCB	A182-304	A182-F316
6	O-ring	NBR			
7	Stem	A276-420	A182-F304	A182-304	A182-F316S
8	Gasket	Graphite + 304			
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Stud	A193-B7	A320-L7	A193-B8	A193-B8
11	Nut	A194-2H	A194-4	A194-8	A194-8
12	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
13	Stem nut	C95500			
14	Hand wheel	A536-60-40-18			
15	Indicating cover	A276-304			

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 900Lb

NPS	2	2 1/2	3	4	6	8	10	12	14	16	18	20	in
DN	50	65	80	100	150	200	250	300	350	400	450	500	mm
L	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	40.51	43.54	47.24	51.18	in
	368	419	381	457	610	737	838	965	1029	1106	1200	1300	mm
L1	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	40.51	43.54	47.24	51.18	in
	368	419	381	457	610	737	838	965	1029	1106	1200	1300	mm
H	18.62	22.44	24.80	28.54	36.00	45.28	55.75	62.80	79.00	87.40	95.47	103.00	in
	473	570	630	725	915	1150	1416	1595	2007	2220	2425	2616	mm
H2	6.32	7.6	9	10.2	13.2	16.4	19.6	22.8	26.00	30.00	32.48	37.00	in
	158	190	225	255	330	410	490	570	650	762	825	940	mm
D0	11.81	11.81	13.78	13.78	15.75	19.69	19.69	23.62	23.62	23.62	23.62	35.43	in
	300	300	350	350	400	500	500	600	600	600	600	900	mm

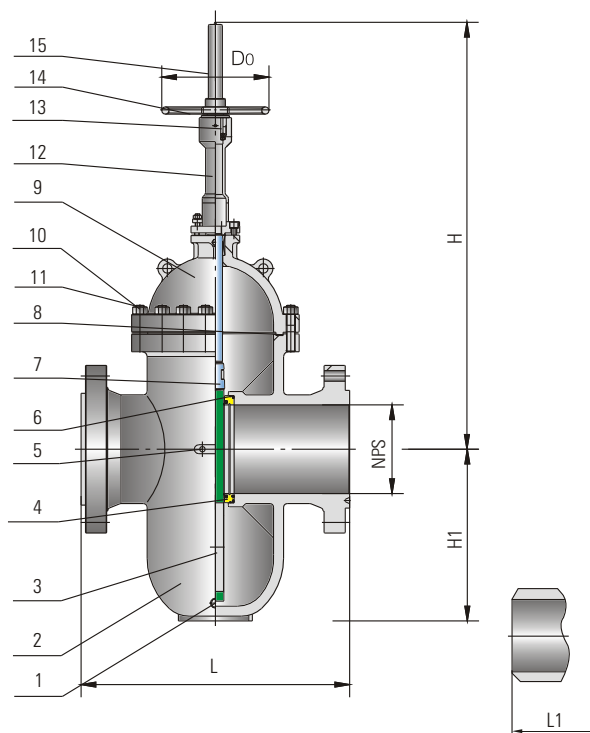


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

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Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A352-LF2	A182-304	A182-F316
2	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
5	Grease injection joint	A105 + Zn	A352-LCB	A182-304	A182-F316
6	O-ring	NBR			
7	Stem	A276-420	A182-F304	A182-304	A182-F316S
8	Gasket	Graphite + 304			
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Stud	A193-B7	A320-L7	A193-B8	A193-B8
11	Nut	A194-2H	A194-4	A194-8	A194-8
12	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
13	Stem nut	C95500			
14	Hand wheel	A536-60-40-18			
15	Indicating cover	A276-304			

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 900Lb

NPS	2	3	4	6	8	in
DN	50	80	100	150	200	mm
L	11.81	15.00	16.93	21.65	26.00	in
	300	380	430	550	650	mm
L1	14.49	18.50	21.50	27.76	32.76	in
	368	470	546	705	832	mm
H	14.92	18.70	18.98	21.54	24.25	in
	379	475	482	547	616	mm
H2	4.80	6.30	7.80	10.24	14.09	in
	122	164	198	264	358	mm
D0	12.20	15.75	18.11	18.50	23.62	in
	310	400	460	470	600	mm

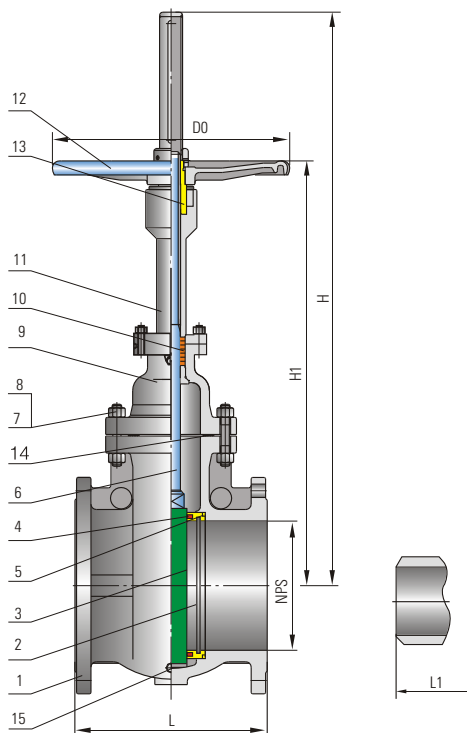


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316-PTFE
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Sealing ring	PTFE			
5	O-ring	Viton			
6	Stem	A276-420	A182-F304	A182-304	A182-F316S
7	Nut	A194-2H	A194-4	A194-8	A194-8
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Packing	PTFE			
11	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
12	Handwheel	A536-60-40-18			
13	Brass Nut	C95500			
14	Gasket	Graphite + 304			
15	Blowdown Stops	A105 + Zn	A350-LF2	A182-304	A182-F316

Dimensions Data ANSI Class 150Lb

NPS	1	2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	44	48	in
DN	25	50	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1100	1200	mm
L	5.00	7.00	8.00	9.01	10.51	11.49	12.99	14.01	15.00	15.98	17.00	17.99	20.00	24.01	25.98	31.49	31.92	44.25	47.99	49.76	in
	127	178	203	229	267	292	330	356	381	406	432	457	508	610	660	800	811	1124	1219	1264	mm
H	14.17	17.71	24.01	27.55	35.23	44.48	50.78	58.26	65.35	72.83	81.88	90.55	105.5	121.25	137.44	153.14	169.96				in
	360	450	610	700	895	1130	1290	1480	1660	1850	2080	2300	2680	3080	3491	3897	4317				mm
H ₂	9.84	12.40	16.85	19.44	24.60	30.86	36.88	42.51	50.51	55.78	58.62	65.82	79.21	88.58	100.39	112.20	127.95				in
	250	315	428	494	625	784	937	1080	1283	1417	1489	1672	2012	2250	2550	2850	3250				mm
D ₀	7.08	9.84	11.81	11.81	13.77	13.77	15.74	17.71	19.68	19.68	23.62	27.55	31.49	31.49	39.37	39.37	47.24				in
	180	250	300	300	350	350	400	450	500	500	600	700	800	800	1000	1000	1200				mm

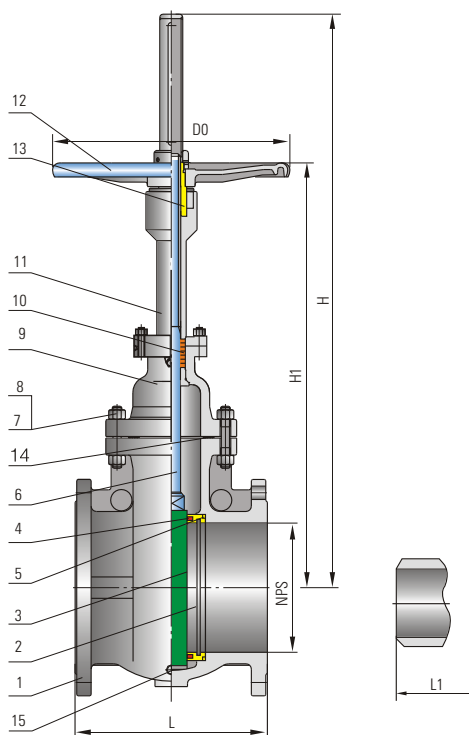


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Seat	A105 + PTFE	A352-LCB + PTFE	A182+F304+PTFE	A182-F316-PTFE
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Sealing ring	PTFE			
5	O-ring	Viton			
6	Stem	A276-420	A182-F304	A182-304	A182-F316S
7	Nut	A194-2H	A194-4	A194-8	A194-8
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
10	Packing	PTFE			
11	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
12	Handwheel	A536-60-40-18			
13	Brass Nut	C95500			
14	Gasket	Graphite + 304			
15	Blowdown Stops	A105 + Zn	A350-LF2	A182-304	A182-F316

Dimensions Data ANSI Class 300Lb

NPS	1	2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	in
DN	25	50	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	mm
L	6.49	8.50	11.14	12.00	15.86	16.49	17.99	19.76	30.00	32.99	35.98	39.01	45.00	52.99	60.00	67.99	74.01	77.99	in
	165	216	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	1880	1981	mm
H	14.56	18.03	24.21	27.95	35.43	44.68	55.15	62.20	65.35	72.83	81.88	90.55	105.51	121.25	137.44	153.42	169.99		in
	370	458	615	710	900	1135	1401	1580	1660	1850	2080	2300	2680	3080	3491	3897	4317		mm
H ₂	10.23	12.79	16.92	19.68	24.60	31.10	40.94	45.27	50.51	55.78	58.62	65.82	79.21	88.58	100.39	112.20	127.95		in
	260	325	430	500	625	790	1040	1150	1283	1417	1489	1672	2012	2250	2550	2850	3250		mm
D ₀	7.08	9.84	11.81	11.81	13.77	13.77	15.74	17.71	19.68	23.62	27.55	31.49	31.49	39.37	39.37	47.24			in
	180	250	300	300	350	350	400	450	500	600	700	800	800	1000	1000	1200			mm

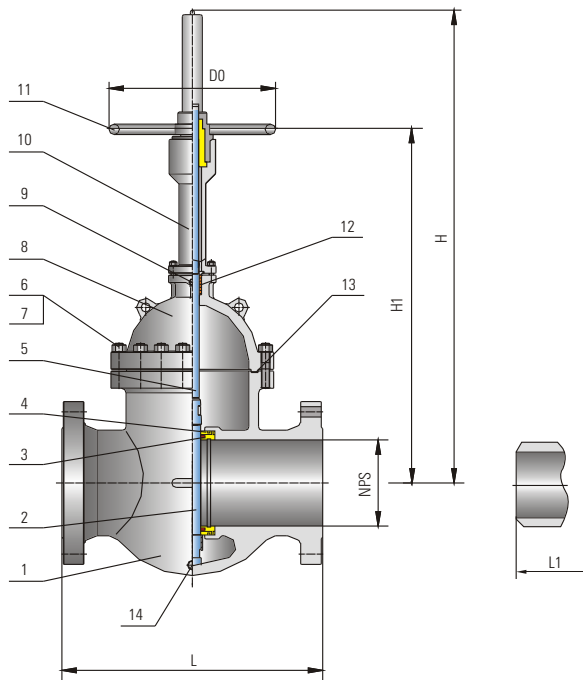


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Seat	A105+PTFE	A350-LF2+PTFE	A182+F304+PTFE	A182-F316-PTFE
4	O-ring	NBR			
5	Stern	A276-410	A276-410	A276-304	A182-F316S
6	Nut	A193-B7	A320-L7	A193-B8	A193-B8
7	Stud	A194-2H	A194-4	A194-8	A194-8
8	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
9	Oiling Device	BUBBASSEMBLY			
10	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Handwheel	A536-60-40-18			
12	Packing	PTFE			
13	Gasket	Graphite+304			
14	Blowdown Stops	A105+Zn	A350-LF2	A182-304	A182-F316

Dimensions Data ANSI Class 600Lb

NPS	2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	in
DN	50	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	mm
L	11.49	14.01	17.00	22.00	25.90	30.98	32.99	35.00	39.01	42.99	51.02	55.00	60.98	70.00	82.00	84.64	90.55	in
	292	356	432	559	660	787	838	889	991	1092	1295	1397	1549	1778	2083	2150	2300	mm
L ₁	11.49	14.01	17.00	22.00	25.98	30.98	32.99	35.00	39.01	42.99	50.98	55.00	60.98	70.00	82.00	84.64	90.55	in
	292	356	432	559	660	787	838	889	991	1092	1295	1397	1549	1778	2083	2150	2300	mm
H	19.64	24.80	29.64	37.63	45.27	56.65	60.82	71.53	77.36	90.35	96.53	100.39	112.20	127.95				in
	499	630	753	956	1150	1439	1545	1817	1965	2295	2452	2550	2850	3250				mm
H ₂	14.88	19.01	22.12	28.34	33.70	39.88	45.47	51.69	56.88	61.41	65.15	71.53	77.36	90.35				in
	378	483	562	720	856	1013	1155	1313	1445	1560	1655	1817	1965	2295				mm
D ₀	9.84	11.81	11.81	13.77	13.77	15.74	17.71	19.68	19.68	23.62	27.55	31.49	31.49	39.37	39.37	47.24	47.24	in
	250	300	300	350	350	400	450	500	500	600	700	800	800	1000	1000	1200	1200	mm

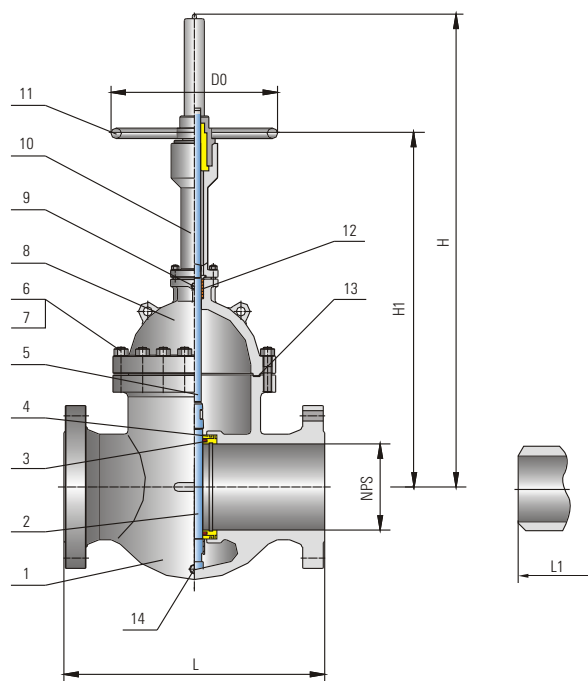


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Seat	A105+PTFE	A350-LF2+PTFE	A182+F304+PTFE	A182-F316-PTFE
4	O-ring	NBR			
5	Stem	A276-410	A276-410	A276-304	A182-F316S
6	Nut	A193-B7	A320-L7	A193-B8	A193-B8
7	Stud	A194-2H	A194-4	A194-8	A194-8
8	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
9	Oiling Device	BUBBASSEMBLY			
10	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Handwheel	A536-60-40-18			
12	Packing	PTFE			
13	Gasket	Graphite+304			
14	Blowdown Stops	A105+Zn	A350-LF2	A182-304	A182-F316

Dimensions Data ANSI Class 900Lb

NPS	2	3	4	6	8	10	12	14	16	18	20	24	in
DN	50	80	100	150	200	250	300	350	400	450	500	600	mm
L	14.48	15.00	17.99	24.01	29.01	32.99	37.99	40.51	44.48	47.99	52.00	60.98	in
	368	381	457	610	737	838	965	1029	1130	1219	1321	1549	mm
L ₁	14.48	15.00	17.99	24.01	29.01	32.99	37.99	40.51	44.48	47.99	52.00	60.98	in
	368	381	457	610	737	838	965	1029	1130	1219	1321	1549	mm
H	18.62	24.80	28.54	36.02	45.27	55.74	62.79	65.15	71.53	77.36	90.36	96.53	in
	473	630	725	915	1150	1416	1595	1655	1817	1965	2295	2452	mm
H ₂	13.18	17.51	20.27	25.19	31.49	41.53	45.86	51.69	56.88	61.41	65.15	71.53	in
	335	445	515	640	800	1055	1165	1313	1445	1560	1655	1817	mm
D ₀	9.84	11.81	11.81	13.77	13.77	15.74	17.71	19.68	19.68	23.62	27.55	31.49	in
	250	300	300	350	350	400	450	500	500	600	700	800	mm

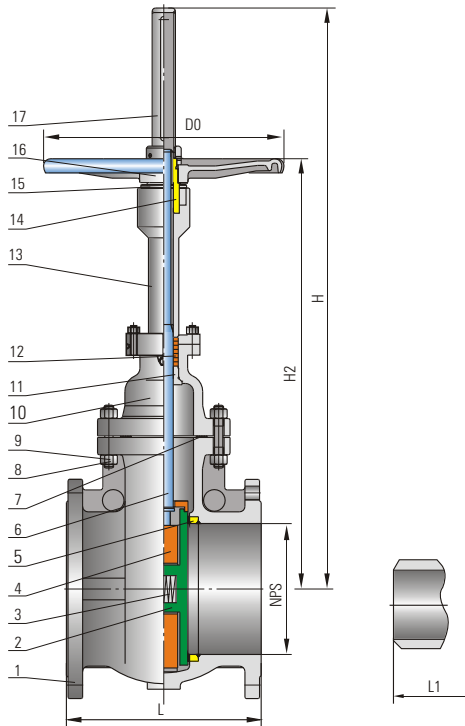


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS SP44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Spring	Inconel X-750			
4	Disc frame ²⁾	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
5	Seat ²⁾	A105+PTFE	A350-LF2+PTFE	A182-F304+PTFE	A182-F316+PTFE
6	Stem	A276-410	A276-410	A276-304	A182-F316
7	Gasket	Graphite+304			
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Nut	A194-2H	A194-4	A194-8	A194-8
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Back seat	A276-410	A276-410	A276-304	A182-F316S
12	Packing	PTFE			
13	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
14	Stem nut ¹⁾	C95500			
15	Gland	A105	A350-LCB	A182-F304	A182-F316
16	Handwheel	A536-60-40-18			
17	Indicator cover	A105	A350-LF2	A182-304	A182-F316

Notes: 1). Ductile ni-resist optional

2). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 150Lb

NPS	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	in
DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	mm
L	7.00	7.48	8.00	9.00	10.51	11.50	13.00	14.00	15.00	16.00	17.00	18.00	20.00	24.00	26.00	32.00	in
	178	190	203	229	267	292	330	356	381	406	432	457	508	610	660	813	mm
L ₁	8.50	9.49	11.14	12.00	15.87	16.50	18.00	19.76	22.52	24.00	26.00	28.00	32.00	36.00	38.00	40.00	in
	216	241	203	305	403	419	457	502	572	610	660	711	813	914	965	1016	mm
H	18.70	21.06	23.62	27.56	35.83	43.11	53.94	57.87	68.11	73.62	86.02	91.93	110.83	-	-	-	in
	475	535	600	700	910	1095	1370	1470	1730	1870	2185	2335	2815	-	-	-	mm
H ₂	14.17	16.73	18.11	21.06	27.00	32.09	38.00	43.31	49.21	54.13	58.46	62.00	78.54	-	-	-	in
	360	465	460	535	685	815	965	1100	1250	1375	1485	1575	1995	-	-	-	mm
D ₀	9.84	11.81	11.81	13.78	13.78	13.78	17.72	19.69	23.62	25.60	27.56	31.50	39.37	-	-	-	in
	250	300	300	350	350	350	450	500	600	650	700	800	1000	-	-	-	mm

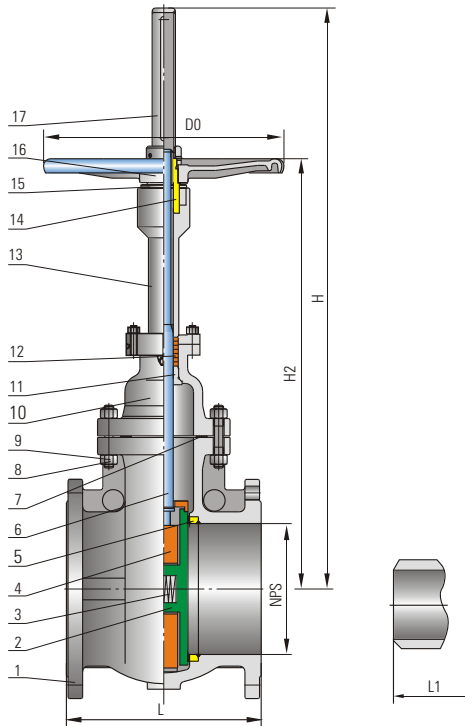


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS SP44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Spring	Inconel X-750			
4	Disc frame ²⁾	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
5	Seat ²⁾	A105+PTFE	A350-LF2+PTFE	A182-F304+PTFE	A182-F316+PTFE
6	Stem	A276-410	A276-410	A276-304	A182-F316
7	Gasket	Graphite+304			
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Nut	A194-2H	A194-4	A194-8	A194-8
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Back seat	A276-410	A276-410	A276-304	A182-F316S
12	Packing	PTFE			
13	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
14	Stem nut ¹⁾	C95500			
15	Gland	A105	A350-LCB	A182-F304	A182-F316
16	Handwheel	A536-60-40-18			
17	Indicator cover	A105	A350-LF2	A182-304	A182-F316

Notes: 1). Ductile ni-resist optional

2). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 300Lb

NPS	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	in
DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	mm
L	8.50	9.50	11.14	12.00	15.87	16.50	18.00	19.76	30.00	33.00	36.00	39.00	45.00	53.00	60.00	68.00	in
	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	mm
L ₁	8.50	9.50	11.14	12.00	15.87	16.50	18.00	19.76	30.00	33.00	36.00	39.00	45.00	53.00	60.00	68.00	in
	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	mm
H	18.70	17.09	23.62	27.56	35.83	43.11	53.94	57.87	68.11	73.62	86.02	91.93	110.82	-	-	-	in
	475	434	600	700	910	1095	1370	1470	1730	1870	2185	2335	2815	-	-	-	mm
H ₂	14.17	16.73	18.11	21.06	27.00	32.09	38.00	43.31	49.21	54.13	58.46	62.00	78.54	-	-	-	in
	360	425	460	535	685	815	965	1100	1250	1375	1485	1575	1995	-	-	-	mm
D ₀	9.84	11.81	11.81	13.78	13.78	13.78	17.72	19.69	23.62	25.60	27.56	31.50	39.37	-	-	-	in
	250	300	300	350	350	350	450	500	600	650	700	800	1000	-	-	-	mm

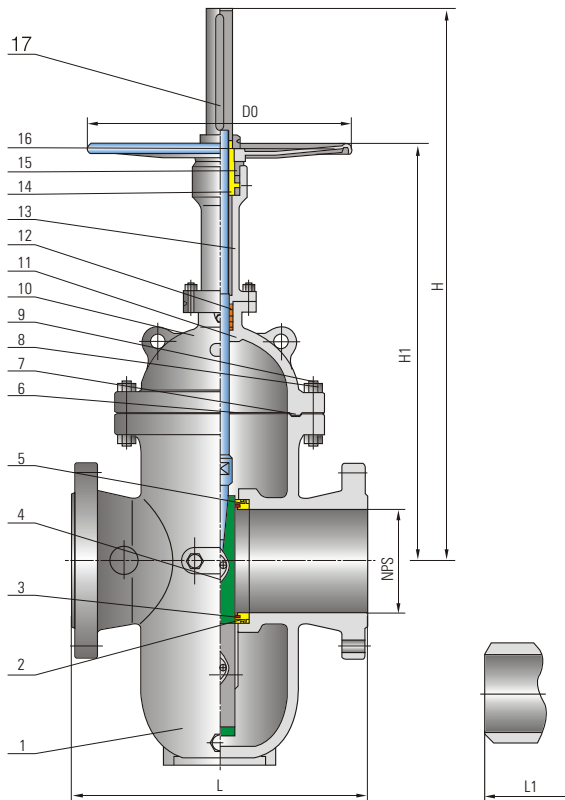


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS SP44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Spring	Inconel X-750			
4	Disc frame ²⁾	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
5	Seat ²⁾	A105+PTFE	A350-LF2+PTFE	A182-F304+PTFE	A182-F316+PTFE
6	Stem	A276-410	A276-410	A276-304	A182-F316
7	Gasket	Graphite+304			
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Nut	A194-2H	A194-4	A194-8	A194-8
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Back seat	A276-410	A276-410	A276-304	A182-F316S
12	Packing	PTFE			
13	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
14	Stem nut	C95500 ¹⁾			
15	Gland	A105	A350-LCB	A182-F304	A182-F316
16	Handwheel	A536-60-40-18			
17	Indicator cover	A105	A350-LF2	A182-304	A182-F316

Notes: 1). Ductile ni-resist optional

2). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 600Lb

NPS	2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	in
DN	50	80	100	150	200	250	300	350	400	450	500	600	700	800	900	mm
L	11.49	14.01	15.98	19.48	23.50	26.49	30.00	32.51	35.51	38.50	41.49	48.50	55.00	64.96	74.01	in
	292	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880	mm
L ₁	11.49	14.01	17.00	22.00	25.98	30.98	32.99	35.00	39.01	42.99	50.98	48.50	60.98	70.00	82.00	in
	292	356	432	559	660	787	838	889	991	1092	1295	1232	1549	1778	2083	mm
H	19.64	24.80	29.64	37.63	45.27	56.65	60.82	71.53	77.36	90.35	96.53	100.39	112.20	127.95	-	in
	499	630	753	956	1150	1439	1545	1817	1965	2295	2452	2550	2850	3250	-	mm
H ₂	14.88	19.01	22.12	28.34	33.70	39.88	45.47	51.69	56.88	61.41	65.15	71.53	77.36	90.35	-	in
	378	483	562	720	856	1013	1155	1313	1445	1560	1655	1817	1965	2295	-	mm
D ₀	9.84	11.81	11.81	13.77	13.77	15.74	17.71	19.68	19.68	23.62	27.55	31.49	31.49	39.37	39.37	in
	250	300	300	350	350	400	450	500	500	600	700	800	800	1000	1000	mm

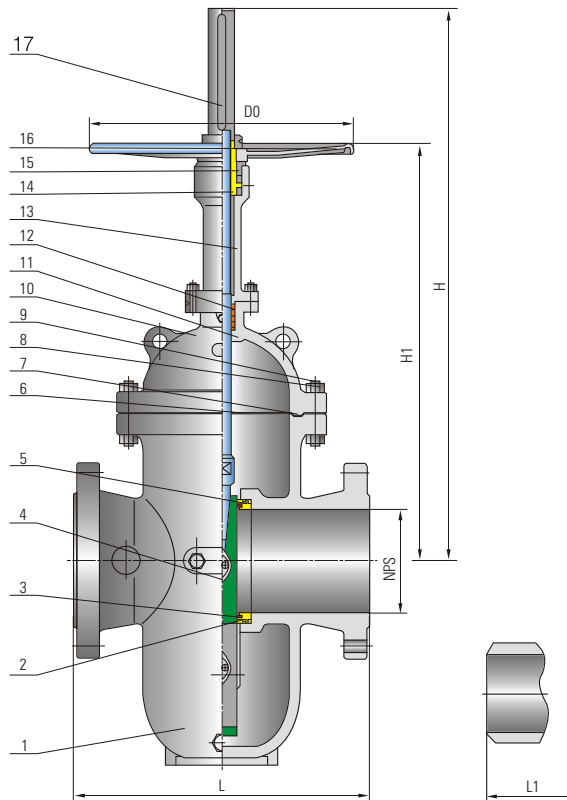


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS SP44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OUTSIDE SCREW AND YOKE
BOLTED BONNET
PARALLEL SINGLE DISC WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
2	Disc	A105+ENP	A350-LF2+ENP	A240-304	A240-316
3	Spring	Inconel X-750			
4	Disc frame ²⁾	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
5	Seat ²⁾	A105+PTFE	A350-LF2+PTFE	A182-F304+PTFE	A182-F316+PTFE
6	Stem	A276-410	A276-410	A276-304	A182-F316
7	Gasket	Graphite+304			
8	Stud	A193-B7	A320-L7	A193-B8	A193-B8
9	Nut	A194-2H	A194-4	A194-8	A194-8
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Back seat	A276-410	A276-410	A276-304	A182-F316S
12	Packing	PTFE			
13	Yoke	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
14	Stem nut	C95500 ¹⁾			
15	Gland	A105	A350-LCB	A182-F304	A182-F316
16	Handwheel	A536-60-40-18			
17	Indicator cover	A105	A350-LF2	A182-304	A182-F316

Notes: 1). Ductile ni-resist optional

2). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 900Lb

NPS	2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	in
DN	50	80	100	150	200	250	300	350	400	450	500	600	700	800	900	mm
L	9.84	14.01	15.98	19.48	23.50	26.49	30.00	32.51	35.51	38.50	41.49	48.50	55.00	64.96	74.01	in
	387	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880	mm
L1	14.88	14.01	15.98	19.48	23.50	26.49	30.00	32.51	35.51	38.50	41.49	48.50	55.00	64.96	74.01	in
	499	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880	mm
H	19.64	24.80	29.64	37.63	45.27	56.65	60.82	71.53	77.36	90.35	96.53	100.39	112.20	127.95		in
	292	630	735	956	1150	1439	1545	1817	1965	2295	2452	2550	2850	3250		mm
H2	11.49	19.01	22.12	28.34	33.70	39.88	45.47	51.69	56.88	61.41	65.15	71.53	77.36	90.35		in
	292	483	562	720	856	1013	1155	1313	1445	1560	1655	1817	1965	2295		mm
D0	11.49	11.81	11.81	13.77	15.74	15.74	19.68	23.62	27.55	31.49	39.37	45.27	51.18	53.14	55.11	in
	502	300	350	350	400	400	500	600	700	800	1000	1150	1300	1350	1400	mm

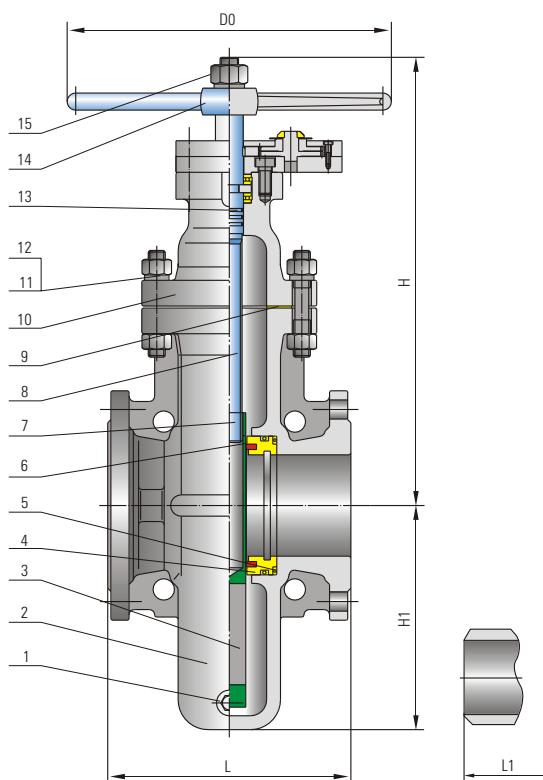


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OS&Y, OUTSIDE SCREW AND YOKE
BB, BOLTED BONNET
BURRIED GROUND WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
NON-RISING HANDWHEEL



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A350-LF2	A182-304	A182-F316
2	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
5	O-ring	Viton			
6	Seat ring	PTFE			
7	Valve stem nut	C95500			
8	Stem	A276-420	A182-F304	A182-304	A182-F316S
9	Gasket	Graphite + 304			
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Stud	A193-B7	A320-L7	A193-B8	A193-B8
12	Nut	A194-2H	A194-4	A194-8	A194-8
13	O-ring	Viton			
14	Handwheel	A536-60-40-18			
15	Nut	A194-2H	A194-2H	A194-8	A194-8

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 150Lb

NPS	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	in
DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	mm
L	6.50	6.50	7.00	7.00	7.48	8.00	9.02	10.00	10.51	11.50	13.00	14.02	15.00	16.00	17.00	18.00	20.00	24.02	26.00	27.95	31.93	in
	165	165	178	178	190	203	229	254	267	292	330	356	381	406	432	457	508	610	660	771	811	mm
L1	-	-	-	8.50	9.49	11.14	12.00	15.00	15.87	16.50	18.00	19.76	22.52	24.00	26.00	28.00	32.00	35.98	36.00	40.00	-	in
	-	-	-	216	241	283	305	381	403	419	457	502	572	610	660	711	813	914	914	1016	-	mm
H	3.35	4.06	4.80	5.12	6.30	7.09	8.43	10.12	11.81	15.28	18.70	21.54	24.61	28.00	30.91	34.65	41.14	46.85	53.54	59.44	67.52	in
	85	103	115	130	160	180	214	257	300	388	475	547	625	712	785	880	1045	1190	1360	1510	1715	mm
H2	9.11	9.09	9.45	10.04	13.98	14.17	15.75	10.11	19.69	22.44	26.77	29.53	34.45	39.37	44.49	47.24	55.91	65.00	74.02	82.68	90.55	in
	228	231	240	255	355	360	400	460	500	570	680	750	875	1000	1130	1200	1420	1650	1880	2100	2300	mm
D0	7.09	7.09	9.84	9.84	11.81	11.81	11.81	13.78	13.78	13.78	15.75	17.72	17.72	19.69	19.69	23.62	31.50	31.50	39.37	39.37	47.24	in
	180	180	250	250	300	300	300	350	350	350	400	450	450	500	500	600	800	800	1000	1000	1200	mm

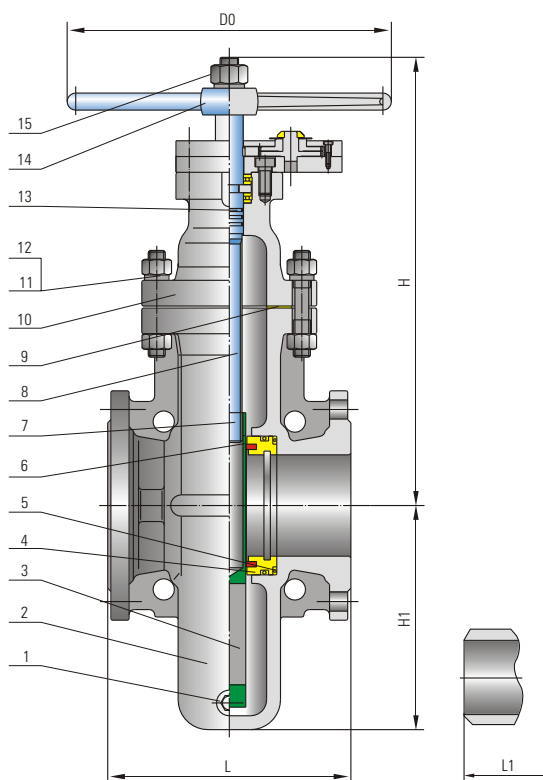


Applicable Standards

DESIGN STANDARD: API 6D ASME B16.34
STRUCTURAL CONNECTION: API 6D, ASME B16.10
FLANGED ENDS: ASME B16.5 MSS Sp44
BUTT-WELDING ENDS: ASME B16.25
TEST & INSPECTION: API 6D, API 598

Design Description

FULL PORT DESIGN
OS&Y, OUTSIDE SCREW AND YOKE
BB, BOLTED BONNET
BURRIED GROUND WITH THROUGH CONDUIT
RENEWABLE SEAT RINGS
NON-RISING HANDWHEEL



Materials of Parts

No	Part Name	ASTM Material			
		Carbon Steel		Stainless Steel	
1	Blowdown stops	A105 + Zn	A350-LF2	A182-304	A182-F316
2	Body	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
3	Disc	A105 + ENP	A352-LCB + ENP	A240-304	A240-316
4	Seat	A105 + PTFE	A352-LCB + PTFE	A182-F304 + PTFE	A182-F316 + PTFE
5	O-ring	Viton			
6	Seat ring	PTFE			
7	Valve stem nut	C95500			
8	Stem	A276-420	A182-F304	A182-304	A182-F316S
9	Gasket	Graphite + 304			
10	Bonnet	A216-WCB	A352-LCB	A351-CF8	A351-CF8M
11	Stud	A193-B7	A320-L7	A193-B8	A193-B8
12	Nut	A194-2H	A194-4	A194-8	A194-8
13	O-ring	Viton			
14	Handwheel	A536-60-40-18			
15	Nut	A194-2H	A194-2H	A194-8	A194-8

Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

Dimensions Data ANSI Class 300Lb

NPS	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	in
DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	mm
L	6.50	7.00	7.48	8.50	9.49	11.14	12.00	15.00	15.87	16.50	18.00	19.76	30.00	33.00	36.00	39.00	45.00	in
	165	178	190	216	241	283	305	381	403	419	457	502	762	838	914	991	1143	mm
L1	6.50	7.00	7.48	8.50	9.49	11.14	12.00	15.00	15.87	16.50	18.00	19.76	30.00	33.00	36.00	39.00	45.00	in
	165	178	190	216	241	283	305	381	403	419	457	502	762	838	914	991	1143	mm
H	3.35	4.06	4.53	5.12	6.30	7.09	8.43	10.12	11.81	15.28	18.70	21.54	24.61	28.03	30.91	34.56	41.14	in
	85	103	115	130	160	180	214	257	300	388	475	547	625	712	785	880	1045	mm
H2	9.37	9.37	9.65	10.43	14.37	13.58	16.54	18.90	20.47	23.23	27.56	30.70	35.24	40.16	45.28	48.03	56.69	in
	238	238	245	265	365	375	420	480	520	590	700	780	895	1020	1150	1220	1440	mm
D0	7.09	7.09	9.84	9.84	11.81	11.81	11.81	13.78	13.78	13.78	15.75	17.72	17.72	21.65	27.56	31.50	39.37	in
	180	180	250	250	300	300	300	350	350	350	400	450	450	550	700	800	1000	mm