



High-New Technology Enterprise of China, National valve standard authorized unit

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Gate valve series

High-New Technology Enterprise of China, National valve standard authorized unit



About Wuzhou



www.wuzhou-valve.com

High-New Technology Enterprise of China, National valve standard authorized unit

The company was established in 1978, which is a technological professional valve manufacturer. Presently it covers 121800m² including building space of 86900m² and owns 586 employees involving 82 senior & intermediate technicians. Also it developed CAD & CAM designing and ERP Planned Administration System of Enterprise's Resource. In addition, the company is in possession of fixed assets of RMB 380,000,000.00 Yuan (about USD 48,717,948.00) with advanced equipments such as processing center, numerical machine-tools and metal-machining facility, valve comprehensive performance test equipments consisting of physicochemical inspection NDE facility and spectral analysis and has ability of fugitive emission test. It is a council unit of China Valve Association, Zhejiang Provincial High & new-tech Enterprise, Key High & new-tech Industrialized Unit of Zhejiang Province and Technology Advanced Enterprise. The company has acquired ISO 9001 certificate (the current version is ISO 2000) from DNV (Det Norske Veritas), ISO14001 Certificate of Environment Management System Certification, OHSAS Occupational Health and Safety Management System API-6D certificate issued by

American Petroleum Institute and CE certificate issued by TUV. Moreover, it is the pointing supply member unit of China Petrochemical Group Material Equipment Co., China Petroleum & Natural Gas Group Co., and Shanghai Baoshan Iron & steel plant. The hard-sealed high temperature ball valves won the international invention Unika Gold Prize, national patent and was authorized as Grade I advanced products and National key project products by National Science & technology Ministry, the variable eccentric butterfly valve won the Gold prize of patent new products and the gate & globe valves have been approved as GradeI products by National Technology Surveillance Bureau.

The company provides high & medium pressure ball valves, butterfly valves, parallel gate valves, gate valves, globe valves, check valves and power station valves for petroleum, chemical engineering, metallurgy, light industry, power station, city building, water supply system, oil transportation, gas feeding, natural gas and long distance transportation pipes projects. In addition, the company supplies over 1000 sorts (8 main series) of non-standard and special valves, some of whose parts are imported from other countries. The products diameter range is NPS 1/2" -120", the nominal pressure range is Class150-2500, and the operating temp. range is -320F - 1300F. The valve material contains carbon steel, brass, stainless steel, heat-resist alloy steel, Monel, low-temp steel and other special steels. The driving device includes lever operator, electric driving,

pneumatic driving, gear transmission, worm wheel and worm handle transmission, air-liquid driving, electric-liquid driving and computer program controlled device etc. Our products are very popular in the whole nation and exported to America, Europe, Africa, Mid-east area and Singapore etc. The company holds "Quality first, Customer utmost and honesty base" as its management policy while it sets "Usability, creditability and reliability" as its target. Wuzhou Co. will welcome customers from domestic & abroad with first-rate brand, favorable prices and excellent after-sale service.



Human resource

The enterprise's development bases on talented person. The talented person is the support for enterprise's development, is ultimate guarantee to keep enterprise impregnable. Wuzhou Pays great attention to introduce and train talented person, attach importance to inspire and develop talented person. It still insists the principle of both ability and integrity for many years, selects middle age and youth knowledge, ability, enterprise and work spiritual cadres with high political responsibility sense and historical urgency sense, enrich all levels of management. Wuzhou has held large scale talented person meeting successively for many times, developed talented person training project in the enterprise. In the talented person resources development, omnidirectionally trains century talented person team correspond with development in every effort, multi-level, multi-channel, and the multi-patterns.



The enterprise carries out comprehensive informative source planning management system ERP completely.

Brace up national manufacturing industry is the hot topic in nowadays. At present, our state's manufacturing industry is facing austere position, the general level has great distance with developed countries. It has become one of keys to restrict 21 centuries' economic development. Meanwhile, internationalization market competition is fiercer and fiercer, many of our national manufacturing industries come across unprecedented difficulty. Exerting modern information technique to change and upgrade manufacturing industry is the developing road which with the situation of our country. Nowadays, the world has entered into informative times and stride to knowledge economic times. Taking information technology as leading high-tech to provide great support for manufacturing industries' development, and to impel the manufacturing industries' reform and the development. In recent years, Wuzhou Valve Company was experiencing span type development, already comprehensively implement synthesis informative resources plan management system ERP. Using modern information technology to transform and promote valve manufacturing industry combine informative and industrialization, further transit to modernization, realizes span type development in the short time to enhance productive forces.



Advanced Manufacturing Instruments Create Perfect Quality



Own high precise numerical control lathe and processing center, advanced equipments and testing instruments, polish technology and strict & perfect quality managing system, collect the science & technology team with professional technique elite and leading level, take full advantage of new technique new technology and new material to ensure stability and credibility of products. The quality of products is sourced from advanced manufacturing method and excellent consciousness source from continuous innovation.

As Wuzhou and even national big size valve enterprise, Wuzhou Valve takes quality as the life of company, ensures advanced and credible quality of products through adopting advanced producing technique and technology, perfect producing and testing equipments.

1. Make use of advanced plasma overlaying welding to ensure seal performance and use life.
2. Make use of perfect equipment to do heat treatment to components to make sure use life and performance.
3. Adopt computer control equipment to ensure versatility and speed of pressure test.
4. Adopt advanced production line to make sure the quality of batch at the meanwhile of improving producing efficient.



Take strict testing as guarantee, improve grade as object



Chemical analysis



PMI Testing



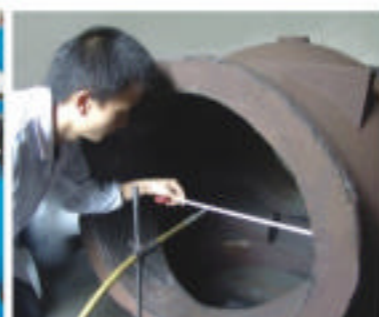
Digital pressure testing



Fugitive Emission testing



Pressure Testing



Y-Ray Testing

Wuzhou does strict test to every product. The high responsibility of checker is dissolved to every component, plus the most advanced testing equipment and strict scientific management to make every

product endure customers' picking. Wuzhou human promises every product leaving factory is eligible. That is the secret of saleable for Wuzhou product.

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Gate Valve Series

High-New Technology Enterprise of China, National valve standard authorized unit

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Bolted Bonnet

Body and bonnet

The body and bonnet are cast with uniform section and generous radius fillets to prevent stress concentration. The castings are precision-machined for high performance.

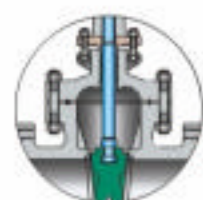
The gate valve body has a straight through port with out recesses except at the seat area. This ensures minimum turbulence, erosion and resistance to flow. Long integral guide ribs in the body match with guide slots in the wedge for accurate alignment and guidance. Bonnet castings are of one-piece design, where the yoke is integral with the bonnet for gate valves of sizes up to 12" (300mm). This ensures accurate alignment of stem and a smooth operation.



Body-bonnet joint

The body-bonnet joint for Class 150 gate valves is oval in shape, while for Class 300 and for globe valves, this joint is circular in shape. In 2"(50mm) valves, the body-bonnet joint has a square configuration. Gate valves of Class 150 rating have a flat-face joint with a graphite gasket having metallic inserts. Those of Class 300 rating have a male-female type joint with a spirally-wound gasket. Gate valves of Class 600 rating and above have a Ring Type Joint (RTJ).

Globe and Check valves in Class 150 and 300 ratings have a male-female type joint with a spirally-wound gasket. Those of Class 600 rating and above have an RTJ.



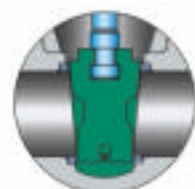
Square joint



Circular joint

Flexible wedge

All gate valves feature a one-piece cast flexible wedge that minimises stress concentration. Wedge flexibility ensures tight sealing over a wide range of differential pressures and temperatures. It also adjusts to slight misalignments caused by pipeline deflections and thermal deformation. The stem-to-wedge thrust is applied close to the wedge centre. This reduces lateral stem loading and provides for more accurate wedge movement.



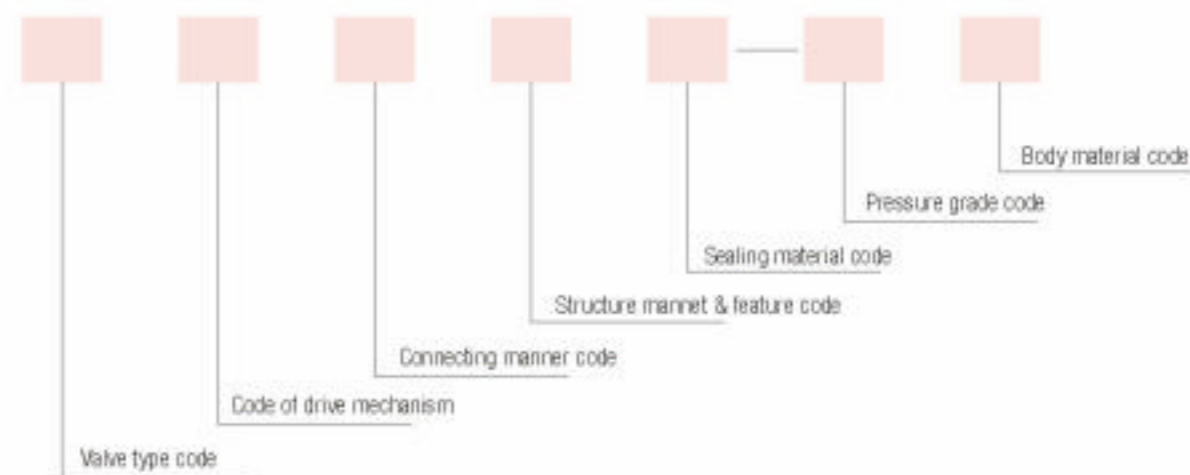
Range of production

Class Size	150	300	600	900	1500
1	✓	✓	✓	✓	✓
1 3/4	✓	✓	✓	✓	✓
1 1/2	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓
2 1/2	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✓
8	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓
12	✓	✓	✓	✓	✓
14	✓	✓	✓	✓	✓
16	✓	✓	✓	✓	✓
18	✓	✓	✓	✓	✓
20	✓	✓	✓	✓	✓
22	✓	✓	✓	✓	✓
24	✓	✓	✓	✓	✓
26	✓	✓	✓		
28	✓	✓	✓		
30	✓	✓	✓		
32	✓	✓	✓		
34	✓	✓	✓		
36	✓	✓	✓		
38	✓	✓	✓		
40	✓	✓	✓		
42	✓	✓	✓		
48	✓	✓			
54	✓				
56	✓				
60	✓				
64	✓				

Model illustration



Cast steel gate valve model schedule illustration



Valve type cod

Z-GATE VALVE

Code of drive mechanism

- 9-Electric driving
- 6-Air operated
- 5-Bevel gear drive
- 4-Spur gear drive(Hand operated omit)

Connecting manner code

- 4-Range connecting
- 6-Welded connection

Structure manner & feature code

- 0-Wedged spring disc
- 1-Wedged rigid single disc
- 2-Wedged rigid double disc
- 3-Rising stem parallel rigid single disc
- 4-Rising stem parallel rigid double disc
- 5-Nonrising stem wedged rigid single disc
- 6-Nonrising stem wedged rigid double disc

Sealing material code

- H-Built-up welding alloy steel
- W-Body seal
- Y-Built-up welding hard alloy

Pressure grad code

10xnominal rating pressure MPa the pound grade is actual number

Body material code

(International material codes are the same as the following material codes.)

① Cast carbon steel

C-ASTM A216-WCB (WCB)

② Cast alloy steel

H-ASTM A217-WC6
V-ASTM A217-WC9
I-ASTM A217-C5(Cr5Mo)

③ Cast stainless steel

P-ASTM A351-CF8
R-ASTM A351-CF8M
RL-ASTM A351-CF3
RL-ASTM A351-CF3M

④ Cast special alloy steel

A-ZTA2(Ti)
H.B-Hastelloy B
H.C-Hastelloy C

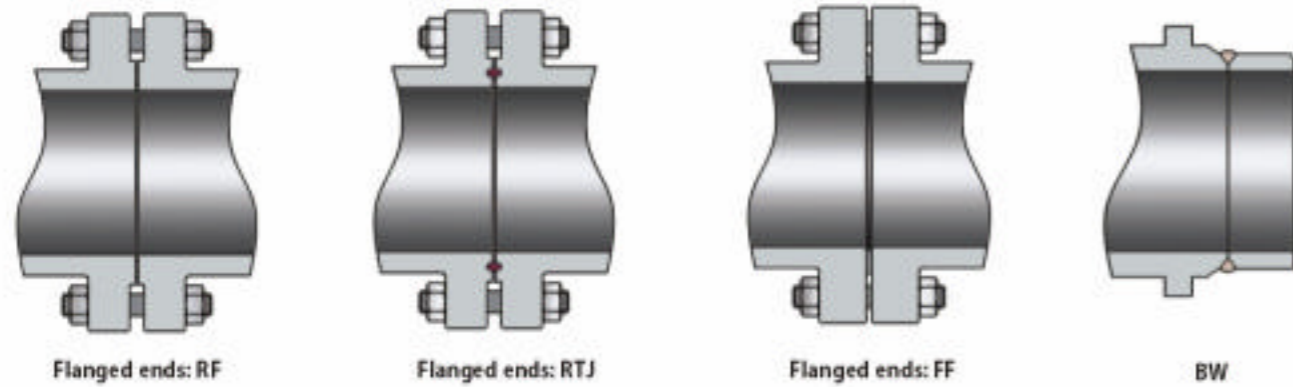
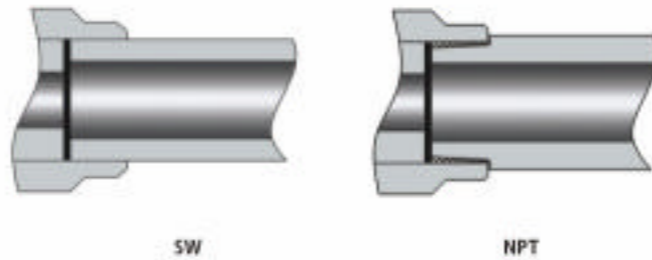
Bolted Bonnet



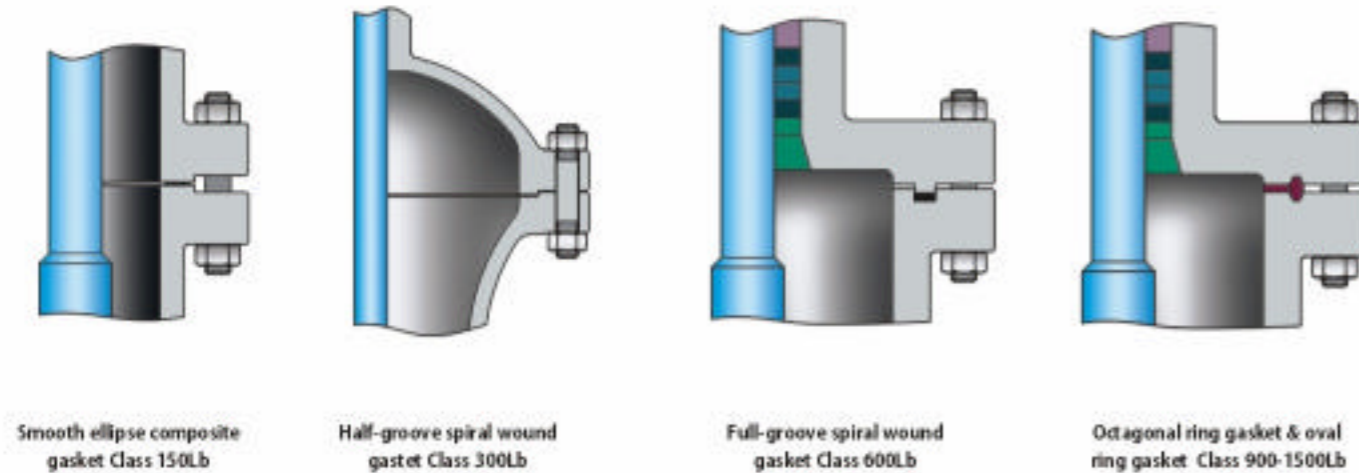
Types of end connections

Types of end connections: raised face flanged ends, flat faces flanged ends, ring joint type flanged ends, welding ends butt weld, threaded, socket weld and combined ends and so on. We can manufacture per the request by clients.

The butt weld ends in standard valves are machined in accordance with ASME B 16.25, the customer should be clearly specify the pipe wall thickness.



Gasket type for bolted bonnet



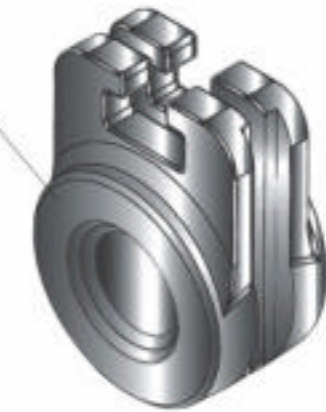
Structure

Flexible wedge

Body guides provide a close tolerance control of the Wedge to minimize seat rubbing when closing.



One piece flexible type wedge with weld deposited stellite No.6 facings. A flexible wedge insures pressure tightness. Prevents wedge from sticking and reduces operating torque needed to open valve. It also offers less resistance to unseating due to temperature changes.



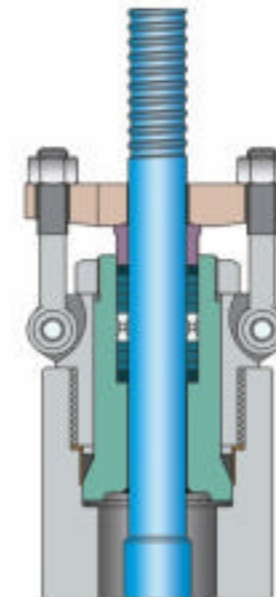
Trims

The walworth standard trim is API No.5 (HF) where the sealing surface of the gate and the seat sealing surface is overlaid with stellite No.6.

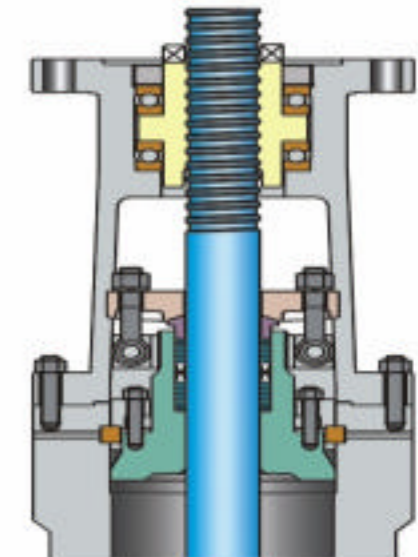
Walworth can furnish valves with a variety of trims and materials to meet the customer's requirements for an optimum service life.

All walworth pressure seal valves are designed in accordance with API 600 style a and tested in accordance with API 598. As well as to special customer requirements.

Pressure seal bonnet



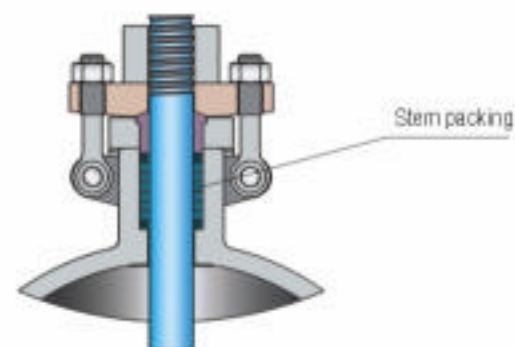
Size: 1/2" ~ 4"



Size: >4"

Type Selection

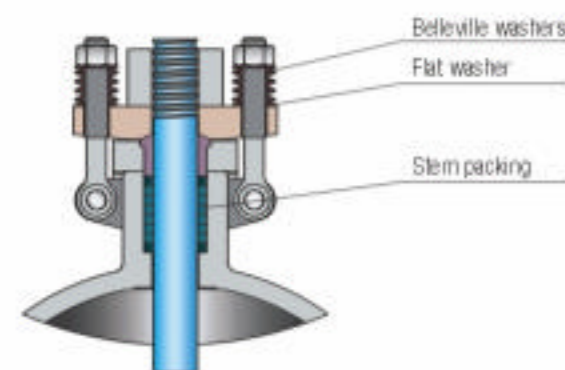
Standard stem packing system



Valves are designed, manufactured and tested to meet 50 PPMVOC fugitive emission leak rate as standard off the shell valve. This applies to all gate valve, both Cast Steel and Forge Steel, Except the special requirement from clients.

The long term low emission stem sealing ability of our packing is enhanced by reduced diametral clearances and close control of stem straightness and packing sealing surface finish.

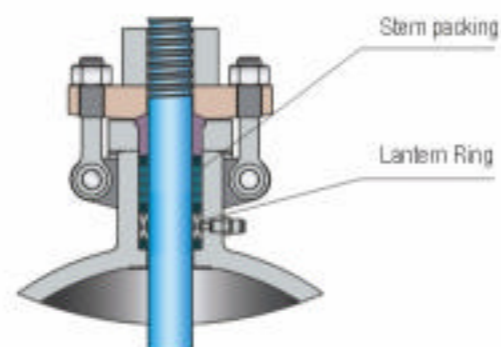
Live loading stem packing system



We can also provide gate valve with a stem packing live loading system for installations requiring frequent valve operation and/or having large variations in temperature/ pressure or where it is desirable to eliminate the need for occasional adjustment of the packing to compensate for the variations in operation. Live loading will provide a constant compression against the packing to maintain the optimum seal over a long period of time and variations in the operating conditions.

We can also supply valves with stem packing of different types and materials to meet the customer requirements.

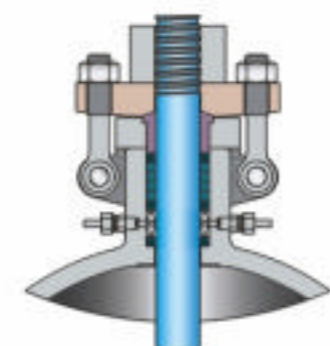
Lantern ring



The system can be provided with a stem packing/lantern ring combination of packing above and below the lantern ring to provide the ability to condense/vent material being processed.

The system can be utilized to lubricate the packing or to drain/purge the stem area to a leakage recovery system when liquids/gases cannot be released to the atmosphere.

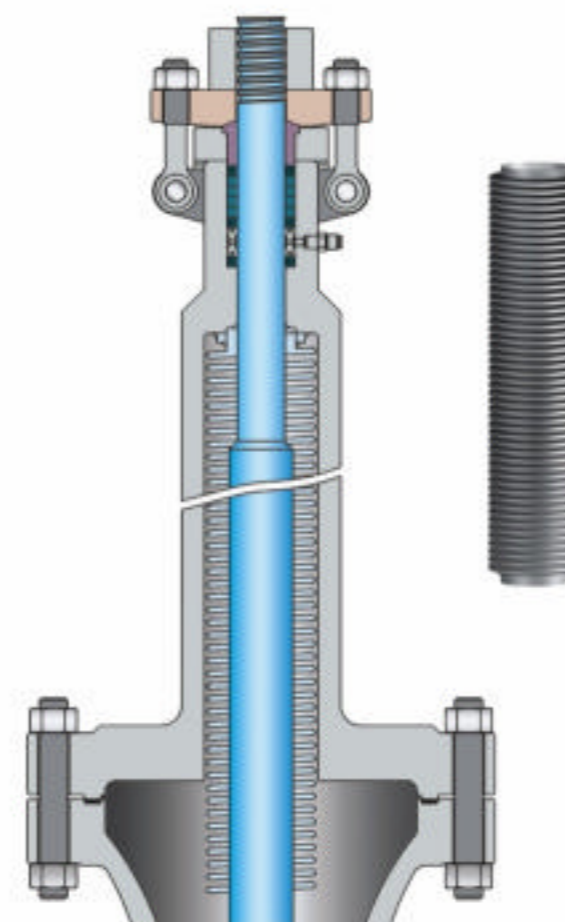
Water seal



The packing box which we provide have the water-sealing structure, when the inlet put the water in pressure of 0.6-1.6Mpa, the friction is small. The sealing is good, it can make the system separate with air and keep the good tightness.

Structure

Bellow seal valve



Valve with bellow seal can ensure stem packing seal complete no emission during the full course of using. Prevent any loss of medium, the most important is this structure can avoid environment pollution and people hurt for the service leakage.

Valve with bellow seal can avoid stem emission from the abrading, corrosion, aging of packing, then can avoid frequent work arise from adding packing, replace packing, or compact packing.

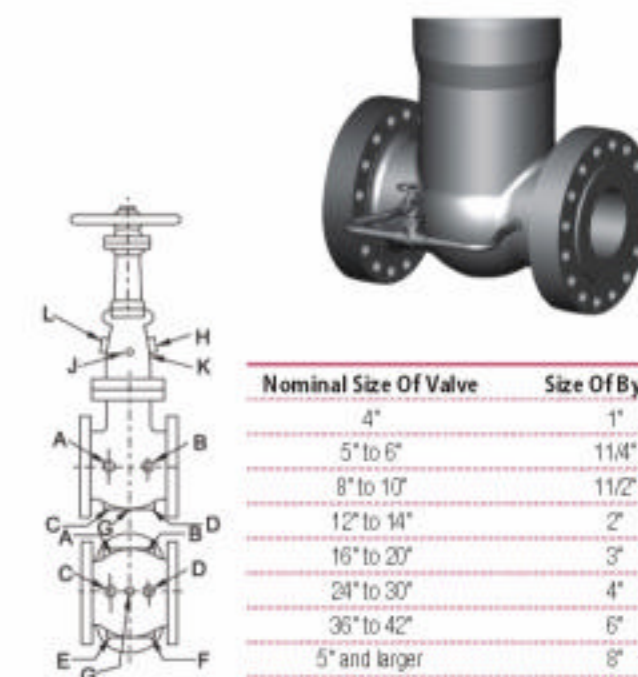
Bypass, drain and vent connections

A bypass line can be furnished with cast steel valves for equalizing pressure around the main valve or for warming up the line before opening the main valve.

Drain connections are normally located in the valve body to drain the valve when internal inspection or maintenance is required.

A vent connection can be located in the valve bonnet to relieve an over-pressure that could occur due to an expansion of trapped liquid.

MSS SP-45 lists the standard locations and connection sizes for gate valve.



Nominal Size Of Valve	2" to 4"	6" to 8"	10" and larger
Size Of Bypass-Drain-Vent	1/2"	3/4"	1"

Bellow seal valve

Pressure balancing valve can balance the pressure from pipe & inlet body.

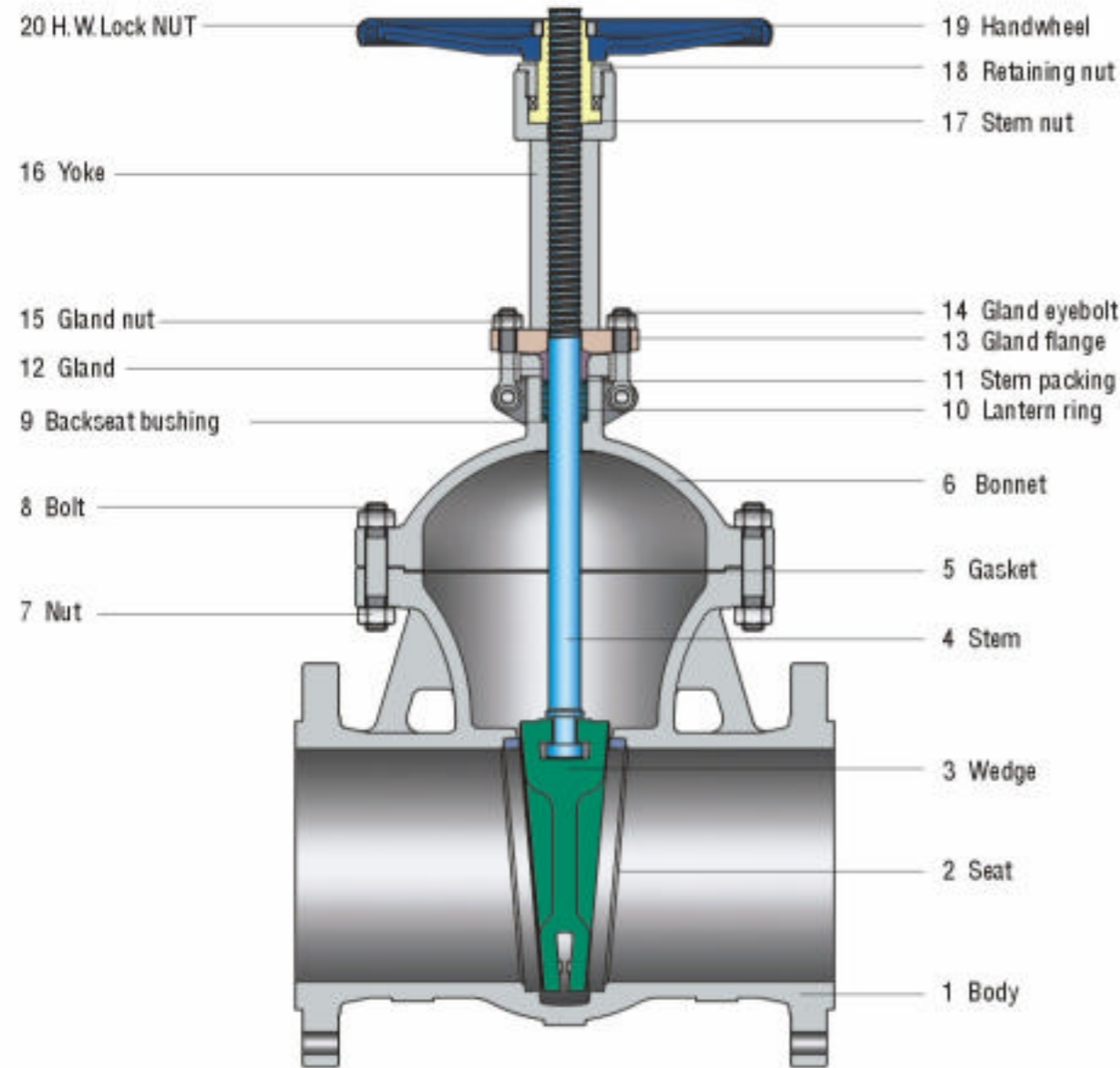


Type Selection

API 600 Gate Valve



Main features



Main parameter specification

Design and Manufacture: API 600(BS 1414, DIN3352)
 Face to Face Dimension: ASME B16.10
 Range Connection Dimension: ASME B16.5 NPS ≥ 26" PER ASME B16.47
 BW Connection Dimension: ASME B16.25
 Test and Inspection: API 598

Main material

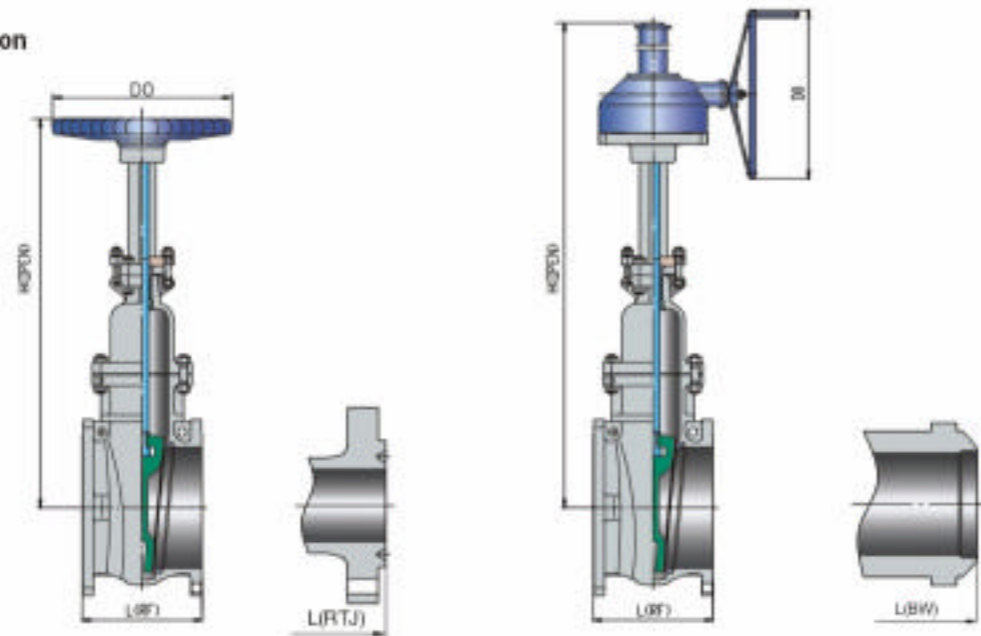
No.	Part name	Material
1	Body	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A352-LCB, LCC, A351-CF8, CF8M, CF3, CF3M, CN7M, CF8C
2	Seat	A105, A182-F11, F22, F304, F304L, F316, F316L, F321, Alloy-20
3	Wedge	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A352-LCB, LCC, A351-CF8, CF8M, CF3, CF3M, CN7M, CF8C
4	Stem	A182-F6, F304, F304L, F316, F316L, F321, Alloy-20, 4140, 4340, 17-4PH
5	Gasket	SS304, SS316+Graphite, 1008, A182-F304L, F316L
6	Bonnet	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A352-LCB, LCC, A351-CF8, CF8M, CF3, CF3M, CN7M, CF8C
7	Nut	A194-2H, 2HM, 4, 7, 8, 8M
8	Bolt	A194-B7, B16, B7M, B8, 88M
9	Backseat bushing	A276-T410, T304, T304L, T316, T316L, T321, Alloy-20
*10	Lantern ring	A276-T410, T304, T304L, T316, T316L, T321, Alloy-20
11	Stem packing	Graphite and braided graphite
12	Gland	A276-T410, T304, T304L, T316, T316L, T321, Alloy-20
13	Gland flange	A216-WCB, A351-CF8
14	Gland eyebolt	A193-B7, B7M, B8
15	Gland nut	A193-2H, 2HM, 8
16	Yoke	A216-WCB, A217-WC6, WC9, C5, C12, A351-CF8
17	Stem nut	Cu-Alloy, A39-D2
18	Retaining nut	1025, Stainless steel
19	Handwheel	Ductile iron, steel
20	H.wlock nut	1025, Stainless steel
	Sealing face	13%Cr/13%Cr, STL/13%Cr, STL/STL

*** ≥300Lb Can be provided when clients required

API 600 Gate Valve



Structure and dimension



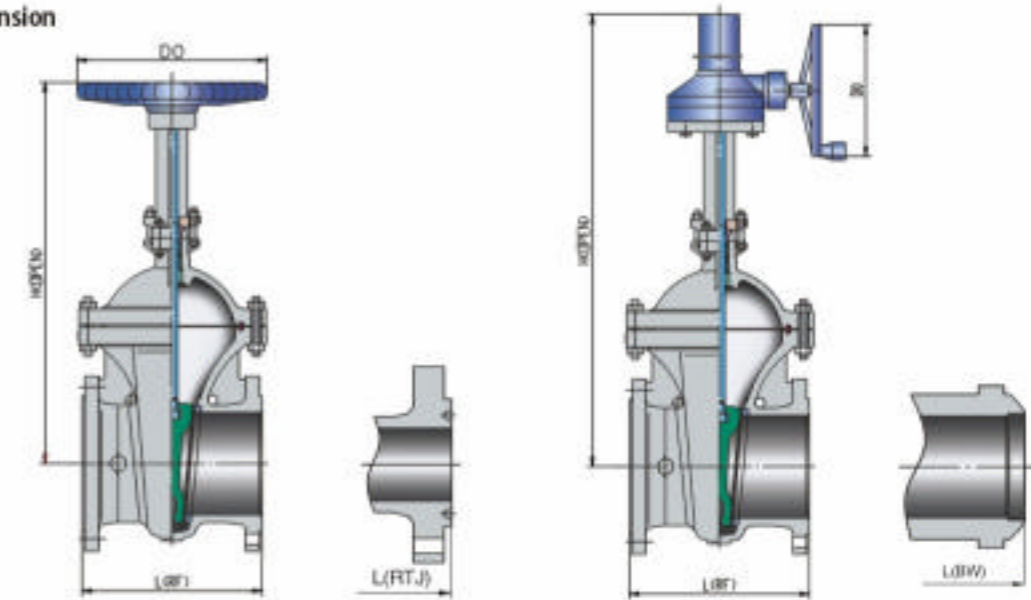
Main size

Model		Z(5)40(1)H(W, Y)-150Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)≈		H(open)≈	
mm	in					RF	BW	Manual	Gear
40	1½	165	178	165	180	15	14	342	-
50	2	178	191	216	200	17	15	397	-
65	2½	191	203	241	200	27	24	438	-
80	3	203	216	283	250	31	28	504	-
100	4	229	241	305	250	47	42	590	-
125	5	254	267	381	300	58	54	682	-
150	6	267	279	403	300	71	69	756	-
200	8	292	305	419	350	122	113	975	1015
250	10	330	343	457	400	185	170	1170	1210
300	12	356	368	502	450	225	214	1375	1415
350	14	381	394	572	500	355	340	1566	1610
400	16	406	419	610	600	495	475	1770	1825
450	18	432	445	660	600	688	635	1924	1980
500	20	457	470	711	680	900	770	2144	2210
600	24	508	521	813	760	1135	965	2522	2610
650	26	569	-	902	800	1700	1425	2728	2800
700	28	610	-	991	915	1950	1820	2941	3022
750	30	610	-	991	915	2210	1980	3175	3208
800	32	*960	-	*965	915	2900	2600	3320	3400
900	36	711	-	1219	915	3500	3150	3600	3740
1000	40	*762	-	*1096	-	4880	-	-	4100
1050	42	813	-	1397	-	5302	-	-	4300
1200	48	*964	-	*1270	-	7520	-	-	5080
1350	54	*1016	-	*	-	10050	-	-	6430
1500	60	*1270	-	*	-	14800	-	-	6850
1600	64	*1676	-	*	-	15025	-	-	7120

(*L will be confirmed by the customer and factory)

Class 150Lb

Structure and dimension



Main size

Model		Z(5)40(1)H(W, Y)-300Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)≈		H(open)≈	
mm	in					RF	BW	Manual	Gear
40	1½	191	203	191	160	22	16	300	-
50	2	216	232	216	200	26	20	430	-
65	2½	241	257	241	200	39	35	510	-
80	3	283	298	283	250	48	40	540	-
100	4	305	321	305	250	73	59	650	-
125	5	381	397	381	300	110	95	760	-
150	6	403	419	403	350	144	124	840	-
200	8	419	435	419	400	204	176	1040	1080
250	10	457	473	457	450	320	278	1280	1320
300	12	502	518	502	500	465	405	1440	1484
350	14	762	778	762	600	715	643	1590	1646
400	16	838	854	838	600	970	876	1755	1810
450	18	914	930	914	680	1190	1076	1997	2150
500	20	991	1010	991	760	1655	1515	2192	2320
600	24	1143	1165	1143	915	2320	2114	2587	2730
650	26	1245	1270	1245	915	2900	2640	2890	2940
700	28	1346	1372	1346	915	3510	3210	3280	3350
750	30	1397	1422	1397	950	4100	3760	3510	3530
800	32	1524	1552	1524	-	5250	4864	-	3630
850	34	1626	1654	1626	-	-	-	-	-
900	36	1727	1756	1727	-	6940	6632	-	3820
1050	42	1981	-	1981	-	-	-	-	-
1200	48	*2235	-	*2235	-	-	-	-	-

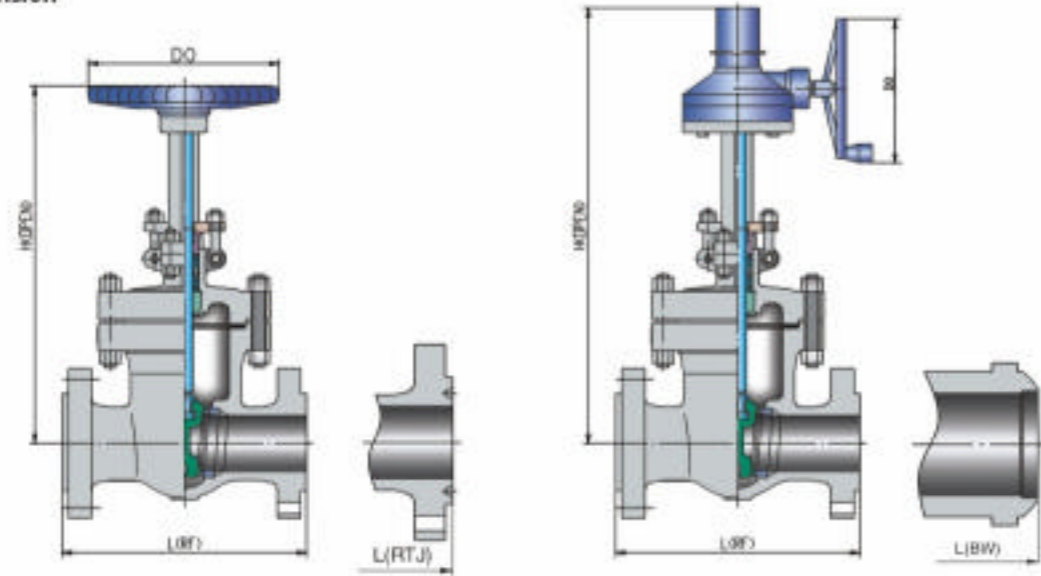
(*L will be confirmed by the customer and factory)

Class 300Lb

API 600 Gate Valve



Structure and dimension



Main size

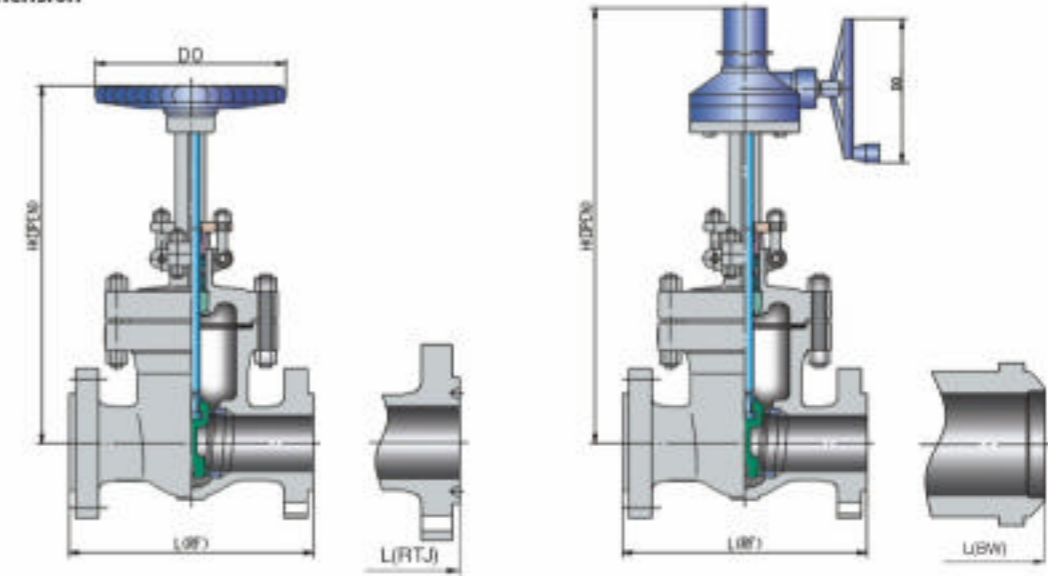
Class 600Lb

Model		Z(5)40(1)H(W, Y)-600Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)-		H(open)-	
mm	in					RF	BW	Manual	Gear
50	2	292	295	292	250	47	39	438	-
65	2 1/2	330	333	330	250	55	47	512	-
80	3	356	359	356	250	75	66	549	-
100	4	432	435	432	350	123	102	668	-
150	6	559	562	559	450	250	208	890	-
200	8	660	663	660	500	400	373	1109	1159
250	10	787	790	787	600	700	630	1268	1318
300	12	838	841	838	680	854	766	1458	1508
350	14	889	892	889	760	1112	1059	1640	1735
400	16	991	994	991	800	1317	1243	1825	1895
450	18	1092	1095	1092	915	1862	1768	1992	2155
500	20	1194	1200	1194	-	2200	2090	-	2304
600	24	1397	1407	1397	-	4560	4228	-	2700
650	26	1448	1461	1448	-	5120	4682	-	3020
700	28	1549	1562	1549	-	7450	6850	-	3120
750	30	1651	1664	1651	-	8114	7500	-	3230
800	32	1778	1794	1778	-	9150	8450	-	3540
850	34	1930	1959	1930	-	9830	-	-	3660
900	36	2083	2099	2083	-	10400	9490	-	3905
950	38	*2235	-	*2235	-	11100	-	-	3910
1050	42	*2438	-	*2438	-	-	-	-	-

(*L will be confirmed by the customer and factory)

API 600 Gate Valve

Structure and dimension



Main size

Class 900/1500Lb

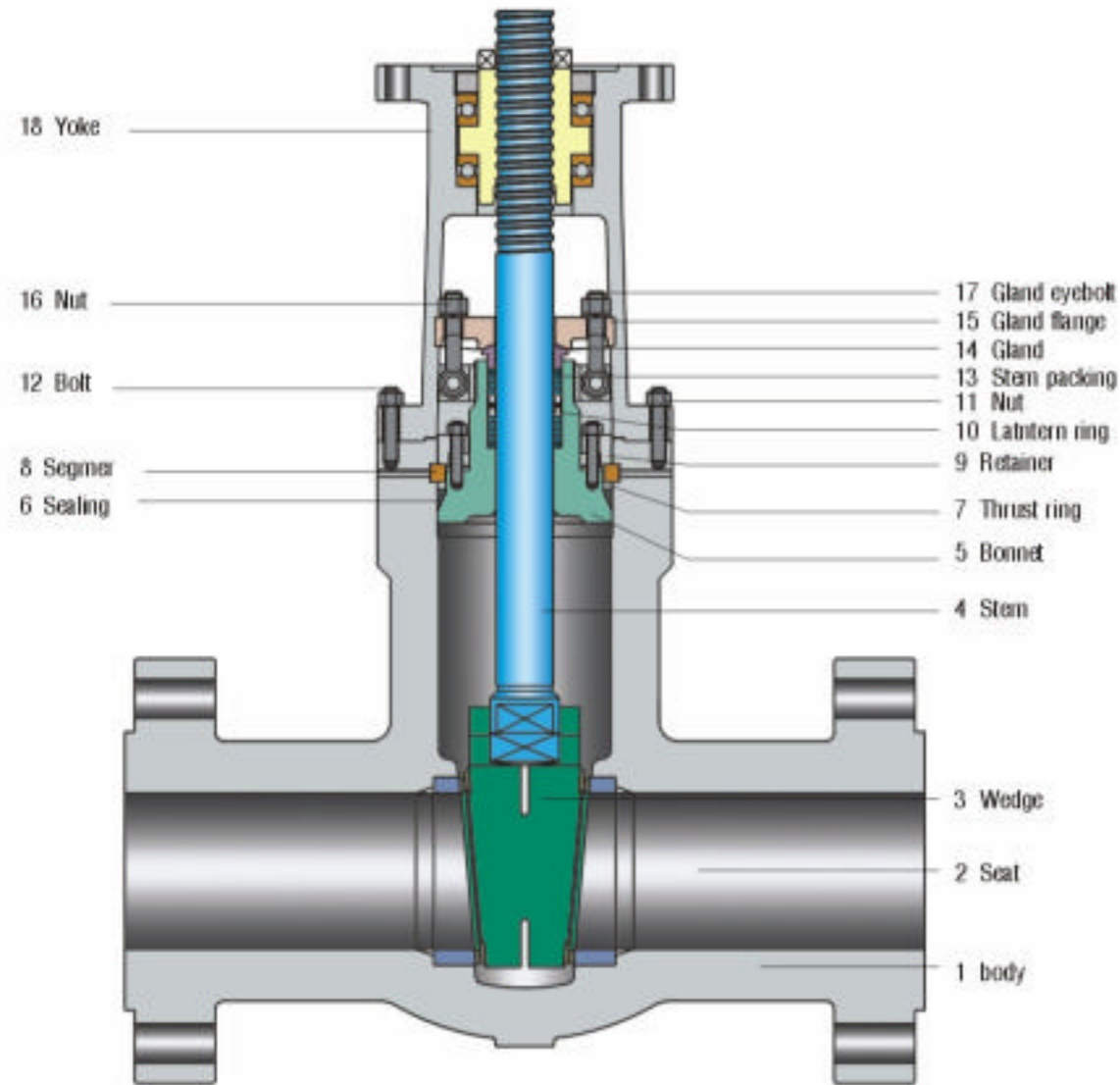
Model		Z(5)40(1)H(W, Y)-900/1500Lb(C, P, R, PL, RL, I, H, V, A)								
Class	Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)-		H(open)-	
	mm	in					RF	BW	Manual	Gear
900Lb	50	2	368	371	368	300	55	43	508	-
	65	2 1/2	419	422	419	300	75	59	580	-
	80	3	381	384	381	350	95	79	606	-
	100	4	457	460	457	450	135	111	796	-
	150	6	610	613	610	500	280	258	957	1060
	200	8	737	740	737	600	495	421	1172	1202
	250	10	838	841	838	600	725	684	1300	1334
	300	12	965	968	965	680	1341	1217	1655	1960
	350	14	1029	1038	1029	-	1900	1750	-	2090
	400	16	1130	1140	1130	-	2550	2364	-	2390
1500Lb	450	18	1219	1232	1219	-	3275	3009	-	2580
	500	20	1321	1334	1321	-	3900	3574	-	2780
	600	24	1549	1568	1549	-	5985	5325	-	3130
	50	2	368	371	368	300	95	80	475	-
	65	2 1/2	419	422	419	330	128	110	525	-
	80	3	470	473	470	400	181	145	735	-
	100	4	546	549	546	450	275	220	838	900
	150	6	705	711	705	600	627	560	1042	1221
	200	8	832	841	832	700	1060	922	1385	1555
	250	10	991	1000	991	800	2200	1950	1645	1800
300	12	1130	1146	1130	915	3900	2850	1750	2010	
350	14	1257	1276	1257	-	4200	3550	-	2159	
400	16	1384	1407	1384	-	6300	5500	-	2330	
450	18	1537	1559	1537	-	7350	6400	-	2540	
500	20	1664	1686	1664	-	9800	8500	-	2862	
600	24	1943	1972	1943	-	17800	15600	-	3135	

(*L will be confirmed by the customer and factory)

API 600 Pressure Seal Gate Valve



Main features



Main parameter specification

Design and manufacture: API 600(BS 1414, DIN3352)
 Face to face dimension: ASME B16.10
 Range connection dimension: ASME B16.5 NPS≥26"PER ASME B16.47
 Bw connection dimension: ASME B16.25
 Test and inspection: API 598

API 600 Pressure Seal Gate Valve

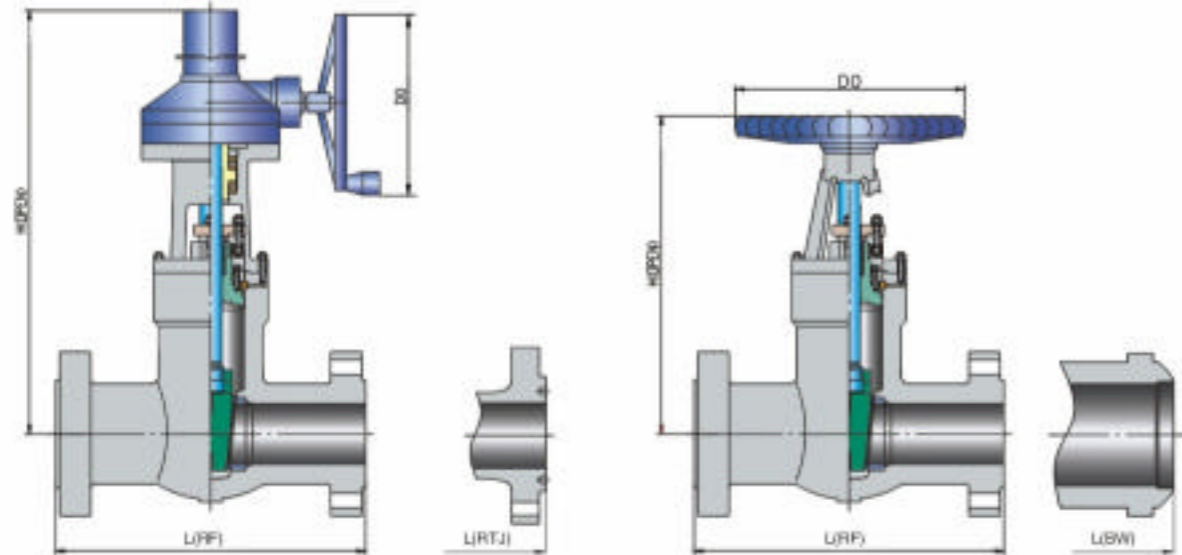
Main material

No.	Part Name	Material
1	Body	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A351-CF8, CF8M
2	Seat	A105, A182-F11, F22, F304, F316
3	Wedge	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A351-CF8, CF8M
4	Stem	A182-F6, F304, F316, 4140, 4340, 17-4PH
5	Bonnet	A216-WCB, WCC, A217-WC6, WC9, C5, C12, A351-CF8, CF8M
6	Sealing ring	A182-F304L, F316L
7	Thrust ring	A182-F6, F304, F316
8	Segment ring	A182-F6, F304, F316
9	Retainer	1025, A182-F304
10	Lantern ring	A276-T410, T304, T316
11	Nut	A194-2H, 4, 8
12	Bolt	A193-B7, B16, B8
13	Stem packing	Braided graphite and graphite
14	Gland	A276-T410, T304, T316
15	Gland flange	A216-WCB, 1025, A351-CF8
16	Nut	A194-2H, 8
17	Gland eyebolt	A193-B7, B8
18	Yoke	A216-WCB, A351-CF8
	Sealing face	STL/STL, 13%Cr/STL

API 600 Pressure Seal Gate Valve



Structure and dimension



Main size

Class 900Lb

Model		Z(5)40(1)H(W, Y)-900Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)~		H(open)~	
mm	in					RF	BW	Manual	Gear
50	2	368	371	216	300	70	52	438	-
65	2½	419	422	254	300	95	71	488	-
80	3	381	384	305	350	138	119	721	-
100	4	457	460	356	450	220	190	907	-
150	6	610	613	508	500	280	224	1058	1046
200	8	737	740	660	600	610	520	1225	1265
250	10	838	841	787	600	743	634	-	1500
300	12	965	968	914	650	1341	1198	-	1685
350	14	1029	1038	991	-	1560	1394	-	1830
400	16	1130	1140	1092	-	2100	1892	-	2145
450	18	1219	1232	1219	-	2750	-	-	2300
500	20	1321	1334	1321	-	3450	2950	-	2483
600	24	1549	1568	1549	-	5464	4800	-	2944

API 600 Pressure Seal Gate Valve

Main size

Class 1500Lb

Model		Z(5)40(1)H(W, Y)-1500Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)~		H(open)~	
mm	in					RF	BW	Manual	Gear
50	2	368	371	261	300	70	52	438	-
65	2½	419	422	254	350	95	71	570	-
80	3	470	473	305	400	115	82	723	-
100	4	546	549	406	450	195	147	838	900
150	6	705	711	559	600	338	289	1042	1030
200	8	832	841	711	760	577	420	1235	1275
250	10	991	1000	864	800	1016	760	1440	1490
300	12	1130	1146	991	915	2010	1650	1650	1700
350	14	1257	1276	1067	-	2500	2003	-	1968
400	16	1384	1407	1194	-	2955	2313	-	2275
450	18	1537	1559	1346	-	3863	2454	-	2480
500	20	1664	1686	1473	-	5606	3200	-	2687
600	24	1943	1972	1943	-	6480	4900	-	3040

Main size

Class 2500Lb

Model		Z(5)40(1)H(W, Y)-2500Lb(C, P, R, PL, RL, I, H, V, A)							
Size		L(RF)	L(RTJ)	L(BW)	Do	W(kg)~		H(open)~	
mm	in					RF	BW	Manual	Gear
50	2	451	454	279	450	98	61	610	-
65	2½	508	514	330	500	179	124	695	-
80	3	578	584	368	-	193	160	-	780
100	4	673	683	457	-	225	174	-	890
150	6	914	927	610	-	495	360	-	1135
200	8	1022	1038	762	-	700	527	-	1300
250	10	1270	1292	914	-	1480	1135	-	1680
300	12	1422	1445	1041	-	2400	1943	-	1750
350	14	-	-	1118	-	3700	-	-	-
400	16	-	-	1245	-	-	-	-	-
450	18	-	-	1397	-	-	-	-	-
500	20	-	-	*1524	-	-	-	-	-
600	24	-	-	*1676	-	-	-	-	-

(*L will be confirmed by the customer and factory)

ASME Class-150/300/600/ 900/1500/2500

Pressure ratings

Class	A216 WCB	A352 LCC
	Pressure	Pressure
150	285psi@100°F	230psi@100°F
300	740psi@100°F	750psi@100°F
600	1480psi@100°F	1500psi@100°F
900	2220psi@100°F	2250psi@100°F
1500	3705psi@100°F	3750psi@100°F
2500	6170psi@100°F	6250psi@100°F

Applicable standards

ASME B16.5, B16.10, B16.25, B16.34,
API 598, 600

Materials List

Item	Part	Standard	Source	Surface @ low temp
1	Body	A216 WCB	A216 WCB	A352 LCC
2	Bonnet	A216 WCB	A216 WCB	A352 LCC
3	Gland Flange	A105/WCB	A105/WCB	LFC/LCC
4	Gland Eyebolts	A193 B7	A193 B7M	A320 L7M
5	Gland Nuts	A194 2H	A194 2HM	A194 7M
6	Body Studs	A193 B7	A193 B7M	A320 L7M
7	Body Nuts	A194 2H	A194 2HM	A194 7M
8	Stem	T410	F316	F316
9	Wedge	CA15/WCB+13CR	CF8M/F316	CF8M/F316
10	Seat Rings	F6a+HFS/A105+HF	A182 F316+HF	A182 F316+HFS
11	Gland	T420	A182 F316	A182 F316
12	Stem Nut	A439 Gr.D2	A439 Gr.D2	A439 Gr.D2
13	Backseat	T420	A182 F316	A182 F316
14	Retaining Nut	Carbon Steel	Carbon Steel	Carbon Steel
15	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron
16	Handwheel Nut	Carbon Steel	Carbon Steel	Carbon Steel
17	Gasket	*See Below	*See Below	*See Below
18	Stem Packing	Graphite/Graphoil*	Graphite/Graphoil*	Graphite/Graphoil*

* Class 150
Class 300 & 600
Class 900, 1500 & 2500

- Reinforced Graphite Gasket
- SS316 Spiral Wound Gasket with Graphoil®/Filet
- Standard Trim-Soft Iron Ring Gasket
- NACE Sour/NACE Low Temp-SS316 Ring Gasket

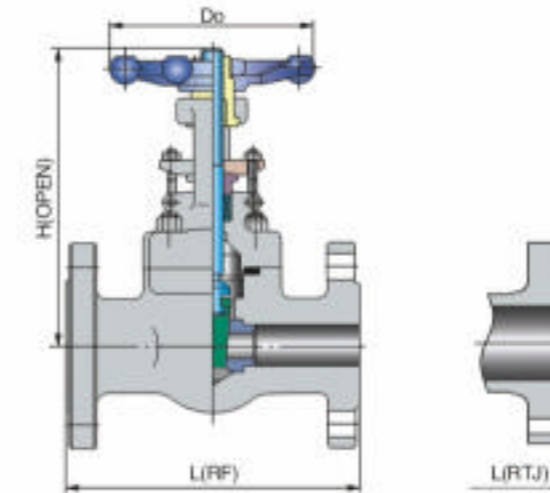
NA/COR reserves the right to substitute materials listed above with alternative material approved for designated service.
Graphoil® is a registered trademark of Union Carbide Corporation.



ASME Class-150/300/600/ 900/1500/2500



Structure and dimension



Main size

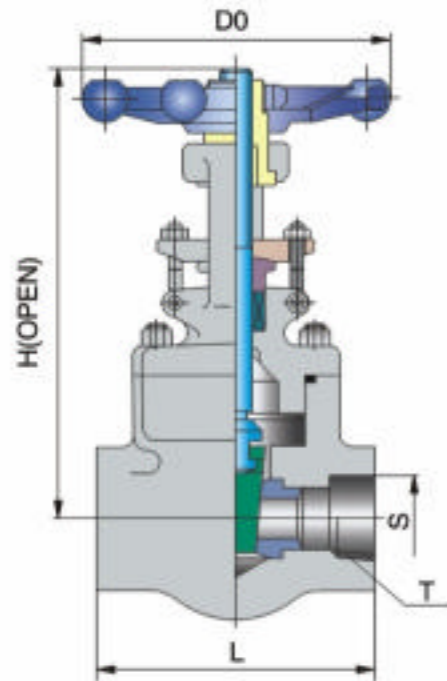
Class 150Lb~1500Lb

Model Size		Z(S)40(1)H(W, Y)-150/1500Lb(C, P, R, PL, RL, I, H, V, A)							
mm	in	Class	L(RF)	L(RTJ)	L(BW)	Do	W(kg)~		H(open)~
							RF	BW	
15	1/2	150	108	-	108	100	4.0	3.0	166
		300	140	151	140	100	4.6	3.8	166
		600	165	163.5	165	100	5.2	4.8	166
		900-1500	216	216	216	125	7.5	7.0	197
20	3/4	150	117	-	117	100	5.0	3.5	169
		300	152	165	152	100	6.3	4.5	169
		600	191	191	191	100	7.3	5.5	169
		900-1500	229	229	229	125	11.2	10.6	212
25	1	150	127	140	127	120	6.5	5.8	210
		300	165	191	165	120	8.0	7.0	210
		600	216	216	216	120	9.9	8.3	210
		900-1500	254	254	254	160	15.5	14.8	240
40	1 1/2	150	165	178	165	160	11	8.5	250
		300	191	203	191	160	14	10.1	250
		600	241	241	241	160	16	12.6	250
		900-1500	305	305	305	200	22.8	22.0	290
50	2	150	178	191	178	180	16	13	290
		300	216	232	216	180	19	15.6	290
		600	292	295	292	180	21	20.4	290
		900-1500	368	368	368	250	28.3	27.5	322

API602 Forged Steel Gate Valve



Structure and dimension



Main size

Class 150-1500Lb

Model		Z(5)40(1)H(W, Y)-150/1500Lb(C, P, R, PL, RL, I, H, V, A)					
	Size	in	1/2	3/4	1	1 1/2	2
		mm	15	20	25	40	50
L	150Lb-800Lb	mm	79	92	111	120	140
	900Lb-1500Lb	mm	102	111	120	140	178
H	150Lb-800Lb	mm	151	158	185	245	280
	900Lb-1500Lb	mm	169	193	230	283	330
D0	150Lb-800Lb	mm	100	100	125	160	180
	900Lb-1500Lb	mm	120	125	160	180	200
S	150Lb-1500Lb	mm	21.8	27.1	33.8	48.7	61.1
T	900Lb-1500Lb	NPT	1/2"	3/4"	1"	1 1/2"	2"
W	150Lb-800Lb	kg	2.1	2.3	4.3	6.9	10.8
	900Lb-1500Lb	kg	3.5	4.0	7.5	12.1	20