



Multi-ply Bellows Gate Valve

Z-Butt weld/Socket weld/Flanged/Screwed
15mm~500mm ($\frac{1}{2}$ "~20")

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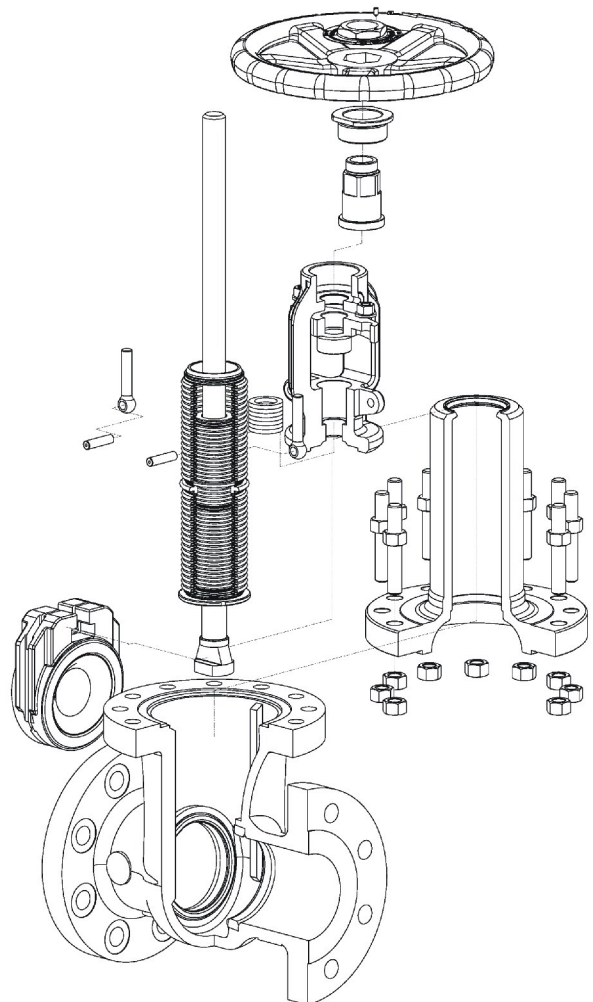
[Principium]

Wedge gate valve is widely used in variety of industries. The sealing relies on mating with the wedge and the body sealing surface, its purpose of using wedge disc in order to improve the secondary sealing, no matter the medium of high pressure or low pressure, can be suitable. The valve's shutoff is rotating the stem, the sealing between the stem and bonnet only the packing, when it take from the medium washing and stem wear, the sealing is ineffective. For the leakage of the hazardous medium, it is threaten to the people's safety.

Wanlong Machinery, as an aggressive special valve supplier. We developed a Multi-ply Bellows Sealed Gate Valve, which adapts to a variety of conditions and medium. For nominal bellows sealed gate valve, meets the opening required, and the less displacement, one valve must assemble a long bellow. This style of valve of external dimension is too high, the operator is discommodious when opening or closing the valve, and is restricted the build, it's not sought after by the user for many years. Now, the Multi-ply Bellows Sealed Gate Valve, a patented product of Wanlong, has a displacement of two bellows interactional, reduces nearly a moiety of highness relative to nominal bellows gate valve, operates without platform, easy to use. The sealing of Multi-ply Bellows Sealed Gate Valve is bellows, it can avoid the wear between the packing and stem that provides nearly bubble-tight shutoff with the multi-ply seal burned away, triple barrier sealing provide triple protection against atmospheric leakage. Otherwise low torque, maintenance free, and low flow resistance, bi-directional flow, simple actuation, compact design, diverting applications in the electric, power, oil and chemical industries. They are designed to flammable, explosive, toxic and corrosive gases, corrosive liquids.

The Multi-ply Bellows Sealed Gate Valves generally applications in the full shutoff, can't be used to adjust and throttling.

1. Multi-ply bellows construction, compact design; small external size, the height decreased by 28% ~ 45.4% than nominal bellows gate valve.
2. Because of the construction, subtract the torque, balance the stress of the bellows, provides a long service life.
3. Triple barrier sealing provide triple protection against atmospheric leakage. Testing by the helium spectrometry. Diverting applications in flammable, explosive, toxic and corrosive gases, corrosive liquids, environmental protection and safety.
4. Wedge sealing provides a reliable sealing, as in certain condition, one side sealing surface damaged, the other side sealing surface is still effective, maintenance free, insured a long service life.
5. Straight flow, simple actuation, compact design, low flow resistance, easy to use.



[Design Standard]

1.Design and Manufacture: API602、BS5352、MSS SP117、ASME B16.34

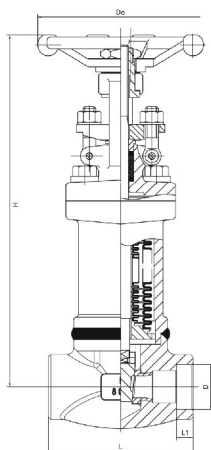
2.Face-to-Face Dimension: Socket welded and Screwed connection according to the manufacturer. Butt welded connection and Flanged Connection according to ASME B16.10.

3.End Dimension: Socket Welded according to ASME B16.11. Screwed according to ASME B1.20.1. Butt Welded according to ASME B16.25. Flanged according to ASME B16.5.

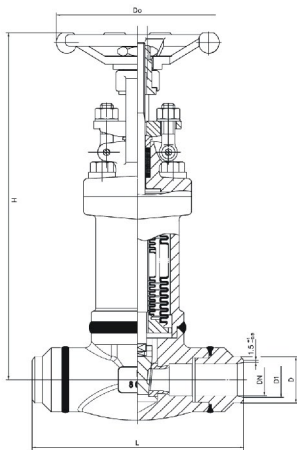
4.Construction: BB.OS&Y / WB.OS&Y.

5.Material meets ANSI&ASME sstandard.

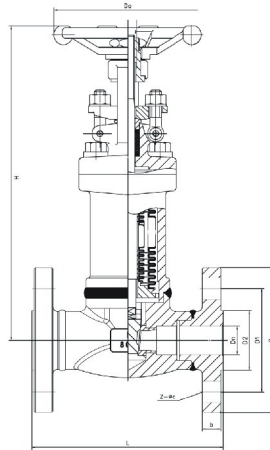
6.Test-Inspection: API598, API602.



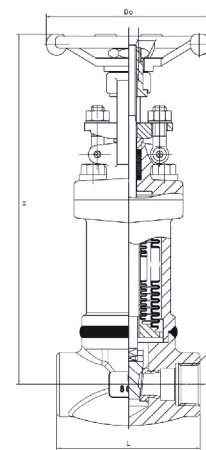
Socket Welded Connection
(BB.OS & Y)



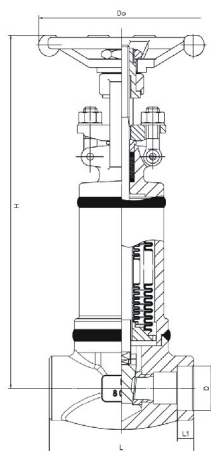
Butt Welded Connection
(BB.OS & Y)



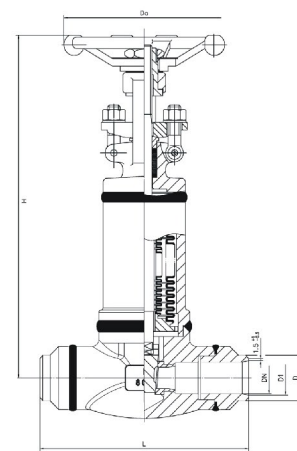
Flanged Connection
(BB.OS & Y)



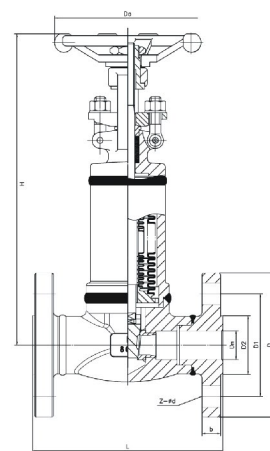
Screwed Connection
(BB.OS & Y)



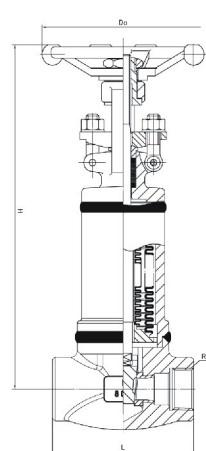
Socket Welded Connection
(WB.OS & Y)



Butt Welded Connection
(WB.OS & Y)



Flanged Connection
(WB.OS & Y)



Screwed Connection
(WB.OS & Y)

[Relative Highness]

Size	Highness of WL (Unit: mm)	Other manufacturer (Unit: mm)	Decreasing Rate (%)
DN15	220	345	36.23
DN20	220	402	45.27
DN25	231	489	52.76
DN40	323	661	51.13
DN50	346	758	54.35
DN65	387	848	54.36
DN80	564	873	35.40
DN100	735	1013	27.44
DN125	897	1235	27.37
DN150	1078	1486	27.45
DN200	1118	1908	41.40
DN250	1320	2251	41.36
DN300	1473	2514	41.41
DN350	1596	3005	46.89
DN400	1940	3335	41.83
DN500	2400	3778	36.47

[Selection of Material and Construction]

Pressure: PN16~40 150lb~300lb

Size: DN15mm~500mm (1/2"~20")

Construction: BB.OS&Y / WB.OS&Y

Connection: Butt weld/Socket weld/
Flanged/Screwed

Comment: when ordering valve, specify: flowing media, pressure drop, connection dimensions, speed of operation and actuator accessories or controls required. Contact Wanlong Machinery for additional information.



Body&Bonnet

Carbon steel (Spray) ASTM A105 105(Forging) ASTM A216 WCB(Casting)
304 Stainless Steel ASTM A276 304 (Forging) ASTM A351 CF8(Casting)
316 Stainless Steel ASTM A276 316 (Forging) ASTM A351 CF8M (Casting)
Alloy 20 ASTM A351 Grade Cn7M
Monel ASTM A351 M35-1
Hastelloy C ASTM A494 Hastelloy C-22/C-276
Duplex Stainless Steel ASTM A995 CD4MCu

Seat

Harden Sealing ($\leq 425^{\circ}\text{C}$) GB/T 699 20# +ST6
Harden Sealing ($\leq 425^{\circ}\text{C}$) ASTM A276 304/316
Harden Sealing ($\leq 425^{\circ}\text{C}$) ASTM A276 304/316+ST6

Stem

Carbon steel GB/T 12201Cr13/2Cr13 Nitride Surfaced
Stainless Steel (304)ASTM A276 304
Stainless Steel (316)ASTM A276 316
Stainless Steel (316L)ASTM A276 316L
Stainless Steel (410)ASTM A276 410
Stainless Steel (420) ASTM A276 420
Hastelloy C ASTM A494 Hastelloy C-22/ C-276
Alloy 20 ASTM A351 Grade Cn7M
Monel ASTM A351 M35-1

Disc

Carbon steelASTM A105 105(Forging) ASTM A216 WCB(Casting)
304 Stainless Steel ASTM A276 304 (Forging) ASTM A351 CF8(Casting)
316 Stainless Steel ASTM A276 316 (Forging) ASTM A351 CF8M (Casting)
Alloy 20 ASTM A351 Grade Cn7M
Monel ASTM A351 M35-1
Hastelloy C ASTM A494 Hastelloy C-22/C-276
Duplex Stainless Steel ASTM A995 CD4MCu

Bellows assembled

Stainless Steel ASTM A276 304
Stainless Steel ASTM A276 304L
Stainless Steel ASTM A276 316
Stainless Steel ASTM A276 316L
Stainless Steel ASTM A182 F91 (Contact the manufacturer when required)
Stainless Steel ASTM A494 Hastelloy C-22 (Contact the manufacturer when required)
Stainless Steel ASTM A494 Hastelloy C-276 (Contact the manufacturer when required)

Handwheel (Fix variety of actuators when required)

Carbon steel ASTM A216 WCB
Stainless Steel (304) ASTM A351 CF8
Stainless Steel (316) ASTM A351 CF8M

Bolts/Nuts

Carbon steel ASTM A193/A194 Nitride Surfaced
Stainless Steel ASTM A276 304
Stainless Steel (316) ASTM A276 316

Cover

Carbon steel ASTM A216 WCB
Stainless Steel (304) ASTM A351 CF8
Stainless Steel (316) ASTM A351 CF8M

Stuffing

Flexible Graphite +304
Weave Stuffing

Gasket

Metal wrap gasket

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Note:The data represented in this brochure is for your information only. Consult WL representatives or technical engineer for the specific requirements, material and actuator selection for your intended application. The right to change or modify product design or product without prior notice is reserved.

