JFS

BEIJING JOINT FLOW SYSTEM CO.

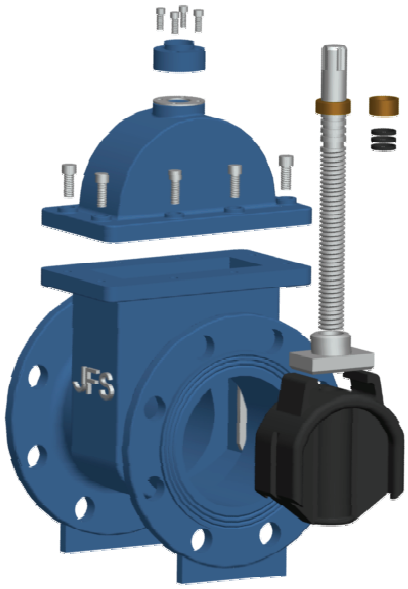
Gate Valve

SERIES 2 GATE VALVE

RESILIENT SEATED GATE VALVE

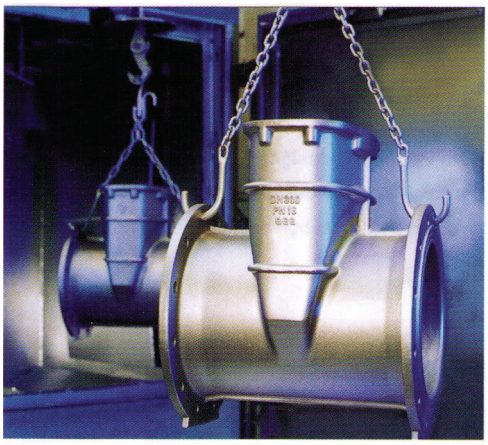
FEATURE

- Structure design complies with BS 5163, DIN 3202, AWWA C509 or other design standards are available.
- Flange connection: ANSI/ISO/JIS/DIN/BS.
- Overall rubber encapsulated disc, completely isolates metal disc from medium, corrosive-resistant.
- Integrated copper nut provides long service life.
- Stainless Steel Stem with high strength and corrosion resistance.
- Back sealing facility to allow for replacement of seals under full operating pressure.
- Straight full bore to avoid debris traps.
- Anti-friction thrust washer for low operating torque.
- Flat bottom seat.
- Straight and full flow area, reliable sealing.
- Unique bonnet structure.
- Shorter Max. Operation height, light weight.
- Poison free Powder Epoxy coating (OPTION).



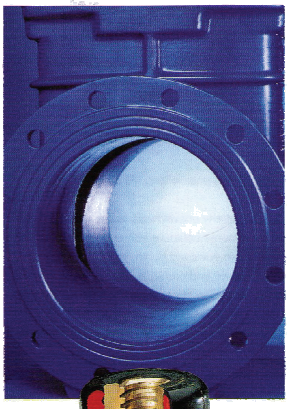
RESILIENT SEATED GATE VALVE

High Corrosion Resistance and Perfect Finish



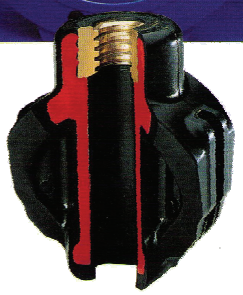
1. The valves with three different coating types ensure long life even in extreme application conditions
2. All casting is blast cleaned ensuring that any unevenness in the surface of the castings is fully cleaned. This process ensures optimum adhesion of the coating.
3. The epoxy is applied electrostatically in an enclosed booth, where the powder melts and cures on contact with the cleaned and preheated component.
4. Thorough control of layer thickness, adhesive strength and impact resistance is made to ensure optimum corrosion protection according to DIN 3677.

JFS builds long life into your pipelines



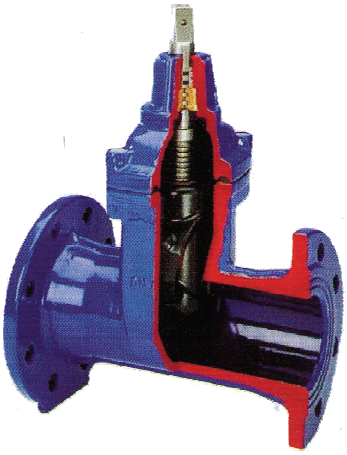
1. The effective assembly of valve body and bonnet ensures a durable tightness. A round rubber bonnet gasket fits into a recess in the valve bonnet preventing it from being blown out by pressure surges.
2. The stainless steel bonnet bolts are countersunk in the valve bonnet, encircled by the bonnet gasket, thus there is no risk of corrosion.
3. All valves are pressure tested before they leave the factory. The testing is carried out according to GB/T 13927.

The rubber is characterized by



1. High quality rubber and very low deformation ensuring optimum sealing.
High impact resistance preventing corrosion.
2. Low friction ensuring low closing torques.
3. EPDM rubber for water supply and NBR rubber for gas supply.

Additional benefits of the wedge design

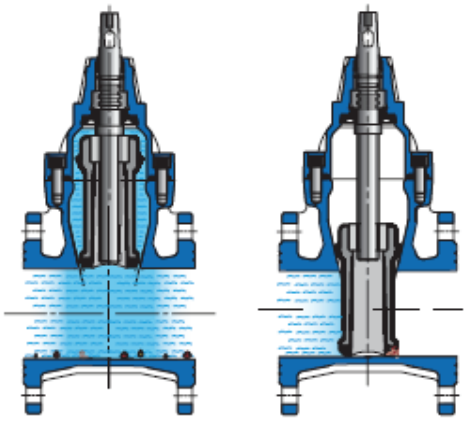


1. Guides in the wedge and on the valve body ensure a uniform closure irrespective if high pressure. Safe operation is ensured, as the guides prevent overloading of the stem.
2. The fixed integral wedge nut reduces the number of moving valve parts and the risk of malfunction. It is made of dezincification resistant brass.
3. The wedge has a large through bore and as there are no hollows in the core. The stagnant water or impurities cannot collect and cause pollution.
4. The full bore valve ensures minimum pressure loss, as the valve does not cause reduction in the flow path.

RESILIENT SEATED GATE VALVE

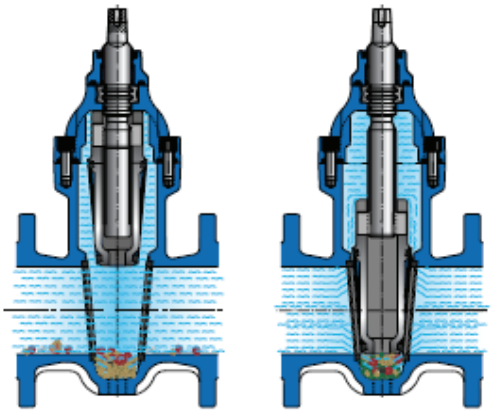
ADVANTAGE

Resilient Seated Gate Valve



The straight bore structure

Metal Seated Gate Valve



The non-straight bore structure

A. Resilient seated gate valves are the perfect solution as a closing device in pipeline systems.

B. Because of the straight bore all impurities can pass through the valve without doing any harm. Combined with the full bore it will prevent pressure loss cause by turbulence.

C. The high quality rubber on the wedges is characterized by low deformation and high impact resistance which combined with the large valve seat area gives optimum tightness.

D. The test has proved that impurities up to Φ5mm can be handled by a DN150 valve without any problems. The same test has also proved that the rubber quality instantly returns to the original shape when the valve is opened again.

A. Sand and other impurities will gather in the sump no matter how carefully the valve is installed. Such impurities can become stuck during closing of a metal seated gate valve. The stem may be overloaded and the sealing rings permanently damaged. Consequently the valve will be leaking.

B. The hardness of the wedges is very high for the metal seated gate valves. For the rush flow velocities and the granular impurities in the fluid, the sealing is easy to be worn and then cause leaking.

C. Normal flow velocities can only push sand and small stones along the bottom of the pipe. The impurities will then be collected in sumps such as in a metal seated gate valve.

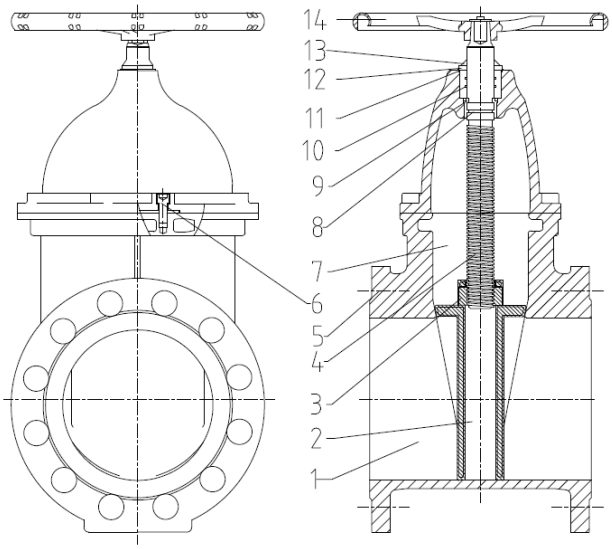
TEST DATA

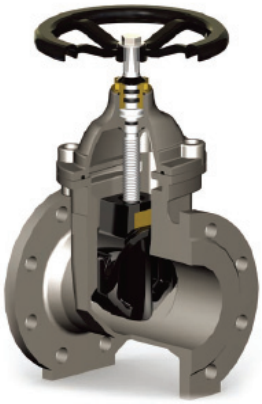
Nominal Diameter DN (mm)		40-600	
Nominal Pressure PN (MPa)	1.0	1.6	125 lb
Hydraulic Shell Test Pressure	1.5	2.4	500 psi
Hydraulic Seal Test Pressure (MPa)	1.1	1.76	250 psi
Temperature (℃)		-10-80	

*More test specifications are available on request.

RESILIENT SEATED GATE VALVE

PARTS LIST & MATERIAL



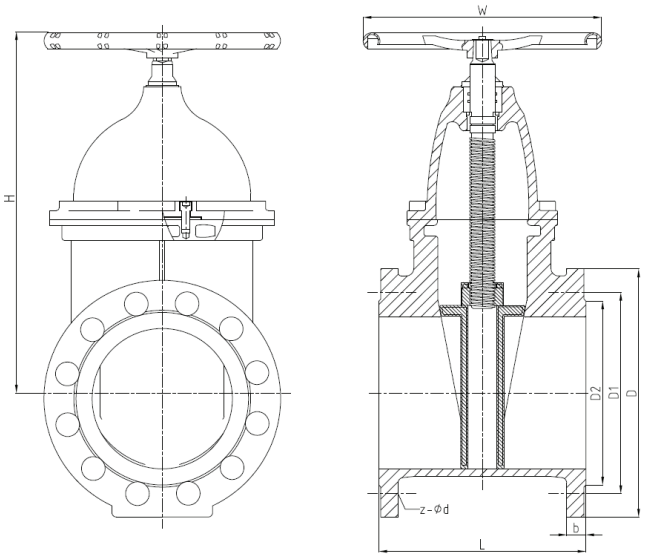


No.	Parts Name	Material
1	Body	Ductile Iron
2	Wedge	Ductile Iron
3	Back Sealing	EPDM/NBR
4	Stem	Stainless Steel
5	Bonnet Gasket	NBR
6	Bolt	Galvanized Steel
7	Bonnet	Ductile Iron
8	O-Ring	NBR
9	Thrust Ring	Brass/Bronze
10	O-Ring	NBR
11	O-Ring	NBR
12	Bushing	Brass
13	Dust-proof Ring	EPDM/NBR
14	Hand Wheel	Ductile Iron
21	Stem Cap	Ductile Iron
22	Bolt	Galvanized Steel

*More material specifications are available on request.

RESILIENT SEATED GATE VALVE

DIMENSION (Non-rising stem / DN<300 / 1.0 1.6MPa)



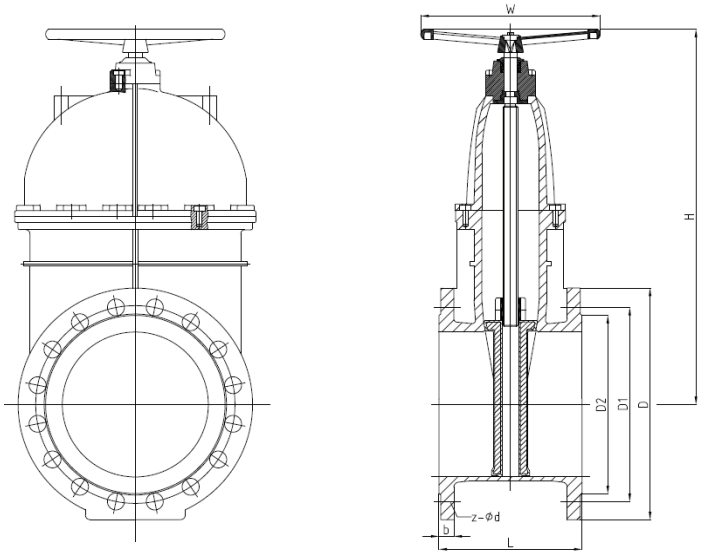
DN	NPS	L			H≈	W≈
		BS 5163	DIN 33202 F4	DIN 3302 F5		
40	1-1/2"	165	140	240	240	160
50	2"	178	150	250	250	160
65	2-1/2"	190	170	270	265	180
80	3"	203	180	280	300	200
100	4"	229	190	300	350	200
125	5"	254	200	325	410	220
150	6"	267	210	350	450	250
200	8"	292	230	400	550	280
250	10"	330	250	450	650	320
300	12"	356	270	500	710	350

*Flange dimensions (D, D_1, D_2, Z-d, b, f) refer to Catalogue of Accessory: Series 8 – Flange.

*More dimension specifications are available on request.

RESILIENT SEATED GATE VALVE

DIMENSION (Non-rising stem / DN>300 / 1.0 1.6MPa)



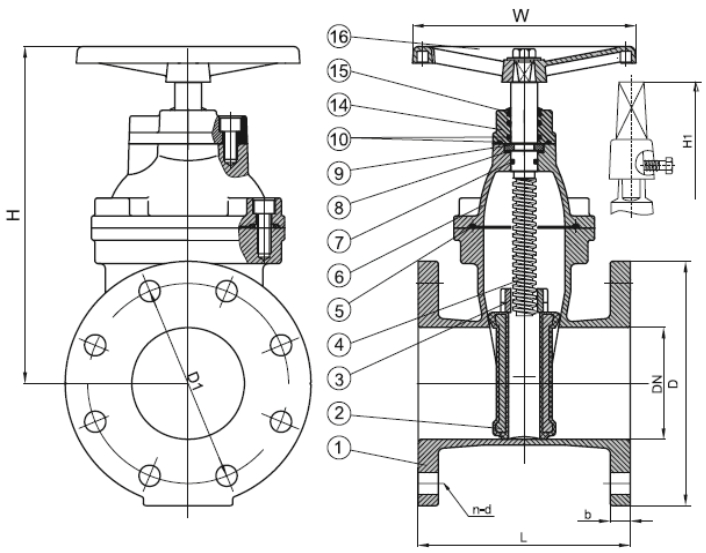
DN	NPS	L			H≈	W≈
		BS 5163	DIN 33202 F4	DIN 3302 F5		
350	14"	381	290	550	762	450
400	16"	406	310	600	836	450
450	18"	432	330	650	957	640
500	20"	457	350	700	1036	640
600	24"	508	390	800	1188	640

*Flange dimensions (D, D_1, D_2, Z-d, b, f) refer to Catalogue of Accessory: Series 8 – Flange.

*More dimension specifications are available on request.

RESILIENT SEATED GATE VALVE

DIMENSION (Non-rising stem / 125 lb)



DN	NPS	L	H≈	H_1≈	W≈
50	2"	178	255	325	180
80	3"	203	300	370	200
100	4"	229	344	414	230
125	5"	254	410	480	250
150	6"	267	441	511	280
200	8"	292	529	599	320
250	10"	330	614	684	360
300	12"	356	700	770	500
350	14"	381	880	950	500
400	16"	406	990	1060	500
450	18"	432	1120	1200	500
500	20"	457	1220	1300	500
600	24"	508	1470	1470	500

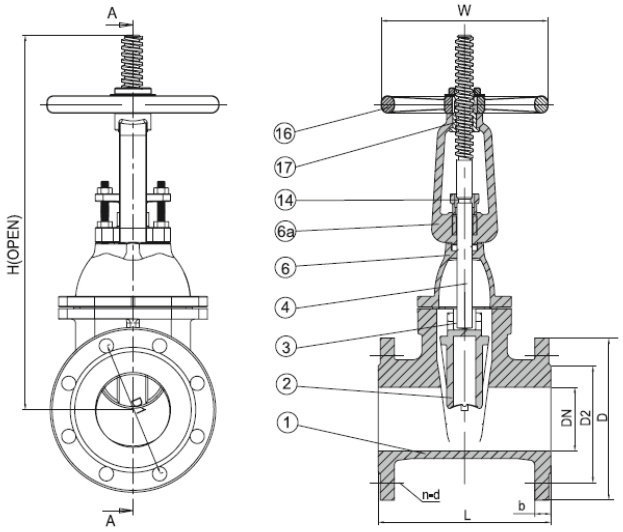
*Face to face dimensions (L) herein are according to ASME B16.10.

*Flange dimensions (D, D_1, D_2, Z-d, b, f) refer to Catalogue of Accessory: Series 8 – Flange.

*More dimension specifications are available on request.

RESILIENT SEATED GATE VALVE

DIMENSION (Rising stem / 1.0-1.6MPa)



DN	NPS	L	H≈	W≈
40	1-1/2"	165	365	180
50	2"	178	385	180
65	2-1/2"	190	415	180
80	3"	203	518	200
100	4"	229	570	200
125	5"	254	745	250
150	6"	267	790	280
200	8"	292	990	320
250	10"	330	1175	350
300	12"	356	1390	380

*Face to face dimensions (L) herein are according to BS 5163.

*Flange dimensions (D, D_1, D_2, Z-d, b, f) refer to Catalogue of Accessory: Series 8 – Flange.

*More dimension specifications are available on request.