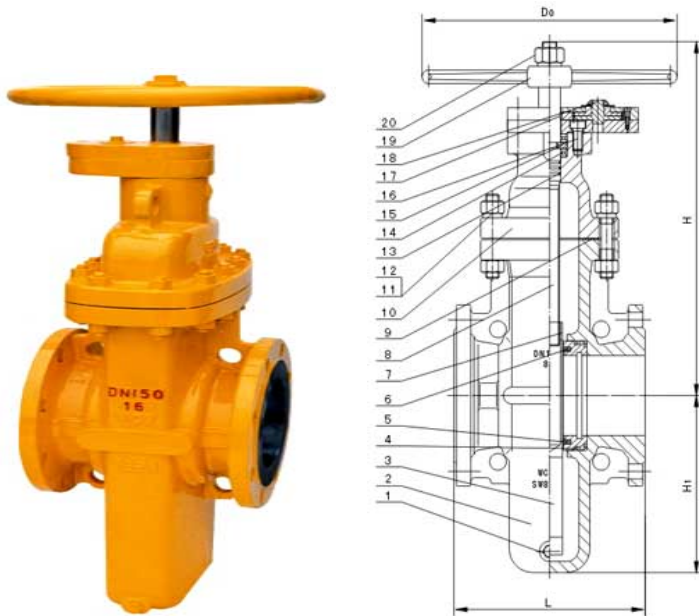
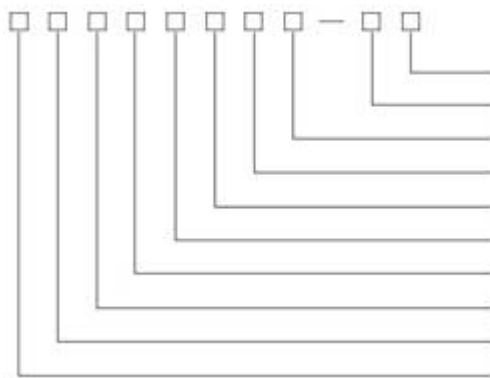


Gas gate valve



Model schedule illustration



- Body material code
- Pressure grade code
- Sealing formation code
- Structure manner code
- Design feature code
- Connecting type code
- Driving manner code
- Valve type code
- Special requirement code
- Series code

- Series code: The series code of our company is SW
- Special requirement code: K—Antisulphur model
- Valve type code: Z—Gate valve
- Driving manner code: 4—Spur gear transmission 5—Bevel gear transmission 9—Electric driving 9B—Explosion electric driving (Hand wheel driving omitted)
- Connecting type code: 4—The flange joining 6—To welding joining
- Design feature code: 7—Dark pole parallel single-disc
- Structure manner code: W—Non-diversion hole type (Diversion hole type omitted)
- Sealing formation code: F—Intensified polytetrafluoroethylene (PTFE)
- Pressure grade code: The 10 times of the nominal pressure MPa, pound

grade is practical number

● Body material code: C—WCB P—CF8、ZG1Cr18Ni9Ti R—CF8M、ZG1Cr18Ni12Mo2Ti

Example1: SWZ47F-10C

Note: PN=1.0Mpa, spur gear actuated, flange connected inside stem parallel type single-disc gate valve with flow guide hole, the body material is WCB and the sealing face material is reinforced PTFE.

Example2: SW(K)Z67F-16C

Note: PN=1.6Mpa, manually actuated, butt-weld connected, sulphur resisting inside stem parallel type single-disc gate valve with flow guide hole, the body material is WCB and the sealing face material is reinforced PTFE.

Products design features

- The body uses a cast structure.
- The seat ring uses the floating seat ring structure with o-seal ring sealed and pre-tightening force applied to have inlet and outlet dual-way sealed; and the open-close moment with this structure is 1/2 that of the common valves only, able to lightly open and close valves.
- The seat ring uses the sealing face inlaid with PTFE, so has dual seals of PTFE to metal and metal to metal, the PTFE sealing face also acts as removing the dirt on the wedge disc.
- The wedge disc of the valve is always fitted with the sealing face whether in full open or full close status to have the sealing face protected without being directly eroded by the medium so as to extend the duration.
- When fully opened, the valve's channel is smooth and linear, with an extremely small flow resisting coefficient and no pressure loss, and the pipeline can be cleaned with hair-ball through it.
- Automatic removal of the high pressure in the internal cavity when the valve is about to close (see the working principle diagram for the details) so as to ensure safety.
- Use a sealed gear-driving open-close indicating mechanism, which is able to clearly show the open-close condition of the valve in a long term.
- The external surface of the directly built-in valve is corrosion resisting treated with epoxy coal bitumen and can be the same duration as the pipeline.

Products performance specification

Pressure	Testing pressure at constant temperature (MPa)					Applicable temperature	Applicable media	
	The shell testing	The left sealing	Right sealing	Low pressure air tightness	Ordinary		Antis	
(MPa) Nominal rating Pressure (PN)	1.6	2.4	1.76	1.76	0.6	-29~121℃ or upon the user requirement	Petroleum, natural gas, water etc. non-corrosive media	Petrol ga etc, H ₂ S、C
	2.5	3.75	2.75	2.75	0.6			
	4.0	6.0	4.4	4.4	0.6			
	6.4	9.6	7.04	7.04	0.6			
Pound grade(Class)	150	3.0	2.2	2.2	0.6			
	300	7.5	5.5	5.5	0.6			

Working principle

1、 With equal pressure throughout the valve (and the gath 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)

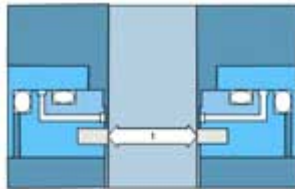


图 (1)

2、 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 teh 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 0-ring (3) prevents any downstream flow at this point.

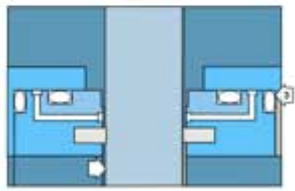


图 (2)

3、 Upstream seal is provided when body pressure is bled off. This is caused by the force of line pressure acting against the upstream seat (4) moving the seat against gate and providing a tight PTFE-to metal seal at this point. At the same time. the 0-ring (5) forms tight seal with the seat recess.

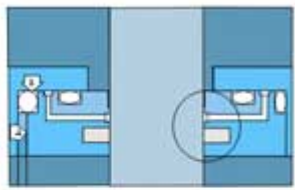


图 (3)

4、 Valve automatically relieves itself of excessive body pressure. When body pressure exceeds line pressure... from such

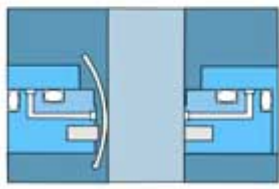


图 (4)

cause as thermat expansion... the upstream seat is forced back into its recess and the excess pressure in the body is bled is bled between the seat and the gate into the line.

Main parameter of the products

Serial models	SWZ47F、SWZ67F、SWZ447F、SWZ467F、SWZ547F、SWZ567F、SWZ9B47F、SWZ9B67F
Pressure grade range	PN0.6~6.4MPa(Class150~900)
Drift	DN25~1000mm(1"~40")

diameter range			
Driving manner	Hand wheel driving	Gear driving, air-operating, hydrodynamic driving and electric driving	
Scope of application	Class 150~300 (PN1.6~4.0)	Class400 (PN6.4)	Class 150~900
	1"~40" (DN25~1000mm)	1"~28" (DN25~700mm)	1"~40" (DN25~1000mm)

Note:Our company can provide products at customres' request.

Technical specification

Design reference		GB	API
Design standard		JB/T5298	API 6D ASME B 16.34
Structural length	Flanged endsr	GB/T 12221 JB/T 5298	API 6D ASME B 16.10
	Welded connection	GB/T 15188.1	
Flanged endsr		GB/T 9113 JB/T 79	ASME B16.5 MSS SP44
Butt-welding ends		GB/T 12224	ASME B 16.25
Test&inspection		JB/T 9092	API 6D API 598

Note:valve can be designed accrding to customer' s requirement.

Major parts material form

NO.	Accessory name	Material
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		GB
1	Blow down stopple	25
2	Body	WCB
3	Gate disc	16Mn+ENP
4	Seat	16Mn
5	O-Ring	NBR
6	Sealing ring	PTFE
7	Valve stem nut	ZQAL9-4
8	Stem	1Cr13
9	Packing	Graphite+1Cr18Ni9
10	Bonnet	WCB
11	Stud	35CrMo
12	Nut	45
13	O-Ring	NBR
14	Bearing	Package
15	To the ring of holding	45
16	Six angle screws inside	35
17	Key	45
18	Switch indicator	PTFE+1Cr18Ni9
19	Hand wheel	Q235A
20	Nut	35