



d. metal seal ring the same as 2.3.1

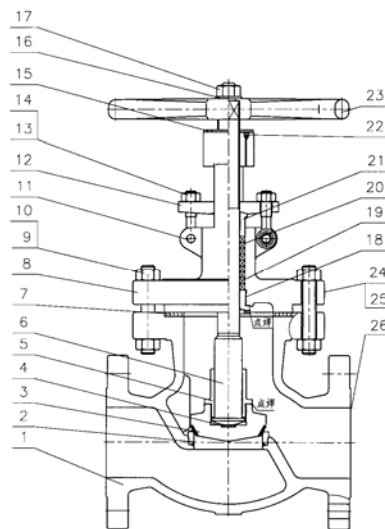
3. The structure instruction

3.1 The structure of the type globe see the figure 1, and the basic structure is met the specification of the order.

3.2 The face to face, connection and dimension of the valve is met the related specification of the order.

3.3 The gasket, packing is adopted the qualified national product seal capability is steady.

3.4 Part name list



1 Body	8 Bonnet	15 Stem nut	22 Screw
2 Seat	9 Nut	16 Gasket	23 Hand wheel
3 Disc	10 Bolt	17 Nut	24 Name plate
4 Thrust plate	11 Pin	18 Seat	25 Rivet
5 Disc cover	12 Gland flange	19 Packing	26 End cover
6 Stem	13 Nut	20 Packing	
7 Gasket	14 Bolt	21 Gland	

#### 4. Work theory and operate instruction

4.1 For the manual operate valve, turn around the hand wheel; for the electrical actuator operate valve, operate the electrical actuator to open or close the valve. when turn clockwise, the wedge is dropped, and the valve is closed, so the flow passage is shut off; when turn counterclockwise, the wedge is risen, and the valve is opened, so the flow passage is opened.

4.2 The work theory of the electrical actuator operate and the maintenance, see the related electrical actuator instruction.

#### 5. Storage, protection, assembly, operation, disassembly and maintenance

##### 5.1 Storage and the protection.

5.1.1 Plug up the two end of the valve to prevent the dust dirt from being entered.

5.1.2 Valve shall be stored in the dry and air warehouse.

5.1.3 For the valve that be kept long, it shall be checked period, sweep the dirt, and paint some antirust oil on the machined surface.

##### 5.2 Assembly

5.2.1 Before assemble it, shall check the valve carefully, the main check items as the followings:

a. Check the inside passage, special note whether there is dirt on the seats face, and the seal surface is damaged.

b. Check whether the stem packing is suitable, to assure the packing seal, but not to effect the turning of the stem flexible.

5.2.2 When assemble, check the valve mark carefully and see whether it is conformed with the requirement of utilization, and note whether the direction of the flow is conformed with the allow direction on the body.

5.2.3 It mustn't use the hand wheel or the deliver device, and it mustn't strike each other.

5.2.4 After assembling the valve, check whether the connected bolt is tightened evenly.

5.2.5 When assemble the valve, the location should be considered the convenient of operate and maintenance.

5.2.6 After assemble the valve, the valve shall be opened fully when its system or pipeline is under the pressure.

### 5.3 Utilization

5.3.1 When it is working, open or close the disc fully, it mustn't open the disc partly to adjust the rate of the flow to prevent the high speed from being damaged the seal surface.

5.3.2 When it is working, shall often inject some lubricating oil into the stem, the are thread of stem nut.

5.3.3 The hand wheel of manual operate valve must be designed and manufactured according to the open and close torque that can operate the valve, the end customer shall not use the lever or other tool to enlarge the open and close torque.

### 5.4 Disassemble

5.4.1 Before disassemble, shall remove all the pressure that between the inlet and outlet.

5.4.2 Once confirm there is no pressure on the pipeline, disassembly the bonnet bolt and nut, and lift the bonnet component. Care should be taken to avoid damaging backseat.

5.4.3 Take gasket out of bonnet

5.4.4 Turning around stem, take out the stem, make disc separate from stem.

5.4.5 Disassemble bonnet component.

### 5.5 Maintenance

5.5.1 Check and maintain the valve that is working period, the main item as the followings:

- a. check the wear of the seat surface. If it is damaged, repair and replace it.
- b. check whether the wear of the stem and the thread of stem nut.
- c. check whether the connected bolt and nut is connected steady.

d. check whether the gasket, packing is damaged or invalid, replace it in time. But it mustn't replace the packing under the pressure.

5.5.2 Replace packing

a. turn around hand wheel, lift stem to counter closure, and confirm there is no pressure.

b. to use sharp tool to disassemble packing that need to replace. It mustn't scrape the surface of stem.

c. take out the packing, calculate the specification and ring number of it, then assemble the related new packing until stuffed up the stuffing box.

d. tighten gland, and lock the eye nut .

e. loose hand wheel to make stem dropped and check whether the packing is leakage. If there is leakage. Lock the eye nut continue until there is no leakage.

5.5.3 After disassemble the valve, and check it, then reassembled it. It shall be carried out the seat test. The seat test is carried out according to the related standard, and made detail record to be checked.

5.6 The instruction of the storage, protection, assemble, operate and maintenance of the electrical actuator, see the related electrical actuator instruction.

6. Problem, cause and solution

Problem	cause	Solution
Packing is leakage	1. gland isn't tightened	1. tighten the gland nut evenly, press the packing
	2. packing ring number is not sufficient	2. add the packing ring number
	3. packing is invalid	3. replace packing
Seal surface is leakage	1. some dirt on the seal surface	1.get rid of the dirt on seal surface
	2. seal surface is damaged	2. repair the seal surface or replace the wedge, seat
Leakage between the body and bonnet	1. the connected bolt isn't tightened or it is tightened non-evenly	1. tighten the connected bolt evenly
	2. the flange seal surface or the pressure seal body, bonnet seal surface is damaged	2. repair the flange seal surface or the pressure seal body, bonnet seal surface
	3. gasket is invalid or the seal ring is damaged	3. replace gasket or repair metal seal ring
hand wheel isn't turned flexible or the wedge can't be closure	1.packing is tightened over	1. loose the packing gland nut suitable
	2. gland is aslant	2. check gland
	3. stem nut is damaged or dirty	3. repair the thread of stem nut, and get rid of the dirt
	4. thread of stem nut is worn seriously or cracked	4. replace the stem nut
	5. the stem is winding	5. check stem
Problem of electrical actuator	See the electrical actuator instruction	