

Gate Valve Operating Manual

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ZHEJIANG JODITH INDUSTRY CO., LTD

1. General

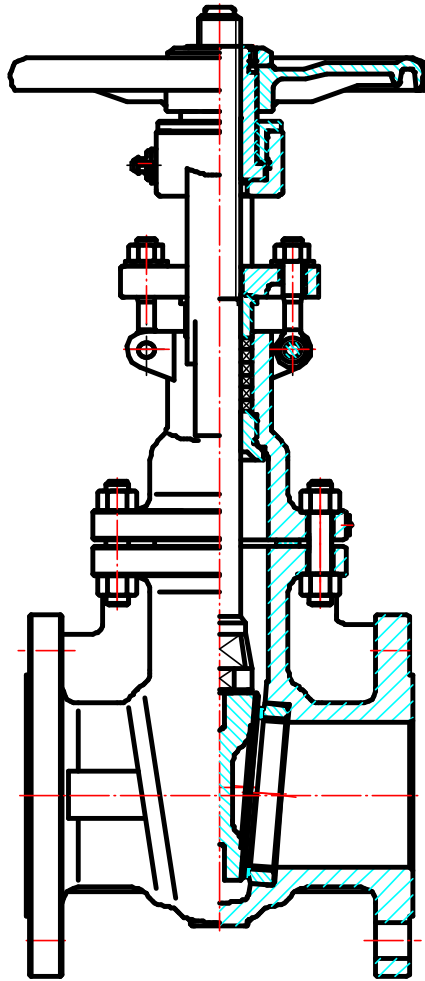
The serial gate valve is used in the pipe system to close or open the pipeline to keep system running normally.

2. Product descriptions

2.1 These serial valve are hand-driven. The valve closes when turning the hand wheel clockwise, and the valve opens when turning counter clockwise, These serial valves also can be driven using automatic machinery control devices.

2.2 These serial valve are designed and manufacture in according with API600 and valve design manual specification etc.

2.3 The brief drawing, the suitable working pressure and temperature and material of the main parts are indicated in attached drawing and tables. (Table 1)



stem	Hard sealing
Suitable temperature (°C)	-29°C~ +425°C
Working pressure (bar)	20-250
Nominal size (mm)	15~600
Main material	WCB CF3 CF8 CF3M CF8M F304 F316 F304L F316L A105
Medium	Water oil gas

Storage, maintenance, installation and operation

3.1 Storage maintenance

- 3.1.1 Valve shall be stored indoor with dry and well-ventilated environment. The ends of the passage shall be plugged with covers.
- 3.1.2 Valve stored for a long-term shall be checked periodically and cleaned to be free from stain. Especially clean the seat ring to protect sealing surface against damage, and coat corrosion-resistant oil the machined surface.
- 3.1.3 If the stored times exceed 12 month, valve should be tested to ensure structural and functional integrity, and make a record.
- 3.1.4 Valve should be checked and repaired periodically after installation. The maintenance points include:
- (1) The sealing surface
 - (2) Stem and stem-nut
 - (3) Packing, gasket
 - (4) The stain on the inside surface of body and bonnet

3.2 Installation

- 3.2.1 Be sure valve mark (e.g. type, nominal size, nominal pressure, material, etc.) is in according with the requirements of pipe system before installation.
- 3.2.2 Check the passage and sealing surface carefully before installation. Clean it with bleached cloth if there is any dirt.
- 3.2.3 Before installation, be sure the packing is compacted tightly. But the movement of stem shall not be hampered.
- 3.2.4 Valve can be installed wherever it is convenient for examination and operation. The best location is horizontal and stem is vertical.
- 3.2.5 Install natural to avoid large stress resulted from the supports, attachments, piping etc.
- 3.2.6 Valve must be fully opening during pressure testing of pipe system after installation.
- 3.2.7 Supporting: if the pipe has enough strength to resist the valve weight and the operation torque, the support point isn't need. Otherwise, the valve should have support point.

3.3 Operation and usage

- 3.3.1 Use handwheel instead of other tools when operating or closing valve.
- 3.3.2 Working pressure should not exceed maximum allowable working pressure under working temperature.
- 3.3.3 Assure the momentary pressure is lower than 1.1 times of maximum allowable working pressure under working temperature.
- 3.3.4 The safety device shall be installed in the pipeline to prevent working pressure from exceeding maximum allowance pressure under working temperature.
- 3.3.5 Hit and beat of valve during transportation, installation, operation and maintenance is banned.
- 3.3.6 Decomposition of unstable fluids (e.g. decomposition of some fluids) will create expansion of volume and lead to rise of working pressure will lead to failure or leakage, the user should make suitable measures to eliminate or limit the factors leading to decomposition of fluids.
- 3.3.7 If fluids is condensate enough to affect performance of valve, the user should make suitable measure to reduce the degree of condensation of fluids (e.g. ensure suitable temperature of fluids etc.) or replace other valve.
- 3.3.8 For self-ignition fluids, the user shall ensure environment and working temperature don't exceed it's self-ignition point.(Special attention to external fire).
- 3.3.9 In any case, replace packing under pressure is not permitted.
- 3.3.10 Be sure the fluids is not dirty to affect performance of valve and no dirty and hard solid particles or replace other type valve, or apply strainer.
- 3.3.11 Check the sealing performance periodically during using as follows:

Check points	leakage
Body-bonnet connection	Zero
Packing sealing, gasket	Zero
Seat sealing	zero

3.3.12 Add preventive thermometer measure on valve body surface during the system running temperature above 60°C.

3.3.13 Regularly check the wear of sealing surface, aging and failure of packing ,gasket .If exist the case ,repair or replace it in time.

3.3.14 After repairing, valve shall be reassembled and adjusted. Then test the sealing performance and make a record. The operator should have relative knowledge and experience of valve.

3.3.15 Add the preventive measure of static and fire in according with requirement of client.

3.3.16 The safety release device must be Checked periodically to ensure it's using function.

4. Guarantee

Guarantee period of valve is 12 months after using, but not exceed 18 months after delivery.

Manufacturer will repair or provide spare parts free of charge on the occurrence of damage due to material, if the damager under correct operation condition during the guarantee period.

5. Usual faults and solutions

Fault description	Cause	Solution
Leakage of sealing face	Damnification of sealing face	Replace seat of valve
	Exist dirty between seat and ball	Clean the inside body
	Switch does not go to position	Screw the handle and handwheel
Leakage of stuffing box	Stuffing loose or stuffing wear	Add stuffing
	Stuffing gland is not tight	Screw the nuts of gland
Leakage of middle flange	Bolt of middle flange is loose	Screw the nuts of middle flange
	Gasket failure	Replace the middle gasket
Leakage of two end flange	The compressed force of pipe flange is not adequate	Screw the bolts of flange
	Gasket failure	Replace gasket

6. User notice:

6.1. Not be suitable for significant corrosion and wear fluid and cannot exceed the scope in the table 1.

6.2. Not be suitable for fire environment.

6.3. The product design did not consider conditions of earthquake, traffic wind load and snow load.

6.4. The manufacture shall not be responsible for any damage resulted in above operating conditions.

6.5. The set pressure of safety valve have been set and tested before delivery.

6.6. It shall be adjusted by authorized personnel in accordance with local regulation requirements of setting and testing. The manufacture will not be responsible for any damage or failure due to be setting by no authorized personnel.

Globe Valve Operating Manual

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1. General

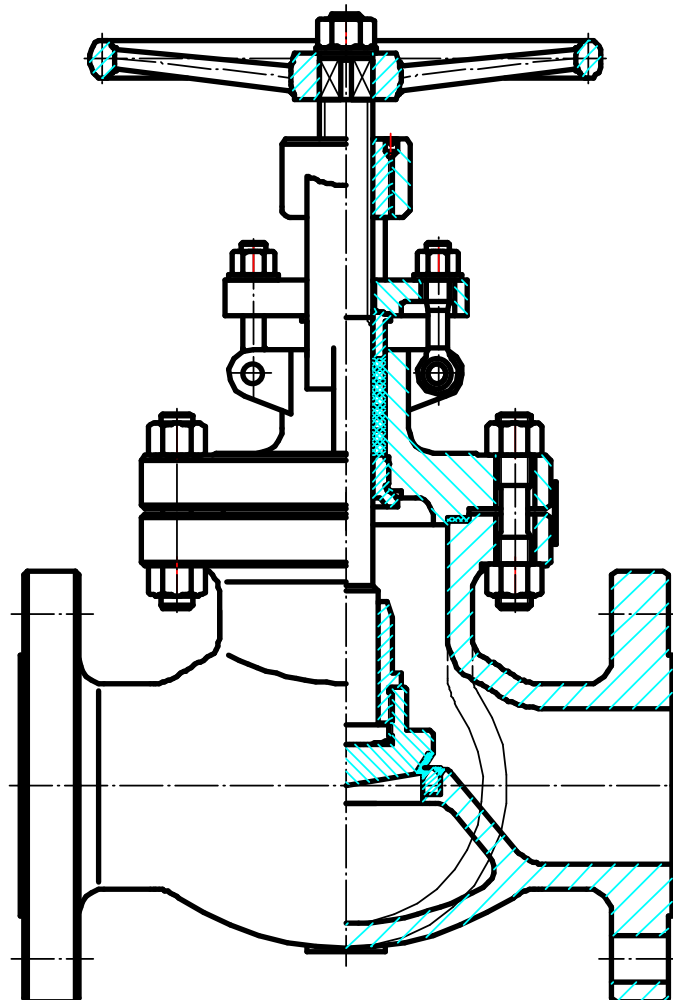
The serials globe valve is used in the pipe system to close or open the pipeline to keep system running normally.

2. Product descriptions

2.1 These serials valve are hand-driven, through handwheel. The valve closes when turning the hand wheel clockwise, and the valve opens when turning counter clockwise, these serials valves also can be driven using automatic machinery control devices.

2.2 These serials valve are designed and manufacture in according with BS1873 and valve design manual specification etc.

2.3 The brief drawing, the suitable working pressure and temperature and material of the main parts are indicated in attached drawing and tables.



stem	Hard sealing
Suitable temperature (°C)	-29°C~ +425°C
Working pressure (bar)	20-250
Nominal size (mm)	15~600
Main material	WCB CF3 CF8 CF3M CF8M
Medium	water oil gas

Storage, maintenance, installation and operation

3.1 storage maintenance

3.1.1 Valve shall be stored indoor with dry and well-ventilated environment. The ends of the passage shall be plugged with covers.

3.1.2 Valve stored for a long-term shall be checked periodically and cleaned to be free from stain .Especially clean the seat ring to protect sealing surface against damage, and coat corrosion-resistant oil the machined surface.

3.1.3 If the stored times exceed 12 month, valve should be tested to ensure structural and functional integrity ,and make a record

3.1.4 Valve should be Checked and repaired periodically after installation. The maintenance points includes :

- (1) The sealing surface
- (2) Stem and stem-nut
- (3) Packing, gasket
- (4) The stain on the inside surface of body and bonnet

3.2 Installation

3.2.1The valve's installation position should be facilitated to proper operation and maintenance.

3.2.2Before making installation, the valve size & type, performance features, technical requirements, name-plate & service identification, etc shall be checked and verified conforming to the related working conditions.

3.2.3Clearing inside valve free of dirt and rusty spots to ensure sealing face cleaned.

3.2.4Making sure whether the fasteners were fastened uniformly, packing pressed enough, & valve's on and off operations agilely. Also whether on and off positions operated by other type of actuators were built accurately. Installation can be done only after all the checking completed well.

3.3 Operation and usage

3.3.1 Use handwheel instead of other tools when operating or closing valve.

3.3.2 Working pressure should not exceed maximum allowable working pressure under working temperature.

3.3.3 Assure the momentary pressure is lower than 1.1 times of maximum allowable working pressure under working temperature.

3.3.4 The safety device shall be installed in the pipeline to prevent working pressure from exceeding maximum allowance pressure under working temperature.

3.3.5 Hit and beat of valve during transportation, installation, operation and maintenance is banned.

3.3.6 Decomposition of unstable fluids (e.g. decomposition of some fluids) will create expansion of volume and lead to rise of working pressure will lead to failure or leakage, the user should make suitable measures to eliminate or limit the factors leading to decomposition of fluids.

3.3.7 If fluids is condensate enough to affect performance of valve, the user should make suitable measure to reduce the degree of condensation of fluids (e.g. ensure suitable temperature of fluids etc.) or replace other valve.

3.3.8 For self-ignition fluids, the user shall ensure environment and working temperature don't exceed its self-ignition point. (Pay special attention to external fire).

3.3.9 In any case, replace packing under pressure is not permitted.

3.3.10 Be sure the fluids is not dirty to affect performance of valve and no dirty and hard solid particles or replace other type valve, or apply strainer.

3.3.11 Checking the sealing performance periodically during using as follows:

Check points	leakage
Body-bonnet connection	Zero
Packing sealing, gasket	Zero
Seat sealing	zero

3.3.12 Add preventive thermo measure on valve body surface during the system running temperature above 60°C.

3.3.13 Regularly check the wear of sealing surface, aging and failure of packing ,gasket .If that's the case ,repair or replace it in time.

3.3.14 After repairing, valve shall be reassemble and adjusted. Then test the sealing performance and make a record .The operator should have relative knowledge and experience of valve.

3.3.15 Add the preventive measure of static and fire in according with requirement of client.

4. Guarantee

Guarantee period of valve is 12 months after using, but not exceed 18 months after delivery.

Manufacturer will repair or provide spare parts free of charge on the occurrence of damage due to material, manufacturing other damager under correct operation condition during the guarantee period.

5. Usually faults and solutions

Fault description	cause	Solution
Leakage of sealing face	Damnification of sealing face	Replace seat of valve
	Exist dirty between seat and ball	Clean the inside body
Leakage of stuffing box	Stuffing loose or stuffing wear	Add stuffing
	Stuffing gland is not tight	Screw the nuts of gland
Leakage of middle flange	Bolt of middle flange is loose	Screw the nuts of middle flange
	Gasket failure	Replace the middle gasket
Leakage of two end flange	The connection force of pipe flange is not symmetrical	Screw the bolts of flange
	Gasket failure	Replace gasket

6. User notice:

6.1. Not be suitable for significant corrosion and wear fluid and cannot exceed the scope in the table 1.

6.2. Not be suitable for fire environment.

6.3. The product design did not consider conditions of earthquake, traffic wind load and snow load.

6.4. The manufacture shall not be responsible for any damage resulted in above operating conditions.

Check Valve Operating Manual

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1. General

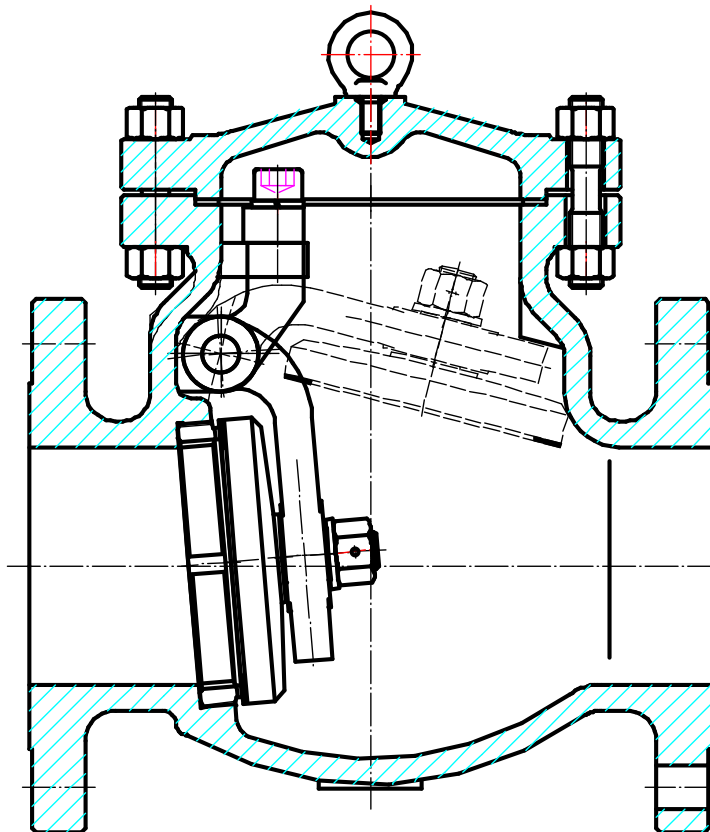
The serials Check valve is used in the pipe system to close or open the pipeline to keep system running normally.

2. Product descriptions

2.1 These serials valve are self opening and closing. The valve opens when the upstream pressure greater than downstream fluid pressure, and the valve closes when upstream pressure lower than downstream fluid pressure.

2.2 These serials valve are designed and manufacture in according with API6D, ASME B16.34, and valve design manual specification etc.

2.3 The brief drawing, the suitable working pressure and temperature and material of the main parts are indicated in attached drawing and tables.



stem	Hard sealing
Suitable temperature (°C)	-29°C~+425°C
Working pressure (bar)	20-250
Nominal size (mm)	15~600
Main material	WCB CF3 CF8 CF3M CF8M WC6 WC9 F304 F316 F304L F316L F11 A105

3. Storage, maintenance, installation and operation

3.1 Storage maintenance

3.1.1 Valve shall be stored indoor with dry and well-ventilated environment. The ends of the passage shall be plugged with covers.

- 3.1.2 Valve stored for a long-term shall be checked periodically and cleaned to be free from stain .Especially clean the seat ring to protect sealing surface against damage, and coat corrosion-resistant oil on the machined surface.
- 3.1.3 If the stored times exceed 12 month, valve should be tested to ensure structural and functional integrity, and make a record
- 3.1.4 Valve should be checked and repaired periodically after installation. The maintenance points include:
 - (1) The sealing surface
 - (2) Packing, gasket
 - (3) The stain on the inside surface of body and bonnet

3.2 Installation

- 3.2.1 Be sure valve mark (e.g. type, nominal size, nominal pressure, material etc.) is in according with the requirements of pipe system before installation.
- 3.2.2 Check the passage and sealing surface carefully before installation. Clean it with bleached cloth if there is any dirty.
- 3.2.3 Before installation, be sure the packing is compacted tightly.
- 3.2.4 Valve can be installed wherever it is convenient for examination and operation .The best location is horizontal and vertical.
- 3.2.5 Installation natural to avoid large stress resulted from the supports, attachments, piping etc.

3.3 Operation and usage

- 3.3.1 The check valve self opens and closes the disc when difference of fluid pressure exists in two ends of valve.
- 3.3.2 Working pressure should not exceed maximum allowable working pressure under working temperature.
- 3.3.3 Assure the momentary pressure is lower than 1.1 times of maximum allowable working pressure under working temperature
- 3.3.4. Hit and beat of valve during transportation, installation, operation and maintenance is banned.
- 3.3.5 In any case, replacing packing under pressure is not permitted.
- 3.3.6 Be sure the fluids is not dirty to affect performance of valve and no dirty and hard solid particles or replace other type valve, or apply strainer.
- 3.3.7 The valve may bring water hammer pressure in pipe system when closes, and can lead to valve damage due to serious water hammer pressure. So the user shall check the sealing face periodically and repair in time when exist the risk.
- 3.3.8 Checking the sealing performance periodically during using as follows:

Check points	leakage
Body-bonnet connection	Zero
Packing sealing, gasket	Zero
Seat sealing	zero

- 3.3.9 Addition preventive thermometer measure on valve body surface during the system running temperature above 60°C.
- 3.3.10 Regularly check the wear of sealing surface, aging and failure of packing, gasket .If have the case, the seat should be repaired or replaced it in time.
- 3.3.10 After repairing, valve shall be reassembled and adjusted. Then test the sealing performance and making a record .The operator should have relative knowledge and experience of valve.

4. Guarantee

Guarantee period of valve is 12 months after using, but not exceed 18 months after delivery. Manufacturer will repair or provide spare parts free of charge on the occurrence of damage due to material, manufacturing the damager under correct operation condition during the guarantee period.

5. Usual faults and solutions

Fault description	Cause	Solution
Leakage of sealing face	damage of sealing face	Replace seat of valve
	Exists hard solid on sealing face	Clean the sealing face
Leakage of stuffing box	Stuffing loose or stuffing wear	Add stuffing
	Stuffing gland is not tight	Screw the nuts of gland
Leakage of two end flange	The connection force of pipe flange is not symmetrical	Screw the bolts of flange
	Gasket failure	Replace gasket

6. User notice:

- 6.1. Not be suitable for significant corrosion and wear fluid and cannot exceed the scope in the table 1.
- 6.2. Not be suitable for fire environment.
- 6.3. The product design did not consider conditions of earthquake, traffic wind load and snow load.
- 6.4. The manufacture shall not be responsible for any damage resulted in above operating conditions.
- 6.5. The set pressure of safety valve have been set and tested before delivery..
- 6.6. It shall be adjusted by authorized personnel in accordance with local regulation requirements of setting and testing. The manufacture will not be responsible for any damage or failure due to be setting by no authorized personnel.

Ball Valve Operating Manual

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1. General

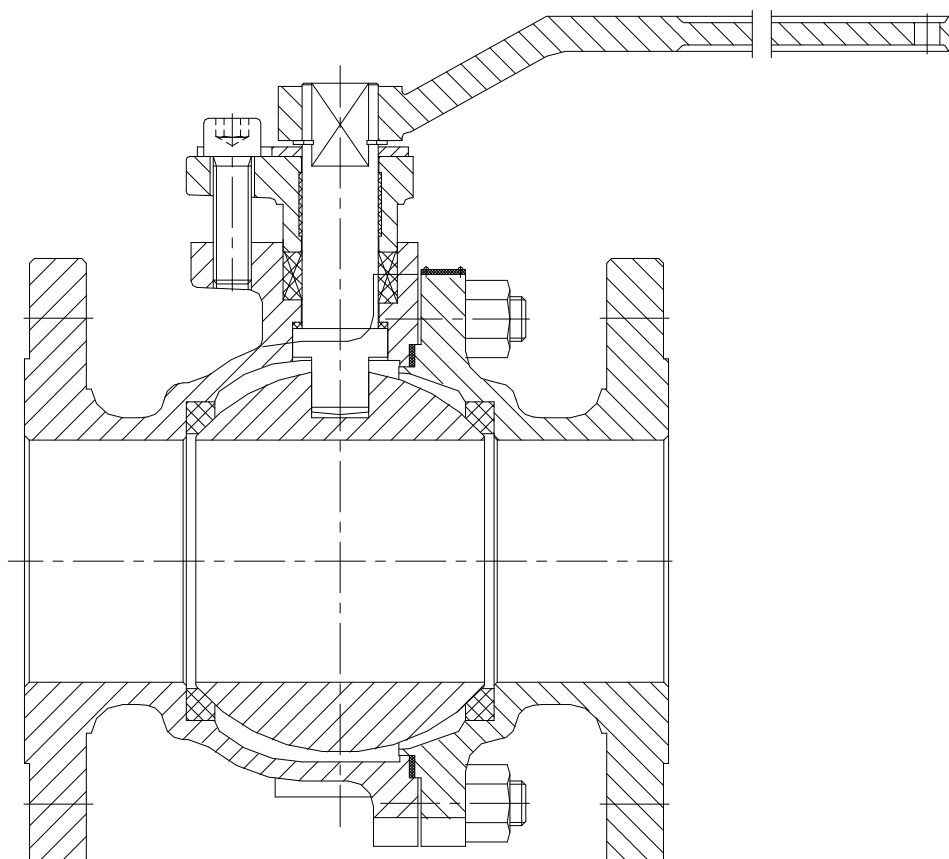
The serial ball valve is used in the pipe system to close or open the pipeline to keep system running normally.

2. Product descriptions

2.1 These serial valve are hand-driven, through handle. The valve closes when turning the hand wheel clockwise, and the valve opens when turning counter clockwise, these serial valves also can be driven using automatic machinery control devices.

2.2 These serial valve are designed and manufacture in according with API6Dspecification etc.

2.3 The brief drawing, the suitable working pressure and temperature and material of the main parts are indicated in attached drawing and tables.



3.

stem	Soft sealing
Suitable temperature (°C)	-29°C~ +120°C
Working pressure (bar)	20~250
Nominal size (mm)	32-600
Main material	WCB A105
Medium	water oil gas

Storage, maintenance, installation and operation

3.1 storage maintenance

3.1.1 Valve shall be stored indoor with dry and well-ventilated environment. The ends of the passage shall be plugged with covers.

- 3.1.2 Valve stored for a long-term shall be checked periodically and cleaned to be free from stain. Especially clean the seat ring to protect sealing surface against damage, and coat corrosion-resistant oil the machined surface.
- 3.1.3 If the stored times exceed 12 month, valve should be tested to ensure structural and functional integrity, and make a record.
- 3.1.4 Valve should be checked and repaired periodically after installation. The maintenance points includes :
 - (1) The sealing surface
 - (2) Stem and stem-nut
 - (3) Packing, gasket
 - (4) The stain on the inside surface of body and bonnet

3.2 Installation

- 3.2.1 Be sure valve mark (e.g. type, nominal size, nominal pressure, material etc.) is in according with the requirements of pipe system before installation.
- 3.2.2 Check the passage and sealing surface carefully before installation. Clean it with bleached cloth if there is any dirt.
- 3.2.3 Before installation, be sure the packing is compacted tightly. But the movement of stem shall not be hampered.
- 3.2.4 Valve can be installed wherever it is convenient for examination and operation .The best location is horizontal and stem is vertical.
- 3.2.5 Install natural to avoid large stress resulted from the supports, attachments, piping etc.
- 3.2.6 Valve must be fully opening during pressure testing of pipe system after installation.
- 3.2.7 Supporting: if the pipe has enough strength to resist the valve weight and the operation torque, the support point isn't need. Otherwise, the valve should have support point.

3.3 Operation and usage

- 3.3.1 The ball must be full-opening or full-closing during using to prevent sealing surface of seat and ball from damage due to high-speed medium, Partial-open to adjust flow is not permitted.
- 3.3.2 Use handle instead of other tools when operating or closing valve.
- 3.3.3 Working pressure should not exceed maximum allowable working pressure under working temperature.
- 3.3.4 Assure the momentary pressure is lower than 1.1 times of maximum allowable working pressure under working temperature.
- 3.3.5 The safety device shall be installed in the pipeline to prevent working pressure from exceeding maximum allowance pressure under working temperature.
- 3.3.6 Hit and beat of valve during transportation, installation, operation and maintenance is banned.
- 3.3.7 Decomposition of unstable fluids (e.g. decomposition of some fluids) will create expansion of volume and lead to rise of working pressure will lead to failure or leakage, the user should make suitable measures to eliminate or limit the factors leading to decomposition of fluids.
- 3.3.8 If fluids is condensate enough to affect performance of valve, the user should make suitable measure to reduce the degree of condensation of fluids (e.g. ensure suitable temperature of fluids etc.) or replace other valve.
- 3.3.9 For self-ignition fluids, the user shall ensure environment and working temperature don't exceed its self-ignition point. (Pay special attention to external fire).
- 3.3.10 In any case, replace packing under pressure is not permitted.
- 3.3.11 Be sure the fluids is not dirty to affect performance of valve and no dirty and hard solid particles or replace other type valve, or apply strainer.

3.3.13 Checking the sealing performance periodically during using as follows:

Check points	leakage
Body-bonnet connection	Zero
Packing sealing, gasket	Zero
Seat sealing	zero

3.3.14 Additionally prevent thermo measure on valve body surface during the system running temperature above 60°C.

3.3.15 Regularly check the wear of sealing surface, aging and failure of packing, gasket. If exist the case, repair or replace in time.

3.3.16 After repairing, valve shall be reassembled and adjusted. Then test the sealing performance and make a record .The operator should have relative knowledge and experience of valve.

3.3.17 Addition the preventive measure of static and fire in according with requirement of client.

3.3.18 Addition relieving device in according with requirement of client. Assembly of valve must be certificated by moody.

3. Guarantee

Guarantee period of valve is 12 months after using, but not exceed 18 months after delivery.

Manufacturer will repair or provide spare parts free of charge on the occurrence of damage due to material, manufacturing the damager under correct operation condition during the guarantee period.

5. Usually faults and solutions

Fault description	Cause	Solution
Leakage of sealing face	Damnification of sealing face	Replace seat of valve
	Exist dirty between seat and ball	Clean the inside body
Leakage of stuffing box	Stuffing loose or stuffing wear	Add stuffing
	Stuffing gland is not tight	Screw the nuts of gland
Leakage of middle flange	Bolt of middle flange is loose	Screw the nuts of middle flange
	Gasket failure	Replace the middle gasket
Leakage of two end flange	The compressed force of pipe flange is not adequate	Screw the bolts of flange
	Gasket failure	Replace gasket

6. User notice:

6.1. Not be suitable for significant corrosion and wear fluid and cannot exceed the scope in the table 1.

6.2. Not be suitable for fire environment.

6.3.The product design did not consider conditions of earthquake, traffic wind load and snow load.

6.4.The manufacture shall not be responsible for any damage resulted in above operating conditions.

6.5.The set pressure of safety valve have been set and tested before delivery..

6.6.It shall be adjusted by authorized personnel in accordance with local regulation requirements of setting and testing. The manufacture will not be responsible for any damage or failure due to be setting by no authorized personnel.

Fully Welded Trunnion Mounted Ball Valve Operating Manual

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ZHEJIANG JODITH INDUSTRY CO., LTD

1. General

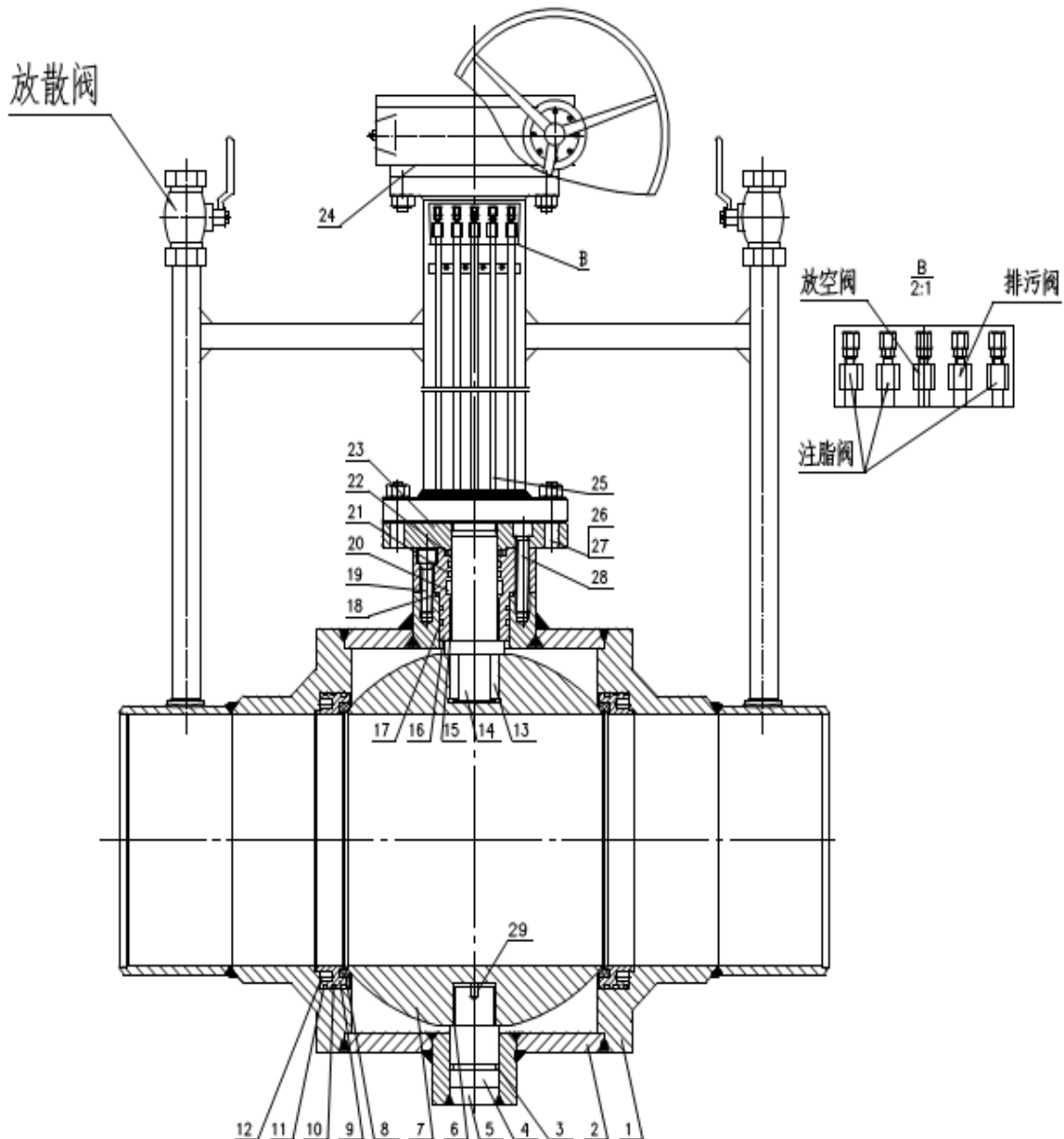
The serial ball valve is used in the pipe system to close or open the pipeline to keep system running normally.

2. Product descriptions

2.1 These serial valves are driven by worm gear, electricity actuator, pneumatic actuator, etc. The valve closes when turning the hand wheel clockwise, and the valve opens when turning counter clockwise, these serial valves also can be driven using automatic machinery control devices.

2.2 These serial valves are designed and manufactured in according with API6D specification etc.

2.3 The brief drawing, the suitable working pressure and temperature and material of the main parts are indicated in attached drawing and tables.



Stem	Soft sealing
Suitable temperature (°C)	-29°C~ +150°C
Working pressure (bar)	10~25
Nominal size (mm)	15-1400
Main material	20#, ST37.8
Medium	water oil gas

3. Storage, maintenance, installation and operation

3.2 Storage maintenance

- 3.2.8 Valve shall be stored indoor with dry and well-ventilated environment. The ends of the passage shall be plugged with covers.
- 3.2.9 Valve stored for a long-term shall be checked periodically and cleaned to be free from stain. Especially clean the seat ring to protect sealing surface against damage, and coat corrosion-resistant oil the machined surface.
- 3.2.10 If the stored times exceed 12 months, valve should be tested to ensure structural and functional integrity, and make a record.
- 3.2.11 Valve should be checked and repaired periodically after installation. The maintenance points include:
- (5) The sealing surface;
 - (6) Stem and stem-nut;
 - (7) Packing, gasket;
 - (8) The stain on the inside surface of body and bonnet

3.3 Installation

- 3.3.1 Be sure valve mark (e.g. type, nominal size, nominal pressure, material etc.) is in according with the requirements of pipe system before installation.
- 3.3.2 Check the passage and sealing surface carefully before installation. Clean it with bleached cloth if there is any dirt.
- 3.3.3 Before installation, be sure the packing is compacted tightly. But the movement of stem shall not be hampered.
- 3.3.4 Valve can be installed wherever it is convenient for examination and operation. The best location is horizontal and stem is vertical.
- 3.3.5 Install natural to avoid large stress resulted from the supports, attachments, piping etc.
- 3.3.6 Valve must be fully opening during pressure testing of pipe system after installation.
- 3.3.7 Supporting: if the pipe has enough strength to resist the valve weight and the operation torque, the support point isn't need. Otherwise, the valve should have support point.

3.3 Operation and usage

- 3.3.1 The ball must be full-opening or full-closing during using to prevent sealing surface of seat and ball from damage due to high-speed medium, Partial-open to adjust flow is not permitted.
- 3.3.2 Use handle instead of other tools when operating or closing valve.
- 3.3.3 Working pressure should not exceed maximum allowable working pressure under working temperature.
- 3.3.4 Assure the momentary pressure is lower than 1.1 times of maximum allowable working pressure under working temperature.
- 3.3.5 The safety device shall be installed in the pipeline to prevent working pressure from exceeding maximum allowance pressure under working temperature.
- 3.3.6 Hit and beat of valve during transportation, installation, operation and maintenance is banned.
- 3.3.7 Decomposition of unstable fluids (e.g. decomposition of some fluids) will create expansion of volume and lead to rise of working pressure will lead to failure or leakage, the user should make suitable measures to eliminate or limit the factors leading to decomposition of fluids.
- 3.3.8 If fluids is condensate enough to affect performance of valve, the user should make suitable measure to reduce the degree of condensation of fluids (e.g. ensure suitable temperature of fluids etc.) or replace other valve.
- 3.3.9 For self-ignition fluids, the user shall ensure environment and working temperature don't exceed its self-ignition point. (Pay special attention to external fire).

3.3.10 In any case, replace packing under pressure is not permitted.

3.3.11 Be sure the fluids is not dirty to affect performance of valve and no dirty and hard solid particles or replace other type valve, or apply strainer.

3.3.13 Checking the sealing performance periodically during using as follows:

Check points	leakage
Body-bonnet connection	Zero
Packing sealing, gasket	Zero
Seat sealing	zero

3.3.19 Additionally prevent thermo measure on valve body surface during the system running temperature above 60°C.

3.3.20 Regularly check the wear of sealing surface, aging and failure of packing, gasket. If exist the case, repair or replace in time.

3.3.21 After repairing, valve shall be reassembled and adjusted. Then test the sealing performance and make a record .The operator should have relative knowledge and experience of valve.

3.3.22 Addition the preventive measure of static and fire in according with requirement of client.

3.3.23 Addition relieving device in according with requirement of client. Assembly of valve must be certificated by moody.

4. Guarantee

Guarantee period of valve is 12 months after using, but not exceed 18 months after delivery.

Manufacturer will repair or provide spare parts free of charge on the occurrence of damage due to material, manufacturing the damager under correct operation condition during the guarantee period.

5. Usually faults and solutions

Fault description	Cause	Solution
Leakage of sealing face	Damnification of sealing face	Replace seat of valve
	Exist dirty between seat and ball	Clean the inside body
Leakage of stuffing box	Stuffing loose or stuffing wear	Add stuffing
	Stuffing gland is not tight	Screw the nuts of gland
Leakage of middle flange	Bolt of middle flange is loose	Screw the nuts of middle flange
	Gasket failure	Replace the middle gasket
Leakage of two end flange	The compressed force of pipe flange is not adequate	Screw the bolts of flange
	Gasket failure	Replace gasket

6. User notice:

6.1. Not be suitable for significant corrosion and wear fluid and cannot exceed the scope in the table 1.

6.2. Not be suitable for fire environment.

6.3.The product design did not consider conditions of earthquake, traffic wind load and snow load.

6.4.The manufacture shall not be responsible for any damage resulted in above operating conditions.

6.5.The set pressure of safety valve have been set and tested before delivery..

6.6.It shall be adjusted by authorized personnel in accordance with local regulation requirements of setting and testing. The manufacture will not be responsible for any damage or failure due to be setting by no authorized personnel.

Butterfly Valve Operating Manual

PREPARED:

DATE:

REVIEWED:

DATE:

APPROVED:

DATE:

ZHEJIANG JODITH INDUSTRY CO., LTD

1. Perform the following jobs before installment:

- 1) Carefully check if the usage condition conforms to property specification.
- 2) Check if there is sediment in the port and sealing face and clean it timely.
- 3) Install the valve timely once unpacked, and mustn't allow loosening any locking screws on the valves.
- 4) Multi-layer metal-to-metal and cast iron soft sealed butterfly valve is completed with standard flanges, others with special flanges of butterfly valve. (See Fig 1)
- 5) The persons in charge of installing and adjusting should carefully read operation instruction, pneumatic, electric instruction, and strictly according to the instruction and circuit diagram.
- 6) If applicable for pressure test by the users, place the valve with flanges at both ends or on the test bed to carry on pressure test. (See Fig 2)
- 7) It is good to install the valve in closed position, cover the port as welded (See Fig 5), prevent from damage of the grainual and sediment for the sealing faces.

2. The butterfly valve may be installed at any position of the pipelines, but not to invert. Generally, it is available to install vertically or sealing faces.

3. It is one-way usage for butterfly valve, and please mark arrow on the body to show the direction of closed sealing. (See Fig 4)

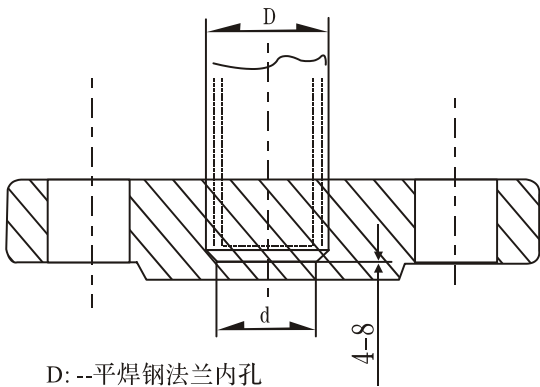
4. Flanged butterfly is placed at the end of the pipelines; completed with flanges, avoid movement and compression of seal rings with pressure.

5. Although with strict inspection and test before delivery, there is still some movement for individual products by vibration during transportation, which need adjust again according to Diagram 3. If the disc is not tight, turn Screw 2 a little counter-clock wisely, turn the disc at sealed position, lock the nut at proper position. If the disc is closed at post position (or the disc is not available to open), it should turn Screw 2 a little clockwise, and open the disc at closed position, and then lock the nut properly.(See Fig 3)

6. The actuator's closed/open lift of electric butterfly has been adjusted before delivery, and the user should start in half-open position before connecting with the power, push the switch, and check the indicator same as the valve open direction, to avoid contact the wrong direction.

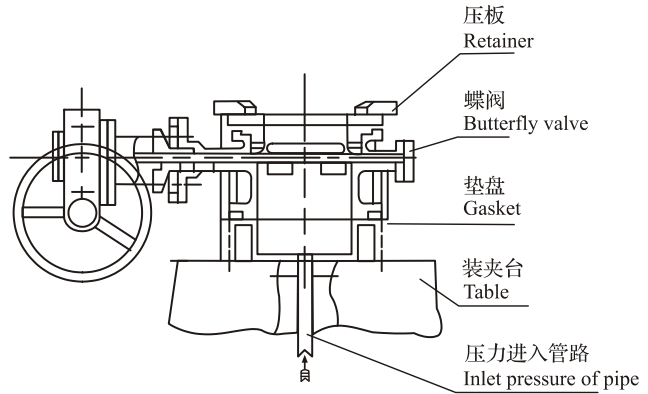
7. Potential Problems and Solution

Potential Problems	Reason	Solution
Sealng Leakage	<ol style="list-style-type: none"> 1、 Disc and seal ring with sediment 2、 Disc and seal ring are not in correct line 3、 Outlet flange bolting with uneven force or not locked tightly 4、 Test pressure in accordance with iagram 2 required direction 	<ol style="list-style-type: none"> 1、 Elimate the sediment, clean the internal cavity 2、 Correct the adjust screws of worm gear or electric actuat or till the porper closed position 3、 Check and install the flange and bolting tight pressure averagely 4、 Perform the pressure according to the arrow direction
Leakage of both valve ends	<ol style="list-style-type: none"> 1、 Gasket failure of both sides 2、 Pipe flange without tight pressure 3、 Gasket failure of upper and lower seal rings 	<ol style="list-style-type: none"> 11、 Change seal gasket 2、 Pressurize the flange bolts (average force) 3、 Dismantle the gland ring and change the failure

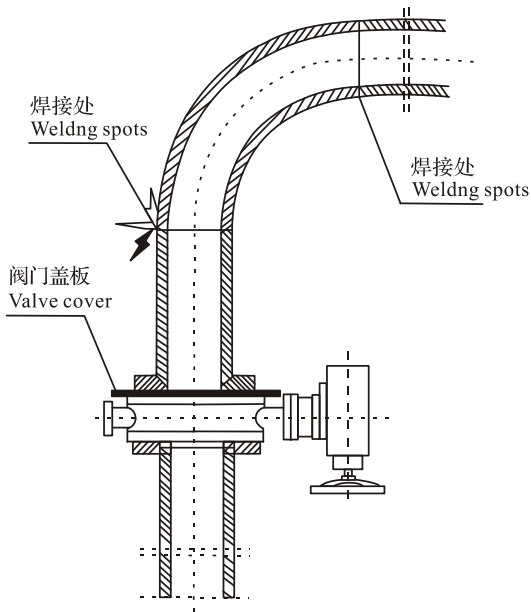


D: --平焊钢法兰内孔
 d: -- 管道名义尺寸
 D: --Flange internal hole of weld steel
 d: -- pipe dimension

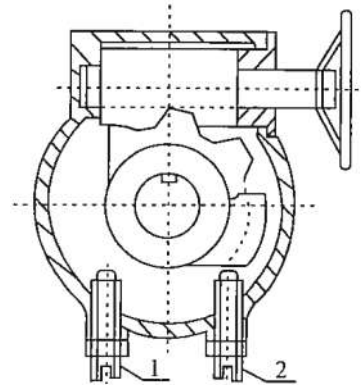
(图1) (see fig 1)



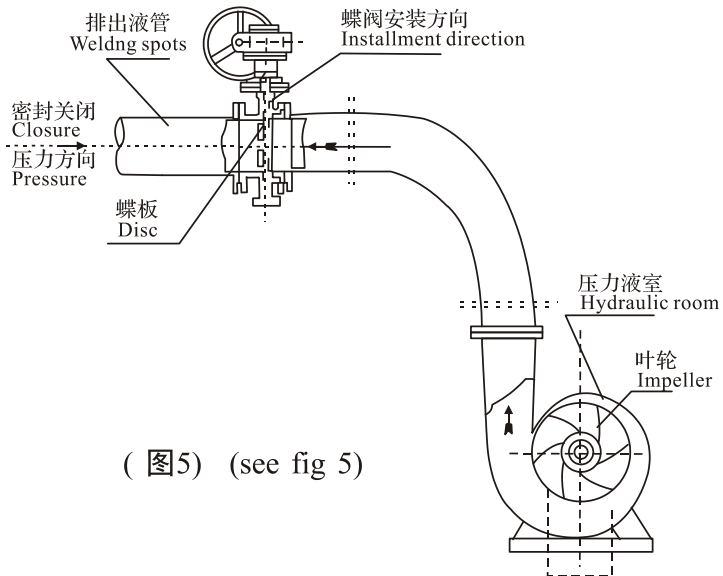
(图2) (see fig 2)



(图4) (see fig 4)



(图3) (see fig 3)



(图5) (see fig 5)

8, Packing delivery and other attention:

- 1). The products should be packed in accordance with standard specification for output products.
Check operation instruction, inspection qualified certificate and other accessory before packing.
- 2). The qualification certificate should indicate manufacture, output time, inspector, stamp, etc.
- 3). Abide by the related regulations and avoid the damages during transportation.
- 4). Perform the products required by standard specification for acceptance.
- 5). Inform us after the user find the abnormal phenomenon, and if there is any dispute each other, recheck the products according to standard specification and solve it by final results.