

WEY KNIFE GATE VALVES

Instruction, Operation and Maintenance Manual



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1 General

1.1 Safety

Prior to any work or start-up and in order to ensure a proper functioning of our products, the instruction manual must be observed. Alterations on the products need our written approval. For consequential damages due to neglect of this direction, we have to reject any liability.



This symbol marks safety and risk advice. Follow all such advice in order to prevent any damage to human life and objects.

Only qualified personnel are permitted to install Wey valves and must comply with installation and maintenance procedures in accordance with these instructions. Technical data applicable to Wey Valves, e.g., dimensions, materials and service range, may be found in this document along with published catalog materials.

The responsibility for compliance with aforementioned documentation remains the sole duty of the end user.

1.2 Designated service

Wey Knife Gate Valves are designed to shut off pressurized piping systems.

Wey Knife Gate Valves may be installed for purpose of dead-end service.

1.3 Structure and function

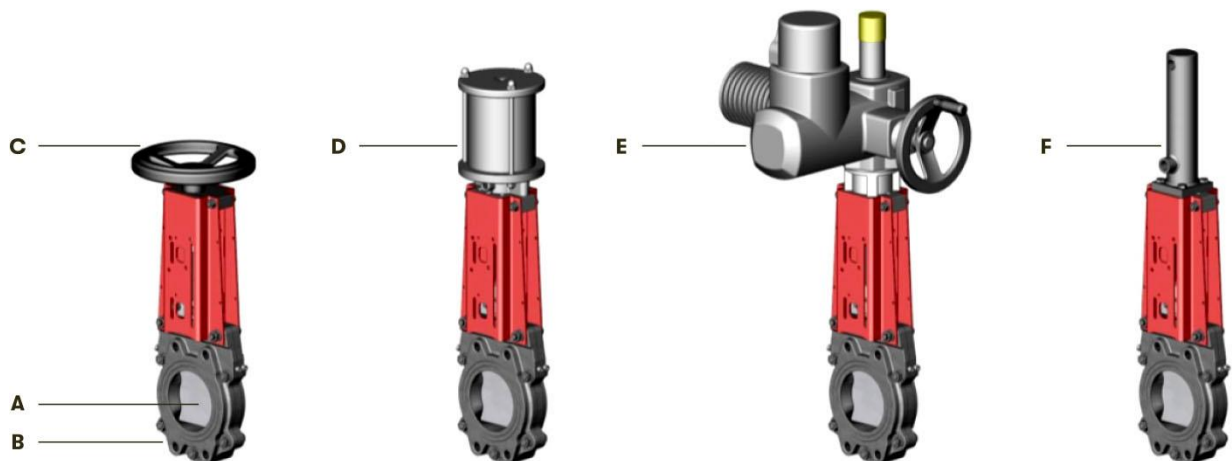


Figure 1

- | | |
|----------|----------------------|
| A | Body with seal |
| B | Gate |
| C | Manual actuation |
| D | Pneumatic actuation |
| E | Electrical actuation |
| F | Hydraulic actuation |

2 Transportation, Storage

2.1 Transportation

Wey Knife Gate Valves should be transported in crates or well-constructed skids suitable for their weight. The valve must be protected against exterior damage and atmospheric exposure.

Depending on the duration and conditions of transportation or storage, preservation should take place by sealing valves into PE-film or adding sufficient drying agent or equal.

2.2 Storage

Until final installation the valves should be stored in a dry, well vented area. Components that provide operational movement must be suitably protected against humidity, dust or other contamination.

All blank surfaces, e.g., stem, piston rod, sealing surfaces need, to be suitably protected with long-term preservatives against corrosion, in case of unfavorable storage conditions.

Factory applied preservatives must be checked for possible transport damages and appropriately repaired.

For accessories mounted to the valves, e.g., electric actuators, limit switches, solenoids, etc., the instructions provided by the manufacturer must be observed.

3 Installation

3.1 Preparation before installation

Before installation, ensure that the Wey Knife Gate Valve satisfies the service condition requirements. The responsibility regarding applied service medium (corrosion resistance, pressure, temperature, etc.) remains with the end user. Please check that the valve meets the regulations for the applicable zone, especially when the valve will be installed in an explosion protected area.



Misaligned piping must be corrected before installation in order to avoid stress or cracking of the valve body.

Before final installation of the valves any applied corrosion protection must be thoroughly removed. All parts (gate, stem and piston rod) must be free of dust and dirt.

3.2 Installation site

The valve location and mounting position must be selected to allow inspection and repair at any time without risk.

For repacking purposes, the narrow edges of the valve body shall be freely accessible.



Additional directives and guidelines for installation and operation of explosion protection equipment must be observed when installed into Ex-zones.

Check if the equipment fulfills the safety requirements at site.

3.3 Installation position

Wey Knife Gate Valves should be installed in one of the positions shown in Fig. 2. Avoid a different installation position whenever possible.

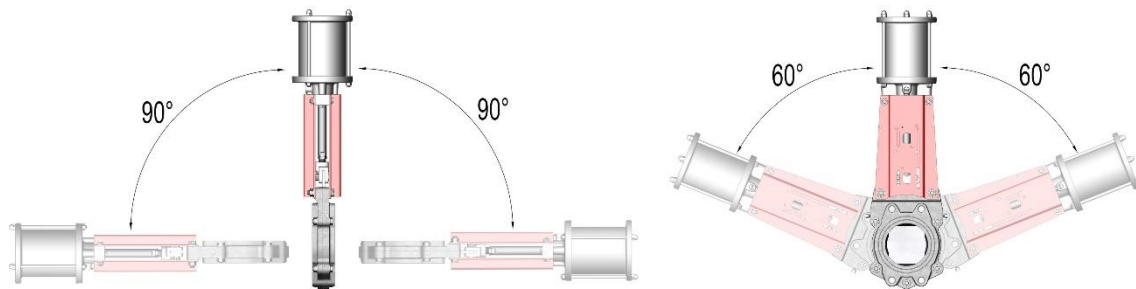


Figure 2

Wey Knife Gate Valves from size 16" up with extended or heavy actuators, that are not vertically installed, should be supported on site. This is also recommended when pipeline vibration may occur.

3.4 Flow and pressure direction

The Wey Knife Gate Valve is based on a bi-directional design (Fig.3). However, depending on certain applications and valve design options a preferred flow direction must be considered.

| Liquid, gaseous and pneumatic conveyed solid fluids | |
|--|--|
| Flow direction | Bi-directional possible (A,B) |
| | With the application of a wear ring from the entry side (B) |
| Pressure direction | Against gate bevel preferred (A) |
| Powder and granulate at gravity discharge (vertical piping) | |
| Flow direction Pressure direction | The gate bevel is positioned on the downstream side, also when a cone insert is used (B) |

The preferred pressure direction must especially be considered if the valve is working at 60 – 100% of the nominal pressure.

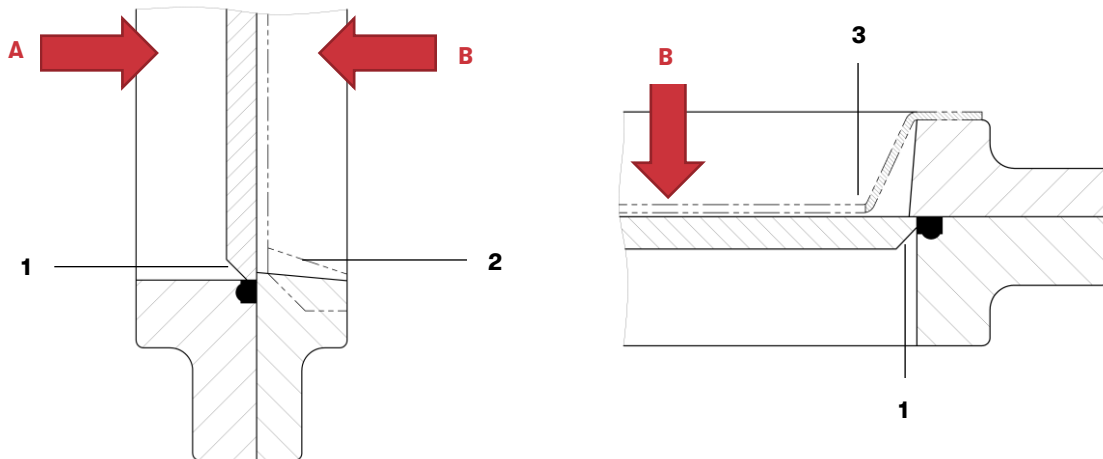


Figure 3

- 1 Gate bevel shape
- 2 Wear ring (option)
- 3 Cone insert / contracted bore (option)

For difficult service conditions or for custom-made valves, please contact the manufacturer regarding the installation position.

3.5 Mounting

Before valve installation, check for possible transportation or storage damages. The valves should be protected against construction work at site.

For additional painting of the valves, the stem, piston rod, electric accessories and the valve gate protruding from the body should not be painted. Before any sand blasting, the valves must be protected with covers.

When installing a valve with a stem extension, the pipe flange must be exactly in line with the extension. The exact position of the flange holes in relation to the extension must also be observed.

Wey Knife Gate Valves are installed between two piping flanges with through bolts and with bolts for blind body holes.



Piping misalignments should never be corrected using the valve body. Tighten bolts with caution. No tilting, practice crosswise tightening. See bolt torques charts in chapter 3.8. Apply flange bolts according Fig. 4 into tapped blind holes.

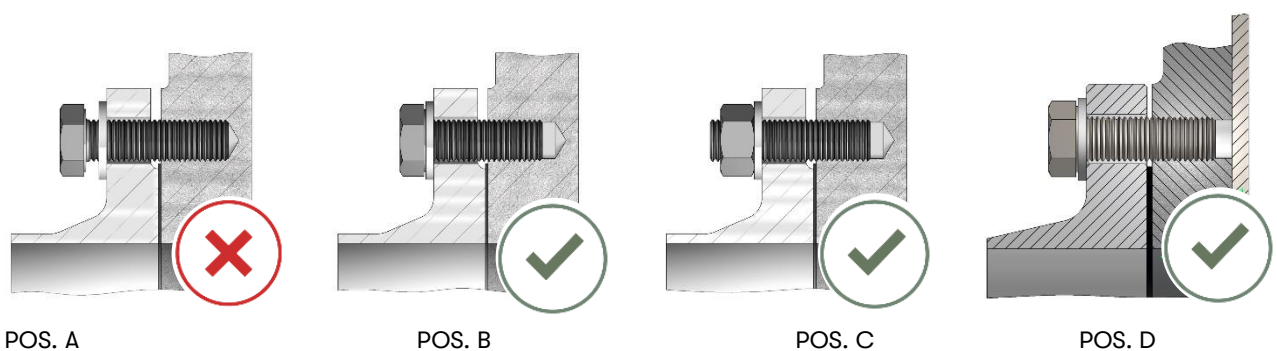
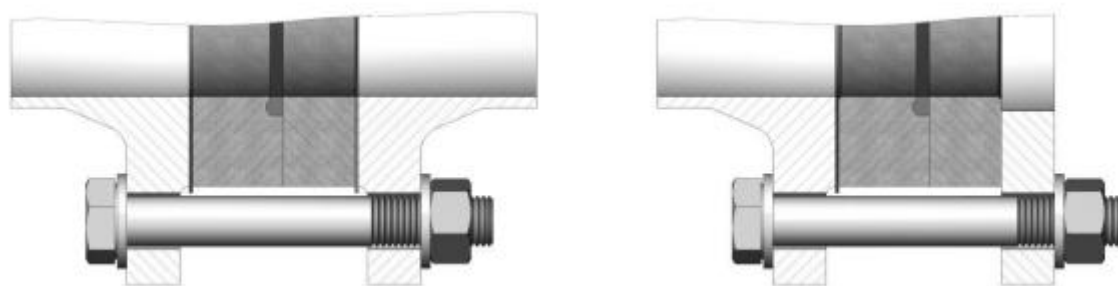


Figure 4

| | |
|--------|---|
| POS. A | Wrong assembly. Tightened bolts shall not touch the bottom of the tapped blind holes. |
| POS. B | Correct assembly. |
| POS. C | Also correct assembly. Insert stud, then tighten nut. |
| POS. D | Valve sizes 2”-8” come with tapped through holes in the chest area. Make sure to use the correct screw length. Under no circumstances can the machine screws in the chest area be allowed to contact the gate. If contact is made the gate may be damaged and locked in place preventing valve operation. |

Remaining flange holes to be applied with through bolts acc. Fig. 5



Mounting between flanges

Mounting as head valve with counter-flange

Figure 5

3.6 Valve with cylinder actuator or electric motor

When cylinder actuated valves or valves with electric motors are mounted in vertical pipes, provisions must be made to protect the valve from unexpected side loading. This can occur if someone steps on or sits on the actuator. To protect against this possibility Wey Valve recommends the actuator be supported.

To ensure against side loading or to check this possibility, the clearance between the body and gate on both sides of the gate can be checked. This clearance should be approximately equal across the full width of the gate on both sides. This clearance is checked by inserting a machinist's gauge between the body and gate at the top of the valve body with the gate in both the closed and open positions.



Consult factory before drilling or tapping any connections to valve and actuator structure. Metal chips must not be allowed on gate or elsewhere on the entire valve.

To support the actuator from overhead, use a threaded rod, chain or cable in conjunction with a turnbuckle attached to the cylinder or electric motor yoke plate. Check gate/body clearance at the top edge of valve body to ensure proper alignment. (See Fig. 6)

Underneath support is easily achieved using small diameter steel pipe or angle iron with a small jack screw. This is attached to the valve in the area of the cylinder or electric motor yoke plate. Check gate/body clearance at the top edge of valve body to ensure proper alignment. (See Fig. 7)

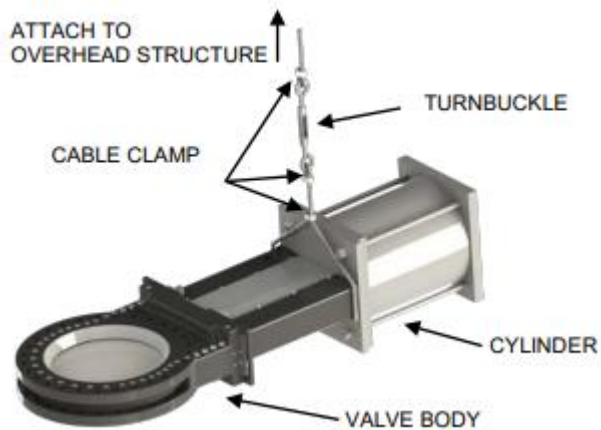


Figure 6

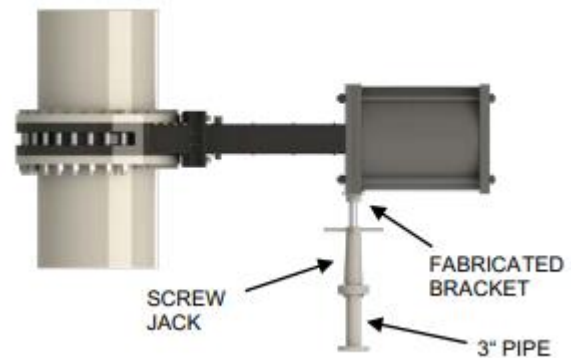


Figure 7

3.7 Welding in line



Do not electric weld on Wey Knife Gate Valves. Electric welding will burn internal valve seals. Electric welding may also cause arching between body and gate resulting in gate galling and top transverse seal damage.

Do not gas weld on Wey Knife Gate Valves. Weld splatter on gate or in body bore may result in seat damage.

Regarding valves furnished with flat face flanges, installation between raised face pipe flanges is not recommended as this may cause valve flange distortion resulting in valve operation problems.

Ref. ASME/ANSI B16.5 a, SEC. 5.3.4 (a)

“Where Class 150 steel flanges are bolted to Class 125 cast iron flanges, the gaskets should be made of Group No. 1a materials, the steel flanges should have flat faces, ...”

Adaption Technique: In some cases a raised face pipe flange may be adapted to a flat face valve flange if a thin sheet metal spacer is inserted outside the diameter of the raised face portion of the pipe flange. This should be of the same thickness as the raised face dimension and be installed with a full flange gasket to evenly distribute the load.

3.8 Wey Valve suggested flange and body bolt torque



Before installation or testing of valves, it is important to check the valve body and flange bolts for proper torque values.

Body bolts should be checked to see if they have become loose prior to installation or testing. Loose body bolts can result in valve failure that could have been avoided if properly checked. Bolts can become loose during rough transportation or rough handling before installation or testing occurs.

If body bolts are found to be loose, Wey Valve Inc. recommends tightening the bolts to the specified torque values given before installation or testing of the valve occurs.

Please consult the factory for the body bolt torques.



During valve installation, it is important to check for proper torque values on the flange bolts. Improper tightening of these bolts can cause severe damage to the valve and other associated components.

Bolts that are over the recommend torque can cause damage to the threads of the valve and to the valve body; this could lead to valve failure and leaks.

If flange bolts are not tightened enough, there can be leakage between the valve and flange; which could cause harm to workers or the environment.

Flange Bolt Torques – ANSI Class 150 Valves

| Valve Size | | Flange Bolt Size UNC / 8-UN [inch] | Bolt Torque | |
|------------|--------|--|-------------|----------------|
| [mm] | [inch] | | MA [Nm] | MA [lbf.ft] |
| 50 | 2" | 5/8" | 45 | 35 |
| 80 | 3" | 5/8" | 85 | 65 |
| 100 | 4" | 5/8" | 65 | 50 |
| 150 | 6" | 3/4" | 125 | 90 |
| 200 | 8" | 3/4" | 175 | 125 |
| 250 | 10" | 7/8" | 160 | 120 |
| 300 | 12" | 7/8" | 195 | 140 |
| 350 | 14" | 1" | 235 | 175 |
| 400 | 16" | 1" | 235 | 175 |
| 450 | 18" | 1 1/8" | 345 | 255 |
| 500 | 20" | 1 1/8" | 305 | 225 |
| 600 | 24" | 1 1/4" | 395 | 290 |
| 650 | 26" | 1 1/4" | 870 | 640 |
| 700 | 28" | 1 1/4" | 860 | 635 |
| 750 | 30" | 1 1/4" | 850 | 630 |
| 900 | 36" | 1 1/2" | 1470 | 1085 |
| 1050 | 42" | 1 1/2" | 845 | 625 |
| 1200 | 48" | 1 1/2" | 840 | 620 |

Remarks:

- The flange bolt torques above are suggested values from Sistag/Wey Valve and must not be exceeded

Flange Bolt Torques – ANSI Class 300 Valves

| Valve Size | | Flange Bolt Size UNC / 8-UN [inch] | Bolt Torque | |
|------------|--------|--|-------------|----------------|
| [mm] | [inch] | | MA [Nm] | MA [lbf.ft] |
| 50 | 2" | 5/8" | 25 | 15 |
| 80 | 3" | 3/4" | 50 | 40 |
| 100 | 4" | 3/4" | 75 | 55 |
| 150 | 6" | 3/4" | 85 | 60 |
| 200 | 8" | 7/8" | 135 | 100 |
| 250 | 10" | 1" | 135 | 100 |
| 300 | 12" | 1 1/8" | 185 | 135 |
| 350 | 14" | 1 1/8" | 160 | 120 |
| 400 | 16" | 1 1/4" | 235 | 170 |
| 450 | 18" | 1 1/4" | 250 | 185 |
| 500 | 20" | 1 1/4" | 280 | 205 |
| 600 | 24" | 1 1/2" | 385 | 285 |
| 650 | 26" | 1 5/8" | 675 | 495 |
| 700 | 28" | 1 5/8" | 725 | 535 |
| 750 | 30" | 1 3/4" | 890 | 655 |
| 900 | 36" | 2" | 1190 | 880 |
| 1050 | 42" | 1 5/8" | 725 | 535 |
| 1200 | 48" | 1 7/8" | 1120 | 825 |

Remarks:

- The flange bolt torques above are suggested values from Sistag/Wey Valve and must not be exceeded

4 Commissioning

4.1 General measures

Before taking the valves into service, all function relevant parts (gate, stem, piston rod, etc.) shall be thoroughly cleaned. Damages, in particular to the seal caused by remains of grit, welding beads, foreign rust or similar on the gate, are not covered by the warranty.

For powder or granular service, it should be observed that wetted or humid media which has tendency to cake to the gate is thoroughly removed before start-up.

The Wey Knife Gate Valves are factory preserved and lubricated for transportation and storage, but they require depending on the service conditions, another lubrication before start-up. Recommended are water-repellent, temperature resistant and long lasting lubricants. (Get your nearest supplier's recommendation).

4.2 Safety measures



For automated valves installed in an area where valve movement could be dangerous for people (or animals/objects), it must be ensured by the user on-site that all moving parts are fenced with a suitable cover or protection shield.

Should they not already be mounted, such covers are optionally available from manufacturer. Protection goals can also be reached through suitable on-site measure. Unprotected valves must not be commissioned.



If hot gases or fluids are transported in the pipeline, ensure that no persons can touch the hot surfaces.

It is also to ensure that no external interference of the control circuits can actuate the valve unintentionally.

4.3 Function Test

Before commissioning, a function test must be performed. Open and close the valve one time as a minimum.

If the pipeline is pressure tested, it is to ensure that the applied pressure is not higher than the maximum allowed test pressure of the valve.

4.4 Pneumatically operated valves



Preventive measures must be taken to ensure maximum cylinder air supply pressure does not exceed 150 psig.

For operation of the actuator use only dry, filtered air acc. Class 4/5 ISO 8573-1

| | |
|----------------------------------|-----------------------------------|
| max. dust particle size | 40 µm |
| max. dust particle concentration | 10 mg/m ³ |
| max. excess oil concentration | 5 mg/m ³ |
| pressure dew-point | below minimal ambient temperature |

Solenoid valves shall be mounted as close as possible to the actuating cylinder.



Air hoses, especially plastic pipes, must be mounted and secured to prevent unintentionally plugged, kinked or torn condition. In order to keep a valve tight in its closed position the piston must be permanently under pressure.

The size of the air supply tubing must be large enough to achieve desired speed of operation.

Before start-up, all on-site mounted supply lines and solenoid valves must be thoroughly flushed and cleaned.

Factory mounted solenoid valves are normally provided without accessories like throttle or muffler.

On-site OSHA regulations must therefore be observed.

Pneumatic operated valves must not be closed instantly in order to avoid the risk of pressure shocks.

4.5 Hydraulically operated valves

Before start-up, all on-site mounted supply pipes shall be thoroughly cleaned. Hydraulic actuated valves must not be closed instantly to prevent the risk of pressure shocks.

The maximum pressure should not be exceeded. Higher pressure may cause valve damage.

4.6 Electrically actuated valves



For electrical installations observe local rules, standards and directives.

When valve is installed into Ex-zones additional directives and guidelines for installation and operation of explosion protection equipment must also be observed.

Check if the equipment fulfills the safety requirements at site:

After installation a correct ground connection must be verified. This is normally done through the flange bolt connection. If this is not the case, a ground wire must be connected to the appropriate terminal clamp.

On-site electric installations must be in accordance with appropriate wiring diagram as provided by the actuator manufacturer. In addition, the specific operating instructions supplied by the actuator manufacturer must be observed.

Before the first electrical operation, the valve gate should be set to an intermediate position with the manual override.

When connecting to the power supply, the phase sequence must be observed.



With wrong phase sequence, limit and torque switches are ineffective.

The switch-off shall be in accordance with our instructions/diagrams, i.e.:

- Switch-off in closing direction: usually by limit switches, by exception with torque
- Switches (for abrasive service applications).
- Switch-off in opening direction: by limit switches only, as the torque switch serves as overload protection

5 Maintenance

Wey Knife Gate Valves generally require very little maintenance. The two most common maintenance requirements include repacking and seal replacement. Additional packing and replacement seal kits are readily available from the factory. To order these components you must furnish the factory with the valve serial number. This serial number may be found stamped on the stainless steel name tag that is attached to the valve yoke. Repacking instructions are included in section 5.3. Seal replacement instructions can be downloaded on www.veyvalve.com. Valves may be returned to the factory for complete rebuild and test. For more information regarding this option, contact Wey Valve, Inc., or your local Wey Valve Sales Representative.

5.1 Inspection

When in operation with dangerous fluids especially, the leak-tightness to atmosphere must be monitored on a regular basis. Valve should be repacked when leakage is detected.

5.2 Operating cycles

During the first year of service at least four (4) operating cycles must be performed at which time all components should be checked. Under severe service conditions, such functional checks should take place more frequently.

5.3 Repacking

With time and use, leakage out of the top of the valve can be expected. This can easily be corrected while the valve is in the pipeline and under pressure by following the simple steps noted below.



While Wey Knife Gate Valves can generally be repacked while in service and under pressure special precautions should be taken if the pipe fluid is hot or hazardous. Under these conditions protective clothing including the hands, eyes and face should be worn prior to any attempt to remove the packing screws. Also, under these conditions, the packing screws should be removed slowly with the person performing this task immediately alert to any evidence of leakage past the packing screw. Should leakage past the packing screw be evident it should be quickly screwed back to its full depth and the system depressurized prior to any further attempt to repack the valve. If this condition exists, contact Wey Valve for technical assistance.

First: Observe that there are two packing screws located on either side of the valve. Remove the packing screws slowly and carefully ensuring that there is no hazardous leakage through the two screw holes. NOTE: A simple repacking tool will be required for this operation. This packing tool can be obtained for a nominal cost from Wey Valve or easily fabricated on the job site. A piece of drill rod or a round shank screwdriver with the end cut off works well for this purpose (Tool shaft diameter approx. 3/16" or .187"). The shank length of this tool should be at least half the diameter of the valve. Care should be taken to sand or grind a slight chamfer on the end of this tool to prevent screw hole thread damage. Insert the packing tool into the holes and press into packing material until tight. Sometimes a small rubber or plastic mallet may be used although care must be exercised not to pack the valve too tightly as this will cause the valve to be difficult to operate. Remove the packing tool.

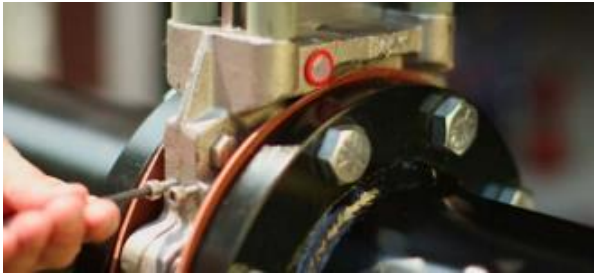
Second: Insert one packing pellet (approx. 1" length) in holes. Using the packing tool again push each of these two pellets into the packing chamber as far as they will go. Continue to pack one pellet at a time and alternate between holes to ensure even packing distribution. It is important this packing procedure does not allow either face of the gate to come in contact with the inside body wall. Visually check to ensure that approximate equal clearance is maintained between the gate and body wall throughout this process. Pack both holes until they are completely filled tightly and no additional packing can be inserted.

Third: Re-install screws.

Fourth: Repeat steps above for screw holes on the other side. If, after following this procedure, a leak persists out of the top of the valve repeat the repacking procedure using more force to insert the packing pellets. If a leakage continues to persist it is probably an indication that the transverse seal needs replacing and a new seal kit should be installed.

NOTE: Sometimes a leak may occur out of the top of a new unused valve. This is usually the result of long term storage or rough valve transportation. To correct this, simply follow the steps outlined in 1-4 above. To ensure long term reliability the exterior upper portion of the gate should be kept clean. Threaded stems and thrust bearings should be kept well greased. Stroke the valve open and closed at least once every two weeks.

Repacking a Wey Knife Gate Valve (Illustration)



Step 1: Use allen wrench (t handle) to remove the two packing screws on one edge of valve only.



Step 2a: Insert one packing pellet (approx. 1" length) in one hole.



Step 2b: Insert one packing pellet (approx. 1" length) in the other hole.



Step 3: Use the packing tool to push each of the two pellets into the packing chamber as far as they will go. Continue to pack one pellet at a time and alternate between holes to ensure even packing distribution.



Step 4: Re-install the two packing screws only about halfway into packing holes. This leaves space for future adjustments.



Step 5: When you are finished with one side, repeat steps above for screw holes on the other side.

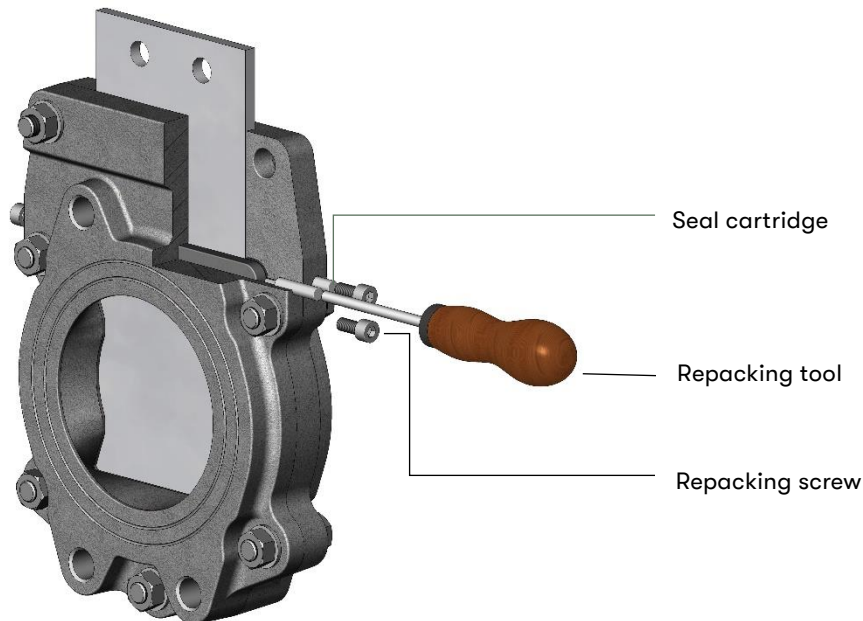


Figure 8

5.4 Seal replacement

Should leakage occur through the bore passage, the body seal may be damaged or worn out.

The body seal of a Wey Knife Gate Valve can only be replaced when the valve is removed from the pipeline. Seal replacement can be performed by trained personnel following the procedure outlined in the corresponding service manual or by returning the valve to Wey Valve, Inc.

5.5 Cleaning / Lubrication

Piston rods must be free of dirt and contamination and lubricated. Lubrication points on handwheel bearings should be regularly lubricated based on the operating conditions (at least once every 3 months).

Pneumatic cylinders with closing cushion are fitted with a self-lubricating rod seal. Any leakages on the cylinders require the exchange of all sealing components. For valves with electric actuators, the lubrication point on the drive should receive special attention.

The operating instructions provided by the actuator manufacturer must be observed.

Depending on the service conditions of the valve, the gate must be kept clean as well as slightly lubricated.

6 Trouble Shooting

| Trouble | Possible Cause | Elimination |
|--|--|---|
| Leakage at gate in body chest area | Transverse seal untight | Repacking of transverse seal according to instructions |
| | Transverse seal damaged | – Replacement of transverse seal according to instructions, cleaning of valve gate, if necessary replacement of gate |
| Leakage in bore passage of valve | – Valve gate not completely closed – Jammed particles between gate and body internals – Jammed particles between stem nut, resp. clevis and body chest | Manual valves – Open valve slightly and repeat closing action – Remove jammed particles |
| | | Pneumatically and hydraulically operated valves – Open valve slightly and repeat closing action – Check, if necessary new setting of clevis, resp. stroke – Removed jammed particles |
| | | Electrically actuated valves – Open valve slightly and repeat closing action, check, possibly reset switches (upon supplier’s recommendation) – Remove jammed particles |
| | Body seal damaged | Remove valve, replace seals according to instruction |
| Leakage through valve body halves | Loose bolts from transport or vibration during service | Tighten body bolts in leaking area to the recommended torque value (See Chapter 3.8) |
| | Valve distorted during mounting | Untighten flange bolts and re-tighten according to instructions |
| | Sealant between body halves damaged | Remove valve and replace sealant according to instructions |
| Valve gate is not movable | Actuating components damaged | Manual valves – Check, clean stem or stem nut, replace if necessary, lubricate |
| | | Pneumatically and hydraulically operated valves – Check supply pressure – Check if current onto solenoid exists – Check solenoid for damage – Check hydraulic cylinder for damage (seal) – Clean and lubricate; if necessary replace damaged components acc. to supplier’s instructions |
| | | Electrically actuated valves – Check if current exists – Check if motor defective – Check if limit switches defect or adjusted – Check if gear, stem or stem nut are damaged – Clean and lubricate; if necessary replace damaged components acc. to supplier’s instructions |
| | – Valve clogged – Valve gate contaminated | remove valve, clen, possibly disassemble completely |
| Closing or opening stroke ceasing or jerking | Insufficient supply pressure | Pneumatically and hydraulically operated valves Check supply pressure, possibly increase supply pressure |
| | Solenoid valve dirty | Remove and clean solenoid valve, possibly install filter |
| | Piston rod seal damaged | Remove and clean piston rod seal, exchange and lubricate cylinder seals |
| | Valve clogged | Clean valve and lubricate |
| Loss of air pressure | Pipe connection damaged | Check pipe connections, tighten, replace if necessary |
| | Cylinder seals damaged | – Check and replace cylinder seals, lubricate – Check piston rod seal, clean, lubricate |

7 Removal



Use caution when removing the valve from the pipeline. The piping system may be under pressure and therefore hazardous media may enter into the environment. Precautionary measures must be taken.

Actuators must not be removed if pipe system is under pressure. Electric actuators must be disconnected from circuit. Pneumatic and hydraulic actuators must be depressurized and disconnected from supply lines. If piping is removed on one side only, ensure that the valve cannot be operated.

Unintentional opening of the valve can be hazardous to personnel and environment due to drain-off of pipeline contents. Unintentional closing may be very harmful.

8 Disposal

Observe that sediments inside of valve or pipe can be harmful to people and environment. Respective precautions measures are to be taken. After finished service life the valve must be disposed skillful and in conformity with environmental regulations.

9 Warranty

Wey Valve products are warranted to be free of defects in materials and workmanship, but our liability shall be limited solely to those defects which are due to our fault and of which we receive notice in writing one year from the date of shipment. Our liability for breach of warranty will be discharged and satisfied exclusively by repairing or replacing such defective products upon return to our factory in Shannon, Mississippi, and only if inspection finds such products to be defective in material or workmanship due to the fault of Wey Valve, Inc.

In no event shall our liability for breach of warranty herein made exceed the price of the product sold by Wey Valve, Inc., and Wey Valve, Inc., shall not be liable for interruption of operations, labor charges other than those before mentioned, loss of profits, damages for delays, damages to property, personal injuries or any other damages, special, specific, direct, incidental, consequential, indirect or otherwise.

The warranty herein is in lieu of all other warranties, express, implied in fact or implied by law and, without limiting the generality of the foregoing disclaimer, is specifically in lieu of all implied warranties of quality, merchantability of fitness for purpose.

Note: Any Wey Valve products that are altered or modified in any way will invalidate warranty. Non-compliance with installation, operation and maintenance instruction will invalidate warranty.

10 Final remarks

All details given herein include the current prevailing knowledge of Wey Valve, Inc. This information in combination with our technical documentation and information about our products and their range of applications are generally included but do not supersede acceptable mechanical practice. They are not intended to ensure particular features of the products nor their suitability for a specific application. Intended quality is defined within our General Sales Conditions.

For any further information, please contact our Customer Service Department.

Wey Valve, Inc., reserves the right to alter or make changes to this document at any time and without notice.