

■ **Before Installation**

Valves stay in the open condition during the transportation. For incoming QC, it must be checked:

- (1) Packing condition: is there any damaged during the transportation.
- (2) The bolts of cap and yoke: to make sure the bolt does not loose tightness when it arrived.

When the valve is not put into immediate service, it is required that the valve be stored in a heated building that is fire resistant, weather tight and well ventilated. Storage area shall be situated and constructed so that it will not be subject to flooding and any corrosive chemicals present. Recommends that all valve actuator be cycled approximately every 60 days or as required by the manufacturer of the actuation system. Any spare parts for the valve shall be stored in the original packaging and under the same conditions as the valve will stored.

For storage greater than 4 months, the storage container should be inspected every four (4) months to ensure it is in good condition, and any additional protective coverings or materials are in working order. Ensure all parts are plugged, and bare metal is covered with a suitable rust inhibitor.

■ **Installation and Operation**

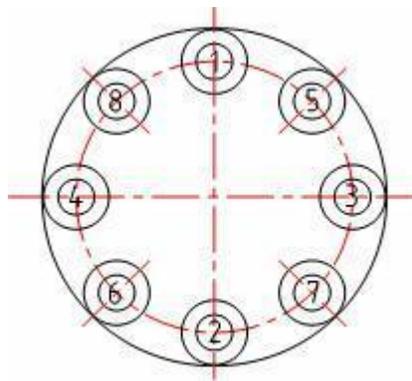
Cleaning

Even the valves was transported under a clean environment, operator must check is there any foreign body or dusts inside the bore. If yes, clean it before installation. Operator clean the valves by water, compression air, or steam (automation valve shall be cleaned only with water or steam, the compression air is not allowed.) For cleaning operation, first step is put the valve bore perpendicular to the ground and clean, ensure all the dusts can be removed from the bore. The second step is checking and clean all the connecting pipe bore and connection area. No flush, rust and foreign bodies allow to avoid the blocking and leakage.

Valve Installation

1. Carefully check the sensibility of actuator to prevent block before installation.
2. Valve is recommended to be installed at location 1.2m from the ground for convenient of operation, where the center of valve and hand wheel is over 1.8m from the ground, a platform shall be built for the frequently operated valve. For pipeline with numbers of valves, valves shall be installed on the platform as likely as possible for convenient of operation.

3. For single valve installed at location over 1.8m and less operated, apparatus may be used such as chain-wheel, extension bar, move platform and move ladder etc. Where valve is installed underground, extension bar or ground-well shall be set. For safety reason, the ground-well shall be covered.
4. For valve installed on horizontal pipeline, the stem is suitable at upright position; Or the downward stem shall be inconvenient for operation and maintenance, as well the valve is liable to corrosion. If the ground valve slant installed, operation and maintenance shall also be inconvenient.
5. When valve are installed in pipeline side by side, enough space shall be considered for operation, maintenance and dismantle. The clearance of hand wheels shall not less than 100mm; in case of narrow clearance, valves shall be installed interleaving.
6. Support shall be set for valve with great open torque, lower strength and fragile and heavy weight for bearing the valve. The lesser amount of this kind valve, the better. The valve shall be set as near as the general pipeline. Please see the drawings below for the order of bolts installation.



Operation

■ Maintenance

1. Dust, grease and medium residual tend to accumulate at the surface of body, stem, the trapezoid thread of stem nut, the guide of yoke and gears etc, wear and erode the valve, and shall be cleaned frequently.
2. After put into use, valve shall be checked and maintenance periodically especially for the situation of sealing surfaces and worn, the age of packing and the corrosion of body. In case of such situation, valve shall be repaired or replaced.

3. Upon reparation, valve shall be listed for reference.
4. Potential failures and trouble shooting.

Troubles and countermeasures

FAILURE	CAUSE	COUNTERMEASURES
Leakage of packing	<ol style="list-style-type: none"> 1. Gland flange nuts loose. 2. Packing aged or failure. 	<ol style="list-style-type: none"> 1. Equally tighten eyebolt nuts. 2. Replace packing.
Leakage between sealing surface	<ol style="list-style-type: none"> 1. Dirties between sealing surfaces. 2. Sealing surface damaged. 	<ol style="list-style-type: none"> 1. Clean sealing surface. 2. Repair the sealing surfaces.
Operation failure	<ol style="list-style-type: none"> 1. Packing too tight. 	<ol style="list-style-type: none"> 1. Proper loose gland flange nuts.
Leakage between bonnet flanges	<ol style="list-style-type: none"> 1. Bonnet Bolts loose. 2. Bonnet gasket failure. 	<ol style="list-style-type: none"> 1. Proper tighten bonnet nuts. 2. Replace bonnet gasket.
Body and bonnet broken and leaked	<ol style="list-style-type: none"> 1. Static head. 2. Fatigue 	<ol style="list-style-type: none"> 1. Carefully operation to prevent suddenly stopping pumping and rapidly shutting. 2. Replace valve that exceeds guarantee period or is found with early fatigue deflection. 3. Drain away water in winter when valve is not used.

Note: As to the trouble other than mentioned above, please contact us for overhaul.

■ **Quality Assurance and Service**

1. Warranty Period is 12 months from the delivery date.
2. Service: Manufacture will follow up the quality of the valve provided and offer service in accordance with contract specified.

If any questions, please feel free to contact our sales representatives or customer service at following methods:

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