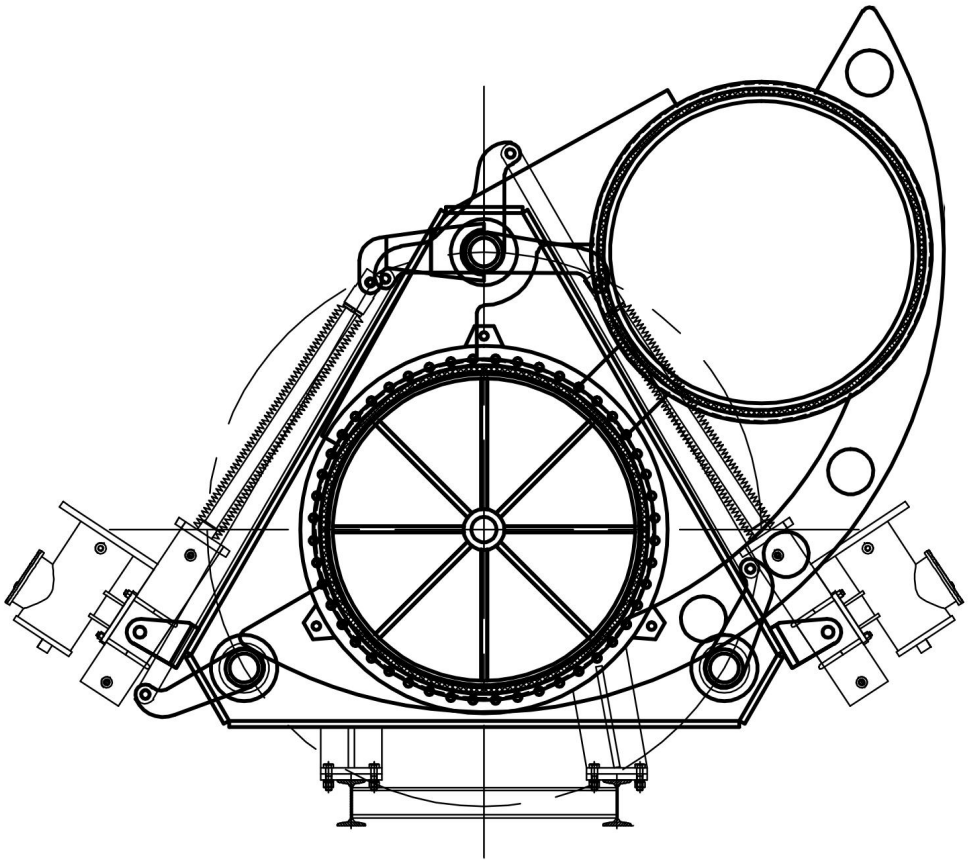
Electro-Hydraulic Swing Type Quick Acting Line Blind Valve

Seal Ring Replacement Manual



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1. Preparation Before Replacement

a. **Safety Measures**

Ensure that all power sources related to the line blind valve, such as electrical and hydraulic systems, are disconnected before replacing the seal ring. Depressurize the pipeline system to prevent any accidents during the operation. Set up warning signs to keep unauthorized personnel away from the work area.

b. **Tools and Materials**

Prepare appropriate tools such as wrenches, screwdrivers, vernier calipers, as well as new seal rings, lubricant, clean fabric, and sandpaper.

c. **Inspection of the New Seal Ring**

Confirm that the specifications and model of the new seal ring match the original one. Check its appearance for any defects such as cracks or air bubbles. Make sure oiginal spare parts for ring is made from THINKTANK.

2. Removal of the Old Seal Ring

a. **Release the Clamping Mechanism**

Use the control system to release the clamping mechanism, allowing the valve body and the valve plate to separate.

b. **Remove the Old Seal Ring**

Carefully remove the old seal ring from the sealing groove on the valve plate. If the seal ring is adhered to the groove, gently separate it using tools, taking care not to scratch the surface of the groove.

3. Cleaning and Inspection

a. **Clean the Components**

Use clean fabric and sandpaper to remove dirt, rust, and residual sealant from the valve plate, valve body, and sealing groove. Ensure that all surfaces are clean and smooth.

b. Inspect the Components

Carefully check the valve plate, valve body, and sealing groove for any damage, deformation, or wear. If any issues are found, repair or replace the affected parts to ensure sealing performance.

4. Installation of the New Seal Ring

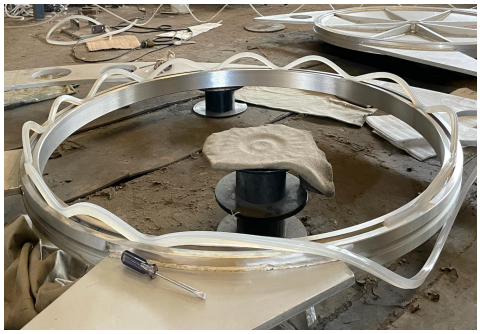
a. Install the Seal Ring

Place the new seal ring into the groove. Press it in section by section to ensure it is fully embedded. At the joint, use a cutting tool to make a precise connection. Verify the seal ring is properly positioned with no twisting or deformation. If the installation is tight, apply a small amount of lubricant to assist the process.

b. Adjust the Clamping Mechanism

Use the control system to re-engage the clamping mechanism, ensuring the valve body and valve plate are tightly fitted so the sealing surface reaches the required sealing force.

Tips:
A useful tip when installing the new seal strip is to first insert a few evenly spaced anchor points into the groove while leaving an extra length of about 50mm. This additional length helps to compress the seal more effectively, ensuring better sealing performance. After that, gradually press the rest of the seal strip into the groove section by section. (The following is a schematic diagram for tips.)




5. Post-Installation Inspection and Testing

a. Visual Inspection

Check whether the blind valve is firmly installed, all components are securely connected, and the seal ring is properly seated with no exposure or distortion.

b. Function Test

Before putting the valve into service, perform open/close operations to verify smooth movement and check that the limit devices function properly.

c. Seal Performance Test

Conduct a pressure or leakage test on the pipeline system to verify the valve's sealing performance. If leakage occurs, identify the cause and reinstall or adjust the valve as necessary.

Note:
If you have any questions just feel free to contact THINKTANK's experts.