Installation, Operation, and Maintenance Instructions for Multi-Passage (MP) Rotary Unions

SAFETY WARNING
You will find safety and instruction icons in this manual. These have been included to ensure your safety.

- **DANGER**: Indicates hazard which, if not avoided, will result in serious injury or death.
- **WARNING**: Indicates hazard which, if not avoided, could result in serious injury or death.
- **CAUTION**: Indicates hazard which, if not avoided, could result in minor or moderate injury.
- **NOTICE**: “NOTICE” is reserved for instruction given to prevent property, product, or environmental harm.
- **SAFETY INSTRUCTIONS**: “SAFETY INSTRUCTION” indicates processes or procedures recommended to ensure safety.

**SAFETY INSTRUCTIONS**
Please follow your company’s safety procedures whenever working on Kadant Johnson rotary unions and read all of the instructions completely before proceeding. Also read the safety instructions for working on Kadant Johnson rotary unions.

If you have any questions, or in case of any uncertainties, please contact your representative or Kadant Johnson prior to working with Kadant Johnson rotary unions.

Please refer to the Kadant Johnson assembly drawing for part identification. Assembly drawings are available on request from Kadant Johnson.

Lubricate all fasteners with anti-seize compound. Tighten all fasteners in a star pattern. Torque specifications are listed on the product assembly drawing and are available from Kadant Johnson.

**NOTICE**
Connections types on both nipple and body are mentioned on the drawing. General dimensions can be found on the drawing as well.

A rotary union can be specifically designed for either vertical or horizontal positioning. If this is the case, it will be mentioned on the drawing.

At any point during installation excessive loads, either radial or axial, should be avoided. This can be caused by, although not limited to, misalignment in installation, incorrect hose lengths, or limited installation room.

**INSTALLATION INSTRUCTIONS**

**STEP 1.**
Clean the face (1) where the rotary union will be positioned. Take care to remove any burrs on this face. This location is where the O-ring or gasket seals once the rotary union is installed.

**STEP 2.**
Coat O-rings (2) with O-ring lube and place them in the grooves of the corresponding fluid passage of the nipple. The lube will prevent the O-rings from falling out and enable easy installation.

**STEP 3.**
Install the rotary union onto the journal carefully and straight so as not to damage the O-rings. Make sure the fluid passage layout is positioned correctly, look on drawing for details of fluid passages. All fluid passages are marked with their respective fluid passage number on both body and nipple.

**STEP 4.**
Fasten the bolts (3) to hold the rotary union on the journal. If a specific tightening torque is mentioned on the drawing, use that torque.
**STEP 5.**
Connect the anti-rotation device (4).

**STEP 6.**

⚠️ **CAUTION**
Connect flexible piping or hoses in a relaxed position (not stretched or compressed). Make sure the hoses are connected to the correct fluid passages. See drawing for details on the fluid passage layout.

**OPERATING INSTRUCTIONS**

⚠️ **WARNING**
In this section the operating conditions are mentioned. It is highly recommended to only use specified fluids and operate within the specified pressure and temperature ratings. Consult Kadant Johnson for severe conditions exceeding the ratings listed on the drawing.

**Fluids**
Not all fluid passages are designed to handle all fluids that pass through the rotary union. The fluids that are allowed to be used in the fluid passage are specified on the drawing.

**Pressure**
Besides the fluid, each fluid passage is also designed for a specific maximum pressure. Check the drawing for the maximum pressure for a certain fluid passage on the rotary union.

Operating on different or higher values then the maximum given pressure can result in leaking of the rotary unions or worse, damage to both internal and external parts, resulting in potential hazardous situations.

**Temperature**
Different fluid passages (and different media) can be run on different temperature levels. The drawing will also state what the maximum temperatures are.

**Speed**
The speed on the drawing indicates the maximum rotating speed.

**MAINTENANCE INSTRUCTIONS**

**Bearings**
For special designs, the bearings may have the need to be lubricated at a set interval. If this is the case, this interval, the amount of grease, and the type of grease are mentioned on the drawing.

**Seal Wear**
The DuraSeal™ seal technology in the rotary union are considered wear parts and may need replacement after a certain time. The rotary union rebuild schedule will depend on application operating conditions. Consult Kadant Johnson for rebuild schedule.

**Visual Check**
It is advised to check the rotary union visually every month for leakages from hose connections, drain holes, or bearings that might signal the requirement of maintenance.

**REBUILD**

⚠️ **WARNING**
Kadant Johnson advises sending the rotary union to the nearest Kadant Johnson facility in case a rebuild is needed or to do a rebuild in-house supervised by a Kadant Johnson specialist. Kadant Johnson does not take any responsibility for damage to internal parts, incorrect operation, or personal injury caused by improper rebuilds without consultation of Kadant Johnson.

*Dimensions are for reference only and subject to change. Certified drawings are available on request.*