Installation Instructions
for Type LJX™ Rotary Joints
with Cantilever Syphon Assembly

Follow your company’s safety procedures whenever working on Kadant Johnson products. Read all of the instructions before proceeding with the installation or repair.

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.

STEP 1.
Check to make sure that all debris has been removed from the piping and roll before installing the rotary joint. This will eliminate seal ring scoring and damage to internal rotary joint parts which could cause unnecessary downtime and maintenance.

NOTE: Some installations require the use of a support rod ring (100B). The support rod ring provides threaded holes for bearing covers without threaded holes for the support rods. If the installation requires the support rod ring skip Step 2 and proceed with Step 2A.

STEP 2.
Remove existing rotary joint, syphon and the support rods from the bearing cover. Install new support rods (100) into the bearing cover and tighten.

STEP 2A.
Remove existing rotary joint and the syphon. Install support rod ring (100B) onto bearing cover using cap screws provided and tighten. Install support rods (100) into the support rod ring and tighten. Make sure support rod ring is on center with the journal. The support rod ring should be centered on the journal to within 0.03" total indicated reading. Support rod ring should be perpendicular to journal's centerline within 0.01" total indicated reading.

STEP 3.
Remove cap screws (2A), head (2), and gasket (8) from the rotary joint assembly and set aside.

STEP 4.
Slide the quick release nipple flange (5) over the nipple (4) with its taper facing outward. Place two split wedges (55) into the recess of the nipple and slide the quick release nipple flange over the wedges.

STEP 5.
Refer to Figure 1. Care must be taken during assembly of the horizontal pipe so damage does not occur to the internal parts of the rotary joint. Remove retention nut (99A) and the multi-tab washer (99B) from the horizontal pipe (99) and set aside. Apply anti-seize compound onto the threads and taper of the horizontal pipe. Insert the horizontal pipe through the nipple (4) while engaging the key (99C) on the horizontal pipe into the retention plate (31). The retention plate allows for multiple syphon locations, refer to the assembly drawing to obtain correct syphon location. Install the multi-tab washer and the retention nut onto the horizontal pipe. Do not fully tighten the nut.

STEP 6.
Place a new metal gasket (8Q) into the recess in the journal flange. Lift the syphon vertical leg (99D) so that it is straight and in-line with the horizontal pipe.

STEP 7.
Install the rotary joint and syphon assembly by positioning the syphon into the roll's journal and aligning the lug support holes on the body (1) with the support rods (100). As the assembly is moved towards the roll, the syphon vertical leg (99D) will fall downward locking into place.
STEP 8.
Slide nipple (4) into the journal flange recess. Slide quick release nipple flange (5) over the journal flange studs and secure the flange with hex nuts (55A) provided.

NOTE: The quick release nipple flange (5) will not seat tightly against the face of the journal flange. When tight there will be approximately 1/8" to 3/16" (3 to 5 mm) space between the flanges. Make sure this gap is equal around the circumference of the flanges.

STEP 9.
Check the rotary joint components for alignment. The rotary joint body (1) should be level and square with the journal face. The nipple (4) should be centered in the rotary joint body. Adjust the support structure as required to align the rotary joint.

STEP 10.
Tighten the retention nut (99A) to 75 ft-lbs. Bend multi-tab lock washer (99B) over the retention nut (99A), locking the nut in place.

STEP 11.
Reinstall the head (2). Use the gasket (8) provided. Secure the head using cap screws (2A) and tighten.

NOTE: Some installations require the use of a retaining plate (10) on the rotary joint assembly. If the installation requires a retaining plate, proceed with Step 12. For installations without retaining plate, proceed with Step 13.

STEP 12.
Install nut (10A) onto each of the support rods (100). Position the nuts on the support rod to the dimension specified on the assembly drawing. Install retaining plate (10) onto the support rods and seat the plate on the nuts. Install a lock washer (10B) and the remaining nut onto each support rod and tighten. Check the retaining plate set up dimension referenced on the assembly drawing and readjust the nuts as necessary. As the seal rings wear, this space will decrease.

STEP 13.
Once the rotary joint is in position and properly aligned, slide a spacer (100A) over each of the support rods (100). Thread two seal ring wear indicator nuts (10A) on each support rod. Adjust both seal ring wear indicator nuts to the set up dimension referred to on the rotary joint drawing. Lock the seal ring indicator nuts together and confirm the set up dimension. As the seal rings wear, this space will decrease.

STEP 14.
Connect the piping using Kadant Johnson flexible metal hose. Two hoses should be used on both the inlet and outlet piping connections. The hose(s) should be long enough to minimize any piping loads on the rotary joint. The rotary joint must be free to move outward to compensate for seal ring wear.

NOTE: Connect the hose directly to the rotary joint. Minimize the use of fittings and pipe between the rotary joint and flexible hose. This increased weight can affect the performance of the rotary joint. Provide suitable support for the pipe and fittings beyond the hose.

Never apply oil or grease to this series of Kadant Johnson rotary joints. The saturated steam, condensate, or liquid passing through is the only lubrication required for the carbon-graphite parts.

Minimize running Kadant Johnson rotary joints dry. Excessive seal wear may occur.

The Kadant Johnson Warranty
Kadant Johnson products are built to a high standard of quality. Performance is what you desire: that is what we provide. Kadant Johnson products are warranted against defects in materials and workmanship for a period of one year after date of shipment. It is expressly understood and agreed that the limit of Kadant Johnson’s liability shall, at Kadant Johnson’s sole option, be the repair or resupply of a like quantity of non-defective product.

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