Installation Instructions
for Type IC™ Joints – 2000 Series

NOTE: Please follow your company’s safety procedures whenever working on Kadant Johnson rotary joints and read all of the instructions completely before proceeding.

Please refer to the assembly drawings supplied with your Kadant Johnson rotary joint for part identification. If you have any questions, please contact your representative or Kadant Johnson.

Tighten all fasteners in a star pattern. See joint assembly drawing for torque specifications.

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

STEP 2.
Remove the head (2) from the joint (leaving the assembly plate (31) attached) and remove the packing gland (10), locknut (30), and packing (35).

Make sure the pipe is clean and smooth where it seals in the packing gland.

NOTE: The horizontal pipe must be straight and true and attached within the roll so it rotates without wobbling. This will prevent straining internal joint parts which could cause leakage and the seal ring to break.

STEP 3.
Slide the quick release nipple flange (5) over the joint nipple (4) with the taper facing away from the joint housing.

STEP 4.
Place the copper gasket (8Q) into the journal flange recess where the joint nipple will seat.

STEP 5.
Slide the joint over the rotating horizontal pipe, being careful when the pipe passes through the opening in the thrust collar (3) not to damage either part. The inner rotating pipe should extend slightly beyond the gland (1/4” to 3/8” (6 to 10 mm)), but not enough to touch the joint head when it is reinstalled.

STEP 6.
Place the two split tapered wedges (55) into the recess of the nipple (4). Slide the quick release nipple flange over the wedges and secure to the journal flange studs with nuts provided. Tighten evenly. Note that the ‘Q’ nipple flange 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 two flanges.

STEP 7.
Using a suitable support, mount the rotary joint. Make sure components are in alignment, and that the nipple and thrust collar are aligned squarely with the wear plate and assembly plate. If necessary, loosen supports and realign joint. Gauge the running clearance between the nipple tube (4) and renewable wear plate (16). See drawing A97-16-3-13 for gauge size.

STEP 8.
Take hold of the body housing and pull it out away from the machine until it bottoms out, then push it back in 1/8” (3 mm). Total movement possible is 3/8” to 1/2” (10 to 13 mm).

STEP 9.
Adjust the support rod nuts in until they just touch the body housing lugs and lock both nuts together.
STEP 10.
Using the packing (35) furnished, repack the internal pipe in the thrust collar (3). Tighten the packing gland (10) just enough to seal (approximately 30 ft-lbs.), but not so tight as to lock on the pipe. Then tighten the locknut (30) against the thrust collar.

STEP 11.
Reattach the head (2) to the joint using head gasket (8).

STEP 12.
Connect the joint to piping using Kadant Johnson flexible hose. The hose(s) should be long enough so there is no binding or tension to move the joint off the journal center-line of the roll. When flanged hose is used, spool pieces in place of the hose are recommended for fabrication purposes (ask for spec sheet A97-PS-1615-4-1).

NOTE: Connect the hose as close to the joint as possible. Minimize the use of fittings and pipe. This increased weight can affect the performance of the joint. Provide suitable support for the pipe and fitting beyond the hose.

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

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

CAUTION
Check the rotary joint regularly to determine seal ring wear using a seal ring indicator. Seal wear indicator tools are available from Kadant Johnson. Refer to your installation drawing for seal ring wear checking procedures. Should the seal ring (6) wear away completely, the metal nipple can wear into the joint body, and eventually through it requiring extensive part replacement.

Dimensions and specifications are for reference only and subject to change. Certified drawings are available on request. Please refer to Kadant Johnson Drawing Number A37640 for torque specifications.