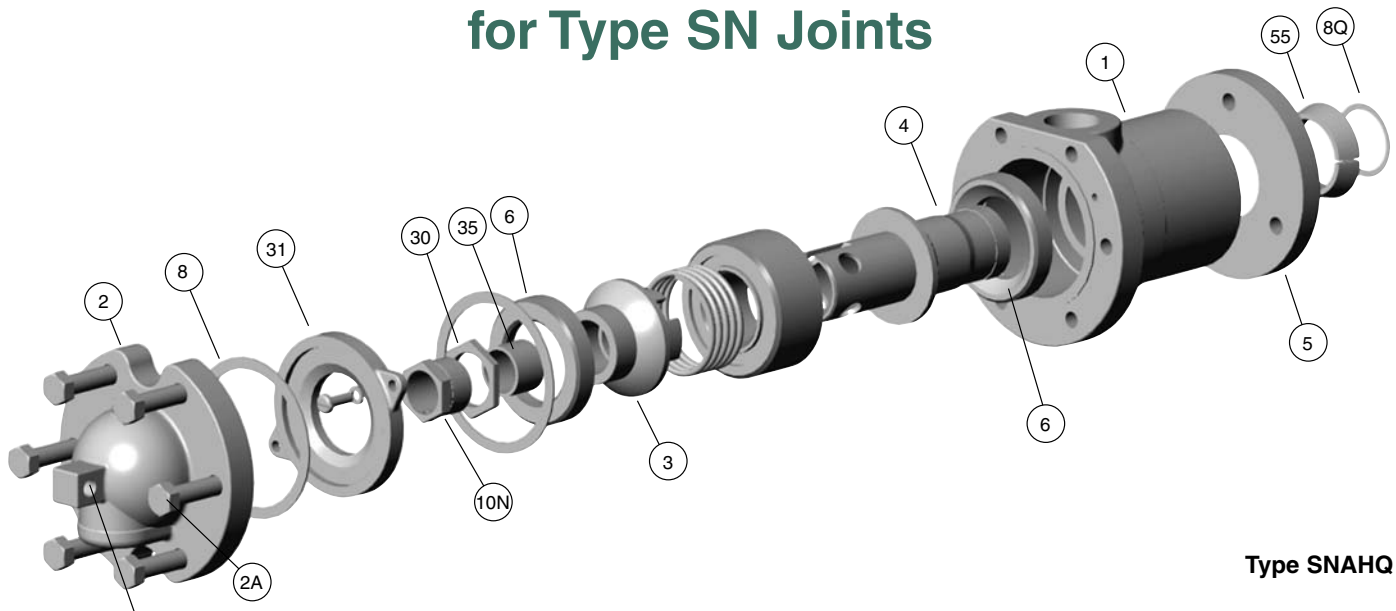


Installation Instructions for Type SN Joints



Type SNAHQ

Anti-rotation rod hole

NOTE: Please follow your company's safety procedures whenever working on Kadant Johnson rotary joints. 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, contact your Representative or Kadant Johnson.

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 (6) scoring and damage to internal joint parts, which could cause unnecessary downtime and maintenance.

STEP 2.

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

NOTE: Make sure the horizontal pipe is clean and smooth where it seals in the packing gland. The horizontal pipe must be straight and true. This will prevent the pipe from breaking and excessive pipe wear.

STEP 3.

For quick release style connections to your journal; place a new copper gasket (8Q) into the journal flange. Slide the quick release nipple flange (5) over the rotary joint nipple with its taper facing outward.

STEP 4.

Slide the joint over the horizontal pipe. Be careful when the pipe passes through the opening in the thrust collar (3). Do not damage either part. The horizontal pipe should extend 1/8" to 3/16" (3 to 5 mm) beyond the packing gland when installed.

STEP 5.

Place two tapered split wedges (55) into the recess of nipple (4). Slide the quick release nipple flange (5) over the tapered split wedges and secure to the journal flange studs with nuts

provided. Tighten evenly. Note that the quick release nipple flange will not seat tightly against the face of the journal flange. When tight, there will be 1/8" to 3/16" (3 to 5 mm) space between the two flanges. Measure the space to make sure it is even.

If the rotary joint has a threaded nipple connection for attachment to your roll, thread it into the journal and tighten.

STEP 6.

Using packing (35) furnished, repack the internal pipe in the thrust collar (3). Tighten the packing gland (10N) to 30 ft-lbs (41 Nm). Then tighten locknut (30) against the thrust collar.

STEP 7.

Attach the head (2) to the body (1) using head gasket (8) and bolts (2A). Tighten bolts in a star pattern, using the proper torque.

STEP 8.

Connect the piping to the joint using Kadant Johnson flexible metal hose. The hose(s) should be long enough so there is no binding or tension that will cause the joint to move off the journal centerline of the roll. See Table 2 for recommended minimum hose length.

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

STEP 9.

Install anti-rotation rods in the anti-rotation rod holes using Schedule 80 pipe. See recommended sizes for anti-rotation rods in Table 3. No more than two joints can be joined with one anti-rotation rod. Secure the rod in the anti-rotation rod hole of one joint with cotter pins and let the rod float in the anti-rotation rod hole of the second joint. The anti-rotation rod will absorb the torque generated by the joint, and prevent premature hose failure by reducing stresses.

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.

PROCEDURE FOR DETERMINING SEAL RING WEAR ON NEW OR REBUILT JOINTS

Check the rotary joint regularly for seal ring (6) wear. As seal ring wear occurs, the joint body moves away from the journal. Should the seal ring wear away completely, the nipple will wear into the joint body and eventually through it. This will result in a significant leak and create a hazardous condition. Lack of attention may require replacement of the entire joint instead of just the seal rings.

THIS PROCEDURE MUST BE PERFORMED WITH THE MACHINE STOPPED.

STEP 1.

After a new or rebuilt joint is installed, measure the X dimension from the face of the journal flange to the first machined joint surface as shown in Figure 1.

STEP 2.

Refer to Table 1 and determine the maximum seal ring wear for your joint size.

STEP 3.

Add the dimension for Step 1 to the dimension from Step 2.

STEP 4.

Periodically check the X dimension. When the X dimension equals the number in Step 3, the joint should be rebuilt.

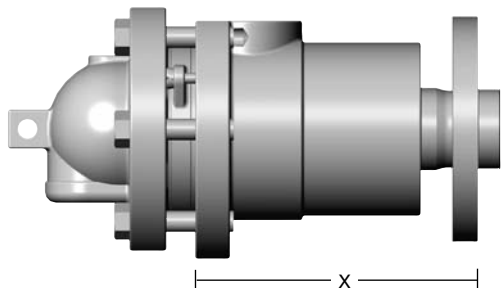


Figure 1

TABLE 1		
MAXIMUM SEAL RING WEAR (R)		
Joint Size	Seal Wear	
3/4"	1/4"	6 mm
1"	1/3"	9 mm
1-1/4"	3/8"	10 mm
1-1/2"	5/16"	8 mm
2"	1/3"	9 mm
2-1/2"	3/8"	10 mm
3"	7/16"	11 mm
3-1/2"	7/16"	11 mm
4"	9/16"	14 mm
5"	9/16"	14 mm
6"	7/16"	11 mm
7-1/2"	11/16"	18 mm
8"	13/16"	21 mm

TABLE 2		
RECOMMENDED MINIMUM HOSE LENGTHS		
Hose Size	Minimum Length	
1/4"	8"	200 mm
3/8"	10"	250 mm
1/2"	10"	250 mm
3/4"	12"	300 mm
1"	15"	380 mm
1-1/4"	18"	450 mm
1-1/2"	18"	450 mm
2"	21"	530 mm
2-1/2"	24"	610 mm
3"	27"	690 mm

TABLE 3			
RECOMMENDED SIZES FOR ANTI-ROTATION RODS			
Joint Size	Joint Number	Use Schedule 80 Pipe Size	
3/4"	2200	1/8"	3 mm
1"	2300	1/8"	3 mm
1-1/4"	2400	1/4"	6 mm
1-1/2"	2500	1/4"	6 mm
2"	2550	1/4"	6 mm
2-1/2"	2600	3/8"	10 mm
3"	2700	1/2"	12 mm

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.

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.

