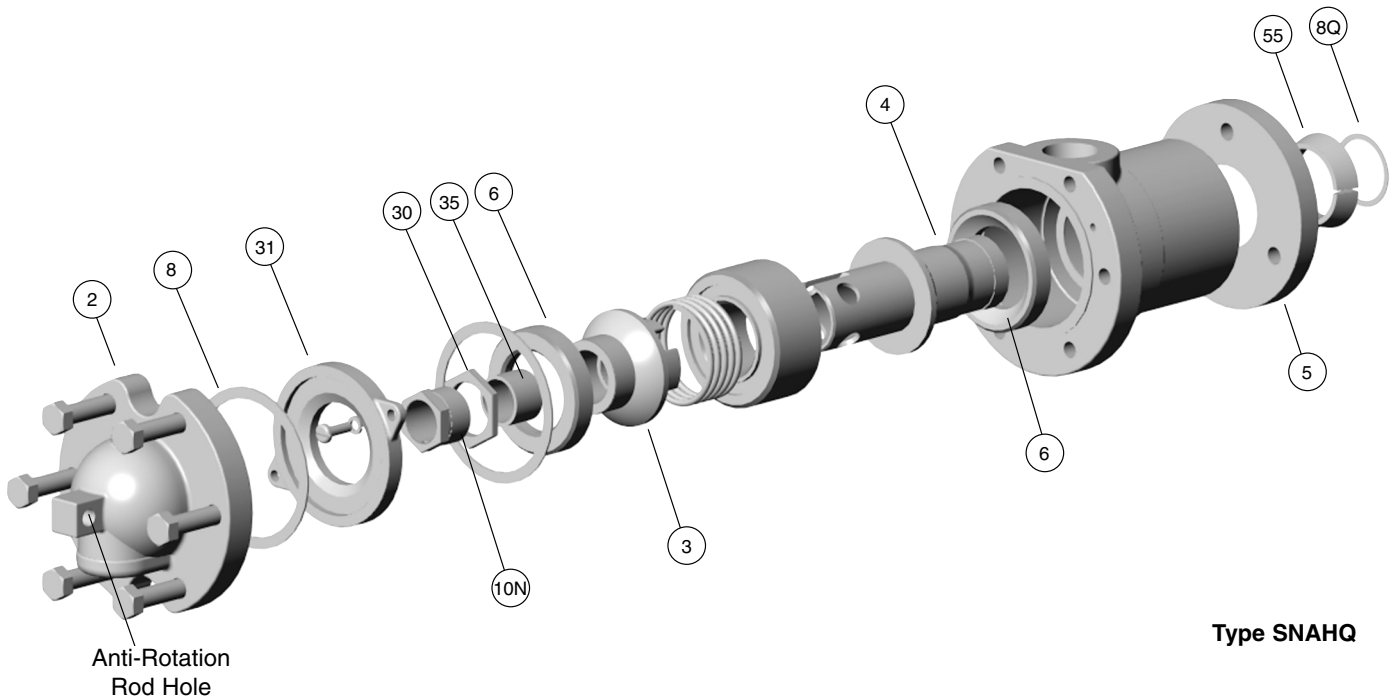


Installation Instructions for Type SN Joints



Type SNAHQ

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 further questions, please contact your Representative or Kadant Johnson.

STEP 1.

Check to make sure that all core sand, dirt, weld beads, pipe turnings, metal dust and other foreign matter has been removed from the piping, roll, dryer or cylinder before installing joint. This will help eliminate carbon seal ring 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).

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

IMPORTANT: THE HORIZONTAL PIPE MUST BE STRAIGHT, TRUE AND ATTACHED WITHIN THE ROLL SO IT ROTATES WITHOUT WOBBLING. THIS WILL PREVENT STRAINING INTERNAL JOINT PARTS WHICH COULD CAUSE LEAKAGE AND/OR BREAK THE CARBON SEAL RING.

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, being careful when pipe passes through the opening in the thrust collar (3) not to damage either part. The horizontal pipe should extend about 3mm – 5 mm slightly beyond the packing gland when installed.

STEP 5.

Place the two split taper wedges (55) into the recess of nipple (4). Slide the quick release nipple flange over the wedge 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 approximately 3mm – 5 mm space between the two flanges. Measure the gap to make sure it is even.

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

STEP 6.

Using packing (35) furnished, repack the internal pipe in thrust collar (3). Tighten packing gland (10N) just enough to seal (approximately 40 Nm), but not so tight as to lock onto the pipe. Then tighten locknut (30) against the thrust collar.

IMPORTANT: THE ROTARY JOINT MUST BE FREE TO MOVE OUTWARD ALONG THE PIPE TO COMPENSATE FOR SEAL RING WEAR.

STEP 7.

Reattach head (2) to the joint body housing using head gasket (8).

STEP 8.

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

IMPORTANT: 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 one of the anti-rotation rod holes. See recommended sizes for anti-rotation rods in Table 3. It is recommended that not more than two joints be joined with one anti-rotation rod. Secure the rod in the anti-rotation rod hole of one joint with collar pins and let the rod float in the anti-rotation rod of the second joint. This will absorb the torque generated by the joint, and prevent premature hose failure by reducing stresses.

NEVER APPLY OIL OR GREASE TO THIS SERIES OF KADANT JOHNSON JOINTS. THE SATURATED STEAM, CONDENSATE OR LIQUID PASSING THROUGH IS THE ONLY LUBRICATION REQUIRED FOR THE CARBON-GRAPHITE PARTS.

MINIMIZE RUNNING SN JOINTS DRY. EXCESSIVE CARBON SEAL WEAR MAY OCCUR.

CAUTION

Check the rotary joint regularly for carbon seal wear. Should the carbon seal ring (6) wear away completely, the metal nipple can wear into the joint body, and eventually through it. This will result in significant leakage, creating a possibly hazardous condition, and may require replacement of the entire joint instead of just the seal rings. See procedure for determining carbon seal wear.

PROCEDURE FOR DETERMINING CARBON SEAL RING WEAR.

STEP 1.

Measure the dimension (X) from the face of the journal flange to the first machine joint surface (or first gasketed area) as shown in Figure 1.

STEP 2.

Reference Table 1 for your particular joint size. Remember that as the carbon seal ring begins to wear the joint (due to pressure) moves away from the cylinder journal end.

STEP 3.

Determine what your dimension (X) is and add in the dimension in Table 1 that corresponds to the joint size.

STEP 4.

When dimension (X) equals the number you arrive at in Step (3) the carbon seal ring should be changed.

Figure 1

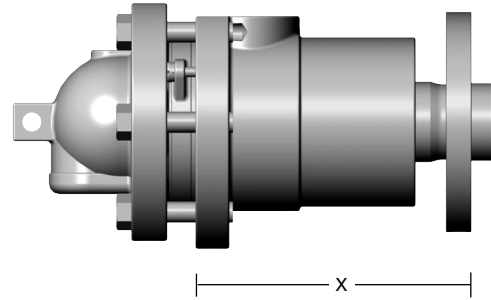


TABLE 1

Joint Size	Seal Wear (mm)
3/4"	6,5
1"	9,0
1-1/4"	10,2
1-1/2"	8,0
2"	9,0
2-1/2"	10,2
3"	11,1
3-1/2"	11,1
4"	14,3
5"	14,3
6"	11,1
7-1/2"	17,5
8"	20,6

TABLE 2

RECOMMENDED MINIMUM HOSE LENGTHS

Hose Size	Minimum Length (mm)
1/4"	200
3/8"	250
1/2"	250
3/4"	300
1"	380
1-1/4"	450
1-1/2"	450
2"	530
2-1/2"	610
3"	690

TABLE 3

RECOMMENDED SIZES FOR ANTI-ROTATION RODS

Joint Size	Joint Number	Rod Diameter
3/4"	2200	10mm
1"	2300	10mm
1-1/4"	2400	12mm
1-1/2"	2500	12mm
2"	2550	12mm
2-1/2"	2600	16mm
3"	2700	20mm

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.



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