Repair Instructions for the SNX Rotary Joint

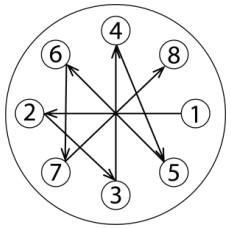
fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/sx-snx-rotary-joint/snx-repair

Effective: May 1, 2025

Introduction

Read all of the instructions before proceeding.

Refer to Kadant Johnson assembly drawing for part identification and to drawing A37640 for torque specifications. For easy identification, parts used in individual steps are often accompanied with their position in the assembly drawing [e.g. gasket (8B)].



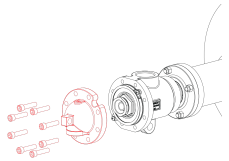
Tighten all fasteners in a star pattern. Certified drawings are available upon request. Dimensions are for reference only and subject to change.

Safety

⚠ This safety symbol alerts you to risk of death or injury if the instructions are not followed. In all steps, death or injury may result if the machine is not de-energized, depressurized, cooled, and stopped. Death or injury may occur if the product is operated with a fluid type or at a pressure, temperature, or speed that does not meet its specifications. Death or injury may occur if heavy parts and pinch hazards are not handled properly. Follow your company's safety procedures.

Step 1

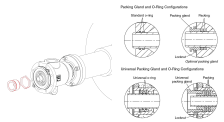
Disconnect the piping and anti-rotation device. Remove the head (2).



⚠ Equipment must be cool and free of pressure.

Step 2

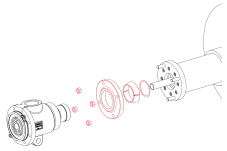
Loosen the packing gland locknut (30) and remove the packing gland (10N) from the rotary joint.



Note: There are four different horizontal pipe sealing configurations.

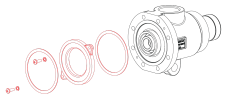
Step 3

Loosen and remove the nipple flange (5) and slide the rotary joint away from the journal. Remove the metal gasket (8Q) from the journal flange and discard. Remove the split wedges and nipple flange and save for reuse.



Step 4 - Servicing the Rotary Joint

Remove the assembly plate by loosening the two cap screws (31A).



⚠ Spring force present.

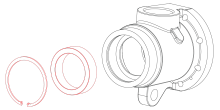
Step 5

Remove the internal parts - Inboard guide (10A), spring shoulder (3), spring (7), nipple (4), and seal ring (6). Remove the O-ring (3A) from the spring shoulder. Discard all items except the spring shoulder and nipple.

Note: The spring shoulder may be stuck on the nipple. Separate the two parts for inspection.

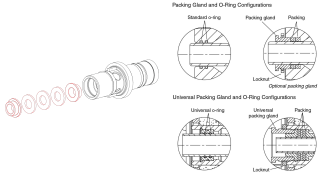
Step 6

Turn the body (1) over and remove the retaining ring (25) and the outboard guide (10B). Discard the guide.



Step 7

Remove the packing (35), packing rings (36), or O-rings from the nipple (4). Discard the packing and set aside the rings for later use.

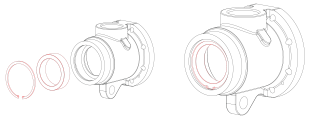


Step 8

Discard the seal ring, gaskets, guides, and O-rings. Inspect and clean all gasket, O-ring, and sealing surfaces. Replace any damaged parts.

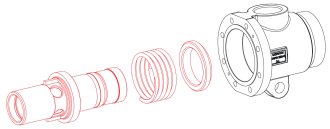
Step 9

Install a new outboard guide (10A) into the body (1) and secure with the retaining ring (25).



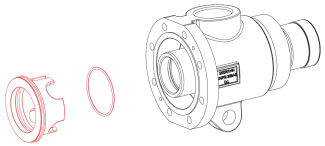
Step 10

Install a new seal ring (6) with the convex side facing inward. Install the nipple and spring.



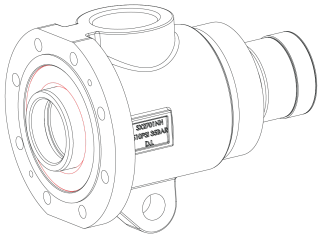
Step 11

Install a new O-ring (3A) into the spring shoulder (3). Install the spring shoulder over the nipple (4) by aligning the keys with the keyways on the spring shoulder.



Step 12

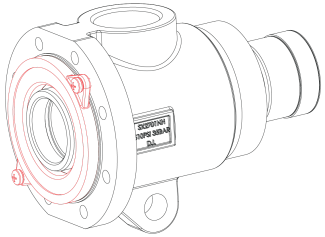
Install the inboard guide (10) into the body (1) with the groove on the guide facing the spring shoulder (3).



Step 13

Using a new gasket (8), install the assembly plate (31) onto the body (1).

Note: Make sure the keys and keyways are aligned by looking through the M (inlet) connection.

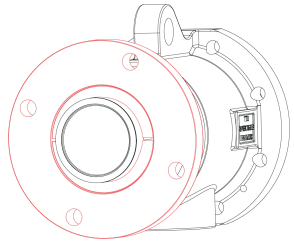


⚠ Spring force present during assembly plate installation.

Step 14 - Reinstallation

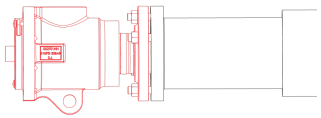
Slide the nipple flange (5) over the rotary joint nipple (4) with the taper facing out. Place the split wedges (55) into the recess of the nipple. Slide the nipple flange over the wedges.

Note: If the rotary joint has a threaded nipple connection, simply thread it into the journal.



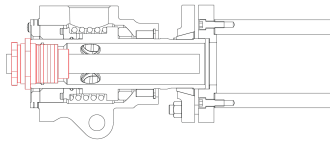
Step 15

Place metal gasket (8Q) into the journal flange. Lift the rotary joint up, slide over the horizontal pipe and into the journal flange. Secure to studs with nuts. An even gap of 1/8" to 3/16" (3 to 5 mm) should remain in between the journal flange and nipple flange.



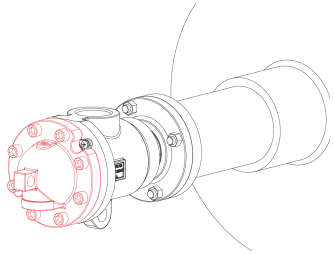
Step 16

Reinstall the packing (35), packing rings (36), packing gland (10N), and locknut (30). Apply approximately 30 ft-lbs. (41 Nm) of torque to the gland and tighten the lock nut.



Step 17

Using a new gasket (8), install the head. Reattach the piping and anti-rotation device.



R-SNX

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 the 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.

Kadant Johnson rotary joints and accessories could be subject to European Pressure Equipment Directive 2014/68/EU (PED). Modifications or changes to rotary joints and/or accessories are only permitted upon approval of Kadant Johnson. Only genuine Kadant parts and original accessories will ensure the safety of these assemblies. The use of other than original parts voids the warranty and will lead to forfeiture of the declaration of conformity and will invalidate any liability for damages cause thereby.