# **Repair Instructions for the 2800** and 2950 ELSNAHRFZQ Rotary **Joint**

fluidhandling.kadant.com/en/knowledge-center/installationand-repair-instructions/repair-instructions-for-the-2800-2950elsnahrfzq-rotary-joint

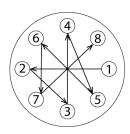
Effective: April 5, 2024



# 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 do 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

Remove the packing gland (10N), and locknut (30) from the rotary joint.



#### Step 3

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



# **Step 4 - SERVICING THE ROTARY JOINT**

Remove the assembly plate (31) assembly.

Note: Place the rotary joint in a large press or use threaded rods and a bar to capture the assembly plate assembly.





Spring force present during assembly plate removal.

#### Step 5

Remove the retaining ring (16B), front guide (6A), and O-ring (31B) from the assembly plate. Remove the assembly consisting of the nipple (4), spring shoulder (3), O-ring (3A), spring (7), and seal ring (6).



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

#### Step 6

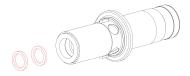
Separate the wear plate (16) from the body. Remove the rear guide (6B) by removing the retaining ring (16B).



Note: If there is a woodruff key present, discard it.

# Step 7

Remove the packing (35) from the nipple.



# Step 8

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

#### Step 9

Install a new rear guide into the wear plate and secure with the retaining ring. Using a new gasket, install the wear plate on the body.





# Step 10

Turn the rotary joint upright and install a new seal ring, with the convex side facing the wear plate. Install the nipple into the body followed by the spring.



#### Step 11

Install a new O-ring into the spring shoulder. Install over the nipple by aligning the keys with the spring shoulder keyways.



# Step 12

Install a new O-ring into the assembly plate. Install a new front guide and secure with the retaining ring.



## Step 13

Using a new gasket, install the assembly plate onto the body.





Spring force present during assembly plate installation.

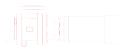
# **Step 14 - REINSTALLATION**

Slide the nipple flange over the rotary joint nipple with the taper facing out. Place the split wedges into the recess of the nipple. Slide the nipple flange over the wedges.



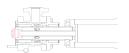
#### Step 15

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

Install new packing, along with the packing gland, and locknut. Apply approximately 30 ft-lbs. (41 Nm) of torque to the gland and tighten the locknut.



# Step 17

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



#### R-2800 and 2950 ELSNAHRFZO

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.