


# Repair Instructions for the 1050 ELSN

 [fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/1050-elsn-r](https://fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/1050-elsn-r)

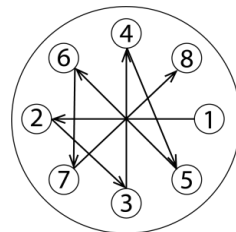
Effective: October 1, 2023




## 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.




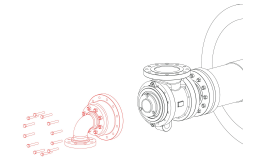
## Safety

 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

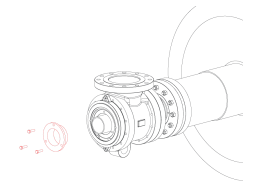
Disconnect the piping and anti-rotation device. Remove the head (2) and flanged head (2A) assembly.

 Equipment must be cool and free of pressure.



## Step 2

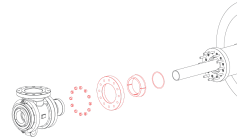
Remove the lock wire (10B) from the cap screws (10A). Remove the packing gland (10).




## Step 3

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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 for the rotary joint and save for reuse.

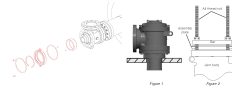


 Heavy object. Rigging or hoist recommended.


## Step 4 - SERVICING THE ROTARY JOINT

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Remove the assembly plate (31) by loosening the two cap screws (31A). Remove the retaining ring, inboard guide (6A), dowel pins (16B), and O-ring (31B). Discard the guide and O-ring.



**NOTE:** Place the rotary joint in a large press or use threaded rod and a bar to capture the assembly plate.

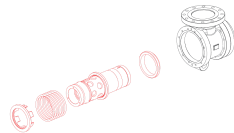
 Spring force present during assembly plate removal.

## Step 5

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Remove the assembly consisting of the nipple, spring shoulder, spring, and seal ring.

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



## Step 6

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Separate the wear plate from the body. Remove the outboard guide (6A) by removing the retaining ring.



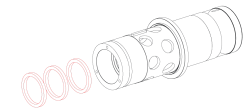
**IMPORTANT:** The cap screws that attach the wear plate to the body are two different lengths. Note their locations.

**NOTE:** If there are dowel pins present in the wear plate, remove and discard. They are not needed.

## Step 7

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Remove the packing (35) from the end of the nipple and discard.



## Step 8

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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

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Install a new outboard guide (10B) into the wear plate and secure with the retaining ring (16A). Using a new gasket, install the wear plate on the body.



**NOTE:** Refer to step 6 for the proper cap screw locations.

## Step 10

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

## Step 11

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

## Step 12

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Lubricate and install a new O-ring (31B) into the assembly plate. Slide a new inboard guide into the assembly plate and align the dowel pin slots with the slots on the assembly plate. Install the dowel pins (16B). Install the retaining ring.

**NOTE:** Make sure the retaining ring is positioned to hold (over-lap) the dowel pins in their slots.

## Step 13

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

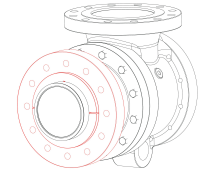
**NOTE:** Make sure the key and the keyways are aligned.

 Spring force present during assembly plate installation.

## Step 14 - REINSTALLATION

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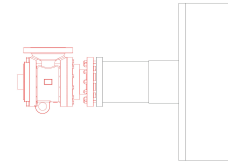
Slide the nipple flange over the rotary joint nipple with the taper facing out. Place the split wedges into the recess of the nipple. Slide the nipple flange over the wedges.



## Step 15

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Place metal gasket (8Q) into the journal flange. Lift the rotary joint up, slide it over the horizontal pipe and into the journal flange. Secure to studs with nuts. An even gap should remain in between the journal flange and nipple flange.

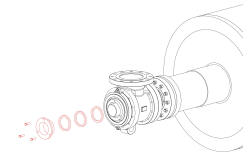


 Heavy object. Rigging or hoist recommended.

## Step 16

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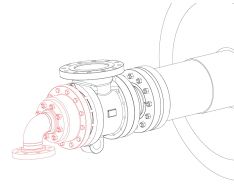
Install the packing followed by the packing gland. Secure into place with cap screws and tighten evenly to 30 ft-lbs (41 Nm). Install lock wire.



## Step 17

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



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### R-1050-ELSN

#### 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.