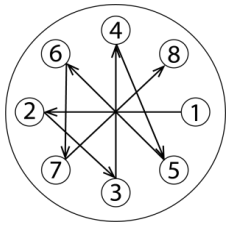
Repair Instructions for the LJX™ with Supercurve™ Syphon

fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/repair-instructions-for-the-ljx-supercurve

Effective: February 12, 2026

Introduction

Read all of the instructions before proceeding.



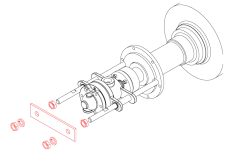
Refer to Kadant Johnson assembly drawing for part identification and to drawing A37640 for torque specifications. For easy identification, parts used in individual steps are often accompanied with their position in the assembly drawing [e.g. gasket (8B)]. Tighten all fasteners in a star pattern. Certified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

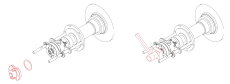
Disconect the piping. Remove the nuts, lock washers, retaining plate (if present), and remaining nuts from the support rods.



⚠ Equipment must be cool and free of pressure.

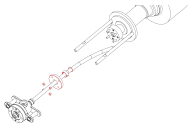
Step 2

Remove the head. Bend the tab back on the multi-tab washer and loosen the retention nut. Do not fully remove the nut. Using a soft hammer or block of wood, strike the end of the horizontal pipe. This will break the tapered seal.



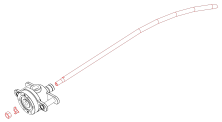
Step 3

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

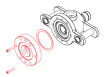
Remove the retention nut and the multi-tab lock washer and slide the syphon assembly out of the rotary joint. Set aside for reuse.



Step 5 - Servicing the Rotary Joint

Remove the retention plate (31).

⚠ Spring force present during retention plate removal.



Step 6

Remove the front seal ring (6), thrust collar (3), spring (7), nipple (4), and the back seal ring (6).

Step 7

Discard the seal rings and gaskets. Inspect and clean all gasket and sealing surfaces. Replace any damaged parts.

Step 8

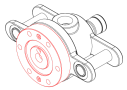
Install a new front seal ring (6) followed by the nipple (4), spring (7), thrust collar (3), and back seal ring (6).

Note: The front seal ring is installed with the concave side facing out. The back seal ring is the opposite with the convcave side facing in.

Important: Using the body inlet connection, make sure that the keyways on the thrust collar aligns with the keys on the nipple.

Step 9

Using a new gasket, attach the retention plate compressing the internal components.



⚠ Spring force present during retention plate installation.

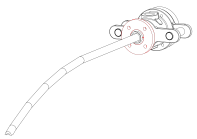
Step 10 - Reinstallation

Apply anti-seize compound to the threads and tapered portion of the horizontal pipe. Carefully pass the horizontal pipe through the nipple until the key on the horizontal pipe is engaged with the keyway in the retention plate (31). Install the multi-tab washer and the retention nut on the horizontal pipe. Do not fully tighten the nut.

Note: The retention plate allows for multiple syphon locations. Refer to the assembly drawing for the correct location.

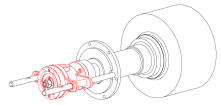
Step 11

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.



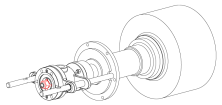
Step 12

Place the metal gasket (8Q) into the journal flange. Lift the rotary joint up, slide onto the support rods 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.



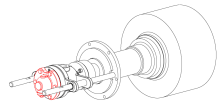
Step 13

Tighten the retention nut to 75 ft-lbs. Bend multi-tab lock washer over the retention nut.



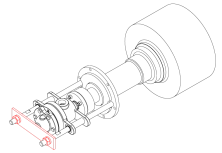
Step 14

Install the gasket (8) and head.



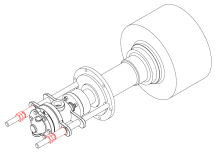
Step 15

For installations using a retaining plate, install a nut on each rod to the dimension on the assembly drawing. Install the retaining plate. Install the remaining lock washers and nuts to secure the retaining plate in place. Verify the set-up dimension on the assembly drawing.



Step 16

For installations using spacers, install a spacer on each rod. Install a nut on each rod to the specified set-up dimension on the assembly drawing. Install the lock washers and remaining nuts and lock into place.



R-LJX-Supercurve

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.