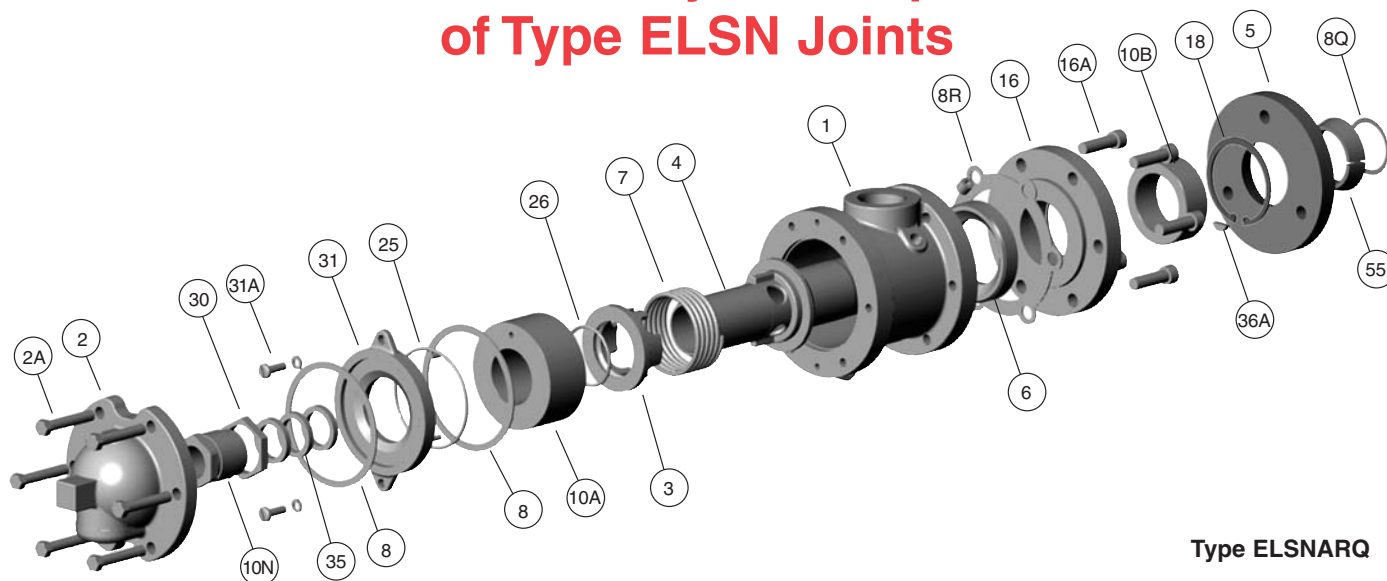


Disassembly and Repair of Type ELSN Joints



Type ELSNARQ

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 questions, please contact your representative or Kadant Johnson.

Tighten all fasteners in a star pattern. See joint assembly drawing for torque specifications.

REPAIR KITS ARE AVAILABLE CONSISTING OF:

Item #	Qty	Description
6	1	Seal Ring
10A	1	Front Carbon Guide
10B	1	Back Carbon Guide
8	2	Gaskets
8R	1	Gasket
25	1	O-Ring
26	1	O-Ring
35	3	Packing

NOTE: Do not use anti-seize or petroleum-based products on o-rings. Only lubricate the o-rings with the silicone lubricant supplied with the Kadant Johnson repair kit.

REMOVAL:

STEP 1.

Release residual pressure in the system. Close the inlet and outlet valve. Allow the joint to cool sufficiently and then disconnect the inlet and outlet piping from the joint and remove anti-rotation rod.

STEP 2.

Remove head (2) by removing the hex head cap screws (2A). Loosen the packing gland locknut (30) and remove the packing gland (10N).

STEP 3.

Remove hex nuts allowing flange (5) to slide away from the journal flange, exposing the two tapered split wedges (55).

Remove the rotary joint from the machine for rebuilding. Separate the split wedge (55) and remove flange (5). Use caution. Do not drop the split wedges. Set split wedges and flange aside for reuse.

SERVICING THE JOINT:

STEP 4.

Loosen and remove the two round head screws (31A), freeing assembly plate (31). Caution: there is spring tension behind this plate. The assembly plate gasket (8) may be holding the plate in place.

STEP 5.

Lift off the assembly plate and remove the o-ring (25), front carbon guide (10A), nipple (4) assembly consisting of the spring shoulder (3), o-ring (26) and the spring (7), and the seal ring (6).

STEP 6.

Separate the wear plate (16) from the body (1) by removing the hex head cap screws (16A). Inspect the flat surface of the wear plate where the seal ring runs against it. If this surface is scratched or grooved, replace the wear plate. If the wear plate is in serviceable condition, replace the rear guide (10B) by removing the retainer ring (18) freeing the carbon guide. If woodruff key (36A) is present, remove and discard. It will not be reused.

STEP 7.

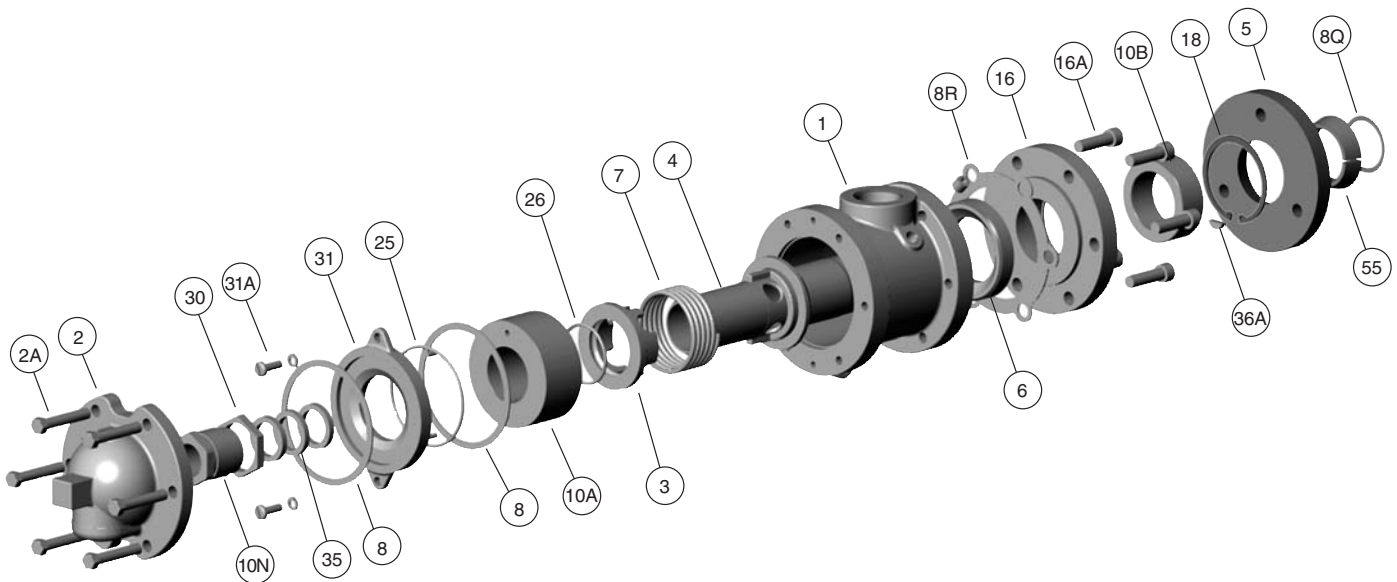
Clean all gasket surfaces.

STEP 8.

Slide the spring shoulder (3) off the nipple tube (4). Located inside of the spring shoulder is an o-ring (26). Remove it and clean its groove with Scotch-brite® and solvent. Replace spring shoulder if it is steam cut or worn. Also clean the o-ring's sealing surface on nipple tube (4). Discard nipple if o-ring surface is damaged.

STEP 9.

Remove the packing (35) from the end of the nipple (4) and discard it. Inspect the nipple's sealing and bearing surfaces for scratches, grooves, or pits. If there is deterioration in these areas, replace the nipple.



STEP 10.

There is an o-ring groove located on the face of assembly plate (31). Remove the o-ring. Clean the o-ring groove and assembly plate with solvent and Scotch-brite®. No scratches or pits should exist. Replace if damaged.

STEP 11.

Install a new rear carbon guide (10B) into the wear plate (16). Install the retainer ring (18) into the groove to secure the rear carbon guide. Install the wear plate on to the body (1) using a new gasket (8R). Secure wear plate with hex head cap screws (16A).

STEP 12.

Turn the rotary joint housing upright and install a new seal ring (6), flat side down, concave side facing outward. Caution: seal rings are brittle. Please handle with care.

STEP 13.

Install nipple (4) into the body through the rear guide. Check the spring (7) for cracks. If no cracks are found, install the spring.

STEP 14.

Lubricate and install a new o-ring (26) into the groove on the spring shoulder (3). Align the key on the nipple (4) with the keyway on the spring shoulder (3) and slide the spring shoulder onto the nipple.

STEP 15.

Set the front guide (10A) over the nipple. The two pin holes need to face outward.

STEP 16.

Place a new o-ring (25) into the groove on the face of assembly plate (31).

STEP 17.

Set gasket (8) on the end of the body.

STEP 18.

While aligning the two pins on the assembly plate (31) with the

holes in the front guide, push down on the assembly plate, and secure with the round head screws (31A). Keys and keyways, pins and pin holes should be properly positioned.

REINSTALLATION:

STEP 19.

Prior to installing the rotary joint on the machine, place a new metal gasket (8Q) into the recess of the journal flange.

STEP 20.

Reinstall 'Q' nipple flange (5) over nipple (4) with the taper facing the journal flange.

STEP 21.

Place the tapered split wedge (55) into the recess of nipple (4) and secure by sliding the 'Q' nipple flange over the wedge.

STEP 22.

Slide the rotary joint over the horizontal pipe and engage the 'Q' nipple flange (5) over the studs of the journal flange. Secure by evenly tightening the jam nuts.

Note: this flange will not fit tightly against the journal flange. There should be a 1/8" to 3/16" (3 to 5 mm) space between both flanges. Make certain this gap is equal around the circumference of the flange.

STEP 23.

Insert new packing rings into the packing gland. See joint assembly drawing for quantity.

STEP 24.

Tighten the gland (10N) to 30 lbs/ft (41 Nm). Tighten locknut (30). Reinstall head (2) with a new gasket (8). Reinstall anti-rotation rod.

Reattach the piping and open the valves. The rotary joint is now ready to be placed back in service.

Dimensions are for reference only and subject to change. Certified drawings are available on request. Please refer to Kadant Johnson Drawing Number A37640 for recommended

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.

