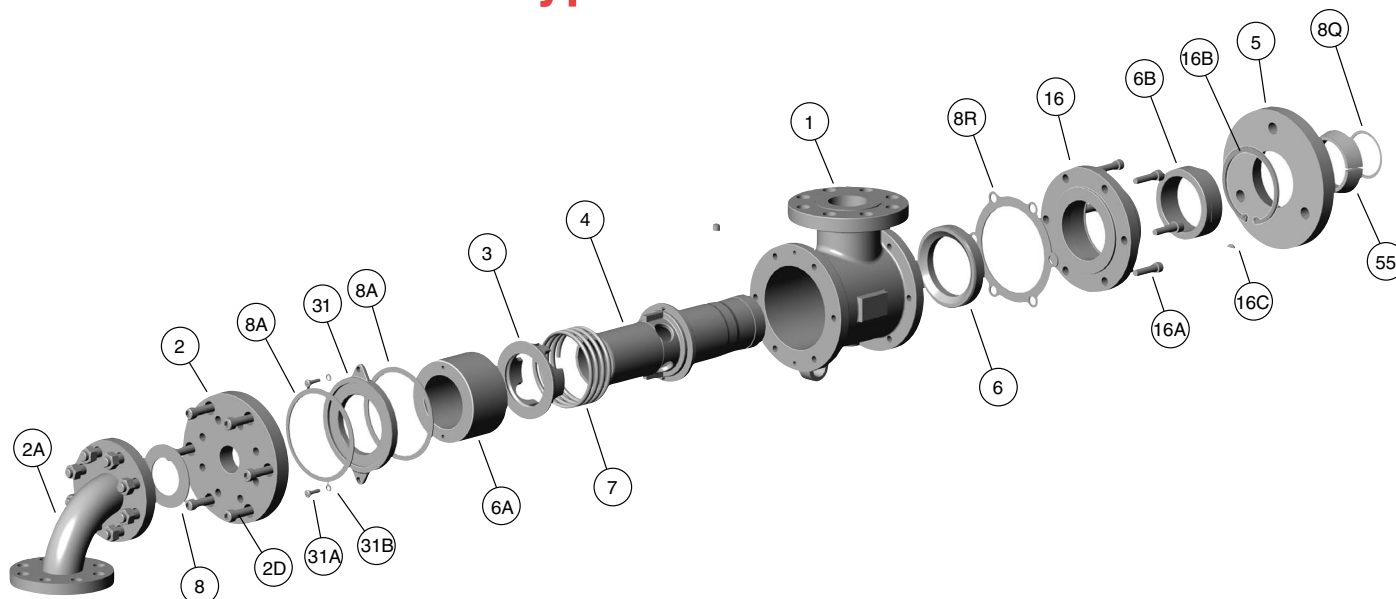


Disassembly and Repair of Type ELSA Joints



Type ELSARFZQ

REPAIR KITS ARE AVAILABLE CONSISTING OF:

Item #	Qty	Description
4	1	Nipple (If needed)
6	1	Carbon Seal Ring
6A	1	Front Carbon Guide
6B	1	Back Carbon Guide
8A	2	Ring Gasket
8Q	1	Copper Gasket (If required)
8R	1	Full Face Gasket
16	1	Wear Plate (If needed)
16B	1	Retaining Ring

NOTE: See "Special Instructions For Rebuilding Kadant Johnson Rotary Joints Used on Heat Transfer Oils" Sheet # R-O-101. This sheet offers additional information on seal ring, nipple and wear plate preparation (lapping) that is recommended for Hot Oil Service.

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 further questions, please contact your Representative or Kadant Johnson.

REMOVAL:

STEP 1.

Close the inlet and outlet valves and allow the joint to cool down. Disconnect piping from the joint, remove anti-rotation rod and restraining yoke (if used).

STEP 2.

Uncouple the nipple from the journal flange. For threaded nipple joints, unscrew nipple from journal. For joints with quick release nipples, remove hex nuts from the studs at the nipple

flange (5). Slide nipple flange away from journal to expose two split taper wedges (55). Remove wedges.

STEP 3.

Slide joint forward (away from the machine), to expose horizontal pipe. Using pipe wrench, unscrew the pipe from the joint head (2), and slide the joint off the pipe. A copper gasket (only on quick release joints) (8Q), located in the journal adapter, should be removed and discarded. The joint is now ready to be serviced.

SERVICING THE JOINT:

STEP 4.

Remove head (2) by removing the socket head cap screws (2D).

STEP 5.

Loosen and remove the two round head screws (31A) freeing assembly plate (31). Caution is advised, as there is spring tension behind this plate. The assembly plate gasket may be stuck, holding this plate in place. Pry loose if required.

STEP 6.

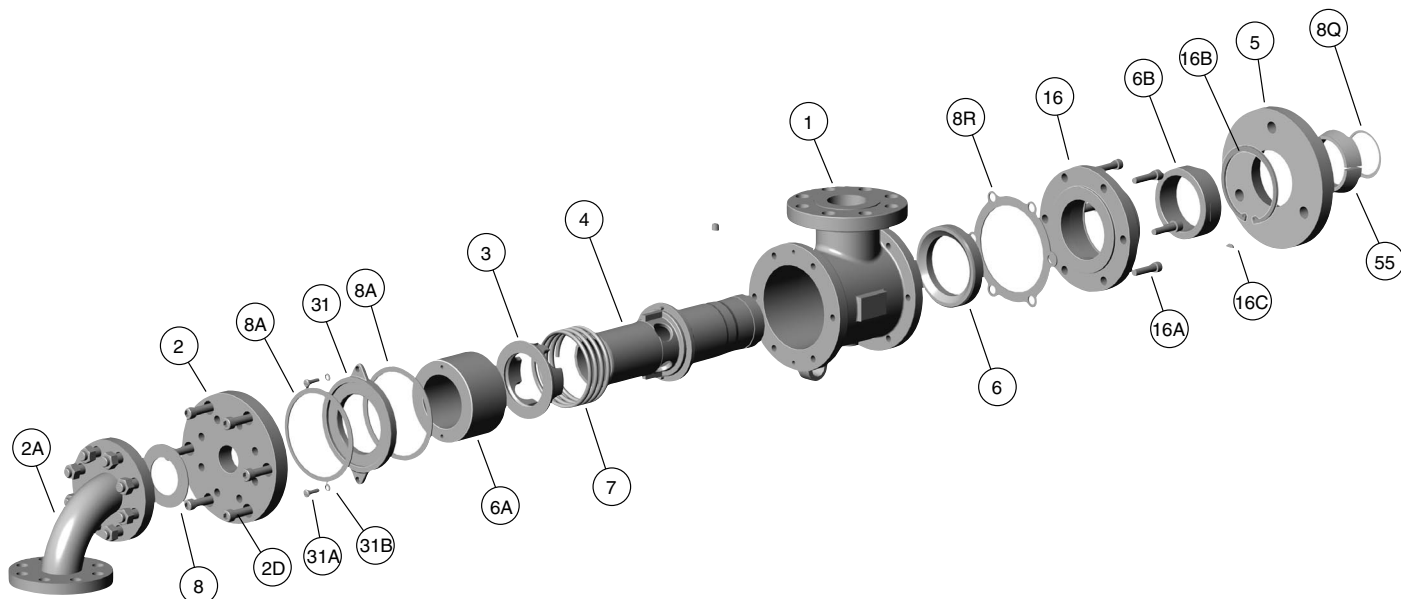
Lift off the assembly plate and remove the remaining parts in the following order: front carbon guide (6A), nipple (4) with spring shoulder (3) & spring (7) and then remove seal ring (6).

STEP 7.

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 back guide (6B) by removing the retainer ring (16B) freeing the back carbon guide. Retain the woodruff key (16C).

STEP 8.

Clean all gasket surfaces.



Type ELSARFZQ

STEP 9.

Slide the spring shoulder (3) and spring (7) off the nipple (4).

STEP 10.

Inspect the nipple's sealing and bearing surfaces for scratches, grooves or pits. If there is deterioration in these areas, replace the nipple.

STEP 11.

Install a new back carbon guide (6B) into the wear plate (16) making sure the woodruff key slot faces toward the retainer ring groove. Position the woodruff key (16C) into its slot. Install the retainer ring (16B) into the groove to secure the back carbon guide. Make sure the retainer ring is positioned to hold (overlap) the woodruff key in the slot. Install the wear plate onto the body (1) using a new gasket (8R). Secure wear plate with hex head cap screws (16A) using a star pattern for a tightening sequence. Please see the Kadant Johnson drawing supplied with the joint for torque specifications.

STEP 12.

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

STEP 13.

Reinstall nipple (4) back into the body through the back guide (6B), followed by the spring (7).

STEP 14.

Align the key on the nipple (4) with the key-way on the spring shoulder (3) and slide the spring shoulder onto the nipple.

STEP 15.

Set the front guide (6A) over the nipple next. The two pinholes should face outward.

STEP 16.

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

STEP 17.

While aligning the two pins with the holes in the front guide, push down on the assembly plate and secure with the round head screws (31A) and lock washers (31B). Keys and keyways, pins and pinholes, should align. Reinstall head (2) with elbow (2A) attached with a new gasket (8A).

STEP 18.

Thread syphon pipe into the joint head and tighten with a pipe wrench.

REINSTALLATION:

STEP 19.

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

STEP 20.

Reinstall 'Q' nipple flange (5) over nipple (4).

STEP 21.

Into the recess of nipple (4) place the two tapered split wedges (55) and secure by sliding the 'Q' nipple flange back over the wedges.

STEP 22.

Slide the rotary joint into the recess in the journal and engage 'Q' nipple flange (5) over the studs. Secure by evenly tightening the jam nuts.

Note that this flange will not fit tightly against the journal. There should be a space between both flanges. Make certain this gap is equal around the circumference of the 'Q' nipple flange.

STEP 23.

Reconnect the piping and joint will be ready for 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 torque specifications.

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.



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