

Installation Instructions for the 9800 PT2X Rotary Joint

KA fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/piston-type-pt-ptx-pt2x-rotary-joints/installation-instructions-for-the-9800-pt2x-rotary-joint

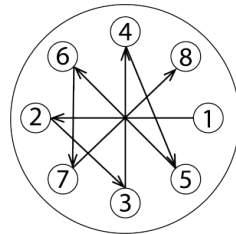
Effective: April 5, 2024



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.

Tools

Tools Per Crew

(2) 9/16" Combination Wrenches
(2) 3/4" Combination Wrenches
15/16" Combination Wrench
15/16" Shallow Socket
1/4" Hex Head Socket

5/16" Hex Head Socket
3/8" Hex Head Socket
1/2" Hex Head Socket
(2) 6 1/2" Drive Extension
0 to 150 lbs Torque Wrench
1/2 to 3/8" Square Drive Reducer
3 lbs Hammer
Gasket Scraper

To Pass Between Crews

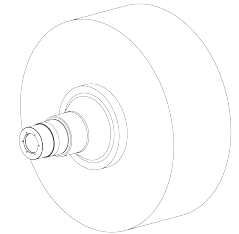
3 3/4" Socket and necessary adaptors for torque wrench
400 lbs Torque Wrench

Step 1

Remove existing equipment. Clean journal gasket surface. Chase and clean tapped holes. If necessary remove bearing cover.

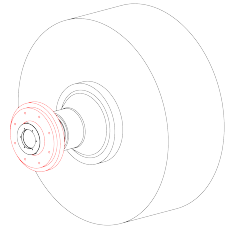


Equipment must be cooled and free of pressure.



Step 2

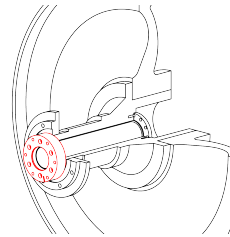
If installing a bearing cover, clean and apply sealer to bearing housing. Slide over housing and secure with cap screws (20C).



Step 3

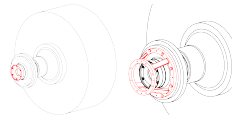
If installing insulating sleeve, refer to "Insulating Sleeve Installation Instructions." Place journal flange, gasket (8B), and filler flange (if necessary) onto journal and secure using cap screws (5A).

Insulating Sleeve Installation Instructions



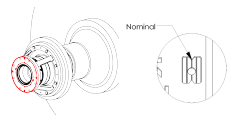
Step 4

Place wear plate and gasket (8A) onto journal flange and secure with cap screws (16A). Install ring bracket with cap screws (20C).




Step 5


Clean the mating surfaces of the wear plate, seal ring (6), and nipple. Attach the seal ring and end cap assembly with four cap screws (3C).



Tip: From the inside of the seal ring, use your finger tips to balance the seal ring while installing the end cap assembly.

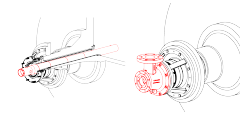
Important: After fastening the end cap assembly, the groove with the dimple should be within the viewing window. If not, the setup dimension is incorrect, please contact Kadant Johnson.

 Pinch hazard during end cap assembly installation.

 Spring force present during end cap assembly installation.

Step 6, Option 1

Insert support tube from **outside dryer**. This requires adequate clearance between the dryer hood and the journal.



Remove support tube nut and lubricate with anti-seize.

Insert plane end of support tube through rotary joint and journal bore. Leave tapered end protruding from end cap 7" (178 mm). Apply anti-seize to the tapered portion of the support tube. Lubricate pre-assembled body and support tube O-ring with silicone lubricant.

Position the body over the support tube and align the pin with the support tube indexing slots.

Position both over studs on the ring bracket and secure with hex nuts (20B).

IMPORTANT: The support tube must be installed with the indexing slot at the 12 o'clock position.

Step 6, Option 2

Insert support tube from **inside dryer**.

Remove support tube nut and lubricate nut and tapered portion of support tube with anti-seize. Lubricate pre-assembled body and support tube O-ring with silicone lubricant. Position the body over the studs on the ring bracket and secure with hex nuts (20B).

From inside the dryer insert the tapered end of the support tube into the journal. Align the pin in the body with the support tube indexing slots and push into position.

IMPORTANT: The support tube must be installed with the indexing slot at the 12 o'clock position.

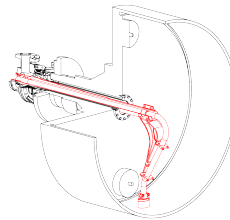
Step 7

Insert two bent lock washer tabs into the body and install support tube nut, torquing to 400 ft-lbs (542 Nm). Bend two lock washer tabs over the bolt flats to prevent bolt loosening.



Step 8

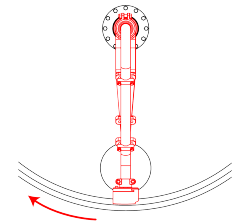
From inside the dryer, apply thread sealer to the horizontal pipe, then screw it into the vertical pipe. Slide pick-up fitting, onto the vertical syphon pipe. Slide the pick-up fitting, support bracket and vertical pipe into the support tube until the horizontal pipe slides through the O-ring and the support bracket fits over the end of the support tube. Secure the vertical syphon pipe to the support bracket using clamps and hex nuts provided.



Step 9

Final Syphon Adjustment.

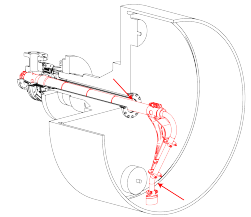
Check support bracket is vertical and syphon pick-up fitting is at the bottom of the dryer and pointed into the rotation of the dryer. Adjust circular portion of the support tube bracket so that it is 4" (102 mm) from the end of the support tube. If the dryer has a groove, center the pick-up foot in the groove. Tighten support bracket clamp bolts to 50 ft-lbs (68 Nm). Set the pickup clearance per Kadant Johnson specifications using a gauge. Secure by tightening cap screws/hex nuts.



Step 10

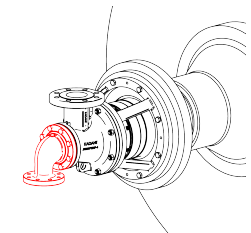
Make sure the syphon clears all obstructions, including counter weights, manway, and Turbulator® Tube™ bars.

Check the support tube clearance through the journal is at least 3/16" (5 mm). Tighten support bracket clamp cap screws to 50 ft-lbs (68 Nm).



Step 11

Place gasket (8) on head and install head on body with cap screws (2A). Pipe the rotary joint.



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.