Installation Instructions for Type 3500SXBPHQ Rotary Joint and Stationary Syphon

Follow your company’s safety procedures whenever working on Kadant Johnson products. Read all of the instructions before proceeding with the installation or repair.

Please refer to the Kadant Johnson assembly drawing for part identification. Assembly drawings are available on request from Kadant Johnson.

Lubricate all fasteners with anti-seize compound. Tighten all fasteners in a star pattern. Torque specifications are listed on the product assembly drawing and are available from Kadant Johnson.

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. Prior to handling lubricants, consult MSDS information.

STEP 1.
Place the gasket (90A) over the support tube (90) and position it on the flanged end. Slide the support tube down the journal. Secure the support tube to the journal with cap screws (90B). See Figure 1.

STEP 2.
Remove the head (2) from the rotary joint. Remove the following items from the head: two cap screws (13) with lock washers (13A), pressure plate (12), and split wedges (55A). Set these items aside.

STEP 3.
Place a new metal gasket (8Q) into the recess of the support tube (90). Slide the quick release flange (5), with the taper facing away from the rotary joint, over the nipple (4). Place the two split taper wedges (55) into the recess of the nipple and then slide the quick release flange over them. Lift the rotary joint up and place the nipple into the recess of the support tube. Place the quick release flange onto the studs. Secure by using the nuts provided. Note that the quick release flange will not seat tightly against the face of the support tube. When tight, there will be a 1/8” to 3/16” (3mm to 5mm) space between the two flanges.

STEP 4.
Slide the pressure plate (12) onto the threaded end of the horizontal pipe (99). Thread the head (2) onto the horizontal pipe and tighten so that when installed the vertical leg (10B) will be pointed down. Secure the horizontal pipe to the head by using the pressure plate, split wedges (55A), two cap screws (13), and lock washers (13A). Note: The standard position of the key on the horizontal pipe is 12 o-clock. There are more positions available. Consult Kadant Johnson before these options are considered. See Figure 2.

STEP 5.
Slide the gasket (8) over the vertical leg (10B) and horizontal pipe (99) and place it on the head (2). Apply anti-seize to the threaded insert (10C) located in the 90 degree elbow (10). Carefully, slide the vertical leg and horizontal pipe with the head attached into the rotary joint. Secure the head to the rotary joint with cap screws (2A). Important: Be careful not to damage the guide (92) at the end of the support tube (90) while passing the vertical leg through.

STEP 6.
Remove the pipe plug (2B) from the head (2).

STEP 7.
Insert the hex end of the handling tool into the port on the end of the head. Slide it down the horizontal pipe until it engages the insert. Turn the insert clockwise until it is tight. The vertical leg should now be facing down and locked into place.
**STEP 8.**
Reinstall the pipe plug (2B) into the head (2).

**STEP 9.**
Connect piping to rotary joint using Kadant Johnson flexible metal hose. The hose(s) should be long enough so there is no binding or tension to cause the rotary joint to move off the journal centerline. The rotary joint must be free to move outward to compensate for seal ring wear. Please refer to IS-Flexible Hose for recommendations on flexible hose.

**STEP 10.**
Install anti-rotation rod through the anti-rotation hole in each rotary joint using Schedule 80 pipe. No more than two rotary joints should be joined with one rod. Secure the rod by drilling a hole for a cotter pin through the rod on the outer most side of each rotary joint lug. The rod will absorb the torque generated by the rotary joint, and prevent premature hose failure by reducing stresses. Please refer to IS-Anti-Rotation Rod.

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**PROCEDURE FOR DETERMINING SEAL WEAR**

Reference the groove machined into the end of the nipple. The width (Z) of this groove is equivalent to the amount of seal wear available. As the seal ring wears, the rotary joint will automatically move away from the cylinder journal end. When the groove is as far from the outboard (dry) carbon guide as it is wide (Y = Z), the seal ring should be replaced.

**Figure 1**

**Figure 2**

**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.

**IS-3500SXBPHQ and Stationary Syphon**

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