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

The Kadant Johnson rotary joint is shipped assembled. Partial disassembly will be necessary before the installation can proceed. Remove the cap screws (2A), head (2), head gasket (8), cap screws (3A), and end cap assembly (3, 4, and 7) from the ring bracket (20).

**STEP 1.**
Remove all existing equipment from the journal. Clean the gasket material from the end of the journal and chase all threaded holes.

**STEP 2.**
Place journal flange gasket (15) onto journal flange (17) and mount to end of the journal. Secure with cap screws (18). If equipped, place filler flange gasket (5A) onto filler flange (5B) and mount to journal flange. Secure with cap screws (5C).

**STEP 3.**
Place wear plate gasket (8) onto wear plate (16) and mount to journal flange (17) or filler flange (5B). Secure with cap screws (16A).

**STEP 4.**
Install ring bracket (20) onto bearing cover and secure with cap screws (20A).

**STEP 5.**
Place the seal ring (6) into the concave sealing surface of the wear plate (16) while holding it in position. **NOTE:** Wetting the seal ring will aid in holding the seal ring into position. Install the end cap assembly (3, 4, and 7) onto ring bracket (20) and secure with cap screws (3A).

Check the “X” dimension. It should match the dimension called out on the assembly drawing. Make sure the flat sealing surface of the nipple is centered on the flat sealing surface of the seal ring. It should be concentric within 0.06” (1.5 mm). If either specification is out of range, please consult the factory. See Figure 1.

**STEP 6.**
From the head (2), remove the cap screws (13) and lock washers (14) that retain the pressure plate (11) and then remove the split wedges (12). Thread horizontal pipe (99) into the head (2) and tighten securely. Place the split wedges around the horizontal pipe and into the recess in the head. Slide the pressure plate over the horizontal pipe and secure with the lock washers and cap screws. Tighten the cap screws to 10 ft-lbs. (14 Nm).

**STEP 7.**
Place gasket (8) over pilot on head (2). Following the roll manufactures recommendations, position the horizontal pipe (99) into roll and attach the head (2) to the end cap assembly (3, 4, and 7) with cap screws (2A).

**STEP 8.**
The Kadant Johnson rotary joint is now ready for piping. Connect piping to the 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. See recommended flexible metal hose length chart in this instruction sheet. When the piping is complete, the rotary joint can be put into service.
IMPORTANT: Connect the hose directly to the rotary joint. Minimize the use of fittings and pipe, as the increased weight can affect the performance of the rotary joint. Provide suitable support for the pipe and fitting beyond the hose.

MONITORING SEAL RING WEAR

As the seal ring (6) wears, the X dimension decreases. When the flange on the nipple (4) contacts the retaining ring (18), the rotary joint will start to leak and avoid damaging metal parts. The seal ring is considered completely worn at this time. It is advisable to repair the rotary joint just before the nipple flange contacts the retaining ring to keep it running leak free.

NOTE: Never apply oil or grease to Kadant Johnson rotary joints. The saturated steam, condensate, or liquid passing through it is the only lubrication required for the carbon graphite parts.

NOTE: Minimize running Kadant Johnson rotary joints dry. Excessive seal wear may occur.

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.

| RECOMMENDED MINIMUM HOSE LENGTHS |
|-------------------------------|------------------|
| Hose Size | Minimum Length |
| 1”       | 15” 380 mm     |
| 1 1/4”   | 18” 455 mm     |
| 1 1/2”   | 18” 455 mm     |
| 2”       | 21” 530 mm     |
| 2 1/2”   | 22” 560 mm     |
| 3”       | 24” 610 mm     |
| 3-1/2”   | 24” 610 mm     |
| 4”       | 28” 710 mm     |

Figure 1.