NOTE: Please follow your company’s safety procedures whenever working on Kadant Johnson spring-lock syphon elbows and read all of the instructions completely before proceeding.

Please refer to the assembly drawings supplied with your Kadant Johnson spring-lock syphon elbows for part identification. If you have any questions, please contact Kadant Johnson.

DETERMINING THE LENGTH OF THE VERTICAL SYPHON PIPE.

NOTE: Keep horizontal pipe length to a minimum (see Figure 1). Please consult Kadant Johnson if further assistance is required.

STEP 1.
Calculate dimension “A” by dividing the internal roll diameter by 2.

STEP 2.
Subtract the desired syphon clearance (dimension “B”) from “A” and multiply this result by 1.155 to find dimension “C”. The nominal recommended syphon clearance is 1.5”. Please contact Kadant Johnson for a specific recommendation based on your equipment and process requirements.

STEP 3.
Find “D” in the chart on the back page and subtract “D” from “C” to find the length of the angle pipe over the thread.

NOTE: To improve condensate removal and the operation of the syphon, the end of the vertical leg should be cut square and not at an angle. This permits blow-through steam and condensate to exit the vertical syphon pipe in the unlikely event that the vertical leg contacts the roll.

SPRING-LOCK SYPHON ELBOW SUB-ASSEMBLY

STEP 1.
Thread the vertical pipe into the end of the elbow (1) that contains the steel insert (located between the two elbow pieces).

STEP 2.
Slide the spring (3) onto the vertical pipe and set sub-assembly down.

STEP 3.
Assemble the two straps (4) onto one of the collars (2) by sliding the strap over the pin inside the collar. Be sure that the two angled bosses on the straps are closest to the collar, and the slots in the collar are orientated towards the straps.

STEP 4.
Slide the collar/strap assembly from Step 2 onto the vertical pipe sub-assembly (from Step 2). Position the angled bosses on the straps in the closing direction of the elbow as shown in the drawing.

STEP 5.
Install the second collar (2) by placing the straps (4) over the pins inside the collar. The slots on the collar should face the straps.
STEP 6. Compress the spring/collar assembly on the vertical pipe until the hole in the second collar is aligned with the horizontal portion of the elbow (1).

STEP 7. Slide the horizontal pipe through the collar (2) and thread the pipe into the elbow (1).

STEP 8. Tighten the horizontal and vertical pipes into the elbow (1). The spring loaded syphon elbow assembly is now complete and ready to be installed.

SYPHON ASSEMBLY INSTALLATION

STEP 9. Attach the horizontal pipe to the head of the rotary joint. If you are using a split wedge and pressure plate to secure the horizontal pipe in place, contact Kadant Johnson for additional installation instructions.

STEP 10. Open the spring-lock syphon elbow assembly so that the horizontal and vertical pipes are in-line.

STEP 11. Slide the assembly into the roll journal and then slowly turn the pipe until the vertical pipe is pointing downward.

STEP 12. Attach the head of the rotary joint to the body of the rotary joint and tighten, following the recommendation of the rotary joint supplier. Installation instructions for Kadant Johnson rotary joints are available online at http://www.kadant.com.

Dimensions are for reference only and subject to change. Certified drawings are available on request.