Installation Instructions for the 45° Locking Syphon Elbow

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

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

Check to make sure that all debris has been removed from the piping and roll before installing the syphon elbow. This will eliminate carbon seal ring scoring and damage to internal joint parts which could cause unnecessary downtime and maintenance.

DETERMINING THE LENGTH OF THE VERTICAL SYPHON PIPE USED WITH A 45° LOCKING ELBOW.

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

1. Calculate dimension "A" by dividing the internal roll diameter by 2.
2. Subtract the desired syphon clearance (dimension "B") from "A" and multiply this result by 1.414 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.
3. Find "D" in the chart and add "D" to "C" to find the length of the pipe.

INSTALLATION INSTRUCTIONS

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.

After cutting the vertical syphon pipe to the appropriate length, coat the threads with Loctite 242 and thread the vertical pipe into the elbow (3) and tighten. Make sure the elbow locking screw (2) and spring (6) are positioned into the horizontal body (1). Coat the threads of the horizontal pipe with Loctite 242 and thread it into the horizontal body and tighten.

Open the syphon elbow so that the horizontal and vertical pipes are in-line. Slide the syphon assembly into the journal and slowly turn it until the vertical pipe is pointing downward. Slide the installation tool SJ937-IT into the horizontal pipe engaging the slot in the tool with the key in the elbow locking screw (2). Turn the installation tool to the right to tighten the elbow locking screw. Remove the installation tool.

Attach the syphon assembly to the rotary joint following the instructions for the type of rotary joint that is being installed. In all cases, note the position of the vertical leg of the syphon by marking the end of the horizontal pipe. The vertical leg should be positioned at the bottom of the roll when the installation is completed.

To unlock the syphon, slide the installation tool SJ937-IT into the horizontal pipe engaging the slot in the tool with the key in the elbow locking screw (2). Turn the installation tool to the left and completely loosen the elbow locking screw (2). With the slot in the installation tool still engaged in the elbow locking screw, pull on the installation tool compressing the spring (6) to release the elbow. Slowly turn the syphon assembly until the horizontal and vertical pipe are in-line and remove the syphon assembly from the roll.

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.