CASE STUDY

KĀDANT

Corrugator Maintains Syphon Clearance in Demanding Environment

Challenge

A corrugated packaging plant in the Midwest was struggling to maintain syphon clearance on their new upper and lower corrugating rolls. The existing rotary joint moved coaxially at higher speeds, causing the syphon to vibrate, and significantly reduce condensate removal. This led to inadequate heat transfer, resulting in poor-quality board production. Their need for a more robust rotary joint and syphon combination led to the corrugator reaching out to Kadant Johnson for a solution.

Solution

Kadant Johnson installed two LJX-PT™ rotary joints with SlimLine™ elbow syphons on the upper and lower corrugating rolls.

The LJX-PT rotary joint is designed with two large-diameter support rods to reduce unwanted movement, while Kadant Johnson's proprietary balanced seal maintains consistent pressure across the sealing surface. The SlimLine elbow syphon features a tapered edge and custom engineered locking key, which integrates seamlessly into the SecureLock™ retention plate in the rotary joint. This robust rotary joint and syphon combination ensures proper alignment and syphon clearance in the most demanding corrugating environments.

Results

The LJX-PT rotary joint and SlimLine elbow syphon systems maintained alignment and syphon clearance, ensuring effective condensate removal. This facilitated optimal heat transfer for both rolls, leading to the production of higher quality board.

Highlights

- Increased equipment reliability and operating life
- Minimized seal loading and wear
- Stainless steel piston combats corrosion and steam cutting
- Syphon positions itself due to weight of vertical leg
- Reliable rotary joint/syphon connection

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