VOITH

SolarPress Roll Covers

Case Study: SolarPress covers and Total Roll Management program revive board machine

Board and Packaging Paper Mill in the Midwest



Challenge

A board and packaging paper mill in the Midwest was looking to improve the throughput and efficiency of an aging board machine. The goal was to achieve higher solids out of the press section through a rebuild of that section and improvements in the press roll cover technology being used on the machine. Prior to the rebuild, the presses, roll covers and mechanical roll services were not meeting customer expectations.

Solution

After extensive analysis of multiple options, Voith offered recommendations for three upgrades as part of a creative solution to improve the press section. The first part of the solution involved moving the old third and fourth presses upstream, to replace the existing first and second presses. The next part of the solution involved the mill purchasing two presses with higher loading capabilities from an idled paper machine. These presses were brought in and used in the third and fourth press positions, allowing for optimum ramping of press loads and the best dewatering from one press to the next. The third part of the overall press improvement involved switching the roll covers in the press section to Voith SolarPress polyurethane covers and implementing a Voith Total Roll Management (TRM) program for the paper machine.

Results

The upgraded presses allowed for a boost in the solids coming out of the press section. Solids increased from 43 percent before the rebuild to 49 percent after the rebuild. Voith exceeded 100 percent of the project goal and was awarded credit for the project's success. The machine set new all-time production records shortly after starting up from the rebuild.



Why SolarPress and TRM?

Historically, the competitors' rubber roll covers struggled to achieve high levels of water removal and had average run times of less than six months. SolarPress, however, ran for over two years in this application with minimal signs of wear. These extended cover runtimes produce considerable cost savings and offer the highest allowable open area / void volume for maximum dewatering throughout the entire life of the cover. The Voith Total Roll Management (TRM) program also includes reliable mechanical roll services to ensure consistent, predictable performance over the long run. "Voith exceeded our customer's expectations on this project, providing the expertise and guidance needed to ensure success. The Voith SolarPress roll covers were a key component in delivering the outstanding results, providing higher solids out of the press section and extended run times as compared to the covers being used in the past."

> – Ian Meinke Product Manager, Voith Paper FRS North America

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