

Case Study: Infinity 2S Press Fabric

Situation:

A North American mill producing wood-free specialty grades was looking for a new, mill-wide press fabric solution. All five machines had been running with endless fabrics, which presented safety concerns. However, the specialized papers – greeting card stock, playing cards, and base sheet for coating – were very sensitive to sheet mark.

Mill management challenged Voith Paper to provide a press fabric to meet three main goals:

- 1) Increase employee safety with the conversion to seamed press fabrics
- 2) Maintain high quality in the products produced
- 3) Match the standard felt life of 56 days

Solution:

As part of its Press Quality & Consistency (PQC) initiative, Voith Paper had recently taken a hard look at press fabrics – not only its own product line, but also other fabrics offered in

Mill achieved goals for
employee safety, desired
paper quality and fabric life

the market. To increase performance standards, Voith made significant investments in new manufacturing equipment and quality control processes. Seamed press fabrics were a particular focus of PQC, resulting in step-change improvements to Voith's seamed products.



For this mill, Voith recommended the Infinity 2S seamed press fabric. The installation on the first machine was a two-step process completed over a 12-month timeframe. Voith's engineering team first installed Infinity in the second press, the less volatile position. Once the fabric was deemed successful, it was installed in the pickup.

Results:

The products produced on this graphics paper machine required a mark-free solution, and the Infinity 2S has met this demand. At the same time, the seamed felts have helped the papermaker establish a safer environment for employees, while achieving the targeted fabric lifetime.

Overall, the mill found the Infinity 2S to be inherently better than traditional press

fabrics; one reason can be found in the weaving process.

Conventional woven structures tend to compact during operation, which deteriorates paper quality. Infinity has an extremely uniform, high-quality base that results in a laminated structure with resilience under load and the ability to maintain void volume throughout operation. The high number of contact points and the base uniformity resulted in a more uniform pressing surface, delivering a smoother sheet.

The Infinity seam loops are perfectly formed with identical loop length, roundness and spacing. The result is extremely fast and easy seaming. Installation time with the Infinity 2S has been reduced by 75% in comparison to the endless appli-

cation, and time requirements for overhead crane usage has decreased. These efficiencies have freed up mill personnel to focus on other important tasks during scheduled downtimes.

This mill has been pleased with Voith Paper's performance and is now running felts from Voith on all five of its machines.