

# CleanLine Excell

## Case Study: U.S. linerboard producer achieves chemical savings with CleanLine Excell



### Summary

A U.S. linerboard and corrugated medium producer achieved significant annual savings by installing the CleanLine Excell cleaning system in its forming section. **\$40,000 annual savings** in passivation chemicals were realized as a direct result of CleanLine Excell, **plus \$250,000 annual savings** related to sheet break reductions from the CleanLine Excell and other Voith equipment in the forming section. The main goals of the customer were to eliminate regular accumulation of stickies on the forming fabrics and reduce total maintenance costs. The machine is 177-inches wide, running at 2,800 feet per minute.

### Solution

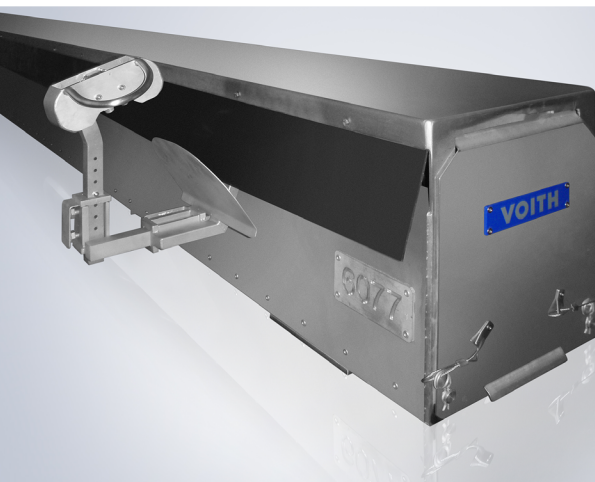
Voith worked closely with the customer to install CleanLine Excell to both the Fourdrinier and top wire former along with some additional updates to optimize performance and runnability. As the installation of CleanLine Excell was on a closed loop water system, the reduction of fabric cleaning chemicals was a very important factor. Better cleaning allowed the company to greatly reduce the NaOH in the fabric-cleaning

process resulting in substantial annual savings in cleaning and water processing chemicals. The overall operational safety of the paper machine was improved by less handling of hazardous chemicals and by reducing the mist compared to conventional high pressure showers which were no longer required.

CleanLine Excell cleans the surface and structure of forming fabrics using a traverse beam and a cleaning head with high-pressure needle jets concentrated in two directions to deliver the following benefits:

- Consistent drainage and sheet dewatering for forming fabrics
- Longer fabric life from reduced abrasion
- Reduction in passivation, cleaning, and water processing chemical usage
- Greater fabric permeability retention
- Improved CD moisture profiles
- Lower water and energy consumption
- Better runnability

**Voith CleanLine Excell offers multiple cleaning patterns to allow complete control of the process.**



### Results

CleanLine Excell significantly lowered the presence of stickies on the machine's forming fabric. The result was an **annual savings of \$40,000** through a **70% reduced need of passivation chemicals**. The customer included the installation of CleanLine Excell in a broader plan recommended by Voith, and combined, these recommendations delivered a **\$250,000 annual savings in break reductions alone**.

### About CleanLine Excell

CleanLine Excell continuously cleans a running fabric to maintain fabric performance and optimal productivity. The system operates on a traversing beam, utilizing small-volume, high pressure needle jets of water to remove stickies and contaminations from the surface and structure of the fabric.

- Water jets operate at pressures up to 2,175 PSI
- Multiple cleaning patterns are available to be set at the control station
- Two directions of nozzles to lift and peel stickies from the surface and structure of the fabric
- Improved safety through a reduction of misting
- CleanLine Excell versions are available for forming fabrics, press fabrics and transfer belts

### Why partner with Voith?

Paper machine operators turn to Voith, the leading full-line supplier for the paper industry, thanks to its world-class products, unparalleled service and knowledgeable experts. Backed by this level of know-how, operators can rely on Voith to deliver the solutions they need to improve their operational efficiency and improve the sustainability of the paper making process.

The CleanLine series of products from Voith are available for the former, press, dryer and coater sections of the paper machine. These systems deliver consistent, uniform cleaning by removing contaminants to improve quality of end products, efficiency and productivity.

*"The CleanLine Excell greatly reduced the use of NaOH in the fabric-cleaning process and nearly eliminated all of the stickies. As it uses less water, the safety around the fabric area was improved by limiting spray on to nearby walkways. These benefits make CleanLine Excell a sensible and money-saving addition to any paper machine."*

*– Mill representative*

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