When Stora Enso acquired Consolidated Papers in 2000, PM12 at the Wisconsin Rapids, WI, mill was a coated fine paper machine. Nowadays, it is the prize asset of Corenso North America, a 100%-owned subsidiary of Stora Enso. It no longer produces fine paper but has been converted to produce coreboard (core, tube) and grades for the industrial packaging market. In 2002, Corenso North America was formed as a unit of Finnish-based Corenso United. Corenso United was a joint venture between Stora Enso and UPM. Stora later bought out UPM’s shares.

In 2007, Stora Enso sold its North American assets to NewPage but Corenso North America was not part of the deal. Corenso North America now leases the space it occupies in the Wisconsin Rapids mill.

At that time, a feasibility study was conducted on converting PM12 for coreboard production. In March 2008, the final rebuild on BM12 was complete.

The mill now produces about 11 grade families. A core for coated paper running on a modern, high-speed press has much more demanding properties than a mailing tube. Design capacity of BM12 is now 85,000 tons/yr and, “That’s where we’re headed to,” says Mark Ellis, director of coreboard operations for Corenso North America.

Excellent vendor relationship
Being a forward looking company, Corenso took giant strides in its automation. Ellis believes the machine has the most comprehensive ABB system in the US with the most pieces in one place.

As well as the new equipment, the mill was able to re-use older technology such as the Smart U-Frame Scanner and Smart Calender Profiler. “ABB determined what was needed to get the paper machine up and running again with the new, thicker paper,” Ellis adds.
New pieces include the dilution control equipment for the headbox, Air/Water xP moisture profilers, ABB’s newest System 800xA automation system as well as the distributed control and quality control systems.

A drives package was also included. The older dryer drives were integrated with new digital front end technology into a complete paper machine control system. New AC drives were installed on the wet end.

ABB also supplied a CPM: Collaborative Production Management solution - a production management system that takes orders, plans trims and tracks the rolls. Corenso is also testing cpmPlus Smart Client, which is a high-level program that looks at all the paper machine information such as operating and energy data. It also has trending capabilities.

Corenso has a service contract with ABB for technical support and to help with any issues that may arise with the control systems. ABB has personnel on site, both at Corenso and NewPage.

Customers approve
“BM12’s product has been very well received in the market,” Ellis says. “The quality is better off BM12. The top grades are stronger than the top grades off BM13. We are the top producer of high-strength coreboard in North America.”

“This is a more a technical product than people realize,” Ellis says. “There is a lot of demand on cores for various end products.”

The mill was able to keep its original customer base and with the increase in production has also expanded its market. And, word of mouth about Corenso’s high quality has also led to new customers asking for its products. “We had a good base because external clients wanted more and others were asking for Corenso’s coreboard,” Ellis explains.

More to do
Although the mill has come a long way, there is still much to do. Ellis says they are still in the “learning curve” for the machine although it is already up to 800 ft/min. “There are a number of things we are looking at. We want to invest in the business,” Ellis says.

Potential projects include improving energy efficiency. For example, in 2010, a 300 hp screen motor will be replaced with a 75 hp unit. Corenso is also looking at reducing water consumption as well as improvements to the slitting section and packaging line.

The packaging line was not touched in the original project so the mill is looking at increasing automation, including the use of robots, to improve productivity. The loading bay is also under observation to see if the way the finished product is shipped can be made more efficient.

Considering all changes that have happened at the mill, Ellis says the projects were “challenging and interesting”. However, the team appears to have chosen the right path.

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