



*Reliable, Built to Last
and Energy Efficient...*

A photograph of a paper mill interior. In the foreground, a row of large, green Baldor-Reliance 841XL motors is mounted on concrete bases. The motors are connected to a complex network of white pipes and machinery. The background shows the industrial structure of the mill, including steel beams and overhead pipes.

SCA Tissue North America Found Everything It Wanted in the Baldor•Reliance® 841XL Motor

SCA Tissue North America's Menasha, Wisconsin, paper mill recycles more than 300,000 tons of wastepaper each year into napkins, paper towels and toilet paper. The company is a leading supplier of away-from-home tissue products and dispensing systems under the global Tork® brand.



Because of the wet environment in the mill, SCA officials point to the Inpro/Seal non-contact labyrinth seals at both ends of the motor as another key to the quality of the Baldor-Reliance Super-E® Severe Duty 841XL product.

Since the early 90s, the Menasha mill has focused on energy efficiency, installing energy efficient motors throughout the facility as one part of its program. Its energy-saving efforts earned it awards at both the state and federal levels.

However, about four years ago mill officials began to realize that there was more to a motor than just efficiency levels. Joe Rehorst, the maintenance supervisor for the Menasha mill, says it experienced too many maintenance issues and unplanned downtime. “We wanted to find another motor and make

a switch because of performance and durability issues,” says Rehorst. “We wanted a motor that would be reliable and last longer.”

Brian Nowak, sales manager for Kurz Electric in Neenah, WI, knew he had exactly the motor the mill was looking

for – the Baldor•Reliance 841XL Severe Duty motor. “Not only is this motor premium efficient, it is also engineered and built to perform in the most brutal conditions,” explains Nowak. “Once they understood all of the mechanical features the motor offered, they were willing to try a few. Their decision was based on quality.”

However, before the mill committed to a wholesale change to the 841XL, it had to be reassured that switching out the motors would be as easy as possible. “We wanted to be able to place the 841XL in the same spot so it would match up without us moving connections,” explains Rehorst. “Kurz did a motor survey for us, identified the existing motors conduit box dimensions and then compared them to the 841XL. What they were able to show us is that, in most cases, it wouldn’t be too much of an adjustment for us to make the switch.”

“Because of the quality and reliability of the product, we have reduced unplanned downtime, and we have reduced maintenance costs.”

Gary Cowan, regional
procurement manager,
SCA Tissue
North America

Since then, the mill has standardized on the 841XL, and after four years mill officials are convinced they made the right choice. The bottom line, according to Rehorst, is that the 841XL is a well-built motor, and he can point to three features that make the difference: bearings, lubrication and sealing.



Baldor•Reliance 841XL Severe Duty motors feature the exclusive PLS® (Positive Lubrication System), which means that end users can be assured that bearings will be lubricated no matter how the motor is mounted.

“This motor has the same high-quality oversized bearings on both the drive and on the opposite drive end,” says Rehorst. “This is an important feature, especially in a belt application that puts a lot of tension on the back bearing. Other manufacturers use a smaller and sometimes lesser-quality bearing on the opposite drive end.”

The 841XL also features an exclusive PLS (Positive Lubrication System), assuring that the bearings are properly lubricated in all mounting positions. “Keeping the bearings lubricated and protected keeps the motor running,”

says Rehorst. “I estimate that nearly 80% of all motor failures are caused by bearing failures. That’s why the PLS system is a good feature.”

Because of the wet environment in the mill, Rehorst also points to the Inpro/Seal™ non-contact labyrinth seals at both ends of the motor as another key to the quality of the 841XL. “The seals help keep water from running down the shaft and getting into the bearings,” explains Rehorst. “Again, that prevents premature failure of bearings. I didn’t realize how important it was to have these seals on both ends of the motor

until I watched the crews with water hoses washing down the equipment.”

The 841XL motors have run long enough also to get high marks from Gary Cowan, SCA regional procurement manager. “I know it’s been a reliable motor because I haven’t gotten any complaints,” says Cowan. “In fact, I have received positive feedback on the Baldor•Reliance motors. No news is good news in my world. If I get complaints, that means we are having a lot of trouble. If I don’t hear anything, then I know things are going well.”



This Baldor•Reliance 200 HP AC motor was engineered for SCA for this specific screening application. The motor base speed is 720 RPM and is driven by a variable frequency drive, helping SCA save energy.



Mill officials are convinced they have made the right choice standardizing on the Baldor•Reliance Super-E Severe Duty 841XL product. Not only has the mill experienced less downtime, they have also reduced maintenance costs.

Both Rehorst and Cowan were pleased enough with the Baldor•Reliance product to know that this was the motor they wanted when the mill was recently expanded. “Our corporate engineer in charge of the project asked us what kind of motors we preferred,” says Rehorst. “We told him that we wanted Baldor•Reliance, and we were able to drive our spec back to the OEM.”

Joe Rehorst’s job is to keep the mill running with no unplanned downtime, while keeping energy costs in check. Gary Cowan’s job is to manage procurement costs, while at the same time giving Rehorst what he needs. By standardizing on the Baldor•Reliance 841XL, a motor that Cowan says is cost competitive and comes with a five-year warranty, he’s been able to meet all the objectives.

“Because of the quality and reliability of the product, we have reduced unplanned downtime, and we have reduced maintenance costs,” reports Cowan. “Plus, they are energy efficient, which fits right into SCA’s green initiative and our culture of sustainability. Between the reliability, the efficiencies and the rebates, the total ownership cost of these motors is second to none.”

In their effort to standardize on a motor that would last longer, neither Rehorst nor Cowan lost sight of the need for a premium efficient design. The 841XL, with its Super-E windings, meets or exceeds NEMA Premium® efficiency standards. Currently a Focus on Energy rebate program, sponsored by the state of Wisconsin, is rewarding end users like the Menasha mill for purchasing energy efficient motors. Better yet, the mill gets the rebate instantly through Kurz Electric.

“Kurz does all of the paper work for us, and we get the rebate right up front,” explains Cowan. “This is a wonderful service because we juggle so many jobs every day. They save us a lot of time, and we know we are getting the full benefit of the rebates being offered.”



These large rolls of paper are the mill’s end product. Rolls are transported to SCA’s converting mill to be cut into napkins and paper towels.