

ABB Robotics & Mapleroc Industries Join Forces to Develop Robotic Finishing System

Jointly developed prototype featuring ABB Robotic Force Control provides new solutions for the paper and pulp industry

AUBURN HILLS, Mich. (October 8, 2009) – ABB Robotics, a leading robotics manufacturer, and Mapleroc Industries, an equipment supplier for paper mills, converters and printers, have jointly developed a new technological advancement for the pulp and paper industry. In conjunction with Mapleroc's proprietary RollRazor™ roll cutting equipment, ABB's newly developed Robotic Roll Finishing System creates a fully automated, high precision force-controlled roll finishing station, eliminating the need for manual setup and supervision.

The prototype, which includes an ABB IRB 6620 class robot equipped with a force-controlled machining package proprietary to ABB, was originally derived from Mapleroc's existing RollRazor system that had used a hard automation-based solution to bring the roll's surface to the required finish level. A cutting system that effectively resizes rolls to predetermined dimensions, the RollRazor offers a great alternative to conventional rewinders by speeding up the converting process by 300%. The IRB 6620 robot is equipped with an end-arm roll finishing tool and an integrated dust collection system.

The Robotic Roll Finishing System, which cuts costs and safety risks associated with human operation, keeps ABB and Mapleroc at the cutting-edge of their industries and offers manufacturers:

- **More time** – The robots address all roll sizes and unfinished surfaces automatically, eliminating the need for manual set-up.
- **Simplicity** – The prototype eliminates the need for an expensive programmable logic controller (PLC). The PLC and proportional valves were previously used to regulate pressure and prevent the paper from burning or melting. With the robotic prototype, everything is embedded in the robot control, hence no need for a PLC.



- **Speed** – Force control adjustments are much quicker with ABB’s Force Control system

A complete system has recently been installed in Norkol Converting Corporation in Northlake, IL, North America’s largest private paper converter.

For more information on The Robotic Roll Finishing Center Prototype and other ABB solutions, visit www.abb.com/robotics and www.rollrazor.com.

About Mapleroc Industries

Mapleroc (www.rollrazor.com) is the manufacturer of RollRazor, the fastest roll converting equipment servicing the Pulp & Paper, Converting, and Printing industries worldwide. Its roll resizing equipment has been featured in Pulp & Paper magazine, Converting magazine, and Paper 360. RollRazor is a patented roll cutting technology that delivers per cut cycles of 3 minutes on grades ranging from cigarette to board. This new technology has truly changed the way paper is converted and offers an alternative to paper slitter/rewinding.

About ABB Robotics

ABB Robotics (www.abb.com/robotics) is a leading supplier of industrial robots – also providing robot software, peripheral equipment, modular manufacturing cells and service for tasks such as welding, handling, assembly, painting and finishing, picking, packing, palletizing and machine tending. Key markets include automotive, plastics, metal fabrication, foundry, electronics, pharmaceutical and food and beverage industries. A strong customer focus helps manufacturers improve productivity, product quality and worker safety. ABB has installed more than 160,000 robots worldwide.

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