Founded in 1884 by Hungarian businessman, S.H. Gutmann, the Belišće mill in Slavonia, eastern Croatia, produces 210,000 tons/yr of containerboard on two units, plus 35,000 tons/yr of packaging products. An integrated mill, Belišće has its own woodyard, two semi-chemical (sulphite) pulp mills for internal use, as well as chemicals, power and water treatment plants.

Since 1991, the Belišće Group has expanded its operations beyond Croatia's borders and today, in addition to the Belišće mill, it has one converting company in Slovenia, one in the Macedonian capital, Skopje, as well as Bilokalnik in the Croatian town of Koprivnica.

Steps to better paper
Since 1998, upgrades have been "step-by-step", notes Belišće's head of measuring and control engineering, Ivan Ratkovcic. "We tried to do various projects around the same time to increase quality and output," he explains.

ABB was contracted to supply a package of improvements, comprising a new DCS for PM 3, an upgrade of the scanning platform on PM 2 from Measurement Platform to Smart Platform, as well as Air-Water xP Actuators on both machines to improve the moisture profile. The actuators were installed by a team from ABB Dundalk in Ireland and commissioned by a team from ABB Sesto San Giovanni in Italy. The modifications improved quality and also boosted output by a combined 45,000 tons/yr.

A team from the mill paid a reference visit to a mill in France and saw the technology in action. "They had a good experience and we saw it working, we saw the 2-sigma reduction. The reference visit really made up our minds," recalls Ratkovcic.
The Air-Water xP Actuator is designed to be more robust and much less susceptible to plugging than needle valve or solenoid flow control arrangements. There is very little maintenance, and reliability is significantly improved by eliminating the requirement for electronics in the hot and humid environment associated with remoisturizing actuators. Performance is ensured even if the water supply is less than optimum.

“Everything fell into place very quickly,” says Ratkovcic. “The performance improvement was almost immediately visible. It was very easy, very quick, I was surprised by that,” he adds.

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