ABB partners with ACA Systems to offer new online porosity sensor for paper mills

ABB boosts portfolio with ACA Permi Sensor, which provides online air permeability measurements and acts as early warning system for unwanted process changes

ABB has entered into a partnership with ACA Systems, the leading supplier of porosity sensors, to offer paper mill customers a proven technology that stabilizes the process to enable excellent roll quality when measuring online porosity. The single point ACA Permi sensor uses a continuous air flow method that is 50 to 100 times faster than other systems available on the market to reduce air permeance variations, enabling better product quality, optimized energy usage and reduced raw material costs.

The multiple advanced calibration features improve the accuracy of the measurements while also enabling faster grade changes, improving overall runnability. This accuracy means that the level of fines can be better controlled while monitoring the direct effect of refining, retention, broke addition and vacuum levels.

When stabilized air permeability is at the desired level, the roll is considered highest quality. In contrast to laboratory measurements that take 5 to 10 points from the produced roll, ACA Permi measures more than 10,000 points in real time and makes a sophisticated, statistical analysis on the quality of the roll.

Under the partnership, ABB will supply the user-friendly ACA Permi to customers as the porosity option within its own portfolio. It is designed to be used in paper mills with requirements for online porosity measurement as a standalone solution or as part of the quality control systems (QCS) package.

It serves ABB’s L&W installed base by providing a replacement for the soon-to-be obsolete Porolog while augmenting the current QCS offering with the industry-leading porosity measurement that is easily integrated into the QCS for data, display and control. When combined with QCS, it can leverage the ABB Ability™ Quality Management System with its System 800xA backbone. It also has potential to be installed and used with ABB’s remote support.

“Our customers have reported faster grade change times of between 15 percent and 50 percent when controlling the roll quality with ACA Permi. This is a major benefit for operators focused on minimizing production loss and maximizing return on investment,” said Vesa Kukkamo, CEO of ACA Systems.

The sensor offers a wide measurement range that usually requires one single calibration, so there is typically no need to change parameters or physical parts for various grades. Plus, the automatic cleaning cycle and smart construction make for easy maintenance and installation. The measurement signal is also compatible with all mill-wide systems and cloud services.
“ACA was strategically chosen for its leadership position, attained through extensive expertise in this space, and abilities to provide continuous measurement and strong service capability. The ACA Permi delivers more accurate, faster measurement results and therefore a higher quality output, which we know is crucial for our customers,” said Ad de Brouwer, Product Manager at ABB.

ACA Permi’s unique measurement head design, tailored with special coatings for challenging applications such as decor paper, provides excellent contact with the web and eliminates the leakage of air, dust and other disturbances. Both vacuum and air blow methods are available, resulting in a very high correlation between the ACA Permi and any lab standard.

The sensor suits a wide range of paper grades, including sack paper, MG-kraft paper, cigarette paper, security paper, decor paper, photo base paper, thermal paper, carbonless paper, saturating paper and base paper before coating.

ABB (ABBN: SIX Swiss Ex) is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB’s success is driven by about 110,000 talented employees in over 100 countries. www.abb.com

ABB is a trusted partner and leading supplier to the pulp and paper industry, offering deep expertise and a comprehensive portfolio of integrated digital solutions, automation and electrification systems, industry-focused products and comprehensive services to help our customers optimize all phases of the papermaking process. We are committed to serving packaging, paper, tissue and pulp producers to help drive availability, performance, cost and quality improvements. Active worldwide, ABB has over 1000 pulp and paper professionals who serve customers in over 50 countries. www.abb.com/pulpandpaper

ACA Systems Oy, a privately-owned technology company founded 1986 in Polvijärvi Finland, is specialized in developing, manufacturing and selling high technology instrumentation for the paper, board and other industries globally.

Today we offer from manufacturers to finishing converters comprehensive services, high quality measuring equipment solutions as well as modern data handling platforms. Our heritage has been always to provide information that can lead to more stable processes and better product quality as well as production cost reduction. Our people are dedicated to support customers and develop new instrumentation based on the needs of the industry. www.aca.fi

---

For more information please contact:

**Media Relations**
Chris Brand
Phone: +44 (0)7523 919978
Email: chris.g.brand@gb.abb.com

**ABB Ltd**
Affolternstrasse 44
8050 Zurich
Switzerland