

SCA Ortviken:



Ortviken is the SCA Group's largest paper mill.

One of the largest LWC and newsprint producers, SCA Ortviken, regards total stock consistency control highly in its paper production. For over ten years now, the mill has used Metso Automation's kajaaniMCA consistency transmitters with excellent results. One clear demonstration of the mill's satisfaction is that it also equipped its new bleaching line with next-generation microwave transmitters.

Firm trust in renewed microwave technology

Ortviken, located in Sundsvall, Sweden, is the SCA Group's largest paper mill. Over the years, it has developed into a modern production unit with four paper machines producing 800,000 tpy of high-quality LWC and newsprint for global markets. Its top quality is based on raw materials that include fresh spruce, high-class TMP derived from it, and chlorine-free bleached sulfate pulp from the nearby SCA Östrand pulp mill.

Several transmitter generations in use

Ortviken has produced TMP since the 1970s, and new capacity has



The new kajaaniMCA transmitter is smaller and more user-friendly than the previous model.

Consistency control of peroxide bleaching: At the first consistency measurement point, the line production is calculated, and the bleaching chemical dosage is defined. At the second point, the stock is diluted for the washing stage. At the last point, the stock is diluted to 5% and pumped to the paper machine.

been added according to needs. There are now three TMP lines of which the newest went on stream in spring 2004. One of the two older lines is equipped with mechanical consistency transmitters and the other with microwave transmitters.

For the bleaching plant of the new line, Metso Automation supplied the latest technology kajaaniMCA microwave transmitters.

During its long history, the mill has become acquainted with several consistency measurement techniques.

At the moment, there are 55 kajaaniMCA transmitters in use at



New-generation kajaaniMCA microwave transmitters feature easy installation.



Ortviken, representing various product generations.

“The first kajaaniMCA transmitter was installed in 1994, and it still works fine. Based on this good experience, we definitely wanted to have kajaaniMCA transmitters for the new line as well,” says Jan Johansson, project engineer at Ortviken.

The mill has now altogether eight new-generation transmitters in the TMP bleaching plant, PM 2 stock chests and PM 1 broke handling. In the near future, two new transmitters will be installed on the winder pulper and the PM 1 mixing chest.

In TMP bleaching, as with all bleaching processes, it is important to measure total consistency accurately for the sake of end product quality and production costs. Using too large a quantity of bleaching chemicals increases costs significantly, whereas using too little decreases end product quality. Mechanical consistency transmitters are often used in bleaching applications, but they are not able to measure total consistency.

Decisions based on good experience

Compared to other consistency transmitters, kajaaniMCA is easy to install – a fact greatly appreciated by the Ortviken staff. According

to project engineer Patrik Pettersson, finding a place to install the transmitter is easy, too. Furthermore, installation is trouble-free, fast and cost-efficient, since no seal water or additional electrical cables are needed. Control delays don't occur, either.

“Our experience from the other line is so positive that we wanted microwave transmitters on the new bleaching line as well. In our opinion, rotary transmitters need more calibration, and their accuracy does not meet the bleaching line needs. Furthermore, in the long run, the costs of microwave transmitters are clearly lower than those of rotary transmitters, since they have no major maintenance costs,” adds Jan Johansson.

The Ortviken people especially appreciate the new transmitter's easy use. According to them, operation without a communicator is a good thing – a successful return back to the operating model of the first kajaaniMCA generation.

Engineering based on accuracy and easy use

During its decade-long history, the kajaaniMCA microwave transmitter has undergone three transformations. Each improved and increasingly user-friendly product has been developed based on Metso Automation's patented measure-



More accurate total consistency measurement helps the SCA Ortviken staff produce top-quality paper more efficiently than before. Pictured Jens Byström (left), Jan Johansson and Patrik Pettersson.

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Ortviken Paper Mill

- PM 1 LWC 600 t/d
- PM 4 LWC 600 t/d
- PM 2 improved newsprint 360 t/d
- PM 5 improved newsprint 640 t/d

ment method. The actual measurement method has not significantly been changed, since reliable and accurate total consistency measurement has always been possible regardless of changing pulp grades or components.

Compared to earlier models, the new kajaaniMCA is clearly smaller and lighter. The F model transmitter weighs only about 5 kg and is suitable, for example, for valmet-SP's process coupling. This makes installation easy, fast and, most of all, safe. The communications cable continues to be the only link to

the surroundings, since no other cables or pipes are needed.

The transmitter is more user-friendly than ever, since no separate communicator is needed. All functions can be carried out using a wall-mounted operating unit (TCU). Basic functions, such as configuration and calibration, can be managed just with a few button pushes. As with previous versions, only one representative pulp sample is enough for calibration. ■

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