Honeywell

delfortgroup Increases Paper Formation Quality and Stability with Da Vinci QCS

"Honeywell's online measuring device gives us the ability to react immediately on formation changes during paper production. It's an excellent tool for fine tuning the paper formation."

Production Manager, Dr. Franz Feurstein

Benefits

delfortgroup AG is a leading producer of specialty papers. The company manufactures thinner, more sustainable and tailor-made specialty papers. With six mills throughout Europe, the company maintains high demands for quality control and has a heightened need for perfect formation and homogeneity of the papers. Because of these high demands, delfortgroup wanted a tool for the objective judgment of the formation for its Dr. Franz Feurstein paper mill in Austria.

The Feurstein mill wanted higher quality and more stability in the paper formation process, so it turned to Honeywell's Da Vinci Quality Control System (QCS) and FotoForm Formation Analyzer. The systems help Feurstein capture and transfer calculated formation values to the quality data system. Da Vinci QCS provides a comprehensive suite of online sensors, combined with fast scanner and data processing speeds to deliver precise, high-resolution measurements.

Since implementing Da Vinci with FotoForm, Feurstein has seen many benefits, including:

- Objective judgment of the formation of five calculated values, which represents the different characters of formation

- More homogenous quality concerning formation

- Faster grade changes and faster reaching of constant quality because of online pictures and formation values

- Fast online judgment of quality improvements concerning formation

- Indication of pinhole amount

Delfort's Feurstein mill in Traun, Austria increases formation quality with Honeywell's Da Vinci QCS.

Background

delfortgroup AG is a leading producer of specialty papers for the cigarette industry, as well as ThinPrint and silicone base papers. The delfortgroup has six mills in Europe with headquarters in Traun, Upper Austria.

The Dr. Franz Feurstein Gesellschaft paper mill is located in Traun and was founded in 1867. The mill has three production lines and focuses on manufacturing ThinPrint papers, tipping base papers, special packaging and cigarette papers.

With a team of 250 people, Feurstein produces consistently high quality paper on three paper machines. The latest state of-the-art paper machine (PM 3) has the capability to produce ThinPrint from 28gsm up to 60gsm. PM 3 has a width of five meters making it on of the biggest special paper machine in the world.

Challenge

The Feurstein mill was looking for a more advanced tool for analyzing paper formation to improve the quality control process and to reduce troubleshooting time. The company has to meet strict environmental management requirements and ISO14001 and 9001 certifications. Feurstein is committed to the environment through efficient production methods, and its thin paper is more sustainable and reduces carbon emissions.

Feurstein was facing challenges in the converting process of the low grammage tipping base paper formation where pinholes play an important role. Formation was judged subjectively by the papermaker and by one single value calculated by the web inspection system.

Solution

Feurstein implemented Honeywell's Da Vinci QCS and then integrated Honeywell's' FotoForm Formation Analyzer to further improve paper formation quality. The company now has accurate measurements, precise supervisory controls, in-process information and historical trending and statistical analysis. Da Vinci's process analysis displays provide instant visibility to the efficiency of the paper machine, and the quality of the paper that is being produced at Feurstein's mill. Intuitive user interfaces present process and production data in an easy to understand format for mill operators.

The new formation sensor from Honeywell allows Feurstein to judge the formation and pinholes objectively by presenting five calculated values. The sensor traverses the paper web, which leads to a trend figure in machine and cross direction. The data can also be combined into a 3D plot. The machine direction trend can be used to judge the changes due to some adjustments of many parameters, including headbox parameters, initial dewatering and fiber beating.

More Information

For more information on Honeywell's pulp and paper solutions, visit www.honeywell.com/ps, or contact your Honeywell account manager.

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The cross direction trend shows the formation differences over the paper web. With Da Vinci it is possible to make adjustments of the formation cross direction profile, which can be immediately judged online. By watching the formation pictures and interpreting the spot index it is also possible to get an idea about the pinhole amount of the paper.
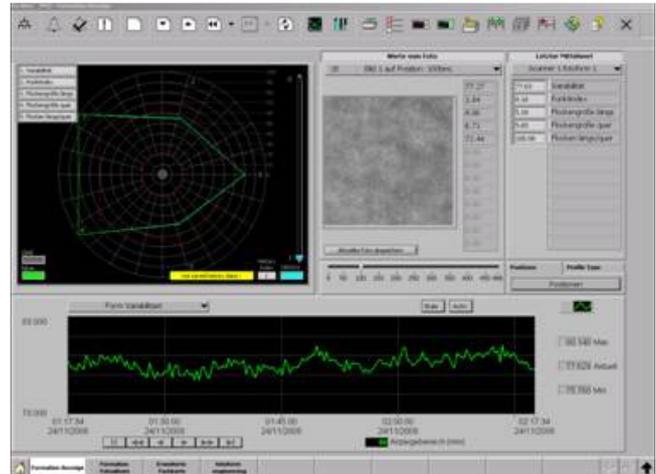
At the Feurstein mill's speciality paper production line there are many grade changes. The online presentation of formation pictures and formation values make it possible to react to paper formation currently in grade change without waiting for the subjective judgement after the first tambour change.

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