Honeywell Helps Ahlstrom Improve Production at New Glass Fiber Tissue Mill in Russia

“With Honeywell’s Experion PKS, and other quality and advanced control solutions, we were able to efficiently manage key production processes at the mill and provide needed measurement data that helped improve information flow to our plant operators. This enables faster detection and identification of any visual defects and improves overall efficiency.”

Pekka Helynranta, VP & Managing Director, Ahlstrom

Benefits

With the opening of a new production facility in Redkino, Ahlstrom made a huge investment with the first fully owned production facility of fiber-based materials in Russia. Topping more than 40 million Euros, the Greenfield mill investment included the plant facility, glass fiber tissue machine and required infrastructure. The production capacity of the mill is 250 million square meters per year with product applications including vinyl floor coverings, wall coverings and laminate surface layers among others.

Ahlstrom selected Honeywell and its integrated advanced control and quality measurement solutions to help efficiently manage key production processes at the Redkino mill. Honeywell’s knowledge of glass fiber tissue, and proven solutions including its Experion® Process Knowledge System (PKS) with PMD Controller and integrated machine control system helped improve production, stabilize processes and produce high quality products using the latest technology.

Honeywell technology brought several benefits to Ahlstrom’s Redkino glass fiber tissue mill:

- Ability to efficiently manage key production processes
- Improved information flow to mill operators, thereby increasing production efficiency with the measurement capabilities of the MXProLine™ Quality Control System
- Easy online detection, identification and visualization of paper defects using Web Inspection System technology
- Effective engineering, configuration, services and startup

Background

Ahlstrom is a global leader in the development, manufacture and marketing of high-performance, fiber-based materials. Nonwovens and specialty papers made by Ahlstrom are used in a variety of everyday products, such as filters, wipes, flooring, labels and tapes. Based upon its unique fiber expertise and innovative approach, the company has a strong market position in several business areas in which it operates.

Ahlstrom’s 6,100 employees serve customers via sales offices and production facilities in more than 20 countries on six continents.
Ahlstrom operations are concentrated in two segments: fiber composites and specialty papers. These two segments comprise six business areas including filtration, advanced nonwovens, home and personal nonwovens, glass and industrial nonwovens, release and label papers, and technical papers.

The new production facility in Redkino, Russia, produces glass fiber tissue for construction and plastic composites. The production capacity of the mill is 250 million square meters per year, which raises Ahlstrom’s total glass fiber tissue production capacity in Europe to half a billion square meters. The mill’s main product application is cushion vinyl floor coverings. Other applications include wall coverings, laminate surface layers, building panels, pipe wrapping and bitumen roofing.

**Challenge**

With the opening of the Redkino mill in Russia, Ahlstrom made a huge investment in the first fully owned production facility of fiber-based materials in the region. The company faced the challenge of dealing with multiple suppliers, implementing new technology and coping with the bureaucracy that accompanies the opening of a new manufacturing facility.

“As one of the first fiber facilities in Russia we had to overcome hurdles of both a technology nature and bureaucratic nature,” said Pekka Helynranta, VP & Managing Director, Ahlstrom. “We needed help to accomplish our goals and wanted to find a partner to provide us with a total package that included proven technology, services and engineering at a competitive price to improve production at our mill.”

**Solution**

After a long history of cooperation and partnership with Honeywell on a similar line/process at a facility in Finland, Ahlstrom selected Honeywell and its solutions from among several competitive offerings.

The Redkino glass fiber mill line is 4.3 meters wide and uses Ahlstrom’s proprietary Dispro technology in wet end and web forming. The line is a sister to a glass fiber tissue line used by Ahlstrom in Karhula, Finland. The process is very similar to the paper production operation with pulpers, dilution head box, forming wire, curtain coater, binder wire and through-air dryer. The line also consists of a metering size press and flotation dryer to give tissue web added properties.

“To control and develop the process and product properties, advanced process solutions and quality control systems were naturally needed on our line. Thanks to Honeywell and its control, measurement and quality solutions, we were able to achieve our production goals,” continued Helynranta.

Honeywell installed its Experion PKS with PMD Controller and integrated machine control system and line drives control to efficiently manage key production processes at the mill. In addition, it implemented the MXProLine QCS, which provided measurement capabilities designed to improve information flow to operators, thereby increasing efficiency. Honeywell also installed its Web Inspection System for the quick online detection and identification of visual defects.

“Honeywell’s knowledge of glass fiber tissue, and willingness and responsiveness on both global and local levels is unsurpassed,” said Helynranta. “Working with Honeywell was a great pleasure and we were able to put the company’s profound expert technology to good use at our own facility.”

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