

Halkali Kagit Increases Overall Equipment Efficiency (OEE) by 5% with Rosemount Vortex Flowmeters

RESULTS

- Improved plant efficiency through optimized steam usage
- Maintenance operation reduced by 4 hours



APPLICATION

Steam usage in the paper making process

CUSTOMER

Halkali Kagit in Istanbul is one of the leading Pulp & Paper companies in Turkey. They produce high quality texture paper for green carton, mainly dedicated to the national Turkish market.

CHALLENGE

In an effort to reduce the cost per ton of their product, Halkali Kagit was being driven to increase the efficiency of their mill by optimizing steam usage and to improve energy cost allocation to the various process units. The traditional DP flow technology used previously on the steam flow was unable to provide the desired accuracy over the full range of steam flow required for the mill efficiency improvement program. Additionally, the mill was interested in reducing the start-up and maintenance costs required by the traditional DP meters and associated impulse piping.

SOLUTION

In order to make this critical steam measurement, Halkali Kagit implemented the Rosemount 8800 vortex technology. The Rosemount 8800 MultiVariable flowmeter has been selected as it combines temperature and flow devices into a single highly accurate instrument and enables calculation of temperature compensated mass flow of saturated steam in the vortex electronics itself. This eliminates the need for external devices and simplifies installation. The Rosemount 8800 MultiVariable vortex exhibits non-wetted signal and temperature sensors, eliminating leak points and maximizing safety for the

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*Tayfun Eraslan
Energy Manager*



The continuous machine for texture paper production is the main steam consumer of the mill.

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operator. Moreover this innovative construction ensures that potential maintenance operation can be made without shutting down the process.

Using the Rosemount 8800 MultiVariable™ vortex technology, Halkali Kagit was able to obtain an accurate steam mass flow measurement, enabling steam consumption optimization for each process unit. In addition, Halkali Kagit has been able to increase the Overall Equipment Efficiency (OEE) by 5%.

Besides this, the Rosemount 8800 Flowmeter has shown optimum reliability (no failure has been reported in 1 year of installation). The company has also benefited from the ease of Rosemount 8800 maintenance, reducing maintenance operations by 4 hours compared to the previous technology. According to the company Energy Manager, Tayfun Eraslan, "It is easy to perform maintenance of a Rosemount 8800 Vortex: the sensing part is outside of the process line, and the transmitter is endowed with a frequency generator that helps verify the status of the electronics." Halkali Kagit estimates that this helps to increase the plant efficiency by 0,1% per each stop.

RESOURCES

Emerson Process Management Pulp and Paper Industry

<http://www2.emersonprocess.com/en-US/plantweb/customerproven/Pages/PulpPaper.aspx>

Rosemount 8800 MultiVariable™ Vortex Flowmeter

<http://www2.emersonprocess.com/en-US/brands/rosemount/Flow/Vortex-Flowmeters/8800-MultiVariable/Pages/index.aspx>



Rosemount 8800 MultiVariable™ Vortex installed in a saturated steam line coming from an auxiliary boiler.



The rolling machine in another part of the mill.

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