Trombini Reduces Variability on their Pulp and Paper Process by Implementing the Rosemount MS Magnetic Flow Meter for Slurry Applications

Results

- The grammage, one of the quality parameters, has been stabilized in relation to the Set Point, which reduced rework
- The installation of the meter allowed damping reduction, previously from 15 s, to a value of only 3 s
- Measurement variability was reduced by 93%, going from values as 150 L / min to values as low as 10 L / min

Application

Flow measurement of paper pulp with a consistency of 3.6% at the entrance of the paper machine at Trombini's facilities in Santa Catarina, Brazil.

Customer

Trombini S.A, one of the largest producers of packaging for Brazil.

Challenge

Trombini faced the flow measurement variability that is generated in paper pulp and the adverse effects that affect the general efficiency of the process and therefore the quality of the final product. The stabilization of the set point takes longer than expected and this implies a decrease in the control speed. This variability can be seen in **image 1**.

Finally, it is common to have to rework around breakages due to the instability faced by the process, so the efficiency of the process is generally reduced.

Solution

A Rosemount MS Magnetic Flow Meter for slurry applications was installed. Due to the continuous signal processing performed by the transmitter, the need for damping in the process is drastically reduced, allowing real-time monitoring with improved response time.

In addition, controlling the real process behavior allows the detection of important changes in the operation, avoiding rework and unforeseen changes in recipes.



"The meter has performed excellently; errors have been eliminated." Jackson Fantinel, Industrial Instrumentation Technician.



Image 1. Signal obtained before installation of the Rosemount MS Magnetic Flow Meter.





PAPEL Y CELULOSA

Thanks to the installation of the Rosemount MS Magnetic Flow Meter for sludge applications, the Trombini team was able to drastically reduce the variability in its measurement, increasing the control speed and reducing the time required for the stabilization of the set point, which in turn will be able to improve quality parameters such as the stability of the grammage in relation to the set point and avoid the rework that recipe changes may entail. The improvement obtained in the variability can be seen in **image 2**.

Resources

Visit our website:

https://www.emerson.com/en-us/automation/measurement-instrumentation/flow-measurement/magnetic-flow-meter-for-slurry-applications

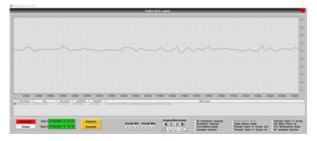


Image 2. Signal obtained after installation of the Rosemount MS Magnetic Flow Meter.

Measuring the flow rate of paper pulp is a challenging process because its texture generates a very noisy signal and makes it difficult to control the process.

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