Stora Enso improves throughput, quality with Emerson flow measurement technologies

BENEFITS
- Accurate measurement of dry solids
- Eliminated manual batch adjustment and rework
- Final product reliably meets customer specification

APPLICATION
Stora Enso is a global paper, packaging, and forest products company producing a wide range of paper products, industrial packaging, and wood products. Stora Enso has 29,000 employees and 85 production facilities in more than 35 countries worldwide. Sales in 2008 were €11 billion.

At the Hagen mill in Germany, Stora Enso produces high quality coated paper for full color magazines. The coating kitchen at the mill mixes the ingredients that are used to coat the paper in accordance with the particular customer specification. Precise measurement and control of the expensive ingredients is critical, because inaccuracies can cause cost and quality issues.

CHALLENGE
Flowmeters measure the volume of each of the coating materials as they are fed via one ring circuit to a batching tank. The precise mix of ingredients is based on customer specification (color, thickness, opacity, and weight of the finished paper). This means that consistency of the dry ingredients in the coating mix is essential. Due to varying dry solids concentration in the ingredients, coating batches were being produced that were out of specification. This added cost as manual adjustments were required to make corrections to batches of ingredients.

SOLUTION
Stora Enso recognized the need to precisely measure the amount of dry solids in the ingredients going into each batch. Following the successful use of Emerson products in its Finland mills, Stora Enso

For more information:
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installed eight Micro Motion Coriolis meters and eighteen Rosemount magnetic flowmeters.

The Micro Motion meters provide highly accurate mass flow, volume flow, and density measurement. Compact and drainable, they can be used in applications where the fluid being measured is non conductive. The Rosemount flowmeters are used to measure the volume flow of the liquids. They are ideally suited to challenging applications such as those found in paper mills, because they provide reliable and accurate results even in noisy industrial processes.