

Commercial Printing— Measuring Ink Usage



CUSTOMER

Large Commercial Printing Company

Multiple Plants: Sussex, WI; Hartford, WI; West Allis, WI; Reno, NV; Oklahoma City, OK; Saratoga Springs, NY

APPLICATION

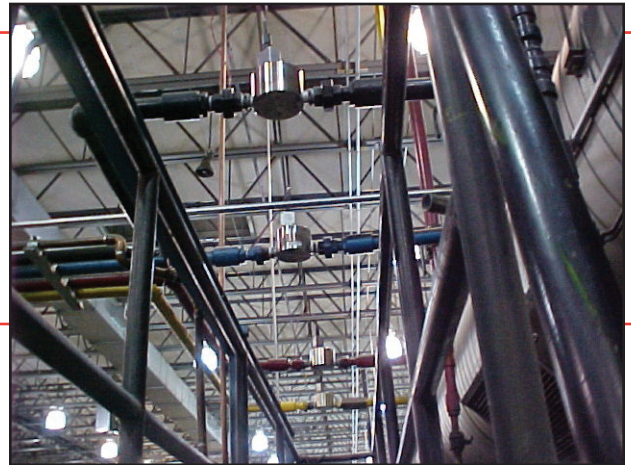
By accurately measuring ink consumption on a per job basis, the customer's intent was to be able to accurately account for ink usage and properly quote and bill their expansive printing jobs, based not only on time, paper usage and other services such as bindery, but also on the amount of ink used. They needed a way of measuring the ink as it was being pumped from the holding tanks to the individual presses.

CHALLENGE

The challenge of this application was finding a flow measurement solution that would maintain accuracy (within $\pm 1\%$) at varying flow rates (0.2-12 GPM), and measuring a very abrasive material with changing viscosities. The flow meter used in the past did not hold up to the wear and tear on the internals caused by the abrasive inks.

SOLUTION

The solution from AW was to use JVM-60CG Positive Displacement meters and custom DH-BB sensors. The JVM gear meters are equipped with a sleeve bearing instead of ball bearings, specifically to hold up with highly viscous materials. The DH-BB sensor was customized for this customer with a true quadrature signal to detect reverse flow and improved filtering for noise reduction. Also part of the flow measurement solution is a 2" carbon steel filter to keep the flow material clean when passing through the meters. This helps keep the wear and tear to a minimum, without disrupting operation.



AW products supplied:

- *JVM-60CG Positive Displacement Gear Flow Meters*
- *DH-BB Dual Hall Effect Sensors*
- *2" Carbon Steel Filters*

RESULTS

As a result of switching over to the system prescribed by AW, the customer is experiencing much higher flow accuracies at all pressures. Downtime due to swapping out or repairing flow meters has been eliminated. The customer is so happy with the performance, they have purchased these systems for all of their printing facilities and are exploring the possibility of tracking usage of varnishes and other coating materials also used in high volume at their multiple facilities.

