

A Micro Motion® Coriolis Meter Enables a Hot Mix OEM to Improve their Asphalt Blend

BENEFITS

- Improved asphalt blend quality
- Reduced asphalt “give away”
- Reduced meter repair costs by \$10,000 per year



APPLICATION

An Original Equipment Manufacturer (OEM) in Kentucky manufactures asphalt hot mix plants for the road construction industry.

CHALLENGE

The OEM needs to provide the asphalt producer with a hot mix plant that consistently meets the specification while minimizing raw material usage. A hot mix plant that minimizes asphalt usage and meter maintenance will improve the future business of the OEM.

One of the key requirements is asphalt addition accuracy. The asphalt producer needed a way to control the amount of asphalt that was mixed with the aggregate while still meeting custody transfer requirements. The different blends of asphalt required throughout the country means that an OEM must provide a measurement device that can handle a wide range of flows and types of asphalt.

The customer originally used a positive displacement (PD) meter, but it could not maintain the accuracy of the asphalt that was required. This was particularly true for “Vertical Vessel” plants where the head pressure of the asphalt in the tank caused the fluid (asphalt) to slip pass the PD meter without being measured. This caused quality issues and often did not meet the custody transfer accuracy requirements.

Also, these PD meters required intermechanical replacement every year at a cost of up to \$10,000.

SOLUTION

Micro Motion® Coriolis meters deliver high measurement accuracy and robust performance in even the most challenging of applications, such as asphalt. The meter is not affected by changes in fluid properties,

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such as viscosity or density. The Coriolis meter indicates the actual amount regardless of the asphalt level in the feed tank.

The asphalt producer installed a 3" Micro Motion ELITE® Coriolis meter with the custody transfer application on the asphalt feed to the mixer. The meter provided the accuracy of the asphalt blend that was required, which allowed the asphalt producer to improve the quality of the asphalt blends and reduce the amount of excess asphalt.

Because the meter has no moving parts to wear over time, the OEM is able to improve the end users operation in two ways. First, the reliability improves uptime in terms of being able to increase the number of paved road miles. Second, the end user saves approximately \$10,000 in parts and labor costs by not having to replace the intermechanics of a traditional PD meter.

