

Coffee Beverage Producer Reduces Maintenance Costs and Improves Reliability with Vortex Flowmeter Technology

RESULTS

- Reduced flowmeter maintenance costs by over \$1000 annually
- Eliminated risk of flowmeter damage during high-temperature line cleaning
- Improved measurement reliability



Beverage producer saved over \$1000 annually in maintenance costs by installing Rosemount 8800 Vortex Technology

APPLICATION

Coffee extract flow measurement

APPLICATION CHARACTERISTICS

Flow Rate: 0-66 gpm (0-250 L/m), Temperature: 68-392 °F (20-200 °C), Pressure: 290 psig (20 bar), Viscosity: 5 cp, Meter: 1.5" flanged (40 mm)

CUSTOMER

Coffee beverage producer in North America

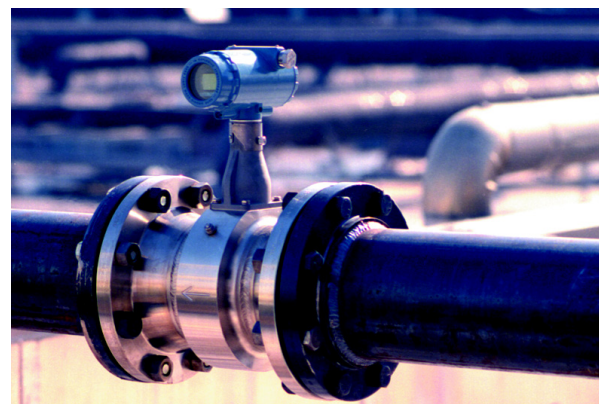
CHALLENGE

Accurate flow measurement and effective pipeline cleaning are keys to the successful production of coffee beverages. After properly roasted and ground coffee particles are mixed with hot water, the coffee extract flow is measured.

The solid particles contained in the extract and the rapid changes of temperature caused by the pipeline cleaning process caused serious problems to this customer's existing flowmeters.

This producer had installed magnetic flowmeters with ceramic lining to try to prevent clogging of the solid particles, and sustain the high temperatures involved. The solution did not prove successful, and resulted in flowmeter lining damage caused by the dramatic temperature changes.

The coffee producer also installed several other manufacturers' vortex flowmeters, but they caused serious maintenance problems due to the clogging of the flowmeter sensor ports and crevices from the solid particles running in the process.



An installed Rosemount 8800 Vortex Flowmeter.

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SOLUTION

The Rosemount 8800 Vortex Flowmeter solved their clogging problem and eliminated damage due to the high temperature cleaning process. The Rosemount patented all-welded, non-clog design proved to be a cost effective solution to the challenges this beverage producer faced.

By installing the 8800, this customer saved over \$1000 in maintenance costs annually: 12 cleanings per year, 2 hours per cleaning, at \$43 per hour.

RESOURCES

Emerson Process Management Food & Beverage Industry

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

Rosemount Vortex Flowmeters

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

The Rosemount 8800 Vortex Flowmeter provides a low-maintenance, anti-clogging solution that resists high temperatures and rapid temperature shocks.

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