Micro Motion® Saves More Than $6,000 per Month in Natural Gas Fuel Costs

RESULTS

- Provides accurate measurement of natural gas
- Ensures correct billing
- Improved forecasting for better business management

Process to be replicated in hundreds of applications across the U.S.; engineer receives bonus based on percentage of savings in pilot application.

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APPLICATION

A Midwestern food and beverage division of a multinational Fortune 100 corporation produces a soy-based protein ingredient used in many different food products. The manufacturing process uses natural gas as the primary fuel. At current usage rates and prices, fuel costs exceeded $300,000 per month.

CHALLENGE

The natural gas supplier installed two three-inch turbine meters in parallel, below a flow splitter, for custody transfer and billing. One meter was installed to provide an accuracy check on the primary custody transfer meter. The installation was plagued with problems from the beginning: the meters could never be brought into agreement, and over a four-month period, both meters were replaced three times due to rotor and bearing damage caused by sudden line pressure surges. Estimated downtime is approximately one-half day per meter per failure. The cost of rebuilding a turbine meter averages between $5000 and $8000.

A robust, accurate measurement technology was needed to satisfy the needs of both parties.

SOLUTION

The customer installed a Micro Motion® ELITE® CMF300 meter, with a Model 2700 digital transmitter, downstream from the turbine meters. Micro Motion's Start Up service, which includes calibration and

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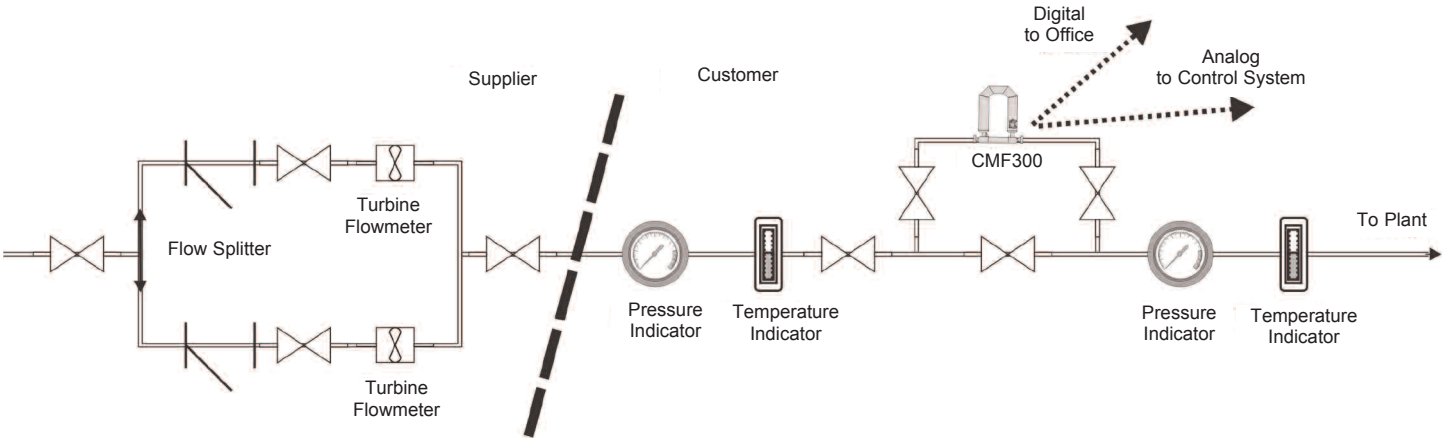
performance verification by a Micro Motion technician, was purchased with the meter. The meter was installed with flow tubes up - the orientation recommended for use in gas applications. With no moving parts, the meter easily withstands the pressure surges.

In the year after installation, fuel consumption measured by Micro Motion averaged more than 2% below the supplier's data, for a savings of more than $6000 per month and a meter payback period of less than two months. The Micro Motion meter has experienced no downtime, creating additional savings in the form of reduced maintenance costs.

Both the natural gas supplier and the customer agree that the Micro Motion meter provides accurate fuel use data. The supplier is now making plans to replace the turbine meters. The Micro Motion solution has been published throughout the multinational organization, and will be used as the standard for incoming gas measurement at all plants. This is estimated at several hundred installations in the U.S. alone.



Micro Motion meters used to monitor flow.

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