



REDUCED PIPELINE OPERATIONAL COSTS WITH RETRACTABLE MICRO MOTION FORK DENSITY METER



Installed retractable fork density meter

RESULTS

No product waste or re-processing costs

Reduced cleaning time from 8 hours to 2 hours

Significantly reduced removal costs

Minimized environmental and safety risks



Application

A U.S.-based company deals with the transportation, terminal facilities and storage of crude oil and refined petroleum products using a pipeline distribution network.



Challenge

Micro Motion insertion fork density meters have been used successfully over many years for interface detection in pipeline distribution networks. Over time, product build-up can occur on instrumentation installed on these pipelines and affect their performance. The result is a need to remove measurement devices for cleaning without disrupting pipeline operations.

A Micro Motion fork density meter had been installed in the main multi-product pipeline from a refinery, and it was essential that continuous operation was maintained.

Removing instrumentation for cleaning has a major impact on production operations as the transportation pipeline must be shut down and drained.

This process typically takes three men a total of 24 hours at an estimated cost of \$35,000. Product drained from the line is then transported to trans-mix tanks for reintegration, which can take at least eight hours. Overall, unplanned interruptions to the pipeline can result in lost production in excess of \$100,000.



Solution

A retractable Micro Motion fork density meter was installed into this application in order to drastically reduce the time and cost of routine maintenance. The retractable density meter provides the same reliable and accurate interface measurement as the standard fixed version, but also allows the unit to be completely removed from the pipeline for cleaning without shutting down production.

As the density meter is retracted from the pipeline, a valve can be closed behind the sensor, allowing removal of the meter

without loss of product or the need for draining of the line. The risk of spillage is eliminated and there are no transportation or reprocessing costs.