



APPLICATION SPOTLIGHT

Coriolis Flow Meters for Interface Detection



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APPLICATION:

Customer needed an accurate way to recover the bottom product off an existing settling tank. This occurred after two known products had separated. Existing method was manually done by varied personnel and often not done properly requiring several steps to remove the blended products that had been sent downstream.

TRICOR PRODUCT SUPPLIED:

TCM-28K Coriolis Flow Meter

CHALLENGE:

No top entry available into the tank, to utilize an interface detection technology. Length of available cycle times for separation can vary. The ability to confirm that complete separation of the products had taken place was needed prior to sending mixed product further in the process.

SOLUTION:

It was determined that a Coriolis meter could be used on the bottom outlet of the tank to monitor the density of the product being moved out of the tank. This would allow instant verification of the separation via the density readings during initial flowing out of the tank. This would also provide total mass flow of the product recovered during the separation process.

Customer was able to program their control system to cascade their controls based on the density readings from the Coriolis meter. Once the density readings started to change, the customer was alerted that the removal of the volume of the bottom product was complete. The next stage, entering the "rag or interface layer" and the flow was stopped.

RESULT:

The customer gained tighter control of the product separation process. This meant less chemicals and separation expense to remove the unwanted blend of chemicals if operator didn't transfer the tank properly each time. Also, reduced human interaction with possible chemical exposure.

Better accounting of the available chemical that had been recovered for daily totals. Improved planning for production, based on accurate flow readings to verify chemicals available.