Panametrics
a Baker Hughes business

Application note

Slurry Oil Filtering Using our PanaFlow Meters

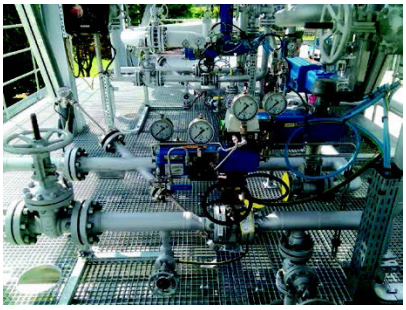
Benefits:

From an end user prospective:

- Monitor filters outlet flow and better assess filtering efficiency as well as the health of the filtering element at low operational cost.

From an OEM prospective:

- Reliable solution and brand offering an effective solution matching customer requirement. Our selection was single path while our competitor had to use multi-path to get to the same outcome.



Problem

A European filtering company was awarded a Fluid Catalytic Cracker Slurry Oil filtering package with the aim of getting the most valuable product out of the heavy slurry oil from the FCC unit. The refinery commissioning the project required the ability to control filter efficiency by controlling the feed flow to them. Filtering companies typically do not instrument these lines due to increased costs, but to give the end user the ability to control these lines, they needed to include three flow measurements.

Application

- Medium: Slurry Oil
- Number of lines: 3
- Pipe: 3”
- Flow range: 0 – 24m3/h
- Temperature: 284ºC – 340ºC (543ºF – 644ºF)
- Pressure: 7 – 20 barg (101- 290 psig)
- Density: 890 – 914 kg/m3 at flowing conditions
- Viscosity: 0.32 – 0.75 cP at flowing conditions
- Accuracy requirement: ±1% of reading

Solution

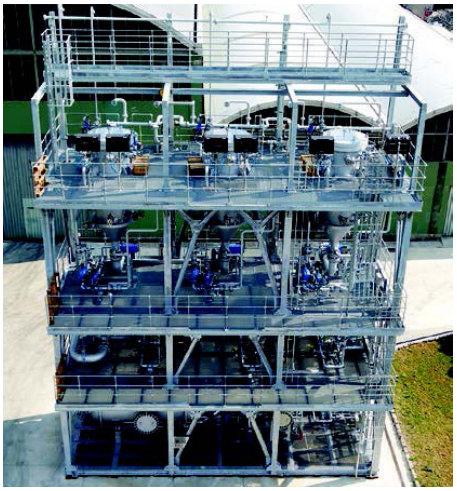
Typically these measurements are done by orifice plates as these are not critical measurement points. Increasing numbers of refineries are using newer technologies for additional benefits:

• More reliable and accurate information from the flow meters

• Reduce their operational expenditure (OPEX)

• Limit blockages and clogging risks from orifice plates and DP cells

Ultrasonic technology was selected because it ideally met the above criteria. The filtering company approached Panametrics and one other USM manufacturer and ultimately selected Panametrics for this project. We proposed our PanaFlow meters in a 1 path version with BW T/FTPA set up as shown in the photo.



Panametrics, a Baker Hughes business, provides solutions in the toughest applications and environments for moisture, oxygen, liquid and gas flow measurement.

Experts in flare management, Panametrics technology also reduces flare emissions and optimizes performance.

With a reach that extends across the globe, Panametrics' critical measurement solutions and flare emissions management are enabling customers to drive efficiency and achieve carbon reduction targets across critical industries including: Oil & Gas; Energy; Healthcare; Water and Wastewater; Chemical Processing; Food & Beverage and many others.

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