

Differential Pressure Flow Meters

Application

Monitoring propylene usage by measuring the flow rates from the main line into a chemical plant.

Pressure/Temperature

700 PSIG / 80° F

Flow Rate

9,000 PPH to 130,000 PPH (future capacity)

Pipe Sizes

4" Pipe

Problem

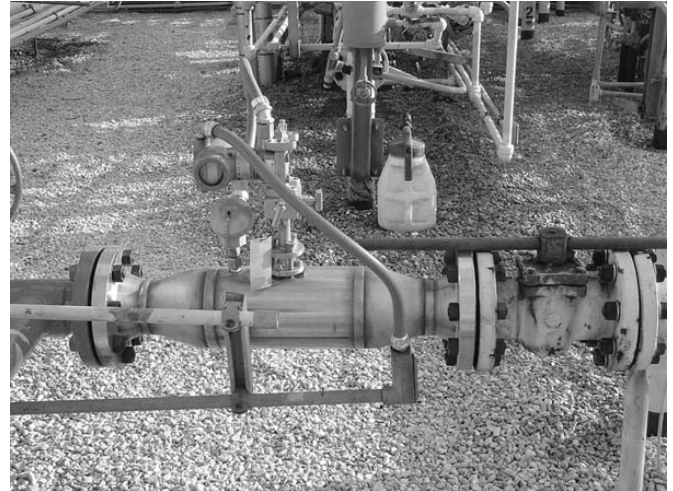
Piping constraints required the flow meter to be installed with no upstream or downstream straight run, bolted directly between a valve (upstream) and tee (downstream).

The meter would have to be sized with a future increase in demand considered.

Solution

- Ability to accurately measure current flow rates (low velocity) while having the ability to accommodate a future increase in capacity. The required 15:1 flow turndown is well within the operating limits of the Accelabar.
- No straight run requirements. The location between the upstream valve and downstream tee is adequate because the necessary straight run is integral to the Accelabar.
- No piping modifications or future meter replacement required. The Accelabar was designed to directly replace a turbine meter within the required face-to-face dimension.

Fluid:	Propylene
Industry:	Various
Application:	Chemical Plant
Specifications:	No straight run Turndown 15:1



Results

The Accelabar is accurately measuring the propylene flow despite the limited straight run. When checked against a custody transfer turbine meter, the Accelabar was in agreement within 0.2%. Because the meter was sized up (with an integral expansion from 4" to 6"), it is equipped to handle the increased future demand.