

ROSEMOUNT 8800 VORTEX FLOW METERS OUTPERFORM THE COMPETITION IN PVC PROCESSING

Customer

PVC production

Application

Polyvinyl Chloride Processing

Challenge

Polyvinyl chloride (PVC) is a polymer formed in a reaction that links vinyl chloride monomer (VCM) into long chains. VCM that does not react is stripped from the reactor effluent and recycled. The production of PVC is closely regulated by the EPA. The agency is especially concerned about the process to recover and recycle the VCM, because VCM is carcinogenic.

Vortex meters are used to measure the flow in the VCM waste recovery line, which is also the flare feed line. The customer found that with competitors' vortex flow meters, collateral polymer dust caused plugging problems during the VCM recovery process.

At one installation, competitor meters functioned for only a short period before breaking down when PVC dust collected in the sensor ports. Alternate mounting did not improve performance of the competitor meters. The same installation then tried another competitor vortex meter to measure VCM waste. The crevices of the competitor meter sensor ports became clogged in the same manner as the first competitor meter sensor ports had. Both competitor meters for this installation had to be removed and cleaned every 7-10 days which increased maintenance costs.

Results

- Savings of over \$3,000 in maintenance costs over a three year period
- Flow meters in service for three years without failure or cleaning



Rosemount 8800 Vortex Flow Meter



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Solution

After being disappointed by the performance of both competitor meters, the PVC processor installed Rosemount[™] 8800 Vortex Flow Meters. The recovery unit performed phenomenally. The meters have been in service for three years without failure or cleaning.

At \$90 per cleaning × 12 cleanings per year, the customer saved over \$3,000 over a three year period in maintenance costs.

The recovery unit performed phenomenally. The meters have been in service for three years without failure or cleaning.



Installed Rosemount 8800 Vortex Flow Meter

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