



FINOLEX ACHIEVES RELIABLE MEASUREMENT AND REDUCED OPERATING COST WITH ROSEMOUNT™ 3051S ERS™ SYSTEM

Customer

Finolex Industries Limited is India's largest manufacturer of PVC pipes and fittings and the second largest manufacturer of PVC resin.

Challenge

Measurement and monitoring of Differential Pressure (DP) across various distillation columns and vessels (equipment) is a key parameter to determine health of particular equipment. From the measured value of DP, choking and fouling of trays can be predicted and further needful action can be planned.

In conventional systems, the DP is measured using a DP transmitter having capillary and remote seals or by a normal DP transmitter. However there were certain disadvantages of capillary such as limitations of length, prone to failure, loss of fill fluid, undesired condensation, and expansion of fill fluids. All these factors either call for periodic maintenance or result in erratic outputs. Using a conventional DP transmitter requires continuous consumption of steam for steam tracing. This method also involves cost of steam generation, condensate collection, and a lifting system. Maintaining process media and steam tracing piping, routine replacement due to corrosion under insulation, and impact of process media increases maintenance costs. Loss of process media and steam due to leakages in piping results in resource wastage. Failure of either HP or LP side sensor of instrument calls for replacement of the entire instrument.

Results

- Reduction in periodic maintenance cycle
- Accurate prediction of shutdown/maintenance
- Reduction in steam consumption
- Elimination of steam trap usage



Rosemount™ 3051ERS installation

FINOLEX ACHIEVES RELIABLE MEASUREMENT AND REDUCED OPERATING COST WITH ROSEMOUNT™ 3051S ERS™ SYSTEM

Solution

Emerson proposed the Rosemount™ Electronic Remote Sensors (ERS)™ System. The ERS works by linking two Rosemount™ 3051S Pressure Sensors together electronically, offering important advantages over traditional installations by eliminating extensive impulse piping and capillary. It obviates purge systems and heat tracing and plugging and leak inspections required for impulse lines. Simultaneously, it provides stable and repeatable measurements while cutting response time by more than 90 percent. Its electronic architecture eliminates temperature-induced measurement drift.

Signal cables between sensors can be easily installed around hazards. Each sensor can be independently serviced and replaced for reduced process downtime. In addition to DP measurement, static pressure read by each sensor can be monitored in real-time. The Rosemount ERS System is a best-practiced technology for tall vessels and towers and has been used with success on various applications such as holding tanks, reactors, distillation columns, and fermentation vessels.



Rosemount ERS provides additional process information along with improved instrument reliability and flexibility."



Sandeep Datar

Senior Manager, Instrumentation
Finolex Industries Limited, Ratnagiri

The Emerson logo is a trademark and service mark of Emerson Electric Co.
Brand logotype are registered trademarks of one of the Emerson family of companies.
All other marks are the property of their respective owners.
© 2023 Emerson Electric Co.
All rights reserved.

For more information, visit
[Emerson.com/RosemountProductPage](https://www.emerson.com/RosemountProductPage)

00830-1100-4804 Rev AB

ROSEMOUNT™

