Finolex Achieves Reliable Measurement and Reduced Operating Cost with Rosemount™ 3051S ERS™ System

RESULTS

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

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, chocking 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.

SOLUTION

Emerson™ Process Management proposed the Rosemount Electronic Remote Sensors (ERS) System. The ERS works by linking two Rosemount 3051S Pressure Sensors together electronically, offering

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

Sandeep Datar
Senior Manager, Instrumentation
Finolex Industries Limited, Ratnagiri

Rosemount 3051ERS installation

EMERSON™
Process Management

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.

RESOURCES

Emerson Process Management Chemical Industry

EmersonProcess.com/Industries/Chemical

Rosemount 3051S ERS System

EmersonProcess.com/Rosemount/Pressure/3051S-ERS

Linkedin.com/company/Emerson-Process-Management
Twitter.com/Rosemount_News
Facebook.com/Rosemount
Youtube.com/user/RosemountMeasurement
Google.com/+RosemountMeasurement

Global Headquarters
Emerson Process Management
6021 Innovation Blvd.
Shakopee, MN 55379, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RFQ.RMD-RCC@EmersonProcess.com

Europe Regional Office
Emerson Process Management Europe GmbH
Neuhofstrasse 19a P.O. Box 1046
CH 6340 Baar, Switzerland
+41 (0) 41 768 6111
+41 (0) 41 768 6300
RFQ.RMD-RCC@EmersonProcess.com

Middle East and Africa Regional Office
Emerson Process Management
Emerson FZE P.O. Box 17033,
Jebel Ali Free Zone - South 2
Dubai, United Arab Emirates
+971 4 8118100
+971 4 8865465
RFQ.RMTMEA@Emerson.com

Asia Pacific Regional Office
Emerson Process Management Asia Pacific Pte Ltd
1 Pandan Crescent
Singapore 128461
+65 6777 8211
+65 6777 0947
Enquiries@AP.EmersonProcess.com

00830-1100-4804, Rev AA

ROSEMOUNT

EMERSON
Process Management