

Pressure Instrumentation Installation Tips for Challenging Applications

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30 minute presentation

6-12 page paper plus 30-minute presentation

3 foot wide x 4 foot high large format poster

KEYWORDS

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ABSTRACT

Pressure instruments that are not properly installed can provide inadequate information, cease to operate or fail catastrophically causing significant damage to surrounding equipment or severe injuries to personnel. Therefore, it is extremely important to install the instrumentation properly to meet all the environmental requirements of the application. This proposed paper and power point presentation are focused on the challenges an automation engineer would encounter when installing pressure measurement instruments for difficult applications. The content will target installations where the instruments will be used to measure high particulate media (such as slurries) in indoor and outdoor installations as well as operating in high vibration and pulsation environments.

Measurement of corrosive media requires the pressure instruments be mounted on instrument isolators like isolation rings or diaphragm seals. The manner in which the instrument or instruments are mounted to the isolator can effect performance and reliability. Minimizing the number of joints used and reducing the volume of fill fluid used will help to reduce errors caused by ambient temperature swings. If instruments are remote mounted on capillary lines, the location of the instrument relative to the process can affect the accuracy. The automation engineer will need to calculate this "head affect" and correct for it.

Installing pressure instruments correctly is crucial and may affect the functionality of the system, cost and safety.

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Has a BSEE degree and 37 years of experience in the measurement industry performing design engineering and product management. Earned 4 US patents. Joined Ashcroft in 2007, currently as the Global Technical Product Leader. ISA Senior member, currently District 1, DVP Elect and a Past President of the CT Valley Section.