SESSION 5
WEDNESDAY, AUGUST 28 | 1:00 PM - 2:00 PM

5B – Pressure Measurements |
Zeroing an Absolute Pressure Transducer Techniques and Pitfalls
Robert Clayton, Mensor, LP

Abstract:
Zeroing a pressure transducer is a fairly straight-forward process, unless it is an absolute transducer. The purpose of this paper is to describe three different techniques that can be used depending on the available reference standards and the range of the zero-based absolute Device Under Test (DUT.) Each technique has either some physical limitations, or accuracy compromises that will be discussed and examples quantified. This paper will also discuss some of the other, more generic problems in generating stable and consistent pressures in the physical calibration setup using a pneumatic medium.

Learning Objectives:
1. The person defining the calibration procedure should be able to determine the most time-efficient method to use based upon their laboratory’s reference standards.
2. The person defining the calibration procedure should gain a better understanding about the influence of the physical design of the calibration setup on low pressure absolute calibrations.
3. The end-user should be able to determine what reference standards would be the most time efficient to acquire for periodic re-zeroing of absolute pressure sensors.

Instructor Curriculum Vitae (CV):
Robert Clayton is the director of research for Mensor, LP.