

# APPLICATION NEWSLETTER

Meriam Instrument has designed an Accutube averaging pitot tube that will be of great interest to customers needing accurate and convenient flow measurement of steam, liquid or gas flow through a process pipe. These new Accutubes offer the convenience of directly mounting a DP or multivariable transmitter onto the top of the instrument head. This offers mounting convenience and saves significant costs normally associated with installation.

The new Accutube model numbers are 40H, 41H, 42H and 43H. They promise to reduce installation time, improve serviceability and allow more convenient mass flow measurement compared to other mounting styles. The direct mounting for the transmitter and the built-in 3-valve equalizing manifold does away with a significant amount of installation cost. DP or Multivariable transmitters can be bolted directly the Accutube head, eliminating mounting brackets, connecting tubing and tube fittings. O-rings provide the seal to the transmitter and temperatures and

pressures in excess of most transmitter limits are supported. Models 40H (single support) and 41H (double support) are for DP transmitters and have 316LSS probes and 3-valve instrument heads. Models 42H (single) and 43H (double) also include an integral 100 ohm RTD that is serviceable without shutting the flow down or removing the transmitter from the Accutube. The integral RTD enables convenient mass flow measurement of steam or gas using a Multivariable transmitter or flow computer.

When combined with the 4XH models, multivariable transmitters can calculate the mass flow rate after measuring DP, Pabs and T from the Accutube. The mass flow rate is then available as a 4 – 20 mA output from the transmitter. This is a cost effective way to add a measurement point to an existing process or to equip a new plant or expansion. Please see the photo below for a look at the assembly with an integral RTD.

