

Measuring the Future

For nearly 90 years, Meriam Instrument has remained the world's choice for reliable, absolute accuracy in industrial instruments for pressure measurement and calibration.

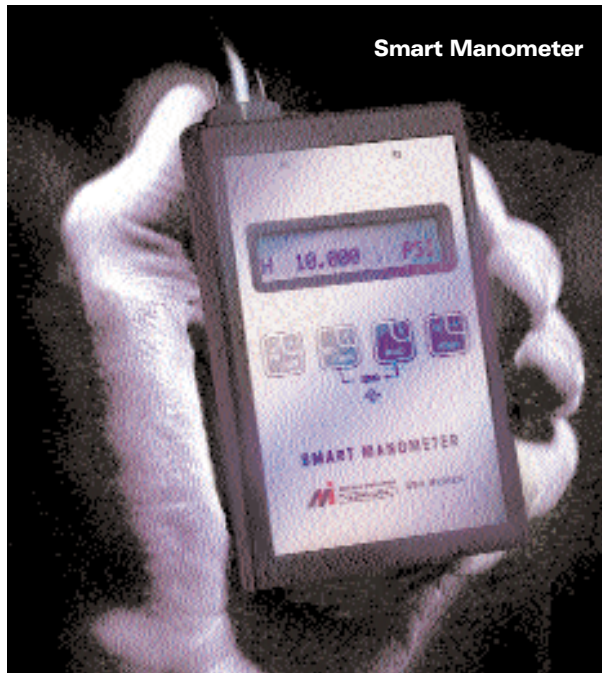
A manometer is, simply, an instrument for the measurement of pressure in liquids and gases. "The manometer in its simplest form is a glass tube bent in the form of the letter 'U' and partially filled with some liquid," wrote Joseph B. Meriam in 1930. If both ends of the tube are open, a change in air pressure will be reflected in a change in the level of each "leg" of the tube. Mr. Meriam's interest in this basic measurement device led to the formation of the company that bears his name yet today.

Years earlier, with his wife and children as his original workforce, Joseph Meriam had begun making U-type manometers in his garage. Within a few years, demand for this type of instrument forced Mr. Meriam to expand into a larger facility. The need for durable, accurate pressure measuring instruments in the industrial revolution was driving the growth of the new company.

Four years later, the growing need for the overhaul and repair of the stationary gasoline engine, one of Meriam's other areas of expertise, became another impetus to the growth of the Meriam Company. The work with power-generating gasoline engines led to the development of flow-measuring devices, one of Meriam's core technologies today. To accommodate the repair work, the facility was expanded just in time to assist in the war effort. Meriam was awarded a number of government contracts to manufacture leak test stands to check gas mask components. In a short time, the measuring instrumentation business increased rapidly and forced the company to drop the gasoline engine repair business.

During the war years and afterward, Meriam expand the manometer line to contain hundreds of different configurations for different applications. The instruments were adapted to work in manufacturing processes to measure differential or gauge pressures. Absolute and vacuum gauge manometers were designed for use in everything from aviation to laboratories. Other products were added to the line, such as differential pressure bellows gauges for heavy-duty applications. The flow product line continued to expand with the addition of annular average pitot tubes, laminar flow elements and orifice plates and flanges. Meriam had a mechanical solution to nearly every pressure or flow measurement need and many of these products are still made today.

The Meriam family sold the Meriam Instrument Company to the Scott & Fetzer Company in 1969. Today Meriam remains a part of the Scott Fetzer Division of the Berkshire Hathaway Company. The product line includes primary elements and



gauges/indicators for process measurements; flow systems used for both process testing and calibration; and smart instruments for calibration and test applications.

Meriam products are used around the world in applications as diverse as chemical processing, oil drilling rigs, respiratory therapy and laboratory experiments.

New Technology and Advanced Engineering

Since 1911, with each new product introduction, Meriam engineering has been the constant. This focus on engineering has led to a reputation for durable, accurate and reliable pressure and flow instrumentation. Over the past 20 years, Meriam engineers have focused on the need to integrate electronic technology, advanced sensors and computer technology into the measurement of pressure and flow. The result has been a new stream of excellent products that meld state-of-the-art technology with old-world craftsmanship.

Pressure Calibrators

Meriam has been a leader in the portable pressure measurement field since the introduction of its first electronic products. Both the portable



Digital Manometer and the Meri-Cal are battery powered, sensor based instruments for test and calibration applications. The Meri-Cal also has the capability of measuring the electronic signal generated from a transmitter when pressure is applied. These units have been used for many years in tough field situations, earning a reputation for durability.

Two more recent additions to this product line are the Smart Manometers and the Meri-Cal II. These units are calibrated to the state-of-the-art in portable pressure measurement and are available at 0.025% of full scale accuracy. The Meri-Cal II also contains electrical measurement capabilities, as does the original Meri-Cal. In addition, the unit has a data-logging feature and PC-based software package that greatly speed up the process of calibration and eliminate transcription errors.

Gauges

Starting from a single type of differential pressure gauge, Meriam has built an impressive line of both mechanical and electronic gauges. The top of the line is the Smart Gauge, an ultra-high accuracy device at 0.025% FS. Options available include a 4-20 mA output, relays,



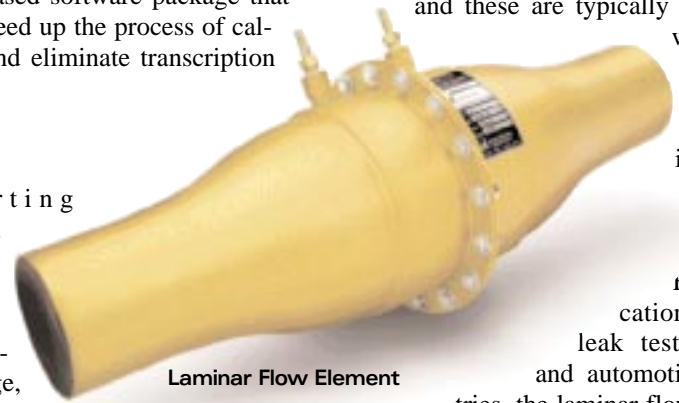
and the ability to perform complex mathematical calculations. The Merigauge is also available with analog outputs, relays, pipe and panel

mounting, but with an accuracy of 0.25% FS. Both products can meet the most demanding needs.

Meriam also offers a full line of mechanical bourdon tube type gauges and a series of differential pressure bellows gauges. Both are rugged, reliable gauges for pressure or differential pressure applications. They are available with an amazing number of options: everything from sanitary seals to relays.

Flow Products

Beginning with Mr. Meriam's work on stationary gasoline engines, the company has had a long history of flow measurement. Meriam manufactures a number of different types of gas, steam and liquid flow elements and these are typically integrated



with the company's electronic products for a complete solution. For application in the leak test, process and automotive industries, the laminar flow element

provides an excellent solution for low gas flow measurements. In high process flow applications for liquid, steam or gas, the annular average pitot tube, or Accutube, is a cost effective solution when inserted in a process system. Also offered are the widely used orifice plates and flanges, a great solution for many situations.

New software based solutions are available to process the information from the devices and calculate critical information such as mass flow. The new PC-based programs, some of which are just becoming available, can display and process huge amounts of data into visual representations of your process.

Meriam Expertise

In addition to its products, Meriam Instrument offers its customers another important asset: 90 years of expertise. In-field technical support, plant-based customer service, published primers, selector guides, how-to manuals and application notes are all available to customers.

This ability to offer problem-solving capabilities and the personal attention customers deserve is what makes Meriam unique in its field. In fact, it is a true measure of their quality.



Meriam Instrument

a Scott Fetzer company