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For Immediate Release

New Studies from Flow Research Find Growing Need for More Flow Recalibration Facilities

Wakefield, Massachusetts; May 20, 2016 — Two new research studies from Flow Research provide detailed information about the flow calibration facilities around the world. According to these new studies, *Worldwide Flowmeter Calibration Facilities and Markets*, there are more than 50 flowmeter calibration facilities worldwide. Both studies classify the facilities according to whether they are in the Americas, Europe, or Asia. They contain detailed descriptions of the capabilities of the different flowlabs, based on extensive interviews, personal visits, and questionnaires.

The gas flow calibration study is called *Worldwide Gas Flow Calibration Facilities and Markets.* It quantifies the dollar value and number of eight types of flowmeters calibrated worldwide and in seven world regions. According to this study, the value of flowmeter calibrations performed by independent laboratories in Europe in 2015 was nearly $33.0 million. Europe includes Western Europe, Eastern Europe, and the Former Soviet Union (FSU). The second study is devoted to liquid calibration facilities.

The Growing Need for Recalibration Facilities

Market data from Flow Research shows a constantly expanding flowmeter market. This especially applies to ultrasonic and Coriolis flowmeters, as well as turbine and other types of flowmeters. Some markets are expanding at an annual rate in the eight percent range. This

means that the installed flowmeter base is growing every year, and many of the flowmeters sold this year will need recalibration in the next three to five years.

At the same time, the growth in recalibration facilities does not seem to be matching the growth of the flowmeter market. In addition, some regions such as the Middle East still do not have a natural gas flow calibration facility. End-users in this region generally ship their flowmeters to facilities in Europe or North America for recalibration. There are also a number of flowmeter labs in Asia, although many of these tend to mainly serve their own regional areas.

There are also specific applications that are growing but are not currently served by any or an adequate number of facilities. These include multiphase fluids and liquefied natural gas (LNG). Other applications will no doubt emerge as flow measurement expands into new and uncharted areas. These needs will have to be filled either by adding on to existing facilities, or by building new ones.

Making Do While a Flowmeter is Being Recalibrated

End-user companies may not have a back-up flowmeter to replace a flowmeter being sent out for calibration. This may mean doing without the flowmeter until the recalibrated flowmeter is shipped back to the company. While some calibration facilities offer 2–3 day turnaround, shipping the flowmeter to the calibration facility and back takes time. Customs clearance can also cause delays. Air transportation is fast but can be costly, while travel by ground or by ship saves money but takes more time. Companies in the Middle East may need to be without their flowmeter for several weeks or more even if the calibration facility offers fast turnaround time.

This situation is similar to the problems some companies have in delivering their products in remote countries around the world. It is why companies such as KROHNE, Emerson Process Management, and Endress+Hauser have built manufacturing facilities in Mexico, China, and other countries. Having manufacturing facilities near the customer means quicker delivery time, and the ability to more easily offer customized products. End-users in the Middle East would like to see manufacturing plants built there in addition to the sales offices that flowmeter manufacturers already have in that region.

To help build in redundancy, some end-users run two flowmeters in series, especially for critical measurements. This could be two turbine flowmeters in series, two ultrasonic flowmeters in series, or a turbine and an ultrasonic flowmeter in series. Then if one flowmeter has to be sent out for recalibration, one flowmeter still remains to do the measurement. This is better than being left with no flowmeter to measure the flow.

Where to Calibrate

End-users can choose from a number of reliable independent laboratories that perform flow calibrations. These include Colorado Engineering and Experiment Station, Inc. (CEESI) in the United States, TransCanada Calibrations in Canada, VSL and NMi Euroloop in the Netherlands, National Engineering Laboratory (NEL) in the United Kingdom, and Pigsar in Germany. There are also a number of calibration facilities in China and other Asian countries.

While end-users can select from a large number of independent labs, they can also have the manufacturer they bought the flowmeter from calibrate their meters. Nearly all manufacturers have calibration facilities for doing the initial calibration of the flowmeters they sell. Most will also recalibrate the meters they sell their customers as a service. A number of manufacturers have also made recalibrating flowmeters a service they perform for flowmeters purchased from other companies.

According to Dr. Jesse Yoder, president of Flow Research:

"Flowmeter calibration is important to flowlabs, flowmeter manufacturers, and end-users alike. Once a flowmeter is installed in an application, it may be subject to caustic fluids, wear, impurities in the flowstream, and other factors that can degrade its accuracy and reliability. While software is available to help determine whether a flowmeter needs recalibration, many flowmeters have to be pulled from service at some point to be recalibrated. Meeting the calibration needs of the installed base of flowmeters and also of new meters being sold is a challenge to flow calibration facilities and manufacturers alike. There is also the challenge of calibrating new types of fluids, such as LNG and the multiphase fluids encountered in oil and gas production."

About Flow Research

Flow Research, with headquarters in Wakefield, Massachusetts, is the only independent market research company whose primary mission is to research flowmeters and other instrumentation products and markets worldwide. Flow Research has years of experience in doing both off-the-shelf studies and custom work. Published studies can be purchased by anyone interested in the topics. These studies are developed through interviews with suppliers, distributors, and end-users, and are presented in a clear and consistent manner. Topics include all of the flowmeter technologies – both new and traditional – as well as temperature sensors, temperature transmitters, level products, and pressure transmitters.

A growing area of interest – especially related to custody transfer – is flowmeter calibration. Flow Research has recently completed two studies, one on gas and one on liquid, of flow calibration facilities and markets. This series is called *Worldwide Flowmeter Calibration Facilities and Markets* (http://www.flowcalibration.org).

The company also focuses on the energy industries, especially on oil and gas production and measurement. Special topics include custody transfer, multiphase measurement, and liquefied natural gas (LNG). A series of quarterly reports called the *Worldflow Monitoring Service* (http://www.worldflow.com).provides regular updates on both the flowmeter markets and the energy industries

For more information, visit http://www.flowresearch.com or call +1 781-245-3200.