What is the Difference Between an Accredited Lab and an Accredited Calibration?

Many customers have asked us what the difference is between an accredited calibration and an accredited lab. This has been a question that has been more frequently asked with the recent changes to ISO 17025:2017, ILAC P14, and ANSI Z540.3-2006 standards. We will try to answer these questions below. Additional content is available throughout our accreditation resource page.

Q: What is an accredited lab?

A: An accredited lab is one that demonstrates its ongoing competence in the field of calibration and/or testing that meets the requirements of ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. An accredited lab has been audited on a regular basis by an independent third party and has proven that it meets the management and technical systems requirements of the standard and the laboratory has adequate equipment to perform the tests or calibrations. In addition, the lab must demonstrate that it has adequate, technically competent personnel to perform the calibration and/or tests.

Q: Why would I want to use an accredited lab?

A: The benefit of using an accredited lab is that you are assured that the lab has been audited to an international standard based on demonstrating their competence in performing the calibrations and/or tests. Prior to laboratory accreditation, the only way to determine supplier quality was to perform your own audit of the lab. Accreditation provides assurance that the lab's processes were independently verified by a third party. For more information, please view our white paper on Accreditation and 17025.

Q: What is an accredited calibration?

A: An accredited calibration is a calibration that is within an ISO/IEC 17025 accredited lab's approved scope of accreditation which demonstrates the lab's technical competence to perform those measurements.

Q: Is everything that an accredited lab calibrates considered an accredited calibration?

A: No. A lab must have the specific measurement parameter on their lab's Scope of Accreditation to be able to state that the calibration is accredited. No single lab can calibrate every measurement device. It is cost prohibitive to be able to do so.

Q: What is the difference between a Transcat accredited vs. a non-accredited calibration?

A: The processes, datasheets, standards, and personnel used during a calibration, whether accredited or non-accredited are the same for any Transcat calibration.

A non-accredited calibration, also referred to as a "commercial calibration" has the following attributes:

- A certificate of calibration will be issued. The certificate will not have an accreditation logo or a statement of traceability
- Basic information that identifies the instrument, calibration/due dates, a statement of conformance either being in or out of tolerance, lab and technician performing the calibration
- Laboratory assets used and the environmental conditions
- May or may not contain the actual data report depending if specified at the time of service

The main differences for an accredited calibration are:

- The parameter is on the lab's Scope of Accreditation
- An accreditation logo will be present on the calibration documents
- The calibration will be traceable to SI units through NIST or other National Metrology Institutes (NMI)
- Most importantly, the data report includes the measurement data and measurement uncertainties

Q: How do I know whether I need an accredited calibration or just need to use an accredited lab?

A: The decision whether an accredited calibration is required is solely a customer's decision to make a proper determination. This decision is based on several factors. One critical factor is whether your company must meet any regulatory requirements. A number of these requirements specify that accredited calibrations are required.

Another factor is your company's quality policy. Many policies will specify the need for accredited or traceable calibrations. Some policies may simply state that an accredited lab must be used which may or may not require an accredited calibration.

Finally, you must consider the use of the instrument and the amount of risk you are willing to accept with regards to the measurements obtained with the instrument. If you are using this instrument to calibrate other instruments within your company or process, an accredited or traceable calibration may be required. In the end Inspection, Measurement, and Test Equipment (IMTE) that is used to determine acceptance of product or services is not traceable without an accredited calibration. The purpose of the accreditation process is to identify, quantify, and minimize risk throughout the measurement traceability chain, starting with each country's National Metrology Institute and ending in the individual acceptance measurements made on products and services. While Transcat encourages our clients to understand this importance, it is ultimately each of our client's decision to determine what amount of risk is acceptable to their product/service.

For more information about our decision rules or your calibration requirements, contact one of our calibration professionals at 800-828-1470 or contact us.