



Accredited vs Commercial Calibration and How To Order The Service You Need

Essco Calibration Laboratory offers two types of calibration; our commercial calibration, which satisfies most customer needs relative to the requirements ISO 9001, and an accredited calibration, which satisfies the needs of accredited calibration and testing organizations and manufacturers registered to ISO 16949 / QS9000 and other regulated environments. We ask our customers to review their quality requirements and calibration needs when requesting service from Essco. We will assume a commercial calibration unless we are directed otherwise. If you require an accredited calibration, please review our scope of accreditation at <http://www.esscolab.com/> under the Find Documents Quick tab or call 800-325-2201.

What differentiates an accredited calibration from a commercial calibration is much more than the logo on the certificate. Some specifics are detailed here:

As seen on the certificate:

Commercial	Accredited
<ul style="list-style-type: none">No accreditation logo is presentA statement as to the test accuracy ratio is made and traceability to NIST is reported.	<ul style="list-style-type: none">The "Accredited" logo and certificate number signifying an accredited calibration was performed within our scope of accreditationMeasurement uncertainties for each test point to assure measurement traceability is provided in addition to accuracy and traceability informationExtra wording to meet the requirements of the standard and/or the accrediting bodySignature of a responsible party who has verified the accuracy and completeness of the documentation

Differences

The significant difference between the two services is what goes on behind the certificate. While all customers benefit somewhat from our accreditation program, the work performed within our scope has all the requirements of ISO/IEC 17025 and the accrediting body's specific requirements. These include:

Commercial	Accredited
<ul style="list-style-type: none">Use of calibrated equipment to perform customer equipment calibrationsUse of specific calibration proceduresUse of trained techniciansContract review processQuality system audits performed	<ul style="list-style-type: none">Obtaining of accredited calibrations from fully accredited calibration providers, like Fluke, Agilent, Starrett, etc. for <u>all</u> instruments we use on accredited calibrationsAdditional requirements on the calibration procedures used so that they comply with nationally and internationally recognized test proceduresAdditional training, education and experience for our technicians, with technical assessment and reviewExtra controls on tenders and contract review to assure meeting customer requirementsAssessment of our competence by metrology professionals in each area of our scope in addition to an intense quality system audit

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- Insure valid results of measurements
 - Management dedication to Quality System
 - Stated measurement accuracy ratios
 - Participation in blind inter-laboratory comparisons to test our proficiency and verify our measurement capabilities. Greater controls and monitoring on our equipment and laboratory environment to maintain our stated uncertainties
 - Greater management responsibilities used in meeting the stringent quality requirements of ISO 17025: verifying customer satisfaction, documenting quality system improvements, setting goals and targets, review process, etc
 - Measurement uncertainty calculations are reported, giving more useful information to our customers in the determination of their measurement accuracies.

Origin

The third revision of QS-9000, *Quality System Requirements*, required that “calibration of inspection, measuring, or test equipment shall be conducted by a qualified in-house laboratory, a qualified commercial/independent laboratory (see 4.10.7) or a customer-recognized government agency”¹. The standard defined “qualified” as accredited by a nationally recognized accreditation body². The standard also requires that “the laboratory scope shall include the calibration of such equipment.”³ Weaknesses in the interpretation of these requirements has led to some problems that the calibration consumer should be aware of:

- Not all accreditation bodies are nationally recognized and may not require client laboratories to meet the same high standards as ILAC-member bodies (i.e. A2LA and NVLAP that are recognized around nationally and internationally) may require.
- The intent was to provide calibrations within the lab’s scope of accreditation. The scope defines the exact technical areas that the laboratory has demonstrate technical competence to their accreditation body. Accreditation is defined by this scope and does not necessarily cover all of the laboratory’s capabilities.

Ordering Accredited Calibrations

When requesting accredited calibration service, a clear statement requesting “accredited calibration” must be placed on the purchase order or packing slip that is supplied with the equipment. The calibration lab must have this request in order to process your order and provide an accredited calibration. Without such direction provided, you will likely not get the service you require.

Include the words “Accredited Calibration” on your documentation

The responsibility for this action is clearly spelled out in the standards. ISO 9001:2008 states that “purchasing information shall describe the product to be purchased, including where appropriate a) requirements for approval of product, procedures, processes and equipment, b) requirements for qualification of personnel, and c) quality management system requirements.”⁴ Listing an “Accredited Calibration” covers all these requirements.

Similarly, QS-9000 imposes this requirement with “purchasing documents shall contain data clearly describing the product ordered, including where applicable a) the type, class, grade or other precise identification.”⁵

The quality standards have always required that you provide adequate direction to your vendors in order to purchase and provide the quality level you need. Please provide us with this proper direction so that we can meet your needs.

¹ QS-9000, 4.11.2.b.1 Calibration Services

² QS-9000, 4.10.7 Accredited Laboratories and Glossary

³ QS-9000, 4.11.2.b.1 Calibration Services

⁴ ISO 9001:2000, 7.4.2 Purchasing information

⁵ QS-9000, 4.6.3 Purchasing Data