

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

East Coast Calibration

225 Whitten Road, Hallowell, ME 04347

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2005

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):

Dimensional & Mechanical Calibration (As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen President/Operations Manager

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084

Initial Accreditation Date:	Issue Do	ate:	Expiration Date:	
July 10, 2011	September 4, 2017		October 31, 2019	
Accredit	Accreditation No:		ficate No:	
689	68975		L17-390	

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: <u>www.pjlabs.com</u>



Certificate of Accreditation: Supplement

East Coast Calibration 225 Whitten Road, Hallowell, ME 04347

Contact: Dan Dodge Phone: 207-626-0473

Dimensional			
MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Calipers ^{FO}	0.05 in to 80 in (Res = 0.001 in)	(592 + 8.9L) μin	Gage Blocks
Calipers ^{FO}	0.05 in to 6 in (Res = 0.005 in)	(296 + 4.5L) µin	
Depth Micrometer ^{FO}	0.05 in to 6 in	580 µin	
Dial Indicators ^{FO}	0.001 in to 1 in	63 µin	Indicator Calibrator and Gage Blocks
Gage Blocks ^{FO}	0.05 in to 4 in	(4.57 + 1.03L) μin	Gage Block Comparator
Height Gage ^{FO}	0.05 in to 48 in	(576 + 1.37L) μin	Gage Blocks
Micrometers ^{FO}	0.05 in to 24 in (Res = 0.000 1 in)	(58 + 5.8L) µin	
Plain Ring Gages ^{FO}	0.1 in to 10 in	(12.38 + 1.23L) μin	Fowler Lab Concept Universal Measurement Machine
Surface Plate Flatness ^{FO}	12 in to 161 in diagonal	(32.2 + 1.7D) μin	Electronic Level or 48 in, 36 in, 24 in Planekator
Surface Plate Repeat ^{FO}	0.002 in	28 μin	Repeat-O-Meter
Test Indicators ^{FO}	0.001 in to 0.03 in	48 μin	Indicator Calibrator and Gage Blocks
Thread Ring Gage Pitch Diameter ^{FO}	0-80 to 4-12	(204 + 20.4L) µin	Set Plugs
Thread Plug Gage Pitch Diameter ^{FO}	0-80 to 4-12	(88.7 + 2.02L) µin	Supermicrometer and Thread wires
Thread Plug Gage Major Diameter ^{FO}	0-80 to 4-12	(38.64 + 2.64L) µin	Supermicrometer

Accreditation is granted to the facility to perform the following calibrations:

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Pressure Gage ^{FO}	1 psi to 1 000 psi	0.14 % of reading	Dead Weight Tester
Torque Wrench ^{FO}	120 lbf•ft to 600 lbf•ft	1.5 % of reading	Torque Tester



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Accreditation is granted to the facility to perform the following calibrations:

- 1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represent the smallest measurement uncertainties attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
- 2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
- 3. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and onsite at customer locations.
- 4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
- 5. The term L represents length in inches or millimeters appropriate to the uncertainty statement.
- 6. The term D represents diameter in inches or millimeters appropriate to the uncertainty statement.