SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

FOWLER HIGH PRECISION
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CALIBRATION

Valid To: April 30, 2024 Certificate Number: 4072.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1, 5].

I. Dimensional

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Bore Gages	Up to 8 in	(39 + 2.4*D*) µin + 0.6*R*	Comparison to ring gages or gage blocks
Calipers	Up to 12 in (12 to 80) in	(420 + 3.1*L*) µin (560 + 6.5*L*) µin	Gage blocks
Cylindrical Pins/Plugs Trimos Nano Trimos THV	 Up to 8 in Up to 2 in	 (7.4 + 1.9*D*) µin (12 + 1.1*D*) µin	Gage blocks with ULM
Cylindrical Rings	Up to 8 in	(19 + 1.7*D*) µin	ULM
Depth Micrometers	Up to 12 in	(600 + 15*L*) µin	Gage blocks
Gage Blocks	Up to 4 in (5 to 20) in	(4.8 + 0.9*L*) µin (2.1 + 1.4*L*) µin	Master gage blocks

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Height Gage	Up to 44 in Up to 1010 mm	(65 + 1.5*L*) µin + 0.6*R* (1 + 0.0006*L*) µm + 0.6*R*	Gage blocks CheckMaster
Indicators Test Drop Drop	 Up to 0.06 in Up to 1 in Up to 6 in	 35 µin + 0.6*R* 42 µin + 0.6*R* (47 + 2.8*L*) µin + 0.6*R*	 Indicator calibrator Comparison to gage blocks and electronic amplifier
Indicator Calibrators	Up to 1 in	23 µin	Master gage blocks and electronic amplifier
Length/Micrometer Standards	Up to 20 in	(3.1 + 3.7*L*) µin	Comparison to gage blocks
LVDTs	Up to 1 in	47 µin	Gage blocks
Micrometers Inside Outside	 (2 to 20) in Up to 6 in (6 to 12) in (12 to 20) in	 (580 + 1.0*L*) µin (39 + 5.4*L*) µin (260 + 8*L*) µin (930 + 11*L*) µin	 ULM Gage blocks
Micrometer Heads	Up to 2 in	(100 + 2.9*L*) µin	Gage blocks
Thickness Gages (Feeler Type)	Up to 0.2 in	(33 + 95*L*) µin	ULM
Thickness Gage (Caliper Type)	Up to 6 in	(290 + 100*L*) µin	Gage blocks

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Universal Measuring Machines	Up to 20 in	(5.8 + 1.1*L*) µin	Laser
Universal Measuring Machines[3]	Up to 40 in	(70 + 0.51*L*) µin	Laser
Trimos THV	Up to 4 in	(12 + 0.9*L*) µin	Master gage blocks
Steel Rulers	Up to 12 in	(140 + 1.0*L*) µin	Vision measuring system

[1] This laboratory offers commercial calibration service.

[2] Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

[3] Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the Calibration and Measurement Capability Uncertainty (CMC) found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the uncertainty introduced by the item being calibrated, (e.g., resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

[4] In the statement of CMC, *L* is the numerical value of the nominal length of the device measured in associated units, *R* is the resolution of the unit under test and *D* is the numerical value of the nominal diameter of the device measured in inches or meters.

[5] This scope meets A2LA's *P112 Flexible Scope Policy*.

Accredited Laboratory

A2LA has accredited

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Newton, MA

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

American Association for Laboratory Accreditation CORPORATE SEAL 1978 DISTRICT OF COLUMBIA A2LA

Presented this 21st day of March 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4072.01
Valid to April 30, 2024

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.