



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

PRECISION INSTALLATIONS
501 Gorham Avenue
Woodbridge, NJ 07095
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CALIBRATION

Valid To: February 29, 2020

Certificate Number: 1717.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Measuring Microscope (Toolmaker's, Metallurgical, Field of View) ³ –			
Linear Accuracy	Up to 2 in	60 μin	Glass line scales and gage blocks
Eyepiece Reticle Line Pitch ⁴	1x to 2000x	(0.0041/L) %	Glass line scales
Field of View (FOV) – Measuring Software			
Manual Systems	Up to 4 in	43 μin	Glass scales, gage blocks, precision steel spheres, and pin gages.
Automated Systems		41 μin	

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Optical and Video Measuring Systems, Optical Comparators, Profile Projectors, Video CMM, Video Measuring Machines, Vision Systems, and Measuring (Toolmaker's) Microscopes ³ – Linear Accuracy	Manual Systems: Up to 8 in (8 to 36) in Vision Systems: Up to 8 in (8 to 36) in	110 μin (45 + 8.0L) μin 63 μin (9.0 + 7.0L) μin	Glass scales and gage blocks
Video and Vision Systems Squareness – X-Y X-Z and Y-Z	Up to (11 x 11) in Up to (3 x 3) in	20 μin/in 15 μin/in	Glass grids perpendicularity fixture
Optical Comparator Magnification (Projector Lens) ³	5x 10x 20x 25x 30x 31.25x 40x 50x 62.5x 100x All other magnifications not listed above between 5x and 500x	0.03 % 0.03 % 0.03 % 0.03 % 0.04 % 0.05 % 0.03 % 0.04 % 0.06 % 0.05 % 0.05 %	Glass scales, precision steel spheres, and pin gages

¹ This laboratory offers commercial calibration service and field 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 and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the 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 actual 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 The CMC for this parameter is a percentage derived from dividing the absolute value shown by L which is the length of the glass line scale used during the calibration. The user must then multiply this percentage by the observed measurement.
- ⁵ The CMC for this parameter is the percentage, as is stated, of the observed measurement.
- ⁶ In the statement of CMC, L is the length in inches.



Accredited Laboratory

A2LA has accredited

PRECISION INSTALLATIONS

Woodbridge, NJ

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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).



Presented this 24th day of July 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 1717.01
Valid to February 29, 2020
Revised August 8, 2018

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