



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

INSTRU-MET CORPORATION
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CALIBRATION

Valid To: December 31, 2023

Certificate Number: 1377.01

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
Calipers – Outside, Linear Scales/Gages	Up to 20 in	(27 + 9.5L) µin	Gage blocks
Micrometer Devices	Up to 20 in	(44 + 8.6L) µin	Gage blocks

II. Mechanical

Parameter/Equipment	Range	CMC ^{2,6} (±)	Comments
Force Verification of Testing Machines ³ – Measure (Compression/Tension)	(0.0022 to 100) lbf (20 to 500) lbf (220 to 2500) lbf (1100 to 10 000) lbf (3000 to 50 000) lbf (5000 to 110 000) lbf	0.050 % of reading 0.11 lbf 0.54 lbf 2.0 lbf 11 lbf 27 lbf	ASTM E4, ISO 7500-1 Dead weights Load cells

Parameter/Equipment	Range	CMC ^{2, 4, 6} (\pm)	Comments
Extensometers ³ – Displacement/Strain Measuring Devices, Gage Length and Crosshead Displacement – Measure	Up to 2 in	34 μ m	ASTM E83, ISO 9513 ASTM E2309 Using precision micrometer system or linear precision scale
	(2 to 20) in	(4.5 + 15L) μ m	Gage blocks
Testing Machine Crosshead Speed ³ – Measure			ASTM E2658
Displacement	(0.002 to 50) in/min	37 μ m	Linear encoder with precision scale and micrometer head
Time	--	0.0060 s	Timer, linear displacement over time per manufacturers specifications

III. Thermodynamics

Parameter/Equipment	Range	CMC ^{2, 6} (\pm)	Comments
Temperature – Measure ³	(0 to 300) °C	0.088 °C	WI-1006 by comparison with PRT

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. 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 In the statement of CMC, L is the numerical value of the nominal length of the device measured in inches.

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

⁶ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



Accredited Laboratory

A2LA has accredited

INSTRU-MET CORPORATION

Union, NJ

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 the requirements of ANSI/NCCL Z540-1-1994 and 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 31st day of March 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1377.01
Valid to December 31, 2023

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