SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

INSTROTEK, INC.
1 Triangle Drive
Research Triangle Park, NC 27709
Brian Hoffman Phone: 919 875 8371

CALIBRATION

Valid To: *SEE FOOTNOTE 5* Certificate Number: 6369.01

In recognition of the successful completion of the A2LA evaluation process, process (including an assessment of the organization's compliance to R205 – A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibration[1, 4]:

I. Dimensional

Parameter/Equipment	Range	CMC[2] (±)	Comments[8]	Location[5]
Master Density Blocks	(70 to 170) lb/ft³	0.2 lb/ft³	Calipers, load cells, scales, & class 1 weights; ASTM D7759	RDU
Master Moisture Blocks	(5 to 35) lb/ft³	0.14 lb/ft³	Calipers, load cells, scales, & class 1 weights; ASTM D7759	RDU
Secondary Density Reference Blocks, Including ValiDator I & II Systems[3]	(70 to 170) lb/ft³ (5 to 35) lb/ft³	0.2 lb/ft³ 0.14 lb/ft³	InstroTek 3500, Troxler Troxler™ 3430; ASTM D7759	RDU
Gyratory Internal Angle[3]	(0.4 to 2.5)°	0.02°	Pine RAM device; AASHTO T312	RDU
Gyratory Height	(25 to 300) mm	0.28 mm	1-2-3 blocks	RDU

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8398 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Parameter/Equipment	Range	CMC[2] (±)	Comments	Location[5]
Linear – 1D				
1-2-3 Blocks	(25 to 300) mm	0.0072 mm	Gage blocks, dial indicator	RDU
Calipers[3] –				
Outside	(1 to 300) mm	0.014 mm	Gage blocks	RDU
Inside	(1 to 300) mm	0.019 mm		
Micrometers[3]	(1 to 50) mm	0.013 mm	Gage blocks	RDU
Dial Indicators[3]	(1 to 100) mm	0.037 mm	Gage blocks	RDU
Displacement Transducers[3]	(1 to 50) mm	0.14 mm	Gage blocks	RDU
Steel Rulers[3]	(1 to 600) mm	0.01 mm	Gage blocks, calipers, & sight glass	RDU
Gyratory & Proctor Molds[3]	(8 to 5000) cm^3	0.15 mm	Mitutoyo three-point bore gauge, & Mitutoyo absolute caliper; AASHTO T312	RDU
Gage Blocks[3]	(1 to 100) mm	0.0026 mm	Mitutoyo digimatic indicator & grade 0 gage blocks	RDU
Sieves[3]	(9.5 to 50) mm	0.08 mm	Mitutoyo caliper	RDU

II. Mechanical

Parameter/Equipment	Range	CMC[2, 6, 7] (±)	Comments	Location[5]
Force – Measuring Equipment, Compression[3]	(50 to 2000) lbf	0.05 % of reading	2-kip load cell	RDU
		0.23 % of reading	Proving ring	
	(2001 to 10 000) lbf	0.05 % of reading	10-kip load cell	
		0.57 % of reading	Proving ring	
	(10 001 to 50 000) lbf	0.05 % of reading	50-kip load cell	
	(50 000 to 600 000) lbf	0.17 % of reading	600-kip load cell	
Pressure – Measuring Equipment[3]	(1 to 3447) kPa	0.25 psi	Fluke 700RG06 reference gauge, Fluke 700RG07 reference gauge	RDU
Vacuum – Measuring Equipment[3]	(0.975 to 759.8) mmHg	0.26 mmHg	Fluke 700GA4 vacuum gauge	RDU
Gyratory Compaction[3]	(1500 to 18 000) N	0.1 % of reading	5000 lbf proving ring or 3000 lbf load cell; AASHTO T312	RDU
Scales & Balances[3]	1 mg to 1000 g	$(1.2 + 2.0 \times 10^{-6}\ Wt)$ mg	Class 1 weights	RDU
	(1001 to 25 000) g	$(9.4 + 2.5 \times 10^{-6}\ Wt)$ mg		
	(25 001 to 100 000) g	$(0.25 + 1. \times 10^{-4}\ Wt)$ mg	NIST class F weights	

III. Ionizing Radiation & Radioactivity

Parameter/Equipment	Range	CMC[2] (±)	Comments	Location[5]
In-House Master Gauges (Density System)	(70 to 170) lb/ft³	0.2 lb/ft³	Calibrated on master density & master moisture blocks; ASTM D7759	RDU
In-House Master Gauges (Moisture System)	(5 to 35) lb/ft³	0.14 lb/ft³	Calibrated on master density & master moisture blocks; ASTM D7759	RDU
Nuclear Moisture/Density Gauges (Density System, Blocks, & ValiDator System)	Density: (70 to 170) lb/ft³ Moisture: (5 to 35) lb/ft³	0.2 lb/ft³ 0.14 lb/ft³	Secondary density & moisture reference blocks; ASTM D7759	RDU, GRR, SFO, DEN, PHL
Nuclear Density Gauges (Blocks & ValiDator System)	(70 to 170) lb/ft³	0.2 lb/ft³	Master density blocks or secondary density reference blocks; ASTM D7759	RDU, GRR, SFO, DEN, PHL

IV. Thermodynamics

Parameter/Equipment	Range	CMC[2] (±)	Comments	Location[5]
Ovens & Environmental Chambers[3]	(-80 to 100) °C (100.1 to 600) °C	0.15 °C 2.1 °C	Control Company 6412	RDU
Liquid-In-Glass Thermometers[3]	(-20 to 400) °C	0.29 °C	Control Company 6412 with 9009 Fluke dry block	RDU
Digital Thermometers[3]	(-20 to 100) °C (100.01 to 400) °C	0.28 °C 0.32 °C	Control Company 6412 with 9099 Fluke dry block	RDU

V. Time & Frequency

Parameter/Equipment	Range	CMC[2] (±)	Comments	Location[5]
Timers & Stopwatch[3]	(0.5 to 30) min	0.11 s	1025 traceable stopwatch	RDU
RPM[3]	(10 to 24 000) rpm	0.21 rpm	Extech tachometer	RDU

[1] This laboratory offers commercial and field calibration services.

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

[5] The locations of the laboratories that can perform the calibration are given by a three-letter code with valid to dates given in the table below:

Location	**Code**	**Valid to Dates**
1 Triangle Drive, Research Triangle Park, NC 27709	RDU	5/31/2027
4495 44th Street SE, Suite A, Grand Rapids, MI 49512	GRR	5/31/2027
5052 Commercial Circle, Suites A & B, Concord, CA 94520	SFO	7/31/2028
850 E 73rd Avenue, Unit 12, Denver, CO 80229	DEN	7/31/2026
3580 Progress Drive, Unit O, Bensalem, PA 19020	PHL	5/31/2027

[6] In the statement of CMC, *Wt* is the representation of weight pounds or grams appropriate to the uncertainty statement.

[7] 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.

[8] "Troxler" is a trademark registered to Troxler Electronic Laboratories, Inc.

Please click here to return to page 1

Accredited Laboratory

A2LA has accredited

INSTROTEK, INC.

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*).

Presented this 1st day of December 2025.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 6369.01
Valid to: See Scope of Accreditation

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