



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

VISIONAL TECHNOLOGY, SRL
Flexipark Free Zone Building A8
San Rafael de Alajuela, Costa Rica 20108
Victor Rivera Castro Phone: +506-4800-1845

CALIBRATION

Valid To: July 31, 2027

Certificate Number: 4111.02

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with R205 – A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations^{1, 5}:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Vision Measurement System and Multi-Sensors ³			
Length	Up to 758 mm	$(0.22 + 0.000\ 69L)\ \mu\text{m}$	Glass line scale
Z-Axis Linear Error (1D tactile)	Up to 177 mm	$(0.29 + 0.0018L)\ \mu\text{m}$	Gage blocks
EUV – Length Error of Imaging Probe	Up to 150 mm	$(1.0 + 0.0021L)\ \mu\text{m}$	Glass line scale
Probing Error (PF2D)	Up to 3.5 mm 14 mm	0.44 μm 1 μm	Circle chart
Probing Error of the Imaging Probe (PFV2D)	Up to 3.5 mm 14 mm	0.57 μm 1 μm	Circle chart

Parameter/Equipment	Range	CMC ^{2, 4} ($\pm$)	Comments
Coordinate Measuring Machines (CMM) ³			
Length	Up to 1000 mm	$(0.14 + 0.0002L) \mu\text{m}$	Step gage ⁷
Probe Performance	Up to 30 mm	$0.15 \mu\text{m}$	Sphere ⁷
Scanning Performance	Up to 30 mm	$0.12 \mu\text{m}$	Sphere ⁷
Universal Length Measuring Machine (ULM/UMM)	Up to 12 inch	$(2.0 + 0.91L) \mu\text{in}$	Gage blocks, force gage
Optical Comparator ^{3, 8}			Optical scale
Length (Horizontal)	Up to 606 mm Up to 24 in	$(0.65 + 0.0019L) \mu\text{m}$ $(26 + 1.9L) \mu\text{in}$	
Length (Vertical)	Up to 192 mm Up to 8 in	$(1.7 + 0.003L) \mu\text{m}$ $(66 + 3L) \mu\text{in}$	
Chart Rotation	Up to 360°	1.2 Arcminutes	
Gage Blocks			Master gage blocks (ULM)
Length	(> 0.05 to 1) inch > 1 to 4) inch > 4 to 12) inch	$(1.3 + 0.3L) \mu\text{in}$ $(1.1 + 0.5L) \mu\text{in}$ $(0.6 + 1.1L) \mu\text{in}$	
Parallelism (Variation in Length)	(> 0.05 to 1) inch	$0.50 \mu\text{in}$	
Optical Scales, Reticules, Grid / Dot Array			Vision measurement system with comparison to calibrated standards.
Length	Up to 758 mm	$(0.52 + 0.00067L) \mu\text{m}$	
Diameter	Up to 3.5 mm Up to 400 mm	$0.41 \mu\text{m}$ $(2.1 + 0.0035D) \mu\text{m}$	
Angles	Up to 360°	1.0 Arc minutes	

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Length Standards	Up to 12 inch Up to 758 mm	$(2.0 + 0.91L) \mu\text{in}$ $(0.52 + 0.00067L) \mu\text{m}$	Labmaster universal (ULM), CMM, vision system
Micrometers	Up to 1 inch (1 to 2) inch	$(2.8 + 0.3L) \mu\text{in}$ $(14 + 1L) \mu\text{in}$	Gage blocks
Calipers	Up to 24 inch	$(140 + 0.25L) \mu\text{in}$	Gage blocks
Spheres Size Form	Up to 25 mm Up to 25 mm	0.43 μm 0.13 μm	CMM with comparison to calibrated standard, Labmaster Universal (ULM)
Cylindrical Gages Plain Pin and Plug Gages Plain Ring Gages	Up to 4 inch Up to 7 inch	4.0 μin 11 μin	Labmaster universal (ULM), master gage blocks
Thread Wires	(1 to 120) TPI (0.2 to 10) Pitch	7.8 μin 0.20 μm	Labmaster universal (ULM), master gage blocks
Steel Rulers	Up to 640 mm	$(3.9 + 0.0022L) \mu\text{m}$	Vision measurement system
Computer Tomography Systems - CT Machines Length Measurement Error (E) Sphere Distance Deviation (SD) Probing Error Size (PS) Probing Error Form (PF)	Measuring volume with a space of diagonal < 205 mm	1.5 μm 0.8 μm 0.6 μm 0.9 μm	Sphere array reference, master sphere

Parameter/Equipment	Range	CMC ^{2, 4} ($\pm$)	Comments
Thread Plug Gages			
Major Diameter	Up to 2 inch Up to 50.4 mm	12 μ m 0.38 μ m	Labmaster universal (ULM), Thread Wires
Pitch Diameter	(4 to 80) TPI (0.2 to 10) mm Pitch	30 μ m 0.75 μ m	

II. Dimensional Testing^{1, 6}

Parameter/Equipment	Range	CMC ^{2, 4} ($\pm$)	Comments
1D Measurements	Up to 640 mm (640 to 1000) mm	(2.0 + 0.0034L) μ m (2.9 + 0.0034L) μ m	Vision measurement system, ULM, CMM
2D Measurements			
Diameter	Up to 400 mm (400 to 700) mm	(2.1 + 0.0035D) μ m (2.9 + 0.0034D) μ m	Vision measurement system, CMM
Angles	Up to 360°	(0.53 + 0.000 15A) Arcminutes	
3D Measurements	Up to 900 mm	(2.9 + 0.0034L) μ m	Vision measurement system, CMM

¹ This laboratory offers commercial calibration service, field calibration service, and dimensional testing.

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 millimeters (metric units) or inches (imperial units); D is the numerical value of the nominal diameter of the device measured in millimeters (metric units) or inches (imperial units); and A is the nominal numerical value of an angle measured in decimal degrees.

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

⁶ This laboratory meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program for the types of dimensional tests listed above and is considered equivalent to that of a calibration.

⁷ Repeatability of the Unit Under Test has not been utilized in the calculation of the CMC value for this measurement parameter.



Accredited Laboratory

A2LA has accredited

VISIONAL TECHNOLOGY, SRL

San Rafael de Alajuela, Costa Rica

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 26th day of August 2025.

A blue ink signature of Mr. Trace McInturff, consisting of a stylized 'T' followed by a series of loops and a horizontal line at the end.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4111.02
Valid to July 31, 2027

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