

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 & ANSI/NCSL Z540-1-1994

QUALITY VISION SERVICES, INC.

1175 North Street Rochester, NY 14621

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CALIBRATION

Valid To: July 31, 2020 Certificate Number: 1864.01

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, 4} (±)	Comments
Optical Comparators, Contour Projectors ³ –			
Length	Up to 18 in (18 to 48) in	(64 + 0.54 <i>L</i>) μin (47 + 1.5 <i>L</i>) μin	Reticle/linescale/ square
Squareness	Up to 12 in	150 μin	
Magnification 5× to 200×	Up to 50 in screen	130 μin	
Chart Rotation	Up to 50 in screen	200 μin	
Angular	Up to 50 in screen	2'	
Video Measurement Systems ³	Up to 18 in (18 to 48) in	31 µin 52 µin	Reticle/linescale/laser/ stairstep gage
Toolmaker's Microscopes ³	Up to 12 in	200 μin	Reticle/linescale

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Parameter/Equipment	Range	CMC ² (±)	Comments
Precision Grids	Up to 25 in \times 25 in	30 µin	Grid inspection system
Precision Scales	Up to 40 in	30 μin	Grid inspection system/SIP measuring instrument
Precision Reticles	Up to 24 in	30 μin	Grid inspection system/SIP measuring instrument
Z-Axis Step Gages – Video			
Step Height	(0.125 to 6) in	28 μin	Laseruler/indi-square/ indicator
Perpendicularity		36 μin	maleutor
Calibration Spheres Diameter	(0.25 to 1.0) in	28 μin	Laseruler
Step Gages – Cobra	(0.125 to 1.0) in	12 μin	Laseruler
QVS Width Gauge	Up to 60 mm	0.36 µm	QVI Quest 625

¹ This laboratory offers commercial and field calibration services.

Langer

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



Accredited Laboratory

A2LA has accredited

QUALITY VISION SERVICES, INC.

Rochester, NY

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 the requirements of ANSI/NCSLI 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).

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Presented this 10th day of July 2018.

President and CEO
For the Accreditation Council
Certificate Number 1864.01

Valid to July 31, 2020