



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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CALIBRATION

Valid To: November 30, 2019

Certificate Number: 4326.01

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, 3} (±)	Comments
Indicators, Diameter, Width, Thread Height, and Lead Gages ⁵	Up to 1 in	(66 + 0.6R) μin	Gage blocks, MIC TRAC, CG-1000
Depth Gages	Up to 8 in (8 to 18) in	290 μin (67 + 36L) μin	MIC TRAC, CMM gage blocks
Rod Standards	Up to 20 in	(43 + 7.8L) μin	MIC TRAC, height gage
Frame Standards	Up to 12 in (12 to 36) in	(18 + 4.3L) μin (9.7 + 5.0L) μin	CMM, MIC TRAC
Thread Rolls – Pitch Diameter	Up to 1 in	82 μin	MIC TRAC, gage wires, micrometer

Parameter/Equipment	Range	CMC ^{2, 3} (±)	Comments
MIC TRAC (Bench Top Micrometer)	Up to 12 in (12 to 24) in (24 to 36) in	(19 + 3.8L) μin (14 + 4.2L) μin (66 + 2.1L) μin	Renishaw laser
Stator Bore Gages ⁵	Up to 0.250 in	1500 μin	Cylindrical standards
MIC 360 (Circumference Gage) ⁶	(3.5 to 6) in	86 μin	Cylindrical standards

II. Dimensional Testing¹

Parameter/Equipment	Range	CMC ^{2, 3} (±)	Comments
Thread Profile	(2 to 20) pitch	No discernable visual light	Optical comparator
One Dimensional Length ⁴	Up to 12 in (12 to 36) in	(18 + 4.3L) μin (9.7 + 5.0L) μin	CMM, MIC TRAC

¹ This laboratory offers commercial calibration and dimensional testing 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. CMC's 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 In the statement of CMC, L is the numerical value of the nominal length of the device measured in inches; it represents time, R is the resolution in inches of the unit under test.

⁴ This Laboratory meets R205 – *Specific Requirements: Calibration Laboratory Accreditation Program* for the types of dimensional test listed above and is considered equivalent to that of a calibration certificate

⁵ This range describes the travel of the gage's measuring arm or mechanism.

⁶ This range describes the wheel diameter of the MIC 360.



Accredited Laboratory

A2LA has accredited

GAGEMAKER, LP

Pasadena, TX

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 8 January 2009).



Presented this 6th day of October 2017.

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

President and CEO
For the Accreditation Council
Certificate Number 4326.01
Valid to November 30, 2019
Revised on January 4, 2018

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