



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

LEADER CORPORATION
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CALIBRATION

Valid To: June 30, 2019

Certificate Number: 3692.01

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 ⁴
External Straight Thread – Pitch Diameter	(0.05 to 2) in	(63 + 4.2D) μin	P&W Supermicrometer, gage blocks, thread wire
	(2 to 16) in	(60 + 14D) μin	Gage blocks, thread wire, Mikrokator
Major Diameter	Up to 2 in	(28 + 4D) μin	P&W Supermicrometer, gage blocks
	(2 to 16) in	(48 + 7.8D) μin	Gage blocks, Mikrokator
Flank Angle	(0 to 90°)	2.7 in	Optical comparator
Thread Lead	Up to 1 in	(140 + 1.7L) μin	Optical comparator, gage blocks
External Taper Thread – Pitch Diameter	(0.062 to 8) in	(77 + 17D) μin	Mikrokator, gage blocks, thread wire, sine block
	Major Diameter	Up to 8 in	(67 + 8.2D) μin

Parameter/Equipment	Range	CMC ^{2,3} (\pm)	Comments
Internal Straight Thread – Pitch Diameter (0.5 to 80 TPI) Minor Diameter	Up to 16 in (0.1 to 1) in (1 to 16) in	(130 + 47D) μ in (160 + 15D) μ in (85 + 15D) μ in	Master plug Gage pins, gage blocks
Internal Taper Thread – Pitch Diameter Minor Diameter	Up to 8 in (0.05 to 8) in	(120 + 18D) μ in (190 + 8.2D) μ in	Taper master plug set
Cylindrical External	(0.01 to 8) in	(18 + 8.8D) μ in	Mikrokator, gage blocks
Cylindrical Ring Gages	(0.1 to 8) in	(27 + 2.4D) μ in	Master rings, comparison equipment, UMM
Dimension Over Roll	Up to 8 in	(92 + 0.8L) μ in	Roll gage, gage blocks, pins
Spline Gage Plug – MOW	(0.05 to 9) in	(78 + 13D) μ in	Mikrokator, gage blocks, gear measuring wires
Spline Gage Ring – MBW	(0.2 to 9) in	(100 + 8.2D) μ in	Gage blocks, gage measuring wires
Involute – Profile Index Lead Runout	(0.2 to 6) in (0.2 to 6) in (0.2 to 6) in (0.2 to 6) in	120 μ in 99 μ in 97 μ in 130 μ in	Gear inspection system

II. Dimensional Testing/Calibration¹

Parameter/Equipment	Range	CMC ^{2,3} (\pm)	Comments
Length ⁵ – 1D – Measure	Up to 14 in	(49 + 3.6L) μ in	Micro-Hite
3D – Measure Linear	Up to 14 x 16 x 12 in	(280 + 29L) μ in	CMM
Volumetric	Up to 14 x 16 x 12 in	450 μ in	

¹ This laboratory offers commercial calibration service, dimensional testing 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 In the statement of CMC, D is the diameter in inches and L is the length in inches.

⁴ "Supermicrometer" is a registered trademark with a last listed owner of Pratt & Whitney Measurement Systems, Inc., Connecticut U.S.A.

⁵ 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.



Accredited Laboratory

A2LA has accredited

LEADER CORPORATION

Shelby Township, MI

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 12th day of October 2017.

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

President and CEO
For the Accreditation Council
Certificate Number 3692.01
Valid to June 30, 2019

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