



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017  
& ANSI/NCSL Z540-1-1994

LEDFORD GAGE LAB, INC.  
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Mulvane, KS 67110  
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CALIBRATION

Valid To: December 31, 2027

Certificate Number: 1560.01

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<sup>1, 6</sup>:

I. Dimensional

Parameter/Equipment	Range	CMC <sup>2, 4</sup> ( $\pm$ )	Comments
Gage Blocks	Up to 1 in  (1 to 4) in	4.2 $\mu$ in  (3.0 + 1.4L) $\mu$ in	Mahr Federal Comparator
Micrometers –  50 $\mu$ in Graduation 100 $\mu$ in Graduation 1000 $\mu$ in Graduation	Up to 6 in	(38 + 4.2L + 0.6R) $\mu$ in	Gage blocks, ball gage
Calipers – Dial, Digital, Vernier  500 $\mu$ in Graduation 1000 $\mu$ in Graduation	Up to 12 in	(0.5 + 4.5L + 0.6R) $\mu$ in	Gage blocks, ring gage
Gage Pins	(0.01 to 1) in	29 $\mu$ in	Supermicrometer™

Parameter/Equipment	Range	CMC <sup>2, 4</sup> ( $\pm$ )	Comments
Optical Comparators <sup>3</sup> – Linearity	Up to 6 in	$(220 + 3.4L) \mu\text{in}$	Glass master scales
Indicators – Dial, Digital Test Type  20 $\mu\text{in}$ Graduation 50 $\mu\text{in}$ Graduation 100 $\mu\text{in}$ Graduation 500 $\mu\text{in}$ Graduation 1000 $\mu\text{in}$ Graduation	Up to 2 in	$(19 + 1.0L + 0.6R) \mu\text{in}$	LabConcept
Plug Gages –  Plain, Cylindrical  Threaded, 60°  Pitch Diameter  Major Diameter	Up to 10 in Up to 10 in   Up to 2 in Up to 2 in	$(15 + 1.7L) \mu\text{in}$ $(18 + 1.9L) \mu\text{in}$  51 $\mu\text{in}$ 28 $\mu\text{in}$	LabConcept TULM 210  Supermicrometer™, thread wires Supermicrometer™
Ring Gages –  Plain, Cylindrical  Threaded, 60°  Pitch Diameter	Up to 10 in Up to 10 in   Up to 2 in Up to 2 in	$(17 + 1.3L) \mu\text{in}$ $(17 + 1.7L) \mu\text{in}$  200 $\mu\text{in}$ 200 $\mu\text{in}$	LabConcept TULM 210  LabConcept Set plug masters
Labconcept Trimos Universal Measuring Machines <sup>3</sup> –  Length	Up to 80 in	$(4.0 + 1.1L) \mu\text{in}$	Optodyne laser system

## II. Mechanical

Parameter/Equipment	Range	CMC <sup>2, 4, 5</sup> ( $\pm$ )	Comments
Indirect Verification of Rockwell Hardness Testers <sup>3</sup>	HRC: Low Medium High  HRBW: Low Medium High  HREW: Low Medium High	0.41 HRC 0.34 HRC 0.34 HRC  0.28 HRBW 0.50 HRBW 0.41 HRBW  0.52 HREW 0.52 HREW 0.51 HREW	ASTM E18
Torque Wrenches <sup>4</sup> —			
Snap Type	(5 to 50) ozf·in (20 to 200) ozf·in (5 to 50) lbf·in (40 to 400) lbf·in (100 to 1000) lbf·in (25 to 250) lbf·ft (60 to 600) lbf·ft (100 to 1000) lbf·ft	$0.09 + T (0.78 \%) \text{ ozf·in}$ $0.50 + T (0.60 \%) \text{ ozf·in}$ $0.07 + T (1.5 \%) \text{ lbf·in}$ $1.1 + T (0.36 \%) \text{ lbf·in}$ $2.6 + T (0.30 \%) \text{ lbf·in}$ $0.70 + T (0.36 \%) \text{ lbf·ft}$ $1.4 + T (0.28 \%) \text{ lbf·ft}$ $2.6 + T (0.29 \%) \text{ lbf·ft}$	CDI series 5000 torque transducers
Dial and Beam	(5 to 50) ozf·in (20 to 200) ozf·in (5 to 50) lbf·in (40 to 400) lbf·in (100 to 1000) lbf·in (25 to 250) lbf·ft (60 to 600) lbf·ft (100 to 1000) lbf·ft	$0.09 + T (0.69 \%) \text{ ozf·in}$ $0.57 + T (0.47 \%) \text{ ozf·in}$ $0.07 + T (1.5 \%) \text{ lbf·in}$ $1.1 + T (0.33 \%) \text{ lbf·in}$ $1.9 + T (0.20 \%) \text{ lbf·in}$ $0.75 + T (0.36 \%) \text{ lbf·ft}$ $1.5 + T (0.26 \%) \text{ lbf·ft}$ $2.5 + T (0.23 \%) \text{ lbf·ft}$	

<sup>1</sup> This laboratory offers commercial and field calibration service.

<sup>2</sup> 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.

<sup>3</sup> 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 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.

<sup>4</sup> In the statement of CMC,  $L$  is the numerical value of the nominal length of the device measured in inches,  $T$  = torque measured value, and  $R$  is the numerical value of the resolution of the device under test in  $\mu\text{in}$ .

<sup>5</sup> In the statement of CMC, percentages are to be read as percent of reading unless otherwise noted.

<sup>6</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.



# Accredited Laboratory

A2LA has accredited

**LEDFORD GAGE LAB, INC.**

*Mulvane, KS*

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 the requirements of ANSI/NCCL 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).



Presented this 9<sup>th</sup> day of October 2025.

A blue ink signature of Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1560.01  
Valid to December 31, 2027

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