

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

THE L.S. STARRETT COMPANY

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CALIBRATION

Valid To: December 31, 2024 Certificate Number: 0760.01

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, 4} (±)	Comments
Length Gages –			
Flat and Spherical Ends	Up to 80 in	$(30 + 5L) \mu in$	ASME B89.1.13-2001
Steel Rules	Up to 6 ft (6 to 12) ft	$(170 + 3.8L) \mu in$ $(190 + 3.8L) \mu in$	GGG-R-791H/MFG
Squareness – Measure	Up to 4 in × 4 in	75 μin or 15 arc second	GGG-S-656D, manufacturer's specifications
Straightness – Measure	Up to 72 in	(30 + 4 <i>L</i>) μin	MIL-S-15769, manufacturer's specifications
Parallelism – Measure	Up to 6 in	40 μin	GGG-P-61A, manufacturer's specifications



Parameter/Equipment	Range	CMC ^{2, 3, 4} (±)	Comments
Thickness of Material – Measure	Up to 0.20 in	32 μin	GGG-G-17C, manufacturer's specifications
Height Gages –			
Vernier	Up to 24 in Up to 36 in Up to 48 in Up to 60 in	170 μin 240 μin 300 μin 370 μin	GGG-C-111C, manufacturer's specification
Dial	Up to 24 in	210 μin	
Digital	Up to 24 in	320 µin	
Digi-Chek	(0.1 to 24) in	70 μin	
Indicators –			
Mechanical	0.000 05 in 0.0001 in 0.0005 in 0.001 in 0.005 in 0.010 in	20 μin 26 μin 42 μin 56 μin 150 μin 250 μin	ANSI B89.1.10M, manufacturer's specifications Range is equal to graduation/resolution
Digital	0.000 05 in 0.0001 in 0.000 25 in 0.0005 in 0.001 in	35 μin 65 μin 150 μin 300 μin 600 μin	
Calipers –			
Vernier – Outside	Up to 72 in	75 μin/ft	GGG-C-111C, manufacturer's
Dial – Outside/Depth	Up to 24 in	$(190 + 3L) \mu in$	specifications
Digital – Outside	Up to 12 in Up to 48 in Up to 72 in	77 μin 290 μin 420 μin	



Parameter/Equipment	Range	CMC ^{2, 3} (±)	Comments
Micrometers –			
Head	Up to 2 in	16 μin	ASME B89.1.13
Outside –			
Mechanical	Up to 12 in (12 to 24) in (24 to 48) in (48 to 60) in	$(30 + 3L) \mu in$ $(90 + 4L) \mu in$ $(110 + 5L) \mu in$ $(140 + 4.5L) \mu in$	
Digital	Up to 4 in (4 to 15) in (15 to 24) in	40 μin (45 + 3 <i>L</i>) μin (110 + 5 <i>L</i>) μin	
Inside	(1.5 to 72) in	130 μίπ	
Tubular Inside	(32 to 107) in	320 µin	
Depth –			
Mechanical	Up to 12 in	80 μin	
Digital	Up to 12 in	96 μin	
Bench Micrometer	Up to 2 in	37 μin	
Electronic/Amp Gage	(0.0001 to 0.0010) in	10 μin	Manufacturer's specification
Bore Gages –			
Dial, Plunger Type Internal –	(2 to 8) in	60 μin	MIL-G-26762B, manufacturer's specification
Mechanical	Up to 12 in	50 μin	
Digital	Up to 12 in	50 μin	



Parameter/Equipment	Range	CMC ² (±)	Comments
Protractors – Stamped Grad Etched Grad	360° 360°	6.6' 1.2'	GGG-S-565 GGG-P-676B
Levels/Vials	5" to 50'	2.8 % of the vial accuracy	GGG-L-211D, manufacturer's specification
Steel Tape Lines – Self-Support Long Lines	Up to 30 ft (25 to 50) ft	0.0035 in 0.01 in	NIST handbook 44 GGG-T-106F/
	100 ft	0.011 in	MIL-T-16644D

¹ Commercial calibration service is sometimes available for this laboratory.



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

⁴ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



Accredited Laboratory

A2LA has accredited

THE L.S. STARRETT COMPANY

Athol, MA

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/NCSL 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 4th day of November 2022.

Vice President, Accreditation Services

For the Accreditation Council

Certificate Number 0760.01

Valid to December 31, 2024

Revised November 25, 2024

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