



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: October 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} (\pm) | Comments |
|--|---|--|--|
| Length Gages – Flat and Spherical Ends Steel Rules | Up to 80 in Up to 6 ft (6 to 12) ft | (30 + 5L) μ in (170 + 3.8L) μ in (190 + 3.8L) μ in | ASME B89.1.13-2001 GGG-R-791H/MFG |
| Squareness – Measure | Up to 4 in \times 4 in | 75 μ in or 15 arc second | GGG-S-656D, manufacturer's specifications |
| Straightness – Measure | Up to 72 in | (30 + 4L) μ in | MIL-S-15769, manufacturer's specifications |
| Parallelism – Measure | Up to 6 in | 40 μ in | 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 specifications |
| Dial – Outside/Depth | Up to 24 in | (190 + 3L) µin | |
| 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) μin (90 + 4L) μin (110 + 5L) μin (140 + 4.5L) μin | |
| Digital | Up to 4 in (4 to 15) in (15 to 24) in | 40 μin (45 + 3L) μin (110 + 5L) μin | |
| Inside | (1.5 to 72) in | 130 μin | |
| 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 | (2 to 8) in | 60 μin | MIL-G-26762B, manufacturer's specification |
| Internal – | | | |
| 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 100 ft | 0.0035 in 0.01 in 0.011 in | NIST handbook 44 GGG-T-106F/ 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/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 4th day of November 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0760.01
Valid to October 31, 2024

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