



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

THE L.S. STARRETT COMPANY,
TRU-STONE TECHNOLOGIES DIVISION
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CALIBRATION

Valid To: November 30, 2013

Certificate Number: 1580.01

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} (\pm)	Comments
Granite Surface Plates – Flatness	$\pm 25 \mu\text{in}$ over 12 in Up to 300 inch diagonal	$(5.2\sqrt{D}) \mu\text{in}$	Autocollimator
	0.020 in per measurement Up to 480 inch diagonal	$(6.2\sqrt{D}) \mu\text{in}$	Electronic level
Repeat Reading	Up to 0.002 in	25 μin	Repeat-o-meter with 0.00002 indicator Only valid in connection with a flatness or straightness calibration

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments	
Granite Metrology Accessories –	Flatness/Straightness	Up to 0.0008 in	19 µin	Mikrokator and straight edge
		±25 µin over 12 in Up to 300 inch diagonal	(5.2√D) µin	Autocollimator
		0.020 in per measurement Up to 480 inch diagonal	(6.2√D) µin	Electronic level
	Perpendicularity	≤ 48 in	2.5 µin/in	Pentaprism and autocollimator
Parallelism	Up to 0.001 in	26 µin	Electronic amp and gage head	
	0.020 in per measurement Up to 480 inch length	(6.2√D) µin	Electronic level	

II. Dimensional Testing/Calibration¹

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Length ⁴ – Granite and Steel			
1D, 2D, 3D	Up to (2 x 4 x 1.5) m	(12 + 15L) µm	Zeiss MMZ-B CMM

¹ This laboratory offers commercial dimensional testing/calibration service.

² Calibration and Measurement Capability (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. Calibration and Measurement Capabilities 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 length of the diagonal in inches and L is the measured length in meters.
- ⁴ 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.



World Class Accreditation

The American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

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Waite Park, MN

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 any additional program requirements in the field of calibration. 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 3rd day of January 2012.



Peter M. Meyer

President & CEO
For the Accreditation Council
Certificate Number 1580.01
Valid to November 30, 2013

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