



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

GLASTONBURY SOUTHERN GAGE TN
Erin, TN

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* and 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 18 June 2005*).



Presented this 28th day of October 2008.

A handwritten signature in cursive script, reading "Peter M. Meyer", positioned above a horizontal line.

President
For the Accreditation Council
Certificate Number 1553.02
Valid to April 30, 2010

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

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GLASTONBURY SOUTHERN GAGE CO. TN
 150 Industrial Park Road
 Erin, TN 37061
 David Harris Phone: 800 251 4243

CALIBRATION

Valid until: April 30, 2010

Certificate Number: 1553.02

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	Best Uncertainty ^{2,3} (\pm)	Comments
Plain Rings – Internal Diameter	(0.06 to 4) in (4 to 22.5) in	$(7.2 + 1.5L) \mu\text{in}$ $(3.2 + 2.8L) \mu\text{in}$	Federal 136 B-3, gage blocks
Plain Cylindrical Plugs and Discs – External Diameter	(0.01 to 5.5) in (0.01 to 4) in (4 to 20) in	$(3.3 + 1.8L) \mu\text{in}$ $(6.8 + 1.8L) \mu\text{in}$ $(3 + 2.8L) \mu\text{in}$	Heidenhain Federal 136 B-3, gage blocks
Length – Between Two Planes	(0.01 to 6) in (0.01 to 26) in	200 μin $(26 + 0.9L) \mu\text{in}$	Sylvac DiaLectron and gage blocks
Plain Tapered Rings – Internal Diameter			
0.75 TPF	(0.01 to 3) in (3 to 12) in	53 μin 58 μin	Taper blocks with: Mikroktor DiaLectron
All Tapers	(0.01 to 8) in	41 μin	Standard measuring machine, gage block, rolls

Parameter/Equipment	Range	Best Uncertainty ^{2,3} (±)	Comments
Plain Tapered Rings – Internal Diameter			
0.75 TPF	(0.04 to 3) in (3 to 12) in	90 μin 100 μin	Indicator, taper plug
All Tapers	(0.4 to 8) in	81 μin	
External Straight Thread Plugs –			Blocks and wires with:
Pitch Diameter			Mikrokator
(0.5 to 120) TPI	(0.047 to 3) in (3 to 24) in	54 μin (49 + 1.5L) μin	Standard measuring machine
Major Diameter	(0.047 to 3) in (3 to 24) in	35 μin (25 + 2.1L) μin	Mikrokator P & W standard measuring machine
External Thread Lead Straight and Tapered	(1/2 to 120) TPI	47 μin	P&W laser lead checker
External Thread Flank Straight and Tapered	0° to 180°	4'	Optical comparator
Internal Straight Thread Ring –			
Pitch Diameter			In accordance with ASME B1.2, para 5.1.1; the ring is sized to a plug, with the plug's uncertainty given.
(0.5 to 120) TPI	(0.06 to 12.5) in	54 μin	
Minor Diameter	(0.04 to 0.40) in (0.40 to 6.0) in (6.0 to 12.5) in	94 μin 95 μin (88 + 0.8L) μin	Taper pins & micrometers Fowlers Micrometers

Parameter/Equipment	Range	Best Uncertainty ² (±)	Comments
External Tapered Thread Plug – Pitch Diameter 0.750 TPF, (0.5 to 120) TPI Major Diameter	(0.047 to 3) in (3 to 12) in (0.1 to 3.0) in (3.0 to 12) in	91 µin 96 µin 53 µin 58 µin	Mikrakator, blocks, taper block, wires Standard measuring machine, blocks, wires Taper block and Microkator Taper block & DiaLectrion
Internal Tapered Thread Rings – Pitch Diameter 0.75 TPF, (0.5 to 120) TPI Minor Diameter	(0.06 to 3) in (3 to 12) in (0.40 to 3.0) in (3.0 to 12.0) in	270 µin 270 µin 90 µin 100 µin	Tapered master plug, Sylvac Taper plug & indicator
Thread Wires – Inch Metric	(4 to 80) TPI (0.2 to 10) Pitch	17 µin 17 µin	Master wire, Heidenhain

¹ This laboratory offers commercial calibration service.

² “Best Uncertainty” 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 of nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The best uncertainty of a specific calibration performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer’s device and to influences from the circumstances of the specific calibration.

³ In the statement of best uncertainty, L is the numerical value of the nominal length of the device measured in inches.