



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GLASTONBURY SOUTHERN GAGE CO. TN  
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 Erin, TN 37061  
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CALIBRATION

Valid until: April 30, 2012

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 calibrations<sup>1</sup>:

I. Dimensional

| Parameter/Equipment                                   | Range  | CMC <sup>2,3</sup> (±)                               | Comments  |
|---|--|--|---|
| Plain Rings – Internal Diameter                       | (0.06 to 4) in<br>(4 to 22.5) in                   | (7.2 + 1.5L) µin<br>(3.2 + 2.8L) µin                 | Federal 136 B-3, gage blocks                    |
| Plain Cylindrical Plugs and Discs – External Diameter | (0.01 to 5.5) in<br>(0.01 to 4) in<br>(4 to 20) in | (7.8 + 6L) µin<br>(6.8 + 1.8L) µin<br>(3 + 2.8L) µin | Heidenhain<br>Federal 136 B-3, gage blocks      |
| Length – Between Two Planes                           | (0.01 to 6) in<br>(0.01 to 26) in                  | 200 µin<br>(26 + 0.9L) µin                           | Sylvac<br>DiaLectron & gage blocks              |
| Plain Tapered Plugs – External Diameter               |  |  | Taper blocks w/:                                |
| 0.75 TPF  | (0.01 to 3) in<br>(3 to 12) in                     | 53 µin<br>58 µin                                     | Mikrokator<br>DiaLectron                        |
| All Tapers  | (0.01 to 8) in                                     | 41 µin   | Standard measuring machine, gage block, & rolls |

| Parameter/Equipment                           | Range   | CMC <sup>2,3</sup> (±)              | Comments   |
|---|---|-------------------------------------|--|
| Plain Tapered Rings –<br>Internal Diameter    |   |                                     |  |
| 0.75 TPF                                      | (0.04 to 3) in<br>(3 to 12) in                            | 90 µin<br>100 µin                   | Indicator & taper plug   |
| All Tapers                                    | (0.4 to 8) in   | 81 µin                              |  |
| External Straight<br>Thread Plugs –           |   |                                     | Blocks & wires w/:   |
| Pitch Diameter                                |   |                                     |  |
| (0.5 to 120) TPI                              | (0.047 to 3) in<br>(3 to 24) in                           | 54 µin<br>(49 + 1.5L) µin           | Mikrokator & standard<br>measuring machine   |
| Major Diameter                                | (0.047 to 3) in<br>(3 to 24) in                           | 35 µin<br>(25 + 2.1L) µin           | Mikrokator & P&W<br>standard measuring<br>machine  |
| External Thread Lead<br>Straight and Tapered  | (1/2 to 120) TPI  | 47 µin                              | P&W laser lead checker   |
| External Thread Flank<br>Straight and Tapered | 0° to 180°  | 4'                                  | Optical comparator   |
| Internal Straight Thread<br>Ring –            |   |                                     |  |
| Pitch Diameter                                |   |                                     |  |
| (0.5 to 120) TPI                              | (0.06 to 12.5) in   | 54 µin                              | Certificate states the ring<br>is sized to a plug, with the<br>plug's uncertainty given. |
| Minor Diameter                                | (0.04 to 0.40) in<br>(0.40 to 6.0) in<br>(6.0 to 12.5) in | 94 µin<br>95 µin<br>(88 + 0.8L) µin |  |

| Parameter/Equipment   | Range  | CMC <sup>2</sup> (±)                        | Comments   |
|---|--|---|--|
| External Tapered Thread Plug –<br><br>Pitch Diameter<br><br>0.750 TPF,<br>(0.5 to 120) TPI<br><br>Major Diameter<br><br>(0.1 to 3.0) in<br><br>(3.0 to 12) in | (0.047 to 3) in<br><br>(3 to 12) in  | 91 µin<br><br>96 µin                        | Mikrokator, blocks,<br>taper block, & wires<br><br>Standard measuring<br>machine, blocks, &<br>wires<br><br>Taper block &<br>Mikrokator<br><br>Taper block &<br>DiaLectron |
| Internal Tapered Thread Rings –<br><br>Pitch Diameter<br><br>0.75 TPF,<br>(0.5 to 120) TPI<br><br>Minor Diameter<br><br>(0.40 to 3.0) in<br>(3.0 to 12.0) in  | (0.06 to 3) in<br>(3 to 12) in<br><br>(0.40 to 3.0) in<br>(3.0 to 12.0) in | 270 µin<br>270 µin<br><br>90 µin<br>100 µin | Tapered master plug<br>& Sylvac<br><br>Taper plug &<br>indicator   |
| Thread Wires –<br><br>Inch<br><br>Metric  | (4 to 80) TPI<br><br>(0.2 to 10) Pitch                                     | 17 µin<br><br>17 µin                        | Master wire &<br>Heidenhain  |

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

<sup>2</sup> 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.

<sup>3</sup> In the statement of CMC,  $L$  is the numerical value of the nominal length of the device measured in inches.



World Class Accreditation

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*. This laboratory also meets 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 13<sup>th</sup> day of September 2010.



  
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Peter Meyer

President & CEO  
For the Accreditation Council  
Certificate Number 1553.02  
Valid to April 30, 2012

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