



THE AMERICAN ASSOCIATION FOR  
LABORATORY ACCREDITATION

## ACCREDITED LABORATORY

A2LA has accredited

**GKS INSPECTION SERVICES, INC.**

**Plymouth, MI**

for technical competence in the field of

**Mechanical Testing**

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 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 27<sup>th</sup> day of June 2007.

A handwritten signature in cursive script, reading "Peter Blaylock".

President

For the Accreditation Council

Certificate Number: 449.01

Valid to February 28, 2010

Revised on November 20, 2009

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GKS INSPECTION SERVICES, INC.  
 45333 Five Mile Road  
 Plymouth, MI 48170  
 Matthew Inderbitzin Phone: 734 582 9600

MECHANICAL

Valid To: February 28, 2010

Certificate Number: 0449.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following dimensional tests<sup>1</sup>:

| Parameter/Equipment                                  | Range   | Best Uncertainty <sup>2,3</sup> (±)                                      |  | Comments                                   |
|--|---|--|--|--|
|  |   | Laboratory   | On-Site  |  |
| Length –<br>X Axis<br>Y Axis<br>Z Axis<br>Volumetric | (0 to 79) in<br>(0 to 47) in<br>(0 to 59) in<br>79 in × 47 in × 59 in | (190 + 15L) μin<br>(310 + 18L) μin<br>(300 + 10L) μin<br>(360 + 17L) μin | On site service is not available for this parameter.           | CMM  |
| Length   | 144 in × 144 in × 144 in  | (0.006) in   | (0.006) in   | Faro arm                                   |
| Length –<br>X Axis<br>Y Axis<br>2-Dimensional        | (0 to 44) in<br>(0 to 24) in<br>(0 to 50) in                          | (200 + 8.4L) μin<br>(200 + 8.9L) μin<br>(200 + 12L) μin                  | On site calibration service is not available for these ranges. | Vision system                              |
| Length   | (0 to 20) in<br><br>(0 to 24) in                                      | (5 + 3.2 L) μin<br><br>(9 + 3L) μin                                      | (10 + 3L) μin<br><br>(9 + 4.3L) μin                            | Gage block Comparison<br><br>Height master |

| Parameter/Equipment                    | Range   | Best Uncertainty <sup>2,3</sup> (±)                |  | Comments   |
|--|---|--|--|--|
|  |   | Laboratory   | On-Site  |  |
| Diameter –<br><br>Internal<br>External | (0.125 to 12) in<br>(0 to 11) in                          | (9 + 2.0 <i>D</i> ) μin<br>(9 + 2.0 <i>D</i> ) μin | On site service is not available for this parameter. | Edmunds comparator   |
| Flatness                               | Up to 24 in × 36 in<br>Up to 48 in × 96 in                | (5 + 5.1 <i>L</i> ) μin<br>(5 + 5.3 <i>L</i> ) μin | On site service is not available for this parameter. | Surface plate/<br>electronic amplifier   |
| Thread Pitch<br>Diameter               | (0.06 to .825) in<br>(0.826 to 2.0) in<br>(2.0 to 4.0) in | 190 μin<br>240 μin<br>250 μin                      | 190 μin<br>240 μin<br>250 μin                        | Bench micrometer w/<br>thread wires  |
| Surface Analysis                       | (4 to 32) μin <i>Ra</i><br>(33 to 500) μin <i>Ra</i>      | 2.3 μin <i>Ra</i><br>3.2 μin <i>Ra</i>             | (2.3) μin <i>Ra</i><br>(3.2) μin <i>Ra</i>           | Profilometer<br><br>In the best measurement uncertainty, <i>Ra</i> is the numerical value of the nominal roughness of the surface measured in microinches roughness. |
| Roundness Measurement                  | Up to 12 in   | 8.5 μin  | On site service is not available for this parameter. | Mahr/Federal roundness machine   |
| Angle                                  | Up to 360°  | 0.0005°  | On site service is not available for this parameter. | CMM  |

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<sup>1</sup> This laboratory offers commercial testing service

<sup>2</sup> “Best Uncertainty” is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine tests 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 test 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 test.

<sup>3</sup> In the statement of best uncertainty,  $L$  is the numerical value of the nominal length of the device measured in inches;  $R$  is the numerical value of the resolution of the device in microinches;  $D$  is the numerical value of the diameter in inches.