



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GKS INSPECTION SERVICES, INC.
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MECHANICAL

Valid To: January 31, 2012

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 tests¹:

I. Dimensional Testing/Calibration⁵

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Length Standards (1D) ³	(0 to 20) in	(5 + 3.2L) μin	Gage block comparison
	(0 to 24) in	(9 + 3L) μin	Height master
Length Standards (1D) ⁶	(0 to 20) in	(10 + 3L) μin	Gage block comparison
	(0 to 24) in	(9 + 4.3L) μin	Height master
Length Standards –			
X Axis	(0 to 79) in	(190 + 8.6L) μin	CMM
X Axis	(0 to 44) in	(200 + 8.4L) μin	Vision system
Volumetric	79 in × 47 in × 59 in	(360 + 17L) μin	CMM
2-Dimensional	(0 to 50) in	(200 + 12L) μin	Vision system

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Length Standards (3D) ³	144 in × 144 in × 144 in	(0.006) in	Faro arm
Diameter – Internal External	(0.125 to 12) in (0 to 11) in	(9 + 2.0D) μin (9 + 2.0D) μin	Edmunds comparator
Flatness	Up to 24 in × 36 in Up to 48 in × 96 in	(5 + 5.1L) μin (5 + 5.3L) μin	Surface plate/electronic amplifier
Thread Pitch Diameter ³	(0.06 to .825) in (0.826 to 2.0) in (2.0 to 4.0) in	180 μin 240 μin 260 μin	Bench micrometer w/ thread wires
Surface Analysis ³	(4 to 32) μin <i>Ra</i> (33 to 500) μin <i>Ra</i>	2.3 μin <i>Ra</i> 3.2 μin <i>Ra</i>	Surface analyzer
Roundness Measurement	Up to 12 in	8.5 μin	Mahr/Federal roundness machine
Angle	Up to 360°	0.0005°	CMM

¹ This laboratory offers commercial and field testing and calibration services where noted.

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. CMC's 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 Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

⁴ 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 micro inches; D is the numerical value of the diameter in inches; and Ra is the numerical value of the nominal roughness of the surface measured in microinches roughness.

⁵ This laboratory meets R205 – *Specific Requirements: Calibration Laboratory Accreditation Program* for the types of dimensional calibrations listed above. Accredited test reports issued containing appropriate statements of measurement results, measurement uncertainty, and traceability are considered equivalent to a “calibration” certificate.

⁶ Field testing and calibration services only.



World Class Accreditation

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 laboratory also meets the requirements of 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 17th day of September 2010.





Peter Abney

President & CEO
For the Accreditation Council
Certificate Number 0449.01
Valid to January 31, 2012
Revised on December 31, 2011

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