SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

ALPHAGAGE
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CALIBRATION

Valid To: April 30, 2020 Certificate Number: 1925.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1]:

I. Dimensional

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Micrometers[3] –			
Hole	Up to 4 in	130 µin	Ring masters
Outside	Up to 12 in	(66 + 4*L*) µin	Grade 3 gage blocks
Cylindrical Plain Ring Gages	(0.25 to 7.8) in	(14 + 2.4*L*) µin	ULM
Calipers[3] –			
Analog/Vernier	Up to 12 in	0.6*R*	Grade 3 gage blocks
Digital	Up to 12 in	0.6*R*	
Indicators[3] –			
Test	Up to 0.100 in	20 µin	Federal products digital indicator calibrator
Dial and Digital	Up to 4 in	82 µin	

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Parameter/Equipment	Range	CMC[2, 4] (±)	Comments[5]
Pin Gages Cylindrical Plain Plug Gages	Up to 10 in	(11 + 2.1*L*) µin	ULM
Pin Gages	Up to 1 in	(34 + 4*L*) µin	Laser micrometer
Tapered Threaded Plug Gages –			
Pitch Diameter	Up to 3 in	92 µin	Tapered sine block, three wire method
Major Diameter	Up to 3 in	80 µin	Supermicrometer™
Lead	Up to 3 in	190 µin	Optical comparator
Half Angle	(0 to 30)°	10′	Optical comparator
Straight Threaded Plug Gages –			
Pitch Diameter	Up to 4 in	86 µin	Three wire method
Major Diameter	Up to 4 in	62 µin	Supermicrometer™
Lead	Up to 4 in	190 µin	Optical comparator
Half Angle	(0 to 30)°	10′	Optical comparator
Thread Measuring Wires	(4 to 80) TPI	10 µin	ULM over master cylinders
Gauging Balls	Up to 2 in	(34 + 2.4*L*) µin	ULM
Gage Blocks	(0.1 to 4) in	(2 + 1.5*L*) µin	By dual contact mechanical comparison

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments[5]
Gear Wires – All Series	Up to 0.5 in	(15 + 2.1*L*) µin	ULM
Micrometer Length Standards	(1 to 10) in	(25 + 2.8*L*) µin	ULM, gage blocks and master plugs
Chamfer Gages[3] – Dial and Digital	Up to 2 in	580 µin	Cylindrical master ring gages
Thickness (Feeler) Gages	Up to 0.10 in	170 µin	O.D. Micrometer
Depth Micrometers[3] –			
Vernier	Up to 12 in	0.6*R*	Gage blocks
Digital	Up to 12 in	380 µin	
Specialty Plug Gages (Square, Flat, Hex)	Up to 4 in	(60 + 4*L*) µin	Supermicrometer™

II. Mechanical

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Torque Wrenches and Screwdrivers[3]	(25 to 250) in·lbf	0.9 % + 0.6*T*	Torque calibrator
	(5 to 250) ft·lbf	0.9 % + 0.6*T*	

[1] This laboratory offers commercial calibration service and field calibration service.

[2] Calibration and Measurement Capability Uncertainty (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 CMC, *L* is the numerical value of the nominal length of the device measured in inches; *R* is the resolution of the device; *T* is the resolution of the device.

[5] "Supermicrometer" is a registered trademark owned by Pratt & Whitney Measurement Systems, Inc., Connecticut U.S.A.

Accredited Laboratory

A2LA has accredited

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Rockford, IL

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 the requirements of ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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 April 2017*).

Presented this 31st day of August 2018.

President and CEO
For the Accreditation Council
Certificate Number 1925.01
Valid to April 30, 2020

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