



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

JONES INDUSTRIAL SERVICE
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CALIBRATION

Valid To: November 30, 2023

Certificate Number: 1440.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 5}:

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Horizontal Measuring Machine (ULM)	Up to 4 in	23 µin	Gage blocks
Length Standards	Up to 1 in (1 to 12) in (12 to 24) in	23 µin 50 µin 90 µin	ULM
Gage Blocks	Up to 4 in Up to 4 in (4 to 10) in (10 to 20) in	18 µin 28 µin 58 µin 83 µin	Direct comparison ULM
Micrometers – Outside and Depth ³	Up to 1 in (1 to 12) in (12 to 30) in	74 µin 770 µin 1600 µin	Length standards and/or gage blocks
Calipers ³	Up to 1 in (1 to 6) in (6 to 40) in	110 µin 710 µin 1400 µin	Length standards and/or gage blocks

Parameter/Equipment	Range	CMC ² (±)	Comments
Height Gages ³	Up to 12 in (12 to 24) in (24 to 40) in	250 µin 300 µin 800 µin	Length standards and/or gage blocks
Dial Indicators ³	Up to 6 in	94 µin	Gage blocks
Test Indicators ³	Up to 0.1 in	88 µin	Height master
OD Cylindrical Gages (Plugs, Pin and Disk)	Up to 1 in (1 to 5) in (5 to 10) in	28 µin 43 µin 64 µin	ULM
Optical Comparator ³ – Length of Travel	Up to 12 in	160 µin	Glass scales
Vision Systems	Up to 6 in	75 µin	Glass scale
Roughness Specimens, ISO Type C ³	(16 to 600) µin	4.7 µin	Federal pocket surf
Profilometer ³ – Indirect Verification of Ra Measurement	(15 to 120) µin @ 0.03 in cut-off	5.3 µin	Roughness specimens, ISO Type C
Radius Gages	Up to 1 in	0.0015 in	Optical comparator
Rules	Up to 4 in (4 to 24) in (24 to 48) in (48 to 60) in	400 µin 570 µin 640 µin 670 µin	Optical comparator
Thread Plug Gages – Pitch Diameter Major Diameter	 (0.125 to 7) in and (4 to 100) TPI	 130 µin Refer to OD Cylindrical Gages	 ULM, three wire method Refer to OD cylindrical gages

Parameter/Equipment	Range	CMC ² (±)	Comments
Plain Ring Gages	(0.34 to 0.5) in (0.5 to 1) in (1 to 10) in (0.032 to 0.340) in	23 µin 35 µin 110 µin 23 µin	ULM Federal horizontal master comparator
Thread Wires	(4 to 40) TPI	46 µin	ULM
Spheres and Precision Balls	Up to 3 in	26 µin	ULM
Height Masters	Up to 0.2) in (0.2 to 12) in (12 to 24) in	31 µin 80 µin 160 µin	Electronic indicators and gage blocks
Adjustable Thread Ring Gages – Functional Fit	(0.125 to 3) in	130 µin	Setting masters

II. Dimensional Testing/Calibration⁴

Parameter/Equipment	Range	CMC ^{2, 6} (±)	Comments
3-Dimensional Geometry – Measure	(16 x 20 x 16) in (400 x 500 x 400) mm	120 µin + 10 µin/in 3 µm + 10 µm/m	CMM

III. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Torque Wrenches	Up to 10 lbf-ft (10 to 100) lbf-ft (100 to 260) lbf-ft	0.28 lbf-ft 0.57 lbf-ft 1.2 lbf-ft	Torque calibrator

Parameter/Equipment	Range	CMC ^{2, 6} (\pm)	Comments
Pressure – Measure and Measuring Equipment	Up to 10 PSI (10 to 100) PSI (100 to 1000) PSI	0.0075 PSI 0.033 PSI 0.29 PSI	Pressure gage

IV. Thermodynamics

Parameter/Equipment	Range	CMC ^{2, 6} (\pm)	Comments
Temperature – Measure	(-80 to 300) °C	0.068 °C	PRTD

¹ This laboratory offers commercial dimensional testing/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. CMCs 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. 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 This laboratory meets R205 – *Specific Requirements: Calibration Laboratory Accreditation Program* for the types of dimensional tests listed above and is considered equivalent to that of a calibration.

⁵ This scope meets A2LA's *P112 Flexible Scope Policy*.

⁶ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



Accredited Laboratory

A2LA has accredited

JONES INDUSTRIAL SERVICE

Perrysburg, OH

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets 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 25th day of August 2022

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1440.01
Valid to November 30, 2023

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