



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

DIXON & RYAN CORP
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CALIBRATION

Valid to: March 31, 2018

Certificate Number: 1564.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Micrometers	Up to 48 in	(0.60R + 8.0L) μin	Gage blocks
End Standards	Up to 48 in	(61 + 8.0L) μin	Gage blocks, electronic amplifier and probe
Ring Gages	(0.25 to 12) in	(33 + 3.0L) μin	ID/OD comparator and gage blocks
Indicators	0.00001 in resolution 0.0001 in resolution	130 μin 140 μin	Gage blocks Adjustable height gage
	0.0005 in 0.001 in	300 μin 590 μin	Indicator calibrator
Bore Gages – 2 Point	0.00005 in resolution 0.0001 in resolution 0.0005 in resolution	140 μin 140 μin 320 μin	Adjustable height gage
Hole Gages – 3 Point	(0.2 to 10) in	(110 + 21L) μin	Ring gages
Calipers	Up to 72 in	(70 + 15L) μin	Gage blocks, ring gage

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Adjustable Column Height Gages	(1 to 24) in	(67 + 8.0L) μin	Gage blocks, electronic amplifier and probe
Bench Micrometer	(0.1 to 8) in	(32 + 4.0L) μin	Gage blocks
Electronic Amplifier and Probes	0.00001 in resolution 0.0005 in resolution 0.01 in resolution	59 μin 300 μin 580 μin	Gage blocks
Micro Hites and Height Gages	Up to 48 in	(84 + 8.0L) μin	Gage blocks
Indicating Dial Calipers	(0.2 to 10) in	(300 + 29L) μin	Gage blocks
Surface Roughness Gage	20 μin Ra 120 μin Ra	2.7 μin Ra 3.4 μin Ra	Surface patch

II. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Torque Wrenches	(5 to 50) in·lbf (40 to 400) in·lbf (100 to 1000) in·lbf (25 to 250) ft·lbf (60 to 600) ft·lbf	2.0 % Full Scale (FS) 2.0 % FS 2.0 % FS 2.0 % FS 2.0 % FS	Torque tester

¹ This laboratory offers commercial 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 of 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 CMC of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device, to the environment (if the calibration is performed in the field) and to influences from the circumstances of the specific calibration.

³ 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 measured in micro inches.



Accredited Laboratory

A2LA has accredited

DIXON & RYAN CORP.

Royal Oak, MI

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 any 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 24th day of February 2016.

A handwritten signature in blue ink, reading "Jim C. Bunt".

President and CEO
For the Accreditation Council
Certificate Number 1564.01
Valid to March 31, 2018
Revised February 15, 2018

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