SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

DIXON & RYAN CORP
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CALIBRATION

Valid to: February 28, 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 calibrations[1]:

I. Dimensional

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Micrometers	Up to 48 in	(0.60*R* + 8.0*L*) µin	Gage blocks
End Standards	Up to 48 in	(61 + 8.0*L*) µin	Gage blocks, electronic amplifier and probe
Ring Gages	(0.25 to 12) in	(33 + 3.0*L*) µin	ID/OD comparator and gage blocks
Indicators	0.00001 in resolution 0.0001 in resolution 0.0005 in 0.001 in	130 µin 140 µin 300 µin 590 µin	Gage blocks Adjustable height gage 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 + 21*L*) µin	Ring gages

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Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Calipers	Up to 72 in	(70 + 15*L*) µin	Gage blocks, ring gage
Adjustable Column Height Gages	(1 to 24) in	(67 + 8.0*L*) µin	Gage blocks, electronic amplifier and probe
Bench Micrometer	(0.1 to 8) in	(32 + 4.0*L*) 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 + 8.0*L*) µin	Gage blocks
Indicating Dial Calipers	(0.2 to 10) in	(300 + 29*L*) 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.

Senior Director of Quality & Communications
For the Accreditation Council
Certificate Number 1564.01
Valid to February 28, 2018

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