



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

DYNAMIC CORPORATION⁶
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MECHANICAL

Valid To: January 31, 2021

Certificate Number: 1167.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following dimensional testing at the location listed above as well as at the satellite laboratory location listed below^{1, 7}:

I. Dimensional Testing/Calibration

Parameter/Equipment	Range	CMC ² (±)	Comments
Length (1D) ^{3,5}	Up to 1 in (1 to 2) in (2 to 3) in (3 to 4) in Up to 6 in Up to 12 in	71 µin 110 µin 130 µin 440 µin 430 µin 450 µin	Micrometers Calipers
Height ^{3,5}	Up to 18 in Up to 24 in	1100 µin 1300 µin	Height gages
Depth ^{3,5}	Up to 1 in	420 µin	Depth micrometers
Radius ^{3,5}	(0.01 to 0.5) in (0.5 to 1) in	2900 µin 9000 µin	Radius gages
Diameter ^{3,5}	(0.011 to 0.75) in	850 µin	Gage pins
Surface Finish ^{3,5}	Up to (0.0315) in	7.4 µin	Profilometer (surface roughness tester)

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Optical 3D Measuring System ^{3,5} –			
Steel Aluminum Non-metal	60 mm Lens	(420 + 13L) μin (420 + 39L) μin (420 + 210L) μin	GOM/ATOS triple scan “blue light”
Steel Aluminum Non-metal	100 mm Lens	(510 + 15L) μin (510 + 43L) μin (510 + 220L) μin	
Steel Aluminum Non-metal	300 mm Lens	(570 + 25L) μin (570 + 15L) μin (570 + 180L) μin	
Steel Aluminum Non-metal	700 mm Lens	(910 + 27L) μin (910 + 16L) μin (910 + 180L) μin	
Coordinate Measurement (CMM) ⁵ –			
Steel Aluminum Non-metal	Up to (35 × 47 × 31) in	(230 + 7.1L) μin (230 + 33L) μin (230 + 210L) μin	Bridge CMM
Steel Aluminum Non-metal	Up to (48 × 40 × 30) in	(480 + 4.7L) μin (480 + 29L) μin (480 + 200L) μin	Bridge CMM
Steel Aluminum Non-metal	> (48 × 40 × 30) in Up to (80 × 48 × 40) in	(690 + 5.2L) μin (690 + 30L) μin (690 + 210L) μin	Bridge CMM
Steel Aluminum Non-metal	Up to (118 × 63 × 63) in	(860 + 5.8L) μin (860 + 31L) μin (860 + 210L) μin	Horizontal arm CMM

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Coordinate Measurement (CMM) ^{3,5} –			
Steel Aluminum Non-metal	Up to (20 × 20 × 20) in	(330 + 17L) μin (330 + 8.5L) μin (330 + 170L) μin	Portable optical CMM (TRITOP)
Steel Aluminum Non-metal	> (20 × 20 × 20) in Up to (39 × 39 × 39) in	(840 + 15L) μin (840 + 7.2L) μin (840 + 160L) μin	Portable optical CMM (TRITOP)
Steel Aluminum Non-metal	> (39 × 39 × 39) in Up to (197 × 197 × 197) in	(870 + 25L) μin (870 + 15L) μin (870 + 180L) μin	Portable optical CMM (TRITOP)
X-Y Coordinates ⁵ –			
Steel Aluminum Non-metal	Up to (24 × 24 × 16) in	(120 + 8.1L) μin (120 + 35L) μin (120 + 210L) μin	Optiv Performance 664
Steel Aluminum Non-metal	Up to (6 × 4) in	(1400 + 0.49L) μin (1400 + 5.3L) μin (1400 + 130L) μin	Optical comparator
Steel Aluminum Non-metal	Up to (35 × 47 × 31) in	(320 + 6L) μin (320 + 31L) μin (320 + 210L) μin	CMM-V optical probe head for CMM

I. Dimensional Testing/Calibration

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Length (1D) ^{3,5}	Up to 1 in	71 µin	Micrometers
	(1 to 2) in	110 µin	
	(2 to 3) in	130 µin	Calipers
	(3 to 4) in	440 µin	
	Up to 6 in	430 µin	
	Up to 12 in	450 µin	
Height ^{3,5}	Up to 18 in	1100 µin	Height gages
	Up to 24 in	1300 µin	
Depth ^{3,5}	Up to 1 in	420 µin	Depth micrometers
Thickness ^{3,5}	Up to 0.5 in	420 µin	Thickness gages
Radius ^{3,5}	(0.01 to 0.5) in	2900 µin	Radius gages
	(0.5 to 1) in	9000 µin	
Diameter ^{3,5}	(0.011 to 0.75) in	850 µin	Gage pins



Parameter/Equipment	Range	CMC ^{2,4} (\pm)	Comments
Optical 3D Measuring System ^{3,5} –			
Steel Aluminum Non-metal	120 mm Lens	(560 + 16L) μ in (560 + 44L) μ in (560 + 220L) μ in	GOM/ATOS Capsule “Blue Light”
Steel Aluminum Non-metal	320 mm Lens	(760 + 25L) μ in (760 + 15L) μ in (760 + 180L) μ in	
Steel Aluminum Non-metal	200 mm Lens	(590 + 17L) μ in (590 + 45L) μ in (590 + 220L) μ in	GOM/ATOS Core “Blue Light”
Steel Aluminum Non-metal	560 mm Lens	(670 + 27L) μ in (670 + 17L) μ in (670 + 180L) μ in	
Coordinate Measurement (CMM) ^{3,5} –			
Steel Aluminum Non-metal	Up to (20 × 20 × 20) in	(330 + 17L) μ in (330 + 8.5L) μ in (330 + 170L) μ in	Portable optical CMM (TRITOP)
Steel Aluminum Non-metal	> (20 × 20 × 20) in Up to (39 × 39 × 39) in	(840 + 15L) μ in (840 + 7.2L) μ in (840 + 160L) μ in	Portable optical CMM (TRITOP)
Steel Aluminum Non-metal	> (39 × 39 × 39) in Up to (197 × 197 × 197) in	(870 + 25L) μ in (870 + 15L) μ in (870 + 180L) μ in	Portable optical CMM (TRITOP)

Parameter/Equipment	Range	CMC ^{2,4} (\pm)	Comments
Coordinate Measurement (CMM) ⁵ – Steel Aluminum Non-metal Steel Aluminum Non-metal Steel Aluminum Non-metal	Up to (24 × 24 × 24) in Up to (80 × 48 × 40) in Up to (118 × 63 × 63) in	(460 + 2.9L) μ in (460 + 23L) μ in (460 + 200L) μ in (690 + 5.2L) μ in (690 + 30L) μ in (690 + 200L) μ in (3900 + 1.5L) μ in (3900 + 16L) μ in (3900 + 180L) μ in	Bridge CMM Bridge CMM Horizontal arm CMM
X-Y Coordinates ⁵ – Steel Aluminum Non-metal	Up to (6 × 4) in	(1500 + 0.46) μ in (1500 + 5.0L) μ in (1500 + 130L) μ in	Optical comparator

¹ This laboratory offers commercial dimensional testing/calibration service on parts.

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 or tests 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 or test 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 or test.

³ Field services are available for this calibration or test and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations or tests. 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 or test and for other possible adverse effects such as those caused by transportation of the calibration or testing equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated or tested, (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 represents the numerical value of the nominal length of the device measured in inches.

⁵ 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.



⁶This accreditation covers testing/calibration performed at the main laboratory and satellite laboratory listed above.

⁷This scope meets A2LA's *P112 Flexible Scope Policy*.





Accredited Laboratory

A2LA has accredited

DYNAMIC CORPORATION

Holland, MI

for technical competence in the field of

Mechanical Testing

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 24th day of December 2018.

A blue ink signature of the Senior Director of Accreditation Services.

Senior Director, Accreditation Services
For the Accreditation Council
Certificate Number 1167.01
Valid to January 31, 2021

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