



World Class Accreditation

The American Association for Laboratory Accreditation

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 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This laboratory also meets the requirements of 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 21st day of January 2009.





President & CEO

For the Accreditation Council
Certificate Number 1167.01
Valid to January 31, 2011
Revised on October 2, 2009

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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

DYNAMIC CORPORATION
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 Holland, MI 49424
 Samantha Kandler Phone: 616 399 2200

MECHANICAL

Valid To: January 31, 2011

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^{1,7}:

I. Dimensional Testing

| Parameter/Equipment | Range | CMC ^{2,4} (±) | Comments |
|--------------------------------|--|--|-------------------------|
| Coordinate Measurement (CMM) – | | | |
| Steel Aluminum Non-metal | Up to (48 × 40 × 30) in | (420 + 14L) μin (420 + 34L) μin (420 + 160L) μin | Bridge CMM |
| Steel Aluminum Non-metal | > (48 × 40 × 30) in Up to (80 × 48 × 40) in | (620 + 15L) μin (620 + 35L) μin (620 + 160L) μin | Bridge CMM |
| Steel Aluminum Non-metal | Up to (118 × 63 × 63) in | (800 + 15L) μin (800 + 35L) μin (800 + 160L) μin | Horizontal arm CMM |
| Steel Aluminum Non-metal | Up to (80 × 48 × 40) in | (800 + 13L) μin (800 + 33L) μin (800 + 160L) μin | Bridge CMM ⁵ |

| Parameter/Equipment | Range | CMC ^{2,4} (±) | Comments |
|--|--|--|--|
| Coordinate Measurement (CMM) – (cont) | | | |
| Steel Aluminum Non-metal | Up to (118 × 63 × 63) in | (4700 + 4L) μin (4700 + 14L) μin (4700 + 120L) μin | Horizontal arm CMM ⁵ |
| Steel Aluminum Non-metal | Up to (360 × 360 × 360) in | (3600 + 40L) μin (3600 + 100L) μin (3600 + 480L) μin | Faro arm CMM ⁵ |
| Optical 3D Measuring System ³ – | | | |
| Steel Aluminum Non-metal | 100 mm Lens | (300 + 3L) μin (300 + 11L) μin (300 + 110L) μin | GOM/ATOS white light |
| Steel Aluminum Non-metal | 300 mm Lens | (830 + 3L) μin (830 + 11L) μin (830 + 110L) μin | |
| X-Y Coordinates ³ | Up to (6 × 4) in Up to (24 × 24 × 8) in | 0.001 in 0.016 in | Optical comparator ⁶ OGP vision system |
| Length ³ | (0 to 4) in (0 to 6) in (0 to 12) in | 140 μin 430 μin 890 μin | Micrometers ⁶ Calipers ⁶ Calipers ⁶ |
| Depth ³ | (0 to 1) in (0 to 0.5) in | 400 μin 500 μin | Depth micrometer Depth gages ⁵ |
| Height ³ | (0 to 24) in | 0.001 in | Height gages ⁶ |
| Radius ³ | (0.015625 to 1) in | 0.011 in | Radius gages ⁶ |
| Diameter ³ | (0.011 to 0.75) in | 0.001 in | Gage pins ⁶ |

¹ This laboratory offers commercial and field testing and service.

² Calibration and Measurement Capability (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. Calibration and Measurement Capabilities 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 is the numerical value of the nominal length of the device measured in inches.

⁵ This equipment is only available at satellite facility located at 921 E 32nd Street, Holland, MI 49423.

⁶ This equipment is available at both the satellite facility, location noted in footnote 5, as well as the main laboratory whose location is noted on page 1 of this scope.

⁷ This laboratory meets the A2LA Calibration Program Requirements for the types of dimensional testing listed above. Accredited test reports issued containing appropriate statements of measurement results, measurement uncertainty, and traceability are considered equivalent to a "calibration" certificate.