# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**Intra Corporation**
**885 Manufacturer's Drive**
**Westland, MI 48186-4036**

Fulfills the requirements of

## ISO/IEC 17025:2017

In the field of

## CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 06 May 2026

Certificate Number: L2310

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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).

# SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017


**Intra Corporation**
885 Manufacturer's Drive
Westland, MI 48186-4036
Keith Mandeville
734-326-7030


## CALIBRATION

Valid to: **May 6, 2026** Certificate Number: **L2310**

**Length – Dimensional Metrology**

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) [2] | Reference Standard, Method, and/or Equipment |
|---|---|---|---|
| Inside Diameter - Plain Rings | (1.5 to 30) mm | 0.71 µm | Mahr 828 & Reference Rings or Gage Blocks |
| | (30 to 200) mm | (0.66 + 0.000 8*L*) µm | |
| | (200 to 450) mm | (1.3 + 0.000 59*L*) µm | |
| Over Roll Dimension – Flush Pin Gage | (0 to 152) mm | 5.8 µm | Roll-Chek RC, Pins and Gage Blocks |
| Involute Curve, Total Deviation – Reference Artifact, Gear, or Spline | Base Diameter: (5 to 650) mm | 2.2 µm | Gear Analyzer |
| Helix, Total Deviation – Reference Artifact, Gear, or Spline | Helix Angle: 0° to 42° Test Diameter: (5 to 650) mm | 2.3 µm | Gear Analyzer |
| Eccentricity/ Concentricity | Test Diameter: Up to 650 mm | 0.62 µm | Gear Analyzer |
| Pitchline Runout – Reference Artifact, Gear, or Spline | Test Diameter: Up to 650 mm | 2.4 µm | Gear Analyzer |
| Single Pitch – Reference Artifact, Gear, or Spline | Test Diameter: Up to 650 mm | 1.1 µm | Gear Analyzer |
| Cumulative Pitch –Reference Artifact, Gear, or Spline | Test Diameter: Up to 650 mm | 1.8 µm | Gear Analyzer |

**Length – Dimensional Metrology**

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) [2] | Reference Standard, Method, and/or Equipment |
|---|---|---|---|
| Dimension over Pins-Reference Artifact, Gear, or Spline | Test Diameter Up to 650 mm | 10 µm | Gear Analyzer Pins: Customer Specified Diameter |
| Diameter-Reference Artifact, Gear, or Spline | Test Diameter Up to 650 mm | 6.6 µm | Gear Analyzer |
| Length Measurement - Plain Cylinders, Pin Gages and Part Dimensions | (0 to 500) mm | (0.45 + 0.029*L*) µm | Mahr 828 & Gage Blocks |
| | (0 to 356) mm | (3.5 + 0.004 1*L*) µm | Heidenhain Height Gage System and Gage Blocks |
| | (0 to 305) mm | 5 µm | Height Master and Indicator |
| | (0 to 305) mm | 13 µm | Microkator and Gage Blocks |
| | (0 to 60) mm | 0.61 µm | Heidenhain Height Gage |
| | (0 to 25) mm<br>(25 to 50) mm | 5 µm<br>6.1 µm | Micrometer |
| Fixtures, Gages and Masters | X = (0 to 1 200) mm<br>Y = (0 to 1 800) mm<br>Z = (0 to 1 000) mm | (2.5 + 0.004 1*L*) µm | Coordinate Measuring Machine utilized as a Reference Standard for Dimensional Inspection. Material for CMC = Steel |

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k$=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. $L$ = Length in millimeters.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. L2310.

Jason Stine, Vice President