

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Ottawa Gage, Inc. 1271 Lincoln Avenue Holland, MI 49423

Fulfills the requirements of

ISO/IEC 17025:2017

In the fields of

CALIBRATION and **DIMENSIONAL MEASUREMENT**

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: 02 November 2027 Certificate Number: L1130-1





SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Ottawa Gage, Inc.

1271 Lincoln Avenue Holland, MI 49423 Ryan Broekhuis 616-396-4653

CALIBRATION AND DIMENSIONAL MEASUREMENT

ISO/IEC 17025 Accreditation Granted: 19 November 2025

Certificate Number: L1130-1 Certificate Expiry Date: 02 November 2027

Length – Dimensional Metrology

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|-------------------------------------|---|--|--|
| Cylindrical Plug Gages ¹ | Up to 11.75 in (11.75 to 23.5) in | (7.9 + 2.6D) µin $(6.3 + 2.6D)$ µin | Comparison to Universal Comparator, Master Gage Blocks |
| Cylindrical Plug Gages ¹ | Up to 22 in | (7.7 + 2.5 <i>D</i>) μin | Comparison to P&W Labmaster® Universal Measuring Machine |
| Cylindrical Ring Gages ¹ | Up to 4 in (4 to 18) in (18 to 24) in | $(3.2 + 2.6D) \mu in$ $(7.5 + 2.4D) \mu in$ $(8.8 + 2.4D) \mu in$ | Comparison to Universal Comparator, Height Comparator, Gage Blocks |
| Cylindrical Ring Gages ¹ | Up to 0.125 in (0.125 to 0.25) in (0.25 to 0.5) in (0.5 to 1) in (1 to 3) in (3 to 5) in (5 to 7) in (7 to 9) in (9 to 11) in (11 to 14) in | $(8.6 + 4D) \mu in$ $(7 + 4D) \mu in$ $(12.1 + 4D) \mu in$ $(7 + 4D) \mu in$ $(7.2 + 4D) \mu in$ $(7 + 4D) \mu in$ $(8.8 + 4D) \mu in$ $(9 + 4D) \mu in$ $(9.3 + 4D) \mu in$ $(11.1 + 4D) \mu in$ | Comparison to P&W Labmaster® Universal Measuring Machine, Master Cylindrical Rings |







Length – Dimensional Metrology

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---|------------------------------------|---|--|
| Bar Flush Gages ¹ | Up to 24 in | $(9.3 + 2.4L) \mu in$ | Comparison to Electronic Amplifier, Height Gage, Gage Blocks, Surface Plate |
| Barrel Flush Gages ¹ | Up to 6 in | $(12.5 + 2.4L) \mu in$ | Comparison to Electronic Amplifier, Height Gage, Gage Blocks, Surface Plate |
| Tapered Plug Gages ¹ | Up to 8 in | (69.1 + 2.4 <i>D</i>) μin | Comparison to Gage Blocks, Micrometers, Gage Rolls, Surface Plate |
| Tapered Ring Gages ¹ | (0.062 to 3) in (3 to 10) in | (15 + 2.6 <i>D</i>) μin (13.1 + 2.4 <i>D</i>) μin | Comparison to Gage Blocks, Micrometers, Gage Rolls, Surface Plate |
| Countersink Flush Pin Gages ¹ | Up to 4 in | (18.5 + 2.6 <i>L</i>) μin | Comparison to Gage Rolls, Micrometers, Electronic Amplifier, Height Gage, Surface Plate, Gage Blocks |
| Special Length Gages ¹ | Up to 1 in (1 to 3) in (3 to 5) in | (9.1 + 1.2 <i>L</i>) μin (7.8 + 2.6 <i>L</i>) μin (8 + 2.6 <i>L</i>) μin | Comparison to Universal Comparator, Gage Blocks |





DIMENSIONAL MEASUREMENT

1 Dimensional

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---|---|---|--|
| Dimensional Measurement 1D – Outside Diameter Measurement ¹ | Up to 1 in (> 1 to 4) in (> 4 to 23.5) in | (6.1 + 2.6 <i>D</i>) μin (5.9 + 2.6 <i>D</i>) μin (9 + 2.4 <i>D</i>) μin | Comparisons to Height Master, Universal Comparator, Gage Blocks, Surface Plate, Electronic Amplifier, Optical Comparator |
| Dimensional Measurement 1D – Inside Diameter Measurement ¹ | (0.059 to 4) in (> 4 to 24) in | (5.9 + 2.6 <i>D</i>) μin (9.2 + 2.4 <i>D</i>) μin | Comparisons to Height Master, Universal Comparator, Gage Blocks, Surface Plate, Electronic Amplifier, Optical Comparator |
| Dimensional Measurement 1D – Height Measurement 1 | Up to 30 in | (7.8 + 2.6 <i>L</i>) μin | Comparisons to Height Master, Universal Comparator, Gage Blocks, Surface Plate, Electronic Amplifier, Optical Comparator |
| Dimensional Measurement 1D – Angle Measurement 1 | Up to 46° | 21" | Comparison to Sine Plate, Indicator, V-Block |







2 Dimensional

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|--|--|---|--|
| Dimensional Measurement 2D – Radius Measurement | (0.005 to 0.336) in 20X Magnification (0.337 to 0.672) in 10X Magnification | 660 μin | Comparison to Optical Comparator, Gage Rolls |

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. D = diameter in inches; L = length in inches; " = arc-second.
- 2. Unless otherwise specified in the far-right column, the calibration/method utilized by the laboratory was developed and validated internally.

Jason Stine, Vice President





