



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

IBB Technology of America, Inc.

**N19 W6723 Commerce Court
Cedarburg, WI 53012**

Fulfills the requirements of

ISO/IEC 17025:2017

and national standard

ANSI/NCSL Z540-1-1994 (R2002)

In the field (s) 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.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 02 January 2023

Certificate Number: AC-1253



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
AND ANSI/NCSL Z540-1-1994 (R2002)**

IBB Technology of America, Inc.

N19 W6723 Commerce Court
Cedarburg, WI 53012
Lee Fletcher
262-387-1233

CALIBRATION

Valid to: **January 2, 2023**

Certificate Number: **AC-1253**

Length – Dimensional Metrology

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|--|---------------------------------------|---|--|
| Gage Blocks, Jo Blocks ² | Up to 4 in | (6.2 + 1.4L) μin | Gage Block Comparator, Master Gage Blocks |
| Long Gage Blocks ² | (4 to 20) in | (7.3 + 1.1L) μin | Twin-Check Linear Measuring System |
| Feeler Gages ² | (0.001 to 0.5) in | (9.4 + 1.6L) μin | |
| Length Standards ² | (0.5 to 24) in | (9.4 + 1.6L) μin | |
| Thread Plugs ² Pitch Diameter | (0.016 to 1.5) in (1.501 to 12) in | (67 + 14D) μin (140 + 1.4D) μin | Twin-Check Linear Measuring System, Thread Wires |
| Major Diameter | (0.016 to 12) in | (18 + 9.4D) μin | |
| Thread Rings ² Pitch Diameter | (0.07 to 12) in | (170 + 1.9D) μin | Twin-Check Linear Measuring System |
| Minor Diameter | (0.07 to 12) in | (51 + 1.5D) μin | |
| Thread Wires, Gear Wires | Up to 0.516 in | 23 μin | Twin-Check Linear Measuring System |
| Cylindrical Plug, Air Plug, Hex Plug ² | (0.006 to 24) in | (20 + 1.3D) μin | |
| Laser Micrometer Standards ² | Up to 2 in | (20 + 1.3D) μin | |
| Micrometer Masters ² | Up to 12 in | (20 + 1.3D) μin | |

Length – Dimensional Metrology

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---|---------------------|---|--|
| Cylindrical Rings, Air Rings ² | (0.015 to 20) in | (19 + 1.1D) μin | Twin-Check Linear Measuring System |
| Pin Gages ² | (0.006 to 1.001) in | (17 + 2.1D) μin | |
| Master Setting Discs ² | (0.15 to 8.01) in | (19 + 2D) μin | |
| OD Micrometers ² | Up to 18 in | (81 + 73L) μin | Grade 2 Gage Blocks |
| ID Micrometers ² | (1 to 18) in | (150 + 5.7L) μin | Twin-Check Linear Measuring System |
| Test Indicators | Up to 0.06 in | (66 + 30L) μin | |
| Dial Indicators | Up to 12 in | (63 + 33L) μin | |
| Calipers ² | Up to 20 in | (390 + 43L) μin | Grade 2 Gage Blocks |
| Height Gages ² | Up to 24 in | (160 + 4.4L) μin | Grade 3 Gage Blocks |
| UTM ² | | | |
| Linear Length | Up to 15.75 in | (76 + 2.2L) μin | Gage Blocks |
| Outside Diameter | Up to 4 in | (240 + 18D) μin | Micrometer Master |
| Surface Roughness Testers | (5 to 150) μin | 4.1 μin | Roughness Standard |
| Surface Roughness Standards | (5 to 150) μin | 0.3% of reading + 2.1 μin | Roughness Tester |

Mass and Mass Related

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---------------------|---|--|--|
| Force Gages | Up to 200 lbf | 0.06 % of reading + 0.17 lbf | ASTM E617 Class 7 Weights |
| Pressure Gages | Up to 160 psig (160 to 10 000) psig | 0.13 % of reading + 1.4 psi 0.01 % of reading + 5.8 psi | Deadweight Tester |
| Torque Wrenches | 5 to 50) lbf·in (50 to 300) lbf·in (15 to 150) lbf·ft (50 to 500) lbf·ft | 1 % of reading 1 % of reading 1 % of reading 1 % of reading | Torque Transducer System |

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 inches; D = diameter in inches.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1253.



R. Douglas Leonard Jr., VP, PILR SBU

