



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

HUMBOLDT SCIENTIFIC, INC. dba HUMBOLDT MFG. CO.  
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Raleigh, NC 27604  
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CALIBRATION

Valid To: January 31, 2022

Certificate Number: 3956.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1, 5</sup>:

I. Dimensional

| Parameter/Equipment                            | Range        | CMC <sup>2</sup> (±) | Comments                     |
|--|--------------|----------------------|------------------------------|
| Linear Displacement Indicators and Transducers | Up to 2.0 in | 68 µin               | Micrometer head, gage blocks |

II. Electrical

| Parameter/Equipment                   | Range                            | CMC <sup>2, 3</sup> (±) | Comments |
|---------------------------------------|----------------------------------|-------------------------|----------|
| Electrical Density Gauge –<br>Density | (1775 to 2725) kg/m <sup>3</sup> | 1.0 %                   | MCU      |
| Moisture <sup>4</sup>                 | (0 to 800) kg/m <sup>3</sup>     | 2.0 %                   |          |

III. Mechanical

| Parameter/Equipment | Range          | CMC <sup>2, 3</sup> (±) | Comments            |
|---------------------|----------------|-------------------------|---------------------|
| Pressure Gauge      | (0 to 300) psi | 0.10 %                  | Pressure calibrator |

| Parameter/Equipment                | Range                            | CMC <sup>2,3</sup> (±) | Comments                                    |
|------------------------------------|----------------------------------|------------------------|---|
| Load Cells                         | (100 to 10 000) lbf              | 0.50 %                 | Load cells, dead weights, ASTM E4           |
| Density Blocks                     | (1100 to 2725) kg/m <sup>3</sup> | 0.050 %                | Calipers, load cells, scales, nuclear gauge |
| Moisture Blocks                    | (0 to 800) kg/m <sup>3</sup>     | 0.40 %                 | Nuclear density gauge                       |
| Nuclear Density Gauge –<br>Density | (1100 to 2725) kg/m <sup>3</sup> | 0.13 %                 | Density and moisture blocks                 |
| Moisture <sup>4</sup>              | (0 to 800) kg/m <sup>3</sup>     | 0.60 %                 |   |

<sup>1</sup> This laboratory offers commercial calibration service.

<sup>2</sup> 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 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 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.

<sup>3</sup> In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.

<sup>4</sup> Moisture term is in mass per unit volume.

<sup>5</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.



## *Accredited Laboratory*

A2LA has accredited

**HUMBOLDT SCIENTIFIC, INC. DBA HUMBOLDT MFG. CO.**

*Raleigh, NC*

for technical competence in the field of

**Calibration**

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 12<sup>th</sup> day of May 2020.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 3956.01  
Valid to January 31, 2022  
Revised July 22, 2020

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