



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CINCINNATI TEST SYSTEMS  
 10100 Progress Way  
 Harrison, OH 45030  
 Tina Marable Phone: 513 202 8229

CALIBRATION

Valid To: January 31, 2022

Certificate Number: 1667.01

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. Fluid Quantities

| Parameter/Equipment   | Range   | CMC <sup>2</sup> (±)                               | Comments  |
|---|---|--|---|
| Flow –  |   |  |   |
| Calibration of Leak Standard (Dry Air, N <sub>2</sub> , He)                               | (0.5 to 50 000) scc/min   | 1.4 % of rdg or 0.10 scc/min, whichever is greater | Comparison with precision flow meters                               |
| Calibrations of Leak Standards, Gas Flow into Vacuum or Atmosphere (Non-Flammable Gasses) | (1 × 10 <sup>-5</sup> to 5 × 10 <sup>-1</sup> ) atm·cc/sec  | 6.5 % of rdg                                       | Rate of rise primary calibration system                             |
| Calibrations of Leak Standards, Gas Flow into Vacuum (He)                                 | (1 × 10 <sup>-10</sup> to 9.9 × 10 <sup>-8</sup> ) atm·cc/sec<br>(1 × 10 <sup>-7</sup> to 9.9 × 10 <sup>-7</sup> ) atm·cc/sec<br>(1 × 10 <sup>-6</sup> to 9.9 × 10 <sup>-3</sup> ) atm·cc/sec | 7.1 % of rdg<br>5.8 % of rdg<br>4.5 % of rdg       | Mass spectrometer comparison calibration system                     |
| Calibration of Leak Standards, Gas Flow into Vacuum (He)                                  | (1 × 10 <sup>-5</sup> to 9.9 × 10 <sup>-3</sup> ) atm·cc/sec  | 4.5 % of rdg                                       | Mass spectrometer comparison calibration system – sniffer technique |

| Parameter/Equipment  | Range                  | CMC <sup>2</sup> (±) | Comments   |
|--|------------------------|----------------------|--|
| Flow –<br>Calibration of Flow Instruments <sup>4</sup>           | (50 to 20 000) scc/min | 0.50 % of Full Scale | Direct comparison with Fluke Molbox 1+ and Laminar Molbloc |
| Flow –<br>Calibration of Flow Instruments <sup>3,4</sup>         | (50 to 3000) scc/min   | 0.50 % of Full Scale | Direct comparison with 3 range flow controller             |
| Pressure –<br>Calibration of Pressure Instruments <sup>4</sup>   | (-14.7 to 1000) psi    | 0.05 % of Full Scale | Mensor CPC6000   |
| Pressure –<br>Calibration of Pressure Instruments <sup>3,4</sup> | (-14.7 to 500) psi     | 0.05 % of Full Scale | Direct comparison with precision pressure standard         |

<sup>1</sup> This laboratory offers commercial calibration service on Leak Standards and Leak Test Equipment.

<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> Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. 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 and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the uncertainty introduced by the item being calibrated, (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.

<sup>4</sup> This parameter applies to equipment manufactured by Cincinnati Test Systems only.

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



# Accredited Laboratory

A2LA has accredited

## CINCINNATI TEST SYSTEMS

*Harrison, OH*

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 16<sup>th</sup> day of January 2020.

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

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1667.01  
Valid to January 31, 2022

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