



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AIRGAS USA LLC
130 Cross Rd.
Waterford, CT 06385
David Gada Phone: 860 625 6043

CHEMICAL

Valid To: January 31, 2020

Certificate Number: 3082.04

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on manufactured gases:

<u>Technology</u>	<u>Test</u>	<u>Internal Procedure</u>
Electrochemical Oxygen Analyzer	Determination of Oxygen in Nitrogen, Argon, or Helium	144-003
Electrolytic Hygrometer	Determination of Water in Air, Nitrogen, Argon, or Helium	144-004
Gas Chromatography Thermal Conductivity Detector (TCD)	Determination of Minor Component (Oxygen, Nitrogen, Argon, Helium, Carbon Dioxide) in Mixture Concentrations	144-005
Total Hydrocarbon Analyzer (FID)	Determination of Methane in Nitrogen, Argon, or Helium	144-002

All testing is carried out according to Airgas Specialty Gases SOP and applicable work instructions.

CALIBRATION

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Calibration of Welding Machines ³ – AC Voltage DC Voltage AC Current DC Current	 (0 to 100) V (0 to 100) V (10 to 600) A (10 to 600) A	 5 % 5 % 5 % 5 %	Amprobe 220

¹ This laboratory offers commercial calibration and chemical testing services.

² Calibration and Measurement Capability (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. Calibration and Measurement Capabilities 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.

³ 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 actual 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.

⁴ In the statement of CMC, percentages are read as a percent of value, unless otherwise noted.





Accredited Laboratory

A2LA has accredited

AIRGAS USA LLC

Waterford, CT

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard *ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories*. 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 27th day of June, 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 3082.04
Valid to January 31, 2020

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.