



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

TRIANGLE SALES CO., INC.
10896 Parrot Court
Fishers, IN 46037
David Shank, Jr. Phone: 317 509 2763

CALIBRATION

Valid To: May 31, 2025

Certificate Number: 2284.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 8}:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ² (±)	Comments
DC Voltage – Measure and Generate ³	(-10 to 75) mV (0.1 to 1.0) V (1 to 10) V (10 to 20) V	0.03 mV 0.08 V 0.08 V 0.08 V	Fluke 726 or 724
DC Current – Measure and Generate ^{3, 4}	(0 to 20) mA	0.06 mA	Fluke 726
DC Current – Measure ^{3, 4}	(0 to 20) mA	0.06 mA	Fluke 726, 724, 179
Oven/Furnace Temperature Indicators, Recorders and Controllers – Electrical Simulation Only ^{3, 4, 6}			
Type J	(-110 to 1600) °F	2.0 °F	Fluke 726 or 724
Type K	(0 to 2500) °F	2.2 °F	
Type N	(0 to 2400) °F	1.7 °F	
Type R	(400 to 3200) °F	3 °F	
Type S	(400 to 3200) °F	3.2 °F	
Type T	(-110 to 750) °F	2.0 °F	
RTD	(-110 to 1500) °F	1.9 °F	

II. Mechanical

Parameter/Equipment	Range	CMC ^{2, 7} (±)	Comments
Pressure – Measure ³	(0 to 40) inH ₂ O	0.29 inH ₂ O	Dwyer 475 digital manometer
Vacuum – Measure ³	(9x10 ⁻¹ to 1x10 ⁻¹) Torr (1x10 ⁻¹ to 1x10 ⁻³) Torr (1x10 ⁻³ to 1x10 ⁻⁵) Torr (0 to -30) inHg	24 % 36 % 53 % 0.36 inHg	Televac MM-200 Dwyer DPGA digital vacuum gage
Surface Speed Measurements – Measure ³			
RPM (Contact)	(0 to 500) rpm	5 rpm	Shimpo DT-207L
RPM (Non-Contact)	(0 to 500) rpm	2.6 rpm	

III. Thermodynamics

Parameter/Equipment	Range	CMC ² (±)	Comments
Oven/Furnace – Temperature Uniformity Surveys – Measure ^{3, 4, 6}			
Type J	(-110 to 1600) °F	2.6 °F	Yokogawa MV230, or Yokogawa MV112 VGR with thermocouple wire
Type K	(0 to 2500) °F	4.1 °F	
Type N	(0 to 2400) °F	4 °F	
Type R	(400 to 3200) °F	6.9 °F	
Type S	(400 to 3200) °F	7.0 °F	
Type T	(-110 to 750) °F	2.6 °F	

IV. Time & Frequency

Parameter/Equipment	Range	CMC ² (±)	Comments
Timers – Measure ^{3, 5}	(1 to 3600) s	0.65 s	Stopwatch

¹ This laboratory offers commercial calibration service and field calibration service.

² 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.

³ Field calibration service is available for this calibration. 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 Default calibration is to OEM specification unless otherwise noted. The customer's own specifications or AMS-2750-E specifications are acceptable if stated in advance of work being performed.

⁵ Certified digital stopwatch is used as a reference test instrument. Human reaction time is an overall factor in level of measurement of uncertainty to be considered. When possible three (3) time tests are performed and averaged final results.

⁶ Default furnace survey is to AMS-2750-F specifications unless otherwise noted. The customer's own specifications are acceptable if stated in advance of work being performed.

⁷ In the statement of CMC, the value is defined as the percentage of reading, unless otherwise noted.

⁸ This scope meets A2LA's P112 Flexible Scope Policy.



Accredited Laboratory

A2LA has accredited

TRIANGLE SALES COMPANY, INC.

Fishers, IN

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 the requirements of ANSI/NCSL Z540-1-1994 and 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 31st day of May 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2284.01
Valid to May 31, 2025

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