CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

American Lab
160 Saratoga #110
Santa Clara CA 95051

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

and national standard

ANSI/NCSL Z540-1-1994 (R2002)

while demonstrating technical competence in the field of

CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations to which this accreditation applies.

AC-1468
Certificate Number

ANAB Approval

Certificate Valid: 08/03/2017-07/27/2018
Version No. 004 Issued: 08/03/2017

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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).

ANSI-ASQ National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 AND ANSI/NCSL Z540-1-1994 (R2002)

American Lab
160 Saratoga #110
Santa Clara, CA 95051
Ken Silva 408-997-8911

CALIBRATION

Valid to: **July 27, 2018** Certificate Number: **AC-1468**

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
DC Voltage - Measure	Up to 600 mV 600 mV to 6 V (6 to 60) V (60 to 600) V 600 V to 1 kV	10 mV/V + 2 counts 10 mV/V + 2 counts 10 mV/V + 2 counts 10 mV/V + 2 counts 12 mV/V + 2 counts	Fluke 179 DMM
AC Voltage - Measure 45 Hz to 500 Hz	Up to 600 mV 600 mV to 6 V (6 to 60) V (60 to 600) V 600 V to 1 kV	12 mV/V + 3 counts	
AC Voltage - Measure 500 Hz to 1 kHz	Up to 600 mV 600 mV to 6 V (6 to 60) V (60 to 600) V 600 V to 1 kV	23 mV/V + 3 counts	
DC Current - Measure	Up to 60 mA (60 to 400) mA 400 mA to 6 A (6 to 10) A	12 mA/A + 3 counts	
AC Current - Measure 45 Hz to 1 kHz	Up to 60 mA (60 to 400) mA 400 mA to 6 A (6 to 10) A	17 mA/A + 3 counts	

Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Height Gages, Height Master; Various Types	Up to 24 in	390 µin	Gage Blocks Grade 2 Mic STD 1" to 11"
Calipers, I.D., O.D., Digital, Dial, Depth	Up to 24 in	150 µin	Gage Blocks Grade 2 Mic STD 1" to 11"
Super Micrometer	Up to 12 in	30 µin	Gage Blocks Grade 2
Micrometers, Dial, Digital, I.D., O.D., Blade, Depth, Flange, Head	Up to 12 in	(65 + 23*L*) µin	Gage Blocks Grade 2 Mic STD 1" to 11"
Pitch Diameter, External Threads	Up to 4 in	24 µin	Supermicrometer and thread wires
Indicators, Dial, Test	Up to 4 in	80 µin	Gage Blocks Grade 2
Gage Blocks Micrometer Standards	(0.05 to 1) in (1 to 11) in	(13 + 0.93*L*) µin (12 + 4.2*L*) µin	P & W Super Micrometer w/ Gage Blocks

Mass

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Torque	(5 to 50) lbf·in	1.1 lbf·in	CDI Torque Tester
Force Gages, Load Cells and Scales	2 g to 7 kg	89 mg	Class F Weights
Force Tension and Compression	Up to 440 lbf	2.8 lbf	Digital Force Gage

Thermodynamic

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Temperature-Measurement	(-40 to 500) °F	2.4 °F	Fluke 52-2 Digital Thermometer w Type K Thermocouple

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. Uncertainties for Electromagnetic-DC/Low Frequency do not include possible contributions to uncertainty from a “best available” unit under test.
3. L = length in inches
4. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1468.

Vice President