

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Precision Calibrations 221 E. Patti Page Blvd. Claremore, OK 74017

Fulfills the requirements of

ISO/IEC 17025:2017

and national standard

ANSI/NCSL Z540-1-1994 (R2002)

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <u>www.anab.org</u>.



R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 28 October 2024 Certificate Number: AC-2092



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 AND ANSI/NCSL Z540-1-1994 (R2002)

Precision Calibrations

221 E. Patti Page Blvd. Claremore, OK 74017 Nathan Saylor 918-530-9687

CALIBRATION

Valid to: October 28, 2024

Certificate Number: AC-2092

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Calibration of Process Instruments ¹	Type J (0 to 1 600) °F Type K (0 to 2 400) °F	0.8 °F 0.81 °F	Thermocouple Simulation using Process Calibrator per AMS2750F

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ²	Reference Standard, Method, and/or Equipment
OD Micrometer ¹	(0 to 12) in	(58 + 3.3 <i>L</i>) µin	Gage Blocks
Calipers ¹	(0 to 12) in	(570 + 14 <i>L</i>) μin	Gage Blocks
Dial Indicator ¹	(0 to 1) in	25 µin	Gage Blocks
Dial Indicators ¹	(1 to 4) in	578 µin	Gage Blocks
Length Standards	(0 to 12) in	(37 + 4.3 <i>L</i>) µin	Gage Blocks



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Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Rockwell Hardness Machines ¹	HRBw Low Middle High	3 HRBw 1.3 HRBw 1.3 HRBw	
	HRC Low Middle High	1.4 HRC 1.4 HRC 0.7 HRC	Hardness Blocks
Pressure ¹	(-15 to 200) psi	0.29 psi	
	(0 to 1 500) psi	1.2 psi	Fluke 700 P series
	(0 to 30 000) psi	10.5 psi	Fluke RPM4
Scales & Balances ¹	(0 to 220) g	1.5 mg	OIML Class F2 weights
	(0 t <mark>o 4) kg</mark>	817 mg	Onvil Class I 2 weights
	(0 to 200) lb	0.1 lb	NIST 105 Class F
Torque Wrenches	(4 to 50) lbf·in	0.9 lbf∙in	
	(30 to 400) lbf·in	1.7 lbf∙in	Torque Tester and
	(80 to 1 000) lbf·in	4.4 lbf∙in	Transducer
	(20 to 250) lbf·ft	1.8 lbf·ft	

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
System Accuracy Tests (SAT) ¹	Type J (100 to 1 400) °F Type K (100 to 2 000) °F	1.7 °F 1.8 °F	Process Calibrator w/Thermocouple probes/wire Per AMS2750F





Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature Uniformity Surveys (TUS) ¹	Type J (100 to 500) °F Type K (200 to 2 000) °F	2.2°F 2.2°F	Multipoint data logger w/Thermocouple wire per AMS2750F
Relative Humidity ¹	(20 to 80) % RH	1.8 %RH	Vaisala with Probe
Temperature ¹	(32 to 572) °F	0.2 °F	Fluke 1552A with probe

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Stopwatch and timers ¹	3 600 s	0.56 s	Stopwatch

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. L = Length in inches.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2092.



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