



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

ThermCo Products

10 Millpond Drive, Unit 10, Lafayette, NJ 07848

(Hereinafter called the Organization) and hereby declares that Organization 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 (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Thermodynamic Calibration ***(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Initial Accreditation

February 3, 2012

Date: Issue Date:

July 22, 2020

Expiration Date:

September 30, 2022

Accreditation No.:

69071

Certificate No.:

L20-424

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjllabs.com



Certificate of Accreditation: Supplement

ThermCo Products

10 Mill Pond Drive, Lafayette, NJ 07848
 Contact Name: Rich D'atria Phone: 973-300-9100

Accreditation is granted to the facility to perform the following calibrations:

Thermodynamic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Digital Thermometer Scope ^F	-80 °C to -20 °C	0.031 °C	Fluke Super Thermometer w/probes (4161, 4162, 4164, 4165, 4167 & 4169) Liquid Bath ASTM E644-11
	20 °C to 0 °C	0.024 °C	
	0 °C to 100 °C	0.014 °C	
	100 °C to 200 °C	0.017 °C	
Glass Thermometer Spirit ^F	-80 °C to -20 °C	0.11 °C	Fluke Super Thermometer w/probes (4161, 4162, 4164, 4165, 4167 & 4169) Liquid Bath ASTM E77-14 NIST 1088
	-20 °C to 0 °C	0.11 °C	
	0 °C to 37 °C	0.11 °C	
	37 °C to 100 °C	0.11 °C	
Glass Thermometer Mercury ^F	-20 °C to 0 °C	0.062 °C	Fluke Super Thermometer w/probes (4161, 4162, 4164, 4165, 4167 & 4169) Liquid Bath ASTM E77-14 NIST 1088
	0 °C to 37 °C	0.064 °C	
	37 °C to 100 °C	0.066 °C	
	100 °C to 200 °C	0.069 °C	
	200 °C to 300 °C	0.069 °C	
IR Thermometers ^F	0 °C to 34.9 °C	0.51 °C	Fluke 4181 IR Calibrator < 35°C Liquid Bath Method ASTM E2847-14
	35 °C to 99.9 °C	0.60 °C	
	100 °C to 199.9 °C	1.2 °C	
	200 °C to 299.9 °C	1.8 °C	
	300 °C to 399.9 °C	2 °C	
	400 °C to 500 °C	2.3 °C	
Humidity Measure ^F	10 % to 30 %	1.3 % of reading	Vaisala MI70/HMP75 w/Thermotron Chamber SM 1.0 Procedure RH-1000
	30 % to 50 %	1.4 % of reading	
	50 % to 60 %	1.4 % of reading	
	60 % to 80 %	1.4 % of reading	
	80 % to 95 %	1.5 % of reading	



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Accreditation is granted to the facility to perform the following calibrations:

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this calibration at its fixed location.

