CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

MadgeTech, Inc.
6 Warner Road
Warner, NH 03278

Fulfills the requirements of

ISO/IEC 17025:2017

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 www.anab.org.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 28 June 2023
Certificate Number: AC-2481

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

MadgeTech, Inc.
6 Warner Road
Warner, NH 03278
Dianne Moulton (603) 456-2011
dianne@madgetech.com

CALIBRATION

Valid to: **June 28, 2023** Certificate Number: **AC-2481**

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measuring Equipment	(-84 to 5) °C	0.039 °C	Fluke 5616 PRT with Fluke 1502A Indicator, Fluke 7381 Deep-Well Bath with Methanol
	(5 to 80) °C	0.039 °C	Fluke 5616 PRT with Fluke 1502A Indicator, Fluke 7321 Deep-Well Bath with Distilled Water
	(80 to 140) °C	0.036 °C	Fluke 5616 PRT with Fluke 1502A Indicator, Fluke 7321 Deep-Well Bath with Silicone Oil
	(10 to 24) °C	0.49 °C	Direct Comparison using Vaisala HMP155 Temperature/ Humidity Probe and Indicator, Environmental Chamber
	(24 to 26) °C	0.32 °C	Direct Comparison using Vaisala HMP155 Temperature/ Humidity Probe and Indicator, Environmental Chamber
	(26 to 50) °C	0.87 °C	Direct Comparison using Vaisala HMP155 Temperature/ Humidity Probe and Indicator, Environmental Chamber
	(50 to 60) °C	1.1 °C	Direct Comparison using Vaisala HMP155 Temperature/ Humidity Probe and Indicator, Environmental Chamber

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measuring Equipment	(50 to 420) °C	0.14 °C	Fluke 5616 PRT with Fluke 1502A Indicator, Fluke 9173 Metrology Bath
	-196 °C	0.059 °C	LN_2 Dewar, Fluke 5616 PRT with Fluke 1502A Indicator
Relative Humidity	(10 to 90) %RH	1.4 %RH	Direct Comparison using Vaisala HMP 155 Temperature/Humidity Probe and Indicator

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Pneumatic Pressure	(0 to 500) psig (1 to 500) psia	0.084 psi 0.093 psi	Direct comparison using Mensor CPC6000 with MadgeTech Fixture 4020
	(1.5 to 72.5) psia	0.063 psi	Direct comparison using Mensor CPC6000 with MadgeTech Fixture 4010
	(1 to 20) psia	0.077 psi	Direct comparison using Mensor CPC6000 with MadgeTech Fixture 4034

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. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2481.

R. Douglas Leonard Jr., VP, PILR SBU