

Scope of Accreditation For JAC Manufacturing, Inc.

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In recognition of a successful assessment to ISO/IEC 17025:2005 to the following Calibration and Measurement Capabilities, accreditation has been granted to **JAC Manufacturing, Inc.** for the following:

Accreditation granted through: **November 27, 2019**

Calibration

Electrical – Current ¹

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
DC Current – Source	(0 to 22) mA	14 μ A + 575 μ A/A	Comparison performed with a Process Calibrator
DC Current – Measure	(0 to 30) mA (30 to 110) mA	12 μ A + 207 μ A/A 49 μ A + 167 μ A/A	

Electrical – Voltage ¹

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
DC Voltage – Source	(0 to 110) mV (0.11 to 1.1) V (1.1 to 15) V	61 μ V + 100 μ V/V 210 μ V + 206 μ V/V 2.6 mV + 222 μ V/V	Comparison performed with a Process Calibrator
DC Voltage – Measure	(0 to 110) mV (0.11 to 1.1) V (1.1 to 11) V (11 to 110) V (110 to 300) V	35 μ V + 330 μ V/V 290 μ V + 300 μ V/V 2.9 mV + 300 μ V/V 29 mV + 531 μ V/V 80 mV + 521 μ V/V	
Thermocouple Millivolt Simulation – Source			Comparisons performed with a Process Calibrator and Electronic Thermometer
Type E	(-200 to 1 000) °C	0.93 °C	
Type N	(-200 to 1 300) °C	1.1 °C	
Type J	(-210 to 1 200) °C	0.9 °C	
Type K	(-200 to 1 372) °C	0.99 °C	
Type T	(-200 to 400) °C	0.99 °C	
Type B	(600 to 1 820) °C	1.5 °C	
Type R	(-20 to 1 767) °C	1.7 °C	
Type S	(0 to 1 760) °C	1.7 °C	
Type C	(0 to 2 316) °C	1.5 °C	

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Thermocouple Millivolt Simulation – Measure			
Type E	(-200 to 1 000) °C	1 °C	Comparisons performed with a Process Calibrator and Electronic Thermometer
Type N	(-200 to 1 300) °C	1.5 °C	
Type J	(-210 to 1 200) °C	1.1 °C	
Type K	(-200 to 1 372) °C	1.2 °C	
Type T	(-200 to 400) °C	1.1 °C	
Type B	(600 to 1 820) °C	1.8 °C	
Type R	(0 to 1 767) °C	2 °C	
Type S	(0 to 1 760) °C	2 °C	
Type C	(0 to 2 316) °C	2.5 °C	

Thermodynamic – Humidity ¹

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Humidity Measure	(10 to 90) % RH	3.4 % RH	Comparison performed with a Thermo-hygrometer

Thermodynamic – Thermodynamic Sources

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Temperature Measure (System Accuracy Test)	(-200 to 1 100) °C	1.6 °C	Comparison performed with a Process Calibrator and Thermocouple
Temperature Uniformity Calibration Surveys			Comparisons performed with a Multi-Channel Recorder and Thermocouples per Current AMS 2750
Type J	(-100 to 300) °C	2.3 °F	
Type K	(300 to 1 100) °C		

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and remarks. 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) Laboratory offers calibration services at the laboratory's own facilities and at the client or other agreed upon facilities.

Approved by: _____



R. Douglas Leonard
Chief Technical Officer

Date: June 27, 2016

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