

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Ferycon Labs, S.A. de C.V. (Instrulab)

Carrera 82 #42, Sur 49 San Antonio de Prado, Medellín, Colombia. C.P. 52000

(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):

Mechanical, Thermodynamic, Electrical and Mass, Force and Weighting

Devices 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:

Initial Accreditation Date:

Issue Date:

Expiration Date:

February 07, 2025

February 07, 2025

February 07, 2027

Accreditation No.:

Certificate No.:

78970

L25-111 -2

Tracy Szerszen President

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.pjlabs.com



Issue: 02/2025

Certificate of Accreditation: Supplement

Ferycon Labs, S.A. de C.V. (Instrulab)

Carrera 82 #42, Sur 49

San Antonio de Prado, Medellín, Colombia. C.P. 52000 Contact Name: Fernando Briseño Phone: 442-403-5892

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

Mechanical

MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	CALIBRATION AND MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT METHOD
QUANTITY OR GAUGE	WHERE APPROPRIATE)	CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	REFERENCE STANDARDS USED	OR PROCEDURES USED
Vacuum Meters ^{FO}	-10 psi to 1 psi	0.017 psi	Digital Manometer	Euramet_cg-17
Pressure Gage ^{FO}	1.1 psi to 10 psi	0.018 psi		DKR-R 6-1
	10.1 psi to 50 psi	0.027 psi		
	50.1 psi to 150 psi	0.041 psi		
	150.1 psi to 300 psi	0.14 psi		
	300.1 psi to 500 psi	0.21 psi		
	500.1 psi to 1 300 psi	0.23 psi		
	1 300.1 psi to 1 800 psi	0.32 psi		
	1 800.1 psi to 2 500 psi	0.84 psi		
	2 500.1 psi to 3 500 psi	0.88 psi		
	3 500.1 psi to 5 000 psi	0.93 psi		
	5 000.1 psi to 10 000 psi	1.7 psi	/ /	
Presure Transmitter ^{FO}	1.1 psi to 10 psi	0.018 psi		
	10.1 psi to 50 psi	0.027 psi		
	50.1 psi to 150 psi	0.041 psi		
	150.1 psi to 300 psi	0.14 psi		
	300.1 psi to 500 psi	0.21 psi		
	500.1 psi to 1 300 psi	0.23 psi		
	1 300.1 psi to 1 800 psi	0.32 psi		
	1 800.1 psi to 2 500 psi	0.84 psi		
	2 500.1 psi to 3 500 psi	0.88 psi		
	3 500.1 psi to 5 000 psi	0.93 psi		
	5 000.1 psi to 10 000 psi	1.7 psi		
Presure Recorder ^{FO}	1.1 psi to 10 psi	0.018 psi		
	10.1 psi to 50 psi	0.027 psi		
	50.1 psi to 150 psi	0.041 psi		
	150.1 psi to 300 psi	0.14 psi		
	300.1 psi to 500 psi	0.21 psi		
	500.1 psi to 1 300 psi	0.23 psi		
	1 300.1 psi to 1 800 psi	0.32 psi		
	1 800.1 psi to 2 500 psi	0.84 psi		
	2 500.1 psi to 3 500 psi	0.88 psi		
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MEASURED	RANGE	CALIBRATION	CALIBRATION	CALIBRATION
INSTRUMENT,	(AND SPECIFICATION	AND MEASUREMENT	EQUIPMENT AND	MEASUREMENT
QUANTITY OR GAUGE	WHERE APPROPRIATE)	CAPABILITY EXPRESSED	REFERENCE	METHOD OR
70		AS AN UNCERTAINTY (±)	STANDARDS USED	PROCEDURES USED
Presure Transducers ^{FO}	1.1 psi to 10 psi	0.018 psi	Digital Manometer	Euramet_cg-17
	10.1 psi to 50 psi	0.027 psi		DKD R-6
	50.1 psi to 150 psi	0.041 psi		Internal Procedure
	150.1 psi to 300 psi	0.14 psi		
	300.1 psi to 500 psi	0.21 psi		
	500.1 psi to 1 300 psi	0.23 psi		
	1 300.1 psi to 1 800 psi	0.32 psi		
	1 800.1 psi to 2 500 psi	0.84 psi		
	2 500.1 psi to 3 500 psi	0.88 psi		
	3 500.1 psi to 5 000 psi	0.93 psi		
	5 000.1 psi to 10 000 psi	1.7 psi		

Thermodynamic

Issue: 02/2025

MEASURED INSTRUMENT, QUANTITY OR GAUGE Contact Thermometry (RTD, Thermocouple Reader sensor assembly	RANGE (AND SPECIFICATION WHERE APPROPRIATE) -20 °C to 0 °C 0.1 °C to 25 °C	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0.095 °C 0.11 °C	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED Digital Thermometer and Dry Block	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED Nordtest Method NTVVS 103 Internal Procedure
and Bimetallic Thermometers) ^{FO}	25.1 °C to 50 °C 50.1 °C to 100 °C 100.1 °C to 150 °C 100.1 °C to 150 °C 150.1 °C to 200 °C 200.1 °C to 300 °C 300.1 °C to 420 °C 420.1 °C to 650 °C	0.13 °C 0.14 °C 0.18 °C 0.18 °C 0.21 °C 0.26 °C 0.31 °C 0.47 °C	Reference Thermometer and Dry Block	internar i rocedure
Thermohygrometers Temperature Only ^O	20 °C to 60 °C	0.15 °C		
Thermohygrometers Humidity Only ^O	10 % RH to 90 % RH	1.4 % RH		
Oven ^O	20 °C to 600 °C	1.6 °C	Datalogger Temperature	AMS 2750 E
Muffles and Furnance ^O	20 °C to 1 000 °C	1.8 °C	and Thermocouples SAE	Internal Procedure



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

Thermodynamic

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MEASURED	RANGE	CALIBRATION	CALIBRATION	CALIBRATION
INSTRUMENT,	(AND SPECIFICATION	AND MEASUREMENT	EQUIPMENT AND	MEASUREMENT
QUANTITY OR GAUGE	WHERE APPROPRIATE)	CAPABILITY EXPRESSED	REFERENCE	METHOD OR
		AS AN UNCERTAINTY (±)	STANDARDS USED	PROCEDURES USED
Controlled	20 °C to 1 000 °C	0.25 °C	Datalogger Temperature	Euramet_cg-20
Temperature Rooms ^O			and Thermocouples	
			DKD R-5-7	

Mass, Force and Weighing Devices

Mass, Porce and Wei	gilling Devices			
MEASURED	RANGE	CALIBRATION	CALIBRATION	CALIBRATION
INSTRUMENT,	(AND SPECIFICATION	AND MEASUREMENT	EQUIPMENT AND	MEASUREMENT
QUANTITY OR GAUGE	WHERE APPROPRIATE)	CAPABILITY EXPRESSED	REFERENCE	METHOD OR
		AS AN UNCERTAINTY (±)	STANDARDS USED	PROCEDURES USED
Balances ^O	0.001 g to 200 g	$(2.5 \times 10^{-4} + 2 \times 10^{-6} \text{Wt}) \text{ mg}$	Weight Set F1	Euramet_cg-18
	(Res.= 0.000 1 g)			
	0.001 g to 5 100 g	$(8.5 \times 10^{-4} + 2 \times 10^{-6} \text{Wt}) \text{ mg}$		
	(Res.= 0.001 g)			
Scales ^{FO}	5 kg to 400 kg	$(1.4 \times 10^{-3} + 1.6 \times 10^{-6} \text{Wt})$		
	(Res.= 0.001 kg)			

Electrical

Issue: 02/2025

Electrical				
MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Equipment to Measure	1 mV to 100 mV	0.005 1 mV	Fluke 754 and 744	EL-001 CEM
DC Voltage ^{FO}	100.1 mV to 1 V	0.001 8 V	Process Calibrators	Internal Procedure
	1.1 V to 15 V	0.002 8 V		
Equipment to Measure DC Current ^{FO}	0.1 mA to 22 mA	0.012 mA		
Equipment to Measure	$0.1~\Omega$ to $10~\Omega$	0.01% of reading + $10 \text{ m}\Omega$		
Resistance ^{FO}	10.1 Ω to 100 Ω	0.01 % of reading + $20 \text{ m}\Omega$		
	100.1 Ω to 1 kΩ	0.01 % of reading + 0.2Ω		
	$1.1~\mathrm{k}\Omega$ to $10~\mathrm{k}\Omega$	0.02 % of reading + 3Ω		
Equipment to Measure	0.1 Hz to 10.99 Hz	0.1 Hz to 10.99 Hz		
Frequency	10 Hz to 109.99 Hz	11 Hz to 109.99 Hz		
	110 Hz to 1 099.9 Hz	110 Hz to 1 099.9 Hz		
	1.1 kHz to 21.999 kHz	1.1 kHz to 21.999 kHz		
	22 kHz to 50 kHz	22 kHz to 50 kHz		
Temperature Calibration, Simulation, Indication and Control Equipment used with Thermocouple Type B ^{FO}	600 °C to 799.9 °C	1 °C	Fluke 754 and	Euramet_cg-11
	800 °C to 999.9 °C	0.8 °C	Fluke 744	
	1 000 °C to 1 820 °C	0.8 °C	Process Calibrators Electrical Simulation of Thermocouple Output	



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Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Temperature Calibration,	0 °C to 799.9 °C	0.6 °C	Fluke 754 and	Euramet_cg-11
Simulation, Indication and	800 °C to 1 199.9 °C	0.7 °C	Fluke 744	
Control Equipment used with Thermocouple Type C ^{FO}	1 200 °C to 1 799 °C	0.9 °C	Process Calibrators Electrical Simulation of	
тистиосоцые туре с	1 800 °c to 2 316 °C	1.3 °C	Thermocouple Output	
Temperature Calibration,	-250 °C to -199.9 °C	0.6 °C		
Simulation, Indication and	-200 °C to -99.9 °C	0.3 °C		
Control Equipment used with Thermocouple Type E ^{FO}	-100 °C to 599 °C	0.3 °C		
Thermocoupie Type E	600 °C to 1 000 °C	0.2 °C		
Temperature Calibration,	-210 °C to -99.9 °C	0.3 °C		
Simulation, Indication and	-100 °C to 799.9 °C	0.2 °C		
Control Equipment used with Thermocouple Type J ^{FO}	800 °C to 1 200 °C	0.3 °C		
Temperature Calibration,	-200 °C to -99.9 °C	0.4 °C		
Simulation, Indication and	-100 °C to 399.9 °C	0.3 °C		
Control Equipment used with Thermocouple	400 °C to 1 200 °C	0.3 °C		
Type K ^{FO}	1 200 °C to 1 372 °C	0.3 °C		
Temperature Calibration,	-200 °C to -99.9 °C	0.3 °C		
Simulation, Indication and	-100 °C to 799.9 °C	0.2 °C		
Control Equipment used with Thermocouple Type L ^{FO}	800 °C to 900 °C	0.2 °C		
Temperature Calibration,	-200 °C to -99.9 °C	0.6 °C		
Simulation, Indication and	-100 °C to 899.9 °C	0.5 °C		
Control Equipment used with Thermocouple Type N ^{FO}	900 °C to 1 300 °C	0.3 °C		
Temperature Calibration,	-20 °C to 0 °C	1.2 °C		
Simulation, Indication and	0.1 °C to 99.9 °C	1.1 °C		
Control Equipment used with Thermocouple Type R ^{FO}	100 °C to 1 767 °C	0.9 °C		
Temperature Calibration,	-20 °C to 0 °C	1.2 °C		
Simulation, Indication and	0.1 °C to 199.9 °C	1.1 °C		
Control Equipment used with Thermocouple Type S ^{FO}	200 °C to 1 399 °C	0.9 °C		
Indimocouple Type 5	1 400 °c to 1 767 °C	1. °C		
Temperature Calibration,	-250 °C to -199.9 °C	0.9 °C		
Simulation, Indication and	-200 °C to 0 °C	0.4 °C		
Control Equipment used with Thermocouple Type T ^{FO}	0.1 °C to 400 °C	0.3 °C		



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INSTRUMENT,	(AND SPECIFICATION	AND MEASUREMENT	EQUIPMENT AND	MEASUREMENT
QUANTITY OR GAUGE	WHERE APPROPRIATE)	CAPABILITY EXPRESSED	REFERENCE	METHOD OR
		AS AN UNCERTAINTY (±)	STANDARDS USED	PROCEDURES USED
Temperature Calibration,	-200 °C to 0 °C	0.4 °C	Fluke 754 and	Euramet_cg-11
Simulation, Indication and	0.1 °C to 600 °C	0.3 °C	Fluke 744	
Control Equipment used with	0.1 0.0000	0.5	Process Calibrators	
Thermocouple Type UFO			Electrical Simulation of	
			Thermocouple Output	

- 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.
- 4. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations.
- 5. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
- This location is linked to Ferycon Labs, S.A. de C.V. (Instrulab)Blvd. Peña Flor, No. 1102, Novatec Busines Park Nave B8, Ciudad del Sol, Querétaro, Querétaro, México. C.P. 76116 due to a share quality management system.