PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Jorge Jiménez Perez / Lapycal
Av. Revolución # 1500, Col. Ciudad Universitaria
Guadalajara, Jalisco, México. C.P. 44980

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Dimensional, Thermodynamic, Mechanical and Mass, Force and Weighing Devices Calibration
(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Tracy Szerszen
President

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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
January 31, 2017	March 17, 2025	May 31, 2027

Accreditation No.:	*Certificate No.:*
90812	L25-231

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

Certificate of Accreditation: Supplement

Jorge Jiménez Perez / Lapycal

Av. Revolución # 1500, Col. Ciudad Universitaria
Guadalajara, Jalisco, México. C.P. 44980
Contact Name: Jorge Jimenéz Phone: 331-423-4189

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	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	LOCATION OF ACTIVITY
Dimensional	Caliper	1.5 mm to 600 mm	$(12.1 + 3.5 \times 10^{-3}L)$ µm	Set Block Gage Grade 0 o 1 and Step Master	NMX-CH-002	F, O
	Outside Micrometer	1.5 mm to 300 mm	$(7.84 \times 10^{-1} + 1.04 \times 10^{-2}L)$ µm	Set Block Gage Grade 0 or 1	NMX-CH-036	F, O
	Indicator	1.5 mm to 50 mm	$(7.9 + 1.04 \times 10^{-3}L)$ µm			F, O
	Height Gages	1.5 mm to 600 mm	$(13.6 + 5 \times 10^{-3}L)$ µm	Master Block 0 or 1	NMX-CH-141	F, O
	Rulers	1.5 mm to 1 000 mm	0.81 mm	Master Rule	NMX-148-SCFI	F, O
	Tapes	1 mm to 8 m	0.92 mm		NOM-046-SCFI	F, O
	Films Gages	0.025 mm to 3 mm (Res.= 0.001 mm)	3.8 µm	Digital Indicator	ISO 3650	F, O
Thermodynamic	Temperature, Measurement, Controller and Chart Recorders	-20 °C to 300 °C (Res.= 0.1 °C)	0.057 °C	Thermometer Read Out Fluke Model 51 II Thermocouple Type K	NMX-CH-070	F, O
		-20 °C to 300 °C (Res.= 1 °C)	0.57 °C			F, O
		-20 °C to 300 °C (Res.= 2 °C)	1.1 °C			F, O
		-20 °C to 300 °C (Res.= 5 °C)	2.7 °C			F, O
Mechanical	Pressure Gauges	30 psi to 300 psi	0.25 % of reading	Digital Pressure Gage Dwyer	NOM-013-SCFI	F, O
Mass, Force and Weighing Devices	Scales	0.01 kg to 50 kg (Res.= 0.001 kg)	3 g	Master Weights Class M1	NOM-010-SCFI NMX-CH- 009-SCFI	O
		0.02 kg to 100 kg (Res.= 0.002 kg)	5 g			O
		0.05 kg to 200 kg (Res.= 0.005 kg)	7 g			O

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Mass, Force and Weighing Devices	Scales	20 000 g to 100 000 g (Res.= 10 g)	$(6.08 + 1.06 \times 10^{-4}Wt)$ g	Weights Class M1	NOM-010-SCFI NMX-CH- 009-SCFI	O
		100 000 g to 200 000 g (Res.= 20 g)	$(7.94 + 8.75 \times 10^{-5}Wt)$ g			O
		200 000 g to 500 000 g (Res.= 30 g)	$(17.81 + 3.82 \times 10^{-5}Wt)$g			O
		500 000 g to 800 000 g (Res.= 40 g)	$(4.79 + 6.42 \times 10^{-5}Wt)$ g			O
		800 000 g to 1 000 000 g (Res.= 60 g)	$(14.13 + 5.25 \times 10^{-5}Wt)$ g			O
		1 000 000 g to 1 300 000 g (Res.= 70 g)	$(2.34 + 6.43 \times 10^{-5}Wt)$ g			O
		1 300 000 g to 1 500 000 g (Res.= 90 g)	$(61.59 + 1.87 \times 10^{-5}Wt)$ g			O
		1 500 000 g to 1 800 000 g (Res.= 90 g)	$(26.42 + 4.22 \times 10^{-5}Wt)$ g			O
		1 800 000 g to 2 000 000 g (Res.= 100 g)	$(63.88 + 2.14 \times 10^{-5}Wt)$ g			O
		1 g to 100 g (Res.= 0.000 1 g)	$(2.52 \times 10^{-5} + 8.15 \times 10^{-5}Wt)$ g	Weights Class F1		O
		100 g to 500 g (Res.= 0.01 g)	$(2.04 \times 10^{-3} + 6.13 \times 10^{-5}Wt)$ g			O
		500 g to 1 000 g (Res.= 0.04 g)	$(2.44 \times 10^{-2} + 1.65 \times 10^{-5}Wt)$ g			O
		1 000 g to 5 000 g (Res.= 0.05 g)	$(4.01 \times 10^{-2} + 8.27 \times 10^{-7}Wt)$ g			O
		5 000 g to 20 000 g (Res.= 0.05 g)	$(2.35 \times 10^{-2} + 4.16 \times 10^{-6}Wt)$ g			O

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Accreditation is granted to the facility to perform the following conformity assessment activities:

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. Location of activity:

Location Code	Location
F	Conformity assessment activity is performed at the CABs fixed facility
O	Conformity assessment activity is performed onsite at the CABs customer location

4. 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.

5. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.

6. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.