



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Lapycal, S.A. de C.V.

***HQ: Av. Revolución # 1500 col. Ciudad Universitaria
Guadalajara, Jalisco, México. C.P. 44430***

***Site ITRANS: Avenida Jose Parres Arias # 5, Col. Industrial Los Belenes
Zapopan, Jalisco, México. C.P. 45157***

*(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 and Optical Testing and Dimensional Inspection
(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/Operations Manager

Initial Accreditation Date:

January 31, 2017

Issue Date:

March 23, 2019

Expiration Date:

April 30, 2021

Revision Date:

February 07, 2019

Accreditation No.:

90812

Certificate No.:

L19-150-R1

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

Lapycal, S.A. de C.V.

Escuela Politécnica de Guadalajara UDG

Av. Revolución # 1500, Col. Ciudad Universitaria

Guadalajara, Jalisco, México. C.P. 44430

Contact Name: Jorge Jiménez Phone: 331-423-4189

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

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Mechanical ^F	Metal and No-Metal Parts	Tension & Compression	ASTM-E08	Tension and Compression Universal Machine Up to 10 kN (Res.= 1 kN)
			ASTM E08	Tension and Compression Universal Machine Up to 300 kN (Res.= 30 kN)
	Metallic Parts	Rockwell Hardness	ASTM-E18	Rockwell Hardness Tester & Hardness Reference Blocks 40 HRB to 100 HRB 20 HRC to 70 HRC (Res.= 0.1 HR)



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Lapycal, S.A. de C.V.

Laboratorio de Ingeniería Mecánica (CUCEI)

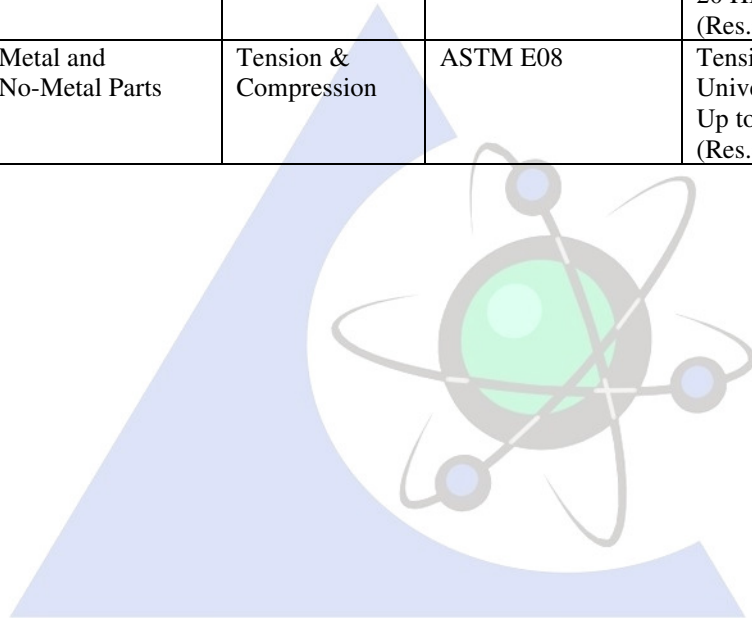
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Dimensional Inspection ^F	Metallic and Non-Metallic Parts	GD&T	ASME Y:14.5	CMM: X: 700 mm Y: 1 000 mm Z: 600 mm (Res.= 1 µm)
Mechanical ^F	Metallic Parts	Rockwell Hardness	ASTM-E18	Rockwell Hardness Tester & Hardness Reference Blocks 40 HRB to 100 HRB 20 HRC to 70 HRC (Res.= 1 HR)
	Metal and No-Metal Parts	Tension & Compression	ASTM E08	Tension and Compression Universal Machine Up to 200 kN (Res.=20 kN)





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Optical ^F	Metal and No-Metal	Analysis by Energy-Dispersive Spectroscopy; Elemental Chemical Composition	ASTM E766-14 ¹ E1508-12A	Microscope: Brand: JEOL Model: 6610LV Detection Range Starting in Boron
	Organic Compounds in Solution	Chemical Structure Determination 1D and 2D Experiments by Nuclear Magnetic Resonance of ¹ H (Proton) and ¹³ C (Carbon)	Internal Method	NMR Spectrometer Brand: JEOL Model: JNM-ECA 600 MHz Detection Limit of 30 nmol / 0.05 mM
	Organic and Inorganic Compounds	Ultra-Performance Liquid Chromatography (UHPLC) coupled to the mass spectrometer (MS)	Internal Method	Spectrometer of Mass Brand: Waters Model: Synapt- G2-Si Ultra Performance Liquid Chromatography (UPLC) Brand: Waters Model: ACQUITY CLASS 1

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.