



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Tecnologias en Medición 3D, S.A. de C.V.
Calle Misión San Clemente #7920, Colonia Misión Santa Fe
Guadalupe, Nuevo León, México. C.P. 67193

(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):

Dimensional 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:

Tracy Szerszen
President

Initial Accreditation Date:

August 11, 2021

Issue Date:

November 14, 2023

Expiration Date:

January 31, 2026

Accreditation No.:

115162

Certificate No.:

L23-822

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

Tecnologías en Medición 3D, S.A. de C.V.

Calle Misión San Clemente #7920, Colonia Misión Santa Fe
Guadalupe, Nuevo León, México. C.P. 67193
Contact Name: Hugo Ivan Martinez Garcia Phone: 812-718-5023

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

Dimensional

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION OR MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Articulated Arm ^{FO} CMM Volumetric Performance Test ^{FO}	300 mm to 4 000 mm	$(10.31 + 1.03 \times 10^{-2}L) \mu\text{m}$	Master Bar	ASME B89.4.22
Articulated Arm CMM Single Point Articulation Performance Test ^{FO}	25 mm	6.4 μm		
CMM Repeatability ^O	25.4 mm	0.6 μm	Precision Sphere 25.4 mm Gages Blocks	ASME B89.4.10360.2
CMM Performance Verification (Coordinate Measuring Machines) Linear displacement (X, Y, and Z axis) ^O	300 mm to 1 500 mm	$(0.54 + 2.6 \times 10^{-3}L) \mu\text{m}$		
CMM Performance Verification (Coordinate Measuring Machines) Linear displacement (X, Y, and Z axis) ^O	1 500 mm to 10 000 mm	$(5.58 \times 10^{-3} + 9.8 \times 10^{-5}L) \text{mm}$	Precision Sphere: 25.4 mm Model: Tracker Faro	ASME B89.4.10360.2
Laser Scanner ^{FO}	500 mm to 4 000 mm	0.072 mm	Master Bar	ASME B89.4.22
Laser Tracker Instruments ^{FO}	2 m to 60 m	0.8 mm	Master Bar	ASME B89.4.19

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.



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

3. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations. Example: Outside Micrometer^O would mean that the laboratory performs this calibration onsite at the customer's location.
4. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and 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.
6. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.

