



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## *Certificate of Accreditation*

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

***Tecnología en Microscopia Metrología y Mantenimiento, S.A. de C.V.***

***Cerro de San Elías No. 1012, Las Puentes Sector 9  
San Nicolás de los Garza, Nuevo León, México. C.P. 66460***

*(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:*

November 14, 2020

*Issue Date:*

December 04, 2024

*Expiration Date:*

March 31, 2027

*Accreditation No.:*

111903

*Certificate No.:*

L24-973

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](http://www.pjllabs.com)*



# Certificate of Accreditation: Supplement

## Tecnología en Microscopia Metrología y Mantenimiento, S.A. de C.V.

Cerro de San Elías No. 1012, Las Puentes Sector 9  
San Nicolás de los Garza, Nuevo León, México. C.P. 66460  
Contact Name: Israel Nieto López Phone: 811-413-1255

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

### Dimensional

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Microscope <sup>FO</sup> X Axis Linearity	0.01 mm to 5 mm 0.5 mm to 300 mm	1.2 $\mu$ m (1.9 + 4 x 10 <sup>-3</sup> L) mm	Glass Scale	JIS B 7153
Profile Projectors X Axis Linearity Y Axis Linearity <sup>O</sup> (Length, Platen Offset)	Up to 300 mm	(5.4 + 8 x 10 <sup>-3</sup> L) mm	Glass Scale TEM-REG-02	JIS B 7184
Profile Projectors Magnification <sup>O</sup> (Length, Amplification)	5 X to 50 X	0.026 %	Glass Scale 50 mm Glass Scale 300 mm	
Profile Projector Angle <sup>O</sup>	1° to 360°	03'	Angular Grid	

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