



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Metrovaltec S.A. de C.V.
Mar Caribe #126, Colonia Mitras Norte
Monterrey, Nuevo, León, México C.P. 64320

*(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):

Thermodynamic 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

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

Initial Accreditation Date:

May 09, 2020

Issue Date:

June 14, 2024

Expiration Date:

September 30, 2026

Accreditation No.:

65058

Certificate No.:

L24-453

*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.pjlab.com*



Certificate of Accreditation: Supplement

Metrovaltec S.A. de C.V.

Mar Caribe #126, Colonia Mitras Norte

Monterrey, Nuevo León, México. C.P. 64320

Contact Name: Benito A. Barbosa Tamez Phone: 818-190-8436

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

Thermodynamic

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
Temperature Measurement Thermocouple Type J, K, T^{FO}	-30 °C to 250 °C	0.078 °C	Dry Block/Water Bath ISOTECH Model Hyperion Dry Block	Internal Procedure TECI-03, TECI-06, TEC 11 CENAM Technical Guide
Temperature Measurement RTD Pt 100 Ω^{FO}	-30 °C to 250 °C	0.078 °C	ISOTECH Model 700 Reading Accumac with RTD Burns Engineering TH-001 Digital Thermometers Calibration	
Bimetallic Thermometers FO	-30 °C to 250 °C	0.57 °C	Dry Block/Water Bath ISOTECH Model Hyperion Dry Block ISOTECH Model 700 Reading Accumac with RTD Burns Engineering NMX-CH-70-SCFI Measurement Instrument for Bimetallic Thermometer	NMX-CH-70-SCFI
Thermometer of Liquid in Glass Partial Immersion FO	-30 °C to 130 °C	0.3 °C	Dry Block/Water Bath ISOTECH Model Hyperion Reading Accumac with RTD Burns Engineering	NOM-011-SCFI

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.



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

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.

