PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460

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, Mass, Force and Weighing Devices, Mechanical, Thermodynamic, Time and Frequency, Electrical, Optical, Acoustical and Chemical 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:*
February 06, 2020	March 10, 2024	May 31, 2026
Revision Date:	*Accreditation No.:*	*Certificate No.:*
March 19, 2025	107088	L24-205-R2

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

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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	Micrometer Head	Up to 50 mm	$(1.7 + 8 \times 10^{-4}L)$ µm	Precision Gage Calibration System, MicTrac 4000 Gauge Block Set Grade 1	NMX-CH-093	F
	Outside Micrometer	Up to 2 000 mm	$(1.8 + 4 \times 10^{-4}L)$ µm			F
	Inside Micrometer	Up to 1 200 mm	$(1.8 + 4 \times 10^{-4}L)$ µm			F
	Depth Micrometers	Up to 300 mm	$(1.8 + 4 \times 10^{-4}L)$ µm			F
	Calipers (Vernier, Dial, and Digital)	Up to 2 000 mm	$(5.8 + 1 \times 10^{-4}L)$ µm		NMX-CH-002	F
	Indicators (Dial and Digital)	Up to 100 mm	$(1.7 + 2 \times 10^{-3}L)$ µm	Precision Gage Calibration System, MicTrac 4000	NMX-CH-463 NMX-CH-149	F
	Test Indicators (Dial)	Up to 2 mm	1.8 µm			F
	Bore Gage (Dial and Digital)	0.95 to 50 mm	$(1.8 + 6 \times 10^{-4}L)$ µm			F
	Height Gages (Vernier, Dial and Digital)	Up to 1 200 mm	$(1.8 + 6 \times 10^{-3}L)$ µm		NMX-CH-141	F
	Pin Gages	0.05 mm to 534 mm	$(1.7 + 5 \times 10^{-3}L)$ µm		Euramet cg-6	F
	Standard Wire Gage	0.018 mm to 5 mm	$(1.7 + 1 \times 10^{-16}L)$ µm			F
	Setting Micrometer Standard	25 mm to 1 200 mm	$(1.5 + 6 \times 10^{-3}L)$ µm		JIS B 7545	F
	Steel Thickness Gages	0.04 mm to 1 mm	$(1.7 + 7 \times 10^{-17}L)$ µm		JIS B 7524	F
	Thread Plug Gages and Spline Gages (Pitch Diameter)	0.6 mm to 500 mm	$(1.8 + 5 \times 10^{-3}L)$ µm		ANSI B92.1 / DIN 5480 ANSI/ASME B1.2	F
	Plastic Standard Coating Thickness Gages	0.023 mm to 5.2 mm	1.7 µm		ASTM-D-1005	F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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	Threaded Ring Gages	1.2 mm to 300 mm	$(1.7 + 4 \times 10^{-3}L)$ µm	Precision Gage Calibration System, MicTrac 4000	ANSI/ASME B1.2	F
	Cylindrical Ring Gages	5 mm to 300 mm	$(1.7 + 4 \times 10^{-3}L)$ µm			F
	Coating Thickness Gages	0.023 mm to 1.5 mm	0.6 µm	Foil Thickness Standard	DEFLESKO CSS ASTM D7091	F
		1.5 mm to 5.2 mm	$(1.7 + 1 \times 10^{-16}L)$ µm			F
	Steel Blocks Gages (Grade 1 and 2)	1 mm to 10 mm	1.7 µm	Blocks Standard Grade 0 Nano Digital Indicator	NMX-CH-3650	F
		10 mm to 25 mm	$(1.7 + 7 \times 10^{-4}L)$ µm			F
		25 mm to 50 mm	$(1.7 + 8 \times 10^{-4}L)$ µm			F
		50 mm to 75 mm	$(1.7 + 1 \times 10^{-3}L)$ µm			F
		75 mm to 100 mm	$(1.6 + 1 \times 10^{-3}L)$ µm			F
	Ceramic Blocks Gages (Grade 1 and 2)	1 mm to 10 mm	1.7 µm			F
		10 mm to 25 mm	$(1.7 + 7 \times 10^{-4}L)$ µm			F
		25 mm to 50 mm	$(1.7 + 8 \times 10^{-4}L)$ µm			F
		50 mm to 75 mm	$(1.7 + 8 \times 10^{-4}L)$ µm			F
		75 mm to 100 mm	$(1.6 + 2 \times 10^{-3}L)$ µm			F
	Measuring Tape	Up to 50 m	$(0.87 + 2 \times 10^{-5}L)$ mm	Rule Standard and Reticule	JIS B 7512	F
	Surface Roughness Gage (Ra)	0.4 µm	0.03 µm	Precision Roughness Specimen	NMX-CH-12179	F
		2.93 µm	0.03 µm			F
		2.97 µm	0.076 µm			F
	Protractor	0.25° to 90°	0.058°	Angle Blocks Standard	NMX-CH-151	F
	Profile Projectors (X Axis error)	Up to 300 mm	$(0.0014 + 5 \times 10^{-5}L)$ mm	Standard Glass Scales Angle Blocks Set	JIS B 7184	O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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	Profile Projectors (Y Axis error)	Up to 300 mm	(0.0014 + 5 x 10^{-5}L) mm	Standard Glass Scales Angle Blocks Set	JIS B 7184	O
	Profile Projector (Magnification)	120 mm to 170 mm	(0.028 + 2 x 10^{-5}L) mm			O
	Profile Projector (Angle error)	0.25° to 90°	(0.0043 + 1 x 10-5L)°			O
	Radius Gages	0.5 mm to 26 mm	(1.4 + 0.02L) µm	Profile Projector QM-DATA	NMX-CH-2768-1, ISO 2768-1	F
	Pitch Gages	0.25 mm to 7 mm	(1.4 + 0.01L) µm		ASME B1.2	F
	Squares	90°	0.006 1°		CEM DI-009	F
	Vision System & Microscope (X Axis Linearity)	0.01 mm to 300 mm	(1.4 x 10^{-3} + 5 x 10^{-5}L) mm	Standard Glass Scales	JIS B 7184	F
	Vision System & Microscopes (Y Axis Linearity)	0.01 mm to 300 mm	(1.4 x 10^{-3} + 5 x 10^{-5}L) mm			F
	Surface Plates (Local Area Flatness)	250 x 250 mm to 2 500 x 1 600 mm	0.7 µm	Repeat Reading Gage	JIS B 7513	O
	Internal Micrometers with Three Point (Holtest)	8 mm to 100.5 mm	(3.6 + 0.04L) µm	Steel Setting Rings		F
	Angle Gages	1° to 45°	(4.3 x 10^{-3} + 1 x 10^{-5}L)°	Profile Projector QM-DATA	NMX-CH-2768-1, ISO 2768-1	F
	Weld Fillet Gauge	Up to 50 mm	(1.4 + 0.02 L) µm			F
	Reticles	Up to 20 mm	(0.0059 + 6 x 10^{-6}L) mm		CENAM Technical Guide	F
	Standards for Screw Thread Micrometers	25 mm to 275 mm	(0.9 + 0.03 L) µm		ASME B89.1. CENAM Technical Guide	F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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	Angle Blocks	Up to 90°	$(4.3 \times 10^{-3} + 2 \times 10^{-5}L)°$	Profile Projector QM-DATA	NMX-CH-2768-1 ISO 2768-1	F
	Taper Gages	Up to 200 mm	$(0.058 + 2 \times 10^{-6}L)$ mm			F
	Scantling Gages	Up to 1 000 mm	$(1.7 + 6 \times 10^{-3}L)$ µm	Precision Gage Calibration System, MicTrac 4000		F
	Diameter Tape	Up to 8 m	$(0.87 + 5 \times 10^{-6}L)$ mm	Profile Projector QM-DATA and Master Tape	JIS 7512	F
	Sieve (Opening Length)	0.02 mm to 127 mm	$(1.4 + 0.03L)$ µm	Profile Projector QM-DATA	ASTM E11	F
	Laser Distance Meter	Up to 1 200 mm	0.5 mm	Precision Gage Calibration System, MicTrac 4000	ISO 16331-1	F
	Telescope Gages (Only Max and Min values)	Up to 150 mm	$(1.7 + 2 \times 10^{-3}L)$ µm			F
	Tubular Inside Micrometer (Micrometer Head)	Up to 25 mm	$(1.8 + 4 \times 10^{-4}L)$ µm		JIS B 7508	F
	Tubular Inside Micrometer (Extensions Rods)	25 mm to 400 mm	$(1.7 + 4 \times 10^{-3}L)$ µm			F
	Height Master	5 mm to 1 010 mm	$(1.8 + 6 \times 10^{-3}L)$ µm		NMX-CH-7863	F
	Caliper Checker	Up to 600 mm	$(1.7 + 5 \times 10^{-3}L)$ µm	Precision Gage Calibration System, Mic Trac 4000	CENAM Technical Guide	F
	Rules	Up to 1 000 mm	$(0.289 + 3 \times 10^{-6}L)$ mm	Profile Projector / QM-DATA	NMX-CH-148	F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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	Linear Scales (Digital Rulers)	Up to 1 200 mm	$(5.8 + 1 \times 10^{-4}L)$ µm	Gauge Blocks Set	NMX-CH-093	F, O
	Ultrasonic Thickness Gage	Up to 12.5 mm	0.011 mm	Step Block	ASTM E797	F
	Levels	Up to 300 mm (Sensitivity 0.02 mm/m)	0.012 mm	Reference flat surface	DIN 877	F
	Dial Gage Testers	Up to 25 mm	$(1.8 + 4 \times 10^{-4}L)$ µm	Precision Gage Calibration System, Mic Trac 4000	JIS B 7502	F
Mass, Force and Weighing Devices	Scales and Balances	Up to 50 g (Res.= 0.05 mg)	0.064 mg	Weight Set OIML E2	NOM-010-SCFI	O
		Up to 100 g (Res.= 0.05 mg)	0.089 mg			O
		Up to 200 g (Res.= 0.1 mg)	0.17 mg			O
		Up to 500 g (Res.= 0.2 mg)	0.39 mg			O
		Up to 1 kg (Res.= 2 mg)	3 mg	Weight Set OIML M1		O
		Up to 2 kg (Res.= 5 mg)	6.4 mg			O
		Up to 5 kg (Res.= 10 mg)	15 mg			O
		Up to 10 kg (Res.= 2 g)	1.6 g			O
		Up to 20 kg (Res.= 5 g)	4 g			O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mass, Force and Weighing Devices	Scales and Balances	Up to 50 kg (Res.= 10 g)	8.1 g	Weight Set OIML M1	NOM-010-SCFI	O
		Up to 100 kg (Res.= 20 g)	16 g			O
		Up to 200 kg (Res.= 50 g)	40 g			O
		Up to 500 kg (Res.= 100 g)	80 g			O
		Up to 1 000 kg (Res.= 500 g)	0.4 kg			O
	Floor, Hopper & Scales	Up to 2 000 kg (Res.= 100 g)	0.18 kg	Weight Set OIML M1 and Material Substitution	CENAM Technical Guide	O
		Up to 6 000 kg (Res.= 1 kg)	0.82 kg			O
		Up to 10 000 kg (Res.= 1 kg)	1 kg			O
	Weights (OIML Class F1, M1, M2 and M3) (ASTM Class 5, 6 and 7)	1 mg	0.067 mg	Weight Set OIML E2 Double Substitution		F
		2 mg	0.067 mg			F
		5 mg	0.067 mg			F
		10 mg	0.083 mg			F
		20 mg	0.1 mg			F
		50 mg	0.13 mg			F
		100 mg	0.17 mg			F
		1 g	0.33 mg			F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mass, Force and Weighing Devices	Weights (OIML Class F1, M1, M2 and M3) (ASTM Class 5, 6 and 7)	2 g	0.4 mg	Class Weight Set OIML E2 and F1 Double Substitution	CENAM Technical Guide	F
		5 g	0.82 mg			F
		10 g	0.83 mg			F
		20 g	0.83 mg			F
		50 g	0.84 mg			F
		100 g	0.88 mg			F
	Weights (OIML Class M1, M2 and M3) (ASTM Class 5, 6 and 7)	200 g	0.99 mg			F
		500 g	1.6 mg			F
		1 kg	2.9 mg			F
		2 kg	9.8 mg			F
		5 kg	83 mg			F
		10 kg	86 mg			F
		20 kg	98 mg			F
	Weights (OIML Class F1and F2) (ASTM Class 3 and 4)	1 mg	0.007 mg	Class Weight Set OIML E2, Double Substitution		F
		2 mg	0.007 mg			F
		5 mg	0.007 mg			F
		10 mg	0.008 mg			F
		20 mg	0.01 mg			F
		50 mg	0.013 mg			F
		100 mg	0.017 mg			F
		1 g	0.033 mg			F

Accredian, S. de R.L. de C.V.
Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mass, Force and Weighing Devices	Weights (OIML Class F1and F2) (ASTM Class 3 and 4)	2 g	0.04 mg	Weight Set OIML E2 Double Substitution	CENAM Technical Guide	F
		5 g	0.05 mg			F
		10 g	0.067 mg			F
		20 g	0.083 mg			F
		50 g	0.1 mg			F
		100 g	0.17 mg			F
		200 g	0.33 mg			F
		500 g	0.83 mg			F
		1 000 g	1.7 mg			F
	Force Machines, Gages and Instruments (Tension)	0.5 kN to 5 kN	0.13 % of reading	Load Cells	ISO-7500-1 NMX-CH-7500-1-IMNC	F, O
		5 kN to 50 kN	0.18 % of reading			F, O
		50 kN to 300 kN	0.17 % of reading			F, O
	Force Machines, Gages and Instruments (Compression)	0.5 kN to 5 kN	0.13 % of reading			F, O
		5 kN to 50 kN	0.14 % of reading			F, O
		50 kN to 300 kN	0.23 % of reading			F, O
		300 kN to 1 000 kN	0.22 % of reading			F, O
Mechanical	Pressure / Vacuum Gages (Air Medium)	-1 psi to 1 psi	0.000 34 psi	Pressure Gauge Fluke 700G02	CENAM Technical Guide	F, O
		-12 psi to 0 psi	0.14 psi	Automatic Pressure Calibrator, Fluke 729		F, O
		0 psi to 300 psi	0.15 psi			F, O
	Pressure Gages (Oil Medium)	600 psi to 30 000 psi	$(1.7 + 5 \times 10^{-5}P)$ psi	Electronic Dead Weight Tester, Fluke 6532-200M		F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mechanical	Pressure Gages (Air and Water Medium)	0 psi to 1 000 psi	1.2 psi	Automatic Pressure Calibrator, Fluke 729 w/ Pressure Module	CENAM Technical Guide	FO
	Torque Tools	0.028 2 N·m to 0.282 N·m	0.28 % of reading	Torque Analyzer PTT 2000	NMX-CH-6789 ISO 6789	F
		0.28 N·m to 2.82 N·m	0.27 % of reading			F
		2.82 N·m to 28.25 N·m	$(0.26 + 2 \times 10^{-3}\text{Tr})$ % of reading			F
		13.56 N·m to 135.58 N·m	$(0.24 + 4 \times 10^{-4}\text{Tr})$ % of reading			F
		135.6 N·m to 1 355.82 N·m	$(0.13 + 1.2 \times 10^{-3}\text{Tr})$ % of reading			F
	Dynamic Viscosity Meters	98.23 cP	0.82 cP	Cannon Standard Oil @ 25°C	ASTM D7042	F, O
		472.9 cP	3.6 cP			F, O
		6 021 cP	62 cP			F, O
		16 680 cP	2 100 cP			F, O
	Kinematic Viscosity Cups (Zahn, Ford, ISO, ASTM, DIN, Gradco, Shell, Frikmar Saybolt)	113.9 cSt	0.84 cSt		ASTM D1200 ASTM D4212	F, O
		563.7 cSt	3.7 cSt			F, O
		6 972 cSt	63 cSt			F, O
		18 920 cSt	2 100 cSt			F, O
	Indirect Verification of Rockwell Hardness Tester HRB	20 HRB to 50 HRB	0.4 HRB	Test Block	ISO 6508-2 ASTM E18	F, O
		50 HRB to 80 HRB	0.26 HRB			F, O
		80 HRB to 100 HRB	0.39 HRB			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mechanical	Indirect Verification of Rockwell Hardness Tester HRC	20 HRC to 30 HRC	0.39 HRC	Test Block	ISO 6508-2 ASTM E18	F, O
		30 HRC to 55 HRC	0.34 HRC			F, O
		55 HRC to 70 HRC	0.33 HRC			F, O
	Indirect Verification of Leeb Hardness Tester LDF	365 HLD	2.1 HLD		ASTM A956	F, O
	Anemometer (Air Flow)	5 m/s to 9 m/s	0.15 m/s	Anemometer Comparison	ASTM D 5096	F
	Direct Verification of Durometer Shore Tester (Types A, B, E & O)	0.55 N to 8.05 N	0.058 N	Load Cell	ASTM D2240 ISO 21509	F
	Durometer Shore Tester (Types A, B, E & O) (Durmometer Indentor Radius)	0.088 mm to 13 mm	0.03 mm	Profile Projector (Res.= 0.1 µm)		F
	Durometer Shore Tester (Types A, B, E & O) (Durometer Indentor Angle)	Up to 90°	$(4.6 \times 10^{-3} + 2 \times 10^{-5}L)°$			F
	Direct Verification of Durometer Shore Tester (Type M) (Durometer Force Spring)	4.445 N to 44.45 N	0.058 N	Load Cell		F
	Direct Verification of Durometer Shore Tester (Type OO, OOO) (Durometer Force Spring)	0.324 N to 0.765 N	0.058 N			F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mechanical	Direct Verification of Durometer Shore Tester (Type OOO-S) (Durometer Force Spring)	0.203 N to 1.111 N	0.058 N	Load Cell	ASTM D2240 ISO 21509	F
	Direct Verification of Durometer Shore Tester (Type C, D & DO) (Durometer Force Spring)	0.167 N to 1.932 N	0.058 N			F
	Pipettes	2 mL to 200 mL	0.001 9 mL	Gravimetric Method Balances OHAUS Explorer EX1103 and Scout STX2202	CENAM Technical Guide	F
	Burettes	10 mL to 100 mL	0.001 9 mL			F
	Cylinders and Cubic Cups	10 mL to 2 000 mL	0.001 9 mL			F
	Volumetric Flasks	10 mL to 100 mL	0.001 9 mL			F
		100 mL to 1 000 mL	0.018 mL			F
	Flasks	1 000 mL to 2 000 mL	0.18 mL			F
	Beakers	50 mL to 2 000 mL	0.09 mL			F
	Pycnometers	10 mL to 250 mL	0.001 9 mL			F
	Containers	5 000 mL to 20 000 mL	0.91 mL			F
	Micropipettes and Pipettes	1 µL	0.025 µL	Gravimetric Method Micro Analytical Balance and AD-4212B-PT Analytical Balance Ohaus Explorer EX1103		F
		2 µL	0.025 µL			F
		5 µL	0.05 µL			F
		10 µL	0.05 µL			F
		20 µL	0.04 µL			F
		50 µL	0.02 µL			F

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Mechanical	Micropipettes and Pipettes	100 µL	0.02 µL	Gravimetric Method Micro Analytical Balance and AD-4212B-PT Analytical Balance Ohaus Explorer EX1103	CENAM Technical Guide	F
		200 µL	0.06 µL	Micro Analytical Balance and AD-4212B-PT Analytical Balance Ohaus Explorer EX1103		F
		500 µL	0.3 µL			F
		1 000 µL	0.3 µL			F
		2 000 µL	0.3 µL			F
	Density Measuring Device (Liquid Immersion Densimeter)	0.6 g/cm^3 to 1.6 g/cm^3	0.3 kg/m^3	Analytical Balance		F
Thermodynamic	Infrared Guns and Cameras	35 °C to 500 °C	(0.18 + 2 x 10^{-3}T) °C	Precision Infrared Calibrator Fluke 4181-156		F
	Bi-Metallic Thermometers	0 ºC (Fusion Point Ice)	0.58 °C	Dry-Well Field Calibrator Fluke 9144 w/PRT Fluke 5609-12-A	Euramet_cg-20	F, O
		8 °C to 50 °C	0.63 °C	Vaisala MI70 & HMP75B		F, O
		50 °C to 660 ºC	(0.65 + 5 x 10^{-4}T) °C	Dry-Well Field Calibrator Fluke 9144		F, O
	RTDs, Rods and Probes with Thermocouple J, K, T, E, R, S, B, L, U and N	0 ºC (Fusion Point Ice)	0.081 °C	Dry-Well Field Calibrator Fluke 9144 w/PRT Fluke 5609-12-A	Euramet_cg-8	F, O
		50 °C to 660 ºC	(0.33 + 8 x 10^{-4}T) °C	Dry-Well Field Calibrator Fluke 9144		F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Thermodynamic	RTDs, Rods and Probes with Thermocouple J, K, T, E, R, S, B, L, U and N	8 °C to 50 °C	0.26 °C	Vaisala MI70 & HMP75B	Euramet_cg-8	F, O
		50 °C to 200 °C	0.12 °C	Liquid Bath Calibrator Fluke 6102		F, O
		25 °C to 1 350 °C	(1.3 + 7 x 10^{-4}T) °C	Process Calibrator Fluke 725 w/ Probe Type R		F, O
	Liquid in Glass Thermometers	0 ºC (Fusion Point Ice)	0.06 °C	Dry-Well Field Calibrator Fluke 9144 w/PRT Fluke 5609-12-A	OIML R 133	F, O
		35 ºC to 200 ºC	(0.12 + 6 x 10^{-5}T) °C	Liquid Bath Calibrator Fluke 6102-156		F, O
	Climatic Chambers: Ovens, Furnaces, Mufflers, Incubators, Refrigerators, Freezers, Cold Rooms (Error of Indication)	25 ºC to 1 350 ºC	(1.3 + 7 x 10^{-4}L) °C	Process Calibrator Fluke 725 w/ Probe Type R	Euramet_cg-20	F, O
		-20 °C to 60 °C	0.58 °C	Vaisala MI70 & HMP75B		F, O
		-40 °C to 816 °C	(1.1 + 2 x 10^{-3}T) °C	Process Calibrator Fluke 725 w/Type K Thermocouple Probe		F, O
		-80 °C to 600 °C	0.58 °C	Dry-Well Field Calibrator Fluke 9144 w/PRT Fluke 5609-12-A		F, O
	Thermo Hygrometer (Temperature)	8 °C to 50 °C	0.26 °C	Vaisala MI70 and HMP75B Temperature Chamber		F
	Thermo Hygrometer (Humidity)	35 % RH to 95 % RH	(1.3 + 8.3 x 10^{-3}RH) % RH	Vaisala MI70 & HMP75B Humidity Chamber		F, O
	Climatic Chambers (Humidity) Sensors and Recorders	Up to 97.5 % RH	(1.3 + 5.1 x 10^{-3}RH) % RH			O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Thermodynamic	Heating Plates	0 °C to 260 °C	1 °C	Process Calibrator Fluke 725 w/Type K Thermocouple Surface Probe	Euramet_cg-20	F, O
	Baths Circulators	-40 °C to 1 090 °C	(1.1 + 2 x 10^{-3}T) °C			F, O
		-80 °C to 660 °C	0.58 °C	Dry-Well Field Calibrator Fluke 9144 w/PRT Fluke 5609-12-A		F, O
	Dry Block	-80 °C to 660 °C	0.58 °C		Euramet_cg-13	F, O
Time and Frequency	Equipment to Output Frequency	112.5 rpm to 28 801 rpm	(0.54 + 0.000 3Fr) rpm	LUTRON DT-2259 Digital Tachometer / Stroboscope AS432B	CENAM Technical Guide	F, O
	Equipment to Output Time	1 s to 86 400 s	(0.49 + 2 x 10^{-6}t) s	Traceable Stopwatch ITTC-7.6-02-07		F, O
Electrical	Equipment to Output DC Voltage	10 mV to 100 mV	0.009 8 mV	Fluke 8845A Precision Multimeter		F, O
		0.1 V to 1 V	0.000 055 V			F, O
		1 V to 10 V	0.0004 7 V			F, O
		10 V to 100 V	0.005 9 V			F, O
		100 V to 1000 V	0.064 V			F, O
	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	10 mV to 100 mV	0.12 mV			F, O
		0.1 V to 1 V	0.001 V			F, O
		1 V to 10 V	0.01 V			F, O
		10 V to 100 V	0.1 V			F, O
		1 V to 750 V	0.78 V			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Output DC Current	10 µA to 100 µA	0.087 µA	Fluke 8845A Precision Multimeter	CENAM Technical Guide	F, O
		0.1 mA to 1 mA	0.005 8 mA			F, O
		1 mA to 10 mA	0.009 9 mA			F, O
		10 mA to 100 mA	0.064 mA			F, O
		40 mA to 400 mA	0.25 mA			F, O
	Equipment to Output AC Current (@ 10 Hz to 5 kHz)	1 µA to 10 µA	0.024 µA			F, O
		10 mA to 100 mA	0.16 mA			F, O
		100 mA to 400 mA	0.92 mA			F, O
		0.1 mA to 1 mA	0.001 7 mA			F, O
		0.3 mA to 3 mA	0.007 3 mA			F, O
		1 A to 10 A	0.024 A			F, O
	Equipment to Output Frequency	3 Hz to 5 Hz	0.012 Hz			F, O
		5 Hz to 10 Hz	0.01 Hz			F, O
		10 Hz to 40 Hz	0.024 Hz			F, O
		40 kHz to 300 kHz	0.06 kHz			F, O
	Equipment to Output Resistance	10 Ω to 100 Ω	0.017 Ω			F, O
		0.1 kΩ to 1 kΩ	0.000 14 kΩ			F, O
		1 kΩ to 10 kΩ	0.001 4 kΩ			F, O
		10 kΩ to 100 kΩ	0.014 kΩ			F, O
		0.1 MΩ to 1 MΩ	0.000 14 MΩ			F, O
		1 MΩ to 10 MΩ	0.004 8 MΩ			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Output Resistance	10 MΩ to 100 MΩ	0.94 MΩ	Fluke 8845A Precision Multimeter	CENAM Technical Guide	v
	Equipment to Measure DC Voltage	33 mV to 330 mV	0.018 mV	Fluke 5502A	Euramet cg-15 CENAM Technical Guide	FO
		0.33 V to 3.3 V	0.13 mV			FO
		3.3 V to 33 V	0.0013 V			FO
		33 V to 330 V	0.014 V			FO
		100 V to 1 000 V	0.045 V			FO
	Equipment to Measure AC Voltage (@ 45 Hz to 10 kHz)	1 mV to 33 mV	0.041 mV			FO
		33 mV to 330 mV	0.092 mV			FO
		0.33 V to 3.3 V	0.82 mV			FO
		3.3 V to 33 V	0.008 2 V			FO
		33 V to 330 V	0.13 V			FO
		330 V to 1 000 V	0.41 V			FO
	Equipment to Output High Voltage DC	1 kV to 25 kV	0.3 kV	Fluke 80K-40	CENAM Technical Guide	FO
		25 kV to 35 kV	0.91 kV			FO
	Equipment to Output High Voltage AC (@ 60 Hz)	1 kV to 25 kV	0.3 kV			FO
	Clamp Meters (DC Current)	11 A to 550 A	2.9 A	Fluke 5502A with Current Coil	Euramet cg-15 CENAM Technical Guide	FO
		550 A to 1 025 A	17 A			FO
	Equipment to Measure DC Current	33 µA to 330 µA	0.038 mA	Fluke 5502A		FO
		0.33 mA to 3.3 mA	0.000 3 mA			FO

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Measure DC Current	3.3 mA to 33 mA	0.002 8 mA	Fluke 5502A	Euramet cg-15 CENAM Technical Guide	F, O
		33 mA to 330 mA	0.028 A			F, O
		0.11 A to 1.1 A	0.000 36 A			F, O
		1.1 A to 3 A	0.000 92 A			F, O
		0.11 A to 11 A	0.005 5 A			F, O
		11 A to 20.5 A	0.016 A			F, O
	Equipment to Measure AC Current (@ 45 Hz to 1 kHz)	0.03 mA to 0.33 mA	0.000 4 mA			F, O
		0.33 mA to 3.3 mA	0.002 7 mA			F, O
		3.3 mA to 33 mA	0.013 mA			F, O
		33 mA to 330 mA	0.12 mA			F, O
		0.33 A to 1.1 A	0.000 77 A			F, O
		1.1 A to 3 A	0.006 A			F, O
		3 A to 11 A	0.012 A			F, O
		11 A to 20.5 A	0.008 5 A			F, O
	AC Clamp Meters AC Current (@ 45 Hz to 65 Hz)	11 A to 550 A	3.3 A	Fluke 5502A with Current Coil		F, O
	AC Clamp Meters AC Current (@ 30 Hz to 60 Hz)	550 A to 1025 A	11 A			F, O
	Equipment to Measure DC Power	1.089 mW to 108.9 mW	0.066 mW			F, O
		0.036 3 W to 3.63 W	0.000 76 W			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Measure DC Power	3.63 W to 99 W	0.003 2 W	Fluke 5502A with Current Coil	Euramet cg-15 CENAM Technical Guide	F, O
		3.3 W to 3 630 W	0.031 W			F, O
		1.1 kW to 20.91 kW	0.095 kW			F, O
	Equipment to Measure Resistance	2 Ω to 11 Ω	0.001 2 Ω			F, O
		11 Ω to 33 Ω	0.003 1 Ω			F, O
		33 Ω to 110 Ω	0.007 7 Ω			F, O
		110 Ω to 330 Ω	0.023 Ω			F, O
		0.33 kΩ to 1.1 kΩ	0.000 077 kΩ			F, O
		1.1 kΩ to 3.3 kΩ	0.000 23 kΩ			F, O
		3.3 kΩ to 11 kΩ	0.000 77 kΩ			F, O
		11 kΩ to 33 kΩ	0.002 3 kΩ			F, O
		33 kΩ to 110 kΩ	0.009 4 kΩ			F, O
		110 kΩ to 330 kΩ	0.031 kΩ			F, O
		0.33 MΩ to 1.1 MΩ	0.000 13 MΩ			F, O
		1.1 MΩ to 3.3 MΩ	0.000 38 MΩ			F, O
		3.3 MΩ to 11 MΩ	0.005 1 MΩ			F, O
		11 MΩ to 33 MΩ	0.026 MΩ			F, O
		33 MΩ to 110 MΩ	0.43 MΩ			F, O
		110 MΩ to 330 MΩ	1.3 MΩ			F, O
		330 MΩ to 1 100 MΩ	13 MΩ			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Measure Capacitance	220 pF to 400 pF	1.6 pF	Fluke 5502A with Current Coil	Euramet cg-15 CENAM Technical Guide	F, O
		0.4 nF to 1.1 nF	0.004 3 nF			F, O
		1.1 nF to 3.3 nF	0.013 nF			F, O
		3.3 nF to 11 nF	0.021 nF			F, O
		11 nF to 33 nF	0.064 nF			F, O
		33 nF to 110 nF	0.21 nF			F, O
		110 nF to 330 nF	0.64 nF			F, O
		0.33 µF to 1.1 µF	0.002 1 µF			F, O
		1.1 µF to 3.3 µF	0.006 4 µF	Fluke 5502A		F, O
		3.3 µF to 11 µF	0.021 µF			F, O
		11 µF to 33 µF	0.1 µF			F, O
		33 µF to 110 µF	0.38 µF			F, O
		110 µF to 330 µF	1.2 µF			F, O
		0.33 mF to 1.1 mF	0.003 8 mF			F, O
		1.1 mF to 3.3 mF	0.012 mF			F, O
		3.3 mF to 11 mF	0.038 mF			F, O
		11 mF to 33 mF	0.19 mF			F, O
		33 mF to 110 mF	0.94 mF			F, O
	Equipment to Measure AC Power (@ 45 Hz to 1 kHz)	1.089 mW to 108.9 mW	0.3 mW			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Equipment to Measure AC Power (@ 45 Hz to 1 kHz)	0.1089 W to 3.63 W	0.002 2 W	Fluke 5502A	Euramet cg-15 CENAM Technical Guide	F, O
		3.63 W to 99 W	0.02 W			F, O
		1.089 mW to 108.9 mW	0.3 mW			F, O
		0.1089 W to 3.63 W	0.002 2 W			F, O
		3.63 W to 99 W	0.02 W			F, O
		99 W to 3 630 W	0.26 W			F, O
	Equipment to Measure AC Power (@ 100 Hz to 1 kHz)	3.63 kW to 20.91 kW	0.82 kW			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type B	600 ºC to 1 820 ºC	0.25 ºC	Fluke 5502A Electrical Simulation of Thermocouple Output	Euramet cg-11	F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type C	0 ºC to 2 316 ºC	0.22 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type E	-250 ºC to 1 000 ºC	0.15 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type J	-210 ºC to 1 200 ºC	0.15 ºC			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type K	-200 ºC to 1 372 ºC	0.16 ºC	Fluke 5502A Electrical Simulation of Thermocouple Output	Euramet cg-11	F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type L	-200 ºC to 900 ºC	0.16 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type N	-200 ºC to 1 300 ºC	0.17 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type R	0 ºC to 1 767 ºC	0.27 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type S	0 ºC to 1 767 ºC	0.3 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type T	-250 ºC to 400 ºC	0.15 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type U	-200 ºC to 600 ºC	0.23 ºC			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 100 Ω	-200 ºC to 800 ºC	0.1 ºC	Fluke 5502A Electrical Simulation of RTD Output	Euramet cg-11	F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 3 926, 100 Ω	-200 ºC to 630 ºC	0.1 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 3 916, 100 Ω	-200 ºC to 630 ºC	0.1 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 200 Ω	-200 ºC to 630 ºC	0.1 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 500 Ω	-200 ºC to 630 ºC	0.1 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 1 000 Ω	-200 ºC to 630 ºC	0.1 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Pt Ni 385, 120 Ω (Ni 120)	-80 ºC to 260 ºC	0.11 ºC			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Cu 427, 10 Ω	-100 ºC to 260 ºC	0.25 ºC	Fluke 5502A Electrical Simulation of RTD Output	Euramet cg-11	F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 100 Ω	-200 ºC to 800 ºC	0.27 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 3 926, 100 Ω	-200 ºC to 630 ºC	0.25 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 3 916, 100 Ω	-200 ºC to 630 ºC	0.25 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 200 Ω	-200 ºC to 630 ºC	0.18 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 500 Ω	-200 ºC to 630 ºC	0.25 ºC			F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 385, 1 000 Ω	-200 ºC to 630 ºC	0.18 ºC			F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Pt Ni 385, 120 Ω (Ni 120)	-80 ºC to 260 ºC	0.18 ºC	Fluke 725 Electrical Simulation of RTD Output	Euramet cg-11	F, O
	Temperature Calibration, Indication, and Control Equipment used with RTD Cu 427, 10 Ω	-100 ºC to 260 ºC	0.25 ºC			F, O
Optical	Gloss/Specular Reflectance Angle of Incline	20° / 92.4°	0.5 Gloss Units	Ceram Research Gloss Standard	ASTM D-523-14	F, O
		60° / 97.6°	0.5 Gloss Units			F, O
		85° / 99.8°	0.5 Gloss Units			F, O
	Spectrophotometers Transmittance	τ: 1 % to 95 %	0.27 % of reading	Neutral density Filters, Holmium Oxide Glass	CENAM Technical Guide	F, O
		λ: 230 nm to 700 nm	0.5 nm			F, O
	ρ (λ) Spectral Reflectance (a*: CIE)	0 to 100 Units	0.7 Units	Ceramic Research Tiles	CENAM Technical Guide ASTM E-1164	F, O
	ρ (λ) Spectral Reflectance (L: CIE)	-28 to 36 Units	0.4 Units			F, O
	ρ (λ) Spectral Reflectance (b*: CIE)	-26 to 63 Units	0.7 Units			F, O
	Eν Light Meters	120 lux to 3 000 lux	2 % of reading	Luxometer Accupro XP2000	CENAM Technical Guide	F, O
	Eν Illuminance	120 lux to 3 000 lux	1 % of reading			F, O
	Refractive Index	1 ºBrix to 80 ºBrix	0.5 % of reading	Sucrose Standards	OIML R-108	F, O
Acoustic	Sonometer (Acoustic Level) (F=1 kHz)	94 dB	0.14 dB	Acoustic Calibrator Sountek ST-120	NMX-AA-059	F, O

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.

Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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
Acoustic	Sonometer (Acoustic Level) (F=1 kHz)	114 dB	0.14 dB	Acoustic Calibrator Sountek ST-120	NMX-AA-059	F, O
Chemical	pH Meter	4 pH	0.059 pH	Buffer Solutions	NMX-CH-166 CEM QU-003	F, O
		7 pH	0.059 pH			F, O
		10 pH	0.059 pH			F, O
	Conductivity Meter	99.2 µS/cm	2.1 µS/cm		OIML R 68	F, O
		1 408 µS/cm	4.6 µS/cm			F, O
		100 005 µS/cm	360 µS/cm			F, O
	Karl Fisher Titration Equipment	0.998 mg/g	0.17 mg/g	Standard Solutions	ASTM E 203	F, O
		10.03 mg/g	0.18 mg/g			F, O

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.

Certificate of Accreditation: Supplement

Accredian, S. de R.L. de C.V.
Calle 24 No. 600, Col. Residencial Las Puentes 3er Sector
San Nicolas de los Garza, Nuevo León, México. C.P. 66460
Contact Name José Martinez Phone: 813-186-4994

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

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 P represents pressure in units appropriate to the uncertainty statement.

7. The term T represents temperature in ºC or ºF as appropriate to the uncertainty statement.

8. The term t represents time in seconds (s) or millisecond (ms) as appropriate to the uncertainty statement.

9. The term Fr represents frequency in rpm (revolution per minute) as appropriate to the uncertainty statement.

10. The term RH represents Relative Humidity in % of RH as appropriate to the uncertainty statement.

11. The term Tr represents torque in N•m (including SI multiple and submultiple units) for the international system of units (the SI) or ozf•in, lbf•in and lbf•ft for the USC system of units.