



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Alteq de México, S.A. de C.V.

***Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
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, Chemical, Mass, Force and Weighing Devices, Mechanical, Time
and Frequency, Electrical and 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

Initial Accreditation Date:

November 12, 2020

Issue Date:

November 19, 2024

Expiration Date:

February 28, 2027

Accreditation No.:

112359

Certificate No.:

L24-894

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

Alteq de México, S.A. de C.V.

Av. Las Puertes # 224, Colonia Las Puertes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Moral. Phone: 818-350-1053

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
Pin Gauges ^{FO}	0.001 mm to 25.4 mm	$(0.84 + x \cdot 2.9 \times 10^{-3}L) \mu\text{m}$	Digital Outside Micrometer	Euramet-cg-6
Feeler Gauges ^{FO}	0.001 mm to 25.4 mm	$(0.84 + x \cdot 2.9 \times 10^{-3}L) \mu\text{m}$		JIS B 7524
Gauge Blocks ^{FO}	1 to 1 016 mm	$(0.17 + 3.7 \times 10^{-3}L) \mu\text{m}$	Gauge Blocks and Digital Indicators	NMX-CH-3650-IMNC
Ring Gauges ^{FO}	5 mm to 300 mm	$(0.011 + 3.4 \times 10^{-3}L) \mu\text{m}$	Gauge Blocks and Micrometer Heads and (accessories)	ATE-063 Internal Procedure
Micrometer Standards ^{FO}	Up to 1 016 mm	$(0.2 + 3.8 \times 10^{-3}L) \mu\text{m}$	Gauge Blocks and Indicators Digital	NMX-CH-3650-IMNC
Squares ^{FO}	5° to 90°	0.065°	Digital Protractor and Angle Blocks	NMX-CH-151-IMNC
Surface Plates (overall flatness only) ^{FO}	100 mm to 1 830 mm (Diagonal Length)	$(3.7 + 4.5 \times 10^{-3}L) \mu\text{m}$	Digital Indicator Parallel Set and Gauge Blocks	JIS B 7513
Radius Gauges ^{FO}	Up to 50.8 mm	$(0.91 + 1.1 \times 10^{-3}L) \mu\text{m}$	Microscope	ATE-069 Internal Procedure
Sieve ^{FO}	Up to 50.8 mm	$(0.91 + 1.1 \times 10^{-3}L) \mu\text{m}$		ASTM E-11
Thread Ring Gauges Pitch Diameter Minor Diameter ^{FO}	1 mm to 68 mm	$(0.91 + 1.1 \times 10^{-3}L) \mu\text{m}$	Micrometer Heads /Digital Micrometer and Thread Pitch Master Inserts	JIS B 0251
Thread Plug Gauges Pitch Diameter Major Diameter ^{FO}	1 mm to 68 mm	$(1.5 + 4.8 \times 10^{-3}L) \mu\text{m}$		
Inside Micrometers ^{FO}	Up to 508 mm	$(0.58 + 3 \times 10^{-3}L) \mu\text{m}$	Gauge Blocks	JIS B 7502
Micrometer Heads ^{FO}	Up to 76 mm	$(0.58 + 8.3 \times 10^{-4}L) \mu\text{m}$		
Digital and Dial Calipers ^{FO}	Up to 2 032 mm	$(5.8 + 1.9 \times 10^{-3}L) \mu\text{m}$		JIS B 7507
Hole Gauges ^{FO}	1 mm to 300 mm	$(0.58 + 2.4 \times 10^{-3}L) \mu\text{m}$		JIS B 7515
Height Gauges ^{FO}	Up to 1 016 mm	$(0.58 + 3.4 \times 10^{-3}L) \mu\text{m}$		ASTM E797
Thickness Gauges (steel) ^{FO}	1 mm to 508 mm	$(0.58 + 3 \times 10^{-3}L) \mu\text{m}$		
Thickness Gauges (plastic) ^{FO}	0.024 mm to 5 mm	$(0.56 + 1.85L) \mu\text{m}$	Plastic Shims (Standards)	ATE-016 Internal Procedure
Measuring Tapes ^{FO}	0.1 m to 20 m	$(0.089 + 2 \times 10^{-6}L) \text{mm}$	Steel Rule and Optical Mini Comparator	JIS B 7512



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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 (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Measuring Pi Tape ^{FO}	100 mm to 20 000 mm	(0.089 + 2 x 10 ⁻⁶ L) mm	Steel Rule and Optical Mini Comparator	NOM-CH-046-SCFI
Precision Rules and Scale (Plastic, Steel, Glass, Aluminum) ^{FO}	28 mm to 2 000 mm	(0.092 + 3 x 10 ⁻⁶ L) mm		JIS B 7516
Reticle ^{FO}	0.001 mm to 50.8 mm	(0.088 + 0.13 x 10 ⁻³ L) µm	Micrometer Head	ASTM E1951
Digital and Dial Test Indicators ^{FO}	Up to 179 mm	(0.12 + 2.9 x 10 ⁻³ L) µm	Gauge Blocks	JIS B 7503
Digital Indicators ^{FO}	Up to 51 mm	(0.9 + 1.2 x 10 ⁻³ L) µm	Micrometer Head	
Outside Micrometers Digital / Analog ^{FO}	1 mm to 1 016 mm	(0.58 + 3.4 x 10 ⁻³ L) µm	Gauge Blocks	JIS B 7502
Depth Micrometers ^{FO}	1 mm to 300 mm	(0.58 + 2.4 X 10 ⁻³ L) µm		JIS B 7518
Profile Projectors ^{FO} X Axis Linearity Y Axis Linearity	1 mm to 508 mm	(0.58 + 3 x 10-3L) µm		JIS B 7184
Profile Projectors ^{FO} Angularity	1° to 360°	0.005 8°	Angle Blocks	JIS B 7153
Microscopes ^{FO} X Axis Linearity Y Axis Linearity ^{FO}	1 mm to 300 mm	(0.58 + 2.4 x 10 ⁻³ L) µm	Gauge Blocks	
	1 mm to 300 mm	(0.58 + 2.4 x 10 ⁻³ L) µm		
Microscope ^{FO} Angularity	1° to 360°	0.005 8°	Angle Blocks	
Protractors ^{FO}	1° to 180°	0.005 8°		NMX-CH-151-IMNC
Precision Levels ^{FO}	0.01 mm/m to 1.57 mm/m	0.94 µm/m	Micrometer Head	JIS B 7510

Chemical

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
pH Meters, Controllers Recorders ^{FO} @ 25 °C	4 pH, 7pH and 10 pH	0.017 pH	Certified Buffer Solutions Thermometer Fluke 51	ATE-030 Internal Procedure
Conductivity Meters Controllers and Recorders ^{FO}	100 μ S/cm @25°C	0.5 μ S/cm	Certified Conductivity Standards Thermometer Fluke 51	ATE-015 Internal Procedure
	147 μ S/cm @25°C	0.7 μ S/cm		
	500 μ S/cm @25°C	2 μ S/cm		
	1 000 μ S/cm @25°C	3 μ S/cm		
	1 413 μ S/cm @25°C	4 μ S/cm		
	10 000 μ S/cm @25°C	30 μ S/cm		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Mass, Force and Weighing Devices

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
Density Measuring Device - Liquid ^{FO}	Up to 0.6 g/cm ³	0.000 61 g/cm ³	Balance, Thermometer	ATE-018 Internal Procedure
	Up to 2 g/cm ³	0.000 79 g/cm ³		
Dynamometers, Tensile Testing Machine and Load Cell (Tension and/or Compression) ^{FO}	UP to 98.06 N	(9 x 10 ⁻⁶ + 0.005 8L) N	Standard Weights Set / Load Cell	ATE-014 Internal Procedure
	Up to 980.66 N	(4 x 10 ⁻⁵ + 0.554L) N		
	Up to 9.806 kN	(1 x 10 ⁻⁶ + 0.084L) kN		
	Up to 19.613 kN	(8 x 10 ⁻⁶ + 0.051 1L) kN		
Testing Machine Universal (Compression) ^{FO}	Up to 294.2 kN	(1 x 10 ⁻⁴ + 0.223L) kN	Load Cell	
Mass Weights Class F1, F2, M1, M2 and M3 ^{FO}	1 mg	0.007 mg	Standard Weight Class E2	OIML R 111-1 (1/3 EMT class)
	2 mg	0.007 mg		
	5 mg	0.007 mg		
	10 mg	0.009 mg		
	20 mg	0.01 mg		
	50 mg	0.013 mg		
	100 mg	0.016 mg		
	200 mg	0.02 mg		
	500 mg	0.026 mg		
	1 g	0.033 mg		
	2 g	0.04 mg		
	5 g	0.05 mg		
	10 g	0.066 mg		
	20 g	0.083 mg		
	50 g	0.1 mg		
	100 g	0.16 mg		
	200 g	0.33 mg		
	500 g	0.83 mg		
	1 000 g	1.6 mg		
	2 000 g	3.3 mg		
	5 000 g	8.3 mg		
Weights Class F2, M1, M2 and M3 ^{FO}	10 000 g	0.05 g	Standard Weight Class F1	
	20 000 g	0.1 g		
	50 000 g	0.25 g		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Mass, Force and Weighing Devices

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
Weights Class M2 and M3 ^{FO}	100 kg	5.3 g	Standard Weight Class M1	OIML R 111-1 (1/3 EMT class)
	200 kg	10 g		
	500 kg	27 g		
Balances ^{FO}	0.001 g to 1 g (Res.= 0.000 1 mg)	(9 x 10 ⁻³ + 1.21 x 10 ⁻³ Wt) mg	Standard Weights Class OIML E2 and OIML R 111-1	Euramet_cg-18
	1 g to 2 g (Res.= 0.000 1 mg)	(7 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	2 g to 5 g (Res.= 0.000 1 mg)	(3.9 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	0.001 g to 10 g (Res.= 0.001 mg)	(2.5 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	10 g to 20 g (Res.= 0.001 mg)	(1.5 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	20 g to 50 g (Res.= 0.001 mg)	(1.1 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	50 g to 100 g (Res.= 0.001 mg)	(1 x 10 ⁻³ + 1.21 x 10 ⁻² Wt) mg		
	100 g to 200 g (Res.= 0.001 mg)	(9 x 10 ⁻⁴ + 1.21 x 10 ⁻² Wt) mg		
	0.01 g to 500 g (Res.= 0.01 mg)	(9 x 10 ⁻⁴ + 1.49 x 10 ⁻² Wt) mg		
	0.01 g to 1 000 g (Res.= 0.1 mg)	(8 x 10 ⁻⁴ + 8.18 x 10 ⁻² Wt) mg		
	0.01 g to 2 000 g (Res.= 0.005 g)	(2 x 10 ⁻⁶ + 4.1 x 10 ⁻³ Wt) g	Standard Weights Class OIML F1	
	0.1 g to 5 000 g (Res.= 0.01 g)	(2 x 10 ⁻⁶ + 8.2 x 10 ⁻³ Wt) g		
	0.000 1 kg to 10 kg (Res.= 0.02 g)	(1.7 x 10 ⁻³ + 1.63 x 10 ⁻² Wt) g		
	0.000 1 kg to 30 kg (Res.= 0.05 g)	(1.5 x 10 ⁻³ + 4.08 x 10 ⁻² Wt) g		
Scale ^{FO}	0.01 kg to 50 kg (Res.= 1 g)	(0.012 7 + 0.817Wt) g	Standard Weights Class OIML F1 and M1	Euramet_cg-18
	0.01 kg to 100 kg (Res.= 2 g)	(0.017 2 + 1.633Wt) g		
	0.01 kg to 200 kg (Res.= 5 g)	(0.015 3 + 4.083Wt) g		
	0.1 kg to 500 kg (Res.= 10 g)	(0.017 2 + 8.163Wt) g		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Mass, Force and Weighing Devices

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
Scale ^{FO}	0.1 kg to 1 000 kg (Res.=20 g)	(0.017 2 + 16.328Wt) g	Standard Weights Class OIML F1 and M1	Euramet_cg-18
	0.1 kg to 1 500 kg (Res.= 50 g)	(0.012 8 + 40.824Wt) g		
	1 500 kg to 2 000 kg (Res.= 50 g)	(0.015 3 + 40.823Wt) g		
	2 000 kg to 2 500 kg (Res.= 50 g)	(0.017 2 + 40.823Wt) g		
	2 500 kg to 5 000 kg (Res.= 50 g)	(0.018 7 + 40.823Wt) g	Standard Weights M1	

Mechanical

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
Indirect Verification of Rockwell Hardness Testers HR15N ^{FO}	70 HR15N to 77 HR15N	0.43 HR15N	Indirect Verification per using Hardness Test Blocks	ASTM E18
	78 HR15N to 88 HR15N	0.13 HR15N		
	90 HR15N to 92 HR15N	0.1 HR15N		
Indirect Verification of Rockwell Hardness Testers HR15TW ^{FO}	74 HR15TW to 80 HR15TW	0.22 HR15TW		
	81 HR15TW to 86 HR15TW	0.14 HR15TW		
	87 HR15TW to 93 HR15TW	0.4 HR15TW		
Indirect Verification of Rockwell Hardness Testers HRBW ^{FO}	40 HRBW to 59 HRBW	1 HRBW		
	60 HRBW to 79 HRBW	0.29 HRBW		
	80 HRBW to 100 HRBW	0.43 HRBW		
Indirect Verification of Rockwell Hardness Testers HRC ^{FO}	20 HRC to 30 HRC	0.37 HRC		
	35 HRC to 55 HRC	0.34 HRC		
	60 HRC to 65 HRC	0.33 HRC		
Pneumatic Positive Pressure: Water Columns ^{FO}	0.025 inH ₂ O to 4 inH ₂ O	0.001 5 inH ₂ O	Water Column and Fluke Pressure Module	ATE-091 Internal Procedure CEM ME-020
	4.1 inH ₂ O to 40 inH ₂ O	0.005 inH ₂ O		
Pneumatic Positive Pressure: Transducers, Pressure Gages, Safety Valve and Recorders ^{FO}	0.15 psig to 5 psig	0.000 66 psi	Fluke Pressure Module and Display unit	ATE-001/ATE-067 Internal Procedure
	5 psig to 30 psig	0.001 8 psi		
	30 psig to 300 psig	0.014 psi		
	300 psig to 1 500 psig	0.16 psi		
	1 500 psig to 5 000 psig	0.22 psi		
	5 000 psig to 10 000 psig	2.2 psi	Digital Pressure Gauge	



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Mechanical

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
Vacuum Gauges ^{FO}	-22 inHg to 0 inHg	0.008 1 inHg	Fluke Pressure Module and Display unit	ATE-001/ATE-067 Internal Procedure
Direct verification of Durometer Hardness Tester Types A, B, C, D, O, & DO ^{FO} Extension at zero reading	4.445 N to 44.45 N	0.29 N	Digital Microscope	ASTM D2240
Indenter Shape (Not all parameters apply to all of	0 mm to 5 mm 0 mm to 12 mm	0.58 µm 0.58 µm	Electronic Balance	
Indenter Extension	25° to 40°	0.065°		
Indenter Diameter	0.55 N to 8.05 N	0.29 N		
Indenter Tip Radius				
Indenter Tip Angle				
Durometer Indenter Spring: Types A, B and O Types C, D and DO				
Digital, Dial, Click and Preset Torque Meters (Clockwise and Counterclockwise) ^{FO}	0.56 N·m to 5.65 N·m (5 lb.in to 50 lb.in)	0.006 N·m	Torque Analyzer	ASME B107.300
	2.83 N·m to 28.25 N·m (25 lb.in to 250 lb.in)	0.018 N·m		
	33.9 N·m to 339 N·m (25 lb.ft to 250 lb.ft)	0.034 N·m		
Torque Analyzer and Calibrators (Clockwise and Counter Clockwise) ^{FO}	Up to 68 N·m (Up to 50) lbf·ft	0.005 9 N·m	Standard Weights and Torque Arm	CENAM Technical Guide
	68.1 N·m to 204 N·m (51 to 150) lbf·ft	0.012 N·m		
	204.1 N·m to 476 N·m (151 to 350) lbf·ft	0.025 N·m		
	476.1 N·m to 612 N·m (351 to 450) lbf·ft	0.034 N·m		
	612.1 N·m to 816 N·m (451 to 600) lbf·ft	0.044 N·m		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Mechanical

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
Flow Meter ^{FO}	0.51 L/min to 5 L/min	0.019 L/min	Jug and Totem Master	ATE-090 Internal Procedure CENAM Technical Guide
	5.1 L/min to 30 L/min	0.075 L/min		
	30.1 L/min to 100 L/min	0.45 L/min		
	100.1 L/min to 1 000 L/min	0.5 L/min		
Viscosity Cups ^{FO} (ISO, Zahn, Ford, Shell) @ (20 to 25) °C	120.2 cSt to 162.1 cSt	0.35 cSt	Viscosity Solutions Thermometer	ATE-031 Internal Procedure
	230.9 cSt to 322 cSt	0.67 cSt		
	402.7 cSt to 541.7 cSt	1.2 cSt		
Viscometers ^{FO} @ (15°C to 45) °C	Up to 10 mm ² /s	0.17 % of reading		
	10 mm ² /s to 100 mm ² /s	0.22 % of reading		
	100 mm ² /s to 1 000 mm ² /s	0.29 % of reading		
	1 000 mm ² /s to 10 000 mm ² /s	0.38 % of reading		
Micropipettes ^{FO}	1 µl to 10 µl	0.13 µl	Analytical Balance and Digital Balance Thermometer	ATE-012 Internal Procedure CENAM Technical Guide
	11 µl to 100 µl	0.14 µl		
	101 µl to 1 000 µl	0.47 µl		
Volume - Pycnometers, Pipettes, Test Tube, Burette, Volumetric Flask, Volumetric Cone, Graduated Cylinder Test Tubes and Jars ^{FO}	1 ml to 200 ml	0.007 3 ml		
	200 ml to 1 000 ml	0.007 4 ml		
	1 000 ml to 5 000 ml	0.047 ml		
	5 000 ml to 30 000 ml	0.19 ml		
Volumetric Containers ^O	30 L to 1 000 L	0.22 L	Scale and Thermometer	

Time and Frequency

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
Tachometers ^{FO}	60 rpm to 18 000 rpm	0.93 rpm	Standard Digital Tachometer Shimpo Internal	ATE-050 Internal Procedure
	18 001 rpm to 36 000 rpm	1.3 rpm		
	36 001 rpm to 96 000 rpm	2.5 rpm		
Stopwatches, Timers ^{FO}	15 s to 3 600 s	0.14 s	Standard Digital Chronometer Citizen	NIST 960-12
	3 601 s to 18 000 s	0.18 s		
	18 001 s to 86 400 s	0.2 s		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Time and Frequency

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
Revolutions Counter ^{FO}	150 rpm to 2 000 rpm	1.5 rpm	Direct Comparisons and Optical Counter	ATE-050 Internal Procedure
Frequency Source ^{FO}	45 Hz to 120 Hz	0.002 5 % of reading	Fluke Calibrator 5500A	ATE-075 Internal Procedure
	120 Hz to 1 000 Hz	0.002 5 % of reading		
	1 kHz to 10 kHz	0.002 5 % of reading		
	10 kHz to 100 kHz	0.002 5 % of reading		
Frequency Measure ^{FO}	45 Hz to 1 000 Hz	0.031 % of reading	6 ½ DMM Keithley	ATE-025 Internal Procedure
	1 kHz to 10 kHz	0.042 % of reading		
	10 kHz to 100 kHz	0.071 % of reading		

Electrical

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
Equipment to Source Capacitance ^{FO}	3.3 nF to 10 nF	0.56 % of reading	Fluke Calibrator 5500A	ATE-082 Internal Procedure
	10 nF to 30 nF	0.56 % of reading		
	30 nF to 100 nF	0.34 % of reading		
	100 nF to 300 nF	0.34 % of reading		
	0.3 μ F to 1 μ F	0.34 % of reading		
	1 μ F to 3 μ F	0.35 % of reading		
	3 μ F to 10 μ F	0.46 % of reading		
	10 μ F to 30 μ F	0.46 % of reading		
	30 μ F to 100 μ F	0.51 % of reading		
Equipment to Measure Capacitance ^{FO}	4 nF to 40 nF	2.2 % of reading	Extech 380282 DMM	ATE-089 Internal Procedure
	40 nF to 400 nF	2.2 % of reading		
	400 nF to 1 000 nF	2.2 % of reading		
	1 000 nF to 4 000 nF	2.1 % of reading		
	4 μ F to 40 μ F	2.1 % of reading		
	40 μ F to 400 μ F	2.1 % of reading		
Equipment to Measure DC Current ^{FO}	0.2 μ A to 200 μ A	0.056 % of reading	6 ½ DMM Keithley	ATE-054 Internal Procedure
	0.2 mA to 2 mA	0.044 % of reading		
	2 mA to 20 mA	0.044 % of reading		
	20 mA to 200 mA	0.044 % of reading		
	0.21 A to 2 A	0.1 % of reading		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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
Equipment to Measure DC Current ^{FO}	2 A to 10 A	0.28 % of reading	Fluke 45 4½ DMM	ATE-054 Internal Procedure
	10 A to 550 A	2.2 % of reading	Clamp Meter Fluke 375	
Equipment to Measure AC Current At the listed frequencies 50 Hz to 1 kHz ^{FO}	0.2 µA to 200 µA	12 % of reading	6 ½ DMM Keithley	ATE-056 Internal Procedure
	0.2 mA to 2 mA	0.2 % of reading		
	2 mA to 20 mA	0.2 % of reading		
	20 mA to 200 mA	0.2 % of reading		
	0.2 A to 2 A	0.2 % of reading		
	2 A to 10 A	1.2 % of reading	Fluke 45 4½ DMM	
	10 A to 550 A	2.5 % of reading	Clamp Meter Fluke 375	
Equipment to Source DC Current ^{FO}	0.3 mA to 3.3 mA	0.011 % of reading	Fluke Calibrator 5500A	ATE-053 Internal Procedure
	3.3 mA to 33 mA	0.011 % of reading		
	33 mA to 300 mA	0.011 % of reading		
	0.3 A to 2 A	0.011 % of reading		
	2 A to 11 A	0.033 % of reading		
	11 A to 550 A	0.61 % of reading	Fluke 5500A/Coil	
Equipment to Source AC Current ^{FO} At the listed frequencies 50 Hz to 1 kHz	0.3 mA to 3.3 mA	0.1 % of reading	Fluke Calibrator 5500A	ATE-061 Internal Procedure
	3.3 mA to 33 mA	0.1 % of reading		
	33 mA to 330 mA	0.1 % of reading		
	0.3 A to 1 A	0.1 % of reading		
	1 A to 11 A	0.082 % of reading		
	11 A to 550 A	0.75 % of reading	Fluke 5500A/Coil	
Inductance Source ^{FO} 100 Hz and 1 kHz	1 mH to 10 mH	2 % of reading	Inductance Substitute	ATE-083 Internal Procedure
	11 mH to 100 mH	2 % of reading		
	0.101 H to 0.9 H	2 % of reading		
	1 H to 10 H	2 % of reading		
Electrical Simulation of Power Level Indicators ^{FO} @ 1 kHz	-30 dB to 60 dB	0.5 % of reading	Extech DDM 4.5 dig	ATE-041 Internal Procedure



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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
Electrical Simulation of Sound Pressure Level ^{FO} Indicators @ 1 kHz	80 dB to 130 dB	0.044 % of reading	Fluke Calibrator 5500A	ATE-041 Internal Procedure
Equipment to Measure Resistance ^{FO}	2 Ω to 20 Ω	0.096 % of reading	6 ½ DMM Keithley	ATE-058 Internal Procedure
	20 Ω to 200 Ω	0.016 % of reading		
	200 Ω to 1 000 Ω	0.016 % of reading		
	1 k Ω to 20 k Ω	0.016 % of reading		
	20 k Ω to 200 k Ω	0.016 % of reading		
	200 k Ω to 1 000 k Ω	0.019 % of reading		
	1 M Ω to 20 M Ω	0.027 % of reading		
	20 M Ω to 330 M Ω	0.16 % of reading		
	330 M Ω to 1 000 M Ω	2.1 % of reading	Insulation Tester Megger	ATE-058 Internal Procedure CENAM Technical Guide
Equipment to Source Resistance ^{FO}	1 Ω to 10 Ω	0.097 % of reading	Fluke Calibrator 5500A	ATE-057 Internal Procedure
	10 Ω to 30 Ω	0.06 % of reading		
	30 Ω to 100 Ω	0.024 % of reading		
	100 Ω to 300 Ω	0.014 % of reading		
	0.3 k Ω to 1 k Ω	0.014 % of reading		
	1 k Ω to 3 k Ω	0.012 % of reading		
	3 k Ω to 10 k Ω	0.012 % of reading		
	10 k Ω to 30 k Ω	0.011 % of reading		
	30 k Ω to 100 k Ω	0.011 % of reading		
	100 k Ω to 300 k Ω	0.014 % of reading		
	0.3 M Ω to 1 M Ω	0.014 % of reading		
	1 M Ω to 3 M Ω	0.017 % of reading		
	3 M Ω to 10 M Ω	0.017 % of reading		
	10 M Ω to 30 M Ω	0.066 % of reading		
	30 M Ω to 100 M Ω	0.12 % of reading		
	100 M Ω to 300 M Ω	0.51 % of reading		
	300 M Ω to 1 000 M Ω	1.3 % of reading	Resistance Substituter	
Temperature Calibration, Indication and Control Equipment Used with RTD Type Pt 385, 100 Ω ^{FO}	-200 °C to 800 °C	0.077 °C	Fluke Calibrator 5500A Electrical Simulation of RTD Output	ATE-048 Internal Procedure



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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 Calibration, Indication and Control Equipment Used with RTD Type Pt 3916, 100 Ω^{FO}	-200 °C to 600 °C	0.071 °C	Fluke Calibrator 5500A Electrical Simulation of RTD Output	ATE-048 Internal Procedure
Temperature Calibration, Indication and Control Equipment Used with RTD Type Pt 3926, 100 Ω^{FO}	-200 °C to 600 °C	0.077 °C		
Temperature Calibration, Indication and Control Equipment Used with RTD Type Cu 10 Ω^{FO}	-100 °C to 250 °C	0.31 °C		
Temperature Calibration, Indication and Control Equipment Used with RTD Type Ni 120 Ω^{FO}	-80 °C to 250 °C	0.099 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type B ^{FO}	600 °C to 1 800 °C	0.31 °C	Fluke Calibrator 5500A Electrical Simulation of Thermocouple Output	
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type E ^{FO}	-250 °C to 1 000 °C	0.15 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type J ^{FO}	-210 °C to 1 200 °C	0.15 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type K ^{FO}	-200 °C to 1 370 °C	0.17 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type R ^{FO}	-0 °C to 1 760 °C	0.34 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type S ^{FO}	-0 °C to 1 760 °C	0.37 °C		



Certificate of Accreditation: Supplement

Altek de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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 Calibration, Indication and Control Equipment Used with Thermocouple Type T ^{FO}	-250 °C to 400 °C	0.15 °C	Fluke Calibrator 5500A Electrical Simulation of Thermocouple Output	ATE-048 Internal Procedure
Temperature Calibration, Indication and Control Equipment Used with RTD Type Pt 385, 100 Ω ^{FO}	-200 °C to 800 °C	0.11 °C	Altek Calibrator 211 Electrical Simulation of RTD Measure	ATE-084 Internal Procedure
Temperature Calibration, Indication and Control Equipment Used with RTD Type Pt 3916, 100 Ω	-100 °C to 600 °C	0.11 °C		
Temperature Calibration, Indication and Control Equipment Used with RTD Type Pt 3926, 100 Ω ^{FO}	-200 °C to 600 °C	0.11 °C		
Temperature Calibration, Indication and Control Equipment Used with RTD Type Cu 10 Ω ^{FO}	-100 °C to 250 °C	0.32 °C		
Temperature Calibration, Indication and Control Equipment Used with RTD Type Ni 120 Ω ^{FO}	-70 °C to 260 °C	0.12 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type B ^{FO}	600 °C to 1 800 °C	0.32 °C	Altek Calibrator 422 Electrical Simulation of Thermocouple Measure	
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type E ^{FO}	-250 °C to 1 000 °C	0.16 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type J ^{FO}	-210 °C to 1 200 °C	0.16 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type K ^{FO}	-200 °C to 1 370 °C	0.18 °C		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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 Calibration, Indication and Control Equipment Used with Thermocouple Type R ^{FO}	-0 °C to 1 760 °C	0.35 °C	Altek Calibrator 422 Electrical Simulation of Thermocouple Measure	ATE-084 Internal Procedure
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type S ^{FO}	-0 °C to 1 760 °C	0.38 °C		
Temperature Calibration, Indication and Control Equipment Used with Thermocouple Type T ^{FO}	-250 °C to 400 °C	0.16 °C		
Equipment to Output DC Voltage ^{FO}	3.3 mV to 329 mV	0.006 9 % of reading	Fluke Calibrator 5500A	ATE-059 Internal Procedure
	0.329 V to 3.29 V	0.005 2 % of reading		
	3.29 V to 32.9 V	0.005 2 % of reading		
	32.9 V to 329 V	0.005 3 % of reading		
	329 V to 1 000 V	0.005 7 % of reading		
	1 kV to 6 kV	2 % of reading	Hi pot Tester 3565D	
Equipment to Output AC Voltage At the listed frequency 45 Hz to 10 kHz ^{FO}	3 mV to 33 mV	0.11 % of reading	Fluke Calibrator 5500A	ATE-061
	33 mV to 330 mV	0.057 % of reading		
	0.33 V to 3.3 V	0.033 % of reading		
	3.3 V to 33 V	0.033 % of reading		
	33 V to 330 V	0.043 % of reading		
	330 V to 1 000 V	0.059 % of reading		
Equipment to Output AC Voltage At the listed frequencies 50 to 60 Hz ^{FO}	1 kV to 5 kV	2.1 % of reading	Hi pot Tester 3565D	
Equipment to Measure DC Voltage ^{FO}	2 mV to 200 mV	0.008 7 % of reading	6 ½ DDM Keithley	ATE-060 Internal Procedure
	0.2 V to 2 V	0.006 % of reading		
	2 V to 20 V	0.006 % of reading		
	20 V to 200 V	0.006 % of reading		
	200 V to 1 000 V	0.007 2 % of reading		



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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

Electrical

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
Equipment to Measure DC Voltage ^{FO}	1 kV to 6 kV	2 % of reading	Fluke 80K-6	ATE-060 Internal Procedure
	6 kV to 40 kV	2 % of reading	Fluke 80K-40	
Equipment to Measure AC Voltage At the listed frequency 50 Hz to 1 kHz ^{FO}	0 mV to 200 mV	0.093 % of reading	6 ½ DDM Keithley	ATE-062 Internal Procedure
	0.2 V to 2 V	0.093 % of reading		
	2 V to 20 V	0.097 % of reading		
	20 V to 200 V	0.1 % of reading		
	200 V to 1 000 V	0.11 % of reading		
Equipment to Measure AC Voltage At the listed frequency 50 Hz to 60 kHz ^{FO}	0.75 kV to 6 kV	5 % of reading	Fluke 80k-40 Internal Procedure ATE-062	
	6 kV to 28 kV	5 % of reading		
pH Meter ^{FO}	-1 000 mV to 1 000 mV (Up to 14 pH)	0.12 % of reading	Simulator of pH and Measure pH/mV Calibrator HANNA	ATE-059 Internal Procedure

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
Humidity Meters and Recorders ^{FO}	10 % RH to 33 % RH	0.7 % RH	Thermo-hygrometer	ATE-010 Internal Procedure
	34 % RH to 75 % RH	0.9 % RH		
	76 % RH to 95 % RH	1.3 % RH		
IR Thermometers ^{FO}	25 °C to 300 °C	1.1 °C	Blackbody and Digital Thermometer $\epsilon = 0.95$ $\lambda = (8 \text{ to } 14) \mu\text{m}$	ATE-085 Internal Procedure
	300 °C to 600 °C	1.4 °C		
	600 °C to 800 °C	1.5 °C		
	800 °C to 1 000 °C	2 °C		
	1 000 °C to 1 200 °C	2.3 °C		
Thermocouple, RTD, Bimetal, Recorder Temperature and Thermometer Digital	-40 °C to 300 °C	0.05 °C	Thermometer RTD Fluke 1552A Thermometer RTD Omega and Dry Block Ametek, ThermoCal Type K Thermocouple and Muffle	ATE-009 Internal Procedure
	300 to 500 °C	0.23 °C		
	500 °C to 600 °C	0.23 °C		
	600 °C to 800 °C	0.93 °C		
	800 °C to 1 000 °C	1.4 °C		
	1 000 °C to 1 200 °C	2 °C		
Liquid in Glass Thermometer ^{FO}	-40 °C to 300 °C	0.05 °C	RTD and Thermometer and Dry Block, Ametek, ThermoCal	ATE-0080 Internal Procedure



Certificate of Accreditation: Supplement

Alteq de México, S.A. de C.V.

Av. Las Puentes # 224, Colonia Las Puentes 2 Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: David A. Treviño Morales. Phone: 818-350-1053

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
Ovens, Furnaces, Dry Block, Baths, Muffles, and Incubators ^{FO}	-80 °C to 300 °C	0.05 °C	Thermometer RTD	ATE-009 Internal Procedure
	300 °C to 500 °C	0.23 °C	Fluke 1552A	
	500 °C to 600 °C	0.23 °C	Thermometer RTD	
	600 °C to 800 °C	0.93 °C	Omega	
	800 °C to 1 000 °C	1.4 °C	Type K Thermocouple	
	1 000 °C to 1 200 °C	2 °C	and Amprobe TMB-52 Indicator	

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.
7. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.