



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Centro de Medición y Control, S.A. de C.V.

*Av. Colón No. 609 Ote., Col. Centro
Monterrey, Nuevo León, México. C.P. 64000*

*(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):

***Electrical, Time to Frequency, Mass, Force and Weighing Devices,
Thermodynamic, Acoustic and Mechanical 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:

April 12, 2013

Issue Date:

June 21, 2023

Expiration Date:

August 31, 2025

Accreditation No.:

43531

Certificate No.:

L23-504

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

Centro de Medición y Control, S.A. de C.V.

Av. Colón No. 609 Ote., Col. Centro
 Monterrey, Nuevo León, México. CP. 64000
 Contact Name: Héctor Rodríguez Phone: 818-372-5505

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

Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Equipment to Measure AC Power ($f = 45 \text{ Hz to } 60 \text{ Hz}$; $P.F. = 1$) ^{FO}	10.89 mW to 3.366 W (3.3 V to 1 020 V) (0.33 mA to 3.29 mA)	0.13 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-08
	108.9 mW to 33.60 W (3.3 V to 1 020 V) (3.3 mA to 32.9 mA)	0.11 % of reading	
	1.089 to 335.58 W (3.3 V to 1 020 V) (33 mA to 329 mA)	0.11 % of reading	
	7.26 W to 2 233.8 W (3.3 V to 1 020 V) (0.329 A to 2.19 A)	0.12 % of reading	
	36.3 W to 11.22 W (3.3V to 1 020 V) (2.2 A to 11 A)	0.096 % of reading	
	11.22 W to 561 kW (3.3 V to 1020 V) (11 A to 550 A) (No toroidal)	0.69 % of reading	
	11.22 W to 561 kW (3.3 V to 1 020 V) (11 A to 550 A) (Toroidal)	0.3 % of reading	
Equipment to Measure Phase or Power Factor ($f = 10 \text{ Hz to } 65 \text{ Hz}$) ^{FO}	-180° to 180° (120 V and 240 V) (2 A to 10 A)	0.15°	
Equipment to Measure Insulation Resistance (Fixed Points) Up to 5 kV ^{FO}	1 M Ω	1.2 % of reading	Decade Box Biddle 726340 Internal Procedure M-LC-ELE-06
	10 M Ω	1.2 % of reading	
	100 M Ω	1.2 % of reading	
	1 000 M Ω	1.2 % of reading	
	10 000 M Ω	2.4 % of reading	
	100 000 M Ω	5.8 % of reading	
Equipment to Measure Insulation Resistance (Fixed Points) @ 10 kV ^{FO}	1 T Ω	0.025 T Ω	Standard Resistance Internal Procedure M-LC-ELE-06
Equipment to Measure Earth Resistance Up to 1 kHz ^{FO}	1 Ω to 10 Ω	0.36 % of reading	Decade Box Danbridge WB-1 Internal Procedure M-LC-ELE-05
	20 Ω to 100 Ω	0.14 % of reading	
	200 Ω to 1 000 Ω	0.14 % of reading	



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Equipment to Measure Resistance (Fixed Points) ^{FO}	0.1 m Ω	0.14 % of reading	Biddle 249005 Croydon Yew 2782 WSA 834-1968 WSA 834-1967 IET-LAB/SRA-10 M-LC-ELE-15
	1 m Ω	0.026 % of reading	
	10 m Ω	0.014 % of reading	
	100 m Ω	0.01 % of reading	
	1 Ω	0.008 3 % of reading	
	10 Ω	0.006 9 % of reading	
Equipment to Output DC Current Power ^O	1 A to 500 A	0.093 % of reading	Current Shunt Biddle 249005 Multimeter Fluke 87-V Internal Procedure M-LC-ELE-38
Equipment to Output AC Current Power ^O (f = 50 Hz to 1 kHz)	1 A to 500 A	0.08 % of reading	
Equipment to Measure Capacitance (Up to 10 kV) ^{FO}	100 pF	1.3 % of reading	Capacitance Standard Megger Cat. 670500-1 Internal Procedure M-LC-ELE-32
Equipment to Measure Dissipation Factor (Up to 10 kV) ^{FO}	0 % DF	0.026 % DF	
	0.32 % DF	0.031 % DF	
	1.05 % DF	0.047 % DF	
	3.2 % DF	0.097 % DF	
	10.5 % DF	0.27 % DF	
Equipment to Measure Inductance @ 1kHz ^{FO}	1 mH to 10 H	2.3 % of reading	Decade Box IET-LAB LS-400 M-LC-ELE-33
Equipment to Output AC Voltage (HiPot) @ 60 Hz ^{FO}	0 kVpp to 6 kVpp (4.24 kV rms)	1.1 % of reading	Probe Fluke 80K-6 + Multimeter Fluke 8060A Internal Procedure M-LC-ELE-12
Equipment to Output DC Voltage (HiPot) ^{FO}	0 kV to 6 kV	0.79 % of reading	
Equipment to Measure Oil Dielectric ^{FO}	5 kV to 40 kV	1.5 kV	Kilovoltmeter Hipotronics OCCM M-LC-ELE-35
Equipment to Measure Oil Dielectric ^F	10 kV to 100 kV	1.4 % of reading	High Voltage Divider VT-100 Internal Procedure M-LC-ELE-44
Equipment to Output AC Voltage (HiPot) ^{FO}	1 kV to 10 kV	0.62 kV	Kilovoltmeter Hipotronics KV50A Internal Procedure M-LC-ELE-14
	12.5 kV to 25 kV	0.82 kV	
	35 kV to 50 kV	1.3 kV	



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Equipment to Output DC Voltage (HiPot) ^{FO}	1 kV to 10 kV	0.59 kV	Kilovoltmeter Hipotronics KV50A Internal Procedure M-LC-ELE-14
	12.5 kV to 25 kV	0.65 kV	
	35 kV to 50 kV	0.82 kV	
Equipment to Output AC Voltage (Hipot-Surge) @ 75 MHz ^{FO}	Up to 40 kVpp	3.5 kV	Probe Tektronix P6015A Oscilloscope Tektronix THS720P Internal Procedure M-LC.ELE-34
Equipment to Measure Transformer Turns Ratio (TTR) and Ratio Tension Transformers Output 8 V AC ^{FO}	1 TR to 131 TR	0.059 % of reading	Reference Transformer Biddle 550050 M-LC-ELE-07
Equipment to Three-Phase Transformer Turns Ratio (TTR) Output 90 V AC ^O	1 TR to 2 000 TR	0.12 % of reading	Reference Transformer Megger 550555 Internal Procedure M-LC-ELE-39
Equipment to Output DC Voltage ^{FO}	100 mV	0.006 6 % of reading	Agilent 34401A Internal Procedure M-LC-ELE-13
	1 V	0.003 6 % of reading	
	10 V	0.003 1 % of reading	
	100 V	0.004 % of reading	
	1 000 V	0.004 3 % of reading	
Equipment to Output AC Voltage (10 Hz to 20 kHz) ^{FO}	100 mV	0.078 % of reading	Agilent 34401A Internal Procedure M-LC-ELE-13
	1 V	0.062 % of reading	
	10 V	0.062 % of reading	
	100 V	0.062 % of reading	
	1 000 V	0.089 % of reading	
Equipment to Output DC Current ^{FO}	10 mA	0.054 % of reading	
	100 mA	0.043 % of reading	
	1 A	0.089 % of reading	
	3 A	0.12 % of reading	
Equipment to Output AC Current (10 Hz to 20 kHz) ^{FO}	1 A	0.15 % of reading	
	3 A	0.18 % of reading	
Equipment to Output Resistance ^{FO}	100 Ω	0.011 % of reading	
	1 k Ω	0.008 6 % of reading	



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Equipment to Output Resistance ^{FO}	10 k Ω	0.008 6 % of reading	Agilent 34401A Internal Procedure M-LC-ELE-13
	100 k Ω	0.008 7 % of reading	
Equipment to Output Resistance ^{FO}	1 M Ω	0.008 8 % of reading	Agilent 34401A Internal Procedure M-LC-ELE-13
	10 M Ω	0.033 % of reading	
	100 M Ω	0.63 % of reading	
Equipment to Output Frequency ^{FO}	40 Hz to 300 kHz	0.013 % of reading	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J ^{FO}	-190 °C to -100 °C	0.27 °C	Fluke 5500A Electrical Simulation of Thermocouple Output Internal Procedure M-LC-ELE-10
	-100 °C to -30 °C	0.16 °C	
	-30 °C to 0 °C	0.14 °C	
	0 to 150 °C	0.14 °C	
	150 to 760 °C	0.17 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K ^{FO}	-190 °C to -100 °C	0.33 °C	
	-100 °C to -25 °C	0.18 °C	
	-25 °C to 0 °C	0.16 °C	
	0 °C to 120 °C	0.16 °C	
	120 °C to 1 000 °C	0.26 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T ^{FO}	-190 °C to -150 °C	0.63 °C	
	-150 °C to 0 °C	0.24 °C	
	0 °C to 120 °C	0.16 °C	
	120 °C to 400 °C	0.14 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type E ^{FO}	-190 °C to -100 °C	0.5 °C	
	-100 °C to -25 °C	0.16 °C	
	-25 °C to 0 °C	0.14 °C	
	0 °C to 350 °C	0.14 °C	
	350 °C to 650 °C	0.16 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R ^{FO}	0 °C to 250 °C	0.57 °C	
	250 °C to 400 °C	0.35 °C	
	400 °C to 1 000 °C	0.33 °C	
	1 000 °C to 1 767 °C	0.4 °C	



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Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S ^{FO}	0 °C to 250 °C	0.47 °C	Fluke 5500A Electrical Simulation of Thermocouple Output Internal Procedure M-LC-ELE-10
	250 °C to 1 000 °C	0.36 °C	
	1 000 °C to 1 400 °C	0.37 °C	
	1 400 °C to 1 767 °C	0.46 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Pt 385, 100 Ω ^{FO}	-190 °C to 0 °C	0.05 °C	Fluke 5500A Electrical Simulation of RTD Output Internal Procedure M-LC-ELE-10
	0 °C to 100 °C	0.07 °C	
	100 °C to 300 °C	0.09 °C	
	300 °C to 400 °C	0.1 °C	
	400 °C to 630 °C	0.12 °C	
Equipment to Measure DC Voltage ^{FO}	10 mV to 329.999 9 mV	0.007 1 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-01
	0.33 V to 3.299 999 V	0.005 5 % of reading	
	3.3 V to 32.999 99 V	0.005 5 % of reading	
	33 V to 329.999 9 V	0.006 1 % of reading	
	330 V to 1 020 V	0.008 % of reading	
Equipment to Measure AC Voltage (f = 45 Hz to 1 kHz) ^{FO}	1 mV to 32.999 mV	0.21 % of reading	
	33 mV to 329.999 mV	0.058 % of reading	
	0.33 V to 3.299 99 V	0.035 % of reading	
	3.3 V to 32.999 9 V	0.047 % of reading	
	33 V to 329.999 V	0.054 % of reading	
Equipment to Measure DC Current ^{FO}	0.1 mA to 3.299 99 mA	0.015 % of reading	
	3.3 mA to 32.999 9 mA	0.012 % of reading	
	33 mA to 329.999 9 mA	0.012 % of reading	
	0.33 A to 2.1999 9 A	0.033 % of reading	
	2.2 A to 11 A	0.064 % of reading	
Equipment to Measure AC Current (f = 45 Hz to 1 kHz) ^{FO}	0.029 mA to 0.329 99 mA	0.24 % of reading	
	0.33 mA to 3.299 9 mA	0.12 % of reading	
	3.3 mA to 32.999 9 mA	0.1 % of reading	
	33 mA to 329.999 mA	0.1 % of reading	
	0.33 A to 2.199 99 A	0.12 % of reading	
	2.2 A to 11 A	0.089 % of reading	



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Equipment to Measure Frequency ^{FO}	0.01 Hz to 119.99 Hz	0.005 9 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-01
	120 Hz to 1 199.9 Hz	0.002 8 % of reading	
	1.2 Hz to 11.999 kHz	0.002 7 % of reading	
	12 kHz to 119.99 kHz	0.002 7 % of reading	
	120 kHz to 1 199.9 kHz	0.002 7 % of reading	
	1.2 MHz to 2 MHz	0.002 9 % of reading	
Equipment to Measure Resistance ^{FO}	0.1 Ω to 10.99 Ω	0.085 % of reading	
	11 Ω to 32.999 Ω	0.061 % of reading	
	33 Ω to 109.999 Ω	0.023 % of reading	
	110 Ω to 329.999 Ω	0.014 % of reading	
	330 Ω to 1.099 99 k Ω	0.015 % of reading	
	1.1 k Ω to 3.299 99 k Ω	0.011 % of reading	
	3.3 k Ω to 10.999 9 k Ω	0.015 % of reading	
	11 k Ω to 32.999 9 k Ω	0.011 % of reading	
	33 k Ω to 109.999 k Ω	0.017 % of reading	
	110 k Ω to 329.999 k Ω	0.014 % of reading	
	330 k Ω to 1.099 99 M Ω	0.021 % of reading	
	1.1 M Ω to 3.299 99 M Ω	0.017 % of reading	
	3.3 M Ω to 10.999 9 M Ω	0.066 % of reading	
	11 M Ω to 32.999 9 M Ω	0.011 % of reading	
33 M Ω to 109.999 M Ω	0.51 % of reading		
110 M Ω to 330 M Ω	0.51 % of reading		
Equipment to Measure DC Current Clamp-on Meters (No Toroidal) ^{FO}	11 A to 550 A	0.59 % of reading	Fluke 5500A 5500-Coil Internal Procedure M-LC-ELE-04
Equipment to Measure DC Current Clamp-on Meters (Toroidal) ^{FO}	11 A to 550 A	0.26 % of reading	
Equipment to Measure AC Current Clamp-on Meters (No Toroidal) ^{FO}	11 A to 550 A	0.69 % of reading	



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Equipment to Measure AC Current Clamp-on Meters (Toroidal) ^{FO}	11 A to 550 A	0.3 % of reading	Fluke 5500A 5500-Coil Internal Procedure M-LC-ELE-04
Equipment to Measure Capacitance @ 1 kHz ^{FO}	0.5 nF to 1.099 9 nF	1.4 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-01
	1.1 nF to 3.299 9 nF	0.8 % of reading	
	3.3 nF to 10.999 nF	0.6 % of reading	
	11 nF to 32.999 nF	0.58 % of reading	
	33 nF to 109.99 nF	0.35 % of reading	
	110 nF to 329.99 nF	0.43 % of reading	
	330 nF to 1.099 9 μ F	0.35 % of reading	
	1.1 μ F to 3.2999 μ F	0.51 % of reading	
	3.3 μ F to 10.999 μ F	0.46 % of reading	
	11 μ F to 32.999 μ F	0.53 % of reading	
	33 μ F to 109.99 μ F	0.61 % of reading	
	110 μ F to 329.99 μ F	0.83 % of reading	
330 μ F to 1.1 mF	1 % of reading		
Equipment to Measure DC Current ^{FO}	11 A to 20.5 A	0.1 % of reading	Fluke 5502A Internal Procedure M-LC-ELE-01
Equipment to Measure AC Current @ the frequency (45 Hz to 1 kHz) ^{FO}	11 A to 20.5 A	0.12 % of reading	
Equipment to Measure DC/AC Current Clamp-on Meters (No Toroidal) ^{FO}	550 A to 1 025 A	0.55 % of reading	Fluke 5502A 5500-Coil Internal Procedure M-LC-ELE-04
Equipment to Measure DC/AC Current Clamp-on Meters (Toroidal) ^{FO}	550 A to 1 025 A	0.26 % of reading	
Equipment to Measure Resistance ^{FO}	330 M Ω to 1 100 M Ω	1.5 % of reading	Fluke 5502A Internal Procedure M-LC-ELE-01
Equipment to Measure Capacitance ^{FO}	1.1 mF to 3.3 mF	0.63 % of reading	
	3.3 mF to 11 mF	0.54 % of reading	
	11 mF to 33 mF	0.85 % of reading	
	33 mF to 110 mF	1.2 % of reading	



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Oscilloscopes (AC Voltage (Leveled Sine Wave) 50 Ω^{FO})	100 mVp-p to 300 Vp-p (100 Hz to 10 kHz)	0.035 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-41
Oscilloscope DC Voltage ^{FO} (50 Ω)	100 mV to 300 V	0.055 % of reading	Fluke 5500A Internal Procedure M-LC-ELE-41

Time and Frequency

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Equipment to Measure Frequency ^{FO}	300 kHz to 500 MHz	0.003 7 % of reading	Frequency Generator HP 8711A
Frequency Counter ^{FO}	300 kHz to 1.3 GHz	0.003 5 % of reading	Internal Procedure M-LC-ELE-41
Equipment to Measure Frequency ^{FO}	80 Hz to 80 MHz	0.000 72 % of reading	Wave Generator Keysight 33250 A
Frequency Counter ^{FO}	80 Hz to 80 MHz	0.000 000 73 % of reading	Internal Procedure M-LC-ELE-41
Frequency Generator ^F	50 Hz to 500 MHz	0.003 7 % of reading	Frequency Counter Internal Procedure M-LC-ELE-42

Mass, Force and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Bench Scales ^O	100 g to 1 000 g (Res.= 0.1 g)	(185 x 10 ⁻⁴ + 590 x 10 ⁻⁸ Wt) g	Mass Class F2 Internal Procedure M-LC-MAS-01
	100 g to 2 000 g (Res.= 1 g)	(1.88 x 10 ⁻¹ + 9.54 x 10 ⁻⁶ Wt) g	Mass Class M1 Internal Procedure M-LC-MAS-01
	5 000 g to 30 000 g (Res.= 1 g)	(1.894 8 + 3 x 10 ⁻⁴ Wt) g	
Platform Scales ^O	20 000 g to 500 000 g (Res.= 10 g)	(18.878 6 + 6 x 10 ⁻⁴ Wt) g	



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Thermodynamic

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Equipment to Measure Relative Humidity @ 23°C ^F	20 % RH to 80 % RH	0.85 % RH	Higro-Thermometer Dickson TH300 Internal Procedure M-LC-HUM-01
Equipment to Measure Temperature Environmental ^F	20 °C to 60 °C	0.26 °C	
Infrared – Non Contact Thermometers ^{FO}	50 °C to 400 °C	1.3 °C	Infrared Thermometer Non-contact Fluke 68 (Black Body: Hart Scientific 9132) M-LC-TEM-02
Calibration of Thermocouple Type J ^{FO}	0 °C to 125 °C	0.35 °C	Dry Block Hart Scientific 9102S
Calibration of Thermocouple Type K ^{FO}	0 °C to 125 °C	0.35 °C	Fluke 743B Internal Procedure M-LC-TEM-01
Calibration of Thermocouple Type T ^{FO}	0 °C to 125 °C	0.35 °C	M-LC-ELE-01
Calibration of Thermocouple Type E ^{FO}	0 °C to 125 °C	0.35 °C	
Calibration of Thermocouple Type R ^{FO}	0 °C to 125 °C	0.35 °C	
Calibration of Thermocouple Type S ^{FO}	0 °C to 125 °C	0.35 °C	
Calibration of Thermocouple Type J ^{FO}	33 °C to 350 °C	0.5 °C	Dry Block Hart Scientific 9140
Calibration of Thermocouple Type K ^{FO}	33 °C to 350 °C	0.5 °C	Fluke 743B Internal Procedure M-LC-TEM-01
Calibration of Thermocouple Type T ^{FO}	33 °C to 350 °C	0.5 °C	
Calibration of Thermocouple Type E ^{FO}	33 °C to 350 °C	0.5 °C	
Calibration of Thermocouple Type R ^{FO}	33 °C to 350 °C	0.5 °C	
Calibration of Thermocouple Type S ^{FO}	33 °C to 350 °C	0.5 °C	



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Acoustic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Equipment to Output Acoustic Level (f = 1 kHz) ^{FO}	94 dB	0.13 dB	Acoustic Calibrator Ametek AC-1 Internal Procedure M-LC-SON-01
	114 dB	0.13 dB	
	124 dB	0.13 dB	

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Pressure Gage ^{FO}	3.45 MPa to 34.5 MPa	1.5 kPa	Pressure Module Fluke 700P30 Fluke 716 Internal Procedure M-LC-PRE-01
	138 kPa to 689 kPa	0.69 kPa	
	689 kPa to 3.45 MPa (100 psi to 500 psi)	0.96 kPa (0.14 psi)	
Absolute Pressure Gage ^{FO}	13.79 kPa to 137.9 kPa	0.034 kPa	Pressure Gage Setra 370 Internal Procedure M-LC-PRE-01
Pressure Gage and Vacuum ^{FO}	-82.74 kPa to -6.89 kPa	0.045 kPa	Pressure Gage Fluke 717-30G Internal Procedure M-LC-PRE-01
	6.89 kPa to 206.8 kPa	0.043 kPa	
Flowmeter for Liquid ^{FO}	12 m ³ /h to 80 m ³ /h	0.59 % of reading	Flowmeter Fuji FLD110B1-A Internal Procedure M-LC-FLU-01
Volumetric Flow Meters ^{FO}	463 L to 3 420 L	0.59 % of reading	
Open Channel Liquid Flowmeter ^F	870 LPS to 28 400 LPS	0.5 % of reading	Water Velocity Meter Internal Procedure M-LC-FLU-02
Torque Wrenches ^F	2.82 N·m to 28.2 N·m	0.39 % of of reading	Torque Transducers Mountz TL250i Internal Procedure M-LC-TOR-01



Certificate of Accreditation: Supplement

Centro de Medición y Control, S.A. de C.V.

Av. Colón No. 609 Ote., Col. Centro
Monterrey, Nuevo León, México. CP. 64000
Contact Name: Héctor Rodríguez Phone: 818-372-5505

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

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Torque Wrenches ^F	67.8 N·m to 678 N·m	0.4 % of reading	Torque Transducer Mountz BMX-500F Internal Procedure M-LC-TOR-01
Torque Tools ^F	27.1 N·m to 271 N·m	0.24 N·m	Torque Transducer Mountz Validator 200F Internal Procedure M-LC-TOR-01

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. Example: Outside Micrometer^F would mean that the laboratory performs this calibration 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. Example: Outside Micrometer^O would mean that the laboratory performs this calibration onsite at the customer's location.
5. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and onsite at customer locations.
6. 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.
7. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.