



CERTIFICATE OF ACCREDITATION

This is to attest that

ALQIMMA INSPECTION ESTABLISHMENT

KINGABDULAZIZ STREET AL MURJAN DIST.
JEDDAH 23714, KINGDOM OF SAUDI ARABIA

Calibration Laboratory CL-257

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date January 19, 2022

Expiration Date February 1, 2023



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

ALQIMMA INSPECTION ESTABLISHMENT

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Contact Name Noor Ahmed

Contact Phone +966-583401810

Accredited to ISO/IEC 17025:2017

Effective Date January 19, 2022

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Vernier Calipers (Plan/ Dial/ Digital)	Up to 300 mm	9.0 µm	Using Gauge Blocks as per Calibration Procedure Number- LABP-002
Micrometers (Plan/ Dial/ Digital)	Up to 100 mm 100 mm to 300 mm	4.5 µm 6.1 µm	Using Gauge Blocks as per Calibration Procedure Number- LABP-010
Thickness Gauge	Up to 100 mm	7.6 µm	Using Gauge Blocks as per Calibration Procedure Number- LABP-031
Mold Blocks	Up to 300 mm	22 µm	Using Digital Caliper as per Calibration Procedure Number- LABP-016
Test Sieves	Up to 125 mm	51 µm	Using Digital Caliper as per Calibration Procedure Number-LABP-039
Mechanical			
Weighing Balances	1 mg to 100 g 100 g to 1 kg 1 kg to 10 kg 10 kg to 24 kg 24 kg to 40 kg	0.22 mg 7.2 mg 65 mg 77 mg 0.63 g	Using F1 Weights as per Calibration Procedure Number-LABP-036
Safety Relief Valve	0 bar to 60 bar 60 bar to 100 bar 100 bar to 1000 bar	0.02 bar 0.12 bar 0.22 bar	Using Reference Pressure Gages as per Calibration Procedure Number-LABP-026
Dial Pressure Gauges/ Pressure Chart Recorder/ Pressure Transmitters/ Digital Pressure Gauge	0 bar to 10 bar 10 bar to 30 bar 30 bar to 60 bar 60 bar to 1000 bar	6.7 mbar 8.7 mbar 1.4 mbar 0.65 bar	Using Reference Pressure Gauges as per Calibration Procedure Number-LABP-022

* If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.

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Vacuum Gauges	0 mm Hg to 750 mm Hg	4.7 mmHg	Using Reference Pressure Gauges using comparison method as per Calibration Procedure Number-LABP-034
Thermal			
RTD/ Thermocouple /Temperature Transmitters / (Dial/Digital) Thermometer	-23 °C to 120 °C 120 °C to 650 °C	0.19 °C 0.20 °C	Using RTD's, Dry Block, RTD Thermometer, Multi-Function Calibrator, as per Calibration Procedure Number-LABP-006, LABP-008 and LABP-025
Incubators / Water Baths / Autoclaves / Ovens / Furnace	Ambient to 1500 °C	0.20 °C	Using RTD's, RTD Thermometer, Multi-Function Calibrator as per Calibration Procedure Number-LABP-038/ LABP-035/ LABP-001/ LABP-019/ LABP-013. (Single Sensor Method)
Freezers/ Refrigerators	-80 °C to 0 °C	0.19 °C	RTDs, RTD Thermometer, Multi-Function Calibrator as per Calibration Procedure Number-LABP-037
Electrical – DC/LF			
DC Voltage – Generate ³	0 mV to 300 mV 0.3 V to 3 V 3 V to 30 V 30 V to 300 V 300 V to 1000 V	3.0 µV 15 µV 0.19 mV 2.4 mV 8.0 mV	Using Multi Product Calibrator as per Calibration Procedure Number-LABP-018
DC Voltage – Measure ⁴	0 mV to 100 mV 100 mv to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	2.6 µV 0.03 mV 0.31 mV 3.1 mV 0.02 V	Using Precision Multimeter as per Calibration Procedure Number-LABP-018
DC Current – Generate ³	0 µA to 300 µA 0 mA to 3 mA 0 mA to 30 mA 0 mA to 300 mA 0 A to 1 A 0 A to 2 A 0 A to 3 A 0 A to 10 A 0 A to 20 A 0 A to 1000 A	0.01 µA 0.08 µA 0.76 µA 7.5 µA 50 µA 0.11 mA 0.25 mA 0.81 mA 2.4 mA 0.58 A	Using Multi Product Calibrator / Coil (50 Turns) as per Calibration Procedure Number-LABP-018

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DC Current – Measure ⁴	0 μ A to 100 μ A 100 μ A to 500 μ A 500 μ A to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 6 A 6 A to 12 A	0.01 μ A 0.08 μ A 0.09 μ A 0.78 μ A 8.3 μ A 0.051 mA 0.84 mA 2.5 mA	Using Precision Multimeter as per Calibration Procedure Number-LABP-018
DC Resistance – Generate ³	0 Ω to 100 Ω 100 Ω to 1 k Ω 1 k Ω to 10 k Ω 10 k Ω to 100 k Ω 100 k Ω to 1 M Ω 1 M Ω to 10 M Ω 10 M Ω to 100 M Ω 100 M Ω to 1 G Ω	1.6 m Ω 8.0 m Ω 80 m Ω 0.81 Ω 15 Ω 0.29 k Ω 15 k Ω 0.61 M Ω	Using Multi Product Calibrator as per Calibration Procedure Number-LABP-018
DC Resistance – Measure ⁴	0 Ω to 100 Ω 100 Ω to 1 k Ω 1 k Ω to 10 k Ω 10 k Ω to 100 k Ω 100 k Ω to 1 M Ω 1 M Ω to 10 M Ω 10 M Ω to 100 M Ω 100 M Ω to 1 G Ω	1.7 m Ω 8.1 m Ω 80 m Ω 0.83 Ω 0.16 k Ω 0.32 k Ω 15 k Ω 0.63 M Ω	Using Precision Multimeter as per Calibration Procedure Number-LABP-018
AC Voltage – Generate ³	0 mV to 100 mV (10 Hz to 500 kHz) 0 V to 1 V (10 Hz to 500 kHz) 0 V to 10 V (10 Hz to 100 kHz) 0 V to 100 V (45 Hz to 100 kHz) 0 V to 1000 V (45 Hz to 10 kHz)	0.06 mV 0.41 mV 4.1 mV 20 mV 0.11 V	Using Multi Product Calibrator as per Calibration Procedure Number-LABP-018
AC Voltage – Measure ⁴	0 mV to 100 mV (3 Hz to 300 kHz) 100 mV to 1 V (10 Hz to 300 kHz) 1 V to 10 V (10 Hz to 300 kHz)	0.21 mV 0.31 mV 3.0 mV	Using Precision Multimeter as per Calibration Procedure Number-LABP-018

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AC Voltage – Measure ⁴ continued	10 V to 100 V (10 Hz to 300 kHz)	0.03 mV	Using Precision Multimeter as per Calibration Procedure Number-LABP-018	
	100 V to 750 V (10 Hz to 300 kHz)	0.30 V		
AC Current – Generate ³	30 µA to 100 µA (10 Hz to 30 kHz)	0.05 µA	Using Multi Product Calibrator / (50 T coil) as per Calibration Procedure Number-LABP-018	
	0 mA to 1 mA (10 Hz to 30 kHz)	0.41 µA		
	0 mA to 100 mA (10 Hz to 30 kHz)	0.03 mA		
	0 A to 1 A (10 Hz to 10 kHz)	0.31 mA		
	0 A to 2 A (10 Hz to 10 kHz)	0.61 mA		
	0 A to 10 A (45 Hz to 5 kHz)	4.2 mA		
	0 A to 20 A (45 Hz to 5 kHz)	0.01 A		
	0 A to 1000 A (@ 60 Hz)	0.59 A		
AC Current – Measure ⁴ at 3 Hz to 10 kHz	3 µA to 100 µA	0.06 µA	Using Precision Multimeter as per calibration Procedure Number-LABP-018	
	1 µA to 1 mA	0.47 µA		
	1 mA to 10 mA	8.0 µA		
	10 mA to 100 mA	0.08 mA		
	100 mA to 500 mA	0.31 mA		
	500 mA to 1 A	0.62 mA		
	1 A to 6 A	4.8 mA		
	6 A to 12 A	0.01 A		
Electrical Simulation of Thermocouples – Generate ³ and Measure ⁴			Using Multi Product Calibrator (with TC measuring option) as per calibration Procedure Number-LABP-018	
	Type B	0 °C to 1750 °C		Generate: 0.12 °C Measure: 0.18 °C
	Type C	0 °C to 2050 °C		Generate: 0.12 °C Measure: 0.18 °C
	Type E	-250 °C to 1000 °C		Generate: 0.09 °C Measure: 0.18 °C

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Electrical Simulation of Thermocouples – Generate ³ and Measure ⁴ continued			Using Multi Product Calibrator (with TC measuring option) as per calibration Procedure Number-LABP-018 (cont'd.)
Type J	-210 °C to 1200 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type K	-250 °C to 1370 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type N	-250 °C to 1250 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type S	0 °C to 1600 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type T	-250 °C to 400 °C	Generate: 0.09 °C Measure: 0.18 °C	
Capacitance – Generate ^{3,5}	0 pF to 225.0 pF (0 Hz to 5 kHz)	0.6 pF	Using Multi Product Calibrator as per Calibration Procedure Number-LABP-018
	0 pF to 300.0 pF (0 Hz to 1 kHz)	0.63 pF	
	0 pF to 1 nF (0 Hz to 1 kHz)	0.81 pF	
	0 pF to 10 nF (0 Hz to 1 kHz)	5.0 pF	
	0 pF to 30 nF (0 Hz to 1 kHz)	15 pF	
	0 pF to 100 nF (0 Hz to 1 kHz)	0.05 nF	
	0 pF to 300 nF (0 Hz to 1 kHz)	0.12 nF	
	0 μF to 3 μF (0 Hz to 100 Hz)	1.5 nF	
	0 μF to 10 μF (0 Hz to 100 Hz)	6.0 nF	
	0 μF to 30 μF (0 Hz to 100 Hz)	0.03 μF	

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Capacitance – Generate ^{3,5} continued	0 µF to 100 µF (0 Hz to 50 Hz)	0.15 µF	Using Multi Product Calibrator as per Calibration Procedure Number-LABP-018
	0 µF to 300 µF (0 Hz to 50 Hz)	0.37 µF	
	0 mF to 3 mF (0 Hz to 6 Hz)	3.6 µF	
	0 mF to 30 mF (0 Hz to 0.6 Hz)	0.05 mF	
	0 mF to 100 mF (0 Hz to 0.2 Hz)	0.12 mF	
Capacitance – Measure ⁴	0.5 nF to 1 nF	0.82 pF	Using Precision Multimeter as per Calibration Procedure Number-LABP-018
	1 nF to 10 nF	0.51 nF	
	10 nF to 100 nF	4.3 pF	
	100 nF to 1 µF	0.42 nF	
	1 µF to 10 µF	0.62 nF	
Chemical/Gas			
pH Meters (Fixed Values)	4 pH 7 pH 10 pH	0.06 pH 0.06 pH 0.06 pH	Using Certified Reference Buffer Solutions as per Calibration Procedure Number-LABP-020
Conductivity Meter (Fixed Values)	100 µS/cm 1417 µS/cm 3900 µS/cm	1.4 % 1.4 % 1.4 %	Using Certified Reference Solutions as per Calibration Procedure Number-LABP-004
Multi Gas Detectors	CH ₄ : 50 %LEL, O ₂ : 20.9 %, H ₂ S: 25 ppm CO: 100 ppm	2.1 %	Using Certified Standard Span Calibration Gases as per Calibration Procedure Number- LABP-017

¹The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

²When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

³Capability is suitable for the calibration of measuring devices in the stated ranges.

⁴Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.

⁵Stated uncertainties are valid for the ranges of frequencies given, but the actual frequency applied by the calibrator may be dependent on the measurement device under calibration.