CERTIFICATE OF ACCREDITATION

This is to attest

ACCURATE MEASUREMENT ESTABLISHMENT

BUILD NO.3037, AS SINAIYAH DIST., UNIT NO 3256, DAMMAM 32443
DAMMAM, 9559, SAUDI ARABIA

Calibration Laboratory CL-276

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.

Expiration Date August 1, 2026
Effective Date November 12, 2025

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SCOPE OF ACCREDITATION

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ACCURATE MEASUREMENT ESTABLISHMENT

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Accredited to ISO/IEC 17025:2017 *Effective Date November 12, 2025*

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Caliper	0 mm to 150 mm 150 mm to 600 mm 600 mm to 1000 mm	7.4 µm 8.4 µm 16 µm	Direct method by using Slip Gauge Set and Length Bar, Caliper checker. ISO 13385-1-2019
External micrometer	0 mm to 25 mm 25 mm to 100 mm 100 mm to 600 mm	0.84 µm 0.86 µm 1.7 µm	Direct method by using Slip Gauge Set and Length Bar. ISO 3611-2023 BS 870-2008
Depth Gauge	0 mm to 600 mm	8.1 µm	Direct method by using Slip Gauge Block, Length Bar and Caliper checker. ISO 13385-2-2020
Depth Micrometer	0 mm to 300 mm	1.3 µm	Direct method by using Slip Gauge Block, Length Bar and Caliper checker. BS 6468-2008
Dial Gauge (Plunger type)	0 mm to 25 mm	1.4 µm	Direct method by using Dial Calibration Tester/Slip Gauge Set. BS 907-2008
	25 mm to 50 mm	1.6 µm	
Dial Gauge (Lever Type)	0 mm to 1 mm	3.0 µm	Direct method using Dial Calibration Tester. ISO 9493-2010
Bore Dial Gauge (Transmission)	0 mm to 2 mm	1.1 µm	Direct method using Dial Calibration Tester. JIS B 7515-1982
Dial Calibration Tester	0 mm to 25 mm	1.3 µm	Direct method using gage blocks and digital indicator.

** 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.*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
			IS 9483-1993
Ultrasonic thickness gauge	0 mm to 100 mm 100 mm to 150 mm	13 µm 79 µm	Direct method using Calibrated thickness blocks. ASTM E797/E797-2021.
Height Gauge	0 mm to 1000 mm	5.1 µm	Direct method using Slip Gauge Block, Length Bar and Caliper checker. ISO 13225-2012 BS 1643-2008
Internal Micrometer	25 mm to 600 mm	7.4 µm	Direct method using Slip Gauge Block, Caliper Checker, Slip gauge Accessories. BS 959-2008
Thickness Gauge	0 mm to 50 mm	0.74 µm	Direct method using Slip Gauge Block.
Thickness Foil	0.01 mm to 2 mm	1.3 µm	Direct method using Micrometer.
Coating thickness gauge	0 µm to 1500 µm	2.0 µm	Direct method using Thickness Foils.
Feeler Gauge	Up to 2 mm	1.3 µm	Direct method using Micrometer. BS 957-2008
Surface Plate	2500 mm x 2500 mm	1.5 x √ {(L +W)/100} µm where L is length in mm and W is width in mm	Direct method by using Plunger Dial and Bridge Level. BS 817-2008
Steel scale	0 mm to 1000 mm	0.28 mm	Direct method by using Tape & Scale Calibrator. OIML-R 35-1-2007.
Measuring Tape	0 mm to 5000 mm	0.42 mm	
Pie Tape	0 mm to 3000 mm	0.28 mm	
Setting rod	25 mm to 600 mm	2.1 µm	Comparison Method by using. Plunger, Slip Gauge and Length Bar. BS 870-2008
LVDT Probe with indicator	Up to 100 mm	1.4 µm	Direct method by using Slip Gauge Set.
Test sieves	4 mm to 100 mm	18 µm	Direct Method by using Vernier Caliper. ISO 3310-1-2016
Profile projector	Up to 200 mm (X&Y) direction Angular 0º to 360º	3.8 µm 0.018º	Direct method by using Glass Scale, Angle gauge, Slip Gauge and Vernier Caliper. JIS B 7184-2021

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
	Magnification (100x)	0.03 %	
Microscope	0 mm to 10 mm	2.6 µm	Direct method by using Glass Scale. ASTM E1951-14
Combination Set/ Bevel Protector	0º to 180º	0.04º	Direct method using Angle Gauge. BS 1685-2008
Templates (Flakiness & Elongation)	Up to 63 mm	18 µm	Direct method using Digital Vernier Caliper. IS 2386-1-1963
Cube Mould	200 mm x 200 mm	19 µm	Direct method using Digital Vernier Caliper.
Length measuring machine	0 mm to 100 mm 100 mm to 500 mm 500 mm to 1000 mm	1.4 µm 9.2 µm 11 µm	Direct method using Slip gauge set, Length Bar.
Mechanical			
Pressure indicating devices-(Pressure Gauge/ Pressure Transmitter/ Pressure Transducer/ Pressure Chart Recorder)	0 bar to 200 bar 200 bar to 700 bar 700 bar to 2800 bar	0.083 bar 0.73 bar 1.2 bar	Comparison Method by using reference Pressure Gauge. DKD-R6-1
Barometer	300 hPa – 1100 hPa	3.60 hPa	Comparison Method by using reference Pressure Gauge. DKD-R6-1
Vacuum Gauge	-0.95 bar to 0 bar	0.009 bar	Comparison Method by using reference Pressure Gauge. DKD-R6-1
Weighing Balance	Up to 50 g 50 g to 220 g 220 g to 6200 g 6.2 kg to 36 kg 36 kg to 150 kg 150 kg to 500 kg	0.06 mg 0.45 mg 0.094 g 0.32 g 20 g 31 g	Direct Method by using Standard Weights (Class E2, F1, M1). OIML R-76
Batching & Hooper Scale	20 kg to 500 kg 500 kg to 5000 kg	0.84 kg 1.2 kg	Substitution method by using M1 class standard weights.
Mass (Standard Weight) Class F2	1 mg 2 mg 5 mg 10 mg	0.011 mg 0.009 mg 0.009 mg 0.009 mg	Comparison Method (ABBA), by using E2 Class reference weights and weighing balance. OIML R-111-1

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Mass (Standard Weight) Class F1	20 mg 50 mg 100 mg 200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g	0.009 mg 0.013 mg 0.009 mg 0.009 mg 0.009 mg 0.01 mg 0.01 mg 0.02 mg 0.03 mg 0.03 mg 0.05 mg 0.09 mg 0.11 mg	Comparison Method (ABBA), by using E2 Class reference weights and weighing balance. OIML R-111-1
Mass (Standard Weight) Class M1	500 g 1 kg 2 kg	9 mg 10 mg 24 mg	Comparison Method (ABBA), using F1 Class reference weights and weighing balance. OIML R-111-1
Micro-Pipette	10 µL to 100 µL 100 µL to 1000 µL	0.9 µL 0.64 µL	Direct method by using Weighing Balance & Distilled water. Direct method by using Weighing Balance & Distilled water. ISO 8655-6:2022 ISO 8655-2:2022, ISO 4787-2:2021
Volumetric Measurement (single mark glass ware, burettes, cylinders, beakers, flasks)	1 mL to 100 mL 100 mL to 1000 mL	0.04 mL 0.05 mL	
Torque Screwdriver/ Torque Wrench	0.5 N·m to 1 N·m 1 N·m to 5 N·m 5 N·m to 20 N m	1.1 % 0.63 % 0.44 %	Direct method by using Rotary Screwdriver Calibrator. ISO 6789 Part-01 & 02/2017
Torque Wrench	10 N·m to 100 N·m 100 N·m Up to 500 N·m 500 N·m to 2000 N·m	0.38 % 0.52 % 0.31 %	Direct method by using Torque Wrench Calibrator. ISO 6789 Part-01 & 02/2017
Universal Testing Machine/ Compression Testing Machine (compression mode) (Compression mode)	1 kN to 4 kN 4 kN to 100 kN 100 kN to 1000 kN	6.3 % 1.7 % 1.8 %	Direct method by using Load cell with indicator. ISO 7500-1:2018
Universal Testing Machine/ Tensile Testing Machine (Tension Mode)	1 kN to 100 kN	0.4 %	Direct method by using Load cell with indicator.
Sound level meter @ 1 KHz	94 dB, 114 dB	0.82 dB	Direct method by using with sound level calibrator AME-CP – S-01

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Thermal			
Infrared Thermometer	50 ºC to 500 ºC	3.3 °C	Direct method by using IR Calibrator
Humidity/Temperature meter, RH sensor with indicator/Data logger, Thermo-hygro meter	20 %RH to 90 %RH @ 25 ºC	3 %RH	Direct method by using Temperature & Humidity Chamber. AME/CEP/T/06
	10 ºC to 45 ºC @ 50 %RH	0.27 °C	
Temperature sensors (with / without indicator), Thermometer	-20 ºC to 600 ºC	0.71 °C	By Comparison method using reference SSPRT with Indicator and Liquid Bath/ Dry block.
Liquid in Glass Thermometer	-20 ºC to 250 ºC	0.71 °C	By Comparison method using reference SSPRT with Indicator and Liquid Bath/ Dry block. AME/CEP/T/01
Dry Block, Liquid Bath, Furnace, Oven, Incubator, Autoclave, Deep Freezer, Chiller (Single Sensor Method)	-20 ºC to 20 ºC 20 ºC to 90 ºC 90 ºC to 600 ºC 600 ºC to 1200 ºC	0.28 °C 0.73 °C 1.7 °C 2.7 °C	By Direct Method Using Temperature sensor with indicator. MSL Technical Guide - 42
Furnace, Oven, Incubator, Autoclave, Deep Freezer, Chiller (Mapping – Multi Sensor Method)	-20 ºC to 20 ºC 20 ºC to 300 ºC 300 ºC to 800 ºC	1.3 °C 1.6 °C 9.8 °C	By Direct Method Using Temperature sensors with Data logger (9 sensors – Mapping method)
Electrical – DC/LF			
DC Voltage- Generate[3]	10 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1 kV	0.02 % 0.02 % 0.01 % 0.01 % 0.01 %	By direct method using Multi-Function Calibrator EURAMET CG-15
AC Voltage- Generate[3]	20 mV to 100 mV (10 Hz to 20 kHz) 100 mV to 1 V (10 Hz to 20 kHz) 1 V to 10 V (10 Hz to 20 kHz) 10 V to 100 V (40 Hz to 1 kHz)	0.14 mV 0.001 V 0.015 V 0.15 V	

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
	100 V to 1 kV (40 Hz to 1 kHz)	1.5 V	
DC current – Generate[3]	10 µA to 100 µA 100 µA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 10 A	0.04 % 0.04 % 0.04 % 0.04 % 0.05 % 0.08 %	
DC Current- Generate[3] (2 turn Coil)	10 A to 20 A	0.24 A	By Direct method using Multi-Function Calibrator & Clamp meter Adaptor EURAMET CG-15
DC Current- Generate[3] (10 turn Coil)	10 A to 100 A	0.88 A	
DC Current- Generate[3] (50 turn Coil)	10 A to 500 A	3.4 A	
AC Current- Generate[3]	10 µA to 100 µA (10 Hz to 2 kHz) 100 µA to 1 mA (10 Hz to 2 kHz) 1 mA to 10 mA (10 Hz to 2 kHz) 10 mA to 100 mA (10 Hz to 2 kHz) 100 mA to 1 A (10 Hz to 2 kHz) 1 A to 10 A (10 Hz to 2 kHz)	0.58 µA 0.007 mA 0.023 mA 0.23 mA 0.018 A 0.029 A	By Direct method using Multi-Function Calibrator. EURAMET CG-15
AC Current-Generate[3] (2 turn Coil)	10 A to 20 A @ 50 Hz	0.26 A	By Direct method using Multi-Function Calibrator & Clamp meter Adaptor. EURAMET CG-15
AC Current (10 turn Coil)	10 A to 100 A @ 50 Hz	0.89 A	
AC Current (50 turn Coil)	10 A to 500 A @ 50 Hz	3.4 A	
Resistance- Generate[3]	1 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 10 MΩ	0.005 Ω 0.04 Ω 0.014 Ω 0.004 kΩ 0.04 kΩ 0.001 MΩ 0.008 MΩ	By Direct method using Multi-Function Calibrator. EURAMET CG-15

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Capacitance – Generate @ 1 kHz	10 nF 100 nF 1 µF	5.7 % 0.71 % 0.8 %	By Direct method using Multi-Function Calibrator. EURAMET CG-15
Insulation Test @ 100 V	250 kΩ to 100 MΩ	1.1 %	
Insulation Test @ 250 V	250 kΩ to 250 MΩ	1.1 %	
Insulation Test @ 500 V	500 kΩ to 500 MΩ	1.1 %	
Insulation Test @ 1000 V	1 MΩ to 1 GΩ	0.61 %	
Electrical Simulation of Thermocouples-Generate[3] Type K Type J Type T Type R Type S Type N Type B Type E Electrical Simulation RTD-Pt 100 Generate	 -200 ºC to 1370 ºC -200 ºC to 1200 ºC -250 ºC to 400 ºC 0 ºC to 1750 ºC 0 ºC to 1750 ºC -200 ºC to 1300 ºC 450 ºC to 1800 ºC -200 ºC to 1000 ºC -200 ºC to -100 ºC -100 ºC to 800 ºC	 0.58 °C 0.44 °C 0.27 °C 0.88 °C 0.79 °C 0.43 °C 0.71 °C 0.43 °C 0.86 °C 0.6 °C	Direct method using Multi - Function Calibrator & Hand-held Multi-Function Calibrator. EURAMET CG-11
DC Voltage-Measure[4]	100 mV to 1 V 1 V to 100 V 100 V to 1000 V	0.23 % 0.23 % 0.18 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
AC Voltage-Measure[4] @ 50 Hz	100 mV to 1 V 1 V to 100 V 100 V to 750 V	0.52 % 0.2 % 0.13 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
DC Current-Measure[4]	200 µA to 1 mA 1 mA to 1 A 1 A to 10 A	0.35 % 0.36 % 0.39 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
AC Current-Measure[4] @ 50 Hz	100 µA to 1 mA 1 mA to 1 A 1 A to 10 A	1.5 % 0.57 % 0.47 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
Resistance-Measure[4]	1 Ω to 100Ω 100 Ω to 1kΩ, 1KΩ to 1 MΩ, 1 MΩ to 10 MΩ, 10 MΩ to 100 MΩ	0.14% 0.24% 0.23% 0.40% 0.40%	Direct method by using 6½ digit Multimeter AME – CP – ET -01

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Capacitance Measure[4]	1 nF to 100 nF, 1 µF to 30 µF	1.9 % 1.6 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
Frequency Measure[4]	10 Hz to 1 kHz 1 kHz to 100 kHz	0.58 % 0.09 %	Direct method by using 6½ digit Multimeter AME – CP – ET -01
Thermocouples-Measure Type E Type J Type K Type T Type B Type R Type S Type N	 -200 ºC to 1000 ºC -200 ºC to 1200 ºC -200 ºC to 1370 ºC -200 ºC to 400 ºC 450 ºC to 1800 ºC 0 ºC to 1750 ºC 0 ºC to 1750 ºC -200 ºC to 1200 ºC	 0.43 °C 0.45 °C 0.59 °C 0.45 °C 0.84 °C 0.88 °C 0.82 °C 0.48 °C	By Direct Method using Hand-held Multi-function Calibrator. EURAMET CG-11
Frequency (Generate)[3]	10 Hz to 100 Hz 100 Hz to 5 kHz 5 kHz to 10 kHz 10 kHz to 100 kHz	1 Hz 1 % 0.02 % 0.0025 %	
RTD – Measure[4] (Pt 100) Electrical Simulation	-200 °C to 600 °C	0.49 °C	Direct method by using 6 ½ digit Multimeter AME – CP – ET -01 Euramet CG -11
Time and Frequency			
Timer LC (Least Count) :10 msec	0 min to 1800 s 1800 s to 18000 s	1.2 s 50 s	By Comparison method using Digital stopwatch.
Centrifuge/ RPM Source (Non-Contact)	10 rpm to 1000 rpm 1000 rpm to 10000 rpm 10000 rpm to 50000 rpm 50000 rpm to 90000 rpm	2.6 rpm 10 rpm 38 rpm 59 rpm	Direct method by using Digital Tachometer.

[1]The 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.

[2]When 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.

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

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