CERTIFICATE OF ACCREDITATION

This is to attest that

UNIVERSAL INSPECTION CO. W.L.L

BUILDING NO. 44, UNIT NO. A2, ZONE: 56, STREET NO. 205, AIN KHALID STREET, SALWA ROAD
DOHA 80188, QATAR

Calibration Laboratory CL-216

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 April 30, 2024

Expiration Date January 1, 2025

President

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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UNIVERSAL INSPECTION CO. W.L.L

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Accredited to ISO/IEC 17025:2017 *Effective Date April 30, 2024*

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Caliper (Digital, Dial, Vernier)	0 mm to 300 mm	11 µm	Caliper Checker & Length Bar based on JIS B 7507 (UIC/P/DVC)
Height Gauge (Digital, Dial, Vernier)	0 mm to 300 mm	11 µm	Caliper Checker & Length Bar based on JIS B 7517(UIC/P/DHG)
Micrometer	0 mm to 100 mm	1.9 µm	Gauge Blocks & Length Bars based on BS 870 (UIC/P/DMM)
Dial Indicator (Plunger)	0 mm to 25 mm	5.9 µm	Dial Gauge Calibrator based on JIS B 7503 (UIC/P/DDG)
Thread Plug Gauge	1 mm to 100 mm	2.1 µm	Using ULM based on ASME B1.2
Thread Ring Gauge	4 mm to 100 mm	2.1 µm	Using ULM based on ASME B1.2
Plain Plug Gauge	1 mm to 100 mm	2.1 µm	Using ULM based on ASME B47.1
Plain Ring Gauge	4 mm to 100 mm	2.1 µm	Using ULM based on ASME B47.1
Coating Thickness Gauge	25 µm to 1600 µm	1.2 µm	Using Standard foils – Direct Method
Mechanical			
Hydraulic Pressure Gauge	6 bar to 60 bar 60 bar to 1200 bar	0.22 bar 0.84 bar	Dead Weight Tester (Dual Piston Type) based on DKD R 6-1 (UIC/P/PPGD)

** 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)
Pneumatic Pressure Gauge	0 bar to 60 bar	0.04 bar	Test Gauge by comparison method based on DKD R 6-1 (UIC/P/PPGD)
Vacuum Gauge	-0.85 bar to 0 bar	0.04 bar	Pressure Calibrator based on ISO 3567 (UIC/P/PPVG)
Weighing Balance	1 mg to 200 g 200 g to 5000 g	0.16 mg 70 mg	E2 Class Weights based on OIML R-76 (UIC/P/MWB)
Torque Wrench	100 N·m to1000 N·m	5 N·m	Torque Wrench Calibrator based on ISO 6789 (UIC/P/MTW)
Sound Level Meter @ 1 kHz (Fixed value)	94 dB & 114 dB	0.27 dB	Sound Level Calibrator based on ANSI S1.4 (UIC/P/ESLM)
Thermal			
RTD / Thermocouple	-20 °C to 100 °C 100 °C to 600 °C 600 °C to 1200 °C	0.82 °C 1.9 °C 3.4 °C	PRT with temp calibrator and Temperature Bath/ Dry block based on IEC 60751 & IEC 60584 (UIC/P/TTE) / (UIC/P/TTH)
Temperature Bath	-10 °C to 600 °C 600 °C to 1200 °C	1.9 °C 3.4 °C	SSPRT with DMM based on ASTM E145 (UIC/P/TTB)
Electrical – DC/LF			
DC Voltage Generate[3]	1 mV to 20 mV 20 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 240 V 240 V to 1000 V	0.09 mV 0.11 mV 0.03 V 0.03 V 0.03 V 0.27 V	Multifunction Calibrator based on Euramet CG-15 (UIC/P/EDMM)
AC Voltage Generate[3] @ 50 Hz	5 mV to 20 mV 20 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 240 V 240 V to 1000 V	0.64 mV 0.64 mV 30 mV 40 mV 0.65 V 1.1 V	Multifunction Calibrator based on Euramet CG-15 (UIC/P/EDMM)
DC Current Generate[3]	10 µA to 200 µA 200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 10 A	0.14 µA 0.03 mA 0.03 mA 0.06 mA 0.08 A	Multifunction Calibrator based on Euramet CG-15 (UIC/P/EDMM)

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
AC Current Generate[3] @ 50 Hz	200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 10 A	0.03 mA 0.11 mA 0.13 mA 0.09 A	Multifunction Calibrator based on Euramet CG-15 (UIC/P/EDMM)
DC Resistance Generate[3]	100 Ω to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 50 MΩ	1 Ω 30 Ω 90 Ω 0.03 MΩ 0.3 MΩ	Multifunction Calibrator based on Euramet CG-15 (UIC/P/EDMM)
Temperature Simulation of K-Type Thermocouple - Generate	-200 °C to 1200 °C	0.98 °C	Using Temperature Calibrator based on Euramet CG-11 (UIC/P/TTH)
DC Voltage Measure[4]	10 mV to 100 mV 100 mV to 1V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	0.2 mV 2 mV 0.19 V 2.1 V 9.4 V	Digital Multi Multimeter, based on Euramet CG-15 (UIC/P/EVARS)
AC Voltage Measure[4] @ 50 Hz	5 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	0.48 mV 2.1 mV 0.34 V 1.9 V 9.4 V	Digital Multi Multimeter, based on Euramet CG-15, (UIC/P/EVARS)
DC Current Measure[4]	10 µA to 100 µA 100 µA to 1 mA 1 mA to 10 mA 10 mA to 400 mA 400 mA to 1 A 1 A to 10 A	0.1 µA 6 µA 63 µA 1.9 mA 0.08 A 0.12 A	Digital Multimeter, based on Euramet CG-15 (UIC/P/EVARS)
AC Current Measure[4] @ 50 Hz	30 µA to 100 µA 100 µA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 400 mA 400 mA to 1 A 1 A to 2 A 3 A to 10 A	0.43 µA 46 µA 47 µA 1.9 mA 1.9 mA 0.08 A 0.08 A 0.12 A	Digital Multimeter, based on Euramet CG-15 (UIC/P/EVARS)
DC Resistance Measure[4]	100 Ω to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 50 MΩ	30 Ω 100 Ω 1.9 kΩ 30 kΩ 0.55 MΩ	Digital Multimeter, based on Euramet CG-15 (UIC/P/EVARS)

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Holiday Detector / High Voltage Sourcing Equipment	1 kV to 15 kV (DC)	3%	By using AC/DC High Voltage Probe & High Voltage Divider based on Procedure - NACE RP0188-99/ ASTM D 5162 & (UIC/P/EHD)
Time and Frequency			
Tachometer (Non-Contact Type)	12 rpm to 600 rpm 600 rpm to 12000 rpm	3 rpm 6.4 rpm	Tachometer Calibrator based on ASTM F2046 (UIC/P/MTM)
Tachometer (Contact Type)	10 rpm to 1000 rpm 1000 rpm to 12000 rpm	2 rpm 4.6 rpm	Tachometer Calibrator based on ASTM F2046 (UIC/P/MTM)
Chemical and Gas			
Multi Gas Detectors	O_2 18% CH_4 % LEL 50% CO 100 ppm H_2S 25 ppm	2.4% 2.7% 2.4% 2.4%	Using Standard Reference Multi Gas- Direct Method BS EN60079-29-2

[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.

Note:
LEL=Lower Explosive Limit