

CERTIFICATE OF ACCREDITATION

This is to attest

ELECTRO-MECHANICAL INSTITUTE (HOUSING & BUILDING NATIONAL RESEARCH CENTER)

87 EL-TAHRIR STREET DOKKI, GIZA, EGYPT

Calibration Laboratory CL-148

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 November 14, 2024



International Accreditation Service Issued under the authority of IAS management

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

ELECTRO-MECHANICAL INSTITUTE (HOUSING & BUILDING NATIONAL RESEARCH CENTER)

http://hbrc.edu.eg

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Mohamed

Accredited to ISO/IEC 17025:2017

Effective Date November 14, 2024

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Vernier Caliper ³	0 mm to 150 mm	11 µm	BS 887 Gauge Block Set, Grade 1
Mechanical			
Pressure Gauge ³	0 bar to 20 bar 20 bar to 600 bar	0.12 bar 3.6 bar	DKD R 6-1 Comparison with Master Pressure Gauge
Universal Compression Machines ⁴	5 kN to 50 kN 200 kN to 1000 kN	0.3% 0.61%	ASTM E74 & ASTM E04 MATEST Load Cell & Digital Indicator
Tensile Machine⁴	2 ton to 5 ton	0.61 %	ASTM E74 & ASTM E04 Load Cell & Digital Indicator
Scales / Balances ⁴	0 g to 200 g 0 kg to 1 kg 0 kg to 5 kg 0 kg to 100 kg 100 kg to 200 kg	0.4 mg 1.2 mg 1.4 g 11 g 37 g	OIML R76 'F' Class & 'E2' Class Weights
Thermal			
Thermocouples ³ J Type K Type T Type Oven/Furnaces ⁴	150 °C to 600 °C 150 °C to 600 °C 150 °C to 400 °C 0 °C to 450 °C	2.2 °C 2.2 °C 2.2 °C 1.9 °C	ASTM E220 Dry Block Calibrator FLUKE 9150
Oven/Fulliaces	0 0 10 450 0	1.9 C	ITS 90Thermocouple

^{*} 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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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.

3Only at Lab

⁴Only at Site

