



Annex (1)

Updated on: 28/10/2024

To the Accreditation Certificate No. **JAS Cal. - 003** Dated **04-12-2021**

For Calibration Laboratory at the Arab Center for Engineering Studies / Amman

Scope of Accreditation

Calibration of Thermometers, Non-automatic Balances, Force and Caliper

Measurand	Measuring Range	Calibration and measurement Capability (CMC) a	Calibration Methods/ Standards/ Remarks
Temperature (Calibration Location: Permanent)			
Temperature Resistance Thermometers with Direct Reading Devices & data loggers with external sensors	(-25 to 400) °C	0.4 °C	In House Calibration Method WI-049, rev.(4), dated on: 01/06/2024
	(> 400 to 660) °C	0.5 °C	
Temperature (Calibration Location: Permanent)			
Temperature Thermocouple Devices & Data loggers with external sensors	(-25 to 150) °C	0.6 °C	In House Calibration Method WI-049, rev.(4), dated on: 01/06/2024
	(> 150 to 400) °C	0.7 °C	
	(>400 to 660) °C	5 °C	
Mass (Calibration Location: On-Site)			
Non-automatic weighing instruments *	1 g to 100 g	0.90 mg	WI-012, rev.(4), dated on: 01/06/2024, according to EURAMET_cg-18, using calibrated reference weight Class F2
	> 100 g to 600 g	1.7 mg	
	> 600 g to 2100 g	6.3 mg	
	> 2100 g to 6100 g	11 mg	
	> 6.1 kg to 11.1 kg	37 mg	
	>11.1 kg to 21 kg	61 mg	
> 21 kg to 31 kg	0.12 g		
Force (Calibration Location: On-Site)			
Force machines In compression mode (Class I, II, & III)	(10 to 100) kN	0.35 % * Fi	WI-014, rev. (3) dated on: 01/06/2024, according to ISO 7500-1:2018
	(200 to 2000) kN	0.5 % * Fi	
Dimensions Measurement devices (Calibration Location: Permanent)			
Vernier Caliper for external, internal, & depth measurements (Including digital & dial Indicators)	(0 to 500) mm	$60 \mu\text{m} + 30 * 10^{-6} * L$	In House Calibration Method WI-046, rev. (3), dated on: 25/08/2020 L: is measured Length (m)

* Precision Balances to be calibrated only at customer's site

a) The reported CMCs are expressed at approximately the 95 % level of confidence, using a coverage factor of k = 2.

The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.



THE HASHEMITE KINGDOM OF JORDAN
Accreditation Unit



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List of employees in the laboratory who are technically responsible for issuing the calibration certificates in the scope of accreditation:

- 1. Eng. Jamela Al-Nsour : Director of Materials & Calibration**
- 2. Eng. Safa'a Alnfee: Deputy of the Director of Materials & Calibration**
- 3. Eng. Hamzeh Al-Gazzawi: Materials & calibration Engineer**