

Calibration Certificate of Test Weights

Unique Lab Report No : CC321324000000664F **Certificate No** : PL-664
Page No : 1 of 2 **Certificate Issue Date** : December 25, 2024
Calibration Date : December 25, 2024 **Calibration Valid Upto** : December 25, 2026

Customer Details : PRECIMASS LLP
 34, Pelican Estate, Road No 5, Kathwada GIDC, Kathwada
 Ahmedabad - 382430, GUJARAT, India

Important Remarks :

- The reference mass standards used are metrologically traceable to the SI Unites through laboratories accredited by an accreditation body subject to the ILAC Arrangement or through National/International Standards. The calibration conducted adheres to the criteria outlined in the latest revisions of NABL 129, OIML R-111, and OIML D-28.
- Precimass LLP has refrained from making any adjustments or repairs to the test instruments before their calibration. the certificate depicts the results exactly as they were received and observed during the time of calibration under the stated environmental conditions for items submitted to the laboratory.
- The calibration certificate issued for test weights / mass standards used for scientific or industrial purpose only.
- The calibration certificate shall not be reproduced except in full, without the written approval of Precimass LLP.
- Moc and Density of reference weights is austentic stainless steel(8000 ± 20)kg/m³ as stated in traceability certificate.
- Certificate Validity / Calibration validity is given based on customer demand.

Master Equipments Used for Calibration :

Equipment ID	Mass standards	Accuracy Class	Traceability (Accreditation No)	Certificates valid upto	Mass Comparators / Balances used
NC-EQP-022	1 mg to 10 kg	E1 Class	148523 (D-K-15192-01-00)	06-02-2026	64 kg X 2 mg
NC-EQP-023	20 kg	E1 Class	148524 (D-K-15192-01-00)	06-02-2026	
NC-EQP-001	1 mg to 20 kg	E1 Class	NC-513 (CC-3213)	29-09-2025	

- Calibration Procedure : NC-SOP-001, Substitution Method (ABBA - 5 Cycles)

Environmental Conditions :

- Environmental conditions mentioned in the certificate was observed during the calibration(s).
 Temperature change is limited to : ± 0.3 °C per hour with a maximum of ± 0.5 °C per 12 hours
 Relative Humidity change is limited to : 40 % to 60 % with a maximum of ± 5 % per 4 hours

	At Start	At End	Uncertainty	Unit
Temperature	23	23.2	0.69	°C
Pressure	1005.6	1005.2	0.52	mbar
Humidity	48.6	45.9	1.68	% Rh



Approved by:
 Mr. Naitik Patel
 Quality Manager



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 Page No : 2 of 2 Certificate Issue Date : December 25, 2024

Instruments Details : Assorted Calibration Weights

Accuracy Class : E1 Class MOC Test Weight : Austenitic Stainless Steel
 Date of Receipt : December 17, 2024 Location of Instrument : Laboratory
 Inward Reference No : JO - 664 Stabilization Time : 185 hours
 Condition of Instrument : Excellent Calibration Location : Inside Calibration Laboratory
 Shape of Weights : Cylindrical Shape Weights with Ring Type Handle

Make	Model	Capacity	Serial No.	Instrument ID No.	Marking	Material Density (g/cm ³)	Uncertainty of Material Density (g/cm ³)
NSTAR	NC-50K-E1-ASS	50 kg	001	NC-EQP-003		7.98	0.05

* Results of calibration *

Capacity	Serial No.	Instrument ID No.	Conventional Mass Value (g)	Maximum Permissible Error (MPE) (± g)	Expanded Uncertainty (U) (± g)
50 kg	001	NC-EQP-003	50000.005	0.025000	0.0076

Statement of conformity / Report :

- Conventional Mass values of all the weights stated above are within the MPE(s) of OIML E1 Class as per OIML R-111.
- The reported uncertainty is at coverage factor k=2 which corresponds to a coverage probability of approximately 95% for a normal distribution. The contribution of uncertainty originating from the mass standards and balances used, the weighing process and the air buoyancy correction are taken into account.
- The reported Expanded Uncertainty (U) for the defined nominal mass(es) is 1/3rd to the MPE for OIML E1 Class.

Document No : NC-FMT-EXE-04 Issue No : 2 Issue Date : 01-12-2022 Revision No : 2 Revision Date : 01-07-2024

