NSTAR
Metrology Department

CC-3213

Calibration Certificate of Weighing Balance

ULR No	:	CC321321000000469F	**Certificate Issue Date**	:	October 16, 2021
Page No.	:	1 of 2	**Calibration Due Date**	:	October 15, 2022
Certificate No	:	NC-469			
Customer Name	:	**NSTAR Corp** **34, Pelican Estate** **Road No 5** **Kathwada GIDC, Kathwada** **Ahmedabad - 382430**			

Instrument Detail : **Eletronic Weighing Balance**

Make	:	SHIMADZU	**Capacity**	:	1020 g
Model	:	UW1020H	**Least Count**	:	0.001 g
Serial Number	:	D482860644	**Instrument Location**	:	At Laboratory
Equipment ID	:	ML/DWB/007	**Class**	:	I
Avg. Pressure	:	==	**Stabilization Time (hrs)**	:	1 hr
Avg. Humidity	:	==	**Avg. Temperature**	:	==
Calibration Date	:	October 16, 2021			

References Standards / Masters Used with Traceability

Sr.No	Denominations	Class	Certified by	Certificate Number	Calibration Validity
1	1 mg to 500 mg	E1	Zwiebel, France	Z20 27234	26-08-2023
2	1 g to 5 kg	E1	Zwiebel, France	Z20 27233	26-08-2023
3					

Important Remarks :

01 This certificate is issued for the items submitted to and calibrated by NSTAR Corp Metrology Department.

02 Balance location is mentioned in the certificate. Moving the balance after calibration shall be avoided otherwise calibration certificate shall not be accepted as evidence of traceability.

03 Thermal stabilization for 1 hr of reference weights have been done before performing calibrations.

04 The calibration certificate issued for weighing balances used for scientific or industrial purpose only.

05 The weighing balances calibrated for this certificate have been calibrated in accordance with current laboratory procedure NC-SOP-002. The calibration performed meets the criteria as described in the current revisions of NABL 129 and OIML R-76 and ISO/IEC 17025 : 2017.

06 Certificate will not be reproduced without written approval of NSTAR Corp. Any corrections, will leads to issue of amended calibration certificate.

07 The reported uncertainty is at converage 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 and the weighing process are taken into account.

NSTAR CORP Authorised Signatory INDIA

Approved By:
Mr. Naitik Patel

Calibration Certificate of Weighing Balance

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1. Linearity Test Results

Sr.No	Denominations	Mass Values of referene weights (g)	Observed Average Mass Value (g)	Error (g)	Expanded Uncertainty at k=2 (g)	Overall Uncertainty (g)
1	20 mg	0.020	0.020	0.000	0.000 676	0.002 539
2	500 mg	0.500	0.500	0.000	0.000 676	
3	1 g	1.000	1.000	0.000	0.000 676	
4	2 g	2.000	2.000	0.000	0.000 676	
5	5 g	5.000	5.000	0.000	0.000 676	
6	10 g	10.000	10.000	0.000	0.000 676	
7	20 g	20.000	20.000	0.000	0.000 676	
8	50 g	50.000	50.000	0.000	0.000 676	
9	100 g	100.000	100.000	0.000	0.000 676	
10	200 g	200.000	200.000	0.000	0.000 677	
11	500 g	500.000	500.000	0.000	0.000 681	
12	1000 g	1000.000	999.999	-0.001	0.000 695	

2. Corner Test / Eccentricity Test Results

Location	Centre	North	East	South	West
Single Test Weight	500.000	500.000	500.001	500.000	500.001
500 g	500.000	500.001	500.001	500.000	500.001
	500.000				
Average	500.000	500.001	500.001	500.000	500.001
Eccentric Error		-0.000 5	-0.001 0		-0.001 0

3. Repeatability Test Results

At Half Load	500.000	500.000	500.001	500.000	500.001
500 g	500.000	500.001	500.001	500.000	500.001
At Full Load	1000.000	999.999	1000.000	999.999	999.999
1 kg	1000.000	999.999	999.999	999.999	999.999

4. Hysteresis Test - Not Applicable

This test is required to be carried out only if the balance is calibrated for the first time or after a major repair.	P1	P2	P3	P4
	Q1	Q2	Q3	Q4
~~Applicable~~ / Not Applicable				
	Hysteresis Error			

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