



# ACCURATE TESTING & CALIBRATION SERVICES

(Solutions For All)

P. No. 111, K. No. 604, First Floor, Shyam Vihar, Part-II, Z-Block, Najafgarh, New Delhi-110043

E-mail : testingcalibrations@gmail.com | Web : www accuratetestingcalibrations.com

M.: 9560785835, 7404479115, 8929915491



CC-3376

F. No.:ATCS/QPM-32F REV.(01)26-02-2022

## CALIBRATION CERTIFICATE

Page 1 of 1

<b>ULR No. : CC337623000000162F</b>	<b>Certificate No.</b>	: ATCS23000000162
<b>CUSTOMER NAME &amp; ADDRESS:-</b>	<b>Service Request No.&amp;Date</b>	: 0074 & 17-02-2023
<b>M/s. H.S. Pathology Pvt. Ltd.</b>	<b>Date of Receipt</b>	: 17-02-2023
<b>1st Floor, Above Sri Guru Ram Dass Preparatory</b>	<b>Date of Calibration</b>	: 20-02-2023
<b>School Building, Sector- 19, Chandigarh - 160019</b>	<b>Sug. Cal. Due Date</b>	: 20-08-2023
	<b>Issue Date</b>	: 20-02-2023

### ITEM'S DESCRIPTION & IDENTIFICATION

<b>Instrument Name</b> : Micropipette	<b>Range / Size</b>	: 0 to 200 µl
<b>Make</b> : Mispaw-i2	<b>Least Count</b>	: 1 µl
<b>Model No.</b> : -----	<b>Visual Inspection</b>	: Ok
<b>Serial No.</b> : NA0001162	<b>Location</b>	: -----
<b>Assets ID</b> : -----		

<b>ENVIRONMENTAL CONDITIONS</b>	<b>Calibration Procedure</b>	: ATCS/CP/M-24
<b>Temperature</b> : (22 ± 2)°C	<b>Reference Standard</b>	: ISO: 8655-6
<b>Relative Humidity</b> : (50 ± 15)%	<b>Calibration Performed at</b>	: Lab

STANDARD EQUIPMENT USED			
Standard Instrument Name	Serial/Ident. No.	ULR/ Certificate No.	Valid upto
E2 Class Weight (1 mg to 200 g)	ATCS/STD/E2/SW-01	WMCL/E/2021-09/ 1452	01-09-2023
Digital Weighing Balance (Up to 220 g)	ATCS/M/DWB-01	AMC/00002066	13-09-2023

CALIBRATION RESULT				
Nominal Value (UUC)	AVG. Standard Value (Master)	(±) Error	(±)Uncertainty	
(µl)	(µl)	(µl)	(µl)	
50	50.09	-0.09		
100	100.12	-0.12	1.36	
200	200.11	-0.11		

- NOTE :**
- DUC = Device Under Calibration, UUC=Unit Under Calibration
  - Expanded uncertainty of measurement at approx 95% confidence level for coverage factor (k) = 2
  - Suggested next due date of calibration is given as requested by customer.
  - DUC has been calibrated against lab standards are traceable to national & international standards.
  - This result of calibration refer to only to the particular item submitted for calibration.
  - Certificate issued is only scientific or industrial purposes only.
  - The result produced in this certificate are valid under the stated conditions at the time of calibration.
  - No report should be reproduced, except in full, unless a written permission for the publication of an approved abstract has been obtained from the CEO, Accurate Testing & Calibration Services, New Delhi.

Issued & Authorised By

Deepak  
Deepak Kumar  
(Calibrated By)



Harshik  
Harshikesh Kumar  
(TM / QH)



# Acumen Measurements & Consultancy Pvt. Ltd.

## (Calibration Division)

D-10/6, First Floor, Okhla Industrial Area, Phase-1, New Delhi - 110020  
 Ph.: 011-42701221, 42701222, 42701223 Mobile: 8585965526, 9350380535  
 E: info@acumendelhi.com, calibration@acumendelhi.com W: www.acumendelhi.com



CC-2364

### CALIBRATION CERTIFICATE

Format No.: 7.8F-01

Page 1 of 1

ULR No. : CC236422000002066F	Certificate No. : AMC/00002066
CUSTOMER NAME & ADDRESS:- M/s. Accurate Testing & Calibration Services P.No. 111, K. No. 604, First Floor, Shyam Vihar, Part - II, Z - Block, Najafgarh, New Delhi - 110043	Service Request No. & Date : 220370 & 14-09-22
	Date of Calibration : 14-09-2022
	Sug. Cal. Due Date : 13-09-2023
	Issue Date : 20-09-2022

#### ITEM'S DESCRIPTION & IDENTIFICATION

Instrument Name : DIGITAL WEIGHING BALANCE	Range/Size : 0 to 62g / 62 to 220g
Make : Scale -Tech	Least Count : 0.01 mg / 0.1 mg
Model No. : SAB-265DR	Visual Inspection : OK
Serial No. : 202012211	Location : —
Party ID Mark : ATCS/M/DWB-01	

ENVIRONMENTAL CONDITIONS		Calibration Procedure : MCP-20
Temperature : (20 ± 10)°C		Reference Standard : OIML R 76-1
Relative Humidity : (50 ± 10)%		Calibration Performed at : At Site

MAJOR EQUIPMENT USED			
Nomenclature	Ident. No.	Traceability Certificate No.	Valid upto
Weight (S) / Set (S)	SCW-001/0.2K-E2-ASS	TSC/20-21/11038-1	02-02-23

CALIBRATION RESULT						
1. Repeatability Test : a. Half Load on Pan at 30 g & repeatability and the maximum deviation was 0.00001 g						
b. Full Load on Pan at 60 g & repeatability and the maximum deviation was 0.00001 g						
c. Half Load on Pan at 100 g & repeatability and the maximum deviation was 0.0001 g						
d. Full Load on Pan at 200 g & repeatability and the maximum deviation was 0.0001 g						
2. Linearity Test :						
STD Values (g)	Observed Values (g)	Error (g)	STD Values (g)	Observed Values (g)	Error (g)	
0.001002	0.00100	0.00000	5.000014	5.00002	0.00001	
0.005003	0.00500	0.00000	10.000012	9.99999	-0.00002	
0.010004	0.01000	0.00000	50.000010	49.99996	-0.00005	
0.100007	0.10002	0.00001	100.00010	99.9998	-0.0003	
1.000010	1.00002	0.00001	199.99980	199.9997	-0.0001	
3. Eccentricity Test : a. load tested at 20 g & error due to Eccentric Loading is 0.00001 g						
b. load tested at 100 g & error due to Eccentric Loading is 0.0001 g						

REMARKS :

- DUC = Device Under Calibration, UUC=Unit Under Calibration i.e.
- Expanded uncertainty of measurement at approx 95% confidence level for coverage factor(k)=2 is ± upto 60g/0.02 mg & then upto 220 g / 0.12 mg
- This result of Calibration refer to only to the particular item submitted for calibration
- Certificate issued is only Scientific or Industrial Purpose Only
- Suggested next due date of calibration is given as requested by customer.
- DUC has been calibrated against lab standards are traceable to national & international standards.
- The result reported in this certificate are valid at the time of and under the stated conditions of Measurement.
- This certificate shall not be reproduced, except in full, unless a written permission for the publication of an approved abstract has been obtained from the CEO, Acumen Measurements & Consultancy Pvt. Ltd., New Delhi.

Sachin Kumar  
(Calibrated By)



Issued & Authorised By  
U C Sutar  
(TM/ QM)



CC-2743

Format No.: 7.8-QF-02

D-46, Sector - 4, DSHDC, Bakara, Delhi - 110 059, INDIA  
 Phone : +91-11-4708 2860, 2778 2863  
 E-mail : info@weightronics.net, Web : www.weightronics.net

**Calibration Certificate**

Issue Dated: 03-09-2021

Recommended Date for the Next Calibration Mentioned As Per Request of the Customer	Page	No. of Pages
Date: 01-09-2023	-1-	-2-

Certificate No.: WMCL/E/2021-09/1452  
 ULR - CC274321000001452F

Date of Calibration: 02-09-2021

Calibrated for : ACCURATE TESTING & CALIBRATION SERVICES  
 P. No.: 111, K. No.: 604, First Floor,  
 Shyam Vihar, Part - II, Z - Block,  
 Najafgarh, New Delhi - 110 043, INDIA

Customer Reference : P.O. No.: ATCS/PO/011/21-22, Dated: 16/08/2021

Service Request No : 7.8-QF-01-1452

Date of Receipt : 31/08/2021

Condition of Receipt : Satisfactorily

Calibrated at : Laboratory

Description of Instrument : Make - "WEIGHTRONICS"  
 200 g to 1 g : Stainless Steel Knob Type Laboratory Weights  
 0.5 g to 0.001 g : Stainless Steel Wire Type Laboratory Weights

Manufacturer Serial No. : WT/AS-II/2021/1452

Customer Identification No. : ATCS/STD/E2/SW-01

Assumed Density (d) : (7 950 ± 140) kg/m<sup>3</sup>; (k=2) for Stainless Steel

Environmental Conditions : Temperature : (23.0 ± 2.0)<sup>o</sup>C  
 Relative Humidity : (50.0 ± 10.0) %  
 [Change in Temperature and Relative Humidity during the calibration were less than ± 0.7<sup>o</sup>C per hour and ± 10.0 % per 4 hours respectively]

Standard (s) used : WMCL working standard of mass with uncertainty  
 Better than one-third of the reported uncertainty of measurement

Traceability Standard (s) : The Standard used for Calibration are Traceable  
 from "NPL" New Delhi, INDIA vide Calibration  
 Certificate No.: 19100740/D1.01/C-114,  
 Dated: 03/12/2019 valid up to Dated: 03/12/2022

Balance used for Calibration : Precision Balances of Appropriate Accuracy  
 Traceable to Mass Standards

Methodology of Calibration Adopted : The Method of comparison with standard (s) using  
 Substitution Weighing Method and (ABBA or ABA)  
 Weighing Cycle, The Reported Mass Values(s) is (are)  
 the conventional mass value(s) (M<sub>c</sub>) related to the true  
 mass value(s) (M<sub>t</sub>) by formula: M<sub>c</sub>=M<sub>t</sub> [1-1.2(1/d-  
 1/8000)]. (Where, 'd' is in kg/m<sup>3</sup>).  
 {Cal. Procedure No.: WMCL-CP-01}

Issued by:

Leet Shukla  
 Authorized Signatory





CC-2743

D-48, Sector - 4, OSHEC, Sawana, Delhi - 110 036, INDIA  
 Phone : +91-11-4709 2883, 2776 2883  
 Email : info@weightronics.net, Web : www.weightronics.net

**Calibration Certificate**

Format No.: 7.8-QF-02

Issue Dated: 03-09-2021

Recommended Date for the Next Calibration Mentioned As Per Request of the Customer	Page	No. of Pages
Date: 01-09-2023	-2-	-2-

Certificate No.: WMCL/E/2021-09/1452  
 ULR - CC274321000001452F

Date of Calibration: 02-09-2021

Results:

Sr. No.	Denomination	Mass Value (g)	Uncertainty ( $\pm$ g)
23	200 g	200.000 11	0.000 10
22	200 g *	200.000 17	0.000 10
21	100 g	100.000 090	0.000 050
20	50 g	50.000 039	0.000 030
19	20 g	20.000 021	0.000 025
18	20 g *	20.000 026	0.000 025
17	10 g	9.999 994	0.000 020
16	5 g	5.000 034	0.000 016
15	2 g	2.000 016	0.000 012
14	2 g *	2.000 000	0.000 012
13	1 g	1.000 016	0.000 010
12	500 mg	0.500 009	0.000 008
11	200 mg	0.199 997	0.000 006
10	200 mg *	0.200 006	0.000 006
9	100 mg	0.099 998	0.000 005
8	50 mg	0.050 007	0.000 004
7	20 mg	0.020 006	0.000 003
6	20 mg *	0.020 002	0.000 003
5	10 mg	0.010 000	0.000 003
4	5 mg	0.005 000	0.000 003
3	2 mg	0.002 003	0.000 003
2	2 mg *	0.001 998	0.000 003
1	1 mg	0.001 002	0.000 003

**Remarks:** Mass Values of all the weights are conventional mass values and within the maximum errors permissible in "E<sub>1</sub>" Accuracy Class of Weights as per OIML R 111-1:2004.

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 standard used, the weighing process, drift in standard and the air buoyancy correction are taken in to account.

**Notes:** This Calibration Certificate may not be reproduced except in full, unless written Permission for Publication of an approved extract has been obtained from the Laboratory (WMCL).

- The Calibration results reported in this Certificate are valid at the time of and under the stated conditions of measurement.
- The Calibration results refer only to the particular item submitted for calibration.
- The Calibration Certificate issued for Weights, Weighing Balance used for Scientific or Industrial purposes only and not used for Commercial.
- Star Mark (\*) are used to distinguish the weights of same nominal value.

Issued by:

Lalit Shukla  
 Authorized Signatory

