



# 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.: 9560788835, 7404479115, 8929915491



CC-3378

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

## CALIBRATION CERTIFICATE

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<b>ULR No. :</b> CC337623000000162F	<b>Certificate No.</b>	: ATCS23000000162
<b>CUSTOMER NAME &amp; ADDRESS:-</b> M/s. H.S. Pathology Pvt. Ltd. 1st Floor, Above Sri Guru Ram Dass Preparatory School Building, Sector- 19, Chandigarh - 160019	<b>Service Request No.&amp;Date</b>	: 0074 & 17-02-2023
	<b>Date of Receipt</b>	: 17-02-2023
	<b>Date of Calibration</b>	: 20-02-2023
	<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/00002056	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	1.35	
200	200.11	-0.11		

#### NOTE :

1. DUC = Device Under Calibration, UUC=Unit Under Calibration
2. Expanded uncertainty of measurement at approx 95% confidence level for coverage factor (k) = 2
3. Suggested next due date of calibration is given as requested by customer.
4. DUC has been calibrated against lab standards are traceable to national & international standards.
5. This result of calibration refer to only to the particular item submitted for calibration.
6. Certificate issued is only scientific or industrial purposes only.
7. The result produced in this certificate are valid under the stated conditions at the time of calibration.
8. 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)



Harshij  
Harshikesh Kumar  
(TM / QH)

*Kuldeep  
21/2/2023  
Assistant manager  
Chandigarh Lab*



# Acumen Measurements & Consultancy Pvt. Ltd.

## (Calibration Division)

D-10/8, First Floor, Okhla Industrial Area, Phase-1, New Delhi - 110020  
 Ph.: 011-42701221, 42701222, 42701223 Mobile: 8585965526, 9350380535  
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CC-2364

### CALIBRATION CERTIFICATE

Format No.: 7.8F-01

Page 1 of 1

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

<b>Instrument Name</b> : DIGITAL WEIGHING BALANCE <b>Make</b> : Scale-Tech <b>Model No.</b> : SAB-265DR <b>Serial No.</b> : 202012211 <b>Party ID Mark</b> : ATCS/M/DWB-01	<b>Range/Size</b> : 0 to 62g / 62 to 220g <b>Least Count</b> : 0.01 mg / 0.1 mg <b>Visual Inspection</b> : OK <b>Location</b> : —
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<b>ENVIRONMENTAL CONDITIONS</b> <b>Temperature</b> : (20 ± 10)°C <b>Relative Humidity</b> : (50 ± 10)%	<b>Calibration Procedure</b> : MCP-20 <b>Reference Standard</b> : OIML R 76-I <b>Calibration Performed at</b> : At Site
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<b>MAJOR EQUIPMENT USED</b>			
<b>Nomenclature</b>	<b>Ident. No.</b>	<b>Traceability Certificate No.</b>	<b>Valid upto</b>
Weight (S) / Set (S)	SCW-001/0.2K-E2-ASS	TSC/20-21/11038-1	02-02-23

<b>CALIBRATION RESULT</b>						
1. <b>Repeatability Test</b> : 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. <b>Linearity Test</b> :						
<b>STD Values</b>	<b>Observed Values</b>	<b>Error</b>	<b>STD Values</b>	<b>Observed Values</b>	<b>Error</b>	
(g)	(g)	(g)	(g)	(g)	(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	99.99998	-0.00003	
1.000010	1.00002	0.00001	199.99980	199.99997	-0.00001	
3. <b>Eccentricity Test</b> : 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 :**
1. DUC = Device Under Calibration, UUC=Unit Under Calibration i.e.
  2. 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
  3. This result of Calibration refer to only to the particular item submitted for calibration
  4. Certificate issued is only Scientific or Industrial Purpose Only
  5. Suggested next due date of calibration is given as requested by customer.
  6. DUC has been calibrated against lab standards are traceable to national & international standards.
  7. The result reported in this certificate are valid at the time of and under the stated conditions of Measurement.
  8. 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)	 <i>Kuldeep</i>	 End of report	Issued & Authorised By  U C Sutar (TM/ QM)
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CC-2743

Format No.: 7.8-QF-02

D-46, Sector-4, DSRDC, Barwala, Delhi - 110 009, INDIA  
 Phone : +91-11-4708 2863, 2779 2463  
 Email : 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 Value(s) is (are)  
 the conventional mass value(s) (M<sub>c</sub>) related to the true  
 mass value(s) (M<sub>r</sub>) by formula: M<sub>c</sub>=M<sub>r</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:

Lalit Shukla  
 Authorized Signatory



*Kuldeep*





CC-2743

D-49, Sector-4, GSHDC, Rawan, Delhi - 110036, INDIA.  
 Phone : + 91-11-4709-2663, 2775-2583  
 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 - CC27432100B001452F

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>2</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.



*Handwritten signature*



Issued by:

*Handwritten signature of Lalit Shukla*

Lalit Shukla  
 Authorized Signatory