


MEASURE TECHNO LAB 2, B.T. ROAD (JAYANTI CINEMA COMPLEX) BARRACKPORE, KOLKATA - 700120, W.B.	Form No. - MTL/22/2006	 <small>NABL ACCREDITED LABORATORY Certificate No. CC - 2545</small>
	CALIBRATION CERTIFICATE OF AUTO PIPETTE	
Phone : 033 - 2215 - 0032, 2215 - 9687, 8100875519, Mobile: 9831190974 , LAB:- 8100143376, E-mail: measuretechno@yahoo.co.in		
CALIBRATION CERTIFICATE NO.:MTL / UWC / R04 / 02 - 22	ULR - CC254522000006593F	Page: 1 of 1

1.0 Service Request No.: MTL / 23A / 02 / 21 - 22

1.1 Issued to: M/s. Unique Wellness Care,
Plot No. 19, Street No. 5/12, Guru Nanak Dev Colony,
New Delhi - 110042.

1.2 Description & Identification of item to be Calibrated:	a) Name: Auto Pipette	b) Code No.: N.S.
	c) Sl. No.: MJ428110	d) Make: Flexipet
	e) Model / Type: N.S.	f) Range: 20 µl to 200 µl
	g) Sensor: N.A.	h) Resolution: 1 µl
	i) End User: Lab	j) Accuracy: ± 1.60 µl
	k) Calibration done at: On Site / √ In House	

1.3 Date of receipt of item : 21-02-24

1.4 Physical Condition of DUC : OK

1.5 Date of calibration : 23-02-24

1.6 Recommended date of next calibration : 23-02-25

1.7 Date of Issue : 25-02-24

1.8 Environmental Conditions During Calibration:

Temperature:	23 °C ± 2 °C
Humidity:	50 % RH ± 10 % RH
Pressure:	1010.3 mbar

1.9 Method of Calibration: SOP / MASS / 02 (As Per ISO : 8655 - 6 : 2002)

2.0 Traceability :

- a) Standards used for calibration are traceable to National standards through NABL Accredited Laboratory.
b) The following standards / Equipment have been used.
- | | |
|---|---|
| i) Data Acquisition Switch Unit Cal. Certificate No. JRPM - CCTR - ET - 2021 - 1227 (JRPM, Chennai) | (Cal. Date: 26/08/21, Due Date: 25/08/22) |
| ii) RTD (PT - 100) Cal. Certificate No. TL / 021 / 1091.2.1 (TEMPSENS, Udaipur) | (Cal. Date: 25/10/21, Due Date: 24/10/22) |
| iii) Weight Box (E1) Cal. Certificate No. WI / May / 19 / 010 (WEIGH INDIA, New Delhi) | (Cal. Date: 17/05/19, Due Date: 17/05/22) |

2.1 Result :

Mechanical Calibration

Sl. No.	Parameter/ Range	Nominal Value µl	Mass of Water mg	Volume of Water at 20 °C µl	Error µl	Measurement Expanded Uncertainty ± µl
1.	Volume	20	19.5418	19.6217	-0.3783	0.39
2.	20 µl to 200 µl	100	98.7726	99.1766	-0.8234	
3.		200	198.1949	199.0055	-0.9945	

- Remarks: i) Cubical Expansion co-efficient of pipette material taken as $10^{-5} \mu\text{l} / ^\circ\text{k}$.
ii) This result has an expanded uncertainty with a coverage factor $k=2$ at approximately 95% confidence level.
iii) The calibration certificate issued for this instrument is to be used for scientific or industrial purposes only.

DUC - Device Under Calibration

N.S. - Not Specified

N.A. - Not Applicable

Opinions and Interpretations			
Calibrated	√	Accepted / Valid for use	√
Limited Use		Rejected / Out of use	

Calibrated by:

K. Barua
Calibration Engineer
Measure Techno Lab
Kolkata

Checked / Approved by:

S. Pandey
Quality & Technical Manager

S. Pandey