

MEASURE TECHNO LAB
2, B.T. ROAD (JAYANTI CINEMA COMPLEX)
BARRACKPORE, KOLKATA - 700120, W.B.

Form No. - MTL/22/2006



Phone : 033 - 2215 - 0032, 2215 - 9687, 8100875519,
 Mobile: 9831190974, LAB:- 8100143376,
 E-mail: measuretechno@yahoo.co.in

**CALIBRATION CERTIFICATE OF
 MICRO PIPETTE**

CALIBRATION CERTIFICATE NO.: MTL / SDC / R03 / 05 - 21

ULR - CC25452100009550F

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1.0 Service Request No.: MTL / 11 / 05 / 21- 22

1.1 Issued to: M/s. Sun Diagnostic Centre,
 IMA Building, Ranihat, Near SCB Medical College,
 Cuttack, Odisha - 753007.

1.2 Description & Identification of item to be Calibrated:

a) Name:	Micro Pipette	b) Code No.:	SDC / LAB / PIPETTE / 01
c) Sl. No.:	YE168AA0027340	d) Make:	Dragon Lab
e) Model / Type:	Micropette	f) Range:	5 µl to 50 µl
g) Sensor:	N.A.	h) Resolution:	0.5 µl
i) End User:	Pathology	j) Accuracy:	N.S.

k) Calibration done at: On Site / √ In House

1.3 Date of receipt of item : 10-05-21

1.4 Physical Condition of DUC : OK

1.5 Date of calibration : 11-05-21

1.6 Recommended date of next calibration : 11-05-22

1.7 Date of Issue : 12-05-21

1.8 Environmental Conditions During Calibration:

Temperature:	23 °C ± 2 °C
Humidity:	50 % RH ± 10 % RH
Pressure:	1012.5 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) 1 mg to 200 g Weight Box (E1) Cal. Certificate No. WI / May / 19 / 010 (WEIGH INDIA, New Delhi) (Cal. Date: 17/05/19, Due Date: 17/05/22)
 ii) Data Acquisition Switch Unit Cal. Certificate No. JRPM - CCTR - ET - 2020 - 0795 (JRPM, Chennai) (Cal. Date: 01/09/20, Due Date: 31/08/21)
 iii) RTD (PT - 100) Cal. Certificate No. TL / 020 / 891.2.1 (TEMSENS, Udaipur) (Cal. Date: 27/10/20, Due Date: 26/10/21)

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	5	4.9740	4.9939	-0.0061	0.039
2.	5 µl to 50 µl	25	24.8873	24.9868	-0.0132	0.39
3.		50	49.7846	49.9837	-0.0163	0.39

Remarks: i) Cubical Expansion co - efficient of pipette material taken as 10⁻⁵ µl / °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:
Testing Engineer
Measure Techno Lab
 Testing Engineer
SM 12/05/21

Checked / Approved by:

 Quality & Technical Manager
S. Pandey



YE168AA0027340

MEASURE TECHNO LAB
2, B. T. Road, Barrackpore, Kol-120
Name: Misra
Code No: 1201
No. 25699999