MEASURE TECHNO LAB
2, B.T. ROAD (JAYANTI CINEMA COMPLEX)
BARRACKPORE, KOLKATA - 700120, W.B.
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Form No. - MTL/22/2006

CALIBRATION CERTIFICATE OF MICRO PIPETTE

NABL ACCREDITED LABORATORY
Certificate No. CC - 2545

CALIBRATION CERTIFICATE NO.:MTL / SDC / R04 / 05 - 21

ULR - CC254521000009551F

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 / 02
c) Sl. No.:	YE6F725706	**d) Make:**	Dragon Lab
e) Model / Type:	Micropette	**f) Range:**	100 µl to 1000 µl
g) Sensor:	N.A.	**h) Resolution:**	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 (TEMPSENS, 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	100	99.5830	99.9813	-0.0187	0.39
2.	100 µl to 1000 µl	500	497.9670	499.9589	-0.0411	
3.		1000	995.9380	999.9218	-0.0782	

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
S.Mahapatra
Testing Engineer
Measure Techno Lab
Kolkata
12/05/21

Checked / Approved by:
Measure Techno Lab
KOLKATA
12/05/21
Quality & Technical Manager
S. Pandey


YB6F725706
MEASURE TECHNO LAB
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