



# MEASURE TECHNO LAB

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



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## CALIBRATION CERTIFICATE OF MICRO PIPETTE

NABL ACCREDITED LABORATORY  
Certificate No. CC - 2545

CALIBRATION CERTIFICATE NO.: MTL / SRL(DGP) / R04 / 08 - 22

ULR - CC254522000023608F

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1.0 Service Request No.: MTL / 25E / 08 / 22 - 23

1.1 Issued to: M/s. SRL Limited,  
Ambedkar Sarani, City Centre, CA - 11,  
Urvashi Phase II, City: Durgapur - 713216.

1.2 Description & Identification of item to be Calibrated:	a) Name:	Micro Pipette	b) Code No.:	SRL / MP - 02
	c) Sl. No.:	16558558	d) Make:	Sartorius
	e) Model / Type:	Proline Plus	f) Range:	10 µl to 100 µl
	g) Sensor:	N.A.	h) Resolution:	0.1 µl
	i) End User:	Lab	j) Accuracy:	N.S.
	k) Calibration done at:	On Site / <input checked="" type="checkbox"/> In House		

1.3 Date of receipt of item : 24-08-22

1.4 Physical Condition of DUC : OK

1.5 Date of calibration : 25-08-22

1.6 Recommended date of next calibration : 25-08-23

1.7 Date of Issue : 27-08-22

1.8 Environmental Conditions During Calibration:

Temperature:	23 °C ± 2 °C
Humidity:	50 % RH ± 10 % RH
Pressure:	1003 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) Digital Thermometer With Sensor Cal. Certificate No. MTL / TH / DTM / R01 / 09 - 21 (MTL, Barrackpore) (Cal. Date: 18/09/21, Due Date: 18/09/22)
- ii) Weights Cal. Certificate No. NC-210 (NSTAR, Ahmedabad) (Cal. Date: 16/05/22, Due Date: 15/05/25)

### 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	10	10.2645	10.3056	0.3056	0.39
2.	10 µl to 100 µl	50	50.2249	50.4258	0.4258	
3.		100	100.1662	100.5669	0.5669	

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:  
Calibration Engineer  
Measure Techno Lab  
Kolkata  
21/08/22

Checked / Approved by:  
  
Quality & Technical Manager  
S. Pandey

Form No. - MTL/22/2006

Issue No. : 2 Issue Date : 10.11.06

Rev. No. : 04 Rev. Date : 01.04.22