MEASURE TECHNO LAB
2, B.T. ROAD (JAYANTI CINEMA COMPLEX)
BARRACKPORE, KOLKATA - 700120, W.B.
Phone : 033 - 2215 - 0032, 2215 - 9687, 8100875519,
Mobile: 9831190974 , LAB:- 8100143376,
E-mail: measuretechno@yahoo.co.in

Form No. - MTL/22/2006

CALIBRATION CERTIFICATE OF MICRO PIPETTE

NABL ACCREDITED LABORATORY
Certificate No. CC - 2545

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

ULR - CC254521000009550F

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 (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	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
S.M 12/05/21

Checked & Approved by:
Measure Techno Lab KOLKATA
Quality & Technical Manager
S. Pandey

MEASURE TECHNO LAB
2, B.T. ROAD (JAYANTI CINEMA COMPLEX)
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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

MEASURE TECHNO LAB 2, B.T. ROAD (JAYANTI CINEMA COMPLEX) BARRACKPORE, KOLKATA - 700120, W.B.	Form No. - MTL/22/2006	NABL ACCREDITED LABORATORY Certificate No. CC - 2545
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 / R05 / 05 - 21	ULR - CC254521000009552F	Page: 1 of 1

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 / 03
c) Sl. No.:	YE176AF0016085	**d) Make:**	Dragon Lab
e) Model / Type:	Micropette	**f) Range:**	1000 µl (Fixed)
g) Sensor:	N.A.	**h) Resolution:**	N.A.
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 1000 µl (Fixed)	1000	995.9371	999.9208	-0.0792	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
S.Mahapatra
Testing Engineer
Measure Techno Lab
Kolkata
11/05/21

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

MEASURE TECHNO LAB
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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 / R06 / 05 - 21 | **ULR - CC254521000009553F** | **Page: 1 of 1**

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 / 04
c) Sl. No.:	V58804	**d) Make:**	Accupipet
e) Model / Type:	Micropette	**f) Range:**	1 µl to 100 µl
g) Sensor:	N.A.	**h) Resolution:**	1 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 :

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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	1	0.9921	0.9961	-0.0039	0.039
2.	1 µl to 100 µl	50	49.7847	49.9838	-0.0162	0.39
3.		100	99.5826	99.9809	-0.0191	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.
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Opinions and Interpretations			
Calibrated	√	Accepted / Valid for use	
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Calibrated by: Testing Engineer
Measure Techno Lab
Kolkata
S.Mahapatra
Testing Engineer
11/05/21

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