

Calibration Laboratory





: µ1



Customer Name & Address	Certificate No.	: MTPL/23/1630/3
	Equipment Received On	: 23/08/2023
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory
CORPORATION SUPER SPECIALITY HOSPITAL,	Date of Calibration	: 24/08/2023
Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	III.R No.	· CC210122000017080E

Details of Unit Under Calibration:

Instrument Specification : Micro Pipette Make : Thermo Scientific

Model Range : 10 to 100 µl Sr. No : KW01439 Resolution : 1 µl Id. No. Unit Under Measurement

Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmen	tal Conditions	SOP Number
Temperature	Humidity	MEDI ICI ICODA GUIO
$23 \pm 1^{\circ}C$	40 to 60 %RH	MTPL/CL/SOP/MV/03

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error	Expanded Uncertainty
1	10	0.010021	9.991	0.009	1.2
2	30	0.03015	30.07	0.07	1.2
3	50	0.05032	50.17	0.17	1.2
4	80	0.08053	80.30	0.30	1.2
5	100	0.10067	100.37	0.37	1.2

Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl		Actu	ıal Calculated Volui In µl	me	A BA
1	100	100.33	100.37	100.36	100.32	100.42
	100	100.38	100.43	100.38	100.35	100.36

Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- b) Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- c) The result stated in this calibration certificate is related only to the item submitted for calibration.
- d) UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor k=2.
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- g) The instrument was calibrated at Mass and Volume Lab-1.

Calibrated By G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

End of Calibration Certificate

METSAR TECHNOLOGIES PVT. LTD.



Calibration Laboratory





CALIBRATION CERTIFICATE

Customer Name & Address	Certificate No.	: MTPL/23/1630/2
	Equipment Received On	: 23/08/2023
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory
CORPORATION SUPER SPECIALITY HOSPITAL,	Date of Calibration	: 24/08/2023
Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
A STATE OF THE STA	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	: CC219123000017988F

Details of Unit Under Calibration:

: Micro Pipette (Fixed) **Instrument Specification**

: Thermo Scientific Make

Model : Finnpipette F3

Sr. No : NW09739 Range : 1000 ul

Id. No. **Unit Under Measurement** :g

Standard used for calibration:

Traceability with Instrument Calibration Due Instrument Name Certificate No. Sr. No. / Id No. On NABL Lab No. Semi Micro Balance METSAR-M-002 MTPL/23/0156/2 26/01/2024 CC-2191

Environmental Conditions SOP Number Temperature Humidity MTPL/CL/SOP/MV/03 $23 \pm 1^{\circ}C$ 40 to 60 %RH

Results of Calibration

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in μl	Expanded Uncertainty (±) in μl
1	1000	1.00045	998.34	1.66	15

Reneatability Results @ 27 °C.

Sr. No.	Set Volume In ul		Actu	ıal Calculated Volu In µl	ume	
,	1000	998.37	998.38	998.40	998.31	998.35
1	1000	998.36	998.24	998.33	998.28	998.33

Remarks:

- a) The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method. h)
- c) The result stated in this calibration certificate is related only to the item submitted for calibration.
- d) UUC means Unit Under Calibration.
- e) The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor k=2.
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- g) The instrument was calibrated at Mass and Volume Lab-1.

G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

** End of Calibration Certificate**

METSAR TECHNOLOGIES PVT. LTD.



Model

METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory





: 20 to 200 µl



Customer Name & Address	Certificate No.	: MTPL/23/1630/4
	Equipment Received On	: 23/08/2023
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory
CORPORATION SUPER SPECIALITY	Date of Calibration	: 24/08/2023
HOSPITAL, Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
Sunatimagar, Tryderasad 500050.	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	: CC219123000017990F

Details of Unit Under Calibration:

Instrument Specification : Micro Pipette

: Thermo Scientific Make

: ---

Resolution : 1 µl Sr. No : NM03353 **Unit Under Measurement** Id. No. : µl

Standard used for calibration:

Calibration Due Traceability with Instrument Instrument Name Certificate No. On NABL Lab No. Sr. No. / Id No. 26/01/2024 CC-2191 METSAR-M-002 MTPL/23/0156/2 Semi Micro Balance

Range

Environmen	tal Conditions	SOP Number
Temperature	Humidity	MTPL/CL/SOP/MV/03
23 ± 1^{0} C	40 to 60 %RH	MTFL/CL/SOF/MIV/03

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in μl	Expanded Uncertainty (±) in μl
1	20	0.02015	20.11	0.11	1.2
2	50	0.05028	50.19	0.19	1.2
3	100	0.10053	100.32	0.32	1.2
4	150	0.15073	150.42	0.42	15
5	200	0.20066	200.28	0.28	15

Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
	200	200.40	200.01	199.87	200.60	200.49
1	200	200.00	200.44	200.54	200.07	200.38

Remarks:

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- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- c) The result stated in this calibration certificate is related only to the item submitted for calibration.
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Calibrated By G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

End of Calibration Certificate



Calibration Laboratory





CALIBRATION CERTIFICATE

Customer Name & Address	Certificate No.	: MTPL/23/1630/1
	Equipment Received On	: 23/08/2023
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory
CORPORATION SUPER SPECIALITY HOSPITAL,	Date of Calibration	: 24/08/2023
Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	: CC219123000017987F

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PHETOILE	or Ini	nder	(ampramon.	

Instrument Specification	: Micro Pipette		
Make	: Thermo Scientific	Range	: 100 to1000 μl
Model	: Finnpipette	Resolution	: 1 µl
Sr. No	: NW04069	Unit Under Measurement	: μ1

Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
Temperature	Humidity	MTPL/CL/SOP/MV/03
$23 \pm 1^{\circ}C$	40 to 60 %RH	MTFL/CL/SOF/MV/03

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in μl @ 27 °C	Error (±) in μl	Expanded Uncertainty (±) in µl
1	100	0.10030	100.07	0.07	1.2
2	300	0.30024	299.58	0.42	15
3	500	0.50031	499.21	0.79	15
4	800	0.80035	798.57	1.43	15
5	1000	1.00050	998.39	1.61	15

Repeatability Results @ 27 °C:

Sr. No.	Set Volume in µl		Acti	ıal Calculated Vol in μl	lume	
	1000	998.37	998.41	998.46	998.31	998.35
1	1000	998.42	998.38	998.39	998.44	998.33

Remarks:

- a) The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- b) Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- c) The result stated in this calibration certificate is related only to the item submitted for calibration.
- d) UUC means Unit Under Calibration.
- e) The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor k=2.
- f) Certificate shall not be reproduced except in full without the written approval of the laboratory.
- g) The instrument was calibrated at Mass and Volume Lab-1.

Calibrated By
G. Praveen
Calibration Engineer

Certificate Approved By N. Chanakya Sr. Manager Calibration

End of Calibration Certificate

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Calibration Laboratory







Customer Name & Address	Certificate No.	: MTPL/23/1630/5
EMPLOYE'S STATE INSURANCE	Equipment Received On	: 23/08/2023
CORPORATION SUPER SPECIALITY	Equipment Condition	: Satisfactory
HOSPITAL,	Date of Calibration	: 24/08/2023
Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	: CC219123000017991F

Details of Unit Under Calibration:

 Instrument Specification
 : Micro Pipette

 Make
 : Thermo Scientific

 Model
 : Finnpipette
 Range
 : 1 to 10μl

 Sr. No
 : LW08586
 Resolution
 : 0.02 μl

 Id. No.
 : -- Unit Under Measurement
 : g

Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmen	tal Conditions	SOP Number
Temperature	Humidity	MTDL/CL/GODANAGO
23 ± 1 0 C	40 to 60 % RH	MTPL/CL/SOP/MV/03

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in μl @ 27 °C	Error	Expanded Uncertainty (±) in µl
1	2.00	0.002027	2.022	0.022	0.1
2	4.00	0.004023	4.010	0.010	0.1
3	6.00	0.006040	6.023	0.023	0.1
4	8.00	0.008061	8.038	0.038	0.1
5	10.00	0.010065	10.036	0.036	0.1

Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl		Acti	ıal Calculated Vol In μl ω	lume	
1	10.00	10.025	10.034	10.032	10.045	10.031
r	10.00	10.028	10.035	10.043	10.050	10.041

Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- b) Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- c) The result stated in this calibration certificate is related only to the item submitted for calibration.
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- e) The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor k=2.
- f) Certificate shall not be reproduced except in full without the written approval of the laboratory.

g) The instrument was calibrated at Mass and Volume Lab-1.

G. Praveen Calibration Engineer

Calibrated By

Certificate Approved By N. Chanakya Sr. Manager Calibration

** End of Calibration Certificate**

MTPL/CL/FF/CC/ME/MP

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Calibration Laboratory







Customer Name & Address	Certificate No.	: MTPL/23/1630/
A ONDER OF A THE INICIAN AND IN	Equipment Received On	: 23/08/2023

EMPLOYE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL.

Sanathnagar, Hyderabad - 500038.

MECHANICAL DISCIPLINE (VOLUME)

Equipment Condition : Satisfactory : 24/08/2023 **Date of Calibration**

Recommended Calibration Due : 23/08/2024 Date of issue

: 25/08/2023 ULR No. : CC219123000017992F

Details of Unit Under Calibration:

Instrument Specification : Micro Pipette

Make : Thermo Scientific

Model : Finnpipette Range : 1 to 10µl Sr. No : MW24480 Resolution : 0.02 µl Id. No. Unit Under Measurement : µl

Standard used for calibration:

Calibration Due Traceability with Instrument Instrument Name Certificate No. Sr. No. / Id No. On NABL Lab No. CC-2191 Micro Balance METSAR-M-001 MTPL/23/0156/1 26/01/2024

SOP Number **Environmental Conditions** Temperature Humidity MTPL/CL/SOP/MV/03 23 ± 1 °C 40 to 60 % RH

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in μl @ 27 °C	Error (±) in μl	Expanded Uncertainty (±) in µl
1	2.00	0.002023	2.018	0.018	0.1
2	4.00	0.004022	4.010	0.010	0.1
3	6.00	0.006032	6.014	0.014	0.1
4	8.00	0.008055	8.033	0.033	0.1
5	10.00	0.010075	10.048	0.048	0.1

Rangetshility Results @ 27 °C .

Sr. No.	Set Volume In µl		Acti	ıal Calculated Vol In μl	lume	
1	10.00	10.027	10.052	10.034	10.047	10.033
1	10.00	10.060	10.067	10.055	10.052	10.057

Remarks:

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- e) The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor k=2.
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
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Calibrated By G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

** End of Calibration Certificate**

METSAR TECHNOLOGIES PVT. LTD.

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Calibration Laboratory

CALIBRATION CERTIFICATE





Customer Name & Address	Certificate No.	: MTPL/23/1630/7	
	Equipment Received On	: 23/08/2023	
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory	
CORPORATION SUPER SPECIALITY	Date of Calibration	: 24/08/2023	
HOSPITAL, Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024	
and the same and t	Date of issue	: 25/08/2023	
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	· CC210123000017003E	

Details of Unit Under Calibration:

Instrument Specification : Micro Pipette

Make : Thermo Scientific

 Model
 : Finn Pipette
 Range
 : 5 - 50 μl

 Sr. No
 : NW03884
 Resolution
 : 0.1 μl

 Id. No.
 : -- Unit Under Measurement
 : μl

Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmen	tal Conditions	SOP Number	
Temperature	Humidity	MTDI ICI ICODA MIIO	
$23 \pm 1^{\circ}$ C	40 to 60 %RH	MTPL/CL/SOP/MV/03	

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error	Expanded Uncertainty (±) in µl
1	5.0	0.005018	5.008	0.008	1.2
2	20.0	0.02039	20.34	0.34	1.2
3	30.0	0.03048	30.41	0.41	1.2
4	40.0	0.04072	40.65	0.65	1.2
5	50.0	0.05080	50.72	0.72	1.2

Repeatability Results @ 27 °C;

Sr. No.	Set Volume in µl	The state of the s					
1	50.0	50.79	50.73	50.63	50.67	50.75	
1 30.0		50.79	50.74	50.63	50.77	50.69	

Remarks:

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g) The instrument was calibrated at Mass and Volume Lab-1.

G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

** End of Calibration Certificate**
MEISAK IECHNOLOGIES



Calibration Laboratory







Customer Name & Address	Certificate No.	: MTPL/23/1630/8
	Equipment Received On	: 23/08/2023
EMPLOYE'S STATE INSURANCE	Equipment Condition	: Satisfactory
CORPORATION SUPER SPECIALITY HOSPITAL,	Date of Calibration	: 24/08/2023
Sanathnagar, Hyderabad – 500038.	Recommended Calibration Due	: 23/08/2024
outliningui, 11, dollara 500050.	Date of issue	: 25/08/2023
MECHANICAL DISCIPLINE (VOLUME)	ULR No.	: CC219123000017994F

Details of Unit Under Calibration:

: Micro Pipette Instrument Specification

: Thermo Scientific Make

: 5 - 50 µl : Finn Pipette Model Range : 0.1 µl Sr. No : NW04153 Resolution **Unit Under Measurement** : µl Id. No.

Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmen	tal Conditions	SOP Number
Temperature	Humidity	MTPL/CL/SOP/MV/03
23 ± 1^{0} C	40 to 60 %RH	WIII E/CE/SOI/WIV/05
	Temperature	

Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (<u>+</u>) in μl	Expanded Uncertainty (±) in μl
1	5.0	0.005028	5.018	0.018	0.1
2	20.0	0.02048	20.44	0.44	1.2
3	30.0	0.03053	30.46	0.46	1.2
4	40.0	0.04072	40.64	0.64	1.2
5	50.0	0.05065	50.55	0.55	1.2

Repeatability Results @ 27 °C:

Sr. No.	Set Volume in µl	Actual Calculated Volume in µl				
		50.58	50.52	50.44	50.56	50.64
		50.58	50.63	50.52	50.46	50.58

Remarks:

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G. Praveen Calibration Engineer Certificate Approved By N. Chanakya Sr. Manager Calibration

End of Calibration Certifi

An ISO 9001-2015 Certified Company