3, 7 Hemant.

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical & Thermal Calibration)

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)
Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University, Bhopal- 462 026 M.P., India
Tel.: 0755 - 2410094, 4235738 Telefax. : 0755 - 2410094
Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR CC268921100000439F	Mechanical Calibration	Certificate Issue Date:	12.01.2021

Certificate No	Recived On	Received Condition	Calibration On	Calibration Due	Page No.
HTLS/21/BH/21.03	09.01.2021	Working	11.01.2021	10.01.2022 (As per customer requirements)	1 of 1

1) a. Calibrated for:
M/s Bansal Hospital.,
C-Sector, Shahpura,
Bhopal - 462016,

b. Name of Equipment /Instrument :
Micro Pipette
(Variable micro Pipette)

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Dragon Lab	Variable	YE17AAG0040946	BH/LM/PIP/07/100-1000

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy	Location
100 to 1000 µl	5 µl	Full Range	± 1.0 %	Q.C.

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	100	100.40	-0.40
b.	µl	500	505.43	-5.43
c.	µl	1000	1009.33	-9.33

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity: 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)
Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
Bhopal- 462 026 M.P., India
Tel.: 0755 - 2410094, 4235738 Telefax. : 0755 - 2410094
Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

HABL Calibration Certificate No.: CC-2689 (Electro-Technical, Mechanical & Thermal Calibration)

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268921100000437F	Mechanical Calibration	Certificate Issue Date:	12.01.2021

Certificate No	Recived On	Received Condition	Calibration On	Calibration Due	Page No.
HTLS/21/BH/21.01	09.01.2021	Working	11.01.2021	10.01.2022 (As per customer requirements)	1 of 1

1) a. Calibrated for:
M/s Bansal Hospital
C - Sector, Shahpura,
Bhopal - 462016,

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Thermo Scientific	Variable	JW 06544	BH/LM/PIP/03/5-50

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy	Location
5 to 50 µl	0.1 µl	Full Range	± 1.0 %	Q.C.

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	10	10.06	-0.06
b.	µl	20	20.28	-0.28
c.	µl	50	50.23	-0.23

Expanded uncertainty of measurement is ±0.20 µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

1, 8 Biochem.

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical
& Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)
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Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009253F	Volum Calibration	Certificate Issue Date:	15.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/894.10	12.12.2020	working	12.12.2020	11.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:
M/s Bansal Hospital ,
C - Sector, Shahpura ,
Bhopal - 462 016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location : At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
CCGC	Variable	KJ11772	BH/LM/PIP/01/100-1000	QC

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
100-1000 µl	1 µl	Full Range	ISO:4787, ISO:8655-6

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
Precision Thermometer with pt-100 Sensor	Lutron	HTLS/DTI/01 I.183289	HTC/2020/01/797 CC247820000000797F	10.01.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with micro Balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :
Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/VM/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	100	102.46	-2.46
b.	µl	500	504.21	-4.21
c.	µl	1000	1008.74	-8.74

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

Note: Scale Setting knob not lock properly & Nozzle remover knob not working Properly.

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.

b. **The Micro Pipette has been calibrated and status report has been given.**

c. Refer to report before use.

************END OF THE CERTIFICATE************

Calibrated by :		Approved By :	
HEMANT OJHA Techanical Manager		SANJAY BAIS Quality Manager	

NABL
ation Certificate No.: CC-2689
ectro-Technical, Mechanical
& Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)
Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
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CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009734F	Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.06	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:
M/s Bansal Hospital ,
Shahpura Lake ,
Bhopal - 462016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
Eppendorf	Variable	H24131J	BH/LM/PIP/08/10-100 µl	Q.C.

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
10 to 100 µl	0.1µl	Full Range	as per OIML, ISO: 4787:2010

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with Micro precision balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :
Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	10	9.69	0.31
b.	µl	50	50.06	-0.06
c.	µl	100	100.36	-0.36

Expanded uncertainty of measurement is ±0.20µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

4,10,17 ELISA

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical & Thermal Calibration)

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)

Hi-Tech

Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
Bhopal- 462 026 M.P., India
Tel.: 0755 - 2410094, 4235738 Telefax. : 0755 - 2410094
Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009732F	Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.04	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:
M/s Bansal Hospital ,
Shahpura Lake ,
Bhopal - 462016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
Thermo Scientific	Variable	JW05244	BH/LM/PIP/04/10-100 µl	Q.C.

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
10 to 100 µl	0.2 µl	Full Range	as per OIML, ISO: 4787:2010

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with Micro precision balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	10	10.06	-0.06
b.	µl	50	50.24	-0.24
c.	µl	100	100.43	-0.43

Expanded uncertainty of measurement is ±0.20µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

************END OF THE CERTIFICATE************

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical
& Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services

(A House of Measurement & Calibration)

Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
Bhopal- 462 026 M.P., India
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e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268921100000441F	Mechanical Calibration	Certificate Issue Date:	12.01.2021

Certificate No	Recived On	Received Condition	Calibration On	Calibration Due	Page No.
HTLS/21/BH/21.05	09.01.2021	Working	11.01.2021	10.01.2022 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital
C - Sector, Shahpura,
Bhopal - 462016,

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Eppendorf	Variable	H48623J	BH/LM/PIP/10/10

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy	Location
0.5 to 10 µl	0.1 µl	Full Range	± 1.0 %	Q.C.

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	2	2.01	-0.01
b.	µl	5	5.04	-0.04
c.	µl	10	10.08	-0.08

Expanded uncertainty of measurement is ±0.20 µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

NABL
ACCREDITED LABORATORY

Hi-Tech

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)

Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
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CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.02	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital ,
C - Sector, Shahpura ,
Bhopal - 462 016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location : At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Eppendorf	Variable	G29995G	BH/LM/PIP/11/0.5-10 µl

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
0.5 to 10 µl	0.1 µl	Full Range	ISO:4787, ISO:8655-6

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
Precision Thermometer with pt-100 Sensor	Lutron	HTLS/DTI/01 I.183289	HTC/2020/01/797 CC247820000000797F	10.01.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with micro Balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	2.0	2.00	0.00
b.	µl	5.0	5.00	0.00
c.	µl	10.0	10.01	-0.01

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use. Under NABL scope above 10 µl .

**********END OF THE CERTIFICATE**********

Calibrated by :	Approved By :
HEMANT OJHA Techanical Manager	SANJAY BAIS Quality Manager

6, 12, 13 → MM

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical & Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services

(A House of Measurement & Calibration)

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e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268921100000440F	Mechanical Calibration	Certificate Issue Date:	12.01.2021

Certificate No	Recived On	Received Condition	Calibration On	Calibration Due	Page No.
HTLS/21/BH/21.04	09.01.2021	Working	11.01.2021	10.01.2022 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital.,
C-Sector, Shahpura,
Bhopal - 462016,

b. Name of Equipment /Instrument :

Micro Pipette
(Variable micro Pipette)

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Dragon Lab	Variable	YE17AAG0040521	BH/LM/PIP/06/20-200

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy	Location
20 to 200 µl	1 µl	Full Range	± 1.0 %	Q.C.

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	20	20.32	-0.32
b.	µl	100	100.86	-0.86
c.	µl	200	201.54	-1.54

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

PIP – 100-1000

BH/LM/PIP/13/100-1000

MM&CS
SETUP YOUR STANDARD

MICRO MEASUREMENT & CALIBRATION SYSTEM

(An ISO 9001 Certified & NABL Accredited Laboratory)
Off. Address : 1159, Sudama Nagar, Near Gurudwara, Indore-452 009 (M.P.)
Lab Address : RH-51, Type 2, Satyamitra Rajlaxmi Nature, Gram Rangwasa, Indore
Mob. : 9770229927, 9770234756
Email : customersupport@mmcs.co.in info@mmcs.co.in
Web : www.mmcs.co.in

CALIBRATION CERTIFICATE

Calibration Certificate Number/ULR Number	20/04/BH/MECH/003	**Issue Date:** 20/04/2020
Customer Name **Address of the Customer**	M/s, Bansal Hospital . Shahpura Bhopal (M.P.)462016	
SRF No.: 20/APR/063	**Job No.:** 20/APR/063	
Environmental Conditions	**Temperature:** (25±3)°C	**Humidity:** (50±15) %RH
Location (Site/ Lab)	Lab	
Procedure for Calibration	MM&CS/MECH/CAL/018	
Certificate Format Number	MM&CS/QF/7.8/01	

Description of the Instrument/ Unit under Calibration (UUC)

Nomenclature	Micro Pipette	**Resolution**	1 µl
Unique Identification	BH/CL/PPT/03	**Acceptance Criteria (±)**	NA
Sr. No.	Q38941F ✓	**Date of Receipt**	18/04/2020
lake	EPPENDORF	**Date of Calibration**	19/04/2020
Model No.	NA	**Next Calibration Due**	19/04/2021
Range of Instrument	100 to 1000 µl	**Condition of UUC Received**	OK
Calibration Range	100 to 1000 µl .	**Location of Instrument**	LAB

Description of Standard Reference Instrument Used

Nomenclature	Make/Model No.	ID No./ Serial No.	Certificate No.	Valid Up To
Weight Box	----	MM&CS/WB/08	PPM/WB/8817/1	07/02/2023
1/10 DIN RTD with Indicator	Tempsens	MM&CS/DINI/02	CC284019000006012F	27/08/2020

Calibration Results

Sr. No.	Set Volume of UUC (µl)	Actual Volume (µl)	Deviation (Error) (µl)
01	100	99.86	0.14
02	500	599.75	0.25
03	1000	999.59	0.41

Description	Calibrated By	Reviewed & Approved By	For Stamp
Name:	Mr. Chandramani Verma	Mr. Ashish Sharma	
Designation:	Sr. Calibration Engineer	Managing Director	
Sign:	C.P.V		

MICRO MEASUREMENT AND CALIBRATION SYSTEM ★ INDORE

End Of The Calibration Certificate (Page 1 of 1)...

MM&CS
SETUP YOUR STANDARD

MICRO MEASUREMENT & CALIBRATION SYSTEM
(An ISO 9001 Certified & NABL Accredited Laboratory)
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Mob. : 9770229927, 9770234756
Email : customersupport@mmcs.co.in info@mmcs.co.in
Web : www.mmcs.co.in

CALIBRATION CERTIFICATE

Calibration Certificate Number/ULR Number	20/04/BH/MECH/002	Issue Date: 20/04/2020
Customer Name Address of the Customer	M/s, Bansal Hospital . Shahpura Bhopal (M.P.)462016	
SRF No.: 20/APR/063	Job No.: 20/APR/063	
Environmental Conditions	Temperature: (25±3)°C	Humidity: (50±15) %RH
Location (Site/ Lab)	Lab	
Procedure for Calibration	MM&CS/MECH/CAL/018	
Certificate Format Number	MM&CS/QF/7.8/01	

Description of the Instrument/ Unit under Calibration (UUC)

Nomenclature	Micro Pipette	Resolution	0.1 µl
Unique Identification	BH/CL/PPT/02	Acceptance Criteria (±)	NA
Sr. No.	Q32920F	Date of Receipt	18/04/2020
Make	EPPENDORF	Date of Calibration	19/04/2020
Model No.	NA	Next Calibration Due	19/04/2021
Range of Instrument	10 to 100 µl	Condition of UUC Received	OK
Calibration Range	10 to 100 µl .	Location of Instrument	LAB

Description of Standard Reference Instrument Used

Nomenclature	Make/Model No.	ID No./ Serial No.	Certificate No.	Valid Up To
Weight Box	----	MM&CS/WB/08	PPM/WB/8817/1	07/02/2023
1/10 DIN RTD with Indicator	Tempsens	MM&CS/DINI/02	CC284019000006012F	27/08/2020

Calibration Results

Sr. No.	Set Volume of UUC (µl)	Actual Volume (µl)	Deviation (Error) (µl)
01	10.00	9.97	0.03
02	50.00	4.89	0.11
03	100.00	99.84	0.16

Description	Calibrated By	Reviewed & Approved By	For Stamp
Name:	Mr. Chandramani Verma	Mr. Ashish Sharma	
esignation:	Sr. Calibration Engineer	Managing Director	
Sign:	C.P.V		

MICRO MEASUREMENT AND CALIBRATION SYSTEM ★ INDORE

End Of The Calibration Certificate (Page 1 of 1)...

2,5,9,14 RNA Hematology

NABL
ACCREDITED LABORATORY

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)

Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
Bhopal- 462 026 M.P., India
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Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

Volum Calibration	Certificate Issue Date:	15.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/894.08	12.12.2020	working	12.12.2020	11.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital ,
C - Sector, Shahpura ,
Bhopal - 462 016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location : At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
---	Variable	299504	BH/LM/PIP/02/05-10	Q.C.

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
0.5 to 10 µl	0.1 µl	Full Range	ISO:4787, ISO:8655-6

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
Precision Thermometer with pt-100 Sensor	Lutron	HTLS/DTI/01 I.183289	HTC/2020/01/797 CC247820000000797F	10.01.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with micro Balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	5.0	4.97	0.03
b.	µl	10.0	9.88	0.12

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use. Under NABL scope above 10 µl .

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved By :	
HEMANT OJHA Techanical Manager		SANJAY BAIS Quality Manager	

Hi-Tech Laboratory & Services BHOPAL

Hi-Tech Laboratory & Services
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Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
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e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.01	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

) a. **Calibrated for:**
M/s Bansal Hospital ,
C - Sector, Shahpura ,
Bhopal - 462 016. (M.P.)

b. Name of Equipment /Instrument :
Micro Pipette

c. Calibration Location : At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
Eppendorf	Variable	H47606J	BH/LM/PIP/05/2-20 µl

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
2 to 20 µl	0.02 µl	Full Range	± 1.0 %

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
Precision Thermometer with pt-100 Sensor	Lutron	HTLS/DTI/01 I.183289	HTC/2020/01/797 CC247820000000797F	10.01.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	5	4.99	0.01
b.	µl	10	10.05	-0.05
c.	µl	20	20.23	-0.03

Expanded uncertainty of measurement is ±0.20 µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use. Under NABL scope above 10 µl

**********END OF THE CERTIFICATE**********

Calibrated by :	Approved By :
HEMANT OJHA Techanical Manager	SANJAY BAIS Quality Manager

Hi-Tech Laboratory & Services BHOPAL

NABL
Accreditation Certificate No.: CC-2689
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e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268921100000438F	Mechanical Calibration	Certificate Issue Date:	12.01.2021

Certificate No	Recived On	Received Condition	Calibration On	Calibration Due	Page No.
HTLS/21/BH/21.02	09.01.2021	Working	11.01.2021	10.01.2022 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital.,
C-Sector, Shahpura,
Bhopal - 462016,

b. Name of Equipment /Instrument :

Micro Pipette
(Variable micro Pipette)

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
LCGC	Variable	KJ11436	BH/LM/PIP/09/20-200

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy	Location
20 to 200 µl	0.2 µl	Full Range	± 1.0 %	Q.C.

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with presion balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	20	20.36	-0.36
b.	µl	100	100.48	-0.48
c.	µl	200	200.88	-0.88

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)
Shivani Complex, C-4, Vidya Vihar, Opp. Barkatullah University,
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e-mail: htlsbpl@hotmail.com / info@htls.co.in

NABL Certificate No.: CC-2689 (Technical, Mechanical & Thermal Calibration)

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009733F	Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.05	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital ,
Shahpura Lake ,
Bhopal - 462016. (M.P.)

b. Name of Equipment /Instrument :

Micro Pipette
(Variable micro Pipette)

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
Thermo Scientific	VARIABLE	JW06250	BH/LM/PIP/14/100-1000 µl	Q.C.

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
100- 1000 µl	1 µl	Full Range	as per OIML, ISO: 4787:2010

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with Micro precision balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 8655-6:2002 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	100	98.45	1.55
b.	µl	500	501.38	-1.38
c.	µl	1000	1004.97	-4.97

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidit 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :	Approved by :
HEMANT OJHA Technical Manager	SANJAY BAIS Quality Manager

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical
& Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services
(A House of Measurement & Calibration)

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e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009731F	Volum Calibration	Certificate Issue Date: 30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.03	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital ,
Shahpura Lake ,
Bhopal - 462016. (M.P.)

b. Name of Equipment /Instrument :

Micro Pipette
Fixed

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.
---	FIXED	13615094	BH/LM/PIP/15/145 µl

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
145 µl	---	Full Range	as per OIML, ISO: 4787:2010

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
Precision Thermometer with pt-100 Sensor	Lutron	HTLS/DTI/01 I.183289	HTC/2020/01/797 CC247820000000797F	10.01.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with Micro precision balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 4787:2010 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	145	146.9	-1.94

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved By :	
HEMANT OJHA Techanical Manager		SANJAY BAIS Quality Manager	

NABL
Accreditation Certificate No.: CC-2689
(Electro-Technical, Mechanical & Thermal Calibration)

Hi-Tech

Hi-Tech Laboratory & Services

(A House of Measurement & Calibration)

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Mobile: 094250 09513 web: www.htls.co.in
e-mail: htlsbpl@hotmail.com / info@htls.co.in

CALIBRATION CERTIFICATE

(Form No. HTLS/QF/7.8.1/01 (Amendment No. 00 Dated 1st January 2020)

ULR : CC268920100009735F	Volum Calibration	Certificate Issue Date:	30.12.2020

Certificate No	Received on	Received Condition	Calibration on	Calibration due	Page No.
HTLS/20/BH/944.07	26.12.2020	working	28.12.2020	27.12.2021 (As per customer requirements)	1 of 1

1) a. Calibrated for:

M/s Bansal Hospital ,
Shahpura Lake ,
Bhopal - 462016. (M.P.)

b. Name of Equipment /Instrument :

Micro Pipette
Fixed

c. Calibration Location: At Lab

2) Description & Identification of Equipments / Instruments Under Calibrations (EUC*):

Manufactured by	Type	Serial No.	Identification No.	Location
GRAM POS(+)	FIXED	13585616	BH/LM/PIP/16/280	Q.C.

Capacity (Volume)	Least Count	Calibrated Range	Declared Accuracy
280 µl	---	Full Range	as per OIML, ISO: 4787:2010

3) Standards/ Calibrator & Measuring Equipments Used :

Standards Used	Make	Sr.No./I.D.No.	Traceability Certificate No.	Validity
Stainless Steel Weights (E2 Class)	1mg to 200g	BWB/E2/01	BBT/023/Jul/20 ULR:CC308220000000023F	14.07.2022
High Precision Digital Thermometer With RTD (PT - 100)	Yudian & AI-5600	161439299/ HTLS/DT/01	TL/020/854.1.1 CC284020000005630F	16.10.2021
Digital Thermo Hygrometer & Barometer	Lutron	HTLS/HM/02 AG-42361	HTC/2020/11/17743 CC247820000017743F	06.11.2021
with Micro precision balance & pyconometer and Distilled water				
The Standards used for calibration were calibrated by using reference standard traceable to National Standard .				

4) Principle /Methodology of Calibration & Procedure :

Methodology adopted for Calibration is as per HTLS Procedure NO.HTLS/CP/µP/01 , As per ISO : 4787:2010 & EURAMET cg-19

5) Calibration Results:

Sl. No.	Unit	Nominal Capacity of µ pippet at 25°C	Observed Capacity of µ pippet at 25°C (Average)	Deviation
a.	µl	280	279.87	0.13

Expanded uncertainty of measurement is ±0.2µl (full capacity) , taking coverage factor K=2, corresponding to a level of confidence of at approx 95% .

The values have been rounded off as per IS:2-1960(wherever applicable).

Z correction factors (Temperature and Air pressure) have been applied as per ISO:8655-6:2002

6) Environmental Condition's): a) Temperature: 25±2°C b) Humidity 50±20%

7) Calibration Status & Remark :

a. A Calibration Sticker has been affixed on EUC*.
b. The Micro Pipette has been calibrated and found to be within accuracy limit.
c. Refer to report before use.

**********END OF THE CERTIFICATE**********

Calibrated by :		Approved by :	
HEMANT OJHA Technical Manager		SANJAY BAIS Quality Manager	

Hi-Tech Laboratory & Services BHOPAL