



# Perfect Calibration Centre Pvt. Ltd.

No. 84, "Times Corner", Gengu Reddy Road, Egmore, Chennai - 600 008.  
 Ph : (044) 28192530, 28192930, 28193130 www.perfectcallab.in  
 Email : perfectcallab.info@gmail.com / info@perfectcallab.in



NABL LAB FOR : MECHANICAL • THERMAL • ET • AIR / FLUID FLOW • FORCE • MASS • OPTICAL

## CERTIFICATE OF CALIBRATION

ULR-CC220723000026661F  
 ISSUE DATE:09/06/2023

CERTIFICATE NO.: PC - 06 - 23 / ATL / 2032 - 02

**CUSTOMER** : M/s. DIALIFE - DIABETES, THYROID & ENDOCRINE CENTRE.,  
**ADDRESS** : # 962, ABOVE CANARA BANK, BEL LAYOUT, 3rd BLOCK,  
 VIDYARANYAPURA MAIN ROAD, VIDYARANYAPURA,  
 BENGALURU - 560097.  
**CUST REF** : SRF . NO : 2032, DATE : 09/06/2023  
**DEPT** : AT LAB

**CAL DATE** : 09/06/2023  
**RECOMMENDED DUE DATE** : 08/06/2024  
**PAGE NO.** : 1/1  
**DISCIPLINE** : MECHANICAL

### MICRO PIPETTE

**DATE OF RECEIPT** : 09/06/2023  
**PHYSICAL CONDITION** : SATISFACTORY

**TEMPERATURE** : 20.2°C  
**HUMIDITY** : 50 %RH  
**ATMOSPHERIC PRESSURE** : 1002.5  
**Z FACTOR** : 1.0029 µL/mg

### PIPETTE DETAILS :

**MAKE** : ACURET  
**TYPE** : VARIABLE  
**ID. NO.** : ---  
**SL NO.** : FP82014  
**MODEL** : ----  
**RANGE** : 10 - 20 µL  
**L.C.** : 0.5 µL

STANDARD USED	SL.NO/ID.NO	CERT. NO.	VALIDITY
ELECTRONIC BALANCE	37014 / PCCPL/EB - 01	PC-09-22 / ATL / 3765 - 01	04/09/2023
ELECTRONIC BALANCE	1125510540 / PCCPL/EB - 02	PC-09-22 / ATL / 3765 - 02	04/09/2023

**CALIBRATION PROCEDURE** : WI-M-MP-44(L)

**REFERENCE STANDARD** : ISO 8655-6 & ISO/ TR 20461

### CALIBRATION RESULTS

#### 1. LOWER VOLUME

10 µL NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
9.92	9.96	9.98	9.91	9.92	9.93	9.91	9.91	9.92	9.91

**MEAN VOLUME:** 9.927  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL** : 0.073 (± 0.12 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in %** : 0.073 (± 1.2%)  
**ERROR LIMIT**  
**RANDOM ERROR (Sr) µL** : 0.0241 (± 0.08 µL)  
**RANDOM ERROR (Cv) %** : 0.2424 (± 0.8%)

#### 2. MIDDLE VOLUME

15 µL NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
14.93	14.91	14.92	14.91	14.93	14.93	14.91	14.92	14.92	14.92

**MEAN VOLUME:** 14.920  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL** : 0.080 (± 0.2 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in %** : 0.533 (± 1.0%)  
**ERROR LIMIT**  
**RANDOM ERROR (Sr) µL** : 0.008 (± 0.1 µL)  
**RANDOM ERROR (Cv) %** : 0.055 (± 0.5%)

#### 3. UPPER VOLUME

20 µL NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
19.91	19.91	19.95	19.91	19.98	19.90	19.97	19.94	19.91	19.97

**MEAN VOLUME:** 19.935  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL** : 0.065 (± 0.2 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in %** : 0.325 (± 1.0%)  
**ERROR LIMIT**  
**RANDOM ERROR (Sr) µL** : 0.031 (± 0.1 µL)  
**RANDOM ERROR (Cv) %** : 0.154 (± 0.5%)

UNCERTAINTY OF MEASUREMENTS = ± 0.27 µL

UNCERTAINTY MULTIPLIED BY THE COVERAGE FACTOR K=2 SUCH THAT THE COVERAGE PROBABILITY CORRESPONDS TO APPROXIMATELY 95%.

NOTE : THIS CALIBRATION CERTIFICATE IS VALID FOR SCIENTIFIC & INDUSTRIAL PURPOSE ONLY AND NOT APPLICABLE FOR COMMERCIAL PURPOSE

**V. SRINIVASAN**  
 ENGINEER



\*\*\* END OF CERTIFICATE \*\*\*

**KARTHIKA CK**



**RAMESH.L**  
 QUALITY MANAGER

Calibrated / Checked by

Prepared by

Authorised Signatory



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CHE 42505



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ULR-CC220723000026662F  
ISSUE DATE:09/06/2023

CERTIFICATE NO.: PC - 06 - 23 / ATL / 2032 - 03

**CUSTOMER** : M/s. DIALIFE - DIABETES, THYROID & ENDOCRINE CENTRE,  
**ADDRESS** : # 962, ABOVE CANARA BANK, BEL LAYOUT, 3rd BLOCK,  
VIDYARANYAPURA MAIN ROAD, VIDYARANYAPURA,  
BENGALURU - 560097.  
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**DEPT** : AT LAB

**CAL DATE** : 09/06/2023  
**RECOMMENDED DUE DATE** : 08/06/2024  
**PAGE NO.** : 1/1  
**DISCIPLINE** : MECHANICAL

### MICRO PIPETTE

**DATE OF RECEIPT** : 09/06/2023 **TEMPERATURE** : 20.4°C  
**PHYSICAL CONDITION** : SATISFACTORY **HUMIDITY** : 53 %RH

### PIPETTE DETAILS :

**MAKE** : FIXED VOLUME **ATMOSPHERIC PRESSURE** : 1002.3  
**TYPE** : FIXED **MODEL** : WAVE  
**ID. NO.** : --- **RANGE** : 75 µL  
**SL NO.** : 191078293 **L.C.** : ---  
**Z FACTOR** : 1.0029 µL/mg

STANDARD USED	SL.NO/ID.NO	CERT. NO.	VALIDITY
ELECTRONIC BALANCE	37014 / PCCPL/EB - 01	PC-09-22 / ATL / 3765 - 01	04/09/2023
ELECTRONIC BALANCE	1125510540 / PCCPL/EB - 02	PC-09-22 / ATL / 3765 - 02	04/09/2023

**CALIBRATION PROCEDURE** : WI-M-MP-44(L) **REFERENCE STANDARD** : ISO 8655-6 & ISO/ TR 20461

### CALIBRATION RESULTS

**1. LOWER VOLUME** 75 µl **NO. OF MEASUREMENT : 10**

1	2	3	4	5	6	7	8	9	10
75.14	75.11	74.98	75.21	75.21	75.32	74.97	75.00	75.00	75.32

<b>MEAN VOLUME:</b>	75.126	<b>ERROR LIMIT</b>	<b>ERROR LIMIT</b>
SYSTEMATIC ERROR (e <sub>s</sub> ) µl :	0.126	(± 0.8 µL)	RANDOM ERROR (Sr) µl : 0.1363 (± 0.3 µL)
SYSTEMATIC ERROR (e <sub>s</sub> ) in % :	0.126	(± 0.8 %)	RANDOM ERROR (Cv) % : 0.1815 (± 0.3 %)

UNCERTAINTY OF MEASUREMENTS = ± 0.27 µl

UNCERTAINTY MULTIPLIED BY THE COVERAGE FACTOR K=2 SUCH THAT THE COVERAGE PROBABILITY CORRESPONDS TO APPROXIMATELY 95%.

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V. SRINIVASAN

ENGINEER

Calibrated / Checked by

\*\*\* END OF CERTIFICATE \*\*\*

KARTHIKA CK

Prepared by



RAMESH L

QUALITY MANAGER

Authorised Signatory



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## CERTIFICATE OF CALIBRATION

ULR-CC220723000026663F  
ISSUE DATE:09/06/2023

CERTIFICATE NO. : PC - 06 - 23 / ATL / 2032 - 04

CUSTOMER : M/s. DIALIFE - DIABETES, THYROID & ENDOCRINE CENTRE.,  
ADDRESS : # 962, ABOVE CANARA BANK, BEL LAYOUT, 3rd BLOCK,  
VIDYARANYAPURA MAIN ROAD, VIDYARANYAPURA,  
BENGALURU - 560097.  
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DEPT : AT LAB

CAL DATE : 09/06/2023  
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PAGE NO. : 1/1  
DISCIPLINE : MECHANICAL

### MICRO PIPETTE

DATE OF RECEIPT : 09/06/2023  
PHYSICAL CONDITION : SATISFACTORY

TEMPERATURE : 20.2°C

HUMIDITY : 50 %RH

ATMOSPHERIC PRESSURE : 1002.5

Z FACTOR : 1.0029 µL/mg

### PIPETTE DETAILS :

MAKE : DRAGON LAB

TYPE : VARIABLE

ID. NO. : ---

SL. NO. : YE197AL0473950

MODEL : ----

RANGE : 100 - 1000 µL

L.C. : 5 µL

STANDARD USED	SL.NO/ID.NO	CERT. NO.	VALIDITY
ELECTRONIC BALANCE	37014 / PCCPL/EB - 01	PC-09 -22 / ATL / 3765 - 01	04/09/2023
ELECTRONIC BALANCE	1125510540 / PCCPL/EB - 02	PC-09 -22 / ATL / 3765 - 02	04/09/2023

CALIBRATION PROCEDURE : WI-M-MP-44(L)

REFERENCE STANDARD : ISO 8655-6 & ISO/ TR 20461

### CALIBRATION RESULTS

#### 1. LOWER VOLUME

100 µL

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
99.28	99.46	99.78	99.27	99.42	99.43	99.98	99.82	99.74	99.96

MEAN VOLUME: 99.614

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µL : 0.386

(± 0.8 µL)

RANDOM ERROR (Sr) µL : 0.2718

(± 0.3 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.386

(± 0.8 %)

RANDOM ERROR (Cv) % : 0.2728

(± 0.3 %)

#### 2. MIDDLE VOLUME

500 µL

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
496.97	495.98	497.89	497.48	498.96	495.87	496.97	498.94	496.92	496.95

MEAN VOLUME: 497.293

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µL : 2.707

(± 4.0 µL)

RANDOM ERROR (Sr) µL : 1.059

(± 1.5 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.541

(± 0.8 %)

RANDOM ERROR (Cv) % : 0.213

(± 0.3 %)

#### 3. UPPER VOLUME

1000 µL

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
1000.12	997.96	995.78	994.88	1001.12	997.92	997.94	1001.12	997.93	997.89

MEAN VOLUME: 998.266

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µL : 1.734

(± 8.0 µL)

RANDOM ERROR (Sr) µL : 2.053

(± 3.0 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.173

(± 0.8 %)

RANDOM ERROR (Cv) % : 0.206

(± 0.3 %)

UNCERTAINTY OF MEASUREMENTS = ± 0.27 µL

UNCERTAINTY MULTIPLIED BY THE COVERAGE FACTOR K=2 SUCH THAT THE COVERAGE PROBABILITY CORRESPONDS TO APPROXIMATELY 95%.

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V. SRINIVASAN  
ENGINEER



\*\*\* END OF CERTIFICATE \*\*\*

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PERFECT CALIBRATION CENTRE PVT. LTD.  
PH: 28192530  
28193130  
CHENNAI - 8

RAMESH L  
QUALITY MANAGER



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Prepared by

Authorised Signatory

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## CERTIFICATE OF CALIBRATION

ULR-CC220723000026664F  
ISSUE DATE:09/06/2023

CERTIFICATE NO. : PC - 06 - 23 / ATL / 2032 - 05

CUSTOMER : M/s. DIALIFE - DIABETES, THYROID & ENDOCRINE CENTRE.,  
ADDRESS : # 962, ABOVE CANARA BANK, BEL LAYOUT, 3rd BLOCK,  
VIDYARANYAPURA MAIN ROAD, VIDYARANYAPURA,  
BENGALURU - 560097.  
CUST REF : SRF . NO : 2032, DATE : 09/06/2023  
DEPT : AT LAB

CAL DATE : 09/06/2023  
RECOMMENDED DUE DATE : 08/06/2024  
PAGE NO. : 1/1  
DISCIPLINE : MECHANICAL

### MICRO PIPETTE

DATE OF RECEIPT : 09/06/2023  
PHYSICAL CONDITION : SATISFACTORY

TEMPERATURE : 20.2°C

HUMIDITY : 50 %RH

### PIPETTE DETAILS :

MAKE : ACURET  
TYPE : VARIABLE  
ID. NO. : ---  
SL NO. : BU07688

MODEL : ----  
RANGE : 20 - 200 µL  
L.C. : 1 µl

ATMOSPHERIC PRESSURE : 1002.5

Z FACTOR : 1.0029 µL/mg

STANDARD USED	SL.NO/ID.NO	CERT. NO.	VALIDITY
ELECTRONIC BALANCE	37014 / PCCPL/EB - 01	PC -09 -22 / ATL / 3765 - 01	04/09/2023
ELECTRONIC BALANCE	1125510540 / PCCPL/EB - 02	PC -09 -22 / ATL / 3765 - 02	04/09/2023

CALIBRATION PROCEDURE : WI-M-MP-44(L)

REFERENCE STANDARD : ISO 8655-6 & ISO/ TR 20461

### CALIBRATION RESULTS

#### 1. LOWER VOLUME

20 µl

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
19.89	19.79	19.68	19.89	19.78	19.89	19.88	19.69	19.79	19.89

MEAN VOLUME: 19.817

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µl : 0.183 (± 0.2 µL)      RANDOM ERROR (Sr) µl : 0.0837 (± 0.1 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.183 (± 1.0%)      RANDOM ERROR (Cv) % : 0.4222 (± 0.5 %)

#### 2. MIDDLE VOLUME

100 µl

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
99.95	100.71	100.81	100.72	100.91	100.42	100.61	100.42	100.28	100.56

MEAN VOLUME: 100.539

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µl : 0.539 (± 0.8 µL)      RANDOM ERROR (Sr) µl : 0.283 (± 0.3 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.539 (± 0.8 %)      RANDOM ERROR (Cv) % : 0.282 (± 0.3 %)

#### 3. UPPER VOLUME

200 µl

NO. OF MEASUREMENT : 10

1	2	3	4	5	6	7	8	9	10
199.79	200.11	200.32	200.72	199.89	199.86	200.11	200.89	200.72	200.73

MEAN VOLUME: 200.314

ERROR LIMIT

ERROR LIMIT

SYSTEMATIC ERROR (e<sub>s</sub>) µl : 0.314 (± 1.6 µL)      RANDOM ERROR (Sr) µl : 0.419 (± 0.6 µL)

SYSTEMATIC ERROR (e<sub>s</sub>) in % : 0.157 (± 0.8%)      RANDOM ERROR (Cv) % : 0.209 (± 0.3 %)

UNCERTAINTY OF MEASUREMENTS = ± 0.27 µl

UNCERTAINTY MULTIPLIED BY THE COVERAGE FACTOR K=2 SUCH THAT THE COVERAGE PROBABILITY CORRESPONDS TO APPROXIMATELY 95%.

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V. SRINIVASAN  
ENGINEER



\*\*\* END OF CERTIFICATE \*\*\*

KARTHIKA CK



RAMESH.L  
QUALITY MANAGER

Calibrated / Checked by

Prepared by

Authorised Signatory



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**CAL DATE :** 09/06/2023  
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**PAGE NO. :** 1/1  
**DISCIPLINE :** MECHANICAL

**CUST REF :** SRF. NO : 2032, DATE : 09/06/2023  
**DEPT :** AT LAB

### MICRO PIPETTE

**DATE OF RECEIPT :** 09/06/2023  
**PHYSICAL CONDITION :** SATISFACTORY

**TEMPERATURE :** 20.3°C  
**HUMIDITY :** 51 %RH  
**ATMOSPHERIC PRESSURE :** 1002.6  
**Z FACTOR :** 1.0029 µL/mg

### PIPETTE DETAILS :

**MAKE :** SUPER FIT  
**TYPE :** VARIABLE  
**ID. NO. :** ---  
**SL NO. :** QD590165  
**MODEL :** ---  
**RANGE :** 20 - 200 µL  
**L.C. :** 1 µL

STANDARD USED	SL.NO/ID.NO	CERT. NO.	VALIDITY
ELECTRONIC BALANCE	37014 / PCCPL/EB - 01	PC -09 -22 / ATL / 3765 - 01	04/09/2023
ELECTRONIC BALANCE	1125510540 / PCCPL/EB - 02	PC -09 -22 / ATL / 3765 - 02	04/09/2023

**CALIBRATION PROCEDURE :** WI-M-MP-44(L) **REFERENCE STANDARD :** ISO 8655-6 & ISO/ TR 20461

### CALIBRATION RESULTS

#### 1. LOWER VOLUME

**20 µL** **NO. OF MEASUREMENT : 10**

1	2	3	4	5	6	7	8	9	10
19.92	19.94	19.96	19.92	19.99	19.96	19.98	19.99	19.98	19.98

**MEAN VOLUME:** 19.962 **ERROR LIMIT** **ERROR LIMIT**  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL :** 0.038 (± 0.2 µL) **RANDOM ERROR (Sr) µL :** 0.0270 (± 0.1 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in % :** 0.038 (± 1.0%) **RANDOM ERROR (Cv) % :** 0.1352 (± 0.5 %)

#### 2. MIDDLE VOLUME

**100 µL** **NO. OF MEASUREMENT : 10**

1	2	3	4	5	6	7	8	9	10
99.93	100.31	100.24	100.16	100.23	100.18	100.17	100.24	100.26	100.32

**MEAN VOLUME:** 100.204 **ERROR LIMIT** **ERROR LIMIT**  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL :** 0.204 (± 0.8 µL) **RANDOM ERROR (Sr) µL :** 0.110 (± 0.3 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in % :** 0.204 (± 0.8 %) **RANDOM ERROR (Cv) % :** 0.110 (± 0.3 %)

#### 3. UPPER VOLUME

**200 µL** **NO. OF MEASUREMENT : 10**

1	2	3	4	5	6	7	8	9	10
199.84	200.63	199.62	200.77	200.92	200.43	200.22	200.14	200.82	201.21

**MEAN VOLUME:** 200.460 **ERROR LIMIT** **ERROR LIMIT**  
**SYSTEMATIC ERROR (e<sub>s</sub>) µL :** 0.460 (± 1.6 µL) **RANDOM ERROR (Sr) µL :** 0.503 (± 0.6 µL)  
**SYSTEMATIC ERROR (e<sub>s</sub>) in % :** 0.230 (± 0.8%) **RANDOM ERROR (Cv) % :** 0.251 (± 0.3 %)

UNCERTAINTY OF MEASUREMENTS = ± 0.27 µL

UNCERTAINTY MULTIPLIED BY THE COVERAGE FACTOR K=2 SUCH THAT THE COVERAGE PROBABILITY CORRESPONDS TO APPROXIMATELY 95%.

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**V. SRINIVASAN**  
ENGINEER



\*\*\* END OF CERTIFICATE \*\*\*

**KARTHIKA CK**



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