

THE PIPETEMANN

NABL ACCREDITED CALIBRATION LABORATORY

ADDING ACCURACY TO YOUR EQUIPMENT

MASS - VOLUME - THERMAL - SPEED - PRESSURE - TIMER - ELECTRO TECHNICAL



CALIBRATION CERTIFICATE

CUSTOMER ADDRESS : M/s. ANJU DIAGNOSTIC CENTRE, NO.3, RAJAMANGALAM MAIN ROAD, VILLIVAKKAM, CHENNAI-600049.	
UNIQUE LAB REPORT NUMBER : ULR-CC231722000000581F	DISCIPLINE : MECHANICAL CALIBRATION
NAME OF EQUIPMENT : MICROPIPETTE	PARAMETER : VOLUME
CERTIFICATE NO : TPMCC220250650	DATE OF ISSUE : 10-02-2022
RECEIPT NO : 10615	TEMPERATURE : 26.2 °C
RECEIPT DATE : 09-02-2022	HUMIDITY : 65 %
JOB CARD NO : TPM603022249073	AIR PRESSURE : 962 hpa
JOB CARD DATE : 09-02-2022	MEDIUM OF WEIGHING : GRADE III WATER
BRAND : DRAGON LAB	DENSITY OF MEDIUM : APPROXIMATELY 1
RANGE : 5 - 50 µl	DENSITY CORRECTION FACTOR [Z] : 1.0033 µl/mg
SERIAL NO : YE199AL0560606	CALIBRATION METHOD : ISO 8655:2002 PART - 6
TIPS USED : 200 µl	WEIGHING BALANCE : MICRO BALANCE
SCOPE OF ACCREDITATION : VOLUME - MICROPIPETTE (1 µl - 10000 µl)	

DETAILS OF MASTER EQUIPMENTS USED FOR CALIBRATION

MASTER EQUIPMENT	: SARTORIUS MICRO BALANCE
SL.NO	: 28001417
RESOLUTION	: 0.000001g upto 6.1g
CALIBRATED BY	: THE PIPETEMANN(MASS),COIMBATORE
CERTIFICATE NUMBER	: TPMCCM21030288
CALIBRATION VALIDITY	: 01-03-2022
TRACEABILITY	: NATIONAL STANDARDS

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 ADDING ACCURACY TO YOUR EQUIPMENT
 MASS - VOLUME - THERMAL - SPEED - PRESSURE - TIMER - ELECTRO TECHNICAL



CERTIFICATE NO : TPMCC220250650

CALIBRATED PARAMETER : VOLUME
 NO.OF MEASUREMENTS : 10

I) SELECTED VOLUME : 50 μ l

50.12 μ l	50.08 μ l	50.14 μ l	50.11 μ l	50.09 μ l	50.13 μ l	50.15 μ l	50.10 μ l	50.11 μ l	50.14 μ l
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MEAN VALUE : 50.12 μ l
 SYSTEMATIC ERROR(es) : 0.12 μ l
 RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

II) SELECTED VOLUME : 25 μ l

24.99 μ l	25.03 μ l	25.01 μ l	25.06 μ l	25.03 μ l	25.04 μ l	25.02 μ l	24.99 μ l	25.03 μ l	25.04 μ l
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MEAN VALUE : 25.03 μ l
 SYSTEMATIC ERROR(es) : 0.03 μ l
 RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

III) SELECTED VOLUME : 5 μ l

4.99 μ l	5.00 μ l	4.98 μ l	5.01 μ l	4.98 μ l	5.00 μ l	5.01 μ l	5.03 μ l	5.00 μ l	4.99 μ l
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MEAN VALUE : 5.00 μ l
 SYSTEMATIC ERROR(es) : 0 μ l
 RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.125 \mu$ l)
 ($\pm 0.075 \mu$ l)

CALIBRATED ON : 10-02-2022

CALIBRATION DUE ON : 09-08-2022

RESULTS :

RANGE	MEASUREMENT UNCERTAINTY	CMC (approved by NABL)
50 μ l	0.02 μ l	0.01 μ l
25 μ l	0.02 μ l	0.01 μ l
5 μ l	0.01 μ l	0.01 μ l

With coverage factor k is 2 for effective degrees of freedom is ∞ and the confidence level is 95%

CALIBRATED BY :

(M.VINOTH KUMAR)
 CALIBRATION ENGINEER

APPROVED BY :

(K.BALA MAYUR PRIYAN)
 TECHNICAL MANAGER

- NOTE : 1.Master equipments used for calibration are traceable to National standards
 2.The calibration reported are valid at the time of and under the stated conditions of the measurement
 3.Results presented in this certificate relate only to the item mentioned & calibrated at **THE PIPETEMANN**
 4.This certificate shall not be reproduced except in full without written approval of **THE PIPETEMANN**



CALIBRATION CERTIFICATE

CUSTOMER ADDRESS : M/s. ANJU DIAGNOSTIC CENTRE,
 NO.3, RAJAMANGALAM MAIN ROAD,
 VILLIVAKKAM,
 CHENNAI-600049.

UNIQUE LAB REPORT NUMBER : ULR-CC231722000000651F	DISCIPLINE : MECHANICAL CALIBRATION
NAME OF EQUIPMENT : MICROPIPETTE	PARAMETER : VOLUME
CERTIFICATE NO : TPMCC220250720	DATE OF ISSUE : 16-02-2022
RECEIPT NO : 10631	TEMPERATURE : 25.6 °C
RECEIPT DATE : 15-02-2022	HUMIDITY : 65 %
JOB CARD NO : TPM603022249143	AIR PRESSURE : 962 hpa
JOB CARD DATE : 15-02-2022	MEDIUM OF WEIGHING : GRADE III WATER
BRAND : LABMATE	DENSITY OF MEDIUM : APPROXIMATELY 1
RANGE : 5 - 50 µl	DENSITY CORRECTION FACTOR [Z] : 1.0033 µl/mg
SERIAL NO : 358715	CALIBRATION METHOD : ISO 8655:2002 PART - 6
TIPS USED : 200 µl	WEIGHING BALANCE : MICRO BALANCE
SCOPE OF ACCREDITATION : VOLUME - MICROPIPETTE (1 µl - 10000 µl)	

DETAILS OF MASTER EQUIPMENTS USED FOR CALIBRATION

MASTER EQUIPMENT : SARTORIUS MICRO BALANCE
 SL.NO : 28001417
 RESOLUTION : 0.000001g upto 6.1g
 CALIBRATED BY : THE PIPETEMANN(MASS),COIMBATORE
 CERTIFICATE NUMBER : TPMCCM21030288
 CALIBRATION VALIDITY : 01-03-2022
 TRACEABILITY : NATIONAL STANDARDS



CC - 2317

CERTIFICATE NO : TPMCC220250720

CALIBRATED PARAMETER : VOLUME
NO.OF MEASUREMENTS : 10

I) **SELECTED VOLUME** : 50 μ l

49.98 μ l	50.01 μ l	50.03 μ l	50.02 μ l	50.03 μ l	50.02 μ l	50.00 μ l	50.03 μ l	49.99 μ l	50.01 μ l
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MEAN VALUE : 50.02 μ l
SYSTEMATIC ERROR(es) : 0.02 μ l
RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

II) **SELECTED VOLUME** : 25 μ l

24.99 μ l	25.04 μ l	25.03 μ l	25.02 μ l	25.05 μ l	25.03 μ l	25.01 μ l	25.04 μ l	24.98 μ l	25.04 μ l
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MEAN VALUE : 25.03 μ l
SYSTEMATIC ERROR(es) : 0.03 μ l
RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

III) **SELECTED VOLUME** : 5 μ l

4.99 μ l	5.00 μ l	4.98 μ l	4.99 μ l	5.01 μ l	5.02 μ l	4.99 μ l	4.98 μ l	4.98 μ l	5.00 μ l
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MEAN VALUE : 4.99 μ l
SYSTEMATIC ERROR(es) : -0.01 μ l
RANDOM ERROR (Sr) : 0.01 μ l

Standard Limit Value
 ($\pm 0.125 \mu$ l)
 ($\pm 0.075 \mu$ l)

CALIBRATED ON : 16-02-2022

CALIBRATION DUE ON : 15-08-2022

RESULTS :

RANGE	MEASUREMENT UNCERTAINTY	CMC (approved by NABL)
50 μ l	0.02 μ l	0.01 μ l
25 μ l	0.01 μ l	0.01 μ l
5 μ l	0.01 μ l	0.01 μ l

With coverage factor k is 2 for effective degrees of freedom is ∞ and the confidence level is 95%

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