



CALIBRATION CERTIFICATE

CUSTOMER ADDRESS : M/s. SRI VIDHYA DIAGNOSTICS CENTRE, NO.77, JONES ROAD, SAIDAPET, CHENNAI - 600015.	
UNIQUE LAB REPORT NUMBER: ULR-CC316721000000192F	DISCIPLINE : MECHANICAL CALIBRATION PARAMETER : VOLUME
NAME OF EQUIPMENT : MICROPIPETTE	RELEVANT SECTION : 7.8.2 & 7.8.4
CERTIFICATE NO : TPMCC2110306	DATE OF ISSUE : 23-10-2021
RECEIPT NO : 115	TEMPERATURE : 27.0 °C
RECEIPT DATE : 22-10-2021	HUMIDITY : 65 % RH
JOB CARD NO : TPM06710210314	AIR PRESSURE : 1005 hpa
JOB CARD DATE : 22-10-2021	MEDIUM OF WEIGHING : GRADE III WATER
BRAND : MERILETTE	DENSITY OF MEDIUM : APPROXIMATELY 1
RANGE : 100 - 1000 µl	DENSITY CORRECTION FACTOR [Z] : 1.0042 µl/mg
SERIAL NO : 342500	WEIGHING BALANCE : SEMI MICRO BALANCE
TIPS USED : 1000 µl	CALIBRATION PROCEDURE No': 7.2.1.1-1
CALIBRATION LOCATION: AT LAB	CONDITION OF DUC RECEIVED: GOOD
METHOD OF CALIBRATION: Based on ISO 8655:2002 PART - 6 standard our calibration procedure is applied for micropipette calibration.	
SCOPE OF ACCREDITATION : VOLUME - MICROPIPETTE (11 µl - 10000 µl)	

DETAILS OF MASTER EQUIPMENTS USED FOR CALIBRATION

MASTER EQUIPMENT	: SHIMADZU
SL.NO	: D316301053
RESOLUTION	: 0.00001g upto 102g & above is 0.0001g
CALIBRATED BY	: THE PIPETEMANN, CHENNAI.
CERTIFICATE NUMBER	: TPMCCM2101002
CALIBRATION VALIDITY	: 12.01.2022
TRACEABILITY	: NATIONAL STANDARDS



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CALIBRATED PARAMETER : VOLUME		
NO.OF MEASUREMENTS : 10		
I) SELECTED VOLUME : 1000 µl		
999.89 µl	1000.08 µl	1000.50 µl
1000.71 µl	1001.09 µl	1000.00 µl
999.49 µl	999.18 µl	999.98 µl
1000.17 µl		
MEAN VALUE : 1000.12 µl	Standard Limit Value	
SYSTEMATIC ERROR(es) : 0.12 µl	(± 8.0 µl)	
RANDOM ERROR (Sr) : 0.55 µl	(± 3.0 µl)	
II) SELECTED VOLUME : 500 µl		
499.41 µl	499.51 µl	499.67 µl
499.71 µl	499.99 µl	500.08 µl
499.59 µl	499.41 µl	499.09 µl
499.59 µl		
MEAN VALUE : 499.60 µl	Standard Limit Value	
SYSTEMATIC ERROR(es) : -0.40 µl	(± 4.0 µl)	
RANDOM ERROR (Sr) : 0.29 µl	(± 1.5 µl)	
III) SELECTED VOLUME : 100 µl		
99.92 µl	99.97 µl	99.84 µl
100.02 µl	99.93 µl	99.97 µl
99.72 µl	99.84 µl	99.90 µl
100.04 µl		
MEAN VALUE : 99.91 µl	Standard Limit Value	
SYSTEMATIC ERROR(es) : -0.09 µl	(± 0.8 µl)	
RANDOM ERROR (Sr) : 0.10 µl	(± 0.3 µl)	
CALIBRATED ON : 23-10-2021	CALIBRATION DUE ON : 22-10-2022	
RESULTS :		
RANGE	MEASUREMENT UNCERTAINTY	CMC (approved by NABL)
1000 µl	0.94 µl	0.94 µl
500 µl	0.94 µl	0.94 µl
100 µl	0.26 µl	0.26 µl
With coverage factor k is 2 for effective degrees of freedom is ∞ and the confidence level is 95%		
CALIBRATED BY : (M.MUTHUMASANAM) CALIBRATION ENGINEER	APPROVED BY : (M.VINOTHKUMAR) DEPUTY TECHNICAL MANAGER	
NOTE : 1.The recalibration interval should be determined on the user requirement 2.Master equipments used for calibration are traceable to National standards 3.The calibration reported are valid at the time of and under the stated conditions of the measurement 4.Results presented in this certificate relate only to the item mentioned & calibrated at THE PIPETEMANN 5.This certificate shall not be reproduced except in full without written approval of THE PIPETEMANN 6.All precautions have been taken to avoid any error or omission while calibrating the DUC and issuing the certificate. 7.The volume/mass measurement are recorded as observed. Hence the results are reported without any adjustment. 8.DUC: Device under Calibration CMC :Calibration Measurement Capability		