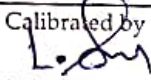
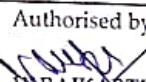


## CALIBRATION CERTIFICATE

EQN/FT/7.8/01		Page 1 of 2	
CRF No.	: EQN/CRF/2304031	Date of Calibration	: 06-Apr-23
Certificate No	: 2023-24/EQN/2304031-09	Recom. Due Date	: 05-Apr-24
ULR No.	: CC276023000005055F		
<b>Customer Details</b>		<b>Calibrated at</b>	
THE MEDICAL OFFICER		: Lab	
Urban Primary Health Centre		Date of Receipt : 06-Apr-23	
Udumalapet - 642 126		Cond. On Receipt : Satisfactory	
		Date of Issue : 08-Apr-23	
<b>Details of Test Instrument:</b>			
Description	: Micropipette	Model	: --
Range	: 100 - 1000 µl	Serial No	: 389918
Least Count	: 5µl	Identification No.	: --
Make	: GB Maxipet	Accuracy	: As Per ISO 8655-6
Working range :	: --	Location	: Laboratory
<b>Details of Standard Used</b>			
Name	: Electronic SemiMicro Balance	Certificate No.	: 2022-23/EQN/2205021-02
		Valid upto	: 08-May-23
CP No.	: EQN/CP/MS-03	Reference Standard	: ISO 8655-6
Environmental Details	: Temperature : 25±2°C	Relative Humidity	: 50±10 % RH
<b>MECHANICAL CALIBRATION</b>			
(Volume)			
<b>Calibration Results</b>			
1. Lower Volume :	100 µl	No. of Measurements :	10
<input type="text" value="100.25"/>	<input type="text" value="100.16"/>	<input type="text" value="100.23"/>	<input type="text" value="100.26"/>
<input type="text" value="100.11"/>	<input type="text" value="100.35"/>	<input type="text" value="100.10"/>	<input type="text" value="100.17"/>
<input type="text" value="100.24"/>	<input type="text" value="100.34"/>		
Mean Value :	<input type="text" value="100.22"/> µl		
<b>Error Limits(±)</b>			
Systematic Error :	0.22 µl	0.80 µl	
Systematic Error :	0.22 %	0.80 %	
Random Error :	0.09 µl	0.30 µl	
Random Error :	0.09 %	0.30 %	
Measurement Uncertainty :	±	0.37 µl	

Calibrated by :  
  
 L.SALAMON  
 (Calibration Engineer)



Authorised by:  
  
 V. RAJKARTHICK  
 (QM)

CRF No. : EQN/CRF/2304031  
 ULR No. : CC276023000005055F

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## MECHANICAL CALIBRATION (Volume)

### Calibration Results

**2. Middle Volume :**                      500                       $\mu\text{l}$                       No. of Measurements :                      10

499.35	499.20	499.29	499.27
499.23	499.26	499.14	499.06
498.99	498.90		

Mean Value : 499.17     $\mu\text{l}$

#### Error Limits( $\pm$ )

Systematic Error :	-0.83	$\mu\text{l}$	4.00	$\mu\text{l}$
Systematic Error :	-0.17	%	0.80	%
Random Error :	0.15	$\mu\text{l}$	1.50	$\mu\text{l}$
Random Error :	0.03	%	0.30	%
Measurement Uncertainty :	$\pm$		0.37	$\mu\text{l}$

**3. Nominal Volume :**                      1000                       $\mu\text{l}$                       No. of Measurements :                      10

1001.97	1002.41	1002.49	1002.74
1002.69	1002.41	1002.32	1002.38
1002.03	1002.17		

Mean Value : 1002.36     $\mu\text{l}$

#### Error Limits( $\pm$ )

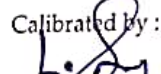
Systematic Error :	2.36	$\mu\text{l}$	8.00	$\mu\text{l}$
Systematic Error :	0.24	%	0.80	%
Random Error :	0.25	$\mu\text{l}$	3.00	$\mu\text{l}$
Random Error :	0.02	%	0.30	%
Measurement Uncertainty :	$\pm$		0.37	$\mu\text{l}$

**Remarks**

1. The reported Expanded Uncertainty is calculated at 95% C.L. with coverage factor  $k=2$
2. The Above Results are within the maximum permissible Error

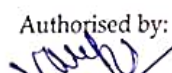
\*End of certificate\*

Calibrated by :

  
 L.SALAMON  
 (Calibration Engineer)



Authorised by:

  
 V. RAJKANTHICK  
 (QM)