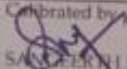



CALIBRATION CERTIFICATE

EQN/TT/7.8/01		Page 1 of 2	
CRF No. :	EQN/CRF/2202124	Date of Calibration :	01-Mar-22
Certificate No. :	2021-22/EQN/2202124-32	Recom. Due Date :	28-Feb-23
ULR No. :	CC276022000003051F		
Customer Details:			
M/s. BLOCK MEDICAL OFFICER		Calibrated at :	Lab
Government Primary Health Centre		Date of Receipt :	01-Mar-22
Nallatipalayam,		Cond. On Receipt :	Satisfactory
Coimbatore		Date of Issue :	04-Mar-22
Details of Test Instrument:			
Description :	Micropipette	Model No. :	Finnpipette F3
Range :	10 - 100 µl	Serial No. :	RW01652
Least Count :	1µl	Identification No. :	--
Make :	Thermoscientific	Accuracy :	As Per Manual
Working range :	--	Location :	ICTC
Details of Standard Used			
Name	Certificate No.	Valid upto	Traceability
Electronic SemiMicro Balance	2021-22/EQN/MASTER-256	07-May-22	EQN.CHENNAI
CP No	EQN/CP/MS-03	(Reference Standard ISC) 8655-6)	
Environmental Details	Temperature : 25±2°C	Relative Humidity : 50±10 % RH	
MECHANICAL CALIBRATION			
(Volume)			
Calibration Results			
1. Lower Volume :	10 µl	No. of Measurements	10
10.05	10.05	10.04	10.03
10.04	10.05	10.04	9.94
9.99	9.95		
Mean Value :	10.0 µl		
Error Limits(±)			
Systematic Error :	0.02 µl	0.12 µl	
Systematic Error :	0.16 %	1.20 %	
Random Error :	0.04 µl	0.08 µl	
Random Error :	0.42 %	0.80 %	
Measurement Uncertainty :	± 0.36 µl		

Calibrated by

 S. ANANDHARAJ
 (Calibration Engineer)

Authorised by

 V. RAJKIRTHICK
 (QM)



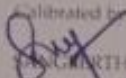
CALIBRATION CERTIFICATE

CRJ No.	EQN/CRJ/2202124		Page 2 of 2	
U/LR No.	CC2760220000030511			
MECHANICAL CALIBRATION				
(Volume)				
Calibration Results				
2. Middle Volume :	50	μl	No. of Measurements	10
<input type="text" value="50.03"/>	<input type="text" value="50.09"/>		<input type="text" value="49.94"/>	<input type="text" value="50.01"/>
<input type="text" value="49.95"/>	<input type="text" value="49.68"/>		<input type="text" value="50.08"/>	<input type="text" value="50.05"/>
<input type="text" value="50.13"/>	<input type="text" value="50.06"/>			
Mean Value :	50.0	μl		
Error Limits(z)				
Systematic Error :	0.00	μl	0.50	μl
Systematic Error :	0.01	%	1.00	%
Random Error :	0.13	μl	0.20	μl
Random Error :	0.26	%	0.40	%
Measurement Uncertainty :			\pm 0.36	μl
3. Nominal Volume :	100	μl	No. of Measurements	10
<input type="text" value="100.07"/>	<input type="text" value="100.04"/>		<input type="text" value="100.43"/>	<input type="text" value="100.00"/>
<input type="text" value="100.24"/>	<input type="text" value="100.17"/>		<input type="text" value="100.35"/>	<input type="text" value="100.19"/>
<input type="text" value="100.01"/>	<input type="text" value="99.99"/>			
Mean Value :	100.2	μl		
Error Limits(z)				
Systematic Error :	0.15	μl	0.80	μl
Systematic Error :	0.15	%	0.80	%
Random Error :	0.16	μl	0.30	μl
Random Error :	0.16	%	0.30	%
Measurement Uncertainty :			\pm 0.36	μl

Remarks

- The reported Expanded Uncertainty is calculated at 95.45 % C.I. with coverage factor $k=2$
- The Above Results are within the maximum permissible Error

End of certificate

Calibrated by

 V. R. RATHI K P
 (Calibration Engineer)

Authorised by

 V. RAJARATHICK
 (QM)

