

**Piston Operated Volumetric Apparatus**

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**CALIBRATION REPORT****REPORT No** : 23035192953**Date** : 22-03-2023**CDS No.** : 2953**Instrument** : Micropipette**Customer Name:**THE MEDICAL OFFICER  
Govt Primary Health Centre  
Anaikatty, Coimbatore**Type** : Variable Volume  
**Brand** : Thermo Scientific  
**Model** : Finnpiquette F3  
**Range** : 100 - 1000  $\mu$ l  
**Serial No** : RW02713  
**Received on** : 21-03-2023**Environmental Conditions:****Temperature** : 26.3°C**Humidity** : 54% RH**Atmospheric Pressure** : 1004 hpa**Z Factor** : 1.0042  $\mu$ l/mg**Balance Used For Calibration:****Brand:** Shimadzu (AUW220D)**Sl.No.** D561600036**Capacity:** 220g, **Readability:** 0.01mg**Traceability of Calibration:****Master Name**  
Semi Microbalance**Lab ID No. / Sr No.**  
PCS/MASTER/SMB/01**Valid upto**  
23-06-23**Traceability**  
Equation, Chennai

Semi Microbalance Calibrated at NABL Accredited Calibration Laboratory.

**1. Lower Volume:****100**  $\mu$ l**No. of Measurements:** 10

100.11 | 99.99 | 99.95 | 100.04 | 100.07 | 100.12 | 100.10 | 100.12 | 100.20 | 100.25

**Mean Volume V:** 100.09  $\mu$ l**Error Limits****Error Limits****Systematic Error es  $\mu$ l :** 0.09 ( $\pm$  0.8  $\mu$ l)**Random Error in Sr  $\mu$ l :** 0.09 ( $\pm$  0.3  $\mu$ l)**Systematic Error in % :** 0.09 ( $\pm$  0.8 %)**Random Error in CV % :** 0.09 ( $\pm$  0.3 %)**2. Middle Volume:****500**  $\mu$ l**No. of Measurements:** 10


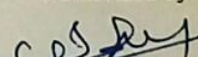
501.57 | 501.81 | 501.91 | 500.16 | 500.30 | 499.70 | 499.95 | 499.52 | 500.40 | 501.78

**Mean Volume V:** 500.71  $\mu$ l**Error Limits****Error Limits****Systematic Error es  $\mu$ l :** 0.71 ( $\pm$  4.0  $\mu$ l)**Random Error in Sr  $\mu$ l :** 0.95 ( $\pm$  1.5  $\mu$ l)**Systematic Error in % :** 0.14 ( $\pm$  0.8 %)**Random Error in CV % :** 0.19 ( $\pm$  0.3 %)**3. Nominal Volume:****1000**  $\mu$ l**No. of Measurements:** 10

1002.62 | 1004.07 | 1003.95 | 1004.06 | 1003.30 | 1003.11 | 1002.60 | 1002.39 | 1003.12 | 1001.30

**Mean Volume V:** 1003.05  $\mu$ l**Error Limits****Error Limits****Systematic Error es  $\mu$ l :** 3.05 ( $\pm$  8.0  $\mu$ l)**Random Error in Sr  $\mu$ l :** 0.87 ( $\pm$  3.0  $\mu$ l)**Systematic Error in % :** 0.31 ( $\pm$  0.8 %)**Random Error in CV % :** 0.09 ( $\pm$  0.3 %)

Calibration Procedure as per ISO 8655 Part 6

**Calibrated on:** 22-03-23**Calibration Due On:** 21-03-24**Calibrated by:****Authorized by:**  
(M. Aruna)  
(G. John)


## CALIBRATION REPORT

<b>REPORT No.</b> 23035192954	<b>CDS No.</b> 2954
<b>Date</b> : 22-03-2023	<b>Instrument</b> : 2954
<b>Customer Name:</b> THE MEDICAL OFFICER Govt Primary Health Centre Anaikatty, Coimbatore	<b>Type</b> : Micropipette <b>Brand</b> : Variable Volume <b>Model</b> : Thermoscientific <b>Range</b> : Finnpiquette F3 <b>Serial No.</b> : 10 - 100 µl <b>Received on</b> : RW01376 21-03-2023
<b>Environmental Conditions:</b> Temperature : 27.7 °C Humidity : 58% RH	<b>Atmospheric Pressure</b> : 1004 hpa <b>Z Factor</b> : 1.0045 µl/mg
<b>Balance Used For Calibration:</b> Brand: Shimadzu (AUW220D) Sl.No. D561600036	<b>Capacity:</b> 220g, <b>Readability:</b> 0.01mg
<b>Traceability of Calibration:</b> Master Name: Semi Microbalance Lab ID No. / Sr No.: PCS/MASTER/SMB/01 Valid upto: 23-06-23 Traceability Equation, Chennai	Semi Microbalance Calibrated at NABL Accredited Calibration Laboratory.

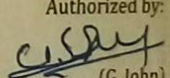
1. Lower Volume:		10 µl	No. of Measurements: 10						
10.01	10.02	9.99	10.02	9.95	10.01	10.02	10.00	9.99	10.01
Mean Volume V:		10.01 µl	Error Limits			Error Limits			
Systematic Error es µl :		0.01	(± 0.12)µl			Random Error in Sr µl :		0.02 (± 0.08)µl	
Systematic Error in % :		0.1	(± 1.2)%			Random Error in CV %:		0.2 (± 0.8)%	
2. Middle Volume:		50 µl	No. of Measurements: 10						
50.17	50.16	50.17	50.18	50.16	50.18	50.20	50.18	50.17	50.15
Mean Volume V:		50.18 µl	Error Limits			Error Limits			
Systematic Error es µl :		0.18	(± 0.5)µl			Random Error in Sr µl :		0.01 (± 0.2)µl	
Systematic Error in % :		0.4	(± 1.0)%			Random Error in CV %:		0.0 (± 0.4)%	
3. Nominal Volume:		100 µl	No. of Measurements: 10						
100.39	100.40	100.38	100.37	100.41	100.39	100.42	100.41	100.42	100.40
Mean Volume V:		100.40 µl	Error Limits			Error Limits			
Systematic Error es µl :		0.4	(± 0.8)µl			Random Error in Sr µl :		0.0 (± 0.3)µl	
Systematic Error in % :		0.4	(± 0.8)%			Random Error in CV %:		0.0 (± 0.3)%	

Calibration Procedure as per ISO 8655 Part 6

Calibrated on: 22-03-23

Calibrated by:   
(M. Aruna)

Calibration Due On: 21-03-24

Authorized by:   
(G. John)

