



# Vanavil Calibrations

Make It Simple, But Significant !

## CALIBRATION CERTIFICATE

Certificate No: VCPL/CC/23-24/014-02

Customer Name & Address : GOVERNMENT PRIMARY HEALTH CENTRE, VATTIVILAI, NAGERCOIL - 629 002	SRF Number	VCPL/2023/014-02
	Receipt date	26.09.2023
	Date of calibration	26.09.2023
	Due date of calibration	25.09.2024
	Date of issue	27.09.2023
	Calibration at	AT LAB
	Condition of DUC received	SATISFACTORY

### DETAILS OF DEVICE UNDER CALIBRATION

Description	MICROPIPETTE	Parameter	VOLUME
Brand	FINNPIPETTE - F3	Temperature	22.7°C
Serial No	RW05764	Humidity	55%RH
Range	10-100	Air pressure	971 hpa
Density correction factor (Z)	1.0039	Calibration method	ISO 8655:2002 PART-6
Medium of weighing	GRADE III WATER	Weighing balance	SEMI MICRO BALANCE

### Details of Master Equipment Used For Calibration

S.No	Description	ID.No / SLNo	Certificate No	Validity
1	SEMI MICRO BALANCE	VCPL/MLAB/SMB/01	TC/9970/2023	25-Mar-2024

CALIBRATED PARAMETER : VOLUME

NO.OF MEASUREMENTS : 10

1 SELECTED VOLUME 100  $\mu$ l

1	2	3	4	5	6	7	8	9	10
100.14	100.04	100.14	100.00	99.95	99.74	99.84	100.14	100.21	100.11

Mean volume : 100.03  $\mu$ l  
Systematic error : 0.17  $\mu$ l  
Random error : 0.15  $\mu$ l

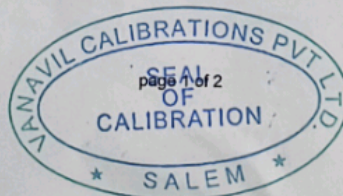
standard limits value  
 $\pm$  8  $\mu$ l  
 $\pm$  4  $\mu$ l

2 SELECTED VOLUME 50  $\mu$ l

1	2	3	4	5	6	7	8	9	10
49.94	49.94	49.96	50.04	49.94	49.44	50.04	50.11	49.91	49.70

Mean volume : 49.91  $\mu$ l  
Systematic error : -0.09  $\mu$ l  
Random error : 0.20  $\mu$ l

standard limits value  
 $\pm$  4  $\mu$ l  
 $\pm$  1.5  $\mu$ l



## Vanavil Calibrations Pvt. Ltd

(A Unit of Rainbow Bio Medical Engineers)

S2, Rishi Maharaj Apartment, Indra Nagar, 250 Reddiyur Main Road, Narasothipatty, Salem - 636 004.

No. 96,97,98, Anadhamaya Apartments, 2<sup>nd</sup> Floor, KVR Flats, 2<sup>nd</sup> Cross Street, Thangam Nagar, Pallikaranai, Chennai - 600 100.

Cell: 99949 13872 / 99949 23872 Ph: 0427-7965376

✉ vanavilcalibrations@gmail.com 🌐 www.rainbowbiomedicalengineers.com | www.vanavilcalibrations.com



Certificate No: VCPL/CC/23-24/014-02

3	SELECTED VOLUME	10	μl						
10.01	10.02	10.01	9.99	10.02	10.00	10.01	10.02	10.01	10.02

Mean volume : 10.01 μl  
 Systematic error : 0.01 μl  
 Random error : 0.01 μl

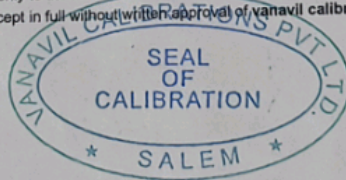
standard limits value  
 ± 0.8 μl  
 ± 0.3 μl

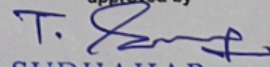
RANGE (μl)	MEASUREMENT UNCERTAINTY (μl)
100	0.10
50	0.13
10	0.03

with coverage factor k is 2 effective degree of freedom is ∞ and the confidence is 95%

- NOTE 1 Master equipments used for calibration are traceable to national standard  
 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 vanavil calibration pvt ltd.  
 4 This certificate shall not be reproduced except in full without written approval of vanavil calibration pvt ltd.

calibrated by  
**M.MUTHUMASANAM**  
 (CALIBRATION ENGINEER)



approved by  
  
**T. SUDHAKAR,**  
 Technical Manager  
 Vanavil Calibrations Pvt Ltd.

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 \*\*\*\*\*END OF REPORT\*\*\*\*\*

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