



CERTIFICATE NO. :  
CC - 2725

9001:2015



## CERTIFICATE OF CALIBRATION

Certificate No: CC-20-21-L-206/01

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<b>Customer Name &amp; Address</b> M/s. National X-RAY'S, ECG & Clinical laboratory, 117-A, Salem Main Road, Krishnagiri - 635 001	ULR No.	CC272520000004481F
	SRF No.	VCI-20-21-L-206
	Date of Receipt	10.12.2020
	Date of Calibration	10.12.2020
	Due Date for Calibration	09.12.2021
	Date of Issue	11.12.2020

**Details of Unit Under Calibration**

Description	Micro Pipette	Make	AGAPPE
Range	20-200 µl	Model	4640130
Resolution	1 µl	Material	pvc
Serial Number	RW03706	Operating Range	20-200µl
ID Number	3	Condition of UUC	Good
Cal. At	Mechanical Lab	Instrument Location	--

Environmental Condition		Calibration Method Used	
Temperature (°C)	23±2	National / International Standard	ISO 8655-6:2002
Humidity (%RH)	40 - 70	Cal Procedure No	VCI-L03-WI-MASS-003

**Standard Used**

SI. No.	Description	ID.No. / SI. No.	Certificate No.	Make/Model	Traceability	Valid till
1	Electronic Semi Micro Balance	VCI-M-WB-017 / 55492	TVCSPL 20/ 10/956-01	Wensar / MAB 250	National Standards	15.10.2021

**Result of Calibration in µl**

Sl. No.	Nominal Value	Observed Readings					Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)
1	20	20.58	20.71	20.75	20.73	20.62	20.64	0.64	0.10	0.21
		20.43	20.59	20.62	20.68	20.71				
2	100	100.85	100.93	100.97	100.86	101.08	100.93	0.93	0.07	0.21
		100.88	100.93	100.91	100.94	100.97				
3	200	201.21	201.54	201.36	201.33	201.47	201.45	1.45	0.12	1.72
		201.59	201.53	201.48	201.55	201.46				

**Remarks**

1. UUC is Defined as the Unit Under Calibration.
2. The Measurement uncertainty is expressed at 95.45% confidence level with coverage factor  $k=2$ .
3. This Calibration Certificate relates only to the above UUC & Reported results are valid at the time of and under the stated conditions of measurements.
4. Calibration of the UUC are traceable to National / International Standards.
5. This report shall not be reproduced in full/ part without prior permission of Venus Calibration and Instruments.
6. The recalibration interval shall be determined on the user requirements.
7. Nabl-133 guidelines are adopted for use of NABL symbol.
8. Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

Checked & Issued by:

M.Gokila

(Engineer - Calibration)



Authorised by:

K.Sathish

(Deputy Quality Manager)



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## CERTIFICATE OF CALIBRATION

Certificate No: CC-20-21-L-206/02

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Customer Name & Address M/s. National X-RAY'S, ECG & Clinical laboratory, 117-A, Salem Main Road, Krishnagiri - 635 001	ULR No.	CC272520000004482F
	SRF No.	VCI-20-21-L-206
	Date of Receipt	10.12.2020
	Date of Calibration	10.12.2020
	Due Date for Calibration	09.12.2021
	Date of Issue	11.12.2020

### Details of Unit Under Calibration

Description	Micro Pipette	Make	POULO
Range	100-1000µl	Model	VV1000
Resolution	1 µl	Material	pvc
Serial Number	374504	Operating Range	100-1000µl
ID Number	4	Condition of UUC	Good
Cal. At	Mechanical Lab	Instrument Location	Krishnagiri

Environmental Condition				Calibration Method Used	
Temperature (°C)	23±2	Humidity (%RH)	40-70	National / International Standard	ISO 8655-6:2002
Atmospheric Pressure (mbar)	1002			Cal Procedure No	VCI-L03-WI-MASS-003

### Standard Used

SI. No.	Description	ID.No. / SI. No.	Certificate No.	Make/Model	Traceability	Valid till
1	Electronic Semi Micro Balance	VCI-M-WB-017 / 55492	TVCSPL 20/ 10/956-01	Wensar / MAB 250	National Standards	15.10.2021

### Result of Calibration in µl

Sl. No.	Nominal Value	Observed Readings					Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)
1	100	101.13	101.11	101.28	101.05	101.15	101.09	1.09	0.32	1.72
		101.19	101.24	100.21	101.29	101.25				
2	500	499.11	499.04	498.98	499.05	498.94	499.05	-0.95	0.08	1.72
		499.15	498.98	499.11	499.15	498.97				
3	1000	998.98	998.84	998.81	998.95	998.91	998.89	-1.11	0.06	1.72
		998.89	998.85	998.94	998.91	998.84				

### Remarks

- UUC is Defined as the Unit Under Calibration.
- The Measurement uncertainty is expressed at 95.45% confidence level with coverage factor  $k = 2$ .
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- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

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