# TRUE ALUE CALIBRATION SERVICES PVT LTD.,



### CERTIFICATE OF CALIBRATION

FT-Q-25							Page 1	of 1
ULR No.		:	CC2144	24000001114F				
Certificate No.		1	TVCSP	L 24/02/0215-01	Date of	Issue	:	15-02-2024
Date of Calibrati	on	:	14-02-20	024	Recom	. Due Date	:	13-02-2025
Customer Detail	s				SRF No	).	:	0215
M/s.Amster Spe	ciality	Laboratory			Calibra	ited at		On-Site
Perumpadappa					Date of	Date of Receipt :		14-02-2024
Puthanpalli.				Cond. On Receipt		:	Satisfactory	
Details of Test Ir	strume	nt:					-	
Description	:	Centrifu	ige		Model	No.	: Electra BL	
Range	:	Max 400	00 RPM		Serial 1	No	: 202301457-12	
Least Count	:	100 RPN	1		Identif	ication No.	: CF-01	
Make	:	Peerless	Euro		Accura	icy	: As Per Manual	
Working range	:	-			Locatio	on	: Laboratory	
Details of Standa	ard Use	d		I V + K I			AL IT	
	N	ame		Certificate No.		Valid up	to	Calibrated at
Digital Tachometer			HT/CC/230830-12/001	30-Aug-24		24	CC-2151	
Work Instruction :			WI-R-05		Alexander			
Environmental Details :			:	Temperature:	25±5 °C	Relative I	Humidity: 40	)-70 % RH

### MECHANICAL CALIBRATION

(Acceleration & Speed)

### Calibration Results

S.No	DEVICE UNDER CALIBRATION	STANDARD INSTRUMENTS	DEVIATION	EXPANDED UNCERTAINTY		
	RPM	RPM	RPM	%		
1	1000	1010	-10	0.59		
2	2000	2008	-8	0.31		
3	3000	3009	-9	0.22		
4	4000	4007	-7	0.17		

# Remarks:-

- 1. Standard reading given was the average of 3 measurements
- 2. The reported Expanded Uncertainty is calculated at 95.45 % C.L. with coverage factor k= 2

3. Masters are Traceable to SI Units.

Calibrated by

(Calibration Engineer)

End of Certificate \*

CH-99

Authorised by:

Wefri Selvi

(QM & TM)

... redefining the true value

92, S.R.B Nagar Main Road, Chennai - 600 099. Tamil Nadu, India.

Ph: 97102 22422 / 522 / 622 Cell: 94440 38060

Email: calibrationservices@live.com www.truevaluecalibration.com CIN No: U29268TN2015PTC103428





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				CALIBRA	TION CERTIFI	CATE					
Certificate Number :		:	MES24/02/	/036-01		ULR Number	:	CC2543230	00000204F		
Customer Details : AMSTER SPECIALITY LABORATORY, PERUMPADAPPA, PUTHENPALLI.											
	f Calibration	: :	12/02/202	4		SRF Number		: 036			
Next C	alibration Due	:	11/02/202	5		Date of Issue			: 12/02/2024		
			DE	TAILS OF DEV	ICE UNDER CALIBRA	ATION(DUC)					
	nclature	:	Micropipet	tte		Serial No.	:	-			
	/ Model	:	Labopette			ID No.	:	P 1	P 1		
	nent Condition	:	Good			Resolution	:	0 μΙ			
Range		;	1000 μL			Location	:	Laboratory			
				DETAILS OF	MASTER EQUIPMEN	NT USED					
	nclature	:	Electronic	Precision Balar		Range			n		
Make		:	Boeco Ger	many	_	Readability		: 0.01/0.1 mg			
Model		:	BBC-22			Serial No.		: 27104178			
Certific	cate No.	:	TVSPL 23/10/1135-01		Calibr	Calibration Due Date		02.10.202	4		
				ENVIRO	NMENTAL CONDITION	ONS					
Temperature(°C) Relative Humidity (9		% 1 · ·	Atmospheric Pressure (mbar)		Water Temperature(°C)						
	26.7			56		1007			26.5		
				CAL	<b>BRATION RESULTS</b>						
Discipline : Mechanical			Parame	Parameter		: Volume					
SI.	Set Volume	St	tandard	Systematic	Acceptable	Random	Ac	ceptable	Expanded		
No.	Set Volume		Value	Error	Systematic Error	Error	Ran	dom Error	Uncertainty		
	μl		μΙ	μl	±μl	μl		±μl	±μl		
1	1000	1	001.44	-1.44	12.00	0.37		4.00	1.083		

# Notes: -

- The results in this certificate are only related to DUC submitted calibration and valid at the time of calibration under stated condition of measurements
- The measurement uncertainty is estimated at a confidence level of 95.45% with coverage factor k=2.
- Results in this certificate shall not be reproduced in partial or full without the written approval of the laboratory.
- Next calibration due date is mentioned as per customer requirement.
- Calibration certificate issued for scientific or industrial purpose only.
- Acceptable error limit is given as per ISO 8655-2:2002(E) Guidelines
- Calibration is carried out as per ISO 8655-6 Guidelines; MES work procedure: MES/WP/VOLUME.

Calibrated by

Prabin KP (Calibration Engineer)



**Authorized Signatory** 

Binoj Thomas (Technical Manager)



Abhcon Crown,X1/411/21,Ambadi Lane Kokkalai, Thrissur-21. Fh: 0487 2420367 Email: mescalibration.tsr@gmail.com Visit us @www.mescalibration.com

		CALIDDAGGO	N OPPOPHEICATE			
		CALIBRATIO	N CERTIFICATE			
Certificate Number	:	MES24/02/036-02	ULR Number	:	CC254323000000205F	
Customer Details	:	AMSTER SPECIALITY LABORAT	ORY,PERUMPADAPPA,PUTHE	ENP	ALLI.	
Date of Calibration		12/02/2024	SRF Number		036	
			Date of Issue	:	12/02/2024	
Next Calibration Due	:	11/02/2025		<u>.</u>	22,02,00	
		DETAILS OF DEVICE U	NDER CALIBRATION(DUC)			
Nomenclature	:	Micropipette	Serial No.	:	-	
Make / Model	:	Labopette	ID No.	:	P 2	
Equipment Condition	:	Good	Resolution	:	10 μΙ	
Range	i	100 - 1000 μL	Location	:	Laboratory	
	·		ER EQUIPMENT USED			
Nomenclature	:	Electronic Precision Balance	Range	-:	0 – 210 gm	
Make	:		Readability	:	0.01/0.1 mg	
	:	Boeco Germany	Serial No.		27104178	
		BBC-22	Calibration Due Date		02.10.2024	
Certificate No.	:	TVSPL 23/10/1135-01			02.10.202	
		ENVIRONMEN	ITAL CONDITIONS			
Tomporaturo(°C)		Relative Humidity (%)	Atmospheric Pressure		Water Temperature(°C)	
Temperature(°C)		Relative number (70)	(mbar)	_	•	
26.5		57	1007		26.2	

Temperature(°C)	Relative Humidity (%)	(mbar)	Water remperature( 5)
26.5	57	1007	26.2
	CALIBRATIO	N RESULTS	

Discipline :		Mech	anical	Parame	ter	: Volume		
SI.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty	
No.	μΙ	μl	μΙ	±μl	μl	±μl	± μl	
1	100	100.25	-0.25	1.40	0.06	0.60	8.166	
2	500	501.88	-1.88	12.00	0.14	4.00	8.170	
3	1000	1003.95	-3.95	12.00	0.30	4.00	8.188	

# Notes: -

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Calibrated by

Prabin KP (Calibration Engineer)

**Authorized Signatory** 

**Binoj Thomas** (Technical Manager)