

(An ISO/IEC 17025:2005 NABL Accredited Calibration Laboratory)

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

				CALIBRA	ATION CERTIFIC	CATE				
Certif	ficate Number	: N	IES/2101	18/C3		ULR Number	r :	CC254321	L00000008F	
Custo	omer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.					•	0025 152.	1000000000		
Date	of Calibration		3/01/2021			Date of SRF		: 18/01/2021		
Next (Calibration Due	: 17	7/07/2021			Date of Issue	:			
	-		DETAILS OF DEVICE UNDER CALIBRATION (DUC)				•	10/01/202	:1	
Nome	enclature	: N	/ICROPIPE		- CHEIDIO	Serial No.				
Make	/ Model			ISPA I SERIES			:	01112307		
Equip	ment Condition		OOD	ISI A I SERIES		ID No.	:	NA		
Range		•	NEW TENER			Resolution		0.02μL		
Marige		: 2-20μL Location				:	NA			
Mana				DETAILS OF N	AASTER EQUIPMEN	T USED				
Nomenclature				ecision Balance	Rang	e		: 0 – 220 gr	m	
Make : Boeco					Read	ability		: 0.01/0.1 r		
Model			C-22		Seria	No.		: 27104178	0	
Certific	cate No.	: ME	S/170120	20/EB/C1		ration Due Dat		: 16.01.2021		
				ENVIRON	MENTAL CONDITIO	NS		. 10.01.202	.1	
1	emperature(°C)		Relat	tive Humidity (9		ic Pressure (m	har)	Mater Ten	(96)	
	28.1			55		1010	Dai j	ar) Water Temperature (°C) 28.2		
				CALIE	RATION RESULTS	1010			3.2	
[Discipline :		Mech	anical	Parame	eter		V		
SI.	Set Volume	St	andard	Systematic	Acceptable	Random	Α.	cceptable	Expanded	
No.		Value		Error	Systematic Error	Error	Random Error		Uncertainty	
4	μΙ		μΙ μΙ		±μl	μΙ				
1	2*	-	1.82*	0.18*	0.08*	0.02*		0.04*	± μl 0.048*	
2	10	-	9.89	0.11	0.12	0.03		0.04	0.048	
otes:-	20	1 2	20.13	-0.13	0.20	0.04		0.10	0.005	

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- 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.
- The tests and /or Calibration marked with an * are not accredited by NABL

Prabin K P

(Calibration Engineer)

Authorized Signatory



			CALIDA	ATTION OFF						
Cert	tificate Number	: MES/210	CALIBR	ATION CERTIFI	CATE					
	tomer Details				ULR Numbe	er	: CC25433	21000000006		
		: SPARSHA	DIAGNOSTICS	CENTRE, MANGALO	ORF.		. 0023432	1000000000		
	of Calibration Calibration Due	: 18/01/202 : 17/07/202	21 21		Date of SRF Date of Issue		18/01/20			
			DETAILS OF DEV	ICE UNDER CALIBRA	TION (DUC)		18/01/20	21		
	enclature e / Model	: MICROPIE	PETTE		Serial No.	:	OW13806	3		
Equipment Condition		: GOOD	MISPA I SERIES		ID No.			: NA : 0.2µL : NA		
Range	e	: 20-200µL		Resolution Location						
Jome	nolation		DETAILS OF N	MASTER EQUIPMEN	TUSED	•	NA			
Nomenclature Make Model Certificate No.		: Electronic P: Boeco: BBC-22: MES/170120	recision Balance	Rang Read Serial	Range Readability Serial No. Calibration Due Date			: 0 – 220 gm : 0.01/0.1 mg : 27104178		
-	Tommont (0-)		ENVIRON	MENTAL CONDITION	NC Due Da	te	16.01.202	21		
	Temperature(°C) 28.1	Rela	tive Humidity (9	6) Atmospheri	Atmospheric Pressure (mbar)			ar) Water Temperature(°C)		
	Di I		CALIB	RATION RESULTS	1010			8.2		
1	Discipline :		anical	Parame	tor		0.7%			
SI. Io.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random		ceptable	olume Expanded		
μl 1 20		μΙ	μΙ	± µl	Error	Ran	dom Error	Uncertainty		
2	20 100	19.90	0.10	0.20	μl 0.03		±μl	±μl		
2	200	100.06	-0.06	0.80	0.03		0.10	0.171		
	200	200.65	-0.65	4.00	1.00		0.30			

otes:-

0.429 The results in this certificate are only related to DUC submitted calibration and valid at the time of calibration

1.60

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- Next calibration due date is mentioned as per customer requirement.

-0.65

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Calibrated by

200.65

Prabin K P (Calibration Engineer) Authorized Signatory

0.15

Binoj Thomas (Technical Manager)

0.30

0.60

0.186



		×	CALIBRA	TION CER	FIFIC	ATE					
Certific	cate Number	: MES/210	.18/C2	ULR Number : CC254321000000				00000007F			
Custon	ner Details	: SPARSHA	ENTRE, MAN	GALOR	RE.						
Date o	f Calibration	: 18/01/202	1			Date of SRF	:	18/01/2021	L		
Next C	ext Calibration Due : 17/07/2021					Date of Issue	:	18/01/2021	l		
	•	ı	DETAILS OF DEVI	CE UNDER CA	LIBRAT	ION (DUC)					
Nomer	nclature	: MICROPIE	ETTE			Serial No.	:	NW07211			
Make /	/ Model	: AGAPPE/	AISPA I SERIES			ID No.	:	NA			
Equipn					0.2μL						
Range		: 20-200uL				Location	95				
			DETAILS OF N	ASTER FOUL	PMFNT		•	IVA			
Nomenclature : Electronic Precision Balance				Range			: 0 – 220 gn	n			
Make					Reada			: 0.01/0.1 n			
Model		BBC-22			Serial			: 27104178			
Certific	cate No.	MES/17012	020/EB/C1	Calibration Due Date			٥	: 16.01.202			
				IMENTAL CON				. 10.01.202	•		
T	emperature(°C)	Rel	ative Humidity (%) Atmo	Atmospheric Pressure (mbar)) Water Temperature(°C)			
	28.1		55		1010				28.2		
			CALII	BRATION RES	ULTS						
[Discipline :	Med	hanical		Parame	ter	:	Vo	olume		
SI. Set Volume		Standard Value	Systematic Error	Accepta Systematic		Random		cceptable ndom Error	Expanded Uncertainty		
No.	μΙ	μΙ	μΙ	±μl		μΙ		±μl	±μl		
1	20	19.58	0.42	0.20		0.02		0.10	0.169		
2	100	99.65	0.35	0.80		0.03		0.30	0.179		
3	200	199.89	0.11	1.60		0.15		0.60	0.428		

Notes:-

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Calibrated by

Authorized Signatory

Prabin K P (Calibration Engineer)



			CALIDDA	TO N. OF DOWN					
				TION CERTIFIC	CATE				
Certifi	icate Number	: MES/2101	18/C6		ULR Number	:	CC254321	00000011F	
Custo	mer Details	: SPARSHA	DIAGNOSTICS (ENTRE, MANGALO	RE.				
Date o	of Calibration	: 18/01/2021			Date of SRF			1	
Next (ext Calibration Due : 17/07/2021				Date of Issue	. :	18/01/202 18/01/202		
		D	CE UNDER CALIBRA		· ·	10/01/202	•		
Nome	nclature	: MICROPIPE		CE ONDER CALIBRA			044640=00		
	/ Model	•			Serial No.	:	011612793		
		: ERBA/ERBA	APETTE		ID No.	: NA			
Equip	ment Condition	: GOOD			Resolution	: 5μL			
Range		: 100-1000 µ	ıl		Location	:	: NA		
			DETAILS OF N	ASTER EQUIPMEN	T USED				
Nomenclature : Electronic Precision Ba							: 0 – 220 gr	n	
Make		: Boeco			ability		: 0.01/0.1 r		
Model		: BBC-22		Serial No.			27104178	O	
Certific	cate No.	: MES/170120	020/EB/C1				: 16.01.202		
			ENVIRON	MENTAL CONDITIO			. 10.01.202		
. 1	Temperature(°C)	Rela	tive Humidity (c Pressure (mb	ar)	Water Ten	nperature(°C)	
	28.1		55		1010	28.2			
			CALIE	BRATION RESULTS	-				
-	Discipline :	Mech	anical	Parame	eter	:	Vo	olume	
SI. Set Volume		Standard Value	Systematic Error	Acceptable Systematic Error	Random	Acceptable Random Erro		Expanded Uncertainty	
μΙ		μΙ	μΙ	±μl	μΙ	± µl		± µl	
1	100	100.53	-0.53	0.80	0.05		0.30	4.084	
2	500	503.82	-3.82	4.00	0.24		1.50	4.112	
3 Notes:-	1000	1003.03	-3.03	8.00	0.77		3.00	4.373	

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Calibrated by

(Quality)

Prabin K P (Calibration Engineer)

Authorized Signatory



CALIBRATION CERTIFICATE

DETAILS OF DEVICE UNDER CALIBRATION (DUC)

Certificate Number : MES/210118/C6

ULR Number : CC254321000000011F

: SPARSHA DIAGNOSTICS CENTRE, MANGALORE. **Customer Details**

: 18/01/2021 Date of Calibration

Date of SRF

18/01/2021

Next Calibration Due

17/07/2021

Date of Issue

: 18/01/2021

Nomenclature

: MICROPIPETTE

Serial No.

011612793

Make / Model

: ERBA/ERBAPETTE

NA

Equipment Condition :

ID No.

: 5µL

GOOD

Resolution

Range

100-1000 μΙ

Location

: NA

Nomenclature

DETAILS OF MASTER EQUIPMENT USED Electronic Precision Balance

Range

0 - 220 gm

Make

Boeco

Readability

0.01/0.1 mg

Model

BBC-22

Serial No.

27104178

Certificate No.

MES/17012020/EB/C1

Calibration Due Date

16.01.2021

Temperature(°C) Relative Humidity (%) Atmospheric Pressure (mbar) 28.1

Water Temperature(°C)

1010

28.2

Discipline :		Mech	anical	Parame	ter	: Volume		
SI. Set Volume		Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty	
	μΙ	μΙ	μΙ	±μl	щ	±μl	± µl	
1	100	100.53	-0.53	0.80	0.05	0.30	4.084	
2	500	503.82	-3.82	4.00	0.24	1.50	4.112	
3	1000	1003.03	-3.03	8.00	0.77	3.00	4.373	

ENVIRONMENTAL CONDITIONS

Notes:-

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- 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

Authorized Signatory

Prabin K P (Calibration Engineer)





CALIBRATION CERTIFICATE Certificate Number MES/210118/C8 **ULR Number** : CC254321000000013P **Customer Details** SPARSHA DIAGNOSTICS CENTRE, MANGALORE. : 18/01/2021 Date of Calibration : 18/01/2021 Date of SRF Next Calibration Due 17/07/2021 Date of Issue 18/01/2021 **DETAILS OF DEVICE UNDER CALIBRATION (DUC)** Nomenclature : MICROPIPETTE Serial No. 211619 Make / Model : UBM ID No. : NA **Equipment Condition** : GOOD Resolution : 0.5µL Range 5-50µl Location : NA **DETAILS OF MASTER EQUIPMENT USED** Nomenclature **Electronic Precision Balance** Range $0 - 220 \, \text{gm}$ Make Boeco Readability 0.01/0.1 mg Model BBC-22 Serial No. 27104178 Certificate No. MES/17012020/EB/C1 Calibration Due Date 16.01.2021 **ENVIRONMENTAL CONDITIONS** Temperature(°C) Relative Humidity (%) Atmospheric Pressure (mbar) Water Temperature(°C) 55 1010 28.2 **CALIBRATION RESULTS** Discipline Mechanical Parameter Volume Standard Systematic Acceptable Random Acceptable **Set Volume** SI. **Expanded** Value Error **Systematic Error** Error **Random Error** No. Uncertainty ul ш ±μl μl ± ul ±μl 4 56 0.44 0.13* 0.02 0.08* 0.411* 25 24.79 0.21 0.20 0.02 0.10 0.411 3 0.14 0.50 0.02 0.20 0.411 Notes:-

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Calibrated by

(Calibration Engineer)

Prabin K P

Authorized Signatory



CALIBRATION CERTIFICATE

DETAILS OF DEVICE UNDER CALIBRATION (DUC)

Certificate Number : MES/210118/C6

ULR Number : CC254321000000011F

: SPARSHA DIAGNOSTICS CENTRE, MANGALORE. **Customer Details**

: 18/01/2021 Date of Calibration

Date of SRF

18/01/2021

Next Calibration Due

17/07/2021

Date of Issue

: 18/01/2021

Nomenclature

: MICROPIPETTE

Serial No.

011612793

Make / Model

: ERBA/ERBAPETTE

NA

Equipment Condition :

ID No.

: 5µL

GOOD

Resolution

Range

100-1000 μΙ

Location

: NA

Nomenclature

DETAILS OF MASTER EQUIPMENT USED Electronic Precision Balance

Range

0 - 220 gm

Make

Boeco

Readability

0.01/0.1 mg

Model

BBC-22

Serial No.

27104178

Certificate No.

MES/17012020/EB/C1

Calibration Due Date

16.01.2021

Temperature(°C) Relative Humidity (%) Atmospheric Pressure (mbar) 28.1

Water Temperature(°C)

1010

28.2

Discipline :		Mech	anical	Parame	ter	: Volume		
SI. Set Volume		Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty	
	μΙ	μΙ	μΙ	±μl	щ	±μl	± µl	
1	100	100.53	-0.53	0.80	0.05	0.30	4.084	
2	500	503.82	-3.82	4.00	0.24	1.50	4.112	
3	1000	1003.03	-3.03	8.00	0.77	3.00	4.373	

ENVIRONMENTAL CONDITIONS

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Calibration is carried out as per ISO 8655-6 Guidelines; MES work procedure: MES/WP/VOLUME.

Calibrated by

Authorized Signatory

Prabin K P (Calibration Engineer)



				CALIBRA	LION	CERTIFICA	TE	A STATE OF THE STATE OF				
Cortific	cate Number	: M	ES/21011		HON		LR Number		CC2543210	00000000		
				·				•	CC2545210	000000031		
Customer Details : SPARSHA DIAGNO			AGNOSTICS CI	ENTRE	MANGALOR	Ε.						
Date of	Date of Calibration : 18/01/2021					[Date of SRF	:	18/01/2021			
Next C	Next Calibration Due : 17/07/2021					[Date of Issue	:	18/01/2021			
			DE	TAILS OF DEVIC	E UNE	DER CALIBRATI	ON (DUC)			La company		
Nomer	nclature	: N	1ICROPIPET	ΓΤΕ			Serial No.	:	PW13793			
Make /	Make / Model : THERMO SCIE		IENTIFIC/FINNP	IPETTI	E F3	ID No.	:	NA				
EBC BIRDS BIR			0.001μL									
								•	100			
Range					NA							
				DETAILS OF N	IASTE	REQUIPMENT	USED					
Nomer	nclature	: Ele	Electronic Precision Balance			Range			: 0 – 220 gm			
Make		: Bo	eco	со			Readability			: 0.01/0.1 mg		
Model		: BB	C-22			Serial No.			: 27104178			
Certific	cate No.	: M	ES/170120	20/EB/C1		Calibra	tion Due Date	е	: 16.01.202	1		
el .				ENVIRON	MENT	AL CONDITION	IS					
Т	emperature(°C)		Relat	ive Humidity (9	6)	Atmospheric	Pressure (ml	oar)	Water Ten	perature(°C)		
	28.1			55		1	.010		28	.2		
				CALIB	RATIC	N RESULTS				of the second of the second		
[Discipline :		Mech	anical		Parame	ter	:	Vo	olume		
SI. Set Volume		S	tandard Value	Systematic Error		cceptable ematic Error	Random Error		cceptable	Expanded Uncertainty		
No. µl		1	μΙ	μΙ	-,50	± µl	μΙ	± µl		±μl		
1	500	1	503.56	-3.56		4.00	0.42		1.50	1.208		
2	2500	_	2514.39	-14.39		16.00	0.18		6.00	1.098		
3	5000	_	5026.02	-26.02		40.00	0.08		15.00	1.961		

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Calibrated by

Prabin K P
(Calibration Engineer)

Binoj Thomas (Technical Manager)

Authorized Signatory



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

				CALIBRA	TIOI	V CERTIFIC	ATE				
Certifi	cate Number	:	MES/21011	L8/C5			ULR Number	:	CC254321	.000000010F	
Custo	mer Details	:	SPARSHA D	IAGNOSTICS (ENTR	E,MANGALOI	RE.				
Date of Calibration			18/01/2021			•	Date of SRF		18/01/202	1	
Next C	lext Calibration Due : 17/07/2021 Date of Issue					18/01/202					
			DI	ETAILS OF DEVI	CF LIN	DER CALIBRAT		•	10/01/202	•	
Nome	nclature	•	MICROPIPE		CE OIL	DER CALIBRAT	Serial No.		011610704		
Mako	/ Model							:			
	• 1000000000000000000000000000000000000	•	ERBA/ERBA	PETTE			ID No.	:	NA		
Equipr	ment Condition	:	GOOD			Resolution			5μL		
Range		: 100-1000 µl Location		:	NA						
				DETAILS OF N	// ASTE	R EQUIPMENT	USED				
Nomenclature		:	Electronic Pr	ecision Balance		Range			: 0 – 220 gr	n	
Make		:	Boeco			Readability			: 0.01/0.1 r		
Model		:	BBC-22		Serial No.				: 27104178		
Certific	cate No.	:	MES/170120	20/EB/C1	Calibration Due Date			0	: 16.01.202		
					MENT	AL CONDITION			. 10.01.202	1	
Т	emperature(°C)		Relat	tive Humidity (Pressure (m	bar)	Water Ten	nnerature(°C)	
	28.1			55	•	1010			r) Water Temperature(°C) 28.2		
				CALIE	BRATIC	ON RESULTS				,, <u>e</u>	
[Discipline :		Mech	anical		Parame	ter	:	Vo	olume	
SI. Set Volume			Standard Value	Systematic Error		cceptable ematic Error	Random		cceptable ndom Error	Expanded Uncertainty	
			μΙ μΙ			± μl μl			± μl ± μl		
1	100		100.08	-0.08		0.80	0.07		0.30	4.085	
2	500		504.39	-4.39		4.00	0.08		1.50	4.088	
3	1000	1	1003.45	-3.45		8.00	0.19		3.00	4.109	

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