
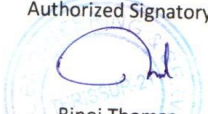




CALIBRATION CERTIFICATE							
Certificate Number : MES/210118/C3		ULR Number : CC25432100000008P					
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration : 18/01/2021		Date of SRF : 18/01/2021					
Next Calibration Due : 17/07/2021		Date of Issue : 18/01/2021					
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature : MICROPIPETTE		Serial No. : OW12967					
Make / Model : AGAPPE/MISPA I SERIES		ID No. : NA					
Equipment Condition : GOOD		Resolution : 0.02µL					
Range : 2-20µL		Location : NA					
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature : 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					
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline : Mechanical		Parameter : Volume					
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± µl	± µl
1	2*	1.82*	0.18*	0.08*	0.02*	0.04*	0.048*
2	10	9.89	0.11	0.12	0.03	0.08	0.085
3	20	20.13	-0.13	0.20	0.04	0.10	0.117
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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 							
Calibrated by				Authorized Signatory			
 Prabin K P (Calibration Engineer)				 Binoj Thomas (Technical Manager)			



Cert No. CC-2543



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Visit us @www.mescalibration.com

CALIBRATION CERTIFICATE							
Certificate Number : MES/210118/C1				ULR Number : CC25432100000006F			
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration : 18/01/2021				Date of SRF : 18/01/2021			
Next Calibration Due : 17/07/2021				Date of Issue : 18/01/2021			
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature : MICROPIPETTE		Serial No. : OW13806		ID No. : NA		Resolution : 0.2µL	
Make / Model : AGAPPE/MISPA I SERIES		Location : NA					
Equipment Condition : GOOD							
Range : 20-200µL							
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature : Electronic Precision Balance		Range : 0 - 220 gm		Readability : 0.01/0.1 mg		Serial No. : 27104178	
Make : Boeco		Model : BBC-22		Calibration Due Date : 16.01.2021			
Certificate No. : MES/17012020/EB/C1							
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline : Mechanical				Parameter : Volume			
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± µl	± µl
1	20	19.90	0.10	0.20	0.03	0.10	0.171
2	100	100.06	-0.06	0.80	0.04	0.30	0.186
3	200	200.65	-0.65	1.60	0.15	0.60	0.429

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 except in full without the written approval of this centre.
- 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 K P
(Calibration Engineer)

Authorized Signatory



Binoj Thomas
(Technical Manager)





Cert No. CC-2543





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CALIBRATION CERTIFICATE								
Certificate Number		: MES/210118/C2			ULR Number		: CC25432100000007F	
Customer Details		: SPARSHA DIAGNOSTICS CENTRE, MANGALORE.						
Date of Calibration		: 18/01/2021			Date of SRF		: 18/01/2021	
Next Calibration Due		: 17/07/2021			Date of Issue		: 18/01/2021	
DETAILS OF DEVICE UNDER CALIBRATION (DUC)								
Nomenclature		: MICROPIPETTE			Serial No.		: NW07211	
Make / Model		: AGAPPE/MISPA I SERIES			ID No.		: NA	
Equipment Condition		: GOOD			Resolution		: 0.2µL	
Range		: 20-200µL			Location		: NA	
DETAILS OF MASTER EQUIPMENT USED								
Nomenclature		: 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	
ENVIRONMENTAL CONDITIONS								
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)		
28.1		55		1010		28.2		
CALIBRATION RESULTS								
Discipline		: Mechanical		Parameter		: Volume		
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty	
	µl	µl	µl	± µl	µl	± 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:-								
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				 Binoj Thomas (Technical Manager)				





CALIBRATION CERTIFICATE							
Certificate Number : MES/210118/C6		ULR Number : CC25432100000011F					
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration : 18/01/2021				Date of SRF : 18/01/2021			
Next Calibration Due : 17/07/2021				Date of Issue : 18/01/2021			
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature : MICROPIPETTE		Serial No. : 011612793					
Make / Model : ERBA/ERBAPETTE		ID No. : NA					
Equipment Condition : GOOD		Resolution : 5µL					
Range : 100-1000 µl		Location : NA					
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature : 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					
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline : Mechanical		Parameter : Volume					
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± 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
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				 Binoj Thomas (Technical Manager)			





CALIBRATION CERTIFICATE							
Certificate Number : MES/210118/C6		ULR Number : CC25432100000011F					
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration : 18/01/2021				Date of SRF : 18/01/2021			
Next Calibration Due : 17/07/2021				Date of Issue : 18/01/2021			
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature : MICROPIPETTE		Serial No. : 011612793					
Make / Model : ERBA/ERBAPETTE		ID No. : NA					
Equipment Condition : GOOD		Resolution : 5µL					
Range : 100-1000 µl		Location : NA					
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature : 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					
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline : Mechanical		Parameter :				Volume	
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± 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
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				Binoj Thomas (Technical Manager)			


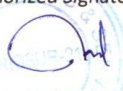


CALIBRATION CERTIFICATE							
Certificate Number : MES/210118/C8				ULR Number : CC25432100000013P			
Customer Details : SPARSHA DIAGNOSTICS CENTRE,MANGALORE.							
Date of Calibration : 18/01/2021				Date of SRF : 18/01/2021			
Next Calibration Due : 17/07/2021				Date of Issue : 18/01/2021			
DETAILS 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 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)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline : Mechanical				Parameter : Volume			
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± µl	± µl
1	5*	4.56*	0.44*	0.13*	0.02*	0.08*	0.411*
2	25	24.79	0.21	0.20	0.02	0.10	0.411
3	50	49.86	0.14	0.50	0.02	0.20	0.411
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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 							
Calibrated by  Prabin K P (Calibration Engineer)				Authorized Signatory  Binoj Thomas (Technical Manager)			



CALIBRATION CERTIFICATE							
Certificate Number		: MES/210118/C6			ULR Number		: CC25432100000011F
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration		: 18/01/2021			Date of SRF		: 18/01/2021
Next Calibration Due		: 17/07/2021			Date of Issue		: 18/01/2021
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature		: MICROPIPETTE			Serial No.		: 011612793
Make / Model		: ERBA/ERBAPETTE			ID No.		: NA
Equipment Condition		: GOOD			Resolution		: 5µL
Range		: 100-1000 µl			Location		: NA
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature		: 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
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline		: Mechanical			Parameter		: Volume
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± 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
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				 Binoj Thomas (Technical Manager)			



CALIBRATION CERTIFICATE							
Certificate Number		: MES/210118/C4		ULR Number		: CC25432100000009F	
Customer Details : SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration		: 18/01/2021		Date of SRF		: 18/01/2021	
Next Calibration Due		: 17/07/2021		Date of Issue		: 18/01/2021	
DETAILS OF DEVICE UNDER CALIBRATION (DUC)							
Nomenclature		: MICROPIPETTE		Serial No.		: PW13793	
Make / Model		: THERMO SCIENTIFIC/FINNPIPETTE F3		ID No.		: NA	
Equipment Condition		: GOOD		Resolution		: 0.001µL	
Range		: 0.5-5ML		Location		: NA	
DETAILS OF MASTER EQUIPMENT USED							
Nomenclature		: 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	
ENVIRONMENTAL CONDITIONS							
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)	
28.1		55		1010		28.2	
CALIBRATION RESULTS							
Discipline		: Mechanical		Parameter		: Volume	
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty
	µl	µl	µl	± µl	µl	± µl	± µl
1	500	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
Notes:-							
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				 Binoj Thomas (Technical Manager)			




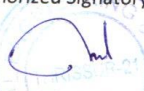
Cert No. CC-2543



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CALIBRATION CERTIFICATE									
Certificate Number		: MES/210118/C5			ULR Number		: CC25432100000010F		
Customer Details		: SPARSHA DIAGNOSTICS CENTRE, MANGALORE.							
Date of Calibration		: 18/01/2021			Date of SRF		: 18/01/2021		
Next Calibration Due		: 17/07/2021			Date of Issue		: 18/01/2021		
DETAILS OF DEVICE UNDER CALIBRATION (DUC)									
Nomenclature		: MICROPIPETTE			Serial No.		: 011612794		
Make / Model		: ERBA/ERBAPETTE			ID No.		: NA		
Equipment Condition		: GOOD			Resolution		: 5µL		
Range		: 100-1000 µl			Location		: NA		
DETAILS OF MASTER EQUIPMENT USED									
Nomenclature		: 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		
ENVIRONMENTAL CONDITIONS									
Temperature(°C)		Relative Humidity (%)		Atmospheric Pressure (mbar)		Water Temperature(°C)			
28.1		55		1010		28.2			
CALIBRATION RESULTS									
Discipline		: Mechanical			Parameter		: Volume		
Sl. No.	Set Volume	Standard Value	Systematic Error	Acceptable Systematic Error	Random Error	Acceptable Random Error	Expanded Uncertainty		
	µl	µl	µl	± 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	1003.45	-3.45	8.00	0.19	3.00	4.109		
Notes:-									
<ul style="list-style-type: none"> 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 except in full without the written approval of this centre. 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)				 Binoj Thomas (Technical Manager)					