

				CALI	BRA	TION	CERT	TIFICA	<u>TE</u>			
CERT	FICATE N	D :	SBS/CL/2	3/15787				MECHANIC	CAL	Page	No:1 of 1	
Issue Date						26-10-20	23	•				
SRF N	o & Date					SRF/23/	00950-0001	& 25-10-202	23			
Receip	t Date					25-10-20	23					
Calibra	ation Date					25-10-20	23					
Calibra	ation Due					24-10-20	24					
Custo	mer Name	& Add	ress						<u> </u>	.		
GOVE	RNMENT F	RIMA	RY HEALTH	CENTRE,								
IRUNG	ALUR-621	105,TF	RICHY DISTE	RICT.								
				De	tails of D	evice Ur	der Calibr	ation (DUC)				
Descri	ption	:	CENTRIF	JGE		Make &	Model	:	LABOTECH	I & BDI-152		
Range	l	:	3500	RPM		Sr. No		:	NA			
Resolu	ution	÷	1	RPM		Identification No		:	NA	NA		
DUC (Condition	<u>:</u> .	Satisfactor	у	Location			:	LABORATO	RY		
			Env	ironmental	Conditio	ns & Sta	ndard Ope	rating Proce	dure Details			
Enviro	nmental De	tails		Temperatur	e: 23.5°	С	Relative H	umidity	54% Rh			
Calibra	ation Proce	dure N	0	SBS/CP/ML	J04		Calibration	done at	done at ONSITE			
					Refe	rence St	andards De	etails				
S.No	S.No Description				Make/ SI No:		Certificate		Validity			
1	Digital Tac	homet	er		LINE SI	LINE SEIKI / 175-0034V		JRPM-CCTR-A&S-2023-0013			09-06-2024	

CALIBRATION RESULTS

S.No	DEVICE UNDER CALIBRATION	STANDARD INSTRUMENTS	DEVIATION	EXPANDED UNCERTAINTY		
	RPM	RPM	RPM	%		
1	1000	998.8	1.2	4.2		
2	2000	1999.3	0.7	4.2		
3	3000	2999.7	0.3	4.2		

REMARKS

- 1. This Calibration certificate shall not be reproduced except in full, without written approval of the laboratory.
- $\label{eq:continuous} \textbf{2.The user should determine the suitability of the instrument for its intended use.}$
- 3. The recalibration interval should be determined on the user requirement.
- 4. The results stated in this certificate relate only to the item calibrated.
- 5. The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00.
- 6. Equipment used for Calibration were calibrated & traceable to National & International Standards.

Calibrated By
(Calibration Engineer)
E.ESWAR

Chennai Co 600 032 C

Authorised Signatory

(Quality Manager) (Chief Executive)

(C.SIVABALAN)

SUNSHINE BIOMEDICAL SOLUTIONS



			<u>C</u>	ALIBRA	<u>ATION</u>	I CERT	<u>IFICATE</u>				
Certifica	te No: SBS/CL/23/15788									Page. No: 1 of 1	
Custome	r Name & Address										
						SRF No.			SRF/23/00950)-0002	
GOVERN	NMENT PRIMARY HEA	LTH CENT	RE,		SRF Date	e		25-10-2023			
RUNGA	LUR-621105,TRICHY D	ISTRICT.				Date of Receipt 23-10-2023					
						Date of C	Calibration		25-10-2023		
						Due Date	e for Calibration		24-10-2024		
						Issue Da	te		26-10-2023	-	
Details o	of Unit Under Calibratio	on		. == .							
Descript	on MICRO PIPETTE Make						THERMO SCIENTIFIC				
Range		10-100µl				Model			TTE F3		
Resoluti	on	ابر0.2	μl			Material		PVC			
Serial N	umber	NA	JA			Operating Range			10-100µl		
ID Numl	ber	NA				Condition of UUC			Good		
Cal. At		Mechanical Lab				Instrume	ent Location		LABORATO	RY	
	Env	ironmental	Condition				Calibrati	ion Metho	d Used		
Tempera	iture (°C)	23.9	Humidity (%RH)		55	National	National / International Standard		ISO 8655-6:2002		
Atmospheric Pressure (mbar)		1006	006 Water Temperature (°C)		21.6	Cal Proc	Cal Procedure No			08	
Standard	l Used	·			1						
SI. No.	Description	ID.No.	/ SI. No.]	Certificate	No.	Make/Model	Tra	ceability	Valid till	
1	Electronic Weighing Balance	1511	12918	TVC	CSPL22/12/	2115-01	A&D & GH-252	Nation	al Standards	09-12-202	

Z	Factor:	1.003	19

	Result of Calibration in µl											
Sl. No.	Nominal Value		Observed Readings			Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)			
,	10.0	9.91	9.92	9.90	9.92	9.93	9.92	0.00	0.01	0.47		
		9.92	9.93	9.92	9.93	9.91		-0.08		0.47		
2	50.0	49.95	49.96	49.95	49.95	49.96	49.96	0.04	0.01	0.47		
		49.96	49.97	49.98	49.97	49.96		-0.04	0.01	0.47		
3	100.0	99.89	99.88	99.89	99.87	99.88	99.87		0.01	0.47		
3		99.88	99.87	99.85	99.86	99.87		-0.13	0.01	0.47		

Remarks

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- 3. The recalibration interval should be determined on the user requirement.
- 4. The results stated in this certificate relate only to the item calibrated.
- 5. Equipment used for Calibration were calibrated & traceable to National & International Standards
- $6. The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately \ 95\% \ for a$ coverage factor k=2.00.

Chennai 600 032

WEDICAL Grade3 as specified in ISO 3696. 7. Calibration Liquid Used: Distilled or Deio

Calibrated By,

Balance

(Calibration Engineer) M.RAGUL

Authorised by:

SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087, E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



			C/	LIBR	ATION	I CERTI	<u>FICATE</u>			,	
Certificat	te No: SBS/CL/23/15789								i	Page. No: 1 of 1	
Customer	r Name & Address										
						SRF No.		SRF	/23/00950	-0003	
GOVERN	IMENT PRIMARY HEA	LTH CEN	TRE,			SRF Date		25-1	10-2023		
RUNGAI	LUR-621105,TRICHY D	621105,TRICHY DISTRICT. Date of Receipt 23-10-2023									
Date of Calibration							25-1	10-2023			
						Due Date	for Calibration	24-1	24-10-2024		
						Issue Dat	e	26-1	26-10-2023		
Details of	f Unit Under Calibratio	on									
Descripti	on .	MICRO PIPETTE Make THERMO SCIE					CIENTIFIC				
Range		100-1000	1000µl Model			Model			E F3		
Resolutio	n	1µl				Material	Material				
Serial Nu	ımber	NA				Operating	Operating Range				
D Numb	er	NA				Condition	Condition of UUC				
Cal. At		Mechanic	al Lab			Instrume	nt Location	LAI	BORATOI	RY	
	Env	ironmenta	l Condition		 - -	- -	Calibrat	ion Method Us	ed		
Temperat	ture (°C)	23.9	Humidity	(%RH)	55	National	National / International Standard			002	
Atmosph	eric Pressure (mbar)	1006	Water Temp	Water Temperature (°C)		Cal Proce	Cal Procedure No		SBS/CP/ML/08		
Standard	Used	•			•						
SI. No.	Description	ID.No	o. / SI. No.		Certificate	No.	Make/Model Tra		ility	Valid till	
1	Electronic Weighing Balance	15112918 T		TV	/CSPL22/12/2115-01		A&D & GH-252 Nation		andards	09-12-2023	
•									Z Factor:	1.00319	

										2 1 4(101, 1.0051	
Result of Calibration in µl											
Sl. No.	Nominal Value		Observed Readings				Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)	
1	100	99.77	99.78	99.76	99.75	99.74	99.77	-0.23	0.07	0.47	
1		99.75	99.76	99.72	99.71	99.95		-0.23	0.07	0,47	
2	500	499.95	499.96	499.95	499.96	499.97	499.96	0.04	-0.04 0.01	0.47	
2	500	499.96	499.97	499.98	499.98	499.96		-0.04	0.01	0.47	
,	1000	999.88	999.87	999.88	999.86	999.87	999,88	0.12	0.07	0.47	
3		999.89	999.87	999.88	999.89	999.87		-0.12		U.47	

Remarks

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- 6.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00.

Chennai

7. Calibration Liquid Used: Distilled or Deioni

ng Grade3 as specified in ISO 3696.

Calibrated By,

(Calibration Engineer) M.RAGUL Authorised by:

Quality Manager/Chief Executive)
C.SIVABALAN

SUNSHINE BIOMEDICAL SOLUTIONS