



CALIBRATION CERTIFICATE


| | | | | |
|--|--------------------------------|------------------------|-------------------------|------------|
| CERTIFICATE NO: | SBS/CL/23/15787 | MECHANICAL | Page No:1 of 1 | |
| Issue Date | 26-10-2023 | | | |
| SRF No & Date | SRF/23/00950-0001 & 25-10-2023 | | | |
| Receipt Date | 25-10-2023 | | | |
| Calibration Date | 25-10-2023 | | | |
| Calibration Due | 24-10-2024 | | | |
| Customer Name & Address | | | | |
| GOVERNMENT PRIMARY HEALTH CENTRE, IRUNGALUR-621105,TRICHY DISTRICT. | | | | |
| Details of Device Under Calibration (DUC) | | | | |
| Description | CENTRIFUGE | Make & Model | LABOTECH & BDI-152 | |
| Range | 3500 RPM | Sr. No | NA | |
| Resolution | 1 RPM | Identification No | NA | |
| DUC Condition | Satisfactory | Location | LABORATORY | |
| Environmental Conditions & Standard Operating Procedure Details | | | | |
| Environmental Details | Temperature: 23.5°C | Relative Humidity | 54% Rh | |
| Calibration Procedure No | SBS/CP/ML/04 | Calibration done at | ONSITE | |
| Reference Standards Details | | | | |
| S.No | Description | Make/ SI No: | Certificate No | Validity |
| 1 | Digital Tachometer | LINE SEIKI / 175-0034V | JRPM-CCTR-A&S-2023-0013 | 09-06-2024 |

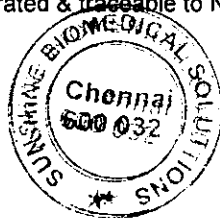
CALIBRATION RESULTS


| 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.
- 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



Authorised Signatory

 (Quality Manager) (Chief Executive)
(C.SIVABALAN)

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.



CALIBRATION CERTIFICATE

Certificate No: SBS/CL/23/15788

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Customer Name & Address

| | | |
|---|--------------------------|-------------------|
| GOVERNMENT PRIMARY HEALTH CENTRE, IRUNGALUR-621105, TRICHY DISTRICT. | SRF No. | SRF/23/00950-0002 |
| | SRF Date | 25-10-2023 |
| | Date of Receipt | 23-10-2023 |
| | Date of Calibration | 25-10-2023 |
| | Due Date for Calibration | 24-10-2024 |
| | Issue Date | 26-10-2023 |

Details of Unit Under Calibration

| | | | |
|---------------|----------------|---------------------|-------------------|
| Description | MICRO PIPETTE | Make | THERMO SCIENTIFIC |
| Range | 10-100µl | Model | FINNPIPETTE F3 |
| Resolution | 0.2µl | Material | PVC |
| Serial Number | NA | Operating Range | 10-100µl |
| ID Number | NA | Condition of UUC | Good |
| Cal. At | Mechanical Lab | Instrument Location | LABORATORY |

| Environmental Condition | | | | Calibration Method Used | |
|-----------------------------|------|------------------------|------|-----------------------------------|-----------------|
| Temperature (°C) | 23.9 | Humidity (%RH) | 55 | National / International Standard | ISO 8655-6:2002 |
| Atmospheric Pressure (mbar) | 1006 | Water Temperature (°C) | 21.6 | Cal Procedure No | SBS/CP/ML/08 |

Standard Used

| SI. No. | Description | ID.No. / SI. No. | Certificate No. | Make/Model | Traceability | Valid till |
|---------|-----------------------------|------------------|---------------------|--------------|--------------------|------------|
| 1 | Electronic Weighing Balance | 15112918 | TVCSPL22/12/2115-01 | A&D & GH-252 | National Standards | 09-12-2023 |

Z Factor: 1.00319

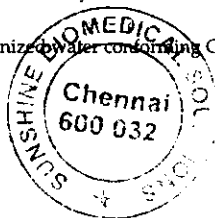
| Result of Calibration in µl | | | | | | | | | | |
|-----------------------------|---------------|-------------------|-------|-------|-------|-------|------------|------------------|--------------|-----------------------------|
| SI. No. | Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Measurement Uncertainty (±) |
| | | | | | | | | | | |
| 1 | 10.0 | 9.91 | 9.92 | 9.90 | 9.92 | 9.93 | 9.92 | -0.08 | 0.01 | 0.47 |
| | | 9.92 | 9.93 | 9.92 | 9.93 | 9.91 | | | | |
| 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 | | | | |
| 3 | 100.0 | 99.89 | 99.88 | 99.89 | 99.87 | 99.88 | 99.87 | -0.13 | 0.01 | 0.47 |
| | | 99.88 | 99.87 | 99.85 | 99.86 | 99.87 | | | | |

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 .
7. Calibration Liquid Used: Distilled or Deionized water containing Grade3 as specified in ISO 3696.

Calibrated By,

(Calibration Engineer)
 M.RAGUL



Authorised by:

Quality Manager/Chief Executive
 C.SIVABALAN

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.



CALIBRATION CERTIFICATE

Certificate No: SBS/CL/23/15789

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Customer Name & Address

| | | |
|---|--------------------------|-------------------|
| GOVERNMENT PRIMARY HEALTH CENTRE, IRUNGALUR-621105, TRICHY DISTRICT. | SRF No. | SRF/23/00950-0003 |
| | SRF Date | 25-10-2023 |
| | Date of Receipt | 23-10-2023 |
| | Date of Calibration | 25-10-2023 |
| | Due Date for Calibration | 24-10-2024 |
| | Issue Date | 26-10-2023 |

Details of Unit Under Calibration

| | | | |
|---------------|----------------|---------------------|-------------------|
| Description | MICRO PIPETTE | Make | THERMO SCIENTIFIC |
| Range | 100-1000µl | Model | FINNPIPETTE F3 |
| Resolution | 1µl | Material | PVC |
| Serial Number | NA | Operating Range | 100-1000µl |
| ID Number | NA | Condition of UUC | Good |
| Cal. At | Mechanical Lab | Instrument Location | LABORATORY |

| Environmental Condition | | | | Calibration Method Used | |
|-----------------------------|------|------------------------|------|-----------------------------------|-----------------|
| Temperature (°C) | 23.9 | Humidity (%RH) | 55 | National / International Standard | ISO 8655-6:2002 |
| Atmospheric Pressure (mbar) | 1006 | Water Temperature (°C) | 21.6 | Cal Procedure No | SBS/CP/ML/08 |

Standard Used

| SI. No. | Description | ID.No. / SI. No. | Certificate No. | Make/Model | Traceability | Valid till |
|---------|-----------------------------|------------------|--------------------|--------------|--------------------|------------|
| 1 | Electronic Weighing Balance | 15112918 | TVCSP22/12/2115-01 | A&D & GH-252 | National Standards | 09-12-2023 |

Z Factor: 1.00319

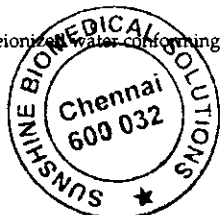
| Result of Calibration in µl | | | | | | | | | | |
|-----------------------------|---------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------------------|
| Sl. No. | Nominal Value | Observed Readings | | | | | Mean Value | 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 |
| | | 99.75 | 99.76 | 99.72 | 99.71 | 99.95 | | | | |
| 2 | 500 | 499.95 | 499.96 | 499.95 | 499.96 | 499.97 | 499.96 | -0.04 | 0.01 | 0.47 |
| | | 499.96 | 499.97 | 499.98 | 499.98 | 499.96 | | | | |
| 3 | 1000 | 999.88 | 999.87 | 999.88 | 999.86 | 999.87 | 999.88 | -0.12 | 0.01 | 0.47 |
| | | 999.89 | 999.87 | 999.88 | 999.89 | 999.87 | | | | |

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Calibrated By,

 (Calibration Engineer)
 M.RAGUL



Authorised by:

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