

SRL and ICTC
Government Medical College, Miraj
Centrifuge In-House Performance Check

Location : ICTC SDH Karad

Centrifuge ID: Reg No Page No.

Name of the TO: Ghorpade

Date of Calibration: 25/11/2022

Certified Tachometer ID: SRL / GMCM / Micro
/Reg.No.1 /Page No72

Certified Stop watch ID: SRL/
GMCM/Micro/Reg No 1/Pg No
44

Reading No.	Centrifuge speed(RPM)	Tachometer Speed in (RPM)	Centrifuge Timer	Certified Stop watch
1	3000	3025	10	10.08
2	3000	3040	10	10.05
3	3000	3030	10	10.12
4	3000	3035	10	10.15
5	3000	3020	10	10.18
6	3000	3028	10	10.14
7	3000	3049	10	10.1
8	3000	3038	10	10.09
9	3000	3032	10	10.19
10	3000	3026	10	10.12
	Average	3032.3	Average	10.122
	STDev	8.47	STDev	0.044
	RPM Speed Accuracy %	1.08	Time Accuracy%	1.22
	RPM Speed CV%	0.28	Time CV%	0.44

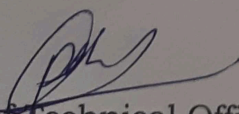
Rotation Speed Criteria : Acceptable difference must be within $\pm 5\%$ of required rotation rate

Timer Criteria: Acceptable difference must be equal to or less than 2% of the timer setting.

Calibration Passed/Failed: Passed

Next Due Date: 24/05/2023

Remarks: _____


Sign of Technical Officer

Technica. Officer
State Reference Laboratory
Government Medical College, Miraj

'Anjali Niketan', Flat No. 3, 2nd Floor,
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**MASTERTECH
SYSTEMS**
WHEN QUALITY MATTERS

CALIBRATION CERTIFICATE

Certificate No. :- 2122/0210/12-01	ULR No :- CC291122000006756F
Date of Calibration :- 4-Apr-2022	Calibration Due Date :- 3-Apr-2023
1. Clients Name & Address : SRL & ICTC LAB, GOVT. MEDICAL COLLEGE AND HOSPITAL, DEPT. OF MICROBIOLOGY MIRAJ	SRF No. :- 2122/0210/12 Date of Received :- 4-Apr-2022 Cal. Cert. Issue Date :- 5-Apr-2022 Condition of UUC :- OK Location of calibration :- In Lab. Calibration Procedure No. :- MTS/MECH/WI-23

2. Environmental Conditions:	Temperature: 25.4 °C	Relative Humidity: 51 % Rh
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3. Description of UUC			
Name :- Digital Tachometer	Range :- 5 - 99999 RPM		
Make :- LUTRON DT2234C	Resolution :- 0.1 / 1 RPM		
I.D No. :- SRL/GMCM/Micro/Reg No.1 Pg 72	Location :- SRL LAB		
Type :- Digital	Sr No :- DT2234C/012296		

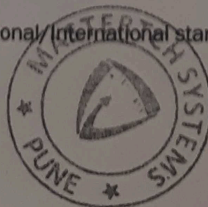
4. Reference Standards used for calibration:	
Name :- Digital Tachometer	
Make / Model :- Amprobe / TACH-10	
I.D No./Sr. No. :- MTS/TACH-01 / 18010152	
Certificate No. :- CH/21/2610D-01	
Calibration Validity :- 25/10/2022	
Certified By :- Calibration House (CC-2304)	
Range/Uncertainty :- As per Certificate	

5. Calibration Results

Mechanical Calibration					
Sr.No.	Calibration Point	UUC Reading	Standard Reading	Deviation	Expanded Uncertainty
	RPM	RPM	RPM	RPM	±RPM
1	10	10.2	10.1	0.1	1.10
2	500	500.4	500.2	0.2	4.50
3	1000	1002	1001	1	4.50
4	5000	5006	5004	2	33.00
5	10000	10014	10010	4	33.00

- NOTES:**
- The value measured of uuc & standard are mean of 5 reading.
 - The reported uncertainty is the expanded uncertainty in measurement obtained by multiplying the standard uncertainty by coverage factor K=2, which corresponds to a coverage probability of approximately 95.45% for normal distribution
 - This certificate refers only to the particular UUC submitted for calibration. UUC stands for Unit Under Calibration.
 - The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
 - This certificate shall not be reproduced, except in full unless written permission for the publication of an approved abstract has been obtained from "Mastertech Systems" Pune.
 - The Instruments used for calibration are traceable to National/International standards and their calibrations are valid.

Calibrated By
P.M.
Mr Parshuram M.
Calibration Engineer



Approved By
[Signature]
Mr. Daulat Shete
Technical Manager

End of Certificate

Calibration services for