

**CERTIFICATE OF IN-HOUSE CALIBRATION****Name of the Equipment: Laboratory CENTRIFUGE****Equipment I. D.: UPSACS/MC/PPTCT/13****Location: Room No. 1/62****Working Range: 1500-3000 rpm****Manufacture: UNIVERSAL BIO****Calibrated on: 25/01/22****Next Calibration due: 24/01/23****Method: Traceability Certificate**

MLNMC/MICRO/HDL/Dig. Tacho/01/SRL Certificate Number: 210309C/NN-104

Standard Tachometer : Line Seiki/TM5010EK-039, C&I Jaipur, M-200925-25-1 Dt: 19.09.2021

Test condition: Working

Instrument	Reading					Mean
	1	2	3	4	5	
Tachometer	1535	1542	1550	1525	1539	1538.2
Centrifuge 01	1500	1500	1500	1500	1500	1500

Acceptable variation: +/- 10% with Standard Tachometer

Remarks: Instrument has passed the acceptance criteria (Yes/No)

Sanjay
25/01/22
Checked & Verified by

Dr. Sanjay Kumar
Quality Manager
HIV Diagnostic Laboratory



CERTIFICATE OF CALIBRATION

godrej | CALIBRATION SERVICES

Godrej & Boyce Mfg. Co. Ltd.,
 Calibration Services, Plant 18 B, 1st Floor,
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 Mumbai - 400079.
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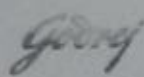
FR-QT-21		Page 1 of 2	
Certificate No	: M-200925-25-1	Date of Issue	: 25-Sep-20
Date of Calibration	: 19-Sep-20	Recom. Due Date	: 19-Sep-21
Customer Details	:	Challan No.	: SRF
Advance Calibration Services		Challan Date	: 17-Sep-20
O-73 Sec-12 Noida		Date of Receipt	: 19-Sep-20
Uttar Pradesh India		Cond. of Receipt	: Satisfactory
201301		Receipt No.	: M-200925-25
Details of Under Calibration Instrument:			
Description	: Digital Tachometer	Model	: TM-5010
Type	: Non-Contact Mode	Make	: Line Seiki
Range	: 0 to 99999.9 rpm	Sr. No.	: TM5010EK-039
L.C.	: 0.1 rpm	Identification No	: ACS/DTM/01
Operating range	: 0 to 90000 rpm	Accuracy	: ($\pm 0.05\%$ + 1 digit)
Details of Standard Used:			
Name	Sr/ID No	Valid upto	Traceability
Digital Tachometer (Non-Contact Mode)	TM4075	03-Jun-21	G & B, Chennai
Work Instruction No:	WI-ME-01/WI-ME-06	Ref. Standard	: IS:12508
Environmental Details:	Temperature: (20 \pm 1) °C	Relative Humidity	: (50 \pm 10)%
Calibration Results - (Mechanical-Speed)			
Non-Contact Mode :			
STD Readings (in r/min)	UUC Readings (in r/min)	Error (in r/min)	Measurement Uncertainty(\pm) (in r/min)
10.0	10.1	0.1	1.9
101.4	101.6	0.2	1.9
5003.0	5003.6	0.6	2.3
20005	20004.2	-0.8	4.5
50006	50003.2	-2.8	4.5
89997	89994.1	-2.9	5.0
AUTHORIZED SIGNATORY : OB Pendse DESIGNATION : A M CALIBRATED BY : Lab Engineer : Eknath Kimbari ULR NO : (CC263420000037585F)			

TRUE COPY

M/S ICTC, Deptt of microbiology
 M.L.N. Medical college, Patna



Digitally signed by DS GODREJ AND BOYCE
 MANUFACTURING CO. LIMITED 1
 Date: 2020.09.28 18:27:51 +05:30
 Reason: Calibration Certificate
 Location: Mumbai



Godrej & Boyce Mfg. Co. Ltd.

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(This document is digitally signed on first page and does not require signature)



ADVANCE CALIBRATION SERVICES

NABL ACCREDITED LAB
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Calibration Certificate

CERTIFICATE NO.	: 210309C/NN-104	Page	: 1 of 1
CALIBRATED ON.	: 09 / 03 / 2021	Ref. Std.	: IS:12508
CALIBRATION DUE.	: 09 / 03 / 2022	C.P. No.	: ACS/CP/10
SRF No. & DATE	: 210309C/NN Dt. 09.03.2021	Phy. Inspection	: O.K.
CALIBRATED FOR	: M/s SRL, Deptt of Microbiology M.L.N. Medical College, Allahabad.		
ITEM CALIBRATED	: Digital Tachometer		
	Make : EAPL	Range :	(0 to 9999)rpm
	L. Count : 0.1rpm	ID No. :	MLNMC/Micro/HDL/Dig. Tach/01/SRL
	Location : Micro Biology	S. No. :	N.A.
ENVIRONMENT CONDITION:	Temp. { 25 ± 3 } °C R.H. { 40 to 60 } %		
STANDARD INSTRUMENTS USED :			
INSTT. NAME	MAKE / S. No.	CALIBRATED FROM	CERTIFICATE No. & VALIDITY Dt.
Tachometer	Line Seiki / TM5010EK-039	Godrej	M-200925-25-1 Dt. 19.09.2021
RESULTS	:		
STANDARD VALUE (rpm)	* U.C. INSTT. READS (rpm)	ERROR (rpm)	
1000.98	1001.4	0.42	
2001.58	2002.1	0.52	
3001.92	3002.8	0.82	
4002.86	4004.4	1.54	
5001.62	5003.8	2.18	
(Average of readings)			

REMARKS

: The Expanded uncertainty of measurement at 95% confidence level is ± 0.6% of reading at coverage factor k=2

NOTE

* U.C. : Under Calibration.

Instrument has been Calibrated against laboratory standard instruments whose values are traceable to National Standard as mention in above. The calibration results reported in this certificate are valid at the time of and under the stated conditions of measurement for a particular sample identified above.

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The test report is not to be used for any legal purpose and shall not be produced in the court of law.

