



# AOV INTERNATIONAL LLP

(MEDICAL DEVICES CALIBRATION LABORATORY)

Address: C-22/25, Sector-57, Noida (U.P) Ph.: +91-120-4692900/01, +91-8595945672

E-mail: info@aovinternational.net, Website: www.aovinternational.net

AOV/7.8/QF/38

## Calibration Certificate

Certificate No.: AOV/CALN/22-12/0433

PAGE 1 OF 1

<b>Customer Detail:</b>	
Name and address of customer :-	M/s. JHARGRAM HEALTH DISTRICT HOSPITAL JHARGRAM, WEST BENGAL - 721507

<b>Calibration Certificate Details:</b>	
Customer Reference Number :-	-----
Date of Receipt :-	21-Dec-2022
Date of issue :-	22-Dec-2022
Date of calibration :-	21-Dec-2022
Recommended Due Date :-	21-Dec-2023

<b>Description of Device under calibration:</b>	
Name of Instrument :-	Digital Centrifuge
Range :-	Max 5250 RPM
Make / Model :-	Remi / R-8C
Least Count :-	10 RPM
Serial Number :-	ZGBN-05761
Location/Department :-	ICTC Lab
Equipment ID :-	2130010940
Condition of DUC :-	Satisfactory
Accuracy :-	---
Location of calibration (At Lab/Site) :-	Site

<b>Environmental Conditions Details:</b>	
Temperature :-	25 ± 4°C
Relative Humidity :-	50 ± 20 %

<b>Relevant Standard &amp; Procedure Details:</b>	
Method and Reference Calibration Procedure :-	By Using Comparison Method & AOV/CP/29
Reference National/ International Standards :-	IS:12508

<b>Description of standards used for calibration:</b>				
Name of Master Inst.	Make & Model	Serial Number	Valid Upto	Traceable To
Digital Tachometer	Fluke / 931	4792051	8-Dec-2023	CC-3171

<b>Visual Inspection of Device Under Calibration :-</b>	
<b>Parameter</b>	<b>Remarks (Ok / Not Ok)</b>
1) Physical Damage	Ok
2) Power Chord Check	Ok
3) Accessories, Cables, Filter, Inlet & Hoses	Ok
4) Battery Power	--
5) Alarm Function	Ok

<b>Discipline &amp; Group: Mechanical-Acceleration and Speed</b>					
<b>Calibration Results :-</b>					
Sr. No.	Parameter	DUC Set Value(M)	STD Measured Value(S)	Error (M - S)	Expended Uncertainty (±RPM)
1)	Rotation (RPM) (Non Contact Type)	500	498.2	1.8	6.18
		1200	1195	5	6.34
		2000	1990	10	6.94
		3000	2982	18	7.00
		3900	3873	27	7.06

**Remarks:**

- 1) Equipment used for calibration were calibrated & traceable to National & International Standards.
- 2) The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2.00, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NABL requirements.
- 3) The reported uncertainty applies only to the measured values and gives no indication of the long term stability of device.
- 4) Recommended Due Date of Calibration Certificate as per Customer Request.
- 5) All Readings are average of Five Readings.
- 6) DUC stands for Device Under Calibration.

*Bhagwan*  
**CALIBRATED/CHECKED BY**  
 Bhagwan Singh (Calibration Engineer)



*Gaurav*  
**AUTHORISED SIGNATORY**  
 Gaurav Rajawat (Quality Manager)

**NOTE:**

- 1) This Calibration Certificate refers only to the particular item submitted for calibration.
- 2) This certificate shall not be reproduced except in full/part without prior permission of AOV International LLP.
- 3) The Calibration results reported in this certificate are valid at the time of an under stated condition of measurement.



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### Calibration Certificate

Certificate No.: AOV/CALN/22-12/0434

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Customer Detail:	
Name and address of customer :-	M/s. JHARGRAM HEALTH DISTRICT HOSPITAL JHARGRAM, WEST BENGAL - 721507

Calibration Certificate Details:	
Customer Reference Number :-	-----
Date of Receipt :-	21-Dec-2022
Date of calibration :-	21-Dec-2022
Date of issue :-	22-Dec-2022
Recommended Due Date :-	21-Dec-2023

Description of Device under calibration:	
Name of Instrument :-	Rotary Shaker
Range :-	50-400 RPM
Make / Model :-	Remi / RS-12 plus
Least Count :-	1 RPM
Serial Number :-	ZCIS-26658
Location/Department :-	ICTC Lab
Equipment ID :-	2130010108
Condition of DUC :-	Satisfactory
Accuracy :-	---
Location of calibration (At Lab/Site) :-	Site

Environmental Conditions Details:	
Temperature :-	25 ± 4°C
Relative Humidity :-	50 ± 20 %

Relevant Standard & Procedure Details:	
Method & Reference Calibration Procedure :-	By Using Comparison Method & AOV/CP/29
Reference National/ International Standards :-	IS:12508

Description of standards used for calibration:				
Name of Master Inst.	Make & Model	Serial Number	Valid Upto	Traceable To
Digital Tachometer	Fluke / 931	4792051	8-Dec-2023	CC-3171

Visual Inspection of Device Under Calibration :-	
Parameter	Remarks (Ok / Not Ok)
1) Physical Damage	Ok
2) Power Chord Check	Ok
3) Accessories, Cables, Filter, Inlet & Hoses	Ok
4) Battery Power	--
5) Alarm Function	--

Discipline & Group: Mechanical-Acceleration and Speed					
Calibration Results :-					
Sr. No.	Parameter	DUC Set Value(M)	STD Measured Value(S)	Error (M - S)	Expanded Uncertainty (±RPM)
1)	Rotation (RPM) (Contact Type)	50	49.92	0.08	3.80
		100	99.8	0.2	3.80
		150	149.2	0.8	3.80
		300	298.3	1.7	3.80
		400	397.6	2.4	3.80

**Remarks:**

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- 3) The reported uncertainty applies only to the measured values and gives no indication of the long term stability of device.
- 4) Recommended Due Date of Calibration Certificate as per Customer Request.
- 5) All Readings are average of Five Readings.
- 6) DUC stands for Device Under Calibration.

\*\*End of Certificate\*\*

*Bhagwan*  
CALIBRATED/CHECKED BY  
Bhagwan Singh (Calibration Engineer)



*Gaurav*  
AUTHORISED SIGNATORY  
Gaurav Rajawat (Quality Manager)

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### Calibration Certificate

Certificate No.: AOV/CALN/22-12/0435

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<b>Customer Detail:</b>	
Name and address of customer :-	M/s. JHARGRAM HEALTH DISTRICT HOSPITAL JHARGRAM, WEST BENGAL - 721507
<b>Calibration Certificate Details:</b>	
Customer Reference Number :-	-----
Date of Receipt :-	21-Dec-2022
Date of issue :-	22-Dec-2022
Date of calibration :-	21-Dec-2022
Recommended Due Date :-	21-Dec-2023
<b>Description of Device under calibration:</b>	
Name of Instrument :-	Centrifuge
Range :-	As per Manual
Make / Model :-	Remi / C-854/4
Least Count :-	As per Range
Serial Number :-	EPLC-3913
Location/Department :-	ICTC LAB
Equipment ID :-	2130010941
Condition of DUC :-	Satisfactory
Accuracy :-	---
Location of calibration (At Lab/Site) :-	Site
<b>Environmental Conditions Details:</b>	
Temperature :-	25 ± 4°C
Relative Humidity :-	50 ± 20 %
<b>Relevant Standard &amp; Procedure Details:</b>	
Method & Reference Calibration Procedure :-	By Using Comparison Method & AOV/CP/29
Reference National/ International Standards :-	IS:12508

<b>Description of standards used for calibration:</b>				
Name of Master Inst.	Make & Model	Serial Number	Valid Upto	Traceable To
Digital Tachometer	Fluke / 931	4792051	8-Dec-2023	CC-3171

<b>Visual Inspection of Device Under Calibration :-</b>	
Parameter	Remarks (Ok / Not Ok)
1) Physical Damage	Ok
2) Power Chord Check	Ok
3) Accessories, Cables, Filter, Inlet & Hoses	Ok
4) Battery Power	--
5) Alarm Function	Ok

<b>Discipline &amp; Group: Mechanical-Acceleration and Speed</b>					
<b>Calibration Results :-</b>					
Sr. No.	Parameter	DUC Knob Set Value(M)	STD Measured Value(S)	Error (M - S)	Expended Uncertainty (±RPM)
1)	Rotation (RPM) (Non Contact Type)	1	824.1	--	3.80
		2	1624	--	4.78
		3	2215	--	4.78
		4	2760	--	4.78
		5	3486	--	4.78

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\*\*End of Certificate\*\*

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Bhagwan Singh (Calibration Engineer)



*Gaurav*  
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Gaurav Rajawat (Quality Manager)

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### Calibration Certificate

Certificate No.: AOV/CALN/22-12/0436

PAGE 1 OF 1

<b>Customer Detail:</b>					
Name and address of customer :-		M/s. JHARGRAM HEALTH DISTRICT HOSPITAL JHARGRAM, WEST BENGAL - 721507			
<b>Calibration Certificate Details:</b>					
Customer Reference Number :- -----					
Date of Receipt :-		21-Dec-2022		Date of issue :-	
Date of calibration :-		21-Dec-2022		Recommended Due Date :-	
				22-Dec-2022	
				21-Dec-2023	
<b>Description of Device under calibration:</b>					
Name of Instrument :-		Digital Centrifuge		Range :-	
Make / Model :-		Remi / R-8C		Max 5250 RPM	
Serial Number :-		ZDKN-30526		Least Count :-	
Equipment ID :-		2130010106		10 RPM	
Accuracy :-		---		Location/Department :-	
				ICTC Lab	
				Condition of DUC :-	
				Satisfactory	
				Location of calibration (At Lab/Site) :-	
				Site	
<b>Environmental Conditions Details:</b>					
Temperature :-		25 ± 4°C		Relative Humidity :-	
				50 ± 20 %	
<b>Relevant Standard &amp; Procedure Details:</b>					
Method & Reference Calibration Procedure :-		By Using Comparison Method & AOV/CP/29			
Reference National/ International Standards :-		IS:12508			
<b>Description of standards used for calibration:</b>					
Name of Master Inst.	Make & Model	Serial Number	Valid Upto	Traceable To	
Digital Tachometer	Fluke / 931	4792051	8-Dec-2023	CC-3171	
<b>Visual Inspection of Device Under Calibration :-</b>					
<b>Parameter</b>			<b>Remarks (Ok / Not Ok)</b>		
1) Physical Damage			Ok		
2) Power Chord Check			Ok		
3) Accessories, Cables, Filter, Inlet & Hoses			Ok		
4) Battery Power			--		
5) Alarm Function			Ok		
<b>Discipline &amp; Group: Mechanical-Acceleration and Speed</b>					
<b>Calibration Results :-</b>					
Sr. No.	Parameter	DUC Set Value(M)	STD Measured Value(S)	Error (M - S)	Expended Uncertainty (±RPM)
1)	Rotation (RPM) (Non Contact Type)	500	503.5	-3.5	6.18
		1200	1198	2	6.34
		2000	1993	7	6.94
		3000	2987	13	7.00
		3900	3884	16	7.06

**Remarks:**

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