

**ROOTS INDUSTRIES INDIA LIMITED** 

**ROOTS METROLOGY & TESTING LABORATORY** 

R.K.G Industrial Estate, Ganapathy, Coimbatore-641 006,India Phone :9688762679



# **CALIBRATION CERTIFICATE**

# ULR Number: CC275219000083790F

Name and ad	dress of the customer	Certificate no	: Rmtl/01/319107850/43
The Medical C	Officer	Date of calibration	:27/09/2023
Government I	Primery Health Centre	Suggested calibration due	: 26/09/2024
ADICHAPURA	M-THIRUVARUR (dist)	Customer po .reference.& dat	e:
1.DESCRIPTIO	N OF DUC		
Name Of The	Duc: pipette	Receiving Condition Of Duc	:Good
Make	: THERMO SCIENTIFIC	Ref. Document :As P	er Manufactures Specification
Model	: FINEPIPETTE F3	Environmental Condition	:25.3 Deg & 54.3% Rh
SI.No	: RW12582	Uncertainty Of Measurement	:As Per Report
Range/Size	: 10-100 micro litter	Location	:lab

THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025. 2.DETAILS OF MASTER USED

Standard Instrument Used	Make/ Model	ld No	Traceable To/Certificate No	Validity
Multi Product Calibrator	Fluke	Rml-262	Wavecal,Blr/Cs-18/01-01	1-6-2024
Micro balance	mettle toledo/XP26PC	QP-01	B115129039/CC-2523	1-6-2024
Universal Measuring Instrument	ALMEMO/2590-4AS	QP-10	H19070544/CC-2052	1-6-2024
With Sensor For Envirnmental				
Parameter				

# **CALIBRATION FIELD: WEIGHT Calibration**

Sl.no	Range	Master readings	Calibrated values	Error observed	Uncertainty
		micro litter	micro litter	micro litter	
1	10-100 micro litter	10	9.9	0.1	0.055
2	10-100 micro litter	50	49.9	0.1	0.055
3	10-100 micro litter	80	79.9	0.1	0.055
4	10-100 micro litter	90	89.9	0.1	0.055
5	10-100 micro litter	100	99.9	0.1	0.055

# 4.remarks

4.1 uncertainty estimated for a confidence level of 95% at the k factor=2

4.2the reported results are valid only for the condition of the inst./gauge received at the time of and under the condition of the calibration

4.3 DUC –device under calibration

Calibration label /status : Calibration result pass & fail are indicated

VEER





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Range/Size

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# **CALIBRATION CERTIFICATE**

# ULR Number: CC275219000083790F

:lab

Name and address	of the customer	Certificate no	: Rmtl/01/319107850/44
The Medical Officer		Date of calibration	:27/09/2023
Government Primer	y Health Centre	Suggested calibration due	: 26/09/2024
ADICHAPURAM-THIRUVARUR (dist) Customer po .refe			te:
<b>1.DESCRIPTION OF</b>	DUC		
Name Of The Duc:	CENTRIFUGE	<b>Receiving Condition Of Duc</b>	:Good
Make	: BD INSTRUMENTS	Ref. Document :As F	Per Manufactures Specification
Model	: BDI 153	Environmental Condition	:25.3 Deg & 54.3% Rh
SI.No	: 76738	Uncertainty Of Measurement	t :As Per Report

Location

: 1-4000RPM/230v THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025. 2. DETAILS OF MASTER USED

Make/ Model	ld No	Traceable To/Certificate No	Validity
Vaisashika	Rml-230	Vaiseshika, Ambala Cantt/Ved/Nabl/18- 19(Et)/92	1-6-2024
Mextec	Rml-251	Gsg/19/206/Tm/01	1-6-2024
Fluke	Rml-262	Wavecal, Blr/Cs-18/01-01	1-6-2024
Transmille	Rml-252-1	Wavecal,Blr/Cs-18/69-01	1-6-2024
Htc/Cl-2054	Rml-254-1	Rmtl/01/319107848	1-6-2024
	Vaisashika Mextec Fluke Transmille Htc/Cl-2054	VaisashikaRml-230MextecRml-251FlukeRml-262TransmilleRml-252-1	VaisashikaRml-230Vaiseshika,Ambala Cantt/Ved/Nabl/18- 19(Et)/92MextecRml-251Gsg/19/206/Tm/01FlukeRml-262Wavecal,Blr/Cs-18/01-01TransmilleRml-252-1Wavecal,Blr/Cs-18/69-01Htc/Cl-2054Rml-254-1Rmtl/01/319107848

Sl.no	Range	Master readings v	Calibrated values v	Error observed v	Uncertainty v
1	0 v to 400v	230	231	1	0.055

#### CURRENT CALIBRATIONAc Current @50Hz

Sl.no	Range	Master readings mA	Calibrated values mA	Error observed mA	Uncertainty mA		
1	40Ma-100A	2	2.002	-0.002	0.045		

**Resistance calibration** 

Sl.no	Range	Master readings ohms	Calibrated values ohms	Error observed ohms	Uncertainty Ohms
1	40	39	39.01	0.001	0.007

**CALIBRATION FIELD: RPM Calibration** 

Sl.no	Range	Master readings RPM	Calibrated values RPM	Error observed RPM	Uncertainty RPM
1	1RPM to 4000RPM	1600RPM	1599RPM	1RPM	0.055

# 4.remarks

4.1 uncertainty estimated for a confidence level of 95% at the k factor=2

4.2the reported results are valid only for the condition of the inst./gauge received at the time of and under the condition of the calibration

4.3 DUC -device under calibration

Calibration label /status : Calibration result pass & fail are indicated





pm AUTHORIZED SIGN

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# **CALIBRATION CERTIFICATE**

# ULR Number: CC275219000083790F

Name and address	of the customer	Certificate no	: Rmtl/01/319107850/45	
The Medical Officer		Date of calibration	:27/09/2023	
Government Prime	ry Health Centre	Suggested calibration due : 26/09/2024		
ADICHAPURAM-THI	RUVARUR (dist)	Customer po .reference.& date:		
<b>1.DESCRIPTION OF</b>	DUC			
Name Of The Duc:	MICROSCOPE	<b>Receiving Condition Of Duc</b>	:Good	
Make	: BINOCULAR	Ref. Document :As F	Per Manufactures Specification	
Model	: NTEP MICROSCOPE	<b>Environmental Condition</b>	:25.3 Deg & 54.3% Rh	
SI.No	: NA	Uncertainty Of Measurement	t :As Per Report	
Range/Size	: 230v	Location	:lab	

THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025. 2.DETAILS OF MASTER USED

Standard Instrument Used	Make/ Model	ld No	Traceable To/Certificate No	Validity
Decade Megohm	Vaisashika	Rml-230	Vaiseshika, Ambala Cantt/Ved/Nabl/18- 19(Et)/92	1-6-2024
Multi Product Calibrator	Fluke	Rml-262	Wavecal, Blr/Cs-18/01-01	1-6-2024
Multi Product Calibrator (Ac/Dc Current Coil)	Transmille	Rml-252-1	Wavecal, Blr/Cs-18/69-01	1-6-2024
Leakage Current Tester	Htc/Cl-2054	Rml-254-1	Rmtl/01/319107848	1-6-2024

CALIBRATION FIELD: Electro Technical (Voltage Calibration -Ac)

Sl.no	Range	Master readings v	Calibrated values v	Error observed v	Uncertainty v
1	0 v to 400v	230	231	1	0.055

CURRENT CALIBRATIONAc Current @50Hz

Sl.no	Range	Master readings mA	Calibrated values mA	Error observed mA	Uncertainty mA				
1	40Ma-100A	2	2.002	-0.002	0.045				
Desistance estimation									

**Resistance calibration** 

Sl.no	Range	Master readings ohms	Calibrated values ohms	Error observed ohms	Uncertainty Ohms
1	40	39	39.01	0.001	0.007

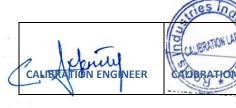
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