

# 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 address of the customerCertificate no: Rmtl/01/319107850/46The Medical OfficerDate of calibration:27/09/2023Government Primery Health CentreSuggested calibration due: 26/09/2024PERUMPANAIYUR-THIRUVARUR (dist)Customer po .reference.& date:

### **1.DESCRIPTION OF DUC**

Name Of The Duc: pipette **Receiving Condition Of Duc** :Good Ref. Document :As Per Manufactures Specification Make : THERMO SCIENTIFIC Model : FINEPIPETTE F3 **Environmental Condition** :25.3 Deg & 54.3% Rh **Uncertainty Of Measurement** :As Per Report Sl.No : RW12584 Range/Size : 10-100 micro litter

# THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025.

### 2.DETAILS OF MASTER USED

Standard Instrument Used	Make/ Model	Id 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







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# **CALIBRATION CERTIFICATE**

ULR Number: CC275219000083790F

Name and address of the customerCertificate no: Rmtl/01/319107850/47The Medical OfficerDate of calibration:27/09/2023Government Primery Health CentreSuggested calibration due: 26/09/2024PERUMPANAIYUR-THIRUVARUR (dist)Customer po .reference.& date:

### 1.DESCRIPTION OF DUC

Name Of The Duc: CENTRIFUGE Receiving Condition Of Duc :Good

Make : chemical (p)ltd Ref. Document :As Per Manufactures Specification

Model: NAEnvironmental Condition:25.3 Deg & 54.3% Rh

Sl.No : 669 Uncertainty Of Measurement : As Per Report

Range/Size : 1-4000RPM/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	Id No	Traceable To/Certificate No	Validity
Decade Megohm	Vaisashika	Rml-230	Vaiseshika,Ambala Cantt/Ved/Nabl/18- 19(Et)/92	1-6-2024
Digital Tachometer	Mextec	Rml-251	Gsg/19/206/Tm/01	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

#### 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
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# **CALIBRATION CERTIFICATE**

ULR Number: CC275219000083790F

Name and address of the customerCertificate no: Rmtl/01/319107850/48The Medical OfficerDate of calibration:27/09/2023Government Primery Health CentreSuggested calibration due: 26/09/2024PERUMPANAIYUR-THIRUVARUR (dist)Customer po .reference.& date:

### 1.DESCRIPTION OF DUC

Name Of The Duc: MICROSCOPE Receiving Condition Of Duc :Good

Make: BINOCULARRef. Document:As Per Manufactures SpecificationModel: CM/L9474292Environmental Condition:25.3 Deg & 54.3% Rh

SI.No : IS4381 Uncertainty Of Measurement : As Per Report

Range/Size : 230v Location :lak

# THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025.

# 2.DETAILS OF MASTER USED

Standard Instrument Used	Make/ Model	Id 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	Transmille	Rml-252-1	Wavecal,Blr/Cs-18/69-01	1-6-2024
(Ac/Dc Current Coil)				
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 CALIBRATION**Ac 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

# 4.remarks

- 4.1 uncertainty estimated for a confidence level of 95% at the k factor=2
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Calibration label /status : Calibration result pass & fail are indicated





AUTHORIZED SIGN

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# **CALIBRATION CERTIFICATE**

ULR Number: CC275219000083790F

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### 1.DESCRIPTION OF DUC

Name Of The Duc: **Receiving Condition Of Duc** :Good THERMO SCIENTIFIC Ref. Document :As Per Manufactures Specification Make Model **FINEPIPETTE F3 Environmental Condition** :25.3 Deg & 54.3% Rh **Uncertainty Of Measurement** :As Per Report Sl.No 102195026 Range/Size 100-1000 micro litter

# THE MASTERS ARE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS AS PER ISO/IEC 17025.

### 2.DETAILS OF MASTER USED

Standard Instrument Used	Make/ Model	Id 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	100-1000 micro litter	100	99.9	0.1	0.055
2	100-1000 micro litter	500	499.9	0.1	0.055
3	100-1000 micro litter	800	799.9	0.1	0.055
4	100-1000 micro litter	900	899.9	0.1	0.055
5	100-1000 micro litter	1000	999.9	0.1	0.055

### 4.remarks

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