

CALIBRATION CERTIFICATE

EQN/ET/7 8/01		Page 1 of 1	
CRF No.	EQN/CRF/2202124	Date of Calibration	22-Feb-22
Certificate No	2021-22/EQN/2202124-39	Recom. Due Date	21-Feb-23
ULR No	CC276022000003058F		

Customer Details:		Calibrated at	Onsite
THE CHIEF MEDICAL OFFICER		Date of Receipt	22-Feb-22
Government Primary Health Centre		Cond. On Receipt	Satisfactory
ICTC Thudiyalur,		Date of Issue	25-Feb-22
Coimbatore			

DETAILS OF UUC :			
Description	Refrigerator	Identification No	001
Range	2-8°C	Serial No.	718765720414143
Least Count	--	Make	Whirlpool
Cal./Working Range	2-8°C	Model / Type	DC 260G
Location	ICTC	Accuracy	As Per Manual

DETAILS OF STANDARD USED :			
Master Name	Lab ID No. / Sr No.	Valid upto	Certificate Number
Portable Calibrator	INS/ET/10	11-May-22	2020-21/EQN/MASTER-02
RTD	INS/TM/29	14-Aug-22	2021-22/EQN/210820-46

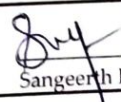
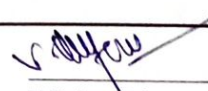
CP No	: EQN/CP/TL-03
Environmental Details	: Temperature: 25±5°C Relative Humidity: 45-70 % RH

THERMAL CALIBRATION - (Temperature)

CALIBRATION RESULT			
Sl.No.	TEST READING	STD READING	UNCERTAINTY
	(°C)	(°C)	± (°C)
1	2.8	4.96	0.60

Remark :

1. Reading given was the average of 3 Measurements
2. The reported Expanded Uncertainty is calculated at 95% C.I. Approx. with coverage factor $k=2$
3. Temperature scale: ITS 90

Issued by :		Authorized by :	
Engineer - Calibration	Sangeetha K P	QM	V. Rajkarthick



EQUATION CALIBRATION SERVICES PRIVATE LIMITED

CALIBRATION CERTIFICATE

EQN/FT/7.8/01

CRF No.	: EQN/CRF/2202124	Date of Calibration	: 24-Feb-22
Certificate No	: 2021-22/EQN/2202124-41	Recom. Due Date	: 23-Feb-23
ULR No.	: CC276022000003060F		

Page 1 of 1

Customer Details:		Calibrated at	: Onsite
THE CHIEF MEDICAL OFFICER		Date of Receipt	: 24-Feb-22
Government Primary Health Centre		Cond. On Receipt	: Satisfactory
ICTC Thudiyalur,		Date of Issue	: 27-Feb-22
Coimbatore			

DETAILS OF UUC :			
Description	: Centrifuge	Identification No.	: --
Range	: Upto 4000 RPM	Serial No.	: 76320
Least Count	: --	Make	: Labotech
Cal./Working Range	: --	Model / Type	: BD - 153
Location	: ICTC	Accuracy	: As Per Manual

DETAILS OF STANDARD USED :			
Master Name	Lab ID No. / Sr No.	Valid upto	Traceability
Digital Tachometer	INS/MS/11	06-May-22	EQN, Chennai

CP No.	: EQN/CP/MS-06, ET-02
Environmental Details	: Temperature: 25±5°C Relative Humidity: 40-70 % RH

Discipline: Mechanical

Parameter: RPM

CALIBRATION RESULTS FOR RPM			
Sl. No.	TEST READING (RPM)	STD READING (RPM)	EXPANDED UNCERTAIN ± (RPM)
1	1	2130	6
2	2	2460	6
3	3	2802	6
4	4	3240	6
5	5	3940	6

Remark :

1. Reading given was the average of 3 Measurements.
2. The reported Expanded Uncertainty is calculated at 95 % C.L Approx with coverage factor $k=2$
3. Due Date as per customer request.

END

Issued by :		Authorized by :	
Calibration Engineer:	SANGEERTH K P	Quality Manager	V. RAJKIRTHICK



EQUATION CALIBRATION SERVICES PRIVATE LIMITED

CALIBRATION CERTIFICATE

EQN/FT/7 8/01		Page 1 of 1	
CRF No	EQN/CRF/2202124	Date of Calibration	22-Feb-22
Certificate No	2021-22/EQN/2202124-40	Recom. Due Date	21-Feb-23
ULR No.	CC276022000003059F		

Customer Details:	Calibrated at	Lab
THE CHIEF MEDICAL OFFICER	Date of Receipt	22-Feb-22
Government Primary Health Centre	Cond. On Receipt	Satisfactory
ICTC Thudiyalur, Coimbatore	Date of Issue	25-Feb-22

DETAILS OF UUC :			
Description	Digital Thermometer	Identification No.	UPHC/RFE/01
Range	-50 to 100°C	Serial No.	--
Least Count	0.1°C	Make	--
Cal./Working Range	2-8°C	Model / Type	As Per Manual
Location	ICTC(Refrigerator)	Accuracy	--

DETAILS OF STANDARD USED :			
Master Name	Lab ID No. / Sr No	Valid upto	Certificate Number
Portable Calibrator	INS/ET/10	11-May-22	2020-21/EQN/MASTER-02
RTD	INS/TM/29	14-Aug-22	2021-22/EQN/210820-46

CP No	EQN/CP/TL-03
Environmental Details	Temperature: 25±3°C Relative Humidity: 45-75 % RH

THERMAL CALIBRATION - (Temperature)

CALIBRATION RESULT				
Sl.No.	TEST READING (°C)	STD READING (°C)	ERROR (°C)	UNCERTAINTY ± (°C)
1	-10.6	-10.23	-0.37	0.60
2	2.4	2.19	0.21	0.60
3	4.1	4.01	0.09	0.60
4	8.5	8.13	0.37	0.60
5	20.3	20.21	0.09	0.60

Remark :

1. Reading given was the average of 3 Measurements
2. The reported Expanded Uncertainty is calculated at 95 % C.I. Approx with coverage factor k= 2
3. Temperature scale:ITS 90

Issued by :		Authorized by :	
Engineer - Calibration	Sangeerth K P	QM	V.Rajkarthick



EQUATION CALIBRATION SERVICES PRIVATE LIMITED

CALIBRATION CERTIFICATE

EQN/FT/7.8/01		Page 1 of 2	
CRF No.	EQN/CRF/2202124	Date of Calibration	09-Mar-22
Certificate No	2021-22/EQN/2202124-42	Recom. Due Date	08-Mar-23
ULR No.	CC2760220000030611		
Customer Details:			
THE CHIEF MEDICAL OFFICER		Calibrated at	Lab
Government Primary Health Centre		Date of Receipt	09-Mar-22
ICTC Thudiyalur,		Cond. On Receipt	Satisfactory
Coimbatore		Date of Issue	12-Mar-22
Details of Test Instrument:			
Description	Micropipette	Model No	1 micropipette 13
Range	10 - 100 µl	Serial No	RW01520
Least Count	0.2µl	Identification No	--
Make	Thermoscientific	Accuracy	As Per Manual
Working range	--	Location	ICTC
Details of Standard Used			
Name	Certificate No.	Valid upto	Traceability
Electronic SemiMicro Balance	2021-22/EQN/MASTER-256	07-May-22	EQN,CHENNAI
CP No	EQN/CP/MS-03	(Reference Standard ISO 8655-6)	
Environmental Details			
Temperature : 25±2 °C		Relative Humidity : 50±10 % RH	
MECHANICAL CALIBRATION			
(Volume)			
Calibration Results			
1. Lower Volume :	10 µl	No. of Measurements	10
<input type="text" value="10.03"/>	<input type="text" value="10.05"/>	<input type="text" value="10.01"/>	<input type="text" value="10.04"/>
<input type="text" value="10.03"/>	<input type="text" value="10.02"/>	<input type="text" value="10.11"/>	<input type="text" value="10.10"/>
<input type="text" value="10.03"/>	<input type="text" value="10.09"/>		
Mean Value :	10.1 µl		
Error Limits(±)			
Systematic Error :	0.05 µl	0.12 µl	
Systematic Error :	0.50 %	1.20 %	
Random Error :	0.04 µl	0.08 µl	
Random Error :	0.36 %	0.80 %	
Measurement Uncertainty :	± 0.36 µl		

Calibrated by :

 SANGEERTH K P
 (Calibration Engineer)

Authorised by

 V. RAJKARTHICK
 (QM)



CALIBRATION CERTIFICATE

CRF No. : EQN/CRF/2202124
ULR No. : CC27602200003061F

MECHANICAL CALIBRATION (Volume)

Calibration Results

2. Middle Volume :	50 μ l	No. of Measurements		10
<input type="text" value="50.13"/>	<input type="text" value="50.15"/>	<input type="text" value="50.14"/>	<input type="text" value="50.20"/>	
<input type="text" value="50.18"/>	<input type="text" value="50.22"/>	<input type="text" value="50.15"/>	<input type="text" value="50.21"/>	
<input type="text" value="50.22"/>	<input type="text" value="50.16"/>			

Mean Value : μ l

Error Limits(\pm)

Systematic Error :	0.18	μ l	0.50	μ l
Systematic Error :	0.36	%	1.00	%
Random Error :	0.03	μ l	0.20	μ l
Random Error :	0.06	%	0.40	%

Measurement Uncertainty : \pm 0.36 μ l

3. Nominal Volume :	100 μ l	No. of Measurements		10
<input type="text" value="100.17"/>	<input type="text" value="100.06"/>	<input type="text" value="100.15"/>	<input type="text" value="100.23"/>	
<input type="text" value="100.09"/>	<input type="text" value="100.14"/>	<input type="text" value="100.11"/>	<input type="text" value="100.15"/>	
<input type="text" value="100.27"/>	<input type="text" value="100.29"/>			

Mean Value : μ l

Error Limits(\pm)

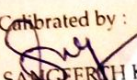
Systematic Error :	0.17	μ l	0.80	μ l
Systematic Error :	0.17	%	0.80	%
Random Error :	0.08	μ l	0.30	μ l
Random Error :	0.08	%	0.30	%

Measurement Uncertainty : \pm 0.36 μ l

Remarks

- The reported Expanded Uncertainty is calculated at 95.45% C.L. with coverage factor k=2
- The Above Results are within the maximum permissible Error

End of certificate

Calibrated by :

SANGEERTH K P
(Calibration Engineer)

Authorised by:

V. RAJAKARTHIK
(QM)

