

## Certificate of Accreditation

### Authentic Instrument & Calibration Services Pvt. Ltd.

B-81, 2<sup>nd</sup> Floor, Sector- 64, Noida, Gautam Buddh Nagar- 201307, U.P., India

has been assessed and accredited in accordance with the Standards for

### ISO/IEC 17025:2017

"General Requirements for the Competence of Testing and Calibration Laboratories" In the field of

#### Calibration

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued compliance to the above standard & any other requirements specified by QAI.



QAI/CLA/CL/2023/0002

www.qai.org.in

#### Valid from: 29 March 2023



Valid until: 28 March 2025



**Dr. Bhupendra Kumar Rana** Chief Executive Officer **Prof. Vikram Kumar** Chair, CLA



Scope of Accreditation Authentic Instrument & Calibration Services Pvt. Ltd.

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QAI/CLA/CL/2023/0002

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#### Accreditation Standard: ISO/IEC 17025:2017

	Mechanical- At Lab				
SI. No.	Measurand or Reference Material/ Type of Instrument or Material to be Calibrated or Measured/ Quantity Measured/ Instrument	Calibration or Measurement Method or Procedure	Measurement Range and Additional Parameters Where Applicable (Range and Frequency)	Calibration and Measurement Capability (CMC) (±)	
1.	Volume - Measuring Flask/ Conical Flask/ Jars/	Using Digital Balance (Resolution 0.01/	$1 \text{ ml to} \leq 10 \text{ ml}$	0.04 µl	
	Measuring Cylinder/ Pipette/ Burette	1mg As per ISO-4787	10 ml to 100 ml	0.003 ml	
2.	Piston operated Pipette/ Burette/ Diluters /Dispenser	Using Digital Balance (Resolution 0.01/0.1 mg) As per ISO-8655-2/ ISO-8655-3/ ISO-	1 ml to 10 ml	0.04 <i>µ</i> l	
		8655-4 /ISO-8655-5/ ISO-8655-6	>10 ml to 100 ml	0.01 ml	
3.	Volume - Measuring Flask/ Conical Flask/ Jars/ Measuring Cylinder	Using Digital Balance (Resolution 1 mg) As per ISO-4787	100 ml to 1000 ml	0.25 ml	
4.	Piston operated Diluters / Dispenser	Using Digital Balance (Resolution 1 mg) As per ISO-8655-4/ ISO-8655-5/ ISO-8655-6	100 ml to 1000 ml	0.25 ml	
5.	Volume – Piston Operated Micro Pipettes	Using Digital Balance Class-I (Resolution 0.001 mg) As per ISO-8655-2/ ISO-8655-6	1 µl to 20 µl	0.01 <i>µ</i> I	
6.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	1 mg	0.01 mg	
7.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	2 mg	0.01 mg	
8.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	5 mg	0.01 mg	
9.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	10 mg	0.01 mg	



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2

		Mechanical		
SI. No.	Measurand or Reference Material/ Type of Instrument or Material to be Calibrated or Measured/ Quantity Measured/ Instrument	Calibration or Measurement Method or Procedure	Measurement Range and Additional Parameters Where Applicable (Range and Frequency)	Calibration and Measurement Capability (CMC) (±)
10.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	20 mg	0.01 mg
11.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	50 mg	0.01 mg
12.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class- I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	100 mg	0.01 mg
13.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class- I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	200 mg	0.01 mg
14.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	500 mg	0.01 mg
15.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	1 g	0.02 mg
16.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	2 g	0.02 mg
17.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	5 g	0.02 mg
18.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	10 g	0.02 mg
19.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	20 g	0.02 mg
20.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.01 mg as per OIML-R 111-1/ ABBA Method	50 g	0.02 mg

Accreditation Standard: ISO/IEC 17025:2017



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21.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.1 mg as per OIML-R 111-1/ ABBA Method	100 g	0.1 mg	
22.	Weights - Mass (Conventional Mass) ( F2 Class & Coarser)	Using Standard Weights of E1 Class & Digital Balance Class-I, Resolution 0.1 mg as per OIML-R 111-1/ ABBA Method	200 g	0.1 mg	
23.	Weights - Mass (Conventional Mass) ( M1 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 1 mg as per OIML-R 111-1/ ABBA Method	500 g	1 mg	
24.	Weights - Mass (Conventional Mass) ( M1 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 1 mg as per OIML-R 111-1/ ABBA Method	1 kg	1 mg	
25.	Weights - Mass (Conventional Mass) ( M2 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 100 mg as per OIML-R 111-1/ ABBA Method	2 kg	100 mg	
26.	Weights - Mass (Conventional Mass) ( M1 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 100 mg as per OIML-R 111-1/ ABBA Method	5 kg	100 mg	
27.	Weights - Mass (Conventional Mass) ( M1 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 100 mg as per OIML-R 111-1/ ABBA Method	10 kg	100 mg	
28.	Weights - Mass (Conventional Mass) ( M1 Class & Coarser)	Using Standard Weights of F1 Class & Digital Balance, Resolution 100 mg as per OIML-R 111-1/ ABBA Method	20 kg	100 mg	
29.	Acceleration and Speed- Tachometer	Using Digital Tachometer & RPM Source	10 RPM to 50000 RPM	0.9 RPM to 7 RPM	



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#### Accreditation Standard: ISO/IEC 17025:2017

	Mechanical- At Site				
SI. No.	Measurand or Reference Material/ Type of Instrument or Material to be Calibrated or Measured/ Quantity Measured/ Instrument	Calibration or Measurement Method or Procedure	Measurement Range and Additional Parameters Where Applicable (Range and Frequency)	Calibration and Measurement Capability (CMC) (±)	
1.	Weighing Scale and Balance -Digital Weighing Balance (Class I),Resolution 0.001mg	Using Standard Weights of E1 Class as per OIML-R-76-1	0 to 5 g	0.004 mg	
2.	Weighing Scale and Balance - Digital Weighing Balance (Class I), Resolution 0.01 mg	Using Standard Weights of E1 Class as per OIML-R-76-1	0 to 50 g	0.02 mg	
3.	Weighing Scale and Balance - Digital Weighing Balance (Class I), Resolution 0.1 mg	Using Standard Weights of E1 Class as per OIML-R-76-1	0 to 220 g	0.1 mg	
4.	Weighing Scale and Balance - Digital Weighing Balance (Class II), Resolution 1 g and coarser	Using Standard Weights of F1 Class as per OIML-R-76-1	0 to 20 kg	1 g	
5.	Weighing Scale and Balance - Digital Weighing Balance (Class II), Resolution 1 mg	Using Standard Weights of (E1,F1 Class) as per OIML-R-76-1 and OIML-R-76-2	0 to 1 kg	2 mg	
6.	Weighing Scale and Balance - Digital Weighing Balance (Class IV), Resolution 10 g and Coarser	Using Standard Weights of F1 Class as per OIML-R-76-1 and OIML-R-76-2	0 to 100 kg	10 g	
7.	Acceleration and Speed- Tachometer	Using Digital Tachometer & RPM Source	10 RPM to 50000 RPM	0.9 RPM to 7 RPM	
8.	Acceleration and Speed- Centrifuge, RPM Source, RPM Indicator with Sensor, Speed	Using Tachometer	10 RPM to 50000 RPM	0.9 RPM to 7 RPM	



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	Thermal- At Lab				
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1.	Specific heat & Humidity - Digital/ Analog Hygrometer With In-Built/ External Humidity Sensor, Thermo-hygrometer	Using Humidity Indicator with Sensor and Controlled Humidity Chamber/ Generator as per DKD-R 5-7	15 %RH to 90%RH @ 20°C to 35°C	3 %RH	
2.	Specific heat & Humidity - Digital/ Analog Hygrometer With In-Built/ External Humidity Sensor, Thermo-hygrometer	Using Humidity Indicator with Sensor and Portable Controlled Humidity Chamber as per DKD-R 5-7	10 %RH to 95%RH @ 25°C	2.1 %RH	
3.	Specific heat & Humidity - Digital/Analog Hygrometer with In-Built/ External Humidity Sensor, Thermo-hygrometer	Using 4 wire PT-100 PRT with SPRT with Indicator, Controlled Temperature Chamber/ DKD-R 5-7	20°C to 40°C	0.3 °C	
4.	Temperature - IR Thermometer	Using Fluke Pyrometer& Black Body Calibrator as per MSL Technical Guide 22 VDI/VDE 355 Part 4.3	50 °C to 500 °C	2.5 °C	
5.	Temperature - Liquid-In-Glass Thermometer	Using 4-Wire PT-100 PRT with indicator, Silicon Oil Bath/ Chiller Bath As per IS 6374, IS 2480, OIML R 133	(-20)°C to 250 °C	0.34 °C	
6.	Temperature - RTD/ Thermocouple/ Temperature Sensor with and without Temperature Indicator/ Data Loggers/ Recorders/ Temperature Transmitter	Using 4-Wire PT-100 PRT with indicator, 6½ Digital Multi-meter, Precision Indicator, Silicon Oil Bath/ Chiller Bath As per DKD R- 5-1/ EURAMET cg-8	(-30)°C to 250 °C	0.39 °C	
7.	Temperature - RTD/ Thermocouple/ Temperature Sensor with and without Temperature Indicator/ Data Loggers/ Recorders/ Temperature Transmitter	Using 4-Wire PT-100 PRT with indicator, R- Type Thermocouple with Indicator, 6½ Digital Multi-meter, Precision Indicator, Dry Block Furnace As per DKD R-5-1/ EURAMET cg-8	250 °C to 1200 °C	1.9 °C	



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	Thermal- At Site				
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1.	Specific heat & Humidity - Digital/ Analog Hygrometer With In-Built/ External Humidity Sensor, Thermo-hygrometer	Using Humidity Indicator with Sensor and Portable Controlled Humidity Chamber as per DKD-R 5-7	10 %RH to 95%RH @ 25°C	2.1 %RH	
2.	Specific heat & Humidity - Digital/Analog Hygrometer with In-Built/ External Humidity Sensor, Thermo-hygrometer	Using 4 wire PT-100 PRT with SPRT with Indicator, Controlled Temperature Chamber/ DKD-R 5-7	20°C to 40°C	0.3 °C	
3.	Specific heat & Humidity - Multipoint Calibration / Validation of Humidity Chamber, Stability Chamber, Environmental Chamber	Using Temperature Humidity Data Loggers as per DKD-R 5-7	15 %RH to 90 %RH @ 20°C to 35°C	3.5 %RH	
4.	Specific heat & Humidity - Single Point Calibration of Humidity Chamber, Generator, Environmental Chamber	Using Temperature Humidity Indicator/ Temperature Humidity Data Logger(Single Point Calibration at Measuring Location in DUC) as per DKD-R-5 7	10 %RH to 95 %RH @ 25°C	3.1 %RH	
5.	Temperature - IR Thermometer	Using Fluke Pyrometer& Black Body Calibrator as per MSL Technical Guide 22 VDI/VDE 355 Part 4.3	50 °C to 500 °C	2.5 °C	
6.	Temperature - Liquid-In-Glass Thermometer	Using 4-Wire PT-100 PRT with indicator, Silicon Oil Bath/ Chiller Bath As per IS 6374, IS 2480, OIML R 133	(-20)°C to 250 °C	0.34 °C	
7.	Temperature - Multi Point Calibration/ Validation Of Chamber, Oven, Incubator, Autoclave, Dry Block, Cryo Bath, Water Bath, BOD Incubator	Using 16 Channel Data Logger with RTD Probe (Multi Point Calibration) as per DKD- R 5-7	10 °C to 300 °C	2.5 °C	
8.	Temperature - Multi Point Calibration/ Validation Of Furnace	Using 16 Channel Data Logger with N Type Thermocouple (Multi Point Calibration) as per DKD -R 5-7	300 °C to 1200 °C	3 °C	
9.	Temperature - Multipoint Calibration/ Validation of Chamber, Deep Freezer, Refrigerator, Cold Storage	Using 16 Channel Data Logger with RTD Probe (Multi Point Calibration) as per DKD- R 5-7	-80 °C to 10 °C	2.5 °C	
10.	Temperature - RTD/ Thermocouple/ Temperature Sensor with and without Temperature Indicator/ Data Loggers/ Recorders/ Temperature Transmitter	Using 4-Wire PT-100 PRT with indicator, 6½ Digital Multi-meter, Precision Indicator, Silicon Oil Bath/ Chiller Bath As per DKD R- 5-1/ EURAMET cg-8	(-30)°C to 250 °C	0.39 °C	



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7

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	Mechanical				
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11.	Temperature - RTD/ Thermocouple/ Temperature Sensor with and without Temperature Indicator/ Data Loggers/ Recorders/ Temperature Transmitter	Using 4-Wire PT-100 PRT with indicator, R- Type Thermocouple with Indicator, 6½ Digital Multi-meter, Precision Indicator, Dry Block Furnace As per DKD R-5-1/ EURAMET cg-8	250 °C to 1200 °C	1.9 °C	
12.	Temperature - Single Point Calibration Furnace	Using R Type Thermocouple with indicator (Single Point Calibration at Measuring Location in DUC) as per DKD-R5-7	300 °C to 1200 °C	2 °C	
13.	Temperature - Single Point Calibration of Deep Freezer. Refrigerator/ Chiller Bath	Using 4-Wire PT-100 PRT with indicator (Single Point Calibration at Measuring Location in DUC) as per DKD-R-5-7	(-80) °C to 10 °C	1.3 °C	
14.	Temperature - Single Point Calibration of Melting Point Apparatus, Water Bath, Incubator, Oven, Autoclave, BOD Incubator	Using 4-Wire PT-100 PRT with indicator (Single Point Calibration at Measuring Location in DUC) as per DKD-R-5-7	10 °C to 300 °C	1.9 °C	