

Laboratory Bhoomi Calibration Services, Dudhrej-Vana Road, Dudhrej,
SurenDRanagar, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2605 **Page** 1 of 4

Validity 16.03.2018 to 15.03.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>MECHANICAL CALIBRATION</u>				
I. DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)				
1.	Vernier Caliper [§] (Dial/ Electronic) L.C.: 0.01 mm	0 to 300 mm	19 μ m	Using Caliper Checker
2.	External Micrometer [§] L.C.: 0.001 mm	0 to 25 mm	2 μ m	Using Slip Gauge Set
3.	Plunger Dial Gauge [§] L.C.: 0.01 mm	0 to 25 mm	4.9 μ m	Using Dial Calibration Tester
4.	Test Sieves [§]	0.045 mm to 3.35 mm 3.35 mm to 120 mm	9.6 μ m 35 μ m	Using Profile Projector Using Digital Caliper
II. ACCELERATION AND SPEED				
1.	Tachometer/ RPM Meter [§] (Non Contact)	100 rpm to 38900 rpm	0.54 % to 0.57 %	Using Digital Tachometer by Comparison Method
III. UTM, TENSION CREEP AND TORSION TESTING MACHINE				
1.	Compression Testing Machine / UTM in Compression Mode [*]	10 kN to 2000 kN	0.65 %	Using Proving Rings of Accuracy Class 0.5 & Class 1 as per IS 1828 Part 1

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Convenor

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Program Director

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IV.	WEIGHING SCALE AND BALANCE			
1.	Electronic Weighing Balance*			Using F1 Class Weights
	Weighing Balance of Accuracy Class I and Coarser	Up to 200 g	1 mg	
	Weighing Balance of Accuracy Class II and Coarser			
	Readability: 0.1 mg	Up to 1 kg	2 mg	
	Readability: 1 mg	Up to 10 kg	0.65 g	
	Readability: 100 mg	Up to 30 kg	2 g	
	Readability: 1 g	Up to 50 kg	12 g	
	Readability: 5 g			
V.	VOLUME			
1.	Glassware [§] (Burette, Pipette, Flask, Measuring Cylinders)	1 mg to 50 ml	0.006 ml	Using Weighing Balance of 0.1mg Readability & 120g Capacity by Gravimetric Method Based on ISO 4787
		> 50 ml to 600 ml	0.2 ml	Using Weighing Balance of 1mg Readability & 1000g Capacity by Gravimetric Method Based on ISO 4787

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
		> 600 ml to 1000 ml	0.21 ml	Using Weighing Balance of 100mg Readability & 3000g Capacity By Gravimetric Method Based on ISO 4787

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<u>THERMAL CALIBRATION</u>				
I.	TEMPERATURE			
1.	Temperature indicator with Sensor, Digital Thermometer [§]	(-) 15 °C to 110 °C 110 °C to 250 °C	0.44 °C 0.46 °C	Using Temperature Indicator with RTD, Dry Block Calibrator by Comparison Method
2.	Liquid in Glass Thermometer [§]	50 °C to 250 °C	0.48 °C	Using Oil Bath, Temperature Indicator with RTD by Comparison Method
3.	Temperature Indicator with Sensor of Bath, Indicator, Oven, Furnace [*]	(-) 15 °C to 50 °C 50 °C to 250 °C 250 °C to 400 °C	0.33 °C 0.5 °C 2.32 °C	Using Temperature Indicator with RTD Probe (Single Position Calibration)
II.	SPECIFIC HEAT & HUMIDITY			
1.	Humidity/ Temperature Indicator with Sensor of Environmental Chamber [*]	30% RH to 90% RH @ ~ 25 °C 20 °C to 50 °C @ ~ 50 %RH	1.95 % RH 0.65 °C	Using Digital Temperature/ Humidity Indicator with Sensor (Single Position Calibration)

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

§ Only in Permanent Laboratory

* Only for Site Calibration

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