

Laboratory Shreta Lab Tech, 26, Corporation Complex, Patel Road, Ramnagar, Coimbatore, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2403 (in lieu of C-0732) **Page** 1 of 6

Validity 11.09.2017 to 10.09.2019 **Last Amended on** 07.02.2018

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>MECHANICAL CALIBRATION</u>				
1.	DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)			
1.	Calipers [§] (Digital/Dial/Vernier) L.C.: 0.01 L.C.: 0.02	Up to 1000 mm 1000 mm to 2000 mm	14.4 μ m 20.4 μ m	Using Caliper Checker and Grade "0", Gauge Block & Length Bar
2.	Depth Gauge [§] (Digital/Dial/Vernier) L.C.: 0.01 mm	Up to 1000 mm	13.1 μ m	Using Caliper Checker and Grade "0", Gauge Block & Length Bar
3.	External Micrometer [§] L.C.: 0.001 mm L.C.: 0.01 mm	Up to 600 mm 600 mm to 1200 mm	2.7 μ m 12.7 μ m	Using Grade "0" Gauge Blocks & Length Bar
4.	Depth Micrometer [§] L.C.: 0.01 mm	300 mm	10.2 μ m	Using Grade "0" Gauge Blocks, Length Bar
5.	Internal/Stick/ Tubular Micrometer [§] L.C.: 0.001 mm L.C.: 0.01 mm	Up to 300 mm 300 mm to 2100 mm	2.8 μ m 7.3 μ m	Using ULM, Plain Ring Gauge
6.	Dial Bore Gauge [§] (Transmission Error) L.C.: 0.001 mm	Up to 1.5 mm	1.8 μ m	Using ULM
7.	Feeler Gauge [§]	0.05 mm to 1 mm	1.9 μ m	Using ULM
8.	Plain/Segmental Plug Gauge [§]	1 mm to 500 mm	3.6 μ m	Using ULM
9.	Taper Plain Plug Gauge [§]	1 mm to 300 mm	2.1 μ m	Using ULM

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Convenor

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10.	Master Setting/ Plain Ring Gauge [§]	1 mm to 400 mm	1.9 μ m	Using ULM
11.	Thread Plug Gauge [§]	1 mm to 400 mm	2.7 μ m	Using ULM
12.	Thread Ring Gauge [§]	1 mm to 320 mm	2.7 μ m	Using ULM
13.	Taper Thread Plug Gauge [§]	1 mm to 200 mm	3.0 μ m	Using ULM
14.	Taper Thread Ring Gauge [§]	1 mm to 90 mm	3.4 μ m	Using ULM
15.	Cylindrical / Measuring Pins [§]	0.1 mm to 20 mm	2.0 μ m	Using ULM
16.	Thread Measure Wires [§]	Up to 10 mm	2.0 μ m	Using ULM
17.	2D-Digital Height Gauge [§] L.C.: 0.0001 mm	Up to 800 mm	1.4 μ m	Using Caliper Checker, Length bar, Slip Gauges, Square Master, Millimess
18.	Height Gauge [§] (Vernier/Digital/Dial) L.C.: 0.01 mm L.C.: 0.02 mm	Up to 1000 mm 1000 mm to 2000 mm	11.3 μ m 14.3 μ m	Using Caliper Checker, Length bar, Slip Gauges, Square Master, Millimess
19.	Plunger Dial Gauge [§] L.C.: 0.001 mm L.C.: 0.01 mm	Up to 5 mm 5 mm to 100 mm	1.1 μ m 6.3 μ m	Using ULM

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20.	Dial Test Indicator [§] (Lever Type) L.C.: 0.001 mm L.C.: 0.002 mm L.C.: 0.01 mm	Up to 0.14 mm Up to 0.2 mm Up to 1 mm	1.2 μ m 1.6 μ m 6.3 μ m	Using ULM
21.	Bevel Protractor/ Combination Set [§]	0°-90°-0°	3 Min of Arc	Using Angle Block
22.	Snap Gauge [§]	0.5 mm to 1000 mm	5.2 μ m	Using ULM, Slip Gauge, Length Bar
23.	Pistol Caliper Gauge [§] L.C.: 0.1 mm	0 to 300 mm	70.2 μ m	Using Grade "O" Gauge Block, Length bar
24.	Thickness Foils [§]	0 to 2 mm	1.2 μ m	Using ULM
25.	Taper Plain Ring Gauge [§]	1 mm to 100 mm	2.4 μ m	Using ULM
26.	Radius Gauge [§]	0.5 mm to 50 mm	5.2 μ m	Using Video Measuring Systems
27.	Pitch Gauge [§]	0.2 mm to 6 mm	3.8 μ m	Using Video Measuring Systems
28.	Inside Dial Caliper [§] L.C.: 0.001 mm	0 to 200 mm	7.0 μ m	Using ULM
29.	Micrometer Setting Rod [§]	Up to 100 mm 100 mm to 500 mm 500 mm to 1200 mm	1.6 μ m 1.9 μ m 4.2 μ m	Using ULM, Slip Gauges Grade 'O' & Length Bar
30.	V Block [§] Flatness, Parallelism, Symmetry	300 mm	4.2 μ m 6.0 μ m	Using Millimess & Mandrel

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31.	Micrometer Head [§] L.C.: 0.001 mm	Up to 100 mm	1.5 μ m	Using ULM
32.	Sine Bar [§]	Up to 200 mm	19 Arc Sec	Using Slip Gauges/ Angle Gauge Block/Sine Table by & Surface table Comparison Method
33.	Comparator Stand [§] (Flatness Only)	Up to 300 mm	4.2 μ m	Using Comparison Method/ LVDT Probe
34.	Scale [§] L.C.: 0.5 mm	0 to 1000 mm	0.3 mm	Using Video Measuring Machine
35.	Spirit Level [§] Sensitivity: 0.02 mm/mtr (Type 1 & 2 & 3)	300 mm	20 μ m/mtr	Using Digital Spirit Level/Sine Table by comparison Method
36.	Digital Indicator / LVDT / Electronic Probe [§] L.C.: 0.001 mm	Up to 10 mm	0.74 μ m	Using ULM
37.	Coating Thickness Gauge [§] L.C.: 0.001 mm	0 to 2 mm	1.79 μ m	Using ULM & Master Foil
38.	Ultrasonic Thickness Gauge [§] L.C.: 0.01 mm	0 to 100 mm	5.8 μ m	Using Slip Gauges & '00' Grade Slip gauge Set
39.	Beam Gauge Comparator [§]	Up to 1000 mm	8.0 μ m	Using Slip Gauge, Length Bar, Millimess & Caliper Checker

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40.	Straight Edge [§]	Up to 2000 mm	4.2 μ m	Using LVDT probe
41.	Gear Tooth Vernier [§] L.C.: 0.02 mm	Up to 600 mm	12.3 μ m	Using Slip Gauges/ Long Slip Gauges
42.	Surface Roughness Tester [§]	0.4 μ m to 100 μ m	6.51 %	Using Surface Roughness Standard
43.	Surface Roughness Specimen [§]	3.0 μ m	7.1%	Using Surface Roughness Standard
44.	Surface Plate*	3000 mm x 3000 mm	$3 \times \sqrt{\frac{L+W}{100}}$ μ m	Using Spirit Level
45.	Bench Centre*	Up to 500 mm	2.3 μ m	Using Master Mandrel By Comparison Method
II.	DIMENSION (PRECISION INSTRUMENTS)			
1.	Co-Ordinate Measuring Machine (Linear) *	Up to 2000 mm x 1600 mm	3.0 μ m	Using Slip Gauges/ Master Long Gauge Block By comparison Method
2.	Profile Projector/Tool Microscope/Vision Measuring Machine* Linear Angular Magnification	300 mm x 300 mm 360 °	4.0 μ m 17 Arc Sec 4.0 μ m	Using Slip Gauge, Gauge Blocks ,Angle Gauge Blocks & Glass Scale by Comparison Method
3.	Gauge Blocks [§]	Up to 25 mm >25 mm to 50 mm >50 mm to 100 mm	0.17 μ m 0.19 μ m 0.28 μ m	Using Gauge Block & Gauge Block Comparator by Comparison Method

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4.	Length Bar [§]	25 mm to 500 mm	2.6 μ m	Using ULM
5.	Universal Length Measuring Machine [§] L.C.: 0.0001 mm	0 to 150 mm	0.3 + L/400 μ m	Using Gauge Blocks & Length Bar, Master Ring Gauges
III.	TORQUE GENERATING DEVICES			
1.	Torque [§] Hand Torque Tools, Torque Wrenches Type-1 (Class A,B,C) & Type -II (Class A & B)	0 Nm to 3000 Nm	1.4 % rdg	Using Torque Wrench Sensors
IV.	PREESURE INDICATING DEVICES			
1.	Pressure Hydraulic Pressure Gauges/ Pressure Transmitters & Transducers #	0 to 2500 bar	0.7 % rdg.	Using Pressure Gauge Comparison Method
2.	Vacuum Vacuum Gauges/ Vacuum Transmitters & Transducers, Magnehelic Gauges and Pirani Gauges #	(-) 0.9 bar to 0.1 bar	0.68 % rdg.	Using Pressure Gauge Comparison Method

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

[§]Only in Permanent Laboratory

*Only for Site Calibration

The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.

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