

Laboratory Reliable Metrological Laboratory, 1078, Sadashiv Peth, Pune, Maharashtra
Accreditation Standard ISO/IEC 17025: 2005
Certificate Number CC-2596 (In lieu of C-0148) **Page** 1 of 5
Validity 21.12.2017 to 20.12.2019 **Last Amended on** 05.03.2018

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
<u>MECHANICAL CALIBRATION</u>				
I.	DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)			
1.	Plain Plug Gauge/ Setting Master ^{\$}	0 to 275 mm	3.63 μ m	Using Master Slip Gauge Set, Comparator Stand & Electronic Probe
2.	Snap Gauge ^{\$}	1 mm to 300 mm	5.3 μ m	Using Slip Gauge Set
3.	Flush Pin Gauge ^{\$}	1 mm to 200 mm	3.81 μ m	Using Set Gauge Set, Comparator Stand and Electronic Probe by Comparison Method
4.	Width Gauge ^{\$}	1 mm to 100 mm	3.7 μ m	Using Slip Gauge Set, Comparator stand & Electronic Probe by Comparison Method
5.	Dial Snap Gauge ^{\$}	1 mm to 300 mm	2.5 μ m	Using Slip Gauge Set & Electronic Probe
6.	Pin Set ^{\$}	0 to 20 mm	3.6 μ m	Using Slip Gauge Set, Comparator stand & Electronic Probe by Comparison Method
7.	Feeler Gauge ^{\$}	0 to 1 mm	10.84 μ m	Using Slip Gauge Set, Comparator Stand & Electronic Probe by Comparison Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
8.	Thread Plug Gauge ^{\$}	0 to 100 mm	3.7 μ m	Using FCDM, wire set by Comparison Method
9.	Plunger Type Dial Gauge ^{\$} L.C. 0.001 mm ^{$\phi$} L.C. 0.002 mm L.C. 0.01 mm	0 to 1 mm 0 to 5 mm 0 to 25 mm	1.8 μ m 1.5 μ m 2.4 μ m	Using Dial Calibration Tester by Comparison Method
10.	Dial Thickness Gauge ^{\$} L.C. 0.01mm	0 to 25 mm	4.0 μ m	Using Slip Gauge set by Comparison Method
11.	Lever Type Dial Gauge ^{\$} L.C. 0.001 mm L.C.0.01 mm	0 to 0.14 mm 0 to 1 mm	1.5 μ m 3.6 μ m	Using Dial Calibration Tester by Comparison Method
12.	Vernier Caliper ^{\$} (All Types) L.C. 0.01 mm ^{ϕ}	0 to 600 mm	7.2 μ m	Using Slip Gauge Set By Comparison Method
13.	Vernier Depth Gauge ^{\$} L.C. 0.01 mm ^{$\phi$}	0 to 300 mm	7.0 μ m	Using Slip Gauge Set, Surface Plate By Comparison Method
14.	Micrometer Head ^{\$} L.C.0.001 mm ^{$\phi$}	0 to 25 mm	2.0 μ m	Using Slip Gauge Set By Comparison Method
15.	External Micrometer ^{\$} L.C. 0.001 mm	0 to 300 mm	3.6 μ m	Using Slip Gauge Set By Comparison Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
16.	Micrometer Standard ^{\$} L.C. 0.001 mm	Up to 600 mm	7.75 μ m	Using Slip Gauge Set, Lever Dial by Comparison Method
17.	Depth Micrometer ^{\$} L.C. 0.01 mm ϕ L.C. 0.01 mm ϕ	0 to 150 mm 0 to 300 mm	4.0 μ m 6.0 μ m	Using Slip Gauge Set & Surface plate by Comparison Method
18.	Internal Micrometer With Extension ^{\$} L.C. 0.01 m	Up to 300 mm	4.0 μ m	Using Slip Gauge Set by Comparison Method
19.	Bore Dial Gauge ^{\$} (Transmission Error)	6 mm to 450 mm	2.3 μ m	Using Dial Calibration Tester by Comparison Method
20.	Pistol Caliper ^{\$} L.C. 0.1 mm	0 to 100 mm	40.0 μ m	Using Slip Gauge Set by Comparison Method
21.	Foils ^{\$}	0 to 1 mm	3.57 μ m	Using Slip Gauge Set Comparator Stand & Electronic Probe by Comparison Method
22.	Angle Bevel Protractor ^{\$} L.C. 5'	0°-90°-0°	3.6'	Using Slip Gauge Set & Sine bar by Comparison Method
23.	Combination Set ^{\$} L.C. 1°	0°-180°-0°	36'	Using Sine bar by Comparison Method

Ashish Kakran
 Convenor

Avijit Das
 Program Director

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
24.	Height Gauge ^{\$} L.C.0.01 mm ^Φ	Up to 600 mm	10.0 μ m	Using Slip Gauge Set & Surface Plate by comparison Method
25.	V Block ^{\$} (Parallelism, Squareness, Symmetry, Flatness)	Up to 100 mm	6.31 μ m	Using Cylindrical Mandrel, Lever Dial, Surface Plate by Comparison Method
26.	Surface Plate Flatness [*]	2000 mm X 2000 mm	$7 \times \sqrt{\frac{L+W}{180}} \mu\text{m}$ (L & W in mm)	Using Precision spirit Level By Comparison Method
MOBILE LAB				
1.	External ^{\$} Micrometer L.C.0.001 mm L.C.0.01mm ^Φ	0 to 100 mm 0 to 300 mm 300 mm to 400 mm	3.5 μ m 4.5 μ m 4.0 μ m	Using Slip Gauge Set By Comparison Method
2.	Depth Micrometer ^{\$} L.C. 0.001 mm	0 to 150 mm	3.5 μ m	Using Slip Gauge Set, Surface Plate by Comparison Method
3.	Vernier Caliper ^{\$} L.C.0.01 mm ^Φ	0 to 300 mm	8.0 μ m	Using Slip Gauge Set by Comparison Method
4.	Height Gauge ^{\$} L.C.0.01 mm ^Φ	0 to 300 mm	12.0 μ m	Using Slip Gauge Set, Surface Plate by Comparison Method

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5.	Vernier Depth Gauge ^{\$} L.C. 0.01 mm ^Φ	0 to 300 mm	18.0 μ m	Using Slip Gauge Set, & Surface Plate by Comparison method
6.	Punger Type Dial Gauge ^{\$} L.C. 0.001mm L.C. 0.002 mm L.C. 0.01 mm	0 to 1 mm 0 to 5 mm 0 to 10 mm 0 to 50 mm	2.0 μ m 2.0 μ m 2.5 μ m 2.6 μ m	Using Dial Calibration Tester by Comparison Method
7.	Dial Thickness Gauge ^{\$} L.C. 0.001mm L.C. 0.01mm	0 to 5 mm 0 to 25 mm	2.0 μ m 3.5 μ m	Using Slip Gauge Set by Comparison Method
8.	Lever Type Dial Gauge ^{\$} L.C. 0.001m L.C.0.01 mm	0 to 0.14 mm 0 to 1.0 mm	1.7 μ m 2.40 μ m	Using Dial Calibration Tester by Comparison Method
9.	Bore Gauge ^{\$} (Transmission Error)	6 mm to 450 mm	3.22 μ m	Using Dial Calibration Tester by Comparison Method

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

^{\$} Only in Permanent Laboratory

* Only for Site Calibration\

^Φ Laboratory can also calibrate instruments/devices of coarser resolution / least count within the accredited range using same reference standard/ master equipment under the scope of accreditation.

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