

Laboratory Precision Services, Plot No. 177, R. C. Nagar, 1st Stage, Belgaum, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2442

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Validity 30.10.2017 to 29.10.2019

Last Amended on -

| Sl. | Quantity Measured / Instrument | Range/Frequency | *Calibration Measurement Capability (\pm) | Remarks |
|--------------------------------------|---|---|---|---|
| <u>MECHANICAL CALIBRATION</u> | | | | |
| 1. | DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC) | | | |
| 1. | Caliper ^s (Vernier / Dial / Digital) L.C.10 μ m ϕ | 0 to 600 mm | 17.0 μ m | Using Gauge Block Set, Caliper Checker & External Micrometer By Comparison Method |
| 2. | Depth Gauge ^s (Vernier / Dial / Digital) L.C.10 μ m ϕ L.C.20 μ m | Up to 300 mm Up to 500 mm | 14.0 μ m 20.0 μ m | Using Gauge Block Set, & Surface Plate By Comparison Method |
| 3. | Height Gauge ^s (Vernier / Dial / Digital) L.C.10 μ m ϕ | 0 to 600 mm | 14.0 μ m | Using Gauge Block Set, Caliper Checker, & Surface Plate By Comparison Method |
| 4. | External Micrometer ^s L.C.1 μ m L.C.10 μ m | 0 to 100 mm 0 to 200 mm >200 mm to 600 mm | 2.1 μ m 6.7 μ m 12.0 μ m | Using Gauge Block Set, Length bar By Comparison Method |

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Convenor

Avijit Das
Program Director

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| 5. | Micrometer Setting Rod, Width Gauge, Height Setting Master ^s | Up to 600 mm | 6.3 μ m | Using Gauge Block Set, Electronic Dial Gauge By Comparison Method |
| 6. | Depth Micrometer ^s L.C. 10 μ m | Upto 300 mm | 11.0 μ m | Using Gauge Block Set & Comparator Stand By Comparison Method |
| 7. | Dial Gauge ^s (Plunger Type) L.C. 0.001mm L.C. 0.01mm | 0 to 1 mm 0 to 10 mm | 1.3 μ m 6.0 μ m | Using U L M By Comparison Method |
| 8. | Dial Gauge ^s (Lever Type) L.C. 1 μ m L.C. 10 μ m | 0 to 0.20 mm 0 to 1.0 mm | 1.3 μ m 6.0 μ m | Using U L M By Comparison Method |
| 9. | Bore Gauge For Transmission Accuracy ^s | Up to 1.0 mm | 3.9 μ m | Using U L M By Comparison Method |
| 10. | Plain Plug Gauge ^s | Up to 100 mm > 100 mm to 250 mm | 1.9 μ m 3.7 μ m | Using U L M By Comparison Method |
| 11. | Plain Ring Gauge ^s | 6mm to 100 mm > 100 mm to 250 mm | 2.9 μ m 3.8 μ m | Using U L M & Master Ring By Comparison Method |
| 12. | Snap Gauge ^s | Up to 100 mm >100 mm to 300 mm | 2.4 μ m 5.7 μ m | Using Gauge Block Set (Carbide) By Comparison Method |

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| 13. | Thread Plug Gauge [§] (Effective Diameter) | Up to 300 mm | 3.0 μ m | Using U L M, Cylindrical Setting Master & Thread Measuring Wires By Comparison Method |
| 14. | Taper Thread Plug Gauge [§] (For Effective Diameter) | Up to 100 mm | 3.0 μ m | Using U L M, Cylindrical Setting Master & Thread Measuring Wires By Comparison Method |
| 15. | Pistol Caliper [§] L.C.: 100 μ m | Up to 100 mm | 71.0 μ m | Using Gauge Block Set By Comparison Method |
| 16. | Feeler Gauge [§] | Up to 1 mm | 3.0 μ m | Using Digital Micrometer By Comparison Method |
| 17. | OD Master [§] | Up to 100 mm Up to 250 mm | 1.9 μ m 4.2 μ m | Using U.L.M By Comparison Method |
| 18. | Plain Taper Plug Gauge [§] (Diameter at End, Half Incl. Angle) | Up to 100 mm | 3.7 μ m 70 Sec | Using U.L.M By Comparison Method |
| 19. | Inside Dial Caliper [§] (2 Point) L. C.: 0.01 mm | Working Range 2.5 mm | 5.8 μ m | Using U.L.M By Comparison Method |

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| 20. | Surface Plate [#] | 4000*4000 | $3.0 \sqrt{\frac{L+W}{100}} \mu\text{m}$ | Using Sprit Level as per is 7327, 12937& 2285 |

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

^{\$}Only in Permanent Laboratory

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

^o 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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