

Laboratory ACME Enterprises 28, Saraswati Opp. Sai Mandir, Behind Dwarkamai Mandir, Ayodhya Nagar, Nagpur, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Calibration **Issue Date** 03.06.2014

Certificate Number C-1075 **Valid Until** 02.06.2016

Last Amended on 21.07.2015 **Page** 1 of 3

| Quantity Measured/ Instrument | Range / Frequency | *Calibration Measurement Capability (\pm) | Remarks |
|--|--------------------------------------|--|--|
| I DIMENSION | | | |
| 1. Snap gauge \$ | Upto 100 mm 100 mm to 200 mm | 1.3 μ m 3 μ m | Using Gauge Block Set Grade '0' by Comparison |
| 2. Plug Gauge \$ | 5.0 mm to 150 mm 150 mm to 200 mm | 3.12 μ m 3.6 μ m | Using Block Set Grade '0' Comparator Stand, Plunger Dial, Surface Plate by Comparison |
| 3. Vernier Caliper Vernier / Dial / Electronic \$ | | | |
| L. C. 10 μ m | Upto 300 mm | 11.2 μ m | Using Gauge Block Set Grade '0' / Caliper Checker by Comparison |
| L. C. 10 μ m Φ | Upto 600 mm | 13.5 μ m | |
| 4. Height Gauge Vernier/ Dial/Digital \$ | | | |
| L. C. 10 μ m | Upto 300 mm | 13.0 μ m | Using Caliper Checker by Comparison Method |
| L. C. 10 μ m Φ | Upto 600 mm | 13.5 μ m | |
| 5. External Micrometer \$ | | | |
| L.C. : 1 μ m | Upto 100 mm | 1.1 μ m | Using Gauge Block Set Grade '0' by Comparison Method |
| L. C. : 10 μ m | Upto 300 mm | 7.5 μ m | |
| 6. Plunger Dial Gauge \$ | | | |
| L.C. : 1 μ m | Upto 10 mm | 3.7 μ m | Using Dial Calibration Tester by Comparison Method |
| L. C. : 10 μ m | Upto 25 mm | 7.0 μ m | |

Sangeeta Kunwar
Convenor

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Program Manager

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| 7. Dial Gauge \$ (Lever Type) L.C. : 1 μ m | 0 to 2 mm | 1.8 μ m | Using Dial Calibration Tester by Comparison Method |
| 8. Bore Gauge With dial for Transmission Accuracy \$ LC.: 1 μ m | 0 to 2 mm | 2.0 μ m | Using Dial Calibration Tester & Dial Gauge by Comparison Method |
| 9. Feeler Gauge \$ | Upto 1mm | 3.5 μ m | Using Dial Gauges & Comparator Stand by Comparison Method |
| 10. Internal Micrometer\$ (Stick Type) Micrometer Head L.C.: 10 μ m | 50 mm to 63 mm | 6.6 μ m | Using Slip Gauge, Long Slip Gauge, Dial Gauge & Comparator Stand, Surface Plate by Comparison Method |
| Extension Rod | Upto 300 mm | 8.4 μ m | |
| 11. Steel Scale \$ L.C.: 0.5 μ m | Upto 1000 mm | 133.5 μ m | Using Tape & Scale Calibrator by Comparison Method |
| 12. Steel Tape \$ L.C.: 1 μ m | Upto 30000 mm | $90 \sqrt{\frac{L}{1000}}$ μ m, Where "L" is in mm | Using Tape & Scale Calibrator by Comparison Method |
| 13. Bevel Protractor/ Combination Set LC.: 5 ' | 360 ° | 3.5 ' | Using Angle Gauge Set by Comparison Method |

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| II. FORCE | | | |
| 1. Uniaxial Static Testing Machines | | | |
| Tension | 2 kN to 100 kN | 0.7 %** | Using Proving Ring Tension Type of Class 1 |
| Compression | 40 kN to 2000 kN | 0.7 %** | Using Proving Ring Compression Type of Class 1 |

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

\$Only in Permanent Laboratory

^ΦLaboratory 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.

**Relative accuracy error has not been considered for CMC estimation.