

Laboratory TATA Motors, PCBU, QA-Metrology Lab, Sector 15 & 15 A, Chikhali, PCNTDA, Pune, Maharashtra
Accreditation Standard ISO/IEC 17025: 2005
Certificate Number CC-2563 *(In lieu of C-0274)* **Page** 1 of 3
Validity 03.02.2018 to 02.02.2020 **Last Amended on** 07.02.2018

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
<u>MECHANICAL CALIBRATION</u>				
I.	DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)			
1.	Gauge Block Set ^{\$}	Upto 50 mm > 50 mm to 100 mm	0.36 μ m 0.67 μ m	Using Gauge Block Set, comparator stand By Comparison Method.
2.	Caliper ^{\$} (Vernier, Dial, Digital) L.C.: 10 μ m L.C.: 20 μ m	Upto 150 mm Upto 600 mm	10 μ m 19 μ m	Using Caliper checker By Comparison method.
3.	External Micrometer ^{\$} L.C.: 1 μ m L.C.: 10 μ m	Upto 50 mm Upto 100 mm	1.0 μ m 2.9 μ m	Using Gauge Block Set By Comparison Method .
4.	Dial Guage ^{\$} (Plunger Type) L.C.: 1.0 μ m L.C.: 10.0 μ m	Upto 25 mm Upto 10 mm	1.3 μ m 2.6 μ m	Using Dial Calibration Tester By Comparison Method .
5.	Dial Gauge ^{\$} (Lever Type) L.C.: 2.0 μ m L.C.: 10 μ m	Upto 0.2 mm Upto 1.0 mm	1.3 μ m 2.6 μ m	Using Dial Calibration Tester By Comparison Method .

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6.	Bore Gauge With Dial ^{\$} For Transmission Accuracy L.C.: 1.0 μ m	Upto 1.2 mm	2.3 μ m	Using Length Measuring Machine, By Comparison method.
7.	Dial Calibration Tester ^{\$} L.C.: 0.1 μ m	0 to 60 mm	0.60 μ m	Using Linear Electronic Probe By Comparison Method
8.	Dial Snap Gauge ^{\$} L.C.: 1.0 μ m	Upto 50 mm	2.2 μ m	Using Gauge Block by Comparison Method.
9.	Plain Plug Gauge ^{\$}	Upto 100 mm	2.4 μ m	Using Gauge Block set, Comparator stand by Comparison Method.
10.	Plain Ring Gauge ^{\$}	>6mm to 100 mm	2.0 μ m	Using Master Ring & LMM by Comparison Method.
11.	Snap Gauge ^{\$}	18 mm to 80 mm	1.8 μ m	Using Gauge Block set By Comparison Method.
12.	Thread Plug Gauge ^{\$} (For Effective Dia.)	>M6 to M40	3.4 μ m	Using FCDMM/ Cylindrical Setting Master/ TMW By Comparison Method.

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13.	Thread Ring Gauge ^{\$} (For Effective Dia.)	> M10 to M50	2.0 μ m	Using Master Ring & LMM By Comparison Method.
14.	Electronic Probe ^{\$} L.C.: 0.05 μ m / 0.1 μ m ^Φ	Upto 60 mm	0.38 μ m	Using Gauge Block Set, Comparator stand By Comparison Method
15.	Roundness Specimen ^{\$}	Upto $\varnothing$ 80 mm	0.23 μ m	Using Roundness Tester By Comparison Method
16.	Surface Plate ^{\$} (for flatness)	2400mm x1600 mm	$0.75 \times \sqrt{\frac{L+W}{125}} \mu\text{m}$ L&W in mm	Using Electronic Level By Comparison Method.

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

^{\$} Only in Permanent Laboratory

^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.