

**Laboratory** MSME Testing Centre, Shaheed Captain Gaur Marg, Okhla Industrial Estate, Phase III, New Delhi  
**Accreditation Standard** ISO/IEC 17025: 2005  
**Certificate Number** CC-2314 **Page** 1 of 4  
**Validity** 01.08.2017 to 31.07.2019 **Last Amended on** --

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>MECHANICAL CALIBRATION</u></b>				
<b>I. DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)</b>				
1.	External Micrometer <sup>§</sup> L.C.: 1 $\mu\text{m}^\phi$	Upto 100 mm	1.7 $\mu\text{m}$	Using 00 Grade Block Set / universal length Machine
2.	Micrometer Setting Rod/ Length Bar <sup>§</sup>	Upto 175 mm Above 175 mm to 450 mm	2.6 $\mu\text{m}$ 6.3 $\mu\text{m}$	Using ULM and 00 Slip Gauge Set & Accessories
3.	Dial Gauge <sup>§</sup> (Lever Type) L. C. 0.001 mm $^\phi$	0 to 0.14 mm	1.5 $\mu\text{m}$	Using universal length Machine
4.	Dial Gauge <sup>§</sup> (Plunger Type) L. C. : 0.01 mm $^\phi$ L.C. : 0.001mm	0 to 10 mm Above 10 mm to 50 mm	6.0 $\mu\text{m}$ 7.0 $\mu\text{m}$	Using universal length Machine
5.	Caliper <sup>§</sup> (Vernier / Dial/ Digital) L. C.: 10 $\mu\text{m}^\phi$	Upto 450 mm	10 $\mu\text{m}$	Using universal length Machine, 00 Gauge Block Set & Accessories, Caliper Checker
6.	Steel Scale <sup>§</sup> L.C.: 1.0 mm	0 to 1000 mm	$145 \times \sqrt{\frac{L}{200}} \mu\text{m}$ Where L is in mm	Using universal Measuring Machine

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7.	Plain Plug Gauge Measuring Pin Thread Measuring Wire <sup>§</sup>	0.1mm to 50 mm > 50 mm to 200 mm	1 $\mu$ m 3.0 $\mu$ m	Using universal length Machine
8.	Thread Plug Gauge <sup>§</sup>	2 mm to 100 mm	3.1 $\mu$ m	Using universal length Machine, Thread Measuring Wires
9.	Plain Ring Gauge <sup>§</sup>	4.5 mm to 50 mm Above 50 mm to 200 mm	1.6 $\mu$ m 3.0 $\mu$ m	Using universal length Machine
10.	Thread Ring Gauge <sup>§</sup>	4.5mm to 100 mm	3.1 $\mu$ m	Using universal length Machine
11.	Radius Gauge <sup>§</sup>	Upto 30 mm 30 mm to 200 mm	200 $\mu$ m 300 $\mu$ m	Using universal Measuring Machine
12.	Pitch Gauge <sup>§</sup>	Upto 3 mm	3.0 $\mu$ m	Using universal Measuring Machine
13.	Height Gauge <sup>§</sup> (Vernier/Dial/Digital) L.C. : 10 $\mu$ m <sup>ϕ</sup> L.C. : 20 $\mu$ m <sup>ϕ</sup>	Upto 450 mm	9.5 $\mu$ m 12.0 $\mu$ m	Using 00 Grade Block Set, Length Bar, Caliper Checker
14.	Surface Plate <sup>§</sup>	1000 mm x 2000 mm	$2.3 \sqrt{\frac{(L+W)}{125}} \mu\text{m}$ L & W is in mm	Using Electronic Level
15.	Surface Roughness <sup>§</sup> R <sub>A</sub> R <sub>Y</sub> R <sub>Z</sub>	0 to 300 $\mu$ m	8 %	Using Surface Roughness Tester

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16.	Straight Edge <sup>§</sup> Thickness $\leq$ 50 mm Straightness Parallelism Thickness $\geq$ 50 mm	Upto 1000 mm	10 $\mu$ m 4 $\mu$ m	Using 00Gauge Block Set and Surface Plate
		Upto 1000 mm	6 $\mu$ m	Using Electronic Level
17.	Slip Gauges <sup>§</sup>	Upto 10 mm 10 mm to 25 mm 25 mm to 100 mm	0.17 $\mu$ m 0.25 $\mu$ m 0.73 $\mu$ m	Using Slip Gauges Comparator, Slip gauges
18.	V Block <sup>§</sup> Parallelism Flatness Squareness V Angle Symmetricity	Upto 300 mm	5 $\mu$ m 5 $\mu$ m 5 $\mu$ m 3'	Using 00 grade Slip Gauges, Lever/Plunger Dial Gauge Mandrel, Universal Measuring Machine
19.	Test Sieves <sup>§</sup>	32 $\mu$ m-4mm 4mm-100mm	5 $\mu$ m 10.0 $\mu$ m	Using Universal Measuring Machine , Digital Caliper
20.	Glass Scale <sup>§</sup> L.C.: 0.001 mm L.C.: 0.1 mm L.C.: 0.5 mm <sup>φ</sup>	0 to 1 mm 0 to 10mm 0 to 500mm	2.0 $\mu$ m 6.0 $\mu$ m 28.0 $\mu$ m	Using Universal Measuring Machine
21.	Angle Gauge <sup>§</sup>	$\leq$ 90° $\geq$ 90°	40 " 40 "	Using Universal Measuring Machine
22.	Measuring Tape <sup>§</sup> L.C.: 0.5 mm <sup>φ</sup>	Upto 15 m	$270 \times \sqrt{\frac{L}{200}}$ $\mu$ m Where L is in mm	Using Universal Measuring Machine
23.	Caliper Checker <sup>§</sup>	Upto 450 mm	5.0 $\mu$ m	Using 00Slip Gauges,

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				Length Bar Lever Dial Gauge
24.	Bevel Protractor/ Combination Set/ Angle Plate <sup>§</sup> L.C.: 5 min. L. C.: 1 deg. <sup>¶</sup>	0 to 360 Degree 0 to 360 Degree	3' 3'	Using Universal Measuring Machine
25.	Mandrel <sup>§</sup> Diameter	37 $\phi$ X 180 mm	1.7 $\mu$ m 1.0 $\mu$ m	Using Universal Measuring Machine

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

<sup>§</sup>Only in Permanent Laboratory

<sup>¶</sup> 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.