

Laboratory

Jyotiba Instruments Enterprises, Shree Complex, Block No. 7, 1<sup>st</sup> Floor, Plot No. 182/A/186, Udyambag, Belgaum, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2621

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Validity

26.09.2018 to 25.09.2020

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.	Vernier Calipers <sup>s</sup> (Dial / Digital / Vernier) L.C.:0.01mm	Up to 600 mm 0 to 1000 mm	17 $\mu$ m 25 $\mu$ m	Using Caliper Checker/Long Slip Gauge Block By Comparison Method
2.	Height Gauge <sup>s</sup> (Dial / Digital / Vernier) L.C.:0.01mm L.C.:0.02mm	Up to 600 mm 0 to 100 mm	17 $\mu$ m 19 $\mu$ m	Using Caliper Checker/Long Slip Gauge Block By Comparison Method
3.	Depth Gauge <sup>s</sup> (Dial / Digital / Vernier) L.C.:0.01mm	0 to 300 mm	17 $\mu$ m	Using Caliper Checker/Long Slip Gauge Block By Comparison Method
4.	External Micrometer <sup>s</sup> L.C.:0.001mm	0 to 300 mm 300 mm to 1000mm	3 $\mu$ m 10.5 $\mu$ m	Using Caliper Checker/Long Slip Gauge Block By Comparison Method
5.	Depth Micrometer <sup>s</sup> L.C.:0.001mm	0 to 150 mm	8.5 $\mu$ m	Using Caliper Checker/Slip Gauge Block By Comparison Method

Vishal Shukla  
Convenor

Avijit Das  
Program Manager

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
6.	Internal Micrometer <sup>s</sup> L.C.:0.01mm	50 mm to 350 mm	8 $\mu$ m	Using Dial Electronics Probe, Slip gauge Set, Long Slip Gauge By Comparison Method
7.	Dial Thickness Gauge <sup>s</sup> L.C.:0.001mm	0 to 25 mm	6 $\mu$ m	Using Slip Gauge Set By Comparison Method
8.	Pistol Caliper <sup>s</sup> L.C.:0.1mm	0 to 50 mm	65 $\mu$ m	Using Slip Gauge Set By Comparison Method
9.	Dial Snap Gauge <sup>s</sup> ( Parallelism ) L.C.:0.001mm	5 mm to 200 mm	3.1 $\mu$ m	Using Slip Gauge Set By Direct measurement
10.	Plain Plug Gauge / Width Gauge <sup>s</sup>	Up to 100 mm 100 mm to 300 mm 300 mm to 500 mm	2.5 $\mu$ m 4 $\mu$ m 5.5 $\mu$ m	Using digital Dial, Slip Gauge Set By Comparison
11.	Micrometer Setting Standard <sup>s</sup>	Up to 100 mm 100 mm to 300 mm 300 mm to 775 mm	2.5 $\mu$ m 4 $\mu$ m 23 $\mu$ m	Using Digital Dial/Electronic Probe, Slip gauge Set, Comparator Stand Digital / Dial , Slip Gauge Set By Comparison Method
12.	Measuring Pins <sup>s</sup>	Up to 6 mm	2.5 $\mu$ m	Using Digital dial, slip Gauge Set By Comparison

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13.	Feeler Gauge Set/ Coating Thickness Foil <sup>s</sup>	0 to 1mm	4.8 $\mu$ m	Using Digital Dial Slip Gauge Set By Comparison
14.	Coating Thickness Gauge <sup>s</sup>	0 to 1mm	2.9 $\mu$ m	Using Coating Thickness Foil <sup>s</sup> & Slip Gauge By Comparison Method
15.	Snap Gauge/ Gap Gauge <sup>s</sup>	2 mm to 100 mm 100 mm to 200 mm 200 mm to 500 mm	3 $\mu$ m 3.5 $\mu$ m 4.54 $\mu$ m	Using Slip Gauge Block By Comparison Method
16.	Plunger Dial Gauge <sup>s</sup> L.C.: 0.001mm L. C.: 0.01mm	0 to 1 mm 0 to 10 mm	3 $\mu$ m 6.5 $\mu$ m	Using Dial calibration Tester By Comparison Method
17.	Lever Dial Gauge <sup>s</sup> L.C.: 0.001mm L. C.: 0.01mm	0.014 mm 0 to 0.8 mm	3 $\mu$ m 6.5 $\mu$ m	Using Dial calibration Tester By Comparison Method
18.	Bore Gauge <sup>s</sup> (Transmission Error)	0 to 1 mm	5.6 $\mu$ m	Using Dial calibration Tester By Comparison Method
19.	Inside Dial Caliper Two Pin Dial <sup>s</sup> L.C.: 0.01mm	Travel Up to 2 mm & Total Range Up to 75	10 $\mu$ m	Using Digital Micrometer By Comparison Method
20.	Bevel Protractor <sup>s</sup> L.C.: 5 Min	0-90°	4.1 Min	Using Angle Gauge By Comparison Method

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21.	Combination Set Angle Protector <sup>§</sup> L. C.: 1°	0 180°	35 Min	Using Angle Gauge Angle By Comparison Method
23.	Ultrasonic Thickness Gauge <sup>§</sup> L.C.: 0.1mm	0 to 100mm	80 $\mu$ m	Using Slip Gauge Set By Comparison Method
24.	V Block <sup>§</sup> Parallel Block Parallelism/ Symmetricity Perpendicularity	Upto 300 mm	7.0 $\mu$ m	Using Surface Plate, Master Square Dial by Comparison Method
25.	Thread Plug Gauge*	Upto 100 mm	4.7 $\mu$ m	Using FCDM with Dial, CSM, Thread Measuring wire by Comparison Method
26.	Taper Thread Plug Gauge	Upto 100 mm	5 $\mu$ m	Using FCDM with Dial, CSM, Thread Measuring wire by Comparison Method
27.	Cylindrical Setting Master	Upto 100 mm	5 $\mu$ m	Using Slip Gauge, & Electronic Comparator with Stand by Comparison Method
28.	Surface Plate/ Comparator Stand Base* (Flatness)	3000 mm x 3000 mm	4.5 $\sqrt{L+W}/150$ L & W is in mm	Using Spirit Level By Comparison Method (IS 12937)

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29.	Electronic Height Gauge* L. C.: 0.0001 mm	0 to 600 mm	8.3 $\mu$ m	Using Slip Gauge /Long Slip Gauge Block By Comparison Method
II.	<b>DIMENSION (PRECISION INSTRUMENTS)</b>			
1.	Profile Projector* Linear Scale L. C.: 0.1 mm Angular Scale L. C.: 1 sec, 1 min/ 5min Magnification	Upto 200 mm  Upto 360  Upto 100X	11.0  2.5  1.3 %	Using Slip Gauge, Length Bars, Angle Gauge & Digital Caliper by Comparison Method
III.	<b>PRESSURE INDICATING DEVICES</b>			
1.	Hydraulic Pressure Dial /Digital Pressure Gauge and Calibrator*	0 to 700 bar	6.5 bar	Using Digital Pressure Calibrator by Comparison Method as per DKD R6-01

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

§ Only in Permanent Laboratory

^ Only for Site Calibration

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

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