

Laboratory Jash Precision Tools Limited, 87, Industrial Estate, Pologround, Indore, Madhya Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2851 **Page** 1 of 5

Validity 26.09.2018 to 25.09.2020 **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.	Height Gauge [§] L.C.: 0.01 mm	0 to 1000 mm	14.2 μ m	Using Surface Plate Gr. 0, Caliper Checker
2.	Caliper [§] (Vernier, Dial, Digital) L.C.: 0.01 mm	0 to 600 mm 0 to 1000 mm	14.8 μ m 18.0 μ m	Using Caliper Checker
3.	Depth Caliper [§] (Vernier, Dial, Digital) L.C.: 0.01 mm	0 to 300 mm	12.0 μ m	Using Length Bar , Gauge Block Set , Surface Plate
4.	Plunger Type Dial Gauge [§] L.C.: 0.001 mm	0 to 25 mm	1.7 μ m	Using Universal Length Measuring Machine
5.	Lever Type Dial Gauge [§] L.C.: 0.001 mm	Up to 0.14 mm	2.3 μ m	Using Universal Length Measuring Machine
6.	Bore Gauge [§] (Transmission) L.C.: 0.001 mm	0 to 1 mm	3.0 μ m	Using Universal Length Measuring Machine
7.	Internal Micrometer /Stick Micrometer [§] L.C.: 0.01 mm	50 mm to 500 mm	5.9 μ m	Using Universal Length Measuring Machine
8.	External Micrometer [§] L.C.-0.001 mm	Up to 300 mm	4.0 μ m	Using Gauge Block Set

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9.	Depth Micrometer ^{\$} L.C.:0.01 mm	Up to 150 mm	5.5 μ m	Using Length Bar, Gauge Block Set , Surface Plate
10.	Electronic Probe with DRO ^{\$} L.C.: 0.0001 mm	Up to 1 mm	1.2 μ m	Using Gauge Block Set , Comparator Stand
11.	Measuring Tape ^{\$}	Up to 50 m	31 $\sqrt{(L/1000)}$ μ m Where L in Meter	Using Tape & Scale Calibrator
12.	Steel Scale ^{\$}	Up to 1000 mm	31 $\sqrt{(L/1000)}$ μ m Where L in Meter	Using Tape & Scale Calibrator
13.	Feeler Gauge ^{\$}	0.03 mm to 1 mm	1.2 μ m	Using Universal Length Measuring Machine
14.	Micrometer Setting Stick / Rod ^{\$}	25 mm to 275 mm	1.0 μ m	Using ULM -600, Gauge Block Set, Length Bar
15.	Plain Plug Gauge/ Setting Master/ Setting Disc ^{\$}	Up to 300 mm	1.0 μ m	Using Universal Length Measuring Machine
16.	Measuring Pin ^{\$}	0.1 mm to 20 mm	1.2 μ m	Using Universal Length Measuring Machine
17.	Thread Measuring Wire ^{\$}	0.17 mm to 6.35 mm	1.2 μ m	Using Universal Length Measuring Machine
18.	Plain Ring Gauge ^{\$}	3 mm to 300 mm	1.3 μ m	Using ULM -600, Master Plain Ring Gauge
19.	Thread Plug Gauge ^{\$} (Effective & Major Dia)	3 mm to 300 mm	1.2 μ m	Using ULM -600, Thread Measuring Wire

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20.	Thread Ring Gauge ^s (Effective Dia)	3mm to 300 mm	1.7 μ m	Using ULM -600, Master Plain Ring Gauge
21.	Taper Thread Plug Gauge ^s (Effective & Major Dia)	Up to 100 mm	1.9 μ m	Using ULM -600, Thread Measuring Wire
22.	Taper Thread Ring Gauge ^s (Effective Dia)	Up to 100 mm	1.7 μ m	Using ULM -600, Master Plain Ring Gauge
23.	Surface Plate ^s (Flatness Measurement)	Up to 1600 x1000 mm	1.2 $\sqrt{(L+W /100)}$ μ m (where L & W in mm)	Using Electronic Level
24.	Engineer's Parallel ^s (Parallelism)	Up to 250 mm	7.3 μ m	Using Granite Surface Plate, Gauge Block Set, Lever Dial Gauge
25.	Master Cylinder / Cylindrical Square ^s (Squareness)	Up to 600 mm	8.7 μ m	Using Granite Surface Plate, Granite Square , Gauge Block
26.	Granite / Cast Iron ^s Square Column Straightness Squareness Parallelism	Up to 600 mm	3.0 μ m 7.8 μ m 7.3 μ m	Using Granite Surface Plate Master Cylinder, Gauge Block, lever Dial Gauge Electronic Level
27.	Granite/ Cast Iron ^s Square/ Cube Straightness Flatness Squareness Parallelism	Up to 400 mm	2.4 μ m 3.4 μ m 7.8 μ m 7.6 μ m	Using Granite Surface Plate Master Cylinder, Gauge Block Set, Lever Dial Gauge, Electronic Level

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28.	Granite/ Cast Iron ^s Straight Edge Straightness Parallelism	Up to 1600 mm	$1.21 \sqrt{L/100} \mu\text{m}$ (where L in mm)	Using Granite Surface Plate Electronic Level Lever Dial Gauge
29.	Steel Straight Edge ^s Straightness Parallelism	Up to 1600 mm	8.9 μm 9.4 μm	Using Granite Surface Plate Gauge Block Set, Lever Dial Gauge
30.	Angle Plates / Box ^s Angle Plate Flatness Squareness Parallelism	Up to 600 mm Height	4.2 μm 8.7 μm 7.3 μm	Using Electronic Level, Gauge Block Set, Master Cylinder, Granite Surface Plate, lever dial gauge
31.	Granite / C.I. Square ^s (Right Angle) Squareness	Up to 600 mm	8.7 μm	Using Granite Surface Plate, Master Cylinder, Gauge Block
32.	V Block ^s (Granite/ Steel/ C.I.) Squareness Parallism Symmetricity	Up to 200 mm Height	8.7 μm 3.1 μm 10.5 μm	Using Granite Surface Plate, Cylindrical Mandrel, Lever Dial Gauge, Master cylinder, Gauge Block Set
33.	Engineer's Square Straightness Squareness Parallelism ^s	Up to 450 mm	8.9 μm 8.7 μm 7.3 μm	Using Gauge Block Set, Granite Surface Plate, Granite Surface Column, Lever Dial Gauge
34.	Bench Center [#] (Co- axiality of Centers)	Up to 300 mm (Height & admin between center up to 1000 mm)	10.4 μm	Using Cylindrical Mandrels Level Dial Gauge

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35.	Co-ordinate Measuring Machine [#]	1200 x 800 x 700 mm	$(1.2\mu\text{m} + 3 L) \mu\text{m}$ Where L in Meter	Using Gauge Block Set, Length Bar
36.	Electronic Level Meter ^{\$} L.C.: 1 μm /m	Up to 1 mm/m	1.2 μm /m	Using Electronic Level Meter (L.C: 0.5 μm /m)
37.	Granite/ Cast Surface Plates & Tables [*] (Flatness Measurement)	Up to 2 m X 4 m > 2 m X 4 m	$1.20 \times \sqrt{(L+W /100)} \mu\text{m}$ (where L & W in mm) $1.20 \times \sqrt{(L+W /200)} \mu\text{m}$ (where L & W in mm)	Using Electronic Level
38.	Granite/ Cast Iron [*] Straight Edge Straightness	Up to 6000 mm	$1.20 \times \sqrt{(L / 200)}\mu\text{m}$ where L in mm)	Using Granite Surface Plate Electronic Level

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

^{\$}Only in Permanent Laboratory

^{*}Only for Site Calibration

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