Laboratory	**Moorthi Instruments, No. 14/21, Amman Nagar, Thally Road, Hosur, Tamil Nadu**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)**			
1.	External Micrometer$ (Analog/Digit/ Digital) LC.: 0.001 mm	0 to 100 mm 100 mm to1000 mm	1.60 µm 9.7 µm	Using Gauge Blocks and Long Gauge Blocks by Comparison Method
2.	Height Gauge$ (Vernier/Digital/Dial) L.C.: 0.01 mm	0 to 300 mm 300 mm to 1000 mm	8.8 µm 12.8 µm	Using Caliper Checker by Comparison Method
3.	Depth Micrometer$ (Analog/Digital) L.C.: 0.01 mm	0 to 300 mm	6.0 µm	Using Gauges Blocks by Comparison Method
4.	Calipers$ (Vernier/Dial/Digital) L.C.: 0.01 mm	0 to 300 mm 300 mm to 1000 mm	10.0 µm 12.3 µm	Using Caliper Checker & Gauge Blocks/Long Gauge Blocks by Comparison Method
5.	Depth Gauge$ (Vernier/Dial/Digital) L.C.: 0.01 mm	0 to 300 mm 300 mm to 600 mm	7.9 µm 15.4 µm	Using Gauge Blocks and Long Gauge Blocks by Comparison Method
6.	Plunger Type Dial Gauge$ L.C.: 0.001 mm	0 to 50 mm	2.0 µm	Using Dial Calibration Tester by Comparison Method
7.	Lever Type Dial Gauge$ L.C.: 0.001 mm L.C.: 0.01 mm	0 to 1 mm 1 mm to 2 mm	1.8 µm 5.9 µm	Using Dial Calibration Tester by Comparison Method

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Convenor

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Program Manager

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
8.	Electronic Probe System[$] L.C.: 0.0001 mm	0 to 25 mm	0.4 µm	Using Gauges Blocks by Comparison Method
9.	Bore Dial Gauge[$] L.C.: 0.001 mm (Transmission Error Only)	Dia range: Ø20 mm to 500 mm Travel: Upto 1 mm	1.8 µm	Using Dial Calibration Tester by Comparison Method
10.	Dial Snap Gauge[$] L.C.: 0.001 mm	0 to 25 mm	2.0 µm	Using Gauges Blocks by Comparison Method
11.	Dial Thickness Gauge[$] L.C.: 0.001 mm	0 to 25 mm	1.9 µm	Using Gauges Blocks by Comparison Method
12.	Pistol Caliper[$] L.C.: 0.05 mm	0 to 50 mm	36.0 µm	Using Gauges Blocks by Comparison Method
13.	Micrometer Head[$] L.C.: 0.2 µm L.C.: 2 µm	0 to 25 mm 25 mm to 50 mm	0.6 µm 1.8 µm	Using Electronic Probing System by Comparison Method
14.	Internal Micrometer[$] (Jaw Type) L.C.: 0.01 mm	5 mm to 100 mm	6.2 µm	Using Gauges Blocks and Gauge Blocks Accessories by Comparison Method
15.	Internal Micrometer[$] (Stick Type) L.C.: 0.01 mm	25 mm to 1000 mm	13.5 µm	Using Gauges Blocks and Gauge Blocks Accessories by Comparison Method
16.	Dial Caliper Gauge[$] (Internal) L.C.: 0.01 mm	6 mm to 150 mm	8.0 µm	Using Gauges by Comparison Method

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
17.	Thread Measuring Wire[$]	0.17 mm to 20 mm	0.4 µm	Using Electronic Probing System & Gauge Blocks by Comparison Method
18.	Measuring Pin[$]	1 mm to 20 mm	0.4 µm	Using Electronic Probing System & Gauge Blocks by Comparison Method
19.	Cylindrical Setting Master[$]	3 mm to 100 mm 100 mm to 200 mm	1.7 µm 2.6 µm	Using Electronic Probing System & Gauge Blocks by Comparison Method
20.	Micrometer Setting Standard[$]	25 mm to100 mm 200 mm to 400 mm 400 mm to 1000 mm	2.7 µm 3.8 µm 9.0 µm	Using Electronic Probe with DRO by Comparison Method
21.	Feeler Gauge[$]	0.05 mm to 1 mm	1.8 µm	Using Digital Micrometer by Comparison Method
22.	V-Block[$] Parallelism Perpendicularity Symmetricity	200 mm x 125 mm x 150 mm	 5.8 µm 4.7 µm 5.7 µm	Using Cylindrical Mandrel with Lever Dial by Comparison Method
23.	Master Foils[$]	5 µm to 1250 µm	1.9 µm	Using Electronic Probe System
24.	Plain Plug Gauge[$]	0.6 mm to 100 mm 100 mm to 200 mm	1.8 µm 3.1 µm	Using Electronic Probing System & Gauge Blocks by Comparison Method
25.	Flush Pin Gauge[$]	0.1 mm to 50 mm	2.0 µm	Using Electronic Probing System & Gauge Blocks by Comparison Method

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
26.	Snap Gauge$ (Plain/Adjustable)	3 mm to 250 mm	2.2 µm	Using Gauges Blocks by Comparison Method
27.	Thread Plug Gauge$	2 mm to 100 mm	3.1 µm	Using FCDM, Thread Measuring Wires & Setting Master by Comparison Method
28.	Taper Thread Plug Gauge$	6 mm to 100 mm	3.5 µm	Using FCDM, Thread Measuring Wires & Setting Master by Comparison Method
29.	Comparator Stand/ Dial Gauge Stand$	300 mm	3.4 µm	Using Lever Dial Gauge & Surface Plate by Comparison Method
30.	Radius Gauge$	0.5 mm to 25 mm	7.8 µm	Using Profile Projector by Comparison Method
31.	Thread Pitch Gauge$	0.25 mm to 7 mm	5.1 µm	Using Profile Projector by Comparison Method
32.	Bevel Protractor$ L.C.: 1 Arc min.	0 - 90° - 0	4.9 Arc Min.	Using Profile Projector by Comparison Method
33.	Combination Set$ L.C.: 5 Arc Min.	180º Arc Deg	4.5 Arc Min.	Using Profile Projector by Comparison Method
34.	Width Gauge$	1 mm to 25 mm	1.8 µm	Using Digital Micrometer by Comparison Method
35.	Taper Scale$	0 to 45 mm	7.5 µm	Using Profile Projector by Comparison Method
36.	Steel Rule$ L.C.: 1 mm	1 mm to 1000 mm	13.2 µm	Using Profile Projector by Comparison Method

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
37.	V-Anvil Micrometer$ L.C.: 1 µm	0 to 100 mm	4.6 µm	Using Cylinder Master by Comparison Method
38.	Pitch Micrometer$ L.C.: 1 µm Pitch Anvil Angle	 0 to 50 mm 60°	 1.5 µm 5.2 Arc Min.	Using Gauge Block by Comparison Method Using Profile Projector by Comparison Method
39.	Thread Ring Gauge$	Ø 6 mm to Ø 100 mm	1.4 µm	Using Length Measuring Machine with Master Setting Ring by Comparison Method
40.	Plain/Setting Ring Gauge$	Ø 3 mm to Ø 100 mm 100 mm to 200 mm	1.3 µm 2.4 µm	Using Length Measuring Machine with Master Setting Ring by Comparison Method
41.	Coating Thickness Gauge$ L.C.: 0.1 µm L.C.: 1 µm	 0 to 20 µm 20 µm to 2000 µm	 1.9 µm 2.2 µm	Using Master Foils by Comparison Method
42.	Surface Plate♣	3000 mm x 2000 mm	$3.0\sqrt{\frac{L+W}{100}}$ µm Grid Width (W) & Length (L) in mms	Using Spirit Level by Comparison Method
43.	Electronic Height Gauge♣ L.C.: 0.1 µm	0 to 600 mm	8.1 µm	Using Caliper Checker by Comparison Method
44.	Bench Centre♣	300 mm	3.3 µm	Using Cylindrical Mandrel by Comparison Method

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II.	**PRESSURE INDICATING DEVICES**			
1.	Pressure Pneumatic[#] Pressure Gauges	0.0 bar to 20.0 bar	0.03 bar	Using Digital Pressure Calibrator by Comparison Method as per DKD R-6-1/2
2.	Hydraulic Pressure[#] Pressure Gauges	0.0 bar to 700.0 bar	0.06 % rdg	Using Digital Pressure Calibrator by Comparison Method as per DKD R-6-1/2
3.	Vacuum Gauges[#]	(-) 0.8 bar to 0.0 bar	0.002 bar	Using Digital Pressure Calibrator by Comparison Method as per DKD R-6-1/2

*** Measurement Capability is expressed as an uncertainty (±) 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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Convenor

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