

Laboratory	Scientific And Industrial Testing and Research Centre, 83 & 84, Avarampalayam Road, K.R. Puram P.O., Coimbatore, Tamil Nadu		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Calibration	Issue Date	11.12.2014
Certificate Number	C-0135	Valid Until	10.12.2016
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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I.	DIMENSION			
1.	VERNIER CALIPERS AND DIAL VERNIER^s L.C. 0.02 mm	0 to 200 mm 0 to 300 mm 0 to 600 mm 0 to 1000 mm 0 to 2000 mm	14.0 μ m 14.0 μ m 16.0 μ m 19.8 μ m 33.0 μ m	Using Caliper Checker / Slip Gauges '0' and Long Slip Gauges 'K' Grade
2.	DIGITAL AND DIAL CALIPER^s L.C. 0.01 mm	0 to 200 mm 0 to 300 mm 0 to 600 mm	7.4 μ m 8.9 μ m 11.3 μ m	Using Caliper Checker / Slip Gauges '0' and Long Slip Gauges 'K' Grade
3.	VERNIER AND DIAL DEPTH GAUGE^s L.C. 0.02 mm	0 to 150 mm 0 to 200 mm 0 to 300 mm 0 to 600 mm	12.6 μ m 12.6 μ m 13.0 μ m 15.0 μ m	Using Slip Gauges '0' and Long Slip Gauges 'K' Grade
4.	DIGITAL AND DIAL DEPTH GAUGE^s L.C. 0.01 mm	0 to 150 mm 0 to 200 mm 0 to 300 mm 0 to 600 mm	6.6 μ m 7.7 μ m 9.0 μ m 11.3 μ m	Using Slip Gauges '0' and Long Slip Gauges 'K' Grade
5.	VERNIER AND DIAL HEIGHT GAUGE^s L.C. 0.02 mm	0 to 300 mm 0 to 600 mm 0 to 1000 mm	16.5 μ m 16.7 μ m 19.5 μ m	Using Height Master / Slip Gauges '0' and Long Slip Gauges 'K' Grade

**Naveen Jangra
Convenor**

**Avijit Das
Program Manager**

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6. DIGITAL AND DIAL HEIGHT GAUGE^{\$} L.C. 0.01 mm	0 to 300 mm 0 to 600 mm 0 to 1000 mm	12.2 μ m 13.1 μ m 16.5 μ m	Using Height Master / Slip Gauges '0' and Long Slip Gauges 'K' Grade
7. DIGITAL HEIGHT GAUGES^{\$} L.C. 0.001 mm	0 to 300 mm 0 to 600 mm 0 to 1000 mm	10.4 μ m 11.4 μ m 15.4 μ m	Using Height Master / Slip Gauges '0' and Long Slip Gauges 'K' Grade
8. PISTOL CALIPERS^{\$} L.C. 0.01 mm	0 to 100 mm	6.7 μ m	Using Grade '0' and '1' Slip Gauges
9. PISTOL CALIPERS^{\$} L.C. 0.1 mm	0 to 100 mm	59.5 μ m	Using Grade '0' and '1' Slip Gauges
10. EXTERNAL MICROMETERS^{\$} L.C. 0.01 mm	0 to 25 mm 25 mm to 100mm 100 mm to 300mm 300 mm to 600mm 600 mm to 1000mm	5.8 μ m 6.3 μ m 7.4 μ m 10.7 μ m 15.0 μ m	Using Grade '0' and '1' Slip Gauges / Long Slip Gauges 'K' Grade/ ULM

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Program Manager

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11. DIGITAL MICROMETERS^{\$} (Analog/Digimatic) L.C. 0.001 mm	0 to 25 mm	0.8 μ m	Using Grade '0' and '1' Slip Gauges / Long Slip Gauges 'K' Grade / ULM
	25 mm to 50 mm	1.0 μ m	
	50 mm to 100 mm	2.7 μ m	
	100 mm to 150mm	2.9 μ m	
	150 mm to 200mm	3.2 μ m	
12. MASTER RODS / SETTING RODS^{\$}	0 to 25 mm	1.0 μ m	Using Grade '0' Slip Gauges / Long Slip Gauges 'K' Grade / ULM / Digital Dial Gauge
	25 mm to 100 mm	2.5 μ m	
	100 mm to 300 mm	3.5 μ m	
	300 mm to 600 mm	5.9 μ m	
	600 mm to 1000 mm	7.0 μ m	
13. INTERNAL / STICK MICROMETERS^{\$} L.C. 0.01 mm	0 to 25 mm	5.8 μ m	Using ULM / Slip Gauges '0' and Long Slip Gauges 'K' Grade
	25 mm to 100 mm	6.3 μ m	
	100 mm to 200 mm	6.3 μ m	
	200 mm to 500 mm	7.1 μ m	
14. DEPTH MICROMETERS^{\$} L.C. 0.01 mm	0 to 50 mm	6.0 μ m	Using Grade '0' and '1' Slip Gauges / Long Slip Gauges 'K' Grade
	50 mm to 150 mm	6.0 μ m	
	150 mm to 300 mm	8.0 μ m	
15. THREE PIN MICROMETER^{\$} L.C. 0.005 mm	15 mm to 100 mm	4.4 μ m	Using Plain Ring Gauges

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16.	THREE PIN MICROMETER^{\$} L.C. 0.001 mm	15 mm to 100 mm	3.2 μ m	
17.	GAUGE BLOCKS GRADE 0, GADE1 AND GRADE 2^{\$}	0 to 25 mm 25 mm to 50 mm 50 mm to 100 mm 100 mm to 500 mm	0.09 μ m 0.14 μ m 0.27 μ m 2.0 μ m	Using Slip Gauge Comparator & Slip Gauges 'K' Grade / ULM & Long Slip Gauges 'K' Grade
18.	BORE GAUGE DIAL^{\$} L.C. 0.001 mm	0 to 50 mm 50 mm to 150 mm 150 mm to 400 mm	2.5 μ m 2.9 μ m 3.2 μ m	Using ULM / Long Slip Gauges 'K'Grade
19.	BORE GAUGE DIAL^{\$} L.C. 0.01 mm	0 to 50 mm 50 mm to 150 mm 150 mm to 400 mm	2.5 μ m 2.8 μ m 3.2 μ m	
20.	THICKNESS GAUGE^{\$} (Digital/Dial) L.C. 0.01 mm	0 to 10 mm 10 mm to 25 mm	6.0 μ m 6.0 μ m	Using Grade '0' and '1' Slip Gauges
21.	THICKNESS GAUGE^{\$} (DIGITAL/DIAL) L.C. 0.001 mm	0 to 10mm 10 mm to 25mm	1.0 μ m 1.0 μ m	
22.	PLUNGER DIAL GAUGES^{\$} (Dial /Digital) L.C. 0.01 mm	0 to 10mm 10 mm to 25mm	6.3 μ m 6.3 μ m	Using Digital Dial Gauge comparator /ULM

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23.	PLUNGER DIAL GAUGES \$ (Dial / Digital) L.C. 0.001 mm	0 to 1mm 1 mm to 10mm 10 mm to 25mm	1.2 μ m 2.5 μ m 2.5 μ m	
24.	LEVER DIAL GAUGES\$ L.C. 0.01 mm	0 to 0.8 mm 0 to 1 mm	6.2 μ m 6.2 μ m	Using Digital Dial Gauge comparator
25.	LEVER DIAL GAUGES\$ L.C. 0.001 mm	0 to 0.14 mm 0 to 1 mm	2.4 μ m 2.4 μ m	Using Digital Dial Gauge Comparator
26.	LEVER DIAL GAUGES\$ L.C. 0.002 mm	0 to 0.2 mm	2.6 μ m	
27.	GROOVE DIAL GAUGES\$ L.C. 0.01 mm	5 mm to 50 mm 50 mm to 100 mm	6.4 μ m 6.4 μ m	Using ULM
28.	THREAD PLUG GAUGES\$	5 mm to 50 mm 50 mm to 100 mm 100 mm to 150 mm 150 mm to 200 mm	1.7 μ m 1.9 μ m 2.2 μ m 2.5 μ m	Using ULM
29.	THREAD RING GAUGES\$	5 mm to 50 mm 50 mm to 100 mm 100 mm to 150 mm 150 mm to 200 mm	2.2 μ m 2.4 μ m 2.6 μ m 2.9 μ m	Using ULM

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30.	PLAIN PLUG GAUGES ^{\$}	5 mm to 50 mm 50 mm to 100 mm 100 mm to 150 mm 150 mm to 200 mm	1.7 μ m 1.9 μ m 2.2 μ m 2.5 μ m	Using ULM
31.	PLAIN RING GAUGES ^{\$}	5 mm to 50 mm 50 mm to 100 mm 100 mm to 150 mm 150 mm to 200 mm	2.2 μ m 2.4 μ m 2.6 μ m 2.9 μ m	Using ULM
32.	SNAP GAUGES ^{\$}	Upto 50 mm 50 mm to 100 mm 100 mm to 150 mm 150 mm to 200 mm	1.4 μ m 1.7 μ m 2.0 μ m 2.3 μ m	Using ULM
33.	FEELER GAUGES ^{\$}	Upto 1 mm	1.4 μ m	Using ULM
34.	FOIL ^{\$}	Upto 1 mm	1.4 μ m	Using ULM
35.	RADIUS GAUGE SET ^{\$}	1 mm to 7 mm 7.5 mm to 15 mm 15.5mm to 25mm	1.5 μ m 1.5 μ m 4.0 μ m	Using Profile Projector
36.	PITCH GAUGE ^{\$}	0 to 10 mm	3.0 μ m	Using Profile Projector
37.	BEVEL PROTRACTOR ^{\$}	0 to 180° - 0	5 min	Using Profile Projector
38.	COMBINATION SET ^{\$}	0 to 180°	35 min	Using Profile Projector
39.	SPRIT LEVEL ^{\$}	Upto 300 mm	27 μ m / meter	Using Electronic Frame Level and Surface Plate
40.	TEST SIEVES ^{\$}	Upto 2 mm	5.0 μ m	Using Profile Projector

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41. SURFACE PLATE [#]	Upto 5000 mm longer side	$2.0 \sqrt{\frac{L+W}{b}}$ μm L = Length in mm W = Width in mm B = Base length in mm	Using Electronic Frame Level
42. COMPARATOR DIGITAL PROBE / DIAL CALIBRATOR ^{\$}	0 to 1 mm 1 mm to 10mm 10 mm to 25mm	1.4 μm 1.4 μm 1.4 μm	Using ULM
43. UNIVERSAL LENGTH MEASURING MACHINE ^{\$} (BY USING SLIP GAUGES)	0 to 50 mm 0 to 100 mm 0 to 150 mm 0 to 200 mm	0.9 μm 0.9 μm 0.9 μm 0.9 μm	Using Grade 'K' Slip Gauges & Long Slip Gauges 'K' Grade
II. MASS			
1. STANDARD WEIGHTS ^{\$}	1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g	0.02 mg 0.03 mg 0.08 mg 0.15 mg 0.30 mg 0.75 mg 1.50 mg 3.00 mg	Using E2 Class Standard Weights and Electronic Weighing Balance (Resolution 0.01 mg / 40 g and 0.1 mg / 210 g)

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2.	SPRING BALANCE^{\$}	Upto 10 kg	0.032 kg	Using E2 Class Standard Weights and Cast Iron Weights
		10 kg to 20 kg	0.059 kg	Using E2 & F1 Class Standard Weights and Cast Iron Weights
		20 kg to 100 kg	0.300 kg	Using Cast Iron Weights
		100 kg to 150 kg	0.600 kg	
3.	ELECTRONIC WEIGHING BALANCE*			
	Readability 0.01 mg	5 mg to 220 g	0.14 mg	Using E2 Class Standard Weights
	Readability 1 mg	upto 5 kg	0.07 g	
	Readability 0.1 g	>5 kg to 30 kg	0.7 g	Using E2, F1 Class Standard Weights and Cast Iron Weights
	Readability 1 g	>30 kg to 60 kg	1.5 g	
	Readability 5 g	>60 kg to 150 kg	12.0 g	
III.	PRESSURE AND VACUUM			
1.	PRESSURE GAUGES & PRESSURE TRANSMITTER^{\$}	0 to 60 bar 60 bar to 1000 bar	0.22 % rdg 0.09 % rdg	Using Digital Pressure Calibrator/ Hydraulic Dead Weight Tester
2.	VACUUM GAUGES & VACUUM TRANSMITTER^{\$}	(-)30 to (-) 710 mm Hg	0.46 % rdg	Using Pneumatic dead weight tester
3.	PRESSURE GAUGES & PRESSURE TRANSMITTER*	0 to 60 bar 60 bar to 1000 bar	0.21 % rdg 0.07 % rdg	Using Digital Pressure Calibrator

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IV. ACCELERATION AND SPPED

1. TACHOMETER ^{\$} (Contact Type)	60 rpm to 3000 rpm	3.1 rpm	Using Digital Tachometer Calibration Unit
2. TACHOMETER ^{\$} (Non Contact Type)	60 rpm to 20000 rpm	2.2 rpm	

* 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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