



NABL

**National Accreditation Board for
Testing and Calibration Laboratories**

Department of Science & Technology, India

CERTIFICATE OF ACCREDITATION

CALIBER GAUGES & INSTRUMENTS LABORATORY

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

PUNE

in the field of

MECHANICAL CALIBRATION

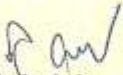
Certificate Number C-0307

Issue Date 28/06/2010

Valid Until 27/06/2012

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

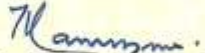
Signed for and on behalf of NABL


Alok Jain

Convenor


Anil Relia

Director


Dr T. Ramasami

Chairman



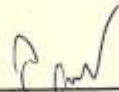
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SCOPE OF ACCREDITATION

Laboratory	Caliber Gauges & Instruments Laboratory, Pune	Issue Date	28.06.2010
Accreditation Standard	ISO/IEC 17025: 2005	Valid Until	27.06.2012
Field	Mechanical Calibration	Page	2 of 5
Certificate Number	C-0307		
Last Amended on	14.07.2010		

Quantity Measured / Instrument	Range	* Calibration Measurement Capability (\pm)	Remarks
9. GLASS SCALE L.C.: 0.10 mm L.C.: 1.00 mm L.C.: 0.01 mm	0-300 mm 0-300mm 0-50 mm	2.6 μ m 11.7 μ m 2.0 μ m	Using Single Axis measuring Machine (SIP) 214 MUB
10. SPIRIT LEVEL L.C 20 μ m/m	100 mm 200 mm	16.1 μ m/m	Using Electronic Level Meter Make Wyler
<u>SETTING GAUGE</u>			
11. CYLINDRICAL SETTING MASTER	0-100 mm	1.7 μ m	Using Electronic Comparator Slip Gauge
12. PLAIN O.D. MASTER	0-100 mm 100 mm- 200 mm	1.7 μ m 2.3 μ m	Using Electronic Comparator Slip Gauge
13. MICROMETER SETTING ROD	0-100 mm 100 mm- 200 mm 200 mm- 500mm 500 mm-1000mm	1.7 μ m 2.3 μ m 5.0 μ m 10.0 μ m	Using Electronic Comparator Slip Gauge Length Bar
14. PLAIN RING GAUGE	0-100 mm 100 mm - 200 mm	2.0 μ m 2.5 μ m	Using Single Axis measuring Machine (SIP) 302 M
<u>INSTRUMENT</u>			
15. VERNIER CALIPER L.C: 0.02 mm	0-300mm 0-600mm	14.49 μ m 16.00 μ m	Using Caliper Checker Slip Gauge
L.C.: 0.01 mm	0-300mm 0-600mm	11.0 μ m 12.5 μ m	


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Quantity Measured / Instrument	Range	* Calibration Measurement Capability (\pm)	Remarks
16. VERNIER HEIGHT GAUGE L.C.: 0.02 mm	0-300mm 0-600mm	16.6 μ m 18.0 μ m	Using Caliper Checker Length Bar Surface Plate
L.C.: 0.01 mm	0-300mm 0-600mm	12.4 μ m 15.3 μ m	
17. ELECTRONIC HEIGHT GAUGE L.C.: 0.001 mm	0-600 mm	3.0 μ m	Using Length Bar Surface Plate
18. DEPTH VERNIER L.C.: 0.02 mm	0-300 mm	17.6 μ m	Using Slip Gauge, Caliper Checker Surface Plate
19. DIAL BORE GAUGE (Transmission Accuracy)	0-2 mm	3.15 μ m	Using Single Axis measuring Machine (SIP) 302 M
20. PLUNGER DIAL GAUGE L.C.: 0.010 mm	0-10 mm 0-50 mm	3.2 μ m 3.1 μ m	Using Single Axis measuring Machine (SIP) 302 M
L.C.: 0.001 mm	0-1mm 0-50mm	1.4 μ m 2.0 μ m	Using Single Axis measuring Machine (SIP) 302 M
L.C.: 0.002 mm	0-25 mm	1.1 μ m	Using Single Axis measuring Machine (SIP) 302 M
21. ELECTRONIC PROBE L.C.: 0.001 mm	0-50 mm	1.8 μ m	Using Single Axis measuring Machine (SIP) 302 M


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22. LEVER TYPE DIAL GAGUE			
L.C: 0.010 mm	0-5 mm	2.6 μ m	Using Single Axis measuring Machine (SIP) 214 MUB
L.C.: 0.001 mm	0-5 mm	2.7 μ m	
L.C.: 0.002 mm	0-5 mm	2.6 μ m	
23. OUTSIDE MICROMETER			
L.C.: 0.010 mm	0-100 mm	3.0 μ m	Using Slip Gauge & Length Bar
	100 mm-300 mm	3.6 μ m	
	300 mm- 1000 mm	12.2 μ m	
L.C.: 0.001 mm	0-100 mm	1.8 μ m	
	100 mm- 300 mm	2.6 μ m	
24. DEPTH MICROMETER			
L.C 0.01mm	0-300 mm	8.1 μ m	Using Slip Gauge
25. INTERNAL MICROMETER	0-300 mm	3.6 μ m	Using Single Axis measuring Machine (SIP) 302 M
26. FLOATING CARRIAGE MICROMETER	0-100 mm	1.8 μ m	Using Setting Master, Slip Gauge
27. 'V' BLOCK SQUARENESS PARALLELISM SYMETRICITY	0-150 mm	9.0 μ m	Using Height Gauge, Mandrel, Square Cylinder
28. BEVEL PROTECTOR			
L.C.: 5"	0-360°	6.1 min.	Using Sine Bar


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ON-SITE

29.. SURFACE PLATE (FLATNESS)	100mm x100mm to 4000mm x 4000mm	$1.6 \times \sqrt{\frac{L+W}{125}} \mu\text{m}$ L & W in mm	Using Electronic Level Meter
		$3.8 \times \sqrt{\frac{L+W}{125}} \mu\text{m}$ L & W in mm	Using Sprit Level
30. LENGTH MEASURING MACHINE L.C.: 0.0001 mm L.C.: 0.001 mm	0-3000 mm 0-3000 mm	0.3 + 1.2 L μm 0.3 + 1.2 L μm L in meter	Using Laser Interferometer ML-10 Gold- Make Renishaw
31. CNC MACHINE CALIBRATION L.C.: 0.001 mm	0-3000 mm	2.0 + 1.2 L μm 2.0 + 1.2 L μm L in meter	Using Laser Interferometer ML-10 Gold- Make Renishaw
32. CO-ORDINATE MEASURING MACHINE	0-600 mm 0-1000 mm	3.6 μm 5.4 μm	Using Length Bar
33. STRAIGHT EDGE	100 mm to 2000mm	$1.6 \times \sqrt{\frac{L}{125}} \mu\text{m}$ L in mm	Using Electronic Level Meter Make Wyler

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

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