

Laboratory Aspire Calibration Services, C-110/A, St. No. 7, Block-C, Nehru Vihar, Delhi
Accreditation Standard ISO/IEC 17025: 2005
Certificate Number CC-2351 **Page** 1 of 5
Validity 18.08.2017 to 17.08.2019 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>MECHANICAL CALIBRATION</u>				
I. DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)				
1.	Digital /Dial Vernier Caliper [§] L.C. 0.01 mm ^Φ	0 to 300 mm 300 mm to 600 mm 0 to 300 mm; 300 mm to 600 mm 0 to 300 mm; 300 mm to 600 mm	10.0 μ m 15.0 μ m 12.0 μ m 16.0 μ m 15.0 μ m 20.0 μ m	Using Caliper Checker; By Comparison Method
2.	Digital / Dial Vernier Depth Gauge [§] L.C. 0.01 mm ^Φ	0 to 300 mm 0 to 300 mm 0 to 300 mm	10.0 μ m 12.0 μ m 15.0 μ m	Using Caliper Checker & Slip Gauge Blocks by Comparison Method
3.	Digital / Dial Vernier Height Gauge [§] L.C. 0.01mm ^Φ	0 to 300 mm; 300 mm to 600 mm 0 to 300mm; 300 mm to 600 mm	10.2 μ m 15.0 μ m 12.0 μ m 18.0 μ m	Using Caliper Checker & Lever Dial Gauge by Comparison Method

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4.	Digital External Micrometer [§] L.C. 0.001mm ^Φ	0 to 100 mm; 100 mm to 300 mm	3.0 μ m 8.0 μ m	Using Slip Gauge Blocks & Comparator Stand with Plunger Dial Gauge by Comparison Method
		0 to 100mm; 100 mm to 300 mm	6.0 μ m 10.0 μ m	
5.	Digital / Dial Internal Micrometer [§] L.C. 0.001mm ^Φ	0 to 50 mm; 50 mm to 300mm	3.0 μ m 8.0 μ m	Using Slip Gauge Blocks & Comparator Stand with Plunger Dial Gauge by Comparison Method.
		0 to 50mm; 50 mm to 300mm	6.0 μ m 15.0 μ m	
6.	Digital / Dial Depth Micrometer [§] L.C. 0.001 mm ^Φ	0 to 50 mm; 50 mm to 300mm	3.0 μ m 8.0 μ m	Using Caliper Checker Slip Gauge Blocks & Surface Plate by Comparison Method
		0 to 50mm; 50 mm to 300mm	6.0 μ m 10.0 μ m	
7.	Digital / Dial Gauge; Plunger Type [§] L.C. 0.001mm ^Φ	0 to 1mm; 1 mm to 10mm	2.0 μ m 2.5 μ m	Using Dial Gauge Calibrator & Slip Gauge Blocks by Comparison Method
		0 to 25 mm; 25 mm to 100mm	4.0 μ m 8.0 μ m	
8.	Digital / Dial Test Indicator / Lever Dial Gauge [§] L.C. 0.001 mm ^Φ	0 to 1 mm	2.0 μ m	Using Dial Gauge Calibrator & Slip Gauge Blocks by Comparison Method

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		0 to 1 mm 0 to 1mm	3.0 μ m 5.0 μ m	
9.	Dial / Digital Bore Gauge [§] (Travelling Only) L.C.: 0.001 mm [Ⓞ]	0 to 2 mm Travelling	5.0 μ m	Using Dial Gauge Calibrator ,Plunger Dial Gauge & Slip Gauge Blocks by Comparison Method
10.	Feeler Gauge [§]	0.005 mm to 3.0 mm	3.0 μ m	Using Digital Micrometer by Comparison Method
11.	Digital / Dial Thickness Gauge [§] L.C. 0.001mm [Ⓞ]	0 to 10 mm; 10 mm to 25mm 0 to 10mm; 10 mm to 50mm	3.0 μ m 5.0 μ m 6.0 μ m 10.0 μ m	Using Slip Gauge Blocks by Comparison Method
12.	Coating Thickness Gauge [§] L.C. 0.001mm [Ⓞ]	0 to 700 μ m; 700 μ m to 1500 μ m	4.0 μ m 5.0 μ m	Using Standard Coating Thickness Foils by Comparison Method
13.	Thickness Foils [§]	10 μ m to 1000 μ m	3.0 μ m	Using Digital Micrometer by Comparison Method.
14.	Snap Gauge [§]	1.0 mm to 100 mm	3.0 μ m	Using Slip Gauge Blocks by Comparison Method
15.	Length Bars / Setting Rods [§]	0 to 300 mm	10.0 μ m	Using Slip Gauge Blocks; Comparator Stand with Plunger Dial Gauge by Comparison Method
16.	Electronic Probe L.C. 0.0001 mm [Ⓞ]	0 to 25 mm	10.0 μ m	Using Slip Gauge Blocks by Comparison Method

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17.	Test Sieves (Average Aperture Size; Pitch of Aperture & Diameter of Wire) #	4.0 mm to 125 mm 40 μ m to 10 mm	21.0 μ m 12.0 μ m	Using Digital Vernier Caliper Using Profile Projector.
18.	Pistol Caliper [§] L.C. 0.01 mm ^Φ	0 to 100 mm	10.0 μ m	Using Slip Gauge Blocks by Comparison Method
19.	Bevel Protractor / Angle Protractor / Combination Set [§] L.C. 0.01 mm ^Φ	0 to 90°	4 min of Arc	Using Angle Gauges
20.	Measuring Pin Set #	0 to 20 mm	3.0 μ m	Using Digital Micrometer by Comparison Method
21.	Radius Gauge #	1.0 mm to 100 mm	17.0 μ m	Using Profile Projector
22.	Measuring Scale / Steel Scale / Steel Tape #	0 to 300 mm	8.21 μ m* $\sqrt{(L/150\mu\text{m})}$	Using Profile Projector
II.	DIMENSION (PRECISION INSTRUMENTS)			
1.	Profile Projector; Linear Angular Magnification # L.C. 0.001mm ^Φ	0 to 100mm / 180° / 10X, 20X, 50X	7.20 μ m / 1.97min / 12 μ m	Using Glass Scale; Angle Gauges & Digital Vernier Caliper
II.	PRESSURE INDICATING DEVICES			
1.	Digital / Analog	0 to 600 bar	0.534 MPa	Using Water based

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	Pressure Gauges / Transducers with Indicators [#]	0 to 30 bar	0.044 MPa	Comparison Test Pump & Digital Pressure Gauge (0.01 bar) Using Water based Comparison Test Pump & Digital Compound Gauge (0.001 bar)
2.	Digital /Analog Vacuum Gauges [#]	0 to 700 mmHg / (-) 0.933 bar to 0 bar	0.003 MPa	Using Vacuum Pump & Digital Vacuum Gauge

* 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.

^ϕ Laboratory can also calibrate instruments/devices of coarser resolution / least count within the accredited range using same reference standard/ master equipment under the scope of accreditation.

** Relative accuracy error has not been considered for CMC estimation.