Laboratory	**Om Engineers, Flat No. 8, B Wing, Prathmesh Apartment, Amruta Nagar, Vadgaon Bk, Pune, Maharashtra**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**CC-2751** ***(In lieu of C-0828)*** **Page** **1 of 10**
Validity	**19.07.2018 to 18.07.2020** **Last Amended on -**

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)**			
1.	Gauge Block Set [$] (Tungsten Carbide)	Up to 25 mm 25 mm to 50 mm 50 mm to 75 mm 75 mm to 100 mm	0.06 µm 0.08 µm 0.09 µm 0.11 µm	Using Tungsten Gauge Block Set / Gauge block Calibrator
2.	Gauge Block Set [$] (Steel / Ceramic)	Up to 25 mm 25 mm to 50 mm 50 mm to 75 mm 75 mm to 100 mm	0.11 µm 0.15 µm 0.19 µm 0.23 µm	Using Steel Gauge Block Set / Gauge block Calibrator
3.	Long Gauge Blocks / Length Bar [$]	100 to 200 mm 200 mm to 300 mm 300 mm to 400 mm 400 mm to 500 mm	1.4 µm 1.5 µm 1.8 µm 1.9 µm	Using Reference Long Gauge block / Electronic Comparator
4.	Caliper Checker / Step Gauge / Depth Micro Checker[$]	Up to 670 mm	3.4 µm	Using Long Gauge block / Lever Type Probe
5.	Slip Gauge Block Accessories Set[$]	Up to 25 mm	0.8 µm	Using Gauge Block Set / Electronic Comparator
6.	Cylindrical Setting Master [$] (Diameter Variation Concentricity)	Up to 100 mm Up to 100 mm	1.4 µm 1.0 µm	Using Gauge Block Set & Electronic Comparator/ FCDM & Plunger Dial Gauge
7.	Thread Measuring Wire[$]	0.17 to 6.35 mm	0.8 µm	Using Electronic Comparator

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Program Manager

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8.	Thread Measuring Prism[$]	A/B/C/D	0.8 µm	Using Electronic Comparator
9.	Measuring Pin[$]	0.1 to 20 mm	0.8 µm	Using Electronic Comparator
10.	Micrometer Setting Standard[$]	25 mm to 100 mm >100 mm to 300 mm >300 mm to 500 mm >500 mm to 1000 mm	1.3 µm 3.5 µm 5.0 µm 8.0 µm	Using Electronic Comparator, slip Gauges & Length Bar
11.	Thickness Foils[$]	Up to 2 mm	0.8 µm	Using Electronic Comparator
12.	Feeler Gauge[$]	Up to 2 mm	0.8 µm	Using Electronic Comparator
13.	V- Block[$] Symmetricity Parallelism	 Up to 200 mm Up to 200 mm	 5.0 µm 5.0 µm	Using Test Mandrel, Dial Indicator, Surface Plate
14.	Snap Gauge[$]	2 mm to 100 mm >100 mm to 250 mm	1.5 µm 2.8 µm	Using Gauge Block Set
15.	Plain Plug Gauge / Width Gauge / Height Setting Block[$]	0.1 mm to 100 mm 100 mm to 250 mm	1.3 µm 2.9 µm	Using Gauge Block Set, & Electronic Comparator
16.	Plain Ring Gauge[$]	1 mm to 150 mm	1.4 µm	Using LMM & Master Ring Gauge
17.	Thread / Wear Check Ring Gauge[$] (For Effective Dia)	1 mm to 100 mm	1.4 µm	Using LMM & Master Ring Gauge

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18.	Thread Plug Gauge / Wear Check Plug Gauge[$] (Major Dia , Minor Dia, Effective Dia.)	2 mm to 100 mm	3.3 µm	Using Electronic FCDM; Cylindrical Setting Master & Thread Measuring Wire
19.	Taper Thread Plug Gauge[$] (For Effective Dia.)	Up to 100 mm	4.6 µm	Using Electronic FCDM; Cylindrical Setting Master & Thread Measuring Wire
20.	Calipers [$] (Vernier/Dial/Digital) L.C.: 10 µm	0 to 600 mm 0 to 1000 mm	11.0 µm 12.5 µm	Using Caliper Checker & Length Bar Set , Gauge Block Set
21.	Height Gauge[$] Vernier/Dial/Digital) L.C.: 10 µm	0 to 600 mm 0 to 1000 mm	11.0 µm 13.0 µm	Using Caliper Checker / Length Bar Set & Surface Plate
22.	Depth Gauge [$] (Vernier/Dial/Digital) L.C.: 10 µm	0 to 300 mm	9.0 µm	Using Gauge Block Set , Length Bar Set & Surface Plate

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23.	External Micrometer $			
	L.C.: 1 µm	0 to 100 mm	2.0 µm	Using Gauge Block Set / Length Bar Set & Micrometer Check Set
		100 mm to 300 mm	4.0 µm	
		300 mm to 500 mm	7.0 µm	
	L.C.: 10 µm	500 mm to 1000 mm	11.0 µm	
24.	Internal Micrometer $			
	(2- Point)	5 mm to 300 mm	5.0 µm	Using Gauge Block Set, Long Gauge Block & Electronic Comparator
	L.C. 1 µm	50 mm to 1000 mm	9.0 µm	
	Extension Rods	50 mm to 100 mm	3.1 µm	
25.	Two Pin Dial Caliper $			
	L.C.: 10 µm	Up to 50 mm	6.0 µm	Using Gauge Block Set / Gauge Block Accessories
26.	Depth Micrometer $			
	L.C.: 1 µm	0 to 300 mm	7.0 µm	Using Gauge Block Set & Length Bar Set , Surface Plate
27.	Comparator With Comparator Stand $			
	L.C. 0.0001 mm	0 to 25 mm (Up to Capacity 1000 mm)	0.3 µm	Using Gauge Block Set
	Flatness Of Base	300 mm x 300 mm	1.4 µm	Using Electronic Probe
		100 x 100 mm	0.8 µm	Using Optical Flat

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28.	Floating Carriage Diameter Measuring M/C[$] L.C. 0.0001 mm	0 to 100 mm	1.5 µm	Using Gauge Block Set , Cylindrical Setting Master
29.	Dial Calibration Tester [$] L.C. 0.0001 mm	0 to 25 mm	0.6 µm	Using Electronic Probe
30.	Electronic Probe / Digital Dial[$] L.C. 0.0001 mm	0 to 25 mm	0.4 µm	Using Gauge Block Set
31.	Plunger Dial Gauge [$] L.C.: 1 µm L.C.: 1 µm	 Up to 25 mm Up to 50 mm	 2.0 µm 2.3 µm	Using Dial Calibration Tester , Gauge Block,
32.	Lever Dial Gauge [$] L.C.: 1 µm L.C.: 10 µm	 Up to 1.0 mm Up to 2.0 mm	 1.7 µm 3.4 µm	Using Dial Calibration Tester
33.	Dial Comparator [$] L.C.: 0.5 µm	50.0 µm	0.8 µm	Using Gauge Block Set , Comparator Stand
34.	Bore Gauge With Dial [$] For Transmission Accuracy L.C.: 1 µm	Up to 2 mm	3.4 µm	Using Dial Calibration Tester , Electronic Probe
35.	Dial Snap Gauge [$]	Up to 250 mm	3.2 µm	Using Gauge Block Set

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36.	Dial Thickness Gauge[$] L.C.: 1.0 µm	Up to 25 mm	1.0 µm	Using Gauge Block Set
37.	Pistol Caliper [$] L.C.: 100 µm	Up to 100 mm	73.0 µm	Using Gauge Block Set
38.	Three Point Micrometer[$] L.C.: 1 µm	6 mm to 100 mm 100 mm to 150 mm	3.8 µm 4.0 µm	Using Master Setting Rings
39.	Coating Thickness Gauge[$] L.C.: 1.0 µm	Up to 2 mm	3.3 µm	Using Thickness Foils
40.	Ultrasonic Thickness Gauge[$] L.C.: 0.1 mm	0 to 200 mm	60.0 µm	Using Height Master
41.	Radius Gauge Set[$]	Up to 25 mm	7.2 µm	Using Profile Projector
42.	Thread Pitch Gauge [$]	0.17 to 7 mm 55° , 60° Flank Angle	8.0 µm 6 Min	Using Profile Projector
43.	Taper Scale[$]	1 mm to 15 mm	8.0 µm	Using Profile Projector
44.	Test Sieves[$]	0.032 mm to 3.35 mm 3.35 mm to 125 mm	8.0 µm 40.0 µm	Using Profile Projector Using Digital Caliper
45.	Measuring Tape / Pie Tape[$]			

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	L.C. 1 mm	0 to 200 mtr	116√ L L is in mtr	Using Tape & Scale Calibrator
46.	Measuring Scale[$] L.C. 1 mm	0 to 2000 mm	116√ L L is in mtr	Using Tape & Scale Calibrator
47.	Thread Pitch Micrometer [$] L.C. 0.001 mm	Up to 300 mm 55° , 60° Flank Angle	4.0 µm 6 Min	Using Gauge Block Set Using Profile Projector
48.	Bevel Protractor[$] L.C.: 1 Min	0° - 90° - 0°	1.1 min	Using Angle Gauge Block & Surface Plate
49.	Combination Set / Degree Protractor [$] L.C.: 1°	0° - 90° - 0°	30 min	Using Angle Gauge Block & Surface Plate
50.	Spirit Level[$] L.C. 10 µm/mtr	± 1 mm	8 µm / mtr	Using Electronic Probe & Tilting fixture
51.	Surface Plate [♣]	3000 mm x 3000 mm	$2.4\sqrt{\frac{L+W}{125}}$ µm (L&W in mm)	Using Electronic Level
52.	Electronic Height Gauge [♣] L.C.: 0.1 µm L.C.: 0.1 µm	 0 to 600 mm 0 to 1000 mm	 5.7 µm 8.3 µm	 Using Length bar & Gauge Block Set

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
II.	**DIMENSION (PRECISION INSTRUMENTS)**			
1.	Profile Projector ♣ Linear Scale L.C.: 1.0 µm Angular Scale L.C.: 1 Sec. Magnification	 Upto 200 mm Upto 360° 10 X to 100 X	 2.3 µm 2.0 min. of Arc 0.1 %	 Using Gauge Block/Glass Scale , Angle Gauge Cylindrical Pin by Comparison Method
2.	Single Axis Measuring Machine # L.C. 0.1 µm	 0 to 100 mm	 0.9 µm	 Using Gauge Block Set
3.	Tape & Scale Calibration Unit # L.C. 1 µm	 0 to 1000 mm	 10.0 µm	 Using Long Gauge Block Set
4.	Gauge Block Calibrator # L.C. 0.01 µm	 0 to 100 mm	 0.03 µm	 Using Gauge Block Grade K
III.	**ACCELERATION & SPEED**			
1.	Tachometer # (Contact / Non Contact)	10 to 99999 rpm	0.2% of rdg	Using Digital Tachometer / Rotating Source

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IV.	**ACCOUSTIC**			
1.	Sound Level Meter[$]	94 & 114 dB	0.8 dB	Sound Level Calibrator
V.	**PRESSURE INDICATING DEVICES**			
1.	Pneumatic Pressure [#] (Analog / Digital Gauge) Hydraulic Pressure [#] (Analog / Digital Gauges)	0 to 25 bar 0 to 685 bar	0.073 bar 1.073 bar	Using Digital Pressure Gauge by Comparison Method as Per DKD – R– 6 – 1
2.	Vacuum Gauge [#] (Analog / Digital Gauges)	(-) 0.85 to 0 bar	0.009 bar	Using Digital Vacuum Gauge by Comparison Method as Per DKD – R– 6 – 1
VI.	**TORQUE GENERATING DEVICES**			
1.	Torque Wrench [$] (Type I , II) All Class	0.2 to 2 Nm 2 to 200 Nm 200 to 2000 Nm	1.5 % 1.5% 1.5%	Using Torque Wrench Calibration System & Torque Sensors

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VII.	**HARDNESS TESTING MACHINES**			
1.	Rubber Hardness Tester [$] (Shore A & Shore D)	0 to 100 Shore A 0 to 100 Shore D	0.9 Shore A 0.9 Shore D	Using Dial Calibration Tester & Fixture

*** 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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Convener

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