Laboratory	**New Techno Machine Tools, Plot No. M/C 62, Mujessar Sec. 24, NIT Faridabad, Haryana**			
Accreditation Standard	**ISO/IEC 17025: 2005**			
Certificate Number	**CC-2750** ***(In lieu of C-0192)***	**Page**	**1 of 4**	
Validity	**16.06.2018 to 15.06.2020**	**Last Amended on**	**22.06.2018**	

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**DIMENSION (BASIC MEASURING INSTRUMENT, Gauge etc.)**			
1.	Flatness Surface Plate$ (Granite / Cast Iron)	Up to 630 x 630 mm	1.35* $\sqrt{(L+W)/125}$ L&W are in mm	Using Electronic Level
2.	External Micrometer$ (Mechanical/ Digital) L.C. 0.001 mm	Up to 100mm 100 mm to 300mm	4.1 µm 13.0 µm	Using Slip Gauge Blocks
3.	Depth Micrometer$ L.C. 0.001 mm	Up to 100 mm	3.0 µm	Using Slip Gauge Blocks & Surface Plate
4.	Caliper$ (Vernier / Dial / Digital) L.C. 0.010 mm	Up to 600 mm	13.1 µm	Using Slip Gauge Blocks & Caliper Checker
5.	Dial Thickness Gauge$ L.C. 0.001 mm	Up to 100 mm	2.0 µm	Using Slip Gauge Blocks
6.	Height Gauge$ (Vernier / Dial / Digital) L.C. 0.010 mm	Up to 600 mm	13.2 µm	Using Slip Gauge Blocks & Caliper Checker

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
7.	Depth Vernier[$] (Vernier / Dial / Digital) L.C. 0.020 mm	Up to 300 mm	11.9 µm	Using Slip Gauge Blocks
8.	Feeler Gauge[$]	0.03 to 1 mm	4.2 µm	Using Digital Micrometer
9.	Snap Gauge[$]	0 to 300 mm	3.0 µm	Using Slip Gauge Blocks
10.	Spirit Level[$] (Sensitivity)	Up to1 mm/m	28 µm/m	Using Sin Bar & Slip Gauge Blocks
11.	Comparator Stand[$] (Flatness)	Upto 300x300 mm	3 µm	Using Lever Dial Gauge & Surface Plate
12.	Bevel Angle Protector[$] L.C.- 5 min	Up to 180°	4.0 Arc Min	Using Angle Gauge Block
13.	Plain Plug Gauge [$]	0 to Ø 100 mm	4.1 µm	Using Slip Gauge & Electronic Probe
14.	Vee Block[$] Parallelism Of Opp. Side Face, Parallelism Of Opp. Vee Face, Parallelism Of Big. Vee Face To Base Parallelism Of Small Vee Face To Base Squareness Of All Working Faces	Up to 300 mm	 6.0 µm 6.0 µm 6.0 µm 6.0 µm 6.0 µm	 Using Precision Mandrel , Slip Gauge & Lever Dial Gauge

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
15.	Micrometer Setting Master[$]	Up to 250 mm	9.0 µm	Using Slip Gauge Blocks & Electronic Probe With Comparator
16.	Dail Gauge[$] Plunger Type (Analog/Digital) L.C:0.001 mm	Up to 25 mm	2.5 µm	Using Dail Calibration Tester
17.	Lever Type/ Dial Gauge[$] L.C:0.001 mm	Up to 1 mm	1.9µm	Using Dail Calibration Tester
18.	Try Square[$]	Up to 450 mm	10.0 µm	Using Master Cylinder & Slip Gauge Blocks
19.	Dial Snap Gauge[$] L. C. 0.010 mm	Upto 200 mm	6.0 µm	Using Slip Gauge Blocks
20.	Dial Calibration Tester[$]	Up to 25 mm	µm	Using Slip Gauge & Lever Dial Gauge

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
21.	Sine Centre$^{\clubsuit}$	Up to 1000 mm	5 arc sec	Using Lever Dial Gauge & Outside Micrometer
22.	Angle Plate$^{\clubsuit}$ (Squareness)	Up to 450 mm	5.0 µm	Using Master Cylinder & Slip Gauge
23.	Box Angle Plate$^{\clubsuit}$ (Squareness)	Up to 450 mm	5.0 µm	Using Master Cylinder & Slip Gauge
24.	Surface Plate$^{\clubsuit}$ Flateness* (Granite /Cast Iron)	3000 mm x 3000 mm	1.35*$\sqrt{(L+W)/125}$ µm Where L&W are in mm	Using Electronic Level
25.	Bench Centre$^{\clubsuit}$ Coaxiality, Parallelism Flatness Runout	Up to 3000 mm	7.3 µm 7.3µm 6.8µm 7.3µm	Using Master Mandrel & Lever Dial & Electronic Level
26.	Straight Edge Straightness$^{\clubsuit}$	0 to 3000 mm	8.5µm	Using Lever Dial & Slip Gauge & Out Side Micrometer
27.	Gear Rolling Tester $^{\clubsuit}$ Squareness Flatness	Up to 450 mm	19µm	Using Master Mandel , Electronic Level & Slip Gauge Box

*** Measurement Capability is expressed as an uncertainty (±) at a confidence probability of 95%**
$^{\$}$Only in Permanent Laboratory.
$^{\clubsuit}$Only for Site Calibration

Ram Ashray
Convenor

Avijit Das
Program Manager