Laboratory	**The Lakshmi Machine Tools, No. 5/279, Santham Avenue, Okkiyam Pettai, Rajiv Gandhi Salai, Chennai, Tamil Nadu**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Certificate Number	**CC-2311**	**Page**	**1 of 2**
Validity	**01.08.2017 to 31.07.2019**	**Last Amended on**	**-**

Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
		MECHANICAL CALIBRATION		
I.	**DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)**			
1.	Surface Plate♣ (Granite /Cast Iron Flatness)	4000 mm x 4000 mm	$1.7 \times \sqrt{\frac{L+W}{100}}$ µm Where, L = Length in mm W = Width in mm B = Bridge Length in mm	Using Spirit Level & Measuring Bridge (Sensitivity: 0.02 mm/m)
2.	Straight Edge$ Squareness (Paralleslim)	 2000 mm	$1.3 \times \sqrt{\frac{L+W}{100}}$ µm Where, L = Length in mm W = Width in mm B = Bridge Length in mm 5.1 µm	Using Spirit Level & Plunger Dial Gauge
3.	Bench Centre♣ (Co-axiality of Centers) (Parallelism)	 300 mm 2000 mm	 5.3µm 5.3 µm	Using Straight Mandrel & Dial Indicator by Comparison Method
4.	Comparator Stand$ (Flatness)	300 mm x 300 mm	5.1 µm	Using Plunger Dial Gauge and Surface Plate

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
5.	Angle Plate/Box[$] Flatness	1000 mm x 1000 mm	$2 \times \sqrt{\frac{L+W}{150}}$ µm Where, L = Length in mm W = Width in mm	Using Square / Frame Level & Dial Indicator
	Squareness		$1.3 \times \sqrt{\frac{L+W}{150}}$ µm Where, L = Length in mm W = Width in mm	
	Parallelism		5.1 µm	
6.	Tri Square/ Engineering Square/ Master Square[$]	1000 mm x 800 mm		Using Engineering Square and Dial Indicator as per IS: 2103
	Flatness		4.76 µm	
	Parallelism		5.08 µm	
	Squareness		4.5 µm	

*** Measurement Capability is expressed as an uncertainty (±) at a confidence probability of 95%**
[$]Only in Permanent Laboratory
***Only for Site Calibration**

Sangeeta Kunwar
Convenor

Avijit Das
Program Director