

Laboratory	The Lakshmi Machine Tools, No. 5/279 Santham Avenue, Rajiv Gandhi Salai, Okkiyam Pettai, Chennai, Tamil Nadu		
Accreditation Standard	ISO/IEC 17025:2005		
Discipline	Mechanical Calibration	Issue Date	01.06.2015
Certificate Number	C-0518	Valid Until	31.05.2017
Last Amended on	-	Page	1 of 2

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I. DIMENSION			
1. Surface Plate # (Granite/Cast Iron)	3000 mm x 3000 mm	$2.0 \sqrt{\frac{L+W}{B}} \mu\text{m}$ Where L=Length in mm W=Width in mm B =Bridge Length in mm	Using Precision Spirit Level & Measuring Bridge
2. Angle/Box Angle # Plate (Flatness)	1000 mm x 1000 mm	$2.0 \sqrt{\frac{L+W}{B}} \mu\text{m}$ Where L=Length in mm W=Width in mm B =Bridge Length in mm	Using Square/ Frame Level
(Squareness)		$1.6 + L/200$ Where L=Length in mm	Using Square/ Frame Level by Comparison Method
(Parallelism)		3.0 μm	Using Dial Indicator by Comparison Method
3. Bench Center # Parallelism	300 mm	3.0 μm	Using Straight Mandrel Dial Indicator by Comparison Method
Co-axiality	2000 mm	3.0 μm	

Ranjith Kumar
Convenor

Avijit Das
Program Manager

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4. Straight Edge #			
(Straightness)	Upto 2000 mm	$2.0 \sqrt{\frac{L+W}{B}} \mu\text{m}$ Where L=Length in mm W=Width in mm B =Bridge Length in mm	Using Precision Spirit Level & Measuring Bridge
(Parallelism)	Upto 2000 mm	3.0 μm	Using Dial Indicator by Comparison Method
5. Comparator Stand \$ (Flatness)	300 mm x 300 mm	3.0 μm	Using Dial Indicator by Comparative Method
6. Tri-Square/ Engineering Square \$	1000 mm	3.0 μm	Using Dial Indicator by Comparison Method

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

\$Only in Permanent Laboratory

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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