Laboratory	**L & T Heavy Engineering Calibration and Testing Laboratory, Larsen & Toubro Limited, Technology Block, Hazira Manufacturing Complex, Post: Bhatha, Surat, Gujarat**		
Accreditation Standard	**ISO/IEC 17025:2005**		
Discipline	**Mechanical Calibration**	**Issue Date**	**19.07.2014**
Certificate Number	**C-0844**	**Valid Until**	**18.07.2016**
Last Amended on	**-**	**Page**	**1 of 3**

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
I. DIMENSION$			
1. Vernier Calipers (Dial / Electronic/ Vernier)			
L.C. 0.01mm ϕ	≤ 300mm	20.0 µm	Using Caliper Checker / Slip Gauge Set / Length Bars by Comparison Method
L.C. 0.01mm ϕ	300mm to 600 mm	30.0 µm	
2. External Micrometer			
L.C. 0.001mm ϕ	≤ 25mm	4.0 µm	Using Mic-Check/Slip Gauge / Standard Length Bars by Comparison Method
L.C. 0.01mm ϕ	≤ 300mm	9.0 µm	
L.C. 0.01mm ϕ	300mm to 600mm	18.0 µm	
3. Height Gauge (Vernier / Electronic/Dial)			
L.C. 0.01mm ϕ	≤ 600mm	12.4 µm	Using Caliper Checker/ Slip Gauge Sets / Length Bars by Comparison Method
4. Inside Micrometer			
L.C. 0.01mm ϕ	0 to 1500mm	10.0 µm	Using Dial Gauge / Standard Length Bar / Granite Surface Plate by Comparison Method

Avijit Das
Program Manager

Neeraj Verma
Convenor

Laboratory	**L & T Heavy Engineering Calibration and Testing Laboratory, Larsen & Toubro Limited, Technology Block, Hazira Manufacturing Complex, Post: Bhatha, Surat, Gujarat**		
Accreditation Standard	**ISO/IEC 17025:2005**		
Discipline	**Mechanical Calibration**	**Issue Date**	**19.07.2014**
Certificate Number	**C-0844**	**Valid Until**	**18.07.2016**
Last Amended on	**-**	**Page**	**2 of 3**

	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
5.	**Dial Indicator** **L.C. 0.01mm ϕ** **L.C. 0.01mm ϕ**	 Plunger : ≤ 25 mm Lever : ≤ 0.8 mm	 4.2 µm 4.4 µm	Using Dial Calibration tester by Comparison Method
6.	**Bore Gauge (Travel Only)**	≤ 2 mm	6.8 µm	Using Dial Calibration Tester / Dial Gauge by Comparison Method
7.	**Feeler Gauge**	≤1mm	4.9 µm	Using External Micrometer by Comparison Method
8.	**Plain Snap Gauge**	2mm to 200mm	20.4 µm	Using Slip Gauge Sets / Length Bars by Comparison Method
9.	**Plain Plug Gauge**	1mm to 100 mm	4.8 µm	Using Slip Gauge/ Dial Gauge/ Comparator Stand by Comparison Method
10.	**Micrometer Setting Rod**	≤600mm	8.9 µm	Using Slip Gauge/ Length Bars/ Dial Gauge/ Comparator Stand by Comparison Method
11.	**Bevel Protractor/ Degree Protractor**	0° to 90° to 0°	8' (minutes of arc)	Using Sine Bar / Slip Gauge by Comparison Method

Avijit Das
Program Manager

Neeraj Verma
Convenor

Laboratory	**L & T Heavy Engineering Calibration and Testing Laboratory, Larsen & Toubro Limited, Technology Block, Hazira Manufacturing Complex, Post: Bhatha, Surat, Gujarat**		
Accreditation Standard	**ISO/IEC 17025:2005**		
Discipline	**Mechanical Calibration**	**Issue Date**	**19.07.2014**
Certificate Number	**C-0844**	**Valid Until**	**18.07.2016**
Last Amended on	**-**	**Page**	**3 of 3**

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
II. PRESSURE[$]			
1. Pressure Gauge			
Analogue	6 kg/cm² to 1200 kg/cm²	2.90 % rdg	Using Dead Weight Tester based on DKD-R6-1
Digital	6 kg/cm² to 1200 kg/cm²	0.16 % rdg	

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

Avijit Das
Program Manager

Neeraj Verma
Convenor