

Laboratory Centre for Calibration, Nagman Instruments & Electronics Pvt. Ltd., 114, PAP/SS R-9, TTC Industrial Area, Rabale MIDC, Navi Mumbai, Maharashtra

Accreditation Standard ISO/IEC 17025:2005

Discipline Mechanical Calibration **Issue Date** 24.06.2015

Certificate Number C-0722 **Valid Until** 23.06.2017

Last Amended on 21.07.2015 **Page** 1 of 3

Quantity Measured / Instrument	Range/ Frequency	* Calibration Measurement Capability (\pm)	Remarks
I. ACCELERATION & SPEED			
1. CENTRIFUGE*	50 RPM to 14000 RPM	1.0 % of rdg	Using Digital Tachometer Calibrator
2. TACHOMETER\$ (Non Contact Type)	240 RPM to 60000 RPM	0.05 % of rdg	Using Multi product Calibrator with Optical Tachometer calibration adaptor
II. PRESSURE & VACUUM			
1. HYDRAULIC PRESSURE-DIGITAL PRESSURE GAUGES, DIAL PRESSURE GAUGES & PRESSURE TRANSMITTER\$	4 bar to 35 bar >35 bar to 700 bar	0.06% rdg 0.02% rdg	Using Dead Weight Tester by Direct Method
2. HYDRAULIC PRESSURE DIGITAL PRESSURE GAUGES, DIAL PRESSURE GAUGES & PRESSURE TRANSMITTER#	0 bar to 700 bar	0.02% rdg	Using Digital Pressure Gauge by Comparison Method
3. NEGATIVE PRESSURE DIAL PRESSURE GAUGES, DIGITAL PRESSURE GAUGES#	(-) 0.85 bar to 0 bar	0.08% rdg	Using Digital Pressure Gauge by Comparison Method
III. MASS			
1. WEIGHTS\$ F1,F2,M1,M2 CLASS & OTHER CLASSES	1 mg 2 mg 5 mg 10 mg 20 mg	0.005 mg 0.005 mg 0.005 mg 0.005 mg 0.005 mg	Using Standard Weights of E1 Class & Precision Weighing Balances (ABBA Weighing Cycle) by Comparison Method

Neeraj Verma
Convenor

Avijit Das
Program Manager

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Quantity Measured / Instrument	Range/ Frequency	* Calibration Measurement Capability (\pm)	Remarks	
E1,F1,F2,M1,M2 CLASS & OTHER CLASSES	50 mg	0.006 mg		
	100 mg	0.005 mg		
	200 mg	0.008 mg		
	500 mg	0.008 mg		
	1 g	0.006 mg		
	2 g	0.006 mg		
	5 g	0.01 mg		
	10 g	0.012 mg		
	20 g	0.014 mg		
	50 g	0.018 mg		
	100 g	0.04 mg		
	200 g	0.08 mg		
	WEIGHTS F2,M1,M2 CLASS & OTHER CLASSES	500 g to 1000 g	8.22 mg	Using Standard Weights of E2 Class & Precision Weighing Balances (ABBA Weighing Cycle) by Comparison Method
2000 g		8.80 mg		
5000 g		9.92 mg		
8200 g		11.58 mg		
2. BALANCE\$ READABILITY \leq 10 μg	Upto 220 g	0.196 mg	Using Standard Weights of E1 Class by Direct Method	
	READABILITY \leq 10 mg	Upto 8000 g	9.46 mg	Using Standard Weights of E2 Class by Direct Method
	READABILITY \leq 10 g	Upto 50 kg	19.152 g	Using Standard Weights of F1 Class by Direct Method

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IV. 1. VOLUME MICRO-PIPETTES & BURETTES ^{\$}	10 μ l	0.57 μ l	Using Weighting Balance By Gravimetric Method
	100 μ l	0.57 μ l	
	1000 μ l	5.77 μ l	
PIPETTES, BURETTES, BEAKERS, VOLUMETRIC FLASKS ^{\$}	1 ml	0.0007 ml	Using Weighting Balance By Direct/Comparison Method
	5 ml	0.029 ml	
	50 ml	0.577 ml	
	100 ml	0.116 ml	
ONE MARK BEAKERS ^{\$}	100 ml	0.04 ml	
VOLUMETRIC FLASKS & MEASURING CYLINDERS ^{\$}	500 ml	0.042 ml	
	1000 ml	5.774 ml	

* Measurement Capability is expressed as an uncertainty \pm 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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