



NABL

National Accreditation Board for Testing and Calibration Laboratories

(An Autonomous Body under Department of Science & Technology, Govt. of India)

CERTIFICATE OF ACCREDITATION

CALITRON CALIBRATION LABORATORY

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

U1: 207, Kohinoor Arcade, Tilak Chowk, Nigdi, Pune, Maharashtra

in the discipline of

MECHANICAL CALIBRATION

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Certificate Number C-0208

Issue Date 13/07/2016



Valid Until 12/07/2018

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

Avijit Das
Program Manager

Anil Relia
Director

Prof. S. K. Joshi
Chairman



रा.प्र.प्र.बो.

राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड

(विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार के अधीन स्वायत्तशासी निकाय)

प्रत्यायन प्रमाण-पत्र

केलिट्रॉन कैलिब्रेशन लेबोरेटरी

का मूल्यांकन और प्रत्यायन निम्न मानक के अनुसार

आई.एस.ओ./आई.ई.सी. 17025:2005

“परीक्षण एवं अंशशोधन प्रयोगशालाओं की सक्षमता की सामान्य अपेक्षाएँ”

पुणे, महाराष्ट्र

में स्थित इसकी सुविधाओं के लिए

यांत्रिक अंशशोधन

के विषय क्षेत्र में किया गया।

(इस प्रयोगशाला के प्रत्यायन के विषय क्षेत्र की जानकारी एन ए बी एल वेबसाइट www.nabi-india.org से भी प्राप्त कर सकते हैं।)

प्रमाण-पत्र संख्या

अ-0208

जारी करने की तिथि

13/07/2016



वैधता की तिथि

12/07/2018

यह प्रमाण-पत्र उपर्युक्त मानक तथा राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड की अतिरिक्त अपेक्षाओं का निरंतर संतोषप्रद अनुपालन किए जाने पर अनुबंध में निर्दिष्टानुसार प्रत्यायन के क्षेत्र के लिए वैध रहेगा।

रा.प्र.प्र.बो. की ओर से हस्ताक्षरित

अ. वि. दास,

अविजीत दास
कार्यक्रम प्रबन्धक

अनिल रेलिया

अनिल रेलिया
निदेशक

श्रीकृष्ण जोशी

पो. श्रीकृष्ण जोशी
अध्यक्ष



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SCOPE OF ACCREDITATION

Laboratory	Calitron Calibration Laboratory, U1: 207, Kohinoor Arcade, Tilak Chowk, Nigdi, Pune, Maharashtra U2: 238, Kohinoor Majestic, MIDC Chinchwad, Pune, Maharashtra		
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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
LOCATION - 2			
7. LEVER DIAL GAUGE^S L.C.: 1.0 μ m L.C.: 10.0 μ m	0 to 0.14 mm 0 to 1.0 mm	3.9 μ m 6.9 μ m	Using Dial Calibration Tester (L.C.: 0.2 μ m) by Comparison Method as per IS 11498
8. BORE GAUGE WITH DIAL FOR TRANSMISSION^S ACCURACY L.C.: 0.2 μ m L.C.: 1.0 μ m	0 to 1.0 mm 0 to 1.0 mm	5.6 μ m 5.6 μ m	Using Dial Calibration Tester & Plunger Dial Gauge by Comparison Method
9. SNAP GAUGE^S	3 mm to 100mm	4.0 μ m	Using Gauge Block Set by Comparison Method as per IS 3477
10. FEELER GAUGE / FOILS^S	Upto 1mm	3.2 μ m	Using External Micrometer (L.C.: 1.0 μ m) by Comparison Method as per IS 3179
11. BEVEL PROTRACTOR L.C.: 5 min.	0° to 360°	5.0 min of arc	Using Angle Gauge Block Set by Comparison Method as per IS 4239
12. COMBINATION SQUARE SET^S L.C.: 1°	0° to 360°	34.0 min of arc	Using Angle Gauge Block Set by Comparison Method
MEASURING SCALE /TAPE^S	Upto 1000 mm	59.0 μ m	Using Taper and Scale calibrator by Comparison Method as per IS 1481
MEASURING SCALE /TAPE^S	Upto 3000 mm	$165 \sqrt{\frac{L}{1000}} \mu$ m (L & W in mm) μ m	Using Taper and Scale calibrator by Comparison Method as per IS 1269

Dheeraj Chawla

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Convenor

Avijit Das

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Program Manager



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LOCATION - 2

II. ACOUSTICS

1. SOUND LEVEL METER (Weighting A/C)	1 kHz 94 dB & 114 dB	0.7 dB	Using Sound Level Calibrator by Comparison Method
2. SOUND LEVEL CALIBRATOR (Weighting A/C)	1 kHz 94 dB & 114 dB	1.2 dB	Using Sound Level Meter by Comparison Method

III. ACCELERATION AND SPEED

1. TACHOMETER ^S Non-Contact Type	60 rpm to 5000 rpm >5000 rpm to 50000 rpm	1.0 % of Rdg. 0.06 % of Rdg.	Using Digital Non-Contact Tachometer by Comparison Meter
Contact Type	100 rpm to 5000 rpm >5000 rpm to 90000 rpm	1.9 % of Rdg. 0.1 % of Rdg.	

IV. WEIGHTS

1. MASS-WEIGHTS ^S	1 mg	0.02 mg	Using E2 class standard weights 1mg-200g and balance of 0.01 /0.1mg readability & Calibration of F2 and coarser class as per OIML R-III All procedures ABBA method as per OIML R-111
	2 mg	0.02 mg	
	5 mg	0.02 mg	
	10 mg	0.02 mg	
	20 mg	0.02 mg	
	50 mg	0.02 mg	
	100 mg	0.03 mg	
	200 mg	0.05 mg	
	500 mg	0.03 mg	
	1 g	0.05 mg	
	2 g	0.05 mg	
	5 g	0.05 mg	
	10 g	0.06 mg	
	20 g	0.06 mg	

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LOCATION -2			
	50 g	0.1 mg	
	100 g	0.1 mg	
	200 g	0.2 mg	
(M1 Class and Coarser)	300 g 1 kg	10 mg 10 mg	Using F1 class weights and balance of $d=0.01$ g Calibration of M1/F2 Class and Coarser
(F2 Class and Coarser)	2 kg 5 kg	10 mg 20 mg	
(M2 and Coarser Class)	10 kg 20 kg 50 kg	0.14 g 1.0 g 3 g	Using M1 class weights and balance $d=0.01, 0.5, 1$ g Calibration of M2 and coarser class as per OIML R-III

V. WEIGHING SCALE AND BALANCE

1. ELECTRONIC WEIGHING BALANCE*

$d=0.01$ mg	1 mg to 40 g	0.06 mg	E2 class standard weights 1mg-200g/Calibration of Class 1 Weighing Balance and Coarser as per OIML R-76
$d=0.1$ mg	10 mg to 200 g	0.2 mg	
$d=0.01$ g	1 g to 5 kg	0.1 g	F1 class standard weights 500g to 5kg/Calibration of Class 1 Weighing Balance and Coarser as per OIML R-76
$d=0.01$ g	1 g to 10 kg	0.2 g	F1 & M1 class standard weights Upto 50kg/Calibration of Class 3 Weighing Balance and Coarser as per OIML R-76
$d=0.01$ g	50 g to 50 kg	2 g	

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LOCATION - 2

VI. VOLUME

1. MICROPIPETTES ^S	10 μ l <V \leq 100 μ l	0.6 μ l	Using Weighing Balance with d: 0.01 mg, and Distilled Water, Calibration of Micropipettes based on Gravimetric Method as per ISO 8655-6
	100 μ l <V \leq 1000 μ l	1.8 μ l	
2. GLASSWARE ^S (Volumetric Flask, Burettes, Conical Flask, Glass Pipettes)	1ml \leq V \leq 10ml	5 μ l	Using Weighing Balance with 40g & d: 0.01 mg, Distilled Water and Standard Weights, Calibration of Glassware based on Gravimetric Method as per ISO 4787
	10ml <V \leq 100 ml	25 μ l	Using Balance with d: 0.1 mg, Distilled Water and Standard Weights, Calibration of Glassware based on Gravimetric Method as per ISO 4787
	200ml <V \leq 5000 ml	0.32ml	Using Balance with d: 0.01g, Standard Weights and Distilled Water, Calibration of Glassware based on Gravimetric Method as per ISO 4787

VII. PRESSURE INDICATING DEVICES

1. HYDRAULIC PRESSURE-DIAL PRESSURE GAUGES, DIGITAL PRESSURE GAUGE, PRESSURE TRANSMITTERS AND PRESSURE SWITCH ^S	(0 to 700)bar	0.2)bar	Using Digital Pressure Gauge with Reference to a Calibrated Standard DPG & The Procedure of Comparison Following DKD-R6-1
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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
LOCATION - 2			
2. PNEUMATIC PRESSURE- DIAL PRESSURE GAUGES, DIGITAL PRESSURE GAUGE, PRESSURE TRANSMITTERS AND PRESSURE SWITCH ^S	(0 to 200) m bar	0.3 mbar	Using Digital Pressure Gauge with Reference to a Calibrated Standard DPG & the Procedure of Comparison following DKD-R6-1
	(>0.2 to 2) bar	9.0 mbar	
	(>2 to 20)bar	7.8 mbar	
3. VACUUM-NEGATIVE PRESSURE DIAL PRESSURE GAUGES, DIGITAL PRESSURE GAUGE ^S	((-) 0.9 to 0) bar	3.8 mbar	Using Digital Pressure Gauge with Reference to a Calibrated Standard DPG & the Procedure of Comparison following DKD-R6-2
VIII. MOBILE FORCE MEASURING SYSTEM			
1. FORCE PUSH PULL GAUGE ^S	0 to 500 N (in Push and Pull mode)	0.15 % of reading	Using Dead Weights Push Pull Calibration System (0 to 500) N with different denomination Newtonian weights and loading frames as per VD/VDE 2624
IX. TORQUE GENERATING DEVICES			
1. TORQUE GENERATING DEVICES ^S (Torque Wrenches) Class I and II (Clockwise only)	2 Nm to 20 Nm	0.39 % of Reading	Using Torque Transducers with Display unit and Gradual Loading setup as per ISO 6789:2003
	20 Nm to 100 Nm	0.15 % of Reading	
	100 Nm to 500 Nm	0.35 % of Reading	

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
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LOCATION - 2

X. UTM, TENSION CREEP & TORSION TESTING M/c

I. FORCE MEASURING*

SYSTEM OF

UTM - Compression

25 N to 45 kN

0.5 % of Reading

Using Load Cells with

UTM - Tension

25 N to 45 kN

0.53 % of Reading

Display For UTM with

Accuracy Class I and Coarser

As per IS 1828, (Per 1): 2005

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

¹Only in Permanent Laboratory

²Only for Site Calibration

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Quantity Measured/ Instrument	Range / Frequency	Calibration Measurement Capability (\pm)	Remarks
LOCATION -2			
1. DIMENSION (Basic Measuring Instrument, Gauge etc.)			
1. CALIPER^S (Vernier / Dial / Digital) L.C.: 10 μm^{Φ} L.C.: 50 μm^{Φ}			
	Upto 600mm	13 μm	Using Gauge Block Set Grade '0' (Carbide); Caliper Checker & External Micrometer by Comparison Method as per IS 3651
2. DEPTH VERNIER CALIPER^S (Vernier / Dial / Digital) L.C.: 10 μm			
	Upto 300 mm	15 μm	Using Depth Micro Checker by Comparison Method as per IS 4213
3. HEIGHT GAUGE^S (Vernier / Dial / Digital) L.C.: 10 μm			
	Upto 600mm	14 μm	Using Caliper Checker & Surface Plate by Comparison Method as per IS 2921
4. EXTERNAL MICROMETER^S L.C.: 1 μm^{Φ}			
	Upto 100mm	2.2 μm	Using Gauge Block Set Grade '0' (Carbide) & Micro Check Set Grade '0' Carbide by Comparison Method as per IS 2967
5. DEPTH MICROMETER^S L.C.: 1 μm^{Φ}			
	Upto 300mm	9.5 μm	Using Gauge Block Set & Depth Micro Checker by Comparison Method as per IS 2967
6. DIAL GAUGE^S (Plunger / Digital Type) L.C.: 1.0 μm			
	0 to 25mm 0 to 25mm	3.8 μm 4.8 μm	Using Dial Calibration Tester by Comparison Method as per IS 2092

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