# **Calibration Certificate**

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Certificate No	CH250320/1 / TC / DM / 001	Unique Lab Report (ULR) ID	CC230425000000001F
Date of Calibration	20/03/2025	Recommended Next Due Date*	20/03/2026
Receipt / WRF No.	CH250320/1	Date of DUC Received	20/03/2025
Certificate Issue Date	20/03/2025	Calibration performed at	Lab

# **Details of Customer**

Name	Quantumcals LIMS
Address	0
Ref. Doc. No.	LTB-2003
Date of Doc.	3/20/2025

# **Details of Device under Calibration (DUC)**

Nomenclature	Vernier Caliper		
Calibration Range	0 to 300 mm	Mfg. Serial No	QCM001
Resolution	0.01 mm	Identification No	1
Make / Model	QC LVT / 2012	Condition of DUC	Good

### **Details of Calibration Masters and Traceability**

Lab ID	Description of Master	Traceability
CEQ025	Caliper Checker, Make : Aditya, Sr. No. : 1019, Size : 20 to 600 mm	Traceable to National Standard through NABL Lab Certif. No CC-2188, Pune, Certificate No. 2024/01/101, Cal Date: 04/01/2024, Valid up to 03/01/2026
CEQ024	M-88 Steel Slip Gauge Set, Make: Aditya, Sr. No.: 3187, Size: 0.5 to 100 mm, Grade: 0	Traceable to National Standard through NABL Lab Certif. No CC-2188, Pune, Certificate No. 2024/01/096, Cal Date: 04/01/2024, Valid up to 03/01/2026
CEQ037	• , ,,	Traceable to National Standard through NABL Lab Certif. No CC-2188, Pune, Certificate No. 2024/01/100, Cal Date: 04/01/2024, Valid up to 03/01/2026
CEQ038	Steel Length bars (12 Nos), Make : Mikronix, Sr. No. : 4903, Size : 25 to 300 mm	Traceable to National Standard through NABL Lab Certif. No CC-2188, Pune, Certificate No. 2024/01/099, Cal Date: 03/01/2024, Valid up to 02/01/2026

### **Details of Calibration Procedure and Reference Documents**

Lab Procedure	Method of Calibration
	The calibration of DUC was carried out by using Precision Caliper Checker, Slip Gauge and Length bars for External, Internal & Depth measurement
Calibration Method is generally based on	NABL 129 - 2019, IS 16491 (Part 1) - 2016

#### **Details of Environment Condition at the Time of Calibration**

Temperature (20°C ± 2°C)	#DIV/0!	°C	Relative Humidity (50 ± 15% Rh)	#DIV/0!	% Rh
Uncertainty of Measurement		± 10.0 μm			

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2 such that the coverage probability corresponds to 95.45% confidence level

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**DISCIPLINE: MECHANICAL CALIBRATION** 

GROUP: DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)

# **Calibration Result**

#### 1.0 Calibration Result of DUC / Error of Measurement (All value in mm)

	Exterr	External Measurement			Internal Measurement			ment	
Sr. No.	Standard Size	Observed on DUC	Error	Standard Size	Observed on DUC	Error	Standard Size	Observed on DUC	Error
1	0.000	0.00	0.00	20.000	20.00	0.00	0.000	0.00	0.00
2	20.000	20.00	0.00	50.000	50.00	0.00	25.000	25.00	0.00
3	50.000	50.00	0.00	100.000	100.00	0.00	50.000	50.00	0.00
4	100.000	100.00	0.00	150.000	150.00	0.00	100.000	100.00	0.00
5	150.000	150.00	0.00	200.000	200.00	0.00	150.000	150.00	0.00
6	200.000	200.00	0.00	250.000	250.00	0.00	200.000	200.00	0.00
7	250.000	250.00	0.00	300.000	300.00	0.00	250.000	250.00	0.00
8	300.000	300.00	0.00	-	-	-	300.000	300.00	0.00

# 2.0 Parallelism error of measuring Jaws (All Value in mm)

Parallelism of external measuring jaws	0.012	Parallelism of Internal measuring jaws	0.011
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## **General Remarks**

- The reading has been rounded off wherever applicable
- Calibration is performed without doing any adjustment in its original condition at time of receipt/calibration, unless mentioned herein
- The calibration results relate only to the item calibrated and result reported in the certificate are valid at the time of and under the stated conditions of measurement.
- The Calibration certificate shall not be reproduced except in full, without written permission of the Laboratory
- \*Recommended Next Due Date is reported as per requisition of customer

-- End of Certificate --