

# CERTIFICATE OF CALIBRATION

ISSUED BY :

ACCURATE ENGINEERING

67, Hadapsar Industrial Estate, Hadapsar, Pune - 411 013.

020 - 66069503 / 9568, Mob. : 9970012632, Email : calpun@accurate.co.in



CC - 2082

ULR - CC208223000008552F  
MECHANICAL CALIBRATION - DIMENSION

Certificate No. : P/09/230021  
Date of Issue : 11/09/2023

Date of Calibration: 11/09/2023

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NAME & ADDRESS OF CUSTOMER

M/s. NATIONAL CENTRE FOR QUALITY CALIBRATION  
4, ABHISHREE CORPORATE PARK, NR. SWAGAT BUNGLOW BRIS,  
ISKCON-AMBLI ROAD AHMEDABAD 380 0058.

CUSTOMER'S PO.NO.  
WORK ORDER NO.

CHALLAN NO:- SR.NO. 04092023/02  
PU/CAL/2324/0616

DATE :- 04/09/2023

GAUGE FOR CALIBRATION

INTERNAL MICRO CHECKER.

RANGE - 0-300mm MAKE - ADITYA  
CODE NO. - NCQC/M-06 SR. NO:- IMC 0500  
ACCURATE ID.NO.- PU/CAL/2324/0616/1

CONDITION OF ITEM & DATE OF RECEIPT

O.K.  
07/09/2023

CALIBRATION PROCEDURE

Determination of Actual step sizes and parallelism of measuring faces from zero reference face was measured by 3 co-ordinate metrology. All steps sizes were measured with a single probe point giving a shortest distance from aligned reference face. As per CP No. 09  
Central length deviation was determined by the method of comparison by contact against Ref. Master of the same nominal size as per IS 2984. Gauge blocks were supported vertically. There was an adequate period of temperature stabilisation before the measurements were carried out. As per CP No. 01.

EQUIPMENT & MASTERS USED FOR CALIBRATION

1. UNIVERSAL MEASURING M/C.  
SIP MU 214B. (Inhouse Calibrated) - valid upto 23th Nov.2023.  
2. Gauge block calibration tester Make - Mahr  
Type - 826 E. Sr.No. - 09505 Lab ID. NO. - E 03 (Inhouse Calibrated) valid upto 24th May 2024.  
3. Grade 'K' Slip Gauge Box Code No.- R1-02 (Make- Aditya)  
Sr.No.2926 (Inhouse Calibrated) valid upto 11th Nov.2024

TRACEABILITY

1. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer.No. -P/98/2211 calibrated on 23th Nov.2022.  
2. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer.No. P/98/2301 calibrated on 24th May 2023.  
3. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer. No.P/97/2221 calibrated on 11th Nov. 2022

ENVIRONMENTAL CONDITION

20.4° C.

UNCERTAINTY OF MEASUREMENT :  $\pm 0.0026$  mm For 0 - 300mm  
 $\pm 0.10\mu$ m For Slip Gauges upto & including 25mm

The uncertainty stated is the expanded uncertainty of measurement obtained by multiplying the standard uncertainty by the coverage factor  $k=2$  corresponds to confidence level of 95.45%.

NOTE : 1. Calibration Results are enclosed on Page No. 2 onwards

Note : The certificate is issued subject to conditions stated overleaf.

Calibrated By

Ashok Patil  
Manager Calibration Lab



NCQC

Valid up to 10-09-2025

Reviewed *Jules*

Approved By

Aslam Sayyed  
Head Measurement Services



NCQC System Certificate No 45



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**TRUE COPY**



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MECHANICAL CALIBRATION - DIMENSION

## CALIBRATION RESULTS

### 1. INTERNAL MICRO CHECKER :

RANGE - 0-300 mm

CODE NO.- NCQC/M-06

MAKE - ADITYA

ACCURATE ID.NO.-PU/CAL/2324/0616/1

SR. NO:- IMC 0500

Certificate No. : P/09/230021

Calibration Dt. : 11/09/2023

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### A. SETTING SLIPS :

Nominal Size (mm)	SR. NO.	Deviation from Nominal size ( $\mu\text{m}$ )
10.00 (A)	2918	+0.16
10.00 (B)	2919	+0.11

### B. INSTRUMENTAL ERROR:

Nominal Size of Step (mm)	Observed Size (mm)
0.00	0.0000 Set
45.00	45.0006
70.00	70.0009
95.00	95.0026
120.00	120.0029
145.00	145.0020
170.00	170.0022
195.00	195.0014
220.00	220.0013
245.00	245.0008
270.00	270.0009
295.00	294.9999

NOTE : Zero set on one reference gauge block face. The step sizes 45-300mm was measured with same zero ref. on direct steps of Internal Micro Checker.

B. PARALLELISM OF MEASURING FACES :

WITHIN 0.0014mm

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Calibrated by



Approved by