

CERTIFICATE OF CALIBRATION

ISSUED BY :

ACCURATE ENGINEERING CO. PVT. LTD.

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

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



ULR - CC208221000006887F
MECHANICAL CALIBRATION - DIMENSION

Certificate No. : P/09/210033
Date of Issue :20/09/2021

Date of Calibration: 18/09/2021	Next Calibration Date :18/09/2023	Page 1	No. of Pages 2
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NAME & ADDRESS OF CUSTOMER : M/s. NATIONAL CENTRE FOR QUALITY CALIBRATION
HOUSE NO. 4, ABHISHREE CORPORATE PARK, NR. SWAGAT BUNGLOW BRTS, ISKCON AMBLI, AHMEDABAD-380 058.

CUSTOMER'S PO.NO. WORK ORDER NO. : CHALLAN NO.- 08092021/03 DATE:08/09/2021
: PU/CAL/2122/0707

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/2122/0707/1

CONDITION OF ITEM & DATE OF RECEIPT : O.K.
15/09/2021

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 26th .Nov.2021.
2. Gauge block calibration tester Make - Mahr
Type - 826 E. Sr.No. - 09505 Lab ID. NO. - E 03 (Inhouse Calibrated) valid upto 24th May 2022.
3. Grade 'K' Slip Gauge Box Code No.- R1-02 (Make- Aditya) Sr.No.2926 (Inhouse Calibrated) valid upto 11th Nov.2022

TRACEABILITY : 1. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer.No. -P/98/2011 calibrated on 26th Nov. 2020.
2. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer No. P/98/2201 calibrated on 24th May 2021.
3. Traceable to National Standards through NABL Lab.No.CC-2082 vide Cer. No.P/97/2017 calibrated on 11th Nov. 2020

ENVIRONMENTAL CONDITION : 20.4° C.

UNCERTAINTY OF MEASUREMENT : ± 0.0026 mm For 0 - 300mm
 $\pm 0.10\mu\text{m}$ 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 correspondes to confidence level of 95.45%.

NOTE : 1. Calibration Results are enclosed on Page No. 2 onwards.
2. Next calibration date (2 Years) mentioned in the certificate is given as per customer's request .

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

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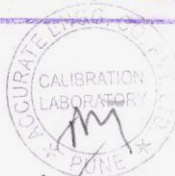
Calibrated By

Ashok Patil

Ashok Patil

Manager Calibration Lab

NCQC System Certificate No. 45



NCQC
Valid up to 18-09-2023
Reviewed

Approved By

Aslam Sayyed

Aslam Sayyed

Head Measurement Services

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CC-2082

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MECHANICAL CALIBRATION - DIMENSION

CALIBRATION RESULTS

Certificate No. : P/09/210033

Calibration Dt. : 18/09/2021

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1. INTERNAL MICRO CHECKER :

RANGE - 0-300 mm

MAKE - ADITYA

SR. NO.-IMC 0500

CODE NO. - NCQC/M-06

ACCURATE ID.NO.-PU/CAL/2122/070711

A. SETTING SLIPS :

Nominal Size (mm)	SR. NO.	Deviation from Nominal size (μm)
10.00 (A)	2918	+0.12
10.00 (B)	2919	+0.10

B. INSTRUMENTAL ERROR:

Nominal Size of Step (mm)	Observed Size (mm)
0.00	0.0000 Set
45.00	44.9999
70.00	70.0010
95.00	95.0009
120.00	120.0014
145.00	145.0017
170.00	170.0013
195.00	195.0012
220.00	220.0001
245.00	244.9996
270.00	269.9995
295.00	295.0007

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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AWP

Calibrated by



[Signature]
Approved by