



Certificate No. : CC-2102

ULR-CC210219000000632F

MA/FRM/19



**TRUE COPY**

MECHANICAL CALIBRATION: DIMENSION (Precision Instrument)

**MIKRONIX ASSOCIATES  
AURANGABAD 431 006**

**CALIBRATION CERTIFICATE OF  
A SET OF SLIP GAUGES**

Calibration Date	Issued On	Certificate No.	Page	No. of Pages
23-09-2021	23-09-2021	SG 3112	1	2

**Tested for** : M/s. NATIONAL CENTRE FOR QUALITY CALIBRATION,  
House No. 4, Abhishree Corporate Park, Nr. Swagat Bungalow  
BRTS, Iskcon – Ambli Road, Ambli, AHMEDABAD – 380 058

**Your Ref.** : As per Your Challan No. 07092021/02 Dtd. 07/09/2021

**Description & Identification of Instruments** : Steel Slip Gauge Set M88/1, Grade: 0, Sr. No.2967  
ID.No. NCQC/M-109, Aditya Make.

**Coefficient of Thermal Expansion** :  $11.5 \times 10^{-6} / ^\circ\text{C}$

**Test Purpose** : Measurements of Slip Gauges for their mean length at 20° C to IS:2984 of 2003

**Environmental Conditions** : Temperature 20.1 °C

**Method Used** : Comparison method as per MA/PCD/18.

**Major Equipments Used** : a) Tungsten Carbide Slip Gauge Set M122/1, GR 'K' Set Sr. No. 1213 Calibrated at CMTI B,lore vide their Certificate No 17/53/01/352-L/3/090 Dtd. 31-05-2018 valid upto 31-05-2023

b) Steel Slip Gauge Set M39, GR 'K', Set Sr.No. 222 Calibrated at 'NABL' Lab No. CC-2082 vide Cert. No. P/01/210022, Dtd. 05-06-2021 valid upto 05-06-2023.

c) ) Electronic Gauge Block Calibrator (Model: GBC 931, Mikronix make) Sr.No. 00197, in house (CC-2102) calibrated traceable to CMTI B,lore vide Certificate No. GBC 27, Dtd. 06-05-2021 valid upto 06-05-2023.

**Uncertainty of measurement (AT 95% confidence level with coverage factor k =2)** :

- ± 0.12 µm upto 20 mm.
- ± 0.15 µm above 20 mm & upto 50 mm.
- ± 0.20 µm above 50 mm & upto 70 mm.
- ± 0.24 µm above 70 mm & upto 100 mm.

Note: The Calibration Results reported in this Certificate are valid at the time of and the stated condition of measurement.

This Calibration Certificate should not be re-produced except in full without written permission from Managing Partner, Mikronix Associates, Aurangabad.

CALIBRATED BY

NCQC  
Valid up to 22/09/2023  
Reviewed

NCQC System Certificate No. 84

TECHNICAL MANAGER

**MIKRONIX ASSOCIATES**

POST BOX NO. 726, W-10, MIDC INDUSTRIAL AREA, CHIKALTHANA, AURANGABAD - 431 006 INDIA ☎ (0240) 2484159, 2483004, FAX : (0240) 2484246  
● E-mail : sales@mikronixassociates.com ● mikronix\_agd@bsnl.in



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AURANGABAD 431 006

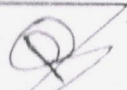
**CALIBRATION CERTIFICATE OF**  
**A SET OF SLIP GAUGES**

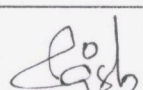
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**CALIBRATION RESULTS**

Nominal Size in mm	Centre Dev in $\mu$ m	Nominal Size in mm	Centre Dev in $\mu$ m	Nominal Size in mm	Centre Dev in $\mu$ m	Nominal Size in mm	Centre Dev in $\mu$ m
1.0005	+0.07	1.13	+0.07	1.35	+0.11	4.0	+0.12
1.001	+0.08	1.14	+0.06	1.36	+0.12	4.5	+0.11
1.002	+0.10	1.15	+0.12	1.37	+0.07	5.0	+0.05
1.003	+0.11	1.16	+0.07	1.38	+0.12	5.5	+0.08
1.004	+0.09	1.17	+0.09	1.39	+0.06	6.0	+0.12
1.005	+0.12	1.18	+0.12	1.40	+0.05	6.5	+0.04
1.006	+0.04	1.19	+0.08	1.41	+0.08	7.0	+0.10
1.007	+0.10	1.20	+0.09	1.42	+0.02	7.5	+0.12
1.008	+0.09	1.21	+0.12	1.43	+0.07	8.0	+0.04
1.009	+0.06	1.22	+0.07	1.44	+0.10	8.5	+0.12
1.01	+0.09	1.23	+0.05	1.45	+0.16	9.0	+0.02
1.02	+0.08	1.24	+0.11	1.46	+0.11	9.5	-0.10
1.03	+0.12	1.25	+0.12	1.47	+0.08	10.0	-0.08
1.04	+0.09	1.26	+0.02	1.48	0.00	20.0	+0.12
1.05	+0.01	1.27	+0.11	1.49	+0.12	30.0	-0.05
1.06	+0.05	1.28	+0.11	0.5	+0.12	40.0	+0.15
1.07	+0.11	1.29	+0.12	1.0	+0.10	50.0	+0.08
1.08	+0.03	1.30	+0.10	1.5	+0.12	60.0	+0.13
1.09	+0.10	1.31	+0.08	2.0	+0.05	70.0	+0.12
1.10	+0.09	1.32	+0.06	2.5	+0.12	80.0	+0.25
1.11	+0.08	1.33	+0.08	3.0	+0.05	90.0	+0.18
1.12	+0.01	1.34	+0.06	3.5	+0.12	100.0	-0.05

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