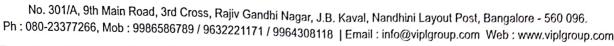


CERTIFICATE OF CALIBRATION





NABL Accredited Calibration Lab as per ISO/IEC 17025 : 2017 With vide Certificate No: CC-2473

1 Name and Address of Customer

M/s:. Mag Engineering

: 3738

: MMT

: 20100411

: Satisfactory

: SOP-16-31

: 7327-2003

: 03-14-2023

: 03-13-2024

: CC247323500027171F

: Granite Surface Plate

.: 2000 X 1000 mm

: VI/22-23/3738-01

: VI-FRM-ME-035

: 15-03-2023

(A Unit of Sandhar Technologies Ltd.,) No. 46/A, 3rd Main, 2nd Phase, Peenya Industrial Area, Bangalore - 560 058.

Page 1 of 8

2 Customer Reference

2.1 ULR No.

2.2 SRF No

2.3 Certificate No. 2.4 Format No

2.5 Date of Issue

3 Details Of Device Under Calibration(DUC).

3.1 Nomenclature

3.2 Range

3.3 Make

3.4 SI.No.

3.5 DUC Condition

3.6 Calibration Procedure No.

3.7 No.of Pages

3.8 Reference Document

3.9 Calibration Date

3.10 Calibration Due Date

3.11 Calibration done at

3.12 Instrument Location

3.13 Expanded Uncertainty of Measurement

at 95.45% Confidence Level with K=2

: Onsite

(Month/Date/Year)

: Shop Floor

: : ± 2.0 Sqrt ((L+W) /150)

4 Environmental Condition:

Start Temperature: 23.2°C

5 Standards Used for calibration

End Temperature: 23.5°C

SI. No.	Nomenclature	Make & Model	SI. No.	Least	Certificate. No.	W-15 Dr
1	Electronic Level	Levelnic & DL-S3	700070	0.001		Validity
		2010HIG & DE-03	793256	mm/m	22/53/01/041-S/3/096	31-07-2023

WORKING SURFACE OVERALL Flatness: 21.8 micrometer Grade: (Allowable tolerance: 38 μm)

6 Note:

- 6.1. The Calibration Certificate relates only to the above DUC
- 6.2. Publication or reproduction of this Certificate in any form other than by complete set of the whole report & in the language, written, is not permitted without the written consent of VI.
- 6.3. Corrections/erasing, invalidate the Calibration Certificate.
- 6.4. Calibration of the DUC are traceable to National standards/International Standards
- 6.5. Any error in this Certificate should be brought to our knowledge within 30 days from the date of this Cert.
- 6.6. Results Reported are valid at the time of and under the stated conditions of measurements.
- 6.7. The usage of NABL Symbol is as Per NABL Guidelines Given In NABL 133.

Callibrated By Madhusudhan (Calibration Engineer)





No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096.

SURFACE PLATE CALIBRATION

19

No. of Rows:

05

No. of Columns:

Report No.: VI/22-23/3738-01

Date.: 3/14/2023

Measurement Reading Along Rows (Values are in Divisions)

					•
	C0L1	COL2	COL3	COL4	COL5
ROW1	0	0.015	0.029	0.042	0.056
ROW2	0	0.025	0.042	0.062	0.075
ROW3	0	0.011	0.019	0.032	0.045
ROW4	0	0.016	0.032	0.045	0.062
ROW5	0	0.021	0.042	0.053	0.068
ROW6	0	0.028	0.045	0.063	0.085
ROW7	0	0.035	0.052	0.071	0.078

(a) Checker	9	Cancaga
Calibrated by		Madhusudhan

Maximum Deviation: 13.1



[O] N

No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096.

SURFACE PLATE CALIBRATION

10

No. of Rows:

05

No. of Columns:

Report No.: VI/22-23/3738-01

Date.: 3/14/2023

Measurement Reading Along Rows (Values are in Divisions)

ROW8	0	0.015	0.025	0.035	0.042
ROW9	0	600'0	0.015	0.025	0.038
30W10	0	0.013	0.025	0.035	0.051

SECHOCKOD BY	Gangadhar C-K
Calibrated by	Madhusudhan

Maximum Deviation: 13.1



No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096. SURFACE PLATE CALIBRATION 10

No. of Rows:

05

No. of Columns:

Report No.: VI/22-23/3738-01

Date.: 3/14/2023

Measurement Reading Across Rows (Values are in Divisions)

COL3 COL4 COL5 0.035 0.053 0.063 0.043 ROW4 | 0.015 | 0.029 | 0.042 | 0.051 | 0.059 0.035 0 0.045 0.019 0.023 0.042 0.029 0.034 0 0.032 0.035 0.025 0.015 0.022 0 0.013 COL2 0.021 0.025 ROW6 0.011 0.018 0 COL1 0.011 ROW2 0.009 ROW5 0.009 ROW7 0.008 0 ROW3 ROW1

Ad Speckled by	Gangadhar-C.K
Calibrated by	Madhusudhan
l	

Maximum Deviation: 13.1 Minimum Deviation: -8.7



No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096.

SURFACE PLATE CALIBRATION

Report No.: VI/22-23/3738-01

Date.: 3/14/2023

Measurement Reading Across Rows (Values are in Divisions)

05

No. of Columns:

No. of Rows:

30W8 0.015	0.015	0.023	0.041	0.055	0.062
30W9 0.009	0.009	0.015	0.029	1	0.051
OW10 0.005	0.005	0.009	0.011	0.015	0.023

Checked by	Gangadhar C.K
Calibrated by	Madhusudhan

Maximum Deviation: 13.1



No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096.

SURFACE PLATE CALIBRATION

10

No. of Rows:

8

No. of Columns:

Report No.: VI/22-23/3738-01

Date.: 3/14/2023

Deviation From Regression (Values are in µm)

COL1 COL2 COL3 10.6 1.9 4 8.5 1.2 -2.8 6.8 -0.4 -6.1 5.9 0.5 -2.5 3.8 0.1 -0.5 2.1 -0.1 0.6 -0.1 -1 0.6						
10.6 1.9 4 8.5 1.2 -2.8 6.8 -0.4 -6.1 5.9 0.5 -2.5 3.8 0.1 -0.5 2.1 -0.1 0.1 -0.1 -1 0.6		COL1	COL2	согз	COL4	COL5
8.5 1.2 -2.8 6.8 -0.4 -6.1 5.9 0.5 -2.5 3.8 0.1 -0.5 2.1 -0.1 0.1 -0.1 -1 0.6	ROW1		1.9	4	-7.3	-7.9
6.8 -0.4 -6.1 5.9 0.5 -2.5 3.8 0.1 -0.5 2.1 -0.1 0.1 -0.1 -1 0.6	ROW2	-	1.2	-2.8	-3.7	-1.2
5.9 0.5 -2.5 3.8 0.1 -0.5 2.1 -0.1 0.1 -0.1 -1 0.6	ROW3		-0.4	-6.1	-8.7	-8.4
3.8 0.1 -0.5 2.1 -0.1 0.1 -0.1 -1 0.6	ROW4		0.5	-2.5	-2.9	-0.1
2.1 -0.1 0.1 -0.1 -0.1	ROW5		0.1	-0.5	0.5	9
-0.1 -1 0.6	ROW6	2.1	-0.1	0.1	3.1	11.2
		-0.1	7	9.0	5.1	13.1

Caliprated by	Checked by
Madhusudhan	Gangadhar C.K

Maximum Deviation: 13.1



No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar, Nandhini Layout Post, Bangalore - 560 096.

SURFACE PLATE CALIBRATION

20

No. of Rows:

B

No, of Columns:

VI/22-23/3738-01 Report No.:

3/14/2023 Date.: Deviation From Regression (Values are in um)

ю	4.1	6.7
0	77-	60-
-23	4	ð. ,
-3.1	-5.2	-7.3
١,	-3.1	φ
ROWB	ROWB	ROW10

	ector	
	Cheer	
Ì	32	

Madhusudhan

Calibrated by

Maximum Deviation: 13.1

Minimum Deviation: -8.7

No.



No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar,

Nandhini Layout Post, Bangalore - 560 096.

Scale: 200

3/14/2023

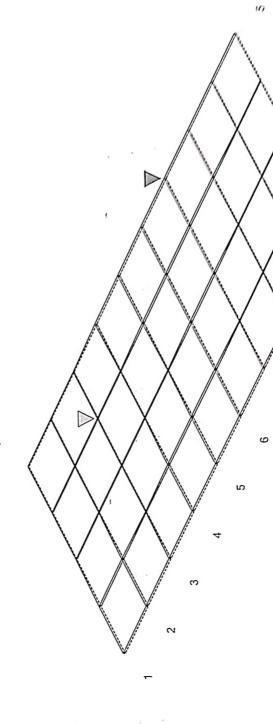
VI/22-23/3738-01

Report No.:

Date.:

SURFACE PLATE CALIBRATION

10 No. of Rows: 05 No. of Columns:



Maximum Deviation: 13.1

Minimum Deviation: -8.7

Madhusudhan Calibrated by

Checken by Gangadhar C.K

Flatness: 21.8