



COMMITTED TO THE  
CUSTOMER SINCE - 1996

# Vaidyanatheshwara INSTRUMENTS

## CERTIFICATE OF CALIBRATION



CC-2473



No. 301/A, 9th Main Road, 3rd Cross, Rajiv Gandhi Nagar, J.B. Kaval, Nandhini Layout Post, Bangalore - 560 096.  
Ph : 080-23377266, Mob : 9986586789 / 9632221171 / 9964308118 | Email : info@viplgroup.com Web : www.viplgroup.com

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

(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. : CC247323500027172F  
2.2 SRF No : 3738  
2.3 Certificate No. : VI/22-23/3738-02  
2.4 Format No : VI-FRM-ME-035  
2.5 Date of Issue : 15-03-2023

### 3 Details Of Device Under Calibration(DUC).

3.1 Nomenclature : Granite Surface Plate  
3.2 Range : 1000 X 630 mm  
3.3 Make : MMT  
3.4 SI.No. / Id.No. : 10813 / M054  
3.5 DUC Condition : Satisfactory  
3.6 Calibration Procedure No. : SOP-16-31  
3.7 No.of Pages : 8  
3.8 Reference Document : 7327-2003  
3.9 Calibration Date (Month/Date/Year) : 03-14-2023  
3.10 Calibration Due Date : 03-13-2024  
3.11 Calibration done at : Onsite  
3.12 Instrument Location : Shop Floor  
3.13 Expanded Uncertainty of Measurement :  $\pm 2.0 \text{ Sqrt} ((L+W) / 150)$   
at 95.45% Confidence Level with K=2

### 4 Environmental Condition :

Start Temperature: 23.2°C

End Temperature: 23.5°C

### 5 Standards Used for calibration

| Sl. No. | Nomenclature     | Make & Model     | Sl. No. | Least Count | Certificate. No.     | Validity   |
|---------|------------------|------------------|---------|-------------|----------------------|------------|
| 1       | Electronic Level | Levelnic & DL-S3 | 793256  | 0.001 mm/m  | 22/53/01/041-S/3/096 | 31-07-2023 |

#### WORKING SURFACE OVERALL

Flatness : 8.4 micrometer

Grade: 1

(Allowable tolerance: 14  $\mu\text{m}$ )

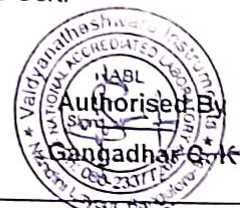
### 6 Note:

- The Calibration Certificate relates only to the above DUC
- 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.
- Corrections/erasing, invalidate the Calibration Certificate.
- Calibration of the DUC are traceable to National standards/International Standards
- Any error in this Certificate should be brought to our knowledge within 30 days from the date of this Cert.
- Results Reported are valid at the time of and under the stated conditions of measurements.
- The usage of NABL Symbol is as Per NABL Guidelines Given In NABL - 133.

Calibrated By

Madhusudhan

(Calibration Engineer)



This report refers only to the item/gauge submitted and may not be reproduced except in full without written permission from Vaidyanatheshwara Instruments Bangalore - 560096.



# Vaidyanatheshwara Instruments

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

Nandhini Layout Post, Bangalore - 560 096.

## SURFACE PLATE CALIBRATION

Report No.: VI/22-23/3738-02

Date.: 3/14/2023

No. of Rows: 10

No. of Columns: 06

Measurement Reading Along Rows (Values are in Divisions)

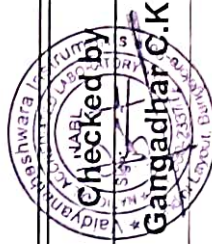
|      | COL1 | COL2  | COL3  | COL4  | COL5  | COL6  |
|------|------|-------|-------|-------|-------|-------|
| ROW1 | 0    | 0.009 | 0.015 | 0.026 | 0.035 | 0.048 |
| ROW2 | 0    | 0.018 | 0.025 | 0.035 | 0.042 | 0.055 |
| ROW3 | 0    | 0.015 | 0.029 | 0.042 | 0.055 | 0.059 |
| ROW4 | 0    | 0.009 | 0.018 | 0.023 | 0.029 | 0.035 |
| ROW5 | 0    | 0.006 | 0.009 | 0.015 | 0.022 | 0.029 |
| ROW6 | 0    | 0.011 | 0.015 | 0.025 | 0.031 | 0.037 |
| ROW7 | 0    | 0.015 | 0.023 | 0.029 | 0.035 | 0.041 |

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by

Madhusudhan





# Vaidyanatheshwara Instruments

No.201/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar,

Nandhini Layout Post, Bangalore - 560 033.

## SURFACE PLATE CALIBRATION

Report No.: VII22-23/3733-02

Date.: 2/14/2023

No. of Rows: 10

No. of Columns: 03

Measurement Reading Along Rows (Values are in Divisions)

|       |   |       |       |       |       |       |
|-------|---|-------|-------|-------|-------|-------|
| ROW2  | 0 | 0.003 | 0.013 | 0.013 | 0.002 | 0.003 |
| ROW3  | 0 | 0.004 | 0.003 | 0.011 | 0.015 | 0.013 |
| ROW10 | 0 | 0.005 | 0.003 | 0.013 | 0.013 | 0.002 |

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by

Madhusudhan

Checked by

Gangadhar S K





## Vaidyanatheshwara Instruments

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

Nandhini Layout Post, Bangalore - 560 096.

### SURFACE PLATE CALIBRATION

Report No.: VII/22-23/3738-02

Date.: 3/14/2023

No. of Rows: 10

No. of Columns: 06

Measurement Reading Across Rows (Values are in Divisions)

|      | COL1  | COL2  | COL3  | COL4  | COL5  | COL6  |
|------|-------|-------|-------|-------|-------|-------|
| ROW1 | 0     | 0     | 0     | 0     | 0     | 0     |
| ROW2 | 0.002 | 0.005 | 0.009 | 0.011 | 0.015 | 0.019 |
| ROW3 | 0.009 | 0.011 | 0.013 | 0.015 | 0.022 | 0.028 |
| ROW4 | 0.005 | 0.009 | 0.015 | 0.021 | 0.028 | 0.035 |
| ROW5 | 0.011 | 0.015 | 0.023 | 0.029 | 0.035 | 0.048 |
| ROW6 | 0.005 | 0.009 | 0.019 | 0.035 | 0.045 | 0.052 |
| ROW7 | 0.009 | 0.018 | 0.028 | 0.042 | 0.055 | 0.059 |

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by  
Madhusudhan

Checked by

Gangadhar C.K



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

Report No.: VII22-23/3738-02

Date.: 3/14/2023

Measurement Reading Across Rows (Values are in Divisions)

|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| ROW8  | 0.005 | 0.008 | 0.011 | 0.015 | 0.019 | 0.023 |
| ROW9  | 0.009 | 0.015 | 0.023 | 0.028 | 0.035 | 0.042 |
| ROW10 | 0.007 | 0.009 | 0.013 | 0.018 | 0.022 | 0.028 |

No. of Rows: 10

No. of Columns: 06

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by

Madhusudhan

Checked by

Gangadhar C.K



## Vaidyanatheshwara Instruments

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

Nandhini Layout Post, Bangalore - 560 096.

### SURFACE PLATE CALIBRATION

Report No.: VII/22-23/3738-02

Date.: 3/14/2023

No. of Rows: 10

No. of Columns: 06

Deviation From Regression (Values are in  $\mu\text{m}$ )

|      | COL1 | COL2 | COL3 | COL4 | COL5 | COL6 |
|------|------|------|------|------|------|------|
| ROW1 | 4.4  | 1.5  | -0.7 | -2   | -2.3 | -1.3 |
| ROW2 | 3.4  | 1    | -0.5 | -1.2 | -1   | 0.4  |
| ROW3 | 3    | 0.0  | -0.0 | -0.0 | 0.2  | 2.3  |
| ROW4 | 2.2  | -0.2 | -1.8 | -2.7 | -2.4 | -1.2 |
| ROW5 | 2    | -0.3 | -1.9 | -2.9 | -2.7 | -1.2 |
| ROW6 | 1.2  | -0.6 | -1.5 | -1.2 | 0    | 2.2  |
| ROW7 | 0.9  | -0.4 | -0.3 | 0.8  | 2.8  | 5.5  |

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by

Mathusudhan

Checked by

Gangadhar C/K



Vaidyanatheshwara Instruments  
No.301/A, 9th main, 3rd Cross, Rajiv Gandhi Nagar,  
Nandhini Layout Post, Bangalore - 560 033.

SURFACE PLATE CALIBRATION

Report No.: VI/22-23/3738-02

Date.: 3/14/2023

No. of Rows: 10

No. of Columns: 08

Deviation From Regression (Values are in  $\mu\text{m}$ )

|       |      |      |      |      |     |     |
|-------|------|------|------|------|-----|-----|
| ROW8  | 0.1  | -1.3 | -1.6 | -0.7 | 0.8 | 3.1 |
| ROW9  | -0.2 | -1.6 | -1.7 | -1   | 0.5 | 2.6 |
| ROW10 | -0.8 | -2.1 | -2   | -0.9 | 1   | 3.6 |

Maximum Deviation: 5.5

Minimum Deviation: -2.9

Calibrated by

Madhusudhan

Checked by

GANDHAR C.K



# Vaidyanatheshwara Instruments

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

Nandhini Layout Post, Bangalore - 560 096.

## SURFACE PLATE CALIBRATION

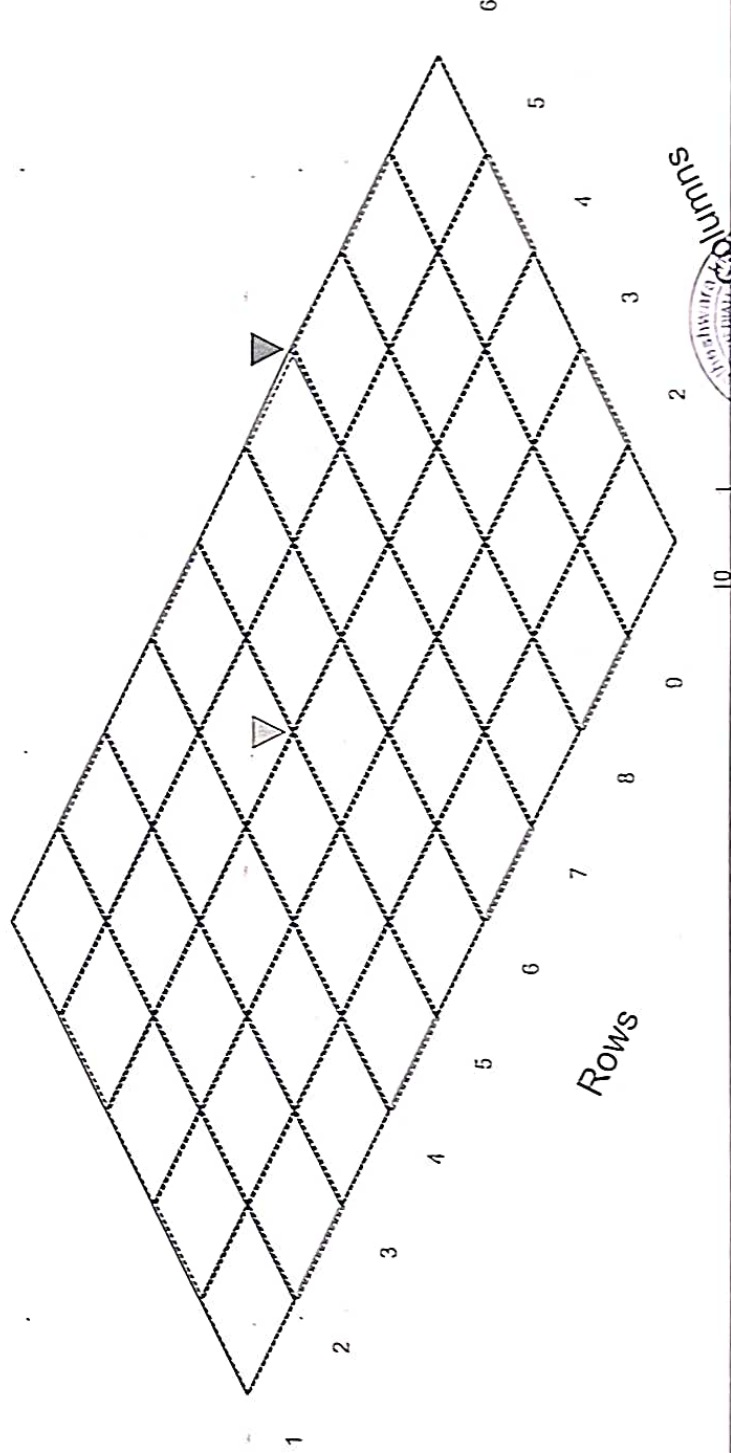
Report No.: VI/22-23/3738-02

Date.: 3/14/2023

No. of Rows: 10

No. of Columns: 06

Scale : 100



Flatness : 8.4

Maximum Deviation: 5.5

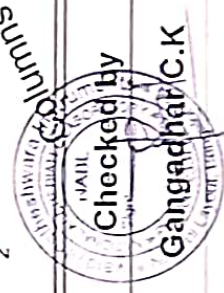
Minimum Deviation: -2.9

Calibrated by

Madhusudhan

Checked by

Gangadhar C.K





# Calibration Certificate

Metrology Laboratory



CMTI

CC-2153

ULR No. CC215322000000408F

CERTIFICATE NUMBER: 22/53/01/041-S/3/096

DATE: 01-08-2022

Sheet: 1 of 3

Name & Address of the Customer : M/s. Vaidyanatheshwara Instruments,  
No. 301/A, 9<sup>th</sup> Main road, 3rd Cross,  
Rajiv Gandhi Nagar, J.B. Kaval,  
Nandini Layout Post,  
Bangalore-560 096.

Description of the item : Electronic Level,  
Make: LEVELNIC,  
Model: DL-S3,  
Res.: 0.001 mm/m & Range:  $\pm 2$  mm/m.

Identification & Sl. No. : Idfn. No.: VI/EL/02 & Sl. No.: 793256.

1. Customer's Reference : D.C. No.: 456, Dated: 16-07-2022.

2. Date & place of Calibration : 29-07-2022 at PML.

3. Equipment Used For Calibration & Traceability:

**Auto Collimator (Elcomat-2000):** (Make: Moller Wedel - Germany,  
Sl. No.: 171, Type: 219710, Idfn. No.: ACM-C-02) calibrated in house vide  
certificate No.: ML/ACM-02/22.01/013, dated: 27-01-2022, valid up to 26-01-  
2024, using masters traceable to Moller Wedel optical Germany (DAKKS  
Accredited) vide certificate No.: 211124.25 3, dated: 26-11-2021.

4. Reference document : W. P. No. : QM/ML/WP/001-8.016.

5. Temperature during Calibration : 19.9° to 20.2° C.

6. Uncertainty of Measurement :  $\pm 5 \mu\text{m/m}$ .

(At 95 % Confidence Level  
with Coverage Factor k=2)

7. Due for next Calibration : **31-07-2023**  
(As requested by the Customer).

8. Results of Calibration : Refer sheets 2 & 3.

9. The reported results are valid only for the condition of the received  
**Electronic Level** at the time of and under the stated Conditions of  
Calibrations.

SADASHIVA D

Calibrated by

SHASHI KUMAR  
STA GR-I

Checked by



केंद्रीय विनिर्माणकारी प्रौद्योगिकी संस्थान, बंगलूर  
Central Manufacturing Technology Institute

Turnkur Road, Bengaluru - 560022, India | www.cmti-india.net | metrologylab.cmti@nic.in

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