CERTIFICATE OF ACCREDITATION

TANZANIA BUREAU OF STANDARDS (METROLOGY LABORATORY)

Established by the Standards Act No. 2 of 2009

Facility Accreditation Number: CAL-2 002

is a SADCAS accredited Calibration Laboratory provided that all SADCAS conditions are complied with

This certificate is valid as per the scope stated in the accompanying schedule of accreditation, Annexure "A", bearing the above accreditation number for

DIMENSIONAL METROLOGY

The facility is accredited in accordance with the recognized International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a laboratory quality management system

SADCAS is a subsidiarity organization of SADC. A memorandum of understanding between SADC and SADCAS serves as the basis for the recognition of SADCAS by SADC Member States as a multi-economy accreditation body

> Mrs Pinkie J Malebe For SADCAS Chief Executive Officer

Date of Renewal of Accreditation 16 February 2021 Effective Date (Issue No: 2): 16 February 2021 Certificate Expires: 15 February 2026



ANNEXURE A

SCHEDULE OF ACCREDITATION

DIMENSIONAL METROLOGY

Laboratory Accreditation Number: CAL-2 002 (ISO/IEC 17025:2017)

| <u>Permanent Address of Laboratory</u> Tanzania Bureau of Standards Metrology Laboratory Morogoro/Sam Nujoma Road, Ubungo Dar es Salaam Tanzania | | Technical Signatories: Mr J M Kadenge (A Ms A K Charles (Ite gogoMr V W Nyami (Ite Mr K R Shembilu (Ite | Technical Signatories : Mr J M Kadenge (All items) Ms A K Charles (Items 2.2.1, 2.2.3, 2.2.6, 2.3.7, 2.3.9, 6.1.4 & 6.1.8) Mr V W Nyami (Items 2.2.3, 2.3.7, 6.1.1, 6.1.4, 6.1.8) Mr K R Shembilu (Item 6.1.4) | | |
|---|--|---|--|--|--|
| <u>Postal Address</u> P O Box 9524 Dar es Salaam Tanzania | | Nominated Represe | Nominated Representative : Mr J J Mahilla | | |
| Tel:+255 22 245 0206Cell:+255 78 480 6143Fax:+255 22 245 0959Email:joseph.mahilla@tbs.go.tz | | Issue No Date of Issue Expiry Date | : 03 : 10 October 2023 : 15 February 2026 | | |
| ITEM | MEASURED QUANTITY OR TYPE OF GAUGE OR | METHOD | RANGE OF MEASURED | CALIBRATION AND MEASUREMENT CAPABILITY | |
| | INSTRUIVIENT | | QUANTITY | EXPRESSED AS AN UNCERTAINTY (±) | |
| | | | QUANTITY | EXPRESSED AS AN UNCERTAINTY (±) At TBS | |
| 2.1 | LINEAR DIMENSIONS | | | EXPRESSED AS AN UNCERTAINTY (±) At TBS | |
| 2.1 2.1.4 | LINEAR DIMENSIONS Height Gauge | Internal: <i>MET-DIM-08</i> Reference: <i>SADCAS TR 20</i> | 0 to 200 mm 200 to 500 mm | EXPRESSED AS AN UNCERTAINTY (±) At TBS 11 μm 25 μm | |
| 2.1 2.1.4 2.2 2.2.1 2.2.3 | LINEAR DIMENSIONS Height Gauge End Standards Gauge Blocks 2.2.3 Micrometer Setting | Internal: <i>MET-DIM-08</i> Reference: <i>SADCAS TR 20</i> Internal: <i>MET-DIM-03</i> Internal: <i>MET-DIM-04</i> | QUANTITY 0 to 200 mm 200 to 500 mm 0 to 100 mm 100 to 200 mm 0 to 100 mm | EXPRESSED AS AN UNCERTAINTY (±) At TBS 11 μm 25 μm 0.2 μm 1 μm 0.2 μm | |
| 2.1 2.1.4 2.2 2.2.1 2.2.3 2.2.6 | LINEAR DIMENSIONS Height Gauge End Standards Gauge Blocks 2.2.3 Micrometer Setting Pieces Feeler Gauges | Internal: <i>MET-DIM-08</i> Reference: <i>SADCAS TR 20</i> Internal: <i>MET-DIM-03</i> Internal: <i>MET-DIM-04</i> Internal: <i>MET-DIM-04</i> Reference: ISO 3650 (E); <i>SADCAS TR 20</i> | QUANTITY 0 to 200 mm 200 to 500 mm 0 to 100 mm 100 to 200 mm 0 to 100 mm 100 to 200 mm 0 to 5 mm | EXPRESSED AS AN UNCERTAINTY (±) At TBS 11 μm 25 μm 0.2 μm 1 μm 0.2 μm 1 μm 1 μm | |

Original date of accreditation: 04 November 2010

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The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor k = 2, corresponding to a confidence level of approximately 95%.



ANNEXURE A

Laboratory Accreditation No: CAL-2 002 (ISO/IEC 17025:2017) Issue No: 03 Date of Issue: 10 October 2023 Date of Expiry: 15 February 2026

| ITEM | MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT | METHOD | RANGE OF MEASURED QUANTITY | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) |
|-------|--|-------------------------|----------------------------------|--|
| 6 | VARIOUS DIMENSIONAL | | | |
| 6.1 | Hand Instruments | | | |
| 6.1.1 | External Micrometers | Internal: MET-DIM-06 | 0 to 300 mm | 6.0 μm |
| | | | | |
| 6.1.4 | Caliper (Electronic and | Internal: MET-DIM-01 | 0 to 200 mm | 11 µm |
| | Vernier) | | 200 to 500 mm | 25 μm |
| 6.1.8 | Dial Gauge | Internal: MET-DIM-02 | 0 to 20 mm | 7.0 μm |
| | | 8.1 - 8.11 | 20 to 50 mm | 9.0 μm |
| | | Internal: MET-DIM-02 | 0 to 20 mm | 6.0 μm |
| | | 8.12 - 8.19 | 20 to 50 mm | 9.0 μm |
| | | Reference: SADCAS TR 20 | | |
| 1 | | | | |

Original date of accreditation: 04 November 2010

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The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor k = 2, corresponding to a confidence level of approximately 95%.

Pinkie J Malebe SADCAS Technical Manager