As an accredited laboratory, this laboratory is entitled to use the following accreditation symbol.

Valid from 16 January 2020
To 15 January 2023
Issued on 16 January 2020

ISO/ IEC 17025
CL 002-01

# Schedule of Accreditation

Accreditation Scheme for Calibration Laboratories
Sri Lanka Accreditation Board for Conformity Assessment
Accreditation Number: CL 002-01

**Metrology Division**
**Sri Lanka Standards Institution**
**No.17,Victoria Place**
**Elvitigala Mawatha, Colombo 08.**

**Scope of Accreditation:** : Performing Mechanical calibration on Mass, Length, volume, Pressure, Force and Thermal calibration as per the calibration methods appearing in this schedule.

The laboratory is accredited for the following tests as per given in the page 02 of 04, page 03 of 04 and Page 04 of 04.

| SI No | Type of instrument | Calibration performed | Calibration methods / Measurement procedure | Range of calibration | Calibration Measurement Capability (CMC) values | Location |
|---|---|---|---|---|---|---|
| **Mass** | | | | | | |
| 01 | Mass/Weight/ Weights (Class F1 & below class F1) | Mass/ Direct Comparison | DM/M/TM/02 based on OIML R-111:2004<br><br>(Double substitution method ABBA) | 1 mg - 50 mg<br>100 mg<br>200 mg<br>500 mg<br>1 g<br>2 g<br>5 g<br>10 g<br>20 g<br>50 g<br>100 g<br>200 g<br>500 g<br>1 kg<br>2 kg<br>5 kg<br>10 kg<br>20 kg | 3 µg<br>4 µg<br>5 µg<br>6 µg<br>7 µg<br>9 µg<br>11 µg<br>14 µg<br>18 µg<br>22 µg<br>36 µg<br>68 mg<br>0.02 mg<br>0.39 mg<br>2 mg<br>6 mg<br>8 mg<br>15 mg | In house |
| | Mass/ Weight/ Electronic Balance | Calibration of mass | Calibration of Electronic Balances DM/M/TM/03<br><br>Based on Calibration of weights and balance published by National Measurement Laboratory, Australia. | 0 g – 20 g | 0.08 mg | In house / site |
| | | | | 20 g – 200 g | 0.11 mg | |
| | | | | 200 g – 500 g | 0.27 mg | |
| | | | | 500 g - 1 kg | 2 mg | |
| | | | | 1 kg – 5 kg | 20 mg | |
| | | | | 10 kg – 20 kg | 41 mg | |
| | | | | 50 kg – 150 kg | 0.5 g | |
| | | | | 150 kg – 200 kg | 0.8 g | |
| **Pressure** | | | | | | |
| 02 | Calibration of compound gauges | Gauge Pressure / Direct Comparison | DM/P/TM/01 (Based on DKD-R6-1:2014) | -900 mbar / 20 mbar | 0.02 bar | In house /site |
| | Calibration of air pressure gauges | | DM/P/TM/01 (Based on DKD-R6-1:2014) | 0 bar / 40 bar | 0.02 bar | In house /site |
| | Calibration of hydraulic pressure gauges | | DM/P/TM/01 (Based on DKD-R6-1:2014) | 0 bar / 600 bar | 0.06 bar | In house /site |
| | Calibration of hydraulic pressure gauges by using pressure balance | | DM/P/TM/02 (Based on DKD-R6-:1:2014) | 0 bar / 600 bar | 0.04 bar | In house |



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| SI No | Type of instrument | Calibration performed | Calibration methods / Measurement procedure | Range of calibration | Calibration Measurement Capability (CMC) values | Location |
|---|---|---|---|---|---|---|
| **Force** | | | | | | |
| 03 | Calibration of force - proving instruments used for the verification of uni axial testing machines | Static Force /Direct Comparison | ISO 376: 2011 | 0.3 kN / 2000 kN | $2.0 \times 10^{-1}$ % | In house |
| | Verification & calibration of force measuring system | | ISO7500-1:2018 | 20 kN / 2000 kN Compression | $2.2 \times 10^{-1}$ % | In house / Site |
| | | | | 20 N / 50 kN Tension | | |
| **Length** | | | | | | |
| 05 | Calibration of digital external micrometer | Length/Direct Comparison | DM/L/TM/01 | 0 mm / 25 mm | 0.001 mm | In house |
| | Calibration of mechanical external micrometer | | DM/L/TM/01 | 0 mm / 25 mm | 0.002 mm | |
| | Calibration of digital caliper | | DM/L/TM/02 | 0 mm / 150 mm | 0.01 mm | |
| | Calibration of Vernier caliper | | DM/L/TM/02 | 0 mm / 150 mm | 0.04 mm | |
| **Volume** | | | | | | |
| 06 | Calibration of Volumetric glass ware by gravimetric method<br>One-mark pipette<br>Graduated pipette<br>Burette<br>Volumetric flask<br>Graduated measuring cylinder | Volume / Gravimetric Method | DM/V/TM/01 | 5 ml<br>25 ml<br>100 ml<br>200 ml<br>500 ml<br>1000 ml<br>2000 ml | 0.009 ml<br>0.010 ml<br>0.010 ml<br>0.02 ml<br>0.08 ml<br>0.09 ml<br>0.13 ml | In house |



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| SI No | Type of instrument | Calibration performed | Calibration methods / Measurement procedure | Range of calibration | Calibration Measurement Capability (CMC) values | Location |
|---|---|---|---|---|---|---|
| **Temperature** | | | | | | |
| 04 | Calibration of Liquid- in-glass thermometers | Temperature / Direct Comparison | DM/T/TM/01 | -80 °C / -36 °C<br>-36 °C/199 °C<br>199 °C / 419 °C<br>419 °C /550 °C | 0.04 °C<br>0.05 °C<br>0.07 °C<br>0.08 °C | In house / site |
| | Calibration of Dial Thermometers | | DM/T/TM/02 | -80 °C / 550 °C | 0.2 °C | In house / site |
| | Calibration of Calibration of Digital thermometers with sensors | | DM/T/TM/03 | -80 °C / -37 °C<br>-37 °C / 199 °C<br>199 °C / 419 °C<br>419 °C /1000 °C<br>1000 °C/1200 °C | 0.04 °C<br>0.05 °C<br>0.08 °C<br>0.7 °C<br>1.8 °C | In house / site |
| | Evaluation of Performance of Autoclaves | | DM/T/TM/04 | 50 °C / 150 °C | 0.6 °C | In house / site |
| | Evaluation of Performance of furnaces | | DM/T/TM/05 | 200 °C /1000 °C | 1 °C | In house / site |
| | Evaluation of Performance of liquid baths | Performance verification/ Temperature | DM/T/TM/06 | -30 °C / 200 °C | 0.05 °C | In house / site |
| | Evaluation of Performance of ovens | Temperature / Direct Comparison | DM/T/TM/07 | 50 °C /200 °C | 0.8 °C | In house / site |
| | Evaluation of Performance of Incubators | | DM/T/TM/08 | 0 °C /60 °C | 0.6 °C | In house / site |
| | Evaluation of Performance of Cold rooms | | DM/T/TM/09 | -80 °C /20 °C | 0.6 °C | site |
| | Calibration of Thermocouples | | DM/T/TM/10 | 0 °C/ 960°C<br>960 °C/ 1000°C<br>1000 °C/ 1200°C | 0.5 °C<br>0.9 °C<br>1.8 °C | In house |
| | Calibration of PRT,s by comparison method | | DM/T/TM/11 | -80 °C /400 °C<br>400 °C / 660°C | 0.02 °C<br>0.03 °C | In house |
| | Temperature mapping of temperature-controlled enclosures | | DM/T/TM/12 | -80 °C / -30 °C (volume ≤ 20 $m^3$ )<br>-80 °C / -30 °C (20 $m^3$ ≤volume ≤ 100 $m^3$) | 0.6 °C<br>0.7 °C | Site |
| | Calibration of Metal block bath | | DM/T/TM/13 (Without Axial) | 35 °C / 250 °C | 0.06 °C | In house |
| | | | DM/T/TM/13 (With Axial) | 35 °C / 250 °C | 0.6 °C | In house |

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