



CERTIFICATE OF ACCREDITATION

This is to attest that

GLOBAL INSIGNIA FOR TECHNICAL SERVICES COMPANY

BANDER ALBADEEN BUSINESS CENTER, BUILDING NO. 7023-SALMAN AL FARISI ST AL KHALIDIYYAH
DAMMAM 32232, KINGDOM OF SAUDI ARABIA

Calibration Laboratory CL-186

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date January 21, 2024

Expiration Date May 1, 2025



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

GLOBAL INSIGNIA FOR TECHNICAL SERVICES COMPANY

www.globalinsignia.com

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Accredited to ISO/IEC 17025:2017

Effective Date January 21, 2024

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

| MEASURED QUANTITY or DEVICE TYPE CALIBRATED | RANGE | UNCERTAINTY ^{1,2} (±) | CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL) |
|--|--|--|--|
| <i>Dimensional</i> | | | |
| Gauge Blocks (Grade 1 & Grade 2 Only) | 1 mm to 25 mm 25 mm to 50 mm 50 mm to 75 mm 75 mm to 100 mm | 0.68 µm 0.71 µm 0.80 µm 0.90 µm | LABMASTER 1000M Grade '0' Gauge Block set ASME B89.1.2M-1991 GIFTS Procedure: CALPRGB-01 |
| Caliper (Digital, Dial & Vernier types) | 0 mm to 300 mm | 7.7 µm | Grade '0', Gauge Block set ISO 13385-1: 2019 GIFTS Procedure: CALPRDVC-01 |
| Dial Indicator | 1 mm Up to 12 mm | 1 µm 2 µm | LABMASTER 1000M Grade '0' Gauge Block set ASME B89.1.10M-2001 GIFTS Procedure: CALPRDDIG-01 |
| 3-Wire & 2-Wire Sets for Thread Measurements | Ø 0.007 mm to Ø 6 mm Ø 6 mm to Ø 10 mm | 1.2 µm 2.5 µm | LABMASTER 1000M Grade '0' Gauge Block set ASME B89.1.17-2001 GIFTS Procedure: CALPRDTMW-01 |
| Setting Rods | 25 mm to 1000 mm | 10 µm | LABMASTER 1000M Grade '0' Gauge Block set IS 7014 -1973(RA 1995) GIFTS Procedure: CALPRDTSR-01 |
| Micrometer | Up to 200 mm | 9.4 µm | LABMASTER 1000M Grade '0' Gauge Block set ASME B89.1.13-2013 GIFTS Procedure: CALPRDOM-01 |

* If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.

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|---|---|---|---|
| Height Gauge | 0 mm to 1000 mm | 12 µm | Standard Setting Rod BS: 1643:2008 GIFTS Procedure: CALPRDHG-01 |
| Cylindrical Ring Gages (Inside Diameter) (Type: Plain Cylindrical Ring Gages, Setting Ring Gages, Master Setting ring Gages and GO/NO-GO Ring Gages) | Up to Ø 200 mm | 3.2 µm | LABMASTER 1000M Grade '0' Gauge Block set IS 3485-1983 (RA1998) GIFTS Procedure: CALPRDCRG-01 |
| Thread Plug Gauge (Major and Pitch diameter only) | Up to M 60 (also, up to Ø2.5"X 4UNC) Major diameter Pitch diameter | 1.6 µm 1.9 µm | LABMASTER 1000M Grade '0' Gauge Block set ANSI/ASME B1.2-R2017 GIFTS Procedure: CALPRDTT-01 |
| Mechanical | | | |
| Pressure Gauges | 0 bar to 40 bar 0 bar to 300 bar 0 bar to 1000 bar 0 bar to 4000 bar | 0.04 bar 0.14 bar 0.58 bar 5.3 bar | BS EN 837-1, WIKA Digital Pressure Gauge. GIFTS Procedure: CALPRMPG-01 |
| Pressure Transmitter | 0 bar to 1000 bar | 0.1 bar | WIKA Pressure Indicator Euramet cg-17 GIFTS Procedure: CALPRMTX-01 |
| Pressure Transducer | 0 bar to 3000 bar | 4.5 bar | WIKA Pressure Indicator Euramet cg-17 GIFTS Procedure: CALPRMT-01 |
| Safety Relief Valve | 0 bar to 300 bar | 1.7 bar | API 527, API 526 and API 576 Ventil Testing Unit with AE Sensor GIFTS Procedure: TESPRPRV-01 |
| Vacuum Gauge | -0.9 bar to 5 bar | 0.02 bar | WIKA Digital Vacuum Gauge ISO 3567: 2011 GIFTS Procedure: CALPRMVG-01 |
| Weight Set (Mass) | 2 g to 2 kg | 17 mg | Mettler Toledo Analytical Balance. NPL MGP Guide No.:71 GIFTS Procedure: CALPRPWS -01 |

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|--|--|--|--|
| Torque Wrench | 2.5 N·m to 25 N·m 10 N·m to 100 N·m 50 N·m to 500 N·m 100 N·m to 800 N·m 300 N·m to 3000 N·m | 0.11 N·m 0.25 N·m 1.9 N·m 8.8 N·m 12 N·m | ISO 6789, NORBAR Static Torque Transducer GIFTS Procedure: CALPRMTW-01 |
| Hydraulic Torque Wrench | 5000 N·m to 20000 N·m | 100 N·m | Hydraulic Torque Wrench Tester GIFTS Procedure: CALPRHTW-01 |
| Volumetric Glassware (Glass Syringe, Pipette) | Up to 100 mL | 0.42 mL | METTLER-TOLEDO Analytical Balance Euramet cg-19 GIFTS Procedure: CALPRAVG-01 |
| Volumetric Glassware (Measuring Cylinder, Receiving Cylinder, Volumetric Flask, Burette, and Measuring Jar.) | Up to 1000 L | 1.5 mL | METTLER-TOLEDO Analytical Balance. Euramet cg-19 GIFTS Procedure: CALPRAVG-01 |
| Thermal | | | |
| RTD | -45 °C to 200 °C | 0.72 °C | ISOTECH Precision Thermometer ASTM E1137/E1137M-08 GIFTS Procedure: CALPRRTD-01 |
| Thermocouple | 100 °C to 1100 °C | 1.8 °C | WIKA Digital Thermometer ASTM E0220-19 GIFTS Procedure: CALPR TTC-01 |
| Liquid in Glass Thermometer | -45 °C to 200 °C | 0.56 °C | ISOTECH Precision Thermometer NBS Monograph-90 GIFTS Procedure: CALPRTL G-01 |
| Temperature Transmitter | -45 °C to 1100 °C | 2.8 °C | ISOTECH Precision Thermometer Euramet cg-11 GIFTS Procedure: CALPR TTX-01 |
| Oven & Furnace | up to 300 °C | 2.7 °C | WIKA Digital Thermometer ASTM E145-19 GIFTS Procedure: CALPR TOF-01 |

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|---|--------------------|--------------------------------|---|
| Electrical – DC/LF | | | |
| DC Current Generate ³ | 0 µA to 200 µA | 1.2 µA | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD |
| | 200 µA to 2 mA | 0.0029 mA | |
| | 2 mA to 20 mA | 0.0071 mA | GIFTS Procedure: CALPREMM-01 |
| | 20 mA to 200 mA | 0.019 mA | |
| | 0 A to 100 A | 0.6 A | GIFTS Procedure: CALPREMM-01 |
| | 100 A to 500 A | 3 A | |
| | 500 A to 1000 A | 6 A | |
| DC Voltage Generate ³ | 0 mV to 20 mV | 0.0013 mV | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD |
| | 0 mV to 200 mV | 0.0035 mV | |
| | 0 V to 2 V | 0.055 mV | |
| | 0 V to 20 V | 5.1 mV | GIFTS Procedure: CALPREMM-01 |
| | 0 V to 200 V | 9.7 mV | |
| | 0 V to 500 V | 60 mV | |
| | 0 V to 1000 V | 83 mV | |
| AC Current Generate ³ 20 Hz to 1 kHz | 0 µA to 200 µA | 1.3 µA | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD |
| | 0 mA to 2 mA | 0.0012 mA | |
| | 0 mA to 20 mA | 0.012 mA | |
| | 0 mA to 200 mA | 0.12 mA | |
| AC Current Generate ³ 20 Hz to 500 Hz | 200 mA to 20A | 0.1 A | GIFTS Procedure: CALPREMM-01 |
| AC Current Generate ³ @ 60 Hz | 20 A to 500 A | 0.11 A | GIFTS Procedure: CALPREMM-01 |
| | 500 A to 1000 A | 0.32 A | |
| AC Voltage Generate ³ 20 Hz to 1 kHz | 20 mV to 200 mV | 1.2 mV | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD |
| | 200 mV to 2 V | 0.29 mV | |
| | 2 V to 20 V | 22 mV | |
| AC Voltage Generate ³ 40 Hz to 1 kHz | 20 V to 200 V | 0.26 V | GIFTS Procedure: CALPREMM-01 |
| | 200 V to 500 V | 0.53 V | |
| | 500 V to 1000 V | 0.99 V | |
| DC Resistance Generate ³ | 10 Ω to 19 Ω | 17 mΩ | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD GIFTS Procedure: CALPREMM-01 |
| | 20 Ω to 100 Ω | 26 mΩ | |
| | 101 Ω to 1k Ω | 130 mΩ | |
| | 1 kΩ to 10 kΩ | 2.3 Ω | |
| | 10 kΩ to 100 kΩ | 0.023 kΩ | |
| | 100 kΩ to 1 MΩ | 0.28 kΩ | |
| | 1 MΩ to 4 MΩ | 0.0072 MΩ | |
| | | | |
| Electrical Simulation of Thermocouples (Generate) Type K Type J | -200 °C to 1200 °C | 0.15 °C | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD |
| | -180 °C to 1200 °C | 0.15 °C | |

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|---|---|--|--|
| Electrical Simulation of Thermocouples (Generate) (cont'd.) Type T Type R Type S Type E | -200 °C to 395 °C 0 °C to 1750 °C 0 °C to 1750 °C -50 °C to 995 °C | 0.12 °C 0.34 °C 0.34 °C 0.09 °C | GIFTS Procedure: CALPRECT-01 |
| Electrical Simulation of RTD (Generate) Pt-100 | -180 °C to 800 °C | 0.45 °C | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD GIFTS Procedure: CALPRECR-01 |
| Capacitance Generate ³ @1 kHz | 1 nF to 1000 nF | 0.67 nF | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD GIFTS Procedure: CALPREC-01 |
| Time and Frequency | | | |
| Non-Contact Tachometer | 6 rpm to 60000 rpm | 3 rpm | EURAMET cg-15, Multifunction Calibrator, Time Electronics LTD GIFTS Procedure: CALPRENT-01 |

¹The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

²When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

³Capability is suitable for the calibration of measuring devices in the stated ranges.