

www.gccalcsc.com

GCC Lab Calibration Services Company

شركة المختبر الخليجي لخدمات المعايرة

- ▶ CALIBRATION
- ▶ TESTING
- ▶ REPAIR SERVICES



About us

GCC LAB Calibration Service (GCS) is a world class leading provider of calibration, testing, repair and inspection services for test, measurement and control equipment.

Our Values

We are committed to every client with unparalleled capabilities, custom-tailored solutions and innovative technology focused on addressing four critical deliverables:

1. Ensuring Safety.
2. Satisfaction of Customers.
3. Enhancing Quality.
4. Providing Creditability.

Our Mission

To provide diversified technical services, at one stop point by addressing a wide range of Instrumentation and Calibration needs in the GCC and MENA region by providing a valid certification with guaranteed support using the finest reference equipment.

Our Vision

Is to enhance the quality infrastructure in the region thru providing measurement at excellence level in the field of calibration, testing and Inspection certification.

What is Metrology?

Metrology is the science of measurements with which includes all theoretical and practical aspects of measurement. Metrology is one of the pillars of Quality Infrastructure.

Type of Metrology:

- ▶ **Scientific metrology** deals with the organization and development of measurement standards and with their maintenance (highest level).
- ▶ **Industrial metrology** has to ensure the adequate functioning of measurement instruments used in industry, in production and testing processes, for ensuring quality of life for citizens and for academic research.
- ▶ **Legal metrology** is concerned with measurements where these influence the transparency of economic transactions, particularly where there is a requirement for legal verification of the measuring instrument.

▶ What is Calibration?

Calibration determines the performance characteristics of an instrument, system or reference material. It is usually achieved by means of a direct comparison against measurement standards or certified reference materials.

Why do we need calibration?

- ▶ Four main reasons for having an instrument calibrated:
 1. To establish and demonstrate traceability.
 2. To ensure readings from the instrument are consistent with other measurements.
 3. To determine the accuracy of the instrument readings.
 4. To establish the reliability of the instrument.

Reference : m e t r o l o g y - i n s h o r t, by EURAMET

WE ARE PROFESSIONAL WORLD CLASS

**CALIBRATION, TESTING
& REPAIR SERVICES
PROVIDER**



LOCATION

Riyadh
2nd Industrial Area
Dammam
1st Industrial Area
Dhahran
Inside Aramco facility



SCOPE

**Calibration
Testing
Repair Services
Training**



ESTABLISHED

Founded in 2017



Accreditation
Saudi Accreditation Center (SAC)
in accordance with ISO 17025
Gulf Accrediation Center (GAC)



CALIBRATION SERVICES



PROVIDED SERVICES



Calibration Services.



Repair Services

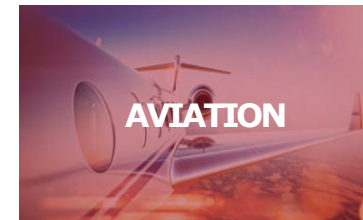


Training Services



On Site Calibration Services

INDUSTRIES



FACILITIES

The Gulf Calibration Services (GCS) provides calibration services through its labs located across the Kingdom. The labs are equipped with up to date and state of art equipment capable of serving a wide variety of the customers' calibration needs.

RF & Microwave

Measurement of RF and Microwave are applicable in many fields like healthcare, communications, security, environmental monitoring, traffic management, advanced industrial production and the development of innovative products.

We validate and calibrate

- Spectrum Analyzers
- Network Analyzers
- Power Meters
- Power Sensors
- Signal Generators
- Attenuators
- Fiber Optic
- Noise Source

How do we measure

By using high accuracy standards traceable to SI unit thru the (original equipment manufacturer) OEM. We utilize the technology to measure a different kinds of signals to ensure proper metrics of different signals.



Range

up to 50 GHz

Temperature & Humidity

Temperature measurement is essential part of our daily activities. Controlling temperature and humidity are considered in all related to safety practices to prevent or mitigate risks.

We validate and calibrate

- Thermal mapping
- Incubators
- Heating ovens
- Temperature calibrator
- Thermometers
- IR thermometer
- Humidity chamber
- Temperature transmitter

How do we measure

By using traceable high accuracy temperature datalogger, PRTs (Platinum Resistance Thermometers/PT100) , thermocouples, Humidity chamber, temperature bath, and IR calibrators.



Range

-200 °C to 1450 °C.



Pressure

At GCS we understand that precise and accurate pressure measurements are essential to our customers' in-process safety, compliance, and management efficiency.

We validate and calibrate

- Pressure transmitters
- Deadweight testers
- Pressure gauges
- Transducers

How do we measure

By using absolute pressure, gauge pressure and low- pressure vacuum capabilities. Our hydraulic and pneumatic pressure calibrations will be performed with true SI unit traceability.



Range

up to 75000 PSI



Torque & Force

Force and Torque measurement are very critical for ensuring proper safety application to protect people and assets from undesired applied forces which might cause damage to equipment and threat people integrity.

We validate and calibrate

- Load cells
- Torque wrench
- Screw driver
- Torque transducer/calibrator
- Tensile and compression
- All other force measuring devices.

How do we measure

The absolute measurement value and linearity are checked over complete measurement range using five measurement points.



Range

0 N to 500,000 N

Dimension

Quantifying the size and shape of things is the purpose of dimensional measurements. By dimensional measurement we ensure that things will fit together. It has direct impact on quality of products and safety applications.

We validate and calibrate

Micrometers
Calipers
Tape Measures
High-tech optics-based scales
Comparators.

How do we measure

The absolute measurement value and linearity are checked over complete measurement range using five measurement points.



Range

0 N to 500,000 N

Mass & Volume

Mass is a consistent measure of the amount of matter. Mass measurements are essentials in many application of different fields like healthcare, manufacturing , production processes ,...etc.

Volume measurements is applicable for measuring liquids
It is the measurement of how much space a liquid or gas takes up.

We validate and calibrate

Balances
Weight
Pipette
Volumetric measurement
Equipment.

How do we measure

using certified class E2 and F1 weights based on international OIML and EURAMET recommendations.



Range

from 1 mg up to 10,000 Kg.

Electrical Equipment

Measurement of Electrical Parameters diversified from measurement of resistance, capacitance, electrical current and volt ,...etc.

Electrical measurement directly impact safety of people and facilities, which dictates certifying electrical equipment.

We validate and calibrate

Multimeter
AC/DC Voltage Source &
Measure
Calibrator
Insulation Tester
Clamp Meter
Oscilloscopes
LCR Meter.

How do we measure

By applying automated calibration procedures. with high accuracy standards traceable to SI unit.



Range

up to 1000 V for AC Up to
150,000 V for DC

High Voltage

Electrical Safety Testing (HIPOT)

GCS lab provides High Voltage Testing for Electrical Insulation equipment such as Electrical Gloves, Hot Sticks with different types for switching purpose, insulation blankets and electrical boots.




- **OSHA 1910.137:** safety and health standard for electrical protective equipment
- **ASTM d120-09** standard specification for Rubber insulation gloves
- **ASTM 1236-96** standard guide for visual inspection if electrical protective rubber products
- **ASTM F711-17** standard specification for fiberglass rod and rube used live line tools























Testing of electrical insulation tool is the first line of protection when it comes to the safety of worker in the field and safety in system operations



SCOPE OF CALIBRATION SERVICES

10 different types of calibration and also offer on-site services

 Accredited  Traceable  On-site

- | | | | |
|--------------------------|---|--------------------------|---|
| 01 Electrical |    | 06 Mass |    |
| 02 Humidity |   | 07 Temperature |    |
| 03 Vibration |  | 08 Torque / Force |   |
| 04 Pressure |    | 09 Dimensional |   |
| 05 RF & Microwave |   | 10 Optical Fibre |  |

Our Partners of Success



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شركة المختبر الخليجي لخدمات المعايرة



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