



CC-3406

FOR DETAIL SCOPE OF ACCREDITATION VISIT NABL WEBSITE



PRAMUKH
TECHNICAL AND CALIBRATION
CENTRE PVT LTD

TESTING

CALIBRATION

EXPERT SERVICES

CAPACITY BUILDING



प्रमुख टेक्निकल एंड कैलिब्रेशन सेंटर प्राइवेट लिमिटेड

PRAMUKH TECHNICAL AND CALIBRATION CENTRE PRIVATE LIMITED

एमएसएमई पंजीकरण और स्टार्टअप इंडिया- मान्यता का प्रमाण पत्र

ए-201, दूसरी मंजिल, अभिषेक कॉम्प्लेक्स-2, हरिपुरा बस स्टैंड के पास, असारवा-380016, अहमदाबाद-गुजरात

A 201, 2ND FLOOR, ABHISHEK COMPLEX-2, NR. HARIPURA BUS STAND, ASARWA-380016, AHMEDABAD-GUJARAT (INDIA)

(M) 9898307988 | Email: info@ptcc.co.in | Website: www.ptcc.co.in



ABOUT US

Pramukh Technical and Calibration Centre (PTCC) is an independent authority for Calibration and Testing Laboratory for instrument used in the power sector and process industries.

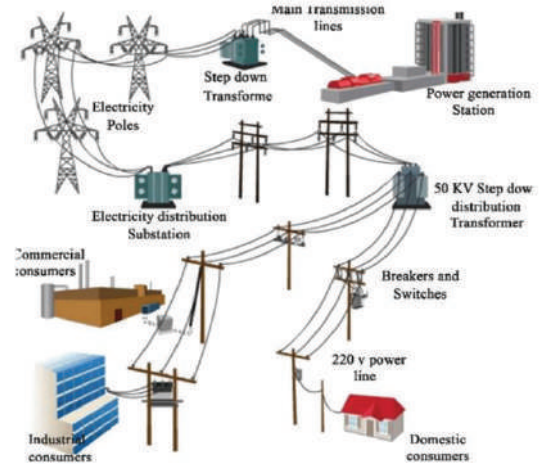
PTCC is NABL accredited calibration Laboratory having certificate no. CC-3406. PTCC is located at second largest industrial center in western India i.e., Ahmedabad, Gujarat. We are also operating from Chandigarh, Halol.

Our company is promoted by a group of highly experience technocrats under prestigious START-UP and MAKE IN INDIA initiative with great vision to play a major role in the continuous development by providing quality services.

Team had Successfully served many DISCOMs, TRANSCos, Regulatory Bodies, Private customers of the Power Sector. PTCC is Working in the major four verticals which are needed for the efficient and reliable solutions for the power sector.

Our team has vast experience in the power sector for performing different tasks like Testing, Calibration, Inspection, Project Management, Expert Services, Consultancy and Field study, previously worked at prestigious institute like Electrical Research and Development Association (ERDA) for more than a decade.

Our mentor is a Lead assessor for ISO/IEC: 17025:2017. PTCC operates with code of conduct and ethics policy.



TESTING

CALIBRATION

EXPERT SERVICES

CAPACITY BUILDING

PTCC has invested heavily in latest equipment of reputed manufacture (like Zera, Isotech, Yokogawa, Fluke, Wika, MTE, Mettler Toledo, Testo etc.) and our master equipments are TRACEABLE TO INTERNATIONAL AND NATIONAL STANDARDS as per ISO/IEC 17025.

We have facility of **Testing of Acceptance test of smart energy meter** and non-smart energy meter. We have facility of **calibration of Thermal, Mass Balance, Pressure, Speed, Electrotechnical and Medical Devices.**

We offer a choice of services and delivery, service at your site, or shipping to and from our labs. Our flexibility in service delivery means greater efficiency and less disruption to your business, and processes.



ELECTRO-TECHNICAL: TESTING LABORATORY



**Acceptance test for smart energy meters,
non-Smart energymeters as Per
IS 13779:2020,
IS 14697:2021,
IS 16444 (PART-1):2015,
IS 16444 (PART-2):2017.**

Testing and verification of DLMS protocol.

Applicable Standards for DLMS Protocol:

IS15959(Part1):2011	Static Energy Meters
IS15959(Part2):2016	Smart Meters (Load switch, Communication Module(NAN/WAN), In Home Display-Optional & Functional Requirements)
IS15959(Part3):2017	Transformer Operated Smart Meter(Communication Module (NAN/WAN), In Home Display-Optional & Functional Requirements)
IEC 62056 Series	'Electricity metering: Data exchange for meter reading, tariff and load control'

IMPORTANCE FOR PROTOCOL TESTING:

Testing of energy meters for communication protocol unlike any other equipment is very much essential to make sure that the meter is complying with the said protocol standards. This is to ensure Interoperability and easy acquisition of data from the meters using any third party client tool which makes the device operate vendor neutral. This enables every meter reading system to understand a value by its identification system, irrespective of the meter make. The DLMS/COSEM allows for uploading the Objects supported by a meter, and then reading the meter values, which enable any DLMS/COSEM Compliant Client software to read any manufacturer meter.



ELECTRO-TECHNICAL: CALIBRATION LABORATORY



Electro-Technical calibration field has large scope covering parameters to meet the industrial requirement, we have high Accuracy Standard Instruments to calibrate for below mentioned instruments.

Instruments we can calibrate:

Energy Meter Reference Standard	Digital Counter meter	Stop watch
Energy Meter (Active, Reactive)	Analog Timer	Timers/Hour meter
Power Meter (V/A/Active, Reactive, Apparent Power, Power Factor, Harmonics)	Insulation Tester	Rate and Totalizing indicator
Panel Meter (V/A/WATT/Hz)	Stabilizer, UPS	Clock/punch meter/Recorder chart speed
Digital Multimeter	Relay Testing Kit	Label Counter
Winding Resistance Meter	Clamp Meter	Temperature Indicator / Controller

Discipline: Electrotechnical Parameter Calibration

Group: Alternating Current (< 1 GHz)	AC Current, AC Voltage, Active Power/Energy for single phase and three phase, Apparent Power for single phase and Three phase, Power Factor/phase angle for single phase and Three phase, Reactive Power
Group: Time & Frequency	Frequency, Time/Period
Group: Temperature Simulation	J TYPE TC ,K TYPE TC, R TYPE TC, RTD (PT-100), S TYPE TC, T TYPE TC

We also providing the service of **calibration of Energy Meter** at site and also allow to witness the same by respective authority.



MASS BALANCE: CALIBRATION LABORATORY



Our Mass Calibration laboratory has been constructed in conformation to strict environmental guidelines. The climate in the Laboratory is strictly monitored and controlled using necessary systems.

Instruments we can calibrate:

Weighing Balance	Micropipette
Weights	Pipette
Newton Weights	Burette
Slotted Weights	Measuring Cylinder
Pycnometer	Volumetric Flask
Specific Gravity Bottle or cup	Weight per liter cup

Discipline: Mass Balance Parameter Calibration

Group: Volume	Glassware (pipettes, burettes, measuring cylinder, volumetric flask, pycnometer/specific gravity bottle or cup/Weight per liter cup/Conical Flask/Dispenser/Dean Stark Burette/Density Bottle,
Group: Weighing Scale and Balance	Electronic, Weighing Balances
Group: Weight	Weight

PH & Conductivity

PH meter/sensor, PH/Conductivity Transmitter
Conductivity meter/sensor,



PRESSURE AND SPEED: CALIBRATION LABORATORY



The efficient calibration of today's sophisticated measuring equipment is an essential function in any industry where pressure instruments are used to monitor whether it is fluid, gas pressures or flow rates.

The Pressure And Speed calibration Laboratory is equipped with modern & sophisticated equipments for calibration of to below mentioned instruments.

Our latest technology and most advanced standards to calibrate equipments is having the best accuracies.

Instruments we can calibrate:

Pressure Gauge	Pressure Indicator
Vacuum Gauge	Vacuum Indicator
Pressure Switch	Pressure Transmitters
Vacuum Switch	Vacuum Transmitters
Differential pressure Gauge	Pressure Recorder
Manometer	Magnehelic Gauge

Discipline: Pressure and Speed Calibration

Group: Acceleration and Speed	RPM Indicator of Rotating Devices (Contact Type)
Group: Pressure Indicating Devices	Pressure Indicating Device (Digital/Analogue Pressure Gauges , Pressure Indicator, Pressure Gauges, Transducers/ Transmitters & Switches)



THERMAL: CALIBRATION LABORATORY



Temperature calibration is required for any device used in a system that measures temperature, in the most of the process industries temperature measuring devices installed. Thermal Laboratory is Accredited for both In-house & Onsite Calibration.

Instruments we can calibrate:

Climatic, Environment and Humidity chamber	Dry cabinet
Walking Stability Chamber	Digital Thermo hygrometer
Controlled Temperature & Humidity Area	Digital/ Dial humidity Meter,
Cold Room, Storage Room	Temperature & Humidity Sensor/Transmitter
BOD incubator / freezer, Deep Freezer, Freeze, Water Bath, Liquid bath, Dry block	Temperature & Humidity data logger
Humidity / Temperature Indicator with sensor	Humidity Indicator with probe
PRT/ RTD/ Thermocouple Sensor, Thermocouple	Autoclave, ETO
Temperature Furnaces, Lab Oven, Baking oven/furnace	Temperature Gauge, Temperature Switch
Glass Thermometer, Wet & Dry Thermometer	Chart Recorder with sensor, Strip chart recorder,
Controlled Temperature & Humidity Area	Walking Stability Chamber
Temperature Indicator with sensor of Temperature bath,	Scanner



Discipline: Thermal Calibration	
Group: Specific heat & Humidity	Humidity & Temperature (Climatic, Environment & Humidity Chamber), Walking Stability Chamber, Controlled Temperature & Humidity Area, Cold Room, Storage Room @ (20°C to 55°C)
	Humidity / Temperature Indicator with sensor of Climatic Chamber / Environment Chamber/ Humidity Chambers/ Dry cabinet / Dehumidifier @ (25°C) Dehumidifier
	Thermo Hygrometer, Digital/ Dial humidity Meter, Temperature & Humidity Sensor/Transmitter Temperature & Humidity data logger, Humidity Indicator with probe @ (50%RH)
	Temperature (PRT/ RTD/ Thermocouple Sensor, Transmitter with/without indicator), Temperature Datalogger, scanner, Chart Recorder with sensor
	Temperature Indicator with sensor of Temperature bath, Oven, Furnaces, Liquid bath, Dry block
Group: Temperature	Glass Thermometer, Dial Temperature Gauge, Lab Oven, Furnace, Climatic Chamber, Environment Chamber. Water Bath, Incubator, Autoclave, Humidity Chamber, Deep Freezer, Freeze, Waking Stability Chamber, Controlled Temperature & Humidity Area, Cold Room, Storage Room.

THERMAL VALIDATION

We are specializing in Thermal Validation in the various fields like Pharmaceutical, Biotechnology, Medical Devices industries etc. We have 200+ portable loggers for the recording the parameters. The data logged from the mapping of the above equipment is further processed to give analysis reports like F0 values, lethal rate, standard deviation, lag time in case of autoclaves and, Hot spot and cold spot identification in case of other equipments and rooms.

Equipment Validation : Equipment Validation ensures that an instrument is appropriate for its intended use.

Typical validation phases are: Double door / Vertical Autoclave. Oven. Dry heat Sterilizer. Tray dryer / Vacuum Tray Dryer. Tunnel Sterilizer. Cold room BOD Incubator. Room Study (Temp. & RH) Water / Dry Bath. Manufacturing vessel. Refrigerator / Deep Freezer. Muffle / Furnace.

The team has required knowledge of the standards and specifications of the products along with important parameter of the measuring equipments like accuracy, uncertainty, TUR, drift, control chart, uniformity, National and International traceability and quality. We also support for the development of the products to avoid the rejection and produce the product as per the standard.

We have an affiliation with different laboratories to provide one stop solution for all calibration as well as testing needs.



MEDICAL DEVICE: CALIBRATION



Facility of medical calibration is able to provide complete solution Hospitals, Pathology as well as the Pharmaceuticals.

The most satisfying part of our services remains the ability to touch and save lives by using technology and technical skills

Instruments we can calibrate:		
BP Apparatus	Ventilator/ BIPAP	Physiotherapy Equipments
Multipara monitor/ Pulse Oximeter	Anesthesia Machine	CSSD Equipments
ECG Machine	Cautery Machine	Laboratory Equipment
Defibrillator	Oxygen Flowmeters/ Suction Pump	Hospital Utility Validation
Syringe Pump	Baby Warmers	Different types of OT Equipments
Infusion Pump	Infront Incubator	Different types of ICU Equipments



EXPERT SERVICE / FIELD SERVICES



Trade in Power Sector equipment has observed a growth in past few years. The growth has experienced challenges for utility as there is better requirements laid down in national and international standards.

The PTCC provides Expert services in power sector domain with highest impartiality, transparency, integrity, and confidentiality. Further this also is very beneficial to Utilities as we are independent of undue influence by any stakeholders and PTCC provides services professionally with no geographical limitations.

SERVICES WE OFFER:

INDUSTRIAL
POWER SYSTEM
ANALYSIS

SYSTEM
IMPROVEMENT

CONSULTANCY
DESIGNING

ELECTRIFICATION OF
INFRASTRUCTURE AS
PER STANDARD NORMS

THIRD PARTY
INSPECTION
AND VENDOR
ASSESSMENT

ENERGY &
SAFETY
AUDIT

INDUSTRIAL POWER SYSTEM ANALYSIS

Power Engineering Consulting Services

Load Flow and other studies like Arc Flash, Short Circuit, Protective Device Coordination etc.,

Harmonic Analysis, Motor Starting Analysis

Protective Relay Planning and Advance Protective Relaying

Dynamic Simulation

Switching Transient and Transient stability analysis

System Harmonic and Flicker Measurements

Distribution System Reliability Analysis

Facts Preliminary And Feasibility Study

Hazardous Area classification

SOFTWARE' USED
STUDIES

ETAP,
MATLAB,
PSCAD,
NEPLAN.

SYSTEM IMPROVEMENT

At&C Loss Calculations.

Distribution System Analysis and improvement suggestions.

Designing of HVDS

AgDSM Project



ELECTRIFICATION OF INFRASTRUCTURE AS PER STANDARD NORMS

Project Management And Third Party Inspection, Supervision, Monitoring of the project funded under Government Scheme like ADB, HVDS, IPDS, DDUGJY (erstwhile RGGVY), Feeder Separation etc.

Substation Designing

Substation Commissioning

GPS Survey and BOQ Verification

THIRD PARTY INSPECTION AND VENDOR ASSESSMENT

Third Party Inspection (Installation as per relevant standard. The quality of materials and installation practices (electrification) with respect to construction standards like REC Norms, IE Rules, and Indian Standards and also the safety of personnel and equipment needs to be ensured).

Vender Assessment

Third Party Inspection (At Vendor premise as per standard and approved specifications)

ENERGY AUDIT AND SAFETY AUDIT

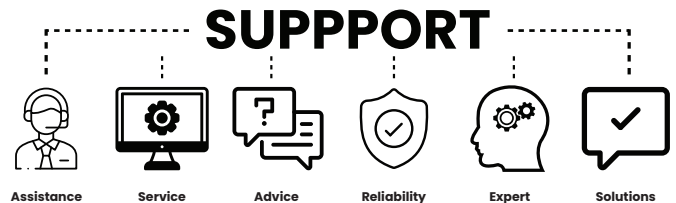
Mandatory Energy Audit as per BEE Guideline

Safety Audit

Baseline Study

Monitoring & Verification Audit

Execution of ESCO Projects



CONSULTANCY & DESIGNING

Assessment of AG Consumption

Energy Audit Study of Distribution feeder

Project Management Consultancy & Monitoring (PMC) for projects funded under Government Scheme like ADB, HVDS, IPDS, DDUGJY (erstwhile RGGVY), Feeder Separation etc.

Ground Grid Designing

Control Building Designing

Control and Protective Relay Panel Designing

DPR Preparation

LAB SETUP FOR TESTING AND CALIBRATION LABORATORIES COMPLYING REQUIREMENTS OF ISO:17025 AND GETTING THEM ACCREDITED BY NABL.

TRAINING ON INTERNAL AUDIT FOR ISO:17025

CONSULTANCY FOR GETTING RDIA SIRO RECOGNITION BY DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH (DSIR)



CAPACITY BUILDING:



TRAINING



LEARNING



KNOWLEDGE



COACHING



SKILLS



DEVELOPMENT



SUPPORT

A basic requirement for high quality research in Engineering/Social Sciences is the training on art of doing research and innovations.

Pramukh Technical And Calibration Centre, is organizing capacity building programme for researchers, engineers and faculties in various engineering disciplines.

Estimation of Uncertainty in Measurement, Decision Rule
Importance of Testing and Calibrations.

Understanding of basic parameters and
its effects on Calibration activities for the:

- Thermal calibration.
- Mass Balance Calibration.
- Pressure Device Calibration.
- Speed Calibration.
- Electro technical Calibration.

Basic of temperature instrument, Thermal and
specific heat Instrument Calibration.



Electrical Safety at Industrial Level.

Energy Conservation

Green House gas Emission

Energy Management system Implementation

Power system operation & Maintenance

Energy Conservation

Green House gas Emission

Energy Management system Implementation

Power system operation & Maintenance

Testing and calibration activities of the Energy meter