



**BCTL**

## **BANSAL CALIBRATION AND TEST LAB. PVT. LTD.**

NABL accredited laboratory vide certificate number TC-6455 & CC-2438



### **Testing**

- Soil Testing
- Water Testing
- Chemical Testing (Metals & Alloys)
- Mechanical Testing
- Corrosion Testing
- Metallurgical Testing
- Non-Destructive Testing

### **Calibration**

- Electro-technical
- Thermal
- Mechanical
  - Force and hardness
  - Dimension
  - Pressure
  - Flow
  - Mass, Volume & Density

# Testing & Calibration Lab

## About Us

Established in 2010, Bansal Calibration and Test lab has consistently maintained its trajectory of continuous growth and excellence.

**Our mission:** Deliver precise, accurate and reliable Testing and Calibration services to our esteemed clients.

BCTL has inculcated a strong analytical capability to directly assist clients and support in-house Quality Assurance as well as Research Projects. We are a one stop solution for all your testing and calibration requirements. We are Accredited by NABL (Department of Science & Technology, Government of India) in multiple disciplines and constantly adding more every year for Testing & Calibration.



### KEY CLIENTS



**ADVANCE VALVES**

**AIR INDIA**



**Panasonic**



.....and many more

# TESTING

## METALLURGICAL TESTING



- Microscopic Examination
  - Carburization & Decarburization Depth
  - Failure Analysis & Report Writing
  - Ferrite by Point Count
  - Grain Size
  - Inclusion Rating
  - Microstructure
  - Nodularity, Nodule Count
  - Plating/Coating Thickness
- Macroscopic Examination
  - Macro-etch Test
  - Grain Flow
- Nitriding Depth

## CORROSION TESTING



- AASS Test
- CASS Test
- CSC Test
- Cyclic Corrosion Test (CCT)
- Hydrogen Induced Cracking (HIC) Test
- Inter Granular Corrosion (IGC) Test (Practice A,B,C,E)
- Microscopic Test
- Pitting & Crevices Corrosion Test
- Salt Spray Test
- Sulphide Stress Cracking (SSC) Test
- Susceptibility to Intergranular Attack in Austenitic Stainless Steels
- Water/Humidity Resistance Test

## NON-DESTRUCTIVE TESTING



- Coating Thickness Test by Eddy Current
- Ferrite Test by Ferrite Scope
- Gloss Test
- Liquid Penetrant Testing
- Magnetic Particle Inspection
- Positive Material Identification (PMI) Test
- Radiography
- Surface Roughness Test
- Ultrasonic Testing
- X-ray Inspection

## CHEMICAL TESTING



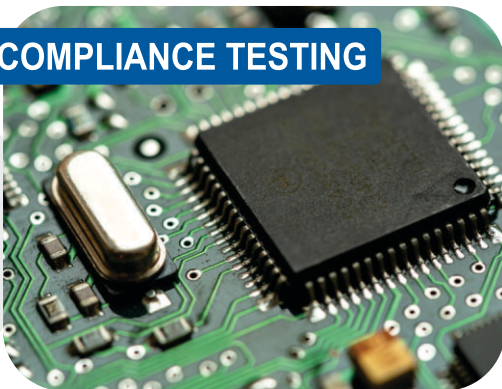
- Adhesion Test (Cross Hatch test, Hammer test)
- Atom Absorption Spectrometer (AAS)
- Carburising Case Depth
- Decarburization Depth Measurement
- Dust Contamination Test
- ELV Test
- Ferroxyl Test
- Oil Contamination Test
- Spark Optical Emission Spectrometer (OES)
- Total Chloride Content
- Uniformity Test
- UV Spectrophotometer
- Wet analysis

## MECHANICAL TESTING



- Proof load for fasteners
- Bend Test
- Hardness Test
  - Rockwell
  - Brinell
  - Vicker
- Impact Test
  - Charpy Impact (U-Notch, V-Notch) up to -196°C
  - Izod Impact
- Flattening Test
- Tensile Test
- Hot Tensile Test up to 900°C
- Weldment Testing
  - Transverse Tensile Test
  - Face/Root/Side bend
  - Fracture Test
  - Nick Break Test
- Dimension Test
- Breaking Load Test
- Shear Fracture % Test
- Load Test

## ROHS COMPLIANCE TESTING



### ROHS Elements

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr(VI))
- Polybrominated Biphenyls (PBB)
- Polybrominated Diphenyl Ethers (PBDE)
- Phthalates

## COATING THICKNESS TESTING



- Anodic Coating Thickness Test
  - By Wet
  - Eddy Current
- Electroplated Coating test
- Mass of Zinc Coating Test
- Microscopic Test
- Mass of Tin Coating
- Phosphate Coating Test

## WATER TESTING



- Drinking water test
- Industrial water test (STP & ETP)
- Portable water test
- Raw water test
- Sewage water test
- Water resistance test

## SOIL TESTING



- Construction Soil
- Agricultural Soil

# CALIBRATION

## MECHANICAL



- Force
  - UTM (As per IS and ASTM standards)
  - CTM
  - TTM
  - Charpy Impact Machine
  - Izod Impact Machine
- Hardness
  - Rockwell
  - Brinell
  - Vickers
- Hardness Machines
  - Brinell Hardness Tester
  - Impact Test Machine
  - Micro Vicker Hardness
  - Portable Hardness Tester
  - Rockwell Hardness Tester
  - Vickers Hardness Tester
- Dimension
  - Angle Plate
  - Bench Centre
  - Bore Gauge
  - Box Angle Plate
  - CP/PCD Gauge
  - Cube Mould
  - Depth Gauge
  - Dimension Gauge
  - Durometer (Shore A & D)
  - Electronic Level
  - Feeler Gauge
  - Gauss meter/magnetometer
  - Go-No Go Gauge
  - Height Gauge
  - Hydrometer
  - Inclinator
  - Jigs & Fixtures
  - Linear Height Gauge
  - Micrometer
  - Microscope
  - Penetrometers (Radiographic)
  - Pin Gauge
  - Plain/Thread/Taper Plug Gauge
  - Plain/Thread/Taper Ring Gauge
  - Profile Projector
  - Protractors (Bevel/Angle)
  - Radius Gauge
  - Receiver Gauge
  - Rulers
    - (Steel scale/Measuring Scale/Glass Scale)
  - Screw Pitch Gauge
  - Sine Bar
  - Slime Cone
  - Snap Gauge
  - Sound Level Meter
  - Special Gauge
  - Spirit Level
  - Straight Edge
  - Stroboscope
  - Surface Plate (Granite/Cast Iron)
  - Tachometer
  - Tape measurement Machine
  - Telescoping Gauge
  - Test Mandrel
  - Thickness Gauge
  - Thread wires
  - Vee Block
  - Vernier Caliper
  - Vision measurement machine
  - Width Gauge
- Pressure
  - Barometer
  - Compound Gauge
  - Dead weight Tester
  - Differential Pressure gauge
  - Manometer
  - Pressure Calibrator
  - Pressure gauge
  - Pressure recorder
  - Pressure Transducer/Switch
  - Vacuum Calibrator
  - Vacuum Gauge
  - Vacuum Transducer/Switch
- Flow
  - Air Flow meter
  - Mass Flow meter
- Mass, Volume & Density
  - Alchometer
  - Beaker
  - Burette
  - Flask
  - Hydrometer
  - Lactometer
  - Measuring Cylinder
  - Pipette
  - Weighing Balance
  - Weights

## ELECTRO-TECHNICAL



- AC/DC Power Supply
- Ammeter
- Auto-transformer & Variac
- Capacitance box
- Clamp meter
- Contour probes
- Data logger
- DC Resistance
- DC Shunt
- Decade box
- Digital StopWatch
- Digital Timer
- Earth Resistance Tester
- Energy meter
- Frequency Counter
- Frequency Meter
- Function/Signal Generator
- Hand-held Calibrator
- HV/Hipot Tester
- Inductance box
- Insulation Tester/Megger
- LCR meter
- Mili Ohm meter
- Multimeter (3½, 4½, 6½)
- Oscilloscope
- Power Analyzer
- Power factor
- Power/Watt meter
- Process Calibrator
- Relay Tester
- Resistance box
- Temperature Controller
- Temperature Recorder
- Thermocouple
- Tong meter
- Universal Calibrator
- Voltmeter

## THERMAL



- BOD Incubator
- Deep Freezer
- Dew Point
- Environment Chamber
- Glass Thermometer
- Humidity Chamber
- Hybrid Recorder
- IR Thermometer
- Liquid Bath/Oil Bath/ Dry Bath
- Muffle Furnace
- Oven
- Pyrometer
- Refrigerator
- RTD Sensor
- Temperature Controller
- Temperature Indicator
- Temperature Recorder
- Temperature Scanner
- Thermal Mapping
- Thermocouple (All types)
- Thermo-hygrometer



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