



# ACCURATE LABS

VALIDATION, MAPPING, CALIBRATION & TESTING CENTER



“**ACCURATE LABS**” Calibration Laboratory is an independent facility established in 2003 providing calibration services for testing & measuring instrument and validation services to pharmaceuticals, Engineering, Hospitals, ISO Industries & other Export Oriented Units.

The Laboratory is accredited as per ISO/IEC: 17025:2017 by NABL (National & International Accreditation Authority) for Electro-Technical, Dimensional, and pressure, Mass & Volume, Fluid & Flow, Thermal and Air Flow Parameter. High accuracy master equipment, trained personnel & strict environmental conditions are maintained to ensure low uncertainty of measurements. Calibration & Validation Certificates issued by the Laboratory at competency level of international / national standards.

“**ACCURATE LABS**” is providing services all over India with about 85 well trained Engineers & Technicians from Vapi. Accurate labs provide calibration services to our customers in either our own environmentally controlled multi laboratory facility or on-site at their location. Accurate labs have already established over 300 satisfied customers of various locations.



HVAC  
VALIDATION

TEMP. & RH  
MAPPING

PLC  
VALIDATION

ENVIRONMENT  
ANALYSIS

CALIBRATION



# HVAC VALIDATION

Validation is the process of evaluating product / analytical method to ensure compliance with product or method requirements, in other words it is a documented program which provides a high degree of assurance of a specific process / method which consistently produce a product / analysis meeting predetermined specifications and quality attributes.

## CLEAN ROOM VALIDATION

Clean rooms and clean equipments are a major capital investment designed to provide you with a contamination - controlled environment. Only through regular testing can you know whether your investment is operating properly. Regular comprehensive testing minimizes costly down-time and product defects, resulting in increased yield and productivity.

## FOLLOWING TESTS ARE CARRIED OUT FOR CLEAN ROOM VALIDATION

1. Filter Air Velocity, Uniformity testing & Air changes calculation.
2. Filter leak testing (Using PAO/DOP)
3. Particle Count test
4. Recovery Test
5. Air Flow Visualization (Smoke test videography) Room Pressurization test
6. Temperature and humidity Measurement



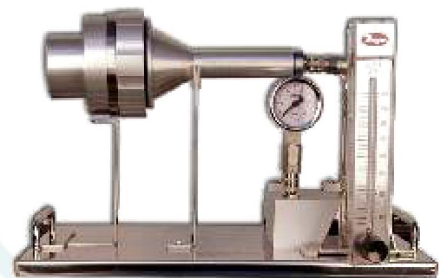
## ALL THE ABOVE TEST ARE CONDUCTED IN A MANNER TO CONFORM WITH THE FOLLOWING GUIDELINES

- |               |                    |
|---------------|--------------------|
| (1) ISO 14644 | (2) EU GMP/EC GMP  |
| (3) FS 209 E  | (4) SCHEDULE M     |
| (5) BS5295    | (6) WHO 2002/USFDA |

## COMPRESSED AIR TEST

Compressed air is a critical utility used widely throughout pharmaceutical manufacturing processes and it is used both directly and indirectly with pharmaceutical products. Regular testing of compressed air systems and other process gases that come into contact with pharmaceutical products is critical to ensuring the quality and integrity of the product

- |                                   |                                        |
|-----------------------------------|----------------------------------------|
| 1. Dew Point Test (-80 to 50 °C)  |                                        |
| 2. Non Viable particle count test |                                        |
| 3. Chemical test                  |                                        |
| a. Oil Test                       | e. Sulphure Dioxide (SO <sub>2</sub> ) |
| b. Water Vapour                   | f. Oxygen(O <sub>2</sub> )             |
| c. Carbon Dioxide                 | g. Nitrogen Oxide(NO <sub>2</sub> )    |
| d. Carbon Monoxide                |                                        |



## PURE STEAM QUALITY TEST

A continuous supply of saturated steam is required for steam sterilization and for humidification in certain EO sterilizers. Too high a level of noncondensable gases will prevent the attainment of sterilizing conditions; too little moisture carried in suspension may allow the steam to become superheated during expansion into the chamber, while excess moisture may cause damp loads.

1. Non Condensable Gas Test (NMT 3.5%) EN 285:2006(E)
2. Dryness Value (NMT 25 °C) EN 285:2006(E)
3. Superheat Test (NLT 0.95) EN 285:2006(E)



## TEMPERATURE & RH MAPPING (Under NABL)

Accurate Labs can offer a complete temperature & humidity mapping service for warehouse facility in compliance with all regulatory guidelines. To comply with current guidelines, mapping of a warehouse must be conducted seasonally. We use small of telemetry sensors which have the capabilities of monitoring temperature as well as humidity simultaneously. Due to size of the sensor routine operation of the warehouse is not affected during the mapping study. The reports are generated through 21 CFR part 11.

The temperature mapping study is analysis of a closed environment which is maintained under controlled temperature conditions using cooling or heating equipment. The idea is to find out that the temperature is uniformly distributed inside the environment as per the specified requirements. The basic idea is to collect temperature data continuously over a period of time to analyse and find out the results. In order to do this, temperature data loggers are required to record the data. The data loggers are placed around the entire area in a systematic pattern to record the data over a specified period under various operational conditions. After the specified time, the data is downloaded and analysed.



### VALIDATION SERVICES

1. Autoclave
2. Cold Storage Room
3. Humidity Chamber
4. DHS
5. RM Store
6. Furnace,
7. Stability Chambers
8. Freezer Dryer
9. Deep Freezer
10. Vacuum Oven
11. Tunnel
12. BOD Incubator
13. Area Mapping
14. Cooling Cabinet
15. Refrigerator
16. Water Bath
17. Heating Block
18. Lyophilizer
19. Drying Oven



## PLC VALIDATION

The purpose of the validation process is to provide a high degree of assurance that a specific process (or in this case computer system) will consistently produce a product (control information or data) which meets predetermined specifications and quality attributes. The objective of computer system validation is to produce documented evidence, which provides a high degree of assurance that all parts of the facility will consistently work correctly when brought into use. Computer systems validation includes validation of both new and existing computer systems.



PLC validation is a legal requirement in some industries such as drug manufacture, where product quality is particularly important. It requires extensive documentation, including procedures, test data, summary reports and certification forms. This documentation provides users with a high degree of confidence that a PLC will consistently provide control information or data that meets predetermined specifications. Validation is especially beneficial for machines that use software, which is constantly changing to meet the complex needs of its users. The ability to show that a PLC is behaving as intended is also a sound business practice.



### WHY PLC VALIDATION IS NEEDED?

1. Reduces risk and legal liability
2. Having the evidence that computer systems are correct for their purpose and operating properly represents a good business practice
3. Validation is applied to many aspects of the healthcare and other regulated industries and businesses.
4. FDA regulations mandate the need to perform Computer System Validation and these regulations have the impact of law.

## ELECTRICAL SAFETY AUDIT (BS/IS/OHSAS)

Electrical Safety Audits have become crucial to the proper maintenance of the facility. In addition, rising fuel costs coupled with increased global competition is forcing industries/buildings and other facilities to slash energy costs. Electrical Safety Audits are conducted to investigate if complaints and concerns by workers regarding electrical safety is substantiated and if there are other electrical safety or general safety hazards at the facility that should be addressed. The audit focuses on current electrical safety conditions, and selected other safety measures for the facility.

Electrical hazards continue to threaten safety of people and property in the form of shocks, burns, injury, fire and explosion. With electricity having become an indispensable part of our life, electrical risks are to be managed effectively. In process industries, fires due to electrical reasons are very probable, especially in industries that handle flammable chemicals.

It Includes:

- (1) Unit (kWh) Verification of Analog/Digital Meter
- (2) Measure & Evaluate the losses of Transformer & Motor
- (3) Measure & Evaluate the Harmonics
- (4) Measure actual Performance of power capacitor
- (5) Measure & Evaluate Lighting Illumination
- (6) Feeder/Panel Performance in respect of Balance, Un-Balance & Neutral Load



# ENVIRONMENT ANALYSIS

## INDUSTRIAL ANALYSIS

### Environment Monitoring Services

- Ambient air monitoring
- monitoring
- Noise level monitoring
- Work place air monitoring
- Stack monitoring
- Compressed air analysis

### Water and waste water analysis services

- Reagent water
- Feed water, Boiler water, DM water
- Drinking water, R.O water
- Well and Bore well water, Swimming pool water
- ETP water & STP water
- Construction water, Ice manufacturing water

### Solid & Hazardous waste analysis

- ETP sludge
- waste – for industry, city and farms
- fertility
- waste – Industries

### Food analysis

- Analysis of Fat,
- Ash content,
- Protein content,



## CHROMATOGRAPHY ANALYSIS

### Gas Chromatography – GC

- Purity Checking (RM Solvent)
- solvent
- validation
- by GC – Finished product
- Method Development

### High Performance Liquid Chromatography – HPLC

- Purity checking (RM) by UV Detector
- Related substances
- Method Validation
- Assay by HPLC
- Method Development
- Carbohydrate etc



# CALIBRATION

## ELECTROTECHNICAL



Power Analyzer,  
Energy Meter,



Digital Multimeter,  
AC/DC Clamp meter,  
AC/DC Voltmeter,  
AC/DC Ammeter



Universal Calibrators,  
Decade Resistance Box,  
Multifunction Calibrators



Microohm Meter,  
Mili/micro ohm meter,  
Megger,  
Insulation Tester



Process Calibrators,  
Digital Temperature Controllers,  
Digital Temperature Indicators

## MECHANICAL (DIMENSION)



Measuring Tape,  
Measuring Scale



Dial Gauge,  
Plain/Thread Ring Gauge,  
Plain/Thread Plug Gauge,  
Snap Gauge,  
Bore Gauge,  
GO/NOGO Gauge



Digital/Dial Vernier  
Callipers,  
Digital/Dial Height gauge



Test Sieves,  
Radius Gauge,  
Thread Pitch Gauge,  
Glass Scale



Slip Gauge Set,  
Feeler Gauge,  
Foil,  
Measuring Pins



Dial Thickness Gauge,  
External Micrometer

## MECHANICAL(VIBRATION)

As a Gujarat based renowned service provider, we are engaged in offering instrument calibration services like **Vibration Meter Calibration** services. We render these services by our highly motivated professionals who have expertise in latest calibration technology. Our standard quality **Vibration Meter Calibration** include to verify the accuracy and efficiency of vibration meter by using electrical signals and advanced machinery like accelerometer. We also check frequency response, velocity and linearity of vibration meter. Being a company of repute, we execute assigned work within a specific period.



## MECHANICAL (PRESSURE, MASS & VOLUME, SOUND, SPEED, LUX)



Digital/Analog Pressure Gauge (Upto 1000 bar),



Micro Balance, Semi Micro Balance, Digital Weighing (Upto 100 kg)



Digital/Analog Pressure Gauge, Magnehelic gauge, Pressure Transmitter, Vacuum Gauge, Barometer



Weight Box (E2 Class), Set of Weights (Upto 100 kg), Micropipette (1µl to 1000 µl), Volumetric Glassware (Beaker, Cylinder, Conical Flask)



Sound Level Meter



Tachometer (Contact type/ Non contact type), RPM Meter



Lux Meter, Lux Transmitter with indicator

## THERMAL



Temperature Sensor, Thermocouple, Temperature Transmitter, Hygrometer, Data logger, Glass thermometer, Dial Temp. Gauge, Chart Recorder, IR Gun, Temp. Indicator with Sensor, RH Indicator With Sensor

## FLUID FLOW

Accurate Lab is proud to add the capability of performing 17025 accredited air velocity calibrations of anemometers and other wind speed indicators with the addition of a Wind Tunnel allows for the calibration of a wide range of anemometers, including vane and hot wire anemometers. We can Calibrate instruments in the field of Air Flow, Gas Flow and Liquid Flow .



Hot Wire Anemometer, Vane Type Anemometer, Pitot Tube, Velocity Sensor, Velocity Transmitter, Air Flow Sensor



Water Flow Meter, Rota meter



Gas Flow Meter (O<sub>2</sub>, N<sub>2</sub>, Air)

## OUR VALUABLE CLIENTS



# ACCURATE LABS

CALIBRATION, VALIDATION & TESTING CENTER

Address : Plot No. 33, Vibrant Business Park, N.H.No. 48 GIDC, Vapi - 396 195 • Ph. : 0260-2424099 • Telefax : 2431986

E-mail : [accurate\\_calibration@yahoo.co.in](mailto:accurate_calibration@yahoo.co.in) • Website : [www.accuratelabs.co.in](http://www.accuratelabs.co.in)