



**Division of**

**SIGMA TEST  
& RESEARCH CENTRE**



## TEST CHAMBERS

**SGM test chambers are well designed for conducting different laboratory and research experiments for different quality control tests to be carried out on different materials e.g. cement, motors, various electrical fittings, electronic circuits and components, cloth and paper etc. under controlled temperature and humidity conditions.**

**We deal in all kinds of test chambers for product testing, environmental parameter testing for varied application (Temperature range  $\square$  100 degree to +250 degree c, Humidity 10%-95% Rh)**



Humidity & Temp. Controlled Cabinet

Plant Growth Chamber

Environmental chamber

Seed Germinator

Stability Test Chamber

Photo stability Chamber

Salt Spray Chamber

Corrosion Test Chamber

Thermal Shock Chamber

Climate control chamber

Climate control chamber

Ultra low humidity chamber

Tissue culture rack

Tissue culture room

Sand & Dust Chamber

Walk in Plant Growth Chamber

Walk in Environmental chamber

Walk in Seed Germinator

Walk in Stability Test Chamber

Walk in Photo stability Chamber

Walk in Humidity & Temp. Controlled Cabinet

Walk in cold clean room

## CLEAN ROOM EQUIPMENTS

**SGM has developed a wide variety of clean room equipments designed to meet diverse applications in the life science, clinical, pharmaceutical and industrial laboratory.**

**SGM Clean room system combines the need for a flexible solution with the request for durability and flush surfaces. It offers an economical approach to your cleanroom needs.**

**SGM is a multifaceted company having a state of art manufacturing plant with latest machines and assembly line to achieve absolute quality products for use with in Clean Rooms such as Dispensing / Sampling Booths, LAF Units, Dynamic/Static Pass Boxes etc.**



**AIR CURTAIN**



**MODULAR CLEAN ROOM**



**FUME HOODS**

Wooden construction fume hood  
CRC fume hood  
S.S construction fume hood  
Chemical fume hood  
Bench top fume hood

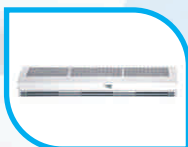
**AIR SHOWER**

One side flow air shower  
Both side flow air shower  
Tower flow air shower  
Industrial air shower  
Tunnel type air shower



**BIO SAFETY CABINETS**

Bio safety cabinet class 1  
Bio safety cabinet class 2  
Bio safety cabinet class 3  
Walk in bio safety cabinets



**LAMINAR AIR FLOW**

Vertical laminar air flow  
Horizontal laminar air flow



**GLOVE & PASS BOX**

Normal / Vacuum glove box  
Dynamic / Static pass box

## LABORATORY INCUBATORS & OVENS

**We offer a design & manufacturing facility - providing custom built solutions to meet individual requirements for both special laboratory and industrial furnaces and ovens. SGM incubators and ovens are designed to meet customized requirements of different customers, SGM as an experienced incubators and ovens manufacturer in India, produces standard as well as customized models. These Incubators and ovens come in various sizes and capacities**



### INCUBATORS

BOD incubator  
Co2 incubator(water/air jacket)  
Egg incubator  
Poultry incubator  
Dry bath incubator  
Anaerobic culture incubator  
Orbital shaking incubator



### OVENS

Hot air oven  
Industrial drying oven  
High temperature oven  
Vacuum oven(Round/rectangular)  
Hybridization oven  
Blast proof oven  
flame proof oven

## COOLING EQUIPMENTS

We are manufacturers of cooling equipments laboratory since more than two decades now, serving the industry with sincerity and integrity, thereby evolving with the changing needs and requirements of the industry, with the passage of time, embracing new challenges to produce quality cooling equipments and match up with the high degree of service back up and personalized touch, required and expected from us from our patrons across India and abroad.



Deep freezers

Ultra low deep freezers

Laboratory refrigerators

Chiller

Ice flaker machine

Freeze driers(lyophilizers)

Blood bank refrigerator

Mortuary chamber

## STERILIZERS/AUTOClave

**Sterilization is any process that eliminates or kills all forms of microbial life. It can be achieved by applying the proper combinations of heat, chemicals, high pressure, and filtration. An autoclave is a device used to sterilize equipment and supplies by subjecting them to high pressure saturated steam at 121 °C for around 15–20 minutes depending on the size of the load and the contents. Autoclaves are widely used in microbiology, medicine, tattooing, body piercing, veterinary science, chiropody and prosthetics fabrication.**



Vertical autoclave  
Autoclave Horizontal (cylindrical)  
Cement autoclave  
Portable autoclave  
Pulse sterilizer  
UV sterilizer

Biomedical waste sterilizers  
Table top front loading steam sterilizers  
Vertical standing steam sterilizers  
Horizontal high pressure cylindrical steam sterilizer  
Horizontal high pressure rectangular steam sterilizer



## MICROSCOPES & TELESCOPES

Explore the world and space in detail with a selection of SGM's telescopes and microscopes. This high-quality microscopes and telescopes will allow you to see distant stars and microscopic nature with precision and clarity. The Universal Family Telescope allows you to capture a close-up look at the universe and natural wonders with adjustable eyepieces equipped with star tracking. SGM's Telescope is ideal for portability, whether you're tracking wildlife or meteor showers. The classic Brass Telescope is a collector's piece that combines a traditional mariner's scope with updated optics and a beautiful brass body.



Monocular microscope  
Binocular microscope  
Trinocular microscope  
Coaxial research microscope  
Stereoscopic zoom microscope  
Fluorescence microscope  
Metallurgical microscope  
Inverted Metallurgical microscope

Digital LCD microscope  
High Definition digital imaging microscope  
Biological microscope  
Parallel optical microscope  
Projection microscope  
Tools maker microscope  
Reading telescope  
Astronomical telescope

## LABORATORY BATHS

There is a wide range of laboratory baths that are ideal for chemical experimentation in different industries. SGM water baths are manufactured using superior quality raw material, and insulated using superior quality glass wool. Any baths that work above 100°C will need a liquid in them such as oil. Any baths that work below ambient will need an internal or external cooling system. If they work below the freezing point of water they will need to be filled with a suitable anti-freeze solution. If you require very accurate control you require the laboratory stirred baths with accurate thermostat / circulator.



Water bath rectangular(single walled)  
Water bath rectangular(Double walled)  
Serological water bath  
Refrigerated water bath

High precision water bath  
Circulatory water bath  
Ultrasonic cleaning bath  
Tissue flotation bath



## SHAKERS

**SGM Laboratory shakers are known the world over for dependable operation and innovative design. They are so called because the method of creating sound involves shaking them—moving them back and forth rather than striking them. They are designed for applications that require precise control with speed and mode of operation. Rugged aluminum construction and durable motors ensure quiet and trouble-free use.**



Bench top incubator shaker(single/double platform)

Orbital shakers

Magnetic shakers

Wrist action shaking machine

Rotary flask shaker

Rotary sieve shaker

Gyratory sieve shaker

Table top sieve shaker

Vortex shaker

Kahn shaker

Universal shaker

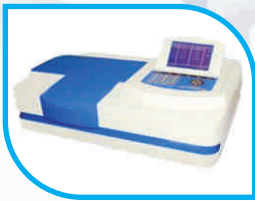
Gel rocker shaker

Flip Flop shaker

Metabolic shaker

# SPECTROPHOTOMETERS

A spectrophotometer is commonly used for the measurement of transmittance or reflectance of solutions, transparent or opaque solids, such as polished glass, or gases. However they can also be designed to measure the diffusivity on any of the listed light ranges that usually cover around 200nm - 2500nm using different controls and calibrations. Within these ranges of light, calibrations are needed on the machine using standards that vary in type depending on the wavelength of the photometric determination.



Visible range spectrophotometers

Fluorescent spectrophotometers

Digital Spectrophotometer (Double Display)

Microprocessor Spectrophotometer(VIS) Single Beam

Single beam UV visible range spectrophotometers

Double beam UV visible range spectrophotometers

Atomic absorption spectrophotometers

# GENERAL LABORATORY EQUIPMENTS

**SGM Instruments** offers a wide range of general lab equipments such as **balances, furnace, microtome, Willy mill, ball mill, hot plate, magnetic stirrer, vacuum pump.** Furnace is used to heat blocks and turn them into other items. **SGM Microtomes** are used in microscopy, allowing for the preparation of samples for observation under transmitted light or electron radiation

Bomb colorimeter  
Colony counter  
Heating mantle  
Humidifier  
Dehumidifier  
Willy mill  
Ball mill  
Magnetic stirrer  
Polarimeters  
Soxhlet extraction unit



## BALANCES

General purpose table top balance  
High precision balance  
Micro balance  
Analytical balance  
Moisture balance  
Industrial balance  
Flame proof balance  
Counter table top balance  
Platform scale



## Hot plate

Round Hot plate  
Rectangular Hot plate



## Centrifuges Macines

Low capacity refrigerated centrifuge  
High capacity refrigerated centrifuge  
Programmable refrigerated centrifuge  
Low capacity non refrigerated centrifuge  
High capacity non refrigerated centrifuge  
Programmable non refrigerated centrifuge



## Microtome

Hand Microtome  
Rotary Microtome  
Wood Microtome  
Semi automatic Microtome  
Automatic Microtome  
Freezing Microtome  
cryostat microtome

## Distillation unit

Metal Distillation unit  
Glass Distillation unit  
Quartz Distillation unit

## Vacuum pump

Single Stage Rotary Vane Pump (Oil Free)  
Rotary Vacuum Pump(Single/ Double Stage)  
Oil Sealed Rotary/oil Free Vaccum Pump  
Small Diaphragm Type Pump for Filtration

## FURNACE

High temperature muffle furnace  
Tube furnace  
Rotary tube furnace  
Vacuum box furnace  
Annealing furnace  
Sintering furnace

## Refractometers

Hand Refractometer  
ABBE Refractometer

## WATER TESTING EQUIPMENTS



Water hardness/ Water tests meter

Dissolved oxygen meters

Ion concentration meters

BOD Analyzer

COD analyzer

TOC Analyzer

COD Analysis colorimeter

Electrochemical analyzer

Turbidity meter

Water analyzer

Water toxicity analyzer

Multi function reactor

### Ph meter

Portable Ph meter

Table top Ph meter

Microprocessor based Ph meter

Analytical Ph meter

### Conductivity meter

Portable Conductivity meter

Table top Conductivity meter

Microprocessor based Conductivity meter

## NDT EQUIPMENTS

It is a wide group of analysis techniques used in science and industry to evaluate the properties of a material, component or system without causing damage. The terms Nondestructive examination (NDE), Nondestructive inspection (NDI), and Nondestructive evaluation (NDE) are also commonly used to describe this technology. Because NDT does not permanently alter the article being inspected, it is a highly-valuable technique that can save both money and time in product evaluation, troubleshooting, and research. Common NDT methods include ultrasonic, magnetic-particle, radiographic, remote visual inspection (RVI).



Ultrasonic flaw detectors

Pulse velocity tester

Portable hardness meter

Dry penetration kit

Rebar locator

Rebound hammer

# ENVIRONMENT TESTING EQUIPMENTS

Environmental tests are used to verify a piece of equipment can withstand the rigors of harsh environments for example - extremely high and low temperatures, large, swift variations in temperature, accelerations, solar radiations. We offer critical environment Testing Services. Our service comprises ambient air, stack emissions, noise, soil, sludge, effluent, generator and engine exhausts, volatile compounds, semi-volatiles, hazardous air pollutants, air toxics, metals and particulates.



## Vibration Monitoring

Vibration Meter  
Vibration Control Meter  
LCD Vibration Meter



## Flue Gas Analyzer

Flue Gas Emissions Analyzer

## Air Monitoring Equipments

PM 2.5 Sampler  
Portable/Handy Dust Sampler  
Stack Monitoring Kit  
Respirable Dust Sampler  
Air Sampler  
Thermoelectrically Cooled Gaseous Sampling Attachment  
Ambient Air Monitoring Equipments

## Air Monitoring Equipments

Water Pollution Monitoring

## Weather Monitoring Station

Climate Monitoring Station  
Automatic Weather Monitoring Station  
Automatic Weather Station  
Meteorological Station  
Digital Weather Station

## Sound Level / Noise Monitoring

Digital Sound Measurement Meters  
Digital Sound Level Meters  
Lutron Sound Level Meter  
Integrating Sound Level Meter  
Sound Level Meter With LEQ And Data Logger

## Analytical & Laboratory Instruments

Spectrophotometer Cells  
Fluorimeter Cell/Cuvettes  
KBR Hydraulic Press



# ENGINEERING AND CONSTRUCTION EQUIPMENT

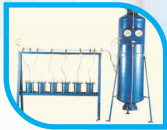
**Cement Concrete Testing Instruments**

**Aggregate Testing Instruments.**

**Soil Testing Instruments.**

**Bar Bending & Bar Cutting**

## Cement Concrete Testing Instruments



VICAT Needle Apparatus

Flow Table

LE ChatelierMould

LE Chatelier Water Bath

LE ChatelierFlask

Flexure Testing Machine (Motorised)

MortorMixer

Gauging Trowel

Vibrating Machine

VEE BEE Consistometer

Slump Test Apparatus

VICAT Needle Apparatus

Cement Mortar Permeability Apparatus (Six Cell Model)

Flow Table

LE ChatelierMould

LE Chatelier Water Bath

LE ChatelierFlask

Flexure Testing Machine (Motorised)

MortorMixer

Gauging Trowel

Vibrating Machine

VEE BEE Consistometer

Slump Test Apparatus

Cement Mortar Permeability Apparatus (Six Cell Model)

## Aggregate Testing Instruments



Thickness Gauge  
 Length Gauge  
 Cylindrical Measures  
 Meatal Measures  
 Riffle Sample Divider  
 Riffle Sample Divider  
 Aggregate Crushing Value Apparatus  
 Aggregate Impact Tester with Blow Counter  
 Los Angeles Abrasion Testing Machine  
 Ring & Ball Apparatus  
 Ring & Ball Apparatus (Electrical)  
 Standard Penetrometer

Semi-Automatic Penetrometer  
 Straight Edge (3 Meters)  
 Binder Extractor (Hand Operated)  
 Centrifuge Extractor (Motorised)  
 SAY Bolt Viscometer  
 Ring & Ball Apparatus  
 Pavement Core Drilling Machine  
 Automatic Compactor  
 Ductility Testing Apparatus  
 BENKELMAN Beam



## Aggregate Testing Instruments



Plastic Limit Test  
Shrinkage Limit Set  
Linear Shrinkage Mould  
Soil Cone Penetrometer  
Liquid Limit Device  
High Speed Stirrer:  
Grain Size Analysis (Pipette Method)  
Soil Hydrometer  
Sand Equivalent Test Set



## Bar Cutting & Bending

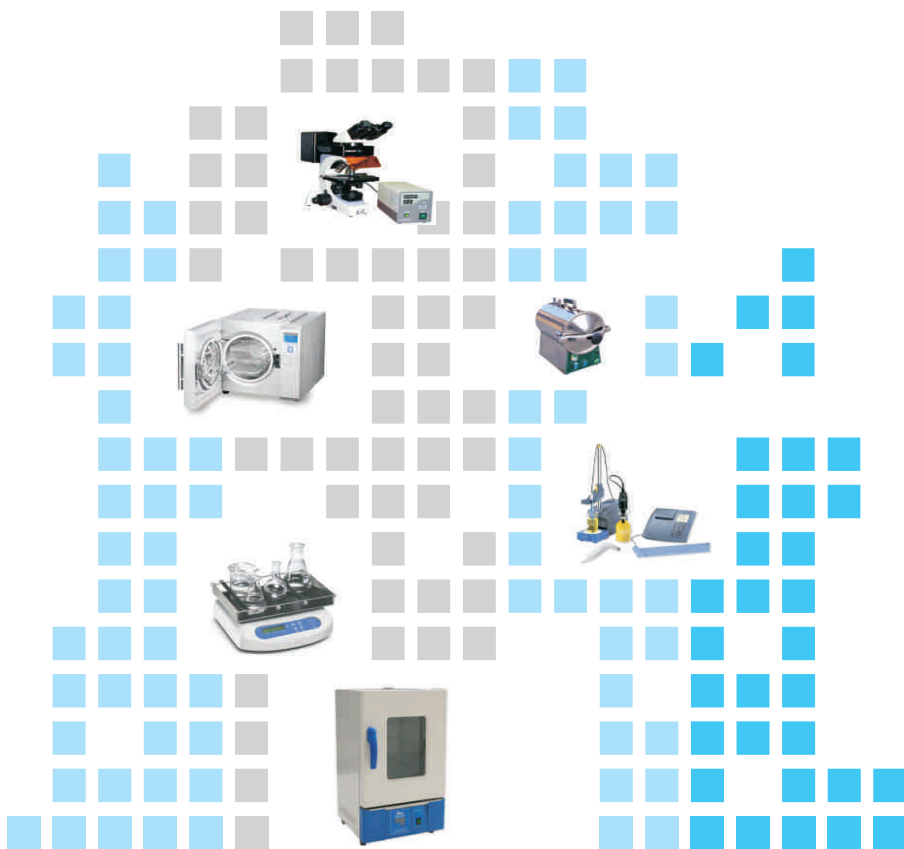
### Steel Bar Cutting Machine



## Bar Bending

### Steel Bar Bending Machine (with Crompton motor)





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