



BHANU BIOTECH PVT. LTD.

An ISO 9001:2015 Certified Company



MANUFACTURER AND SUPPLIER OF :-

GREEN HOUSES (ALL TYPES)
TRANSGENIC CONTAINMENT FACILITIES
MIST CHAMBERS, POLY HOUSES, NET HOUSES
COLD ROOMS, GROWTH CHAMBERS
SEED GERMINATORS, TISSUE CULTURE RACKS
ENVIRONMENTAL CULTURE LABS
TEMPERATURE, HUMIDITY & PHOTOPERIODIC CONTROLLERS
FOGGING, MISTING & DRIP IRRIGATION SYSTEMS
SCADA SYSTEMS / REMOTE CONTROLLING SYSTEM
AND OTHER SCIENTIFIC EQUIPMENTS



With Cutting Edge Science And Futuristic Vision, We Bring Better Solutions To Your Research Needs And Business Matrix

Our Presence



Our Accreditations





ABOUT US

➤ **BHANU BIOTECH PVT. LTD.** provides latest State of the Art **PLANT GROWTH MODULES** (High Tech Green Houses, Tissue Culture Laboratories, Cold Rooms, Plant Growth Chambers) and allied scientific equipments to cater the needs of the Science community at a large deal. Bhanu Biotech Pvt. Ltd. offers tailor-made customer service with efficient follow up. We are registered with REGISTRAR OF COMPANIES, MSME and NSIC **BHANU BIOTECH PVT. LTD.** has an endeavor to serve science community better by offering, as we flourish when you cherish with satisfaction.

- Assurance of quality services at all times
- Adherence to committed time lines
- Competitive prices
- Assistance with advice pre-installation
- Complete attention to every detail during installation, prompt post-installation guidelines
- Efficient trouble-shooting and hassle-free maintenance
- Round-the-clock, i.e., 24/7, availability for technical advice,
- Assistance and support for your projects or needs.

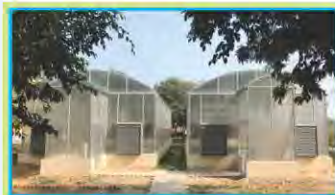


We are committed to being very aggressive in our attitude towards quality and customer service, primarily since we want to be ranked as the "BEST" in our business. Quality is not just another goal; it is our basic strategy for survival and future growth.



BB-0011

TRANSGENIC CONTAINMENT FACILITIES/ GREEN HOUSES/POLY HOUSES/ MIST CHAMBERS/NET HOUSES



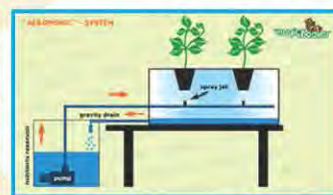
BBPL range of Green Houses provide perfect conditions for plants all through their growth stages providing biotechnological feeds, creating near to natural parameters for healthy growth. BBPL uses latest State of the Art technology for creating ideal conditions of Temperature, Humidity and Light, vital for healthy plant growth. BBPL structural designs are drawn taking into consideration standard wind loads, Dead loads and other loads prevalent in the country and is totally in conformity with the Revised Guidelines issued by DBT. Using latest technology temperature between 8°C to 40°C, Relative Humidity 30% to 95% and Photosynthetically Active radiation lights to vary day length manipulation are controlled, monitored and logged through On line Data Acquisition systems and microprocessor controllers. The similar structure can be created on Roof top also.

Available in different sizes like :-

20 sq.m., 50sq.m, 100sq.m., 200sq.m. 500sq.m. and can be constructed as per specific user designs and requirements.

BB-0011A

AEROPONIC SYSTEMS

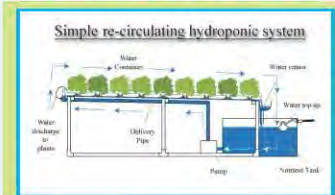


Aeroponics is the process of growing plants in an air or mist environment without the use of soil or an aggregate medium (known as geaponics).

The basic principle of aeroponic growing is to grow plants suspended in a closed or semi-closed environment by spraying the plant's dangling roots and lower stem with an atomized or sprayed, nutrient-rich water solution. The leaves and crown, often called the canopy, extend above. The roots of the plant are separated by the plant support structure. Often, closed-cell foam is compressed around the lower stem and inserted into an opening in the aeroponic chamber, which decreases labor and expense; for larger plants, trellising is used to suspend the weight of vegetation and fruit. Ideally, the environment is kept free from pests and disease so that the plants may grow healthier and more quickly than plants grown in a medium.

BB-0011H

HYDROPONIC SYSTEMS



Hydroponics is a subset of hydroculture, the method of growing plants without soil, using mineral nutrient solutions in a water solvent. Terrestrial plants may be grown with only their roots exposed to the mineral solution, or the roots may be supported by an inert medium, such as perlite or gravel. **Hydroponics** is a subset of hydroculture, the method of growing plants without soil, using mineral nutrient solutions in a water solvent. Terrestrial plants may be grown with only their roots exposed to the mineral solution, or the roots may be supported by an inert medium, such as perlite or gravel.



BB-0012

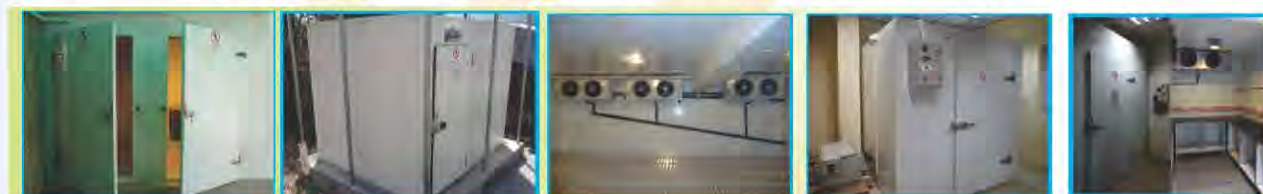
PLANT GROWTH CHAMBERS/ENVIRONMENTAL CONTROLLED CHAMBERS



BBPL Plant Growth Chambers/Environmental Controlled Chambers for specific use of Tissue/Gene Culture are designed and manufactured on user specific parameters and requirements. Microprocessor controlled and monitored are backed up with audio visual alarm to control parameters of Temperature, Relative Humidity and Light intensity. Copiously designed for tropicalized operation with PCGI outer wall with puff insulation and PCGI/S.S. inner walls. The chamber are designed by using latest technology for temperature ranging between -20°C to 40°C , Relative Humidity 30% to 95% and Photosynthetically Active radiation lights (upto $-800 \mu\text{E}/\text{m}^2/\text{s}$) to vary day length manipulation are controlled, monitored and logged through On line Data Acquisition systems and microprocessor controllers using specially designed Commercial Air-conditioning units using SST. Available in Different sizes like :- 24cu.ft., 64, cu.ft., 80cu.ft., 216cu.ft., 729cu.ft., 800cu.ft. and can be constructed as per specific user designs and requirements

BB-0013

WALK-IN-CHAMBERS/WALK-IN-COLD ROOMS/SEED GEMINATORS



BBPL specializes in designing and manufacturing of Prefabricated Puff Insulated easy to assemble, self supportive Walk-in Chambers / Walk -in-Cold Rooms of different sizes, Temperatures ranging from -40°C to $40^{\circ}\text{C} \pm 1^{\circ}\text{C}$. Relative Humidity 30% to 95% using specially designed Commercial Air-conditioning units using (SST) technology. Parameters are controlled through BBPL designed Biotech Controllers and Data Acquisition systems.

Cold rooms for Storage of Research and Commercial use:-

Gene Bank/Seed Storage/Blood Bank/Seed Geminator/ Banana Ripening Chambers.

CO₂/Ethylene Evaluation chambers. Available in Different sizes like :-

216cu.ft., 512, cu.ft., 648cu.ft., 800cu.ft., 960cu.ft., 1600cu.ft. and can be constructed as per specific user designs and requirements.

BB-0013A

CLEAN ROOMS



A cleanroom or clean room is an environment, typically used in manufacturing, including of pharmaceutical products or scientific research, as well as aerospace semiconductor engineering applications with a low level of environmental pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors. More accurately, a cleanroom has a controlled level of contamination that is specified by the number of particles per cubic meter at a specified particle size. To give perspective, the ambient air outside in a typical urban environment contains 35,000,000 particles per cubic meter in the size range $0.5 \mu\text{m}$ and larger in diameter, corresponding to an ISO 9 cleanroom, while an ISO 1 cleanroom allows no particles in that size range and only 12 particles per cubic meter of $0.3 \mu\text{m}$ and smaller. BBPL provides state of the Art Clean Room with control Environmental Conditions at a very affordable price



BB-0014

TISSUE CULTURE LABORATORIES /ROOM CONVERSIONS

BBPL provides simulated and controlled environment in converted Rooms for carrying Tissue Culture and allied work. Parameters of Temperature, Relative Humidity and Photoperiodic simulation are controlled with State of the Art Microprocessor based controllers for each parameters. Depending on the nature of work, exposure of outside heat emission, light load and human heat load insulation of walls, ceilings and floor are insulated keeping in mind the temperature to be achieved by using specially designed Commercial Air-conditioning units using SST. Parameters are controlled through BBPL designed Biotech Controllers and Data Acquisition systems. Temperature range 20°C to $28^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and Light through PAR (Photosynthetically Active Radiation) Lamps. Tissue Culture Castor Racks are used for better mobility, working space and sensitive experimentation. Tissue Culture Labs / Room conversions can be constructed as per specific user designs and requirements.



BB-0015

TISSUE CULTURE CASTOR RACKS

Height 5'8", Width 4'2", Depth 18", Shelves 5Nos., Illuminating Facility in 4 shelves. Shelf to shelf distance 16", Shelf size – 50" x 18", Shelf surface 3mm thick Glass/Hylemsheet. Four Fluorescent tube lights 36/40 watt with Individual ON/Off switch in each shelf. Light intensity 3-4 Klux 5cm above the shelf surface, 10 Klux at source. Solid State Electronic Ballasts (CodeBB), Electronic ballasts are specially tested and approved by ERTL for use upto 300V. Frame MS CRC Powder Coated with Castors.



BB-0015A

With PAR Lamps, Shelves 6 Nos. (Illuminating Facility in 5 shelves)

BB-0015B

Structure Frame Aluminium / S.S. 304 Grade: (Lighting Facility in 4/5 shelves)

BB-0015C

Commercial Tissue culture Rack : With 4-7 working shelves

BB-0015D

Commercial Tissue culture Rack : With 4-7 working shelves having Individually operated PAR Surface Mount Device (SMD) Type LED Lamps producing 50 to 130 E/M per sq.m²/Sec area, CRI>80



BB-0016

PAR (PHOTO SYNTHETICALLY ACTIVE RADIATION) LAMPS

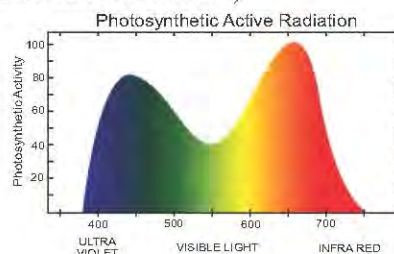
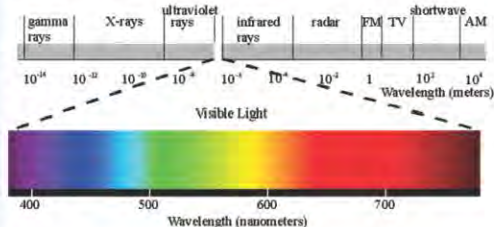
PAR Watts for Plants Watts is an objective measure of energy being used or emitted by a lamp each second. Energy itself is measured in joules, and 1 joule per second is called a watt. Modern discharge lamps like High Pressure Sodium (HPS) and Metal Halide convert (typically) 30% to 40% of the electrical energy into light. They are significantly more efficient than incandescent bulbs. Since plants use energy between 400 and 700 nanometres and light in this region is called **Photosynthetically Active Radiation** or **PAR**. BBPL provides different types of PAR Lamps ranging from 20W to 1500W.



BB-0017

FLUORESCENT/ LED LAMPS

Standard designs provided (Wavelength 380 nm to 780 nm)





BB-0018

TEMPERATURE CONTROLLERS

BBPL provides different versions of Temperature Controller depending on load and usage with inbuilt thermal safety and ERTL calibrated PT-100 RTD sensors.

BB-0018A

Microprocessor Temperature Controller :Real time microprocessor based user programmable controller with 4 digit LED display for displaying measured values, Feather touch operation. Set point lock within the setting panel to protect setting changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Selection of unit C, F. Display resolution 0.1. Automatic hysteresis control. Wide selectable temperature range, ranges from 0 to 100C.



BB-0018B

Microclimatic Temperature Controller: Real time microprocessor based Temperature Controller range 0.1°- 60°C, 4 independent power output. Specially designed for Tissue Culture laboratories. Special feature of thermal safety to prevent Culture attrition, 4 Setpoint Setpoint 1 for light Setpoint -2 For Heating Setpoint-3 & 4 For Cooling



BB-0018C

Digital Temperature Controller (Double Set Point): Digital Controller with Hysteresis monitored. Temperature range 0.1°- 60°C with accuracy $\pm 1^\circ\text{C}$, resolution 0.1. Display 3½ digits, 0.5", 7 segmented red LED. Temperature setting by front panel key switch and Trim pot. Sensor Pt.100 with 5m cord. Additional hysteresis 0.4°C with 2 min delay for air conditioner and 4.4 KVA heater directly connected to the powered output.



BB-0018D

Analogue temperature controller : Temperature 0°-100°C, Accuracy $\pm 2^\circ\text{C}$, delay 2 min, for 1.5 Ton Air-conditioner and 4.4KVA Heater, Device can directly be connected to powered output.

BB-0019

SENSOR PT-100

Platinum sensor probe Pt.-100 (class A,) SS sensor, cable 5m, max var $\pm 0.20^\circ\text{C}$, Resistance standard 100ohms, self heating error in $0^\circ\text{C}/\text{m W}$ 0.6 in flowing air V-1m/s and 0.24 in still air, response time in moving air 50% response in 6 sec and 80% response in 20 sec.



BB-0020

SENSOR PT-100 (FAST RESPONSE)

It is basically Code NO. with 80% response in less than 6 sec.

BB-0021

CO₂ TRANSMITTER /SENSOR

Measuring principal – Non Dispersive Infrared Technology (NDIR), Range – 0-2000/0-5000/0-7000 PPM. Accuracy $\pm (50 \text{ PPM} + 3\% \text{ of measuring value})$. Analogue Output 0-5/0-10V / 4-20 mA. Working temperature : -20 to 60°C.



BB-0022

DIGITAL LUX METER

A hand held digital light meter with integral sensor indicating Lux measuring range. 0 to 50000 Lux. The sensor connected with the base of the meter, a one meter coiled cord. 3 selectable range * 0-1999 lux (resolution 1 lux) * 2000-19999 lux (resolution 10 lux) * 20000-50000 lux (resolution 100 lux) * Accuracy $\pm (8\% + 2 \text{ digit})$



BB-0023

LUX METER

Basically measuring Range 0-200000 Lux



BB-0024

CLEAN ROOM MONITOR

*Microcontroller based *RH, Temperature & DP measurement
 *3-row, 0.8"(20.3mm), large, bright LED display *Software programmable channel ranges, units & input types *User programmable for 1,2 or 3 channel measurement to operate external *6 programmable Alarms with visual annunciation *3programmable Alarms with open collector outputs to operate external relays *Real Time Clock with battery back-up *Software calibration for all 3 channels *Calibration history/schedule for validation *RS485/MODBUS RTU multidrop communication for PLC, SCADA, etc. *24 VDC or 85~265 VAC SMPS supply *Powerful, user-friendly SCADA available *FDA21CFR part 11 compliant SCADA version also *Advance digitalRH+T sensor technology



BB-0025

PHOTOPERIODIC CONTROLLER

BB-0025A

Programmable Photoperiodic Controllers : Operates 110 tube lights of 40 Watts. Real time microprocessor based. Clock Accuracy ± 2.5 sec/day @20°C 1 Channel, Week Program, 16 memory locations adjustable to the minutes, Holiday programming 1500 Hrs. Running reserve. Random switching can be activated by pressing any key Summer/Winter time changeover, PROGRAM SAVING BY EPROM, LCD display



BB-0025B

Digital Photoperiodic Controllers : Operates 110 tube lights of 40 Watts. Real time microprocessor based. Clock Accuracy ± 3 sec/day 16 memory locations adjustable to the minutes, 100 Hrs. Running reserve. Random switching can be activated by pressing any key, PROGRAM SAVING BY EEPROM



BB-0025C

Analogue Photoperiodic Controllers: 24hrs. repeat cycle. Min. On/off period 15 min with NICAD battery auto recharging. Powered output can drive 110 tube light of 40W directly. Thermal safety 16Amp inbuilt. Accuracy ± 8 Sec./day.

BB-0025D

Qemer Photoperiodic Controllers : Version with timer pulse reverification facility. Integral Calender with automatic Winter/Summer time change on last Saturday in march/October respectively.

BB-0026

HUMIDITY CONTROLLERS

BB-0024A

Microprocessor Humidity Controller : Real Time Microprocessor based. on/off control for Humidifiers /Dehumidifiers, Hysteresis/ differential 1% -9% . Direct/ Reverse selectable. Lock function to prevent miss operating. Fast response sensor, line resistance <10W. Display Accuracy-indicating value $\pm 0.2\% \pm 1$ digit. Powered output directly connected to 4.4KVA Humidifier/Dehumidifier.



BB-0026B

Digital Humidity Controller : Humidity range 20% to 95% Accuracy $\pm 3\%$ Display $3\frac{1}{2}$ digit, 0.5", 7" segment red LED Setting. Sensor Pt.-100 (Wet bulb principal) Direct calibrated, display in %RH, Powered output directly connected to 4.4KVA Humidifier/Dehumidifier.



BB-0026C

Analogue Humidity Controller : Analogue controls with humidistat, Controlling range : 20% -90%, accuracy $\pm 8\%$, Powered output directly connected to 4.4KVA Humidifier/Dehumidifier.



BB-0027

SUPERVISORY CONTROL & DATA ACQUISITION SYSTEMS

- A powerful, flexible SCADA software
- Based on labview 7.0 from National Instruments
- Flexible trend facility - current and historical
- Alarm function
- Works with Modbus RTU protocol
- Supports a maximum 32 instruments on single 2-wire RS485 bus and several such buses on one PC
- Supports thousands of tags
- Stores data upto 10 years
- Compatible with scanners, PID controllers, etc.
- 21 CFR PART11 version available
- Ethernet connectivity available
- Input : RH+T signal form sensor
- 0~4 setpoints corresponding to Temperature or Humidity
- Accuracy : $\pm 3\%$ RH, $\pm 0.3^\circ\text{C}$
- User programmable
- 85~265V AC SMPS
- Sensor break indication
- 2 x isolated retransmission output Corresponding to temperature and/or Humidity
- RS485/ MODBUS RTU
- Sensor can be upto 50 meters from Instrument



Live and historical Data viewer



Read & write Parameters



Front panel Mimic



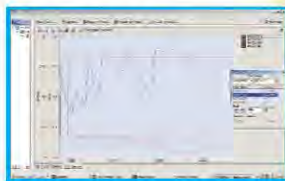
Alarm Hist
Historical Alarms



Alarm Popup



Data Hist
Data History



BB-0028

ENVIRONMENTAL CONTROL PANEL

Specific for Green Houses/Growth Chambers/Poly Houses and any other specific House/Chamber Relative Humidity + Temperature Real Time Microprocessor Controller Input : RH+Temperature Sensor Display, RH : Upper : 4 digit, 7 segment 0.56" (14.2 mm) green LED display Display, Temperature : Lower : 4 digit, 7 segment 0.56" (14.2 mm) red LED display Accuracy : RH : $\pm 3\%$ RH Temperature : $\pm 0.3^\circ\text{C}$ Feather touch operation. Set point lock within the setting panel to protect setting changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Selection of unit C, F .Display resolution 0.1. Automatic hysteresis control. Wide selectable temperature range, ranges from 0 to 100°C .

Photoperiodic Timer: Real time microprocessor based. Clock Accuracy $\pm 2.5\text{sec/day}$ @ 20°C 1 Channel 1 Week Program 16 memory locations adjustable to the minutes Holiday programming 150 Hrs. Running reserve. Random switching can be activated by pressing any key. PROGRAM SAVING BY EEPROM

Plitz Timer/ cyclic Timer for Humidity: To avoid the water logging condition 0-999 Min/sec On, 0-999 Min/sec OFF automatic cycling. Accuracy quartz

Remote Alarm Facility for Temperature. User can connect Data SIM for sending sms. Easy to put contact numbers by using keys and LCD display.

-User can get sms on High / Low Temperature ranges.

Controlling for Co2/Ethylene (Optional).



BB-0028A

ENVIRONMENTAL CONTROL PANEL WITH DATA LOGGING FACILITY

Fully PLC/PID based control system for controlling and maintaining the desired temperature, RH, lighting etc. for controlling the environment in required area along with data storage on PLC itself. It will have a programming feature to link multiple programs and equipped with surge arresters, IP22 protection and **Touch Screen display (HMI)** for depicting the values of temperature, humidity and light of all probes. Control system will have audio/ audio visual warning/alarm when set temperature/RH/ lighting is below or above the set values. Locking facility for the entire control system, along with key will be provided. No data loss, facility to send emails/SMS directly from the PLC.



**BB-0029****SEQUENTIAL TIMER**

Operates two Cooling Systems upto 2 TR Capacity alternately, directly from the powered output of timer. Min. On/Off cycle 15 min. Nicad backup upto to 90 min auto recharging auto manual selectable.

**BB-0030****AXIOMATIC TIMER**

Operates four air conditioners upto 2TR Capacity each, alternately. Directly from powered output to timer. It is basically (BB-0029) with double controlling systems.

**BB-0031****DIGITAL CYCLIC TIMER**

Specific for Fogging, Misting systems, Humidification and Dehumidification arrangements. Specifications : 0-999 Hr./Min./Sec On, 0-999 Hr./Min./Sec Off, Automatic cycling. Accuracy quartz, power output can directly drive Humidifier/Dehumidifier /other electrical load upto 4.4 KVA.

**BB-0032****DIGITAL PROGRAMMABLE (CYCLIC) TIMER**

Wide operating range, 2/3/4 digit 0.01 seconds to 9999 hours, incrementing / decrementing display, $\pm 0.01\%$ quartz crystal accuracy, 4 user selectable modes and 9 user selectable range.

**BB-0033****SWITCHING UNITS**

Specially designed to operate Air conditioners upto 2 TR / Heat convectors upto 4.4 KVA load or 110 tube lights of 40W each.

**BB-0034****OZONE GENERATION SYSTEMS**

Used for Ionic disinfection of Tissue Culture Rooms, Hardening Rooms, Cold Rooms and Other specified Rooms. Dry disinfection area 18m³, 35m³ and 100³ space upto 90-95% Wavelength 185 nm, Amp-2, Disinfection time 60 minutes. Auto stop timer, hazardous area available for entry after 10 minutes of disinfection. Power Drive units provided separately.

**BB-0035****ETHYLENE GENERATION SYSTEMS**

The Electronic Controls Fruit Ripening Ethylene Generator systems provides a reliable economical method for ripening & degreening fruit. Most fruits & vegetables produce ethylene gas naturally during the ripening phase. By introducing ethylene gas into the ripening room under controlled time & temperature conditions, ripening time can be considerably reduced, & more even ripening obtained. Electronic Controls Ripening Ethylene Generator Systems provide superior consistent fruit ripening with good coloration and at much lower cost than the old methods of ripening, using calcium carbide generated acetylene, bottled gas or burning incense.



**BB-0036****ULTRASONIC VAPOUR HUMIDIFIER**

It creates the simulated natural humidity in Growth / Rooms / Chamber without disturbing the inside TEMPERATURE because vapour comes out in cold form.

Salient Features :

Optimum Utilization of water. Instant Vaporization (STARTS). No thermal losses. Automatic water selection system. Auto off incase of non availability of water. Low electrical consumption. Ultrasonic Frequency : - 1700±40 KHz, Ceramic Disc size : Φ 20mm. Titanium Coated. Mist Generation > 900 ml/Hr. Stainless Steel 304 grade enclosure (2 litre water storage capacity) with automatic water feeding arrangements and fiber filter.

**BB-0037****INDUSTRIAL & COMMERCIAL ULTRASONIC HUMIDIFIER**

BBPL commercial Ultrasonic Humidifier works on the principle of ultrasonic vibrations so that no heating elements are required for humidification. A conventional humidifier with heating elements would requires 750 watts of electricity to humidify 1 litre of water. Whereas BBPL humidifier only requires 100 watts to humidify 1 litre of water. Hence you get almost 80-85% of electric savings by using our Commercial Humidifiers. Our Humidifiers are constructed in Stainless Steel 304 grade enclosure. Suitable for industrial / Commercial / domestic use.

**BB-0038****MISTING / FERTIGATION / DRIP IRRIGATION SYSTEM**

Misting/Fogging It is used for irrigation purpose in Green Houses, Poly Houses Net House, or other specific Houses to increase RH upto 90 to 95% using NETAFIM/NANDAN micro fogging/micro misting system.

Fertigation is the injection of fertilizers, soil amendments, and other water-soluble products into an irrigation system. BBPL provide state of the art Intelligent Fertigation System as per the needs/capacity using Israeli Technology.

Drip irrigation is a type of micro-irrigation that has the potential to save water and nutrients by allowing water to drip slowly to the roots of plants, either from above the soil surface or buried below the surface. BBPL provide state of the art Intelligent Drip irrigation System as per the needs/capacity using Israeli Technology.

**BB-0039****DE-HUMIDIFIER (Metal Silicate base) Bry-Air Make**

Suitable for ambient temp 4°C to 50°C Dehumidification Range 5% to 95%. The moisture is adsorbed in the dehumidification sector by the Ecodyr fluted, metal silicate desiccant synthesized rotor and is exhausted in the reactivation sector by a stream of hot air in a counter flow. Following the reactivation process, the adsorption sector is again ready to adsorb the moisture. Thus, the two processes of "moisture adsorption" and "reactivation" are taking place with separate airflows continuously and simultaneously. Positive sealing between chambers prevents mixing of the process and reactivation air stream.

**BB-0040****DE-HUMIDIFIER (Refrigerant base)**

Suitable for ambient temperature of 15°C-35°C, Microcomputer automatic control Compact design with a handle. Easy to lift, Air purifying filter (Optional), Besides the nylon filter, and activated charcoal filter can be used for removing dust, smoke and unpleasant odour, Power: 220-240V, 50Hz, Microcomputer humidity-level controls, Dehumidification capacity: 16 litres per day at 30°C, 80% R.H., Power consumption: 420W, 2.6 A, Fan-Only mode provided, Auto pause when bucket is full, Refrigerant: R134a.



**BB-0041****LAMINAR AIR FLOW (HORIZONTAL TYPE/VERTICAL TYPE)**

BBPL introduces a complete range of Horizontal, Vertical and Bio-safe laminar flow clean air benches. These benches are made to meet clean air as per **CLASS 1** condition with the help of HEPA, Mini pleat filters. Horizontal/Vertical laminar air flow arrangements are modular in construction, the body is made up of High quality laminated wooden board/SS/Powder coated MS with Acrylic/glass/PC front and sides, Fluorescent lamp, Blower operating switch, UV lamp, Gas cock and Static pressure manometer Available in Different working sizes like :- 2' x 2' x 2', 3' x 2' x 2', 4' x 2' x 2', 6' x 2' x 2' and 8' x 2' x 2' and can be constructed as per specific user designs and requirements.

**BB-0042****AUTOClave HORIZONTAL/VERTICAL**

BBPL Autoclaves are Automatic/Semi automatic comprises of Control Panel consists of Digital Controller, Water level indicator shows the water level inside the boiler, pressure gauge, safety valves and indfoss piezostat to adjust pressure between 15 to 22 PSI. The entire Body is made of stainless steel from inside and outside SS/Powder coated MS, all these sheets are argon arc welded. The Autoclave is tested Hydraulically and electronically fitted with safety measures. The Autoclave unit is fitted with easily replaceable heating element.

**BB-0043****HOT AIR OVEN (BOTTOM HEATED)**

Temperature Ranges from a few degree above the ambient temperature to 300°C, thermostatic/digital controller. Heating elements are provided at the bottom only, double walled inside Aluminium/Stainless Steel 304 Quality outside powder coated MS steel. Supplied with or without air circulation fan and without thermometer.

Available Sizes: 12"x12"x12", 14"x14"x14",
16"x16"x16", 18"x18"x18", 18"x18"x24", 24"x24"x24"

**BB-0044****OVEN UNIVERSAL**

Temperature Ranges from a few degree above the ambient temperature to 300°C, thermostatic/digital controller. Heating elements are placed in ribs at the bottom and sides, the chamber has 2/3 removable shelves, adjustable air ventilators are placed near the top sides. Double walled inside Aluminium/ Stainless Steel 304 Quality outside powder coated MS steel. Supplied with or without air circulation fan and without thermometer. Available Sizes: 12"x12"x12", 14"x14"x14", 16"x16"x16", 18"x18"x18", 18"x18"x24", 24"x24"x24"

**BB-0045****HEAT CONVECTOR**

Heavy duty Paralytic Technique which is ideal for heating in Biotech work, inbuilt auto thermal cut off device, Biotech grade 2.5 KW. It has ISO certified heating element and ISI standard 900 rpm speed fan, it prevents SO₂ injury to plants as caused by other make of heating due to improper combustion of atmospheric gases as a common phenomenon seen in Green House. Input 200-240 VAC, 50Hz, single phase. Ambient 5°C to 50°C, RH upto 90%



**BB-0046****RADIATOR HEATER**

Specially designed to maintain temperature in Growth Chambers/Tissue Culture lab and other specified rooms. Oil filled heat dissipating fine, regulating switch for higher intensity. Safety switch against tilting. Thermostatic controller. Built in safety fuse. Caster for easy movability input 200-240 VAC, 50Hz.

**BB-0047****AIR EXCHANGE UNIT**

Fitted with HEPA Filter of an efficiency of 99.97% down to 0.3 micron media of glass fiber & made of pleats back & fro in an anodized aluminum frame with programmable timer for desire numbers of air exchange.

**BB-0048****B.O.D. INCUBATOR (LOW TEMPERATURE)**

BBPL BOD incubator designed to provide a wide range of conditions to study the growth of organisms, plant under the tropical/temperate conditions, irrespective of room temperature. Heating and cooling temperature range 5°C to 50°C with $\pm 1^\circ\text{C}$ control accuracy. With unbreakable Acrylic transparent door inside with illumination. Double walled inside aluminium / SS with adjustable shelves. Available in Different working sizes like :- 4,6,10,12,16 cu.ft. capacity and can be constructed as per specific user designs and requirements.

**BB-0049****AIR CURTAN**

BBPL provides M.S. Powder coated body for normal height upto 12 feet. Available size: 3', 4' 5' 6' or any non standard size as per requirement.

**BB-0050****PHOTO SIMULATOR FOR PAR LAMPS**

Electronic simulator to operate PAR light 36 Watt having wave length 380nm-780nm

**BB-0051****BALLAST SOLID STATE FOR SIMULATED LIGHT**

Electronic simulator to operate fluorescent tube 36/40/58 Watt

BB-0052**HEAVY DUTY AIR-CONDITIONER FOR BIOTECH PURPOSE**

Ozone Friendly Refrigeration System copiously designed for tropicalized operation air-conditioning package units for low temperature, medium temperatures and high temperatures. Refrigeration System consists of Condensing Units, liquid line solenoid valves, HP-LP (Danfoss Make), Accumulator, Hermetically sealed Compressor (Reciprocating type), Liquid line filter drier, Long seamless grooved copper pipe cooling coil with 304 grade Stainless steel enclosure.





BB-0053

SLOW SPEED AXIAL FLOW FAN

Heavy galvanized steel box farming riveted together for durability, Aluminium / Stainless steel Blade, Cross Shaped steel framework has a streamlined design with the fan hub at the centre, With the fan blades on one side and the pulley on the other side, this design allows improved load balancing which increase bearing and fan life, Centre hub made from die cast aluminium with integrated steel shaft. Shaft is supported by two rigid radial ball bearings with watertight protective screen, Efficient sealed motors in compliance with ISI/CEI standards, Shutters comes with automatic shutter opener. This opener system allows the shutters to fully open as soon as the fan starts to run. Air delivery normally lost due to dirty shutters or to hold shutters open is thus eliminated. Available Sizes: 24", 30", 36", 48" & 50"



BB-0054

AIR PURIFIER

Aluminum static plasma filters + UV light phot catalyst + Activate carbon + Ions +, Odor Sensor + LED screen with Remote + Ozone operation optional



BB-0055

MODULATED ACTUATOR

Automatic sealed Dampers for air exchangers, Aluminum/GI/SS. Available in different sizes- 300 x 315mm , 450mm x 450mm, 600mm x 600mm and can be made as per specific user designs and requirements.



BB-0056

CULTURE BOTTLES

500ml Autoclavable Tissue Culture bottles of various size available with PP caps min. packing of 500 bottles. Tissue Culture Polycarbonate Bottles 500ml also available.



BB-0057

ROOT TRAINERS

All type of Root Trainers of various dimensions like 100cc-40cell, 150cc-20cell, 250cc-12 cell 300cc-12 cell are available in different sets. able.





BB-0058

PRO TRAY

Pro Tray of specially molded plastic material having 98 & 50 holes



BB-0059

GLASS BEAD STERILIZER

Cabinet Size: 140mmx125mm x 280mm, Curable Brass Size: 50mm dia x 162.5 mm depth preset temperature range 230°C to 250°C Initial stabilization time 30 Min. Power Consumption 50 Units (for 25 workingdays) Wattage - 250W phaseinput 220V/50Hz



BB-0060

AGRO NETS

Strong durable, UV stabilized, shading Nets are available in white, Green, Black and Black Green, Red and Blue with 35%,50% 75% and 90% shade percentages.



BB-0061

AGRO FILM

Agro Film – UV stabilised Triple layer / Five Layer Low Density Poly Ethylene Agro film / Mulch Films of various sizes and thickness.



BB-0062

POLY CARBONATE SHEET

Poly Carbonate Sheet : UV stabilised Double layer / Triple Layer / Four layer Poly-carbonate sheet of various thickness :- 6mm, 8mm,10mm & 16mm.



BB-0063

ALUMINUM SHADE NET

AluminiShade Net :- Aluminium thermal shade cloth is ideal in hot summer months to reduce greenhouse temperatures. Alumini Shade Net reflects the heat away from the greenhouse resulting in daytime air temperatures of between 3 and 6 degrees Celsius less than outdoor temperature in direct sun. This can equate to a cooler greenhouse in the daytime by approximately 10% using 50% – 70% Alumini Shade Net resulting less heat stressed and lowers the evaporation process and saves water.



**BB-0064****PRE-FABRICATED PANELS / PORTA CABINS / LABORATORIES**

Puff / EPF Insulated Porta Cabins / Laboratories: A portable, demountable or transportable building / laboratory, is a building / laboratory designed and built to be movable rather than permanently located. A common modern design is sometimes called a modular building, but portable buildings / laboratory can be different in that they are more often used temporarily and taken away later. BBPL provides state of the Art Porta Cabins / Laboratories at a very affordable price.

BB-0065**FUME HOOD**

Main body of the fume cupboard is made of good quality marine plywood with water and chemical proof epoxy painted / Mica. Fitted with a sliding door made up of acrylic, moves vertically up and down with counter balanced weight operated by steel cables. Fluorescent light is provided inside the Fume Hood Chamber for easy working. One Ceramic sink of small size, water tap and gas cock are also provided inside the chamber. Working top of the fume cupboard is of 19mm thick Black granite, which is acid or alkali resistant.

**BB-0066****PASS BOX**

Pass Boxes are suitable for transfer material from one room to another room without mixing of two environment.

Technical Specifications

Dynamic/Static Type

Stainless Steel 304 Grade. UV light. Door SS with Glass

Interlocking – Microprocessor base with magnetic lock (No Moving part)

**BB-0067****REMOTE ALARM SYSTEM**

- User can connect Data SIM for sending sms.
- Easy to put contact numbers by using keys and LCD display.
- User can get sms on High / Low Temperature ranges.
- Hooter output for local Audio Alarm.
- GSM modem for sms facility
- Battery back up for 4hrs. in case of power failure

**BB-0068****TRAY TROLLEY THREE, TWO & SINGLE TIER**

Height 24"/30", width 16"/18" Length 24"/30". Structure - Stainless Steel 304 grade, castors with breaks.

**BB-0069****ROLLING ARRANGEMENTS FOR SCREENS**

Manual Rolling mechanism for any type of cladding materials like Agro shading net / Poly Sheet etc.





BB-0070

BOTTLE WASHING MACHINE

Twin Head Bottle Washing Machine (Horizontal Model), Bottle Washing by Brush is an ideal for modern laboratories. It can wash the bottle or flask of various sizes due to its chuck taking wide variety of inter changeable nylon brushes for cleaning them. It is fitted with $\frac{1}{4}$ Hp. Electric motor covered in a beautiful and well design made of steel duly paint finish complete with chuck locking device and Off/On switch, pilot lamp, cord and plug to work on 220/230 volts AC mains and a GI Tank of 30" x 20" x 12" size.



BB-0071

COMMERCIAL BIOTECH HEATING SYSTEM

Heavy duty Paralytic Technique Which is ideal for heating in biotech work. Inbuilt auto thermal cut off device, Biotech grade 3 KW. It has ISI standard make heating element and ISI standard DOUBLE BLOWER, it prevent SO₂ injury to plants as caused by other make of heater due to improper combustion of fuel gases as a common phenomenon seen in green house / allied areas. Input 200-240 VAC, 50 HZ, single phase. Ambient 5C to 50C, RH upto 90%.



BB-0072

SPECTROPHOTOMETER (UV-VIS)

Wide wavelength range. satisfying requirement of various fields. Fully automated design, realizing the simplest measurement & satisfying the requirement of pharmacopoeia, **Maximum of 9 wavelengths & 7 samples can be measured at one time.** Automatic change-over between W lamp & D2 lamp, optimised optics and large scale integrated circuits design, light source and receiver, Automatic 10mm 8-cell holder, RS-232 interface.



BB-0073

PLASTICWARE

- » Pipette Tips
- » Ultra Low retention Tips
- » Centrifuge Tubes
- » PCR Tubes / PCR tube workstation
- » Microplates
- » Transfer Pipetters
- » Transfer swab with/without medium
- » Petri Dish
- » Microtubes
- » Serological Pipettes
- » Frosted slides
- » Reversible Rack for PCR
- » Cryovials



BB-0074

INTELLIGENT WEATHER STATION

Intelligent Weather Station (IWS) will typically consist of a weather-proof enclosure containing the data logger, rechargeable battery, telemetry (optional) and the meteorological sensors with an attached solar panel or wind turbine and mounted upon a mast. The specific configuration may vary due to the purpose of the system. The system may report in near real time. The measurements taken include temperature, atmospheric pressure, humidity, wind speed, wind direction, and precipitation amounts.





BB-0075

MICRO PIPETTE

- » Variable volume Micro Pipette
- » Fix Volume Micro Pipette
- » Multi Channel Micro Pipette
- » Electronic Pipettes
- » Pipette Controller



BB-0076

SMOKE DETECTOR

Photoelectric Detector can detect the smoke by couple of Infra-red Diodes, The Detector is ASIC adopted, Anti- LIGHT, Moth Proof, Dust Proof, Strong Adaptability for circumstances. Operating Voltage – 12V (Network Type) ; 9V BATTERY; ALARM INDICATION : RED LIGHT FLASH; SOUND LEVEL : >85Db/m ; Operating Temperature : -10°C to +50°C; Operating RH : <95%. Detecting Area : 20 Sq.m.



BB-0077

SOILRITE MIX

TC is a mix made from Irish Peat Moss and Horticultural grade Expanded Perlite [75:25]. This product is exclusively used in the greenhouse for hardening of Tissue culture plants. Soilrite Mix–TC is a sterile media free from pathogens and weeds



BB-0078

PERLITE MIX

Perlite is an amorphous volcanic glass that has a relatively high water content, typically formed by the hydration of obsidian. It occurs naturally and has the unusual property of greatly expanding when heated sufficiently. It is an industrial mineral and a commercial product useful for its low density after processing.



BB-0079

COCOPEAT

Cocopeat is a natural fibre made out of coconut husks. The extraction of the coconut fibre from husks gives us this by-product called cocopeat. Cocopeat is a 100% natural growing medium. ... Clean coir has natural rooting hormones and anti-fungal properties.



BB-0080

GROW BAGS

Grow is a plastic bag filled with growing medium and used for growing plants. available in various sizes.



Terms & Conditions

- ☞ IGST / CGST / SGST or any other tax shall be charged extra.
- ☞ Packing, forwarding freight, Insurance shall be charged extra.
- ☞ Octroi / entry tax extra as applicable at the time of delivery.
- ☞ Warranty for BBPL brand Instrument stands for 12 months from the date of despatch.
- ☞ BBPL reserves the right to make changes in instruments design in accordance with Mechanical/ Technical progress therefore Illustrations are not binding.
- ☞ If delayed to supply the order, any reason whatever, the firm is not liable to pay for any damage.
- ☞ All disputes to be settled at Delhi Courts only.



Authorised Dealer / Distributor



BHANU BIOTECH PVT. LTD.

267, Bank Enclave, Laxmi Nagar, Delhi-110092

Ph.: +91-9810095572, 9310095572, 9868025155 , Telefax : +91 11 22440267

E-mail : director@bhanubiotech.com, bhanubiotech1@gmail.com,

info@bhanubiotech.com Web : bhanubiotech.com