



# BIOVATION

Biovation Engineering Pvt. Ltd.



# About Us



Our company is established on the grounds of ethical and complex engineering. We are working our best in customizations and post machine modification. We are here to establish with an objective of serving good quality products as per your requirements. We endeavor to provide the right opportunities to those who make contributions in the field of medical and engineering sectors.

The focus of Biovation is to provide high Tech. equipments in medical, engineering, pharmaceuticals, bio engineering and agro industries. We are committed to achieving excellence in supplying good quality products. We are here to provide solutions in a vast field of machine manufacturing. We people are trusted by the most upfront firms and institutions.

## Our Goal

The company's major goal is to perform to the best of our ability in order to meet our clients' expectations. We deal with machine manufacture and service provision, as well as ensuring that our clients receive high-quality services.



## Vertical Autoclave APPLICATIONS

- Autoclave Vertical are most ideal for critical applications requiring assured and reliable total destruction of all living micro-organisms
- **Vertical autoclave** is low cost options for general sterilization ideal tool for Laboratories, Hospitals, Nursing Homes, R&D labs etc, Pharmaceutical, Food & Beverage Industries and Institutions

## SALIENT FEATURES & CONSTRUCTION

- Inner & Outer Chamber, constructed from S. S. 304 Grade
- Bucket / Basket Made of Stainless Steel
- Water Level Indicator
- Lid Closing by Radial Locking System
- Sealing of Lid by Neoprene Rubber Gasket
- Lid is fitted with Pressure Gauge, Spring Loaded Safety Valve.
- Operating range from 15psi to 20 psi pressure
- Sterilizing Temperature up to 134°C
- Tested up to 2.5 times of required Pressure
- Fully automatic models requiring no human intervention till a full sterilization cycle is over.
- Fitted with a (Programmable Logic Controller) LCD Display with respect to time and temperature.
- Enabling user automatic purging of stale air.
- Sterilizing hold time system for sterilizing period and cycle end.
- Automatic exhaust of pressure.
- Audio alarm/ buzzer is raised at the end of the cycle on.
- Voltage: 220 Volts AC (50 Hz)

PARAMETERS	MODEL BVA1	MODEL BVA2	MODEL BVA3	MODEL BVA4	MODEL BVA5
Inner Dimensions (Dia x Height)	250x450mm	300x500mm	350x550mm	450x600mm	550x750mm
Inches Conversion	10 x 18	12 x 20	14 x 22	18 x 24	22 x 30
Capacity	22 ltrs	40 ltrs	50 ltrs	98 ltrs	152 ltrs
Working Load	2.0 KW	2.0 KW	3.0 KW	4.0 KW	6.0 KW

# BOD Incubator

## APPLICATIONS

- BOD Incubator (Bio-Oxygen Demand) are used to maintain temperature for test tissue culture growth, storage of bacterial cultures and incubation where high degree of constant temperature accuracy is required.



## SALIENT FEATURES & CONSTRUCTION

- Robust construction outer chamber is made of Mild Steel duly pre treated & finished with powder coated paint for lasting finish or Stainless Steel.
- Inner chamber made of Stainless Steel (304 Grade).
- Fitted with durable coaxial blower for forced air circulation at triple walled back to maintain temperature uniformity in the chamber.
- Outer front double walled door is insulated and is fitted with magnetic tape for air tight closing for no temperature loss, provided with lock and key arrangement.
- Door operated illumination lamp is fitted inside the chamber for easy visibility.
- A full view inner plexi-glass door enables inspection and monitoring of inner chamber specimens without disturbing the process temperature.
- High grade Puff Insulation between outer and inner chamber for minimal thermal losses.
- Cooling is done by fined tube evaporator lie in the air circulation path by ISI marked Compressor/Condensing Units CFC free & R-134 a eco friendly refrigerant.
- Heating elements are placed in the path of moving air duly insulated from the body.
- Inner chamber has ribs for placing the shelves at convenient levels. Supplied with 2 or 3 removable shelves.
- Temperature controller cum Indicator Microprocessor based with LED display for Set Value (SV) & Process Value (PV) to select any desired temperature provided with Volt meter on the panel to read the incoming voltage.
- Caster wheel mounted for easy portability.
- BOD Incubator is supplied with cord and plug.
- Operating Voltage: 220 Volts AC (50 Hz).

Model No.	BBOD 1	BBOD 2	BBOD 3	BBOD 4	BBOD 5	BBOD 6
Usable Space in MM	405 x 405 x 405	610 x 450 x 410	845 x 500 x 400	870 x 570 x 560	900 x 650 x 570	700 x 900 x 650
Capacity	2 cu. ft	4 cu. ft	6 cu. ft	10 cu. ft	12 cu. ft	15 cu. ft
Approx Volume (Ltr)	60 ltrs	113 ltrs	173 ltrs	282 ltrs	342 ltr	421 ltrs
No. of Shelves	2	2	2	3	3	3
Temperature Range	5°C above ambient to 60° C (Resolution 0.1° C)					
Temp. Controller	By Microprocessor Based PID Digital Temperature Indicator and Controller.					
Temp. Accuracy	±0.5° C					

# Hot Air Oven APPLICATIONS

- Hot Air Oven is a laboratory instrument that uses dry heat to sterilize laboratory equipments and other material. We can sterilize Glassware (like petri dishes, flasks, pipettes and test tube), powder (like starch, zinc oxide and sulfadiazine) and metal equipments (like scalpels, scissors and blades).
- To destroy microorganisms and bacterial spores, a hot air oven provides extremely high temperatures over several hours.



## SALIENT FEATURES & CONSTRUCTION

- Outer chamber is made of Mild Steel duly powder coated or Stainless Steel.
- Inner chamber made of aluminium or Stainless Steel (304) sheet.
- Forced convection system by motor & blowers fitted ensures good mixing, strong dispersion and maintains higher temperature uniformity inside the chamber & no cross contamination.
- Thermal loss is prevented by filling mineral wool (Insulation) in space between the outer body & Inner chamber.
- Door Gasket fixed on the double walled door for proper sealing.
- Fitted with heavy hinges with a ball catcher, spring loaded door closing device. Door is duly insulated.
- Adjustable two ventilation slides control inner air / vapour circulation.
- Beaded heating elements made of high quality Nichrome/ Kanthal wire are placed in ribs, at bottom and sides for uniform heat distribution.
- Inner chamber has ribs for placing the shelves at convenient levels. Supplied with 2 or 3 removable shelves.
- Temperature is controlled by electronic digital temperature indicator cum controller.
- Different programme functions can be designed for a wide variety of applications, and even when used
- Temperature is displayed by Digital LED with SV and PV display at front of the oven.
- Front Panel is provided with ON/OFF switch, temperature controller and indicators
- Supplied with cord and plug.
- Operating Voltage: 220 Volts AC (50 Hz).

Model No.	BHA0 1	BHA0 2	BHA0 3	BHA0 4	HA0 5	HA0 6	HA0 7	BHA0 8
Inner Chamber in MM (W x H x D)	300x300x300	355x355x355	455x455x455	455x455x605	455 x 605 x 605	605x605x605	605x455x910	605x910x605
Inches Conversion	12 x 12 x 12	14 x 14 x 14	18 x 18 x 18	18 x 18 x 24	18 x 24 x 24	24 x 24 x 24	24 x 18 x 36	24 x 24 x 36
Capacity	28 ltrs	43 ltrs	90 ltrs	105 ltrs	120 ltr	215 ltrs	240 ltrs	325 ltrs
Heating Load	1.00 KW	1.00 KW	1.50 KW	1.50 KW	2.00 KW	2.50 KW	2.50 KW	3.00 KW
No. of Shelves	2	2	2	2	2	2	3	3
Temperature Range	50° C to 250° C							
Temp. Controller	By Microprocessor Based PID Digital Temperature Indicator cum Controller.							
Temp. Sensitivity	±1° C							



# Laboratory Incubator

## APPLICATIONS

- Laboratory Incubator (Mettmert Type) Double walled is elegantly designed in various applications for microbiology, cell cultivation of animals and plants, food studies. Our Incubators stands for unparalleled precise, even and gentle temperature control.
- Double Walled Incubators (Mettmert Type) is low cost options for various experiments in, industries, R&D labs, Pharmaceutical, Food & Beverage Industries and Institutions- in the field of Medical, Agricultural and Industrial Research used for Drying of slides, paraffin embedding, tissue culture work, incubation of antibody test, excellent for Microbiological determinations, crystallization studies and Incubation of hydroxyl steroids.



## SALIENT FEATURES & CONSTRUCTION

- Outer chamber is made of Mild Steel duly powder coated or Stainless steel.
- Inner chamber made of aluminium or Stainless Steel (304) sheet.
- Forced convection system ensures good mixing, strong dispersion and maintains higher temperature uniformity inside the chamber.
- Door has double viewing window to observe the sample placed inside the chamber without disturbing the thermal condition.
- Thermal loss is prevented by filling mineral wool (Insulation) in space between the outer body & Inner chamber.
- Door Gasket fixed on the double walled door for proper sealing.
- Fitted with heavy hinges with a ball catcher, spring loaded door closing device. Door is duly insulated.
- Adjustable two ventilation slides control inner air / vapour circulation.
- Beaded heating elements made of high quality Ni chrome/ Kanthal wire are placed in ribs, at bottom and sides for uniform heat distribution.
- Inner chamber has ribs for placing the shelves at convenient levels. Supplied with 2 or 3 removable shelves.
- Temperature is controlled by electronic digital temperature indicator cum controller.
- Different programme functions can be designed for a wide variety of applications, and even when used
- Temperature is displayed by Digital LED with SV and PV display at front of the oven.
- Front Panel is provided with ON/OFF switch, temperature controller and indicators
- Supplied with cord and plug.
- Operating Voltage: 220 Volts AC (50 Hz).

Model No.	BLI 1	BLI 2	BLI 3	BLI 4	BLI 5	BLI 6	BLI 7	BLI 8
Inner Chamber in MM (W x H x D)	300x300x300	355x355x355	455x455x455	455x605x455	455 x 605 x 605	605x605x605	605x910x455	605x910x605
Inches Conversion	12 x 12 x 12	14 x 14 x 14	18 x 18 x 18	18 x 24x 18	18 x 24 x 24	24 x 24 x 24	24 x 36 x 18	24 x 36 x 24
Capacity	28 ltrs	43 ltrs	90 ltrs	105 ltrs	120 ltr	215 ltrs	240 ltrs	325 ltrs
Heating Load	0.50 KW	0.50 KW	1.00 KW	1.00 KW	1.50 KW	1.50 KW	1.50 KW	2.00 KW
No. of Shelves	2	2	2	2	2	2	3	3
Temperature Range	5° C above ambient to 70° C							
Temp. Controller	By Microprocessor Based PID Digital Temperature Indicator cum Controller.							
Temp. Sensitivity	±1° C.							
Air Circulation	By forced convection system							

# LAMINAR AIR FLOW (VERTICAL) APPLICATIONS

- Laminar Air Flow Benches Vertical are designed so as to meet the requirement of US Federal Standard 209 B (BS 5295) providing particle free air to meet class 100 conditions mainly used for various works that require maintenance of the cleanness and purity.
- It is Ideal for Culture analysis, Bacteriological & Biological applications in Hospitals, Plant Tissue Culture, Labs, Food, Beverage and Electronic industries.
- It provides an economical work environment- suitable for hospitals, drugstore, pharmaceuticals factories, sanitation and anti-epidemic stations.



## SALIENT FEATURES & CONSTRUCTION

- Low Noise.
- User Friendly Ergonomic Design.
- Controlled Environment Particulate Free Product Protection.
- Basic material cold rolled steel duly powder coated OR Stainless Steel (SS-304) (as ordered).
- Working table is made of Stainless Steel Sheet (SS-304 grade).
- Transparent front door glass 5 mm thick.
- The highly efficient HEPA filter maintains the optimum cleanliness and purity.
- The pre-filter fitted extends the life of HEPA filter drastically. Air drawn through pre-filter is made to pass through highly effective HEPA (High Efficiency Particular Air) filters having efficiency rating as high as 99.99% with cold DOP and 99.97% with hot DOP, thus retaining all air-borne particles of size 0.3 micron and larger.
- Working area is illuminated by fluorescent lighting fitted to the unit.
- Built in U.V. Germicidal light.
- Microprocessor based controls with Magnehelic gauge (HMI & PLC as an option).
- The blower and motor assembly is statically and dynamically balanced.
- Height of the working table provides comfortable "SIT DOWN" working position for the operator.
- Supplied complete with cord & plug to work on Single Phase 220 / 230 volts A.C. supply.

Model No.	BVLV-1	BVLV-2	BVLV-3	BVLV-4
Working Table Size	2' x 2'	3' x 2'	4' x 2'	6' x 2'
Working Size	2' x 2' x 2'	3' x 2' x 2'	4' x 2' x 2'	6' x 2' x 2'
HEPA Filter Size	2' x 2' x 6"	3' x 2' x 6"	4' x 2' x 6"	3' x 2' x 6"
No. of Motor/Blower	1	1	1	2
Illumination	1 x 20 w	1 x 20 w	2 x 40 w	2 x 40 w
Main Filter	HEPA Filter (99.97% efficient at 0.3 micron particles)			
Pre-Filter	High efficiency pre-filter (Washable)			
Sterilization	By U. V. Germicidal Tube in work area			
Noise Level	Less than 54 db			
Standard Accessory	Gas/Air cock			
Electric Supply	AC 230V, 50/60Hz			

# Hot Plate APPLICATIONS

- Hot plates are frequently used in the laboratory to perform chemical reaction, to heat samples, and for numerous other activities. Hot plates are conceptually simple – a flat surface with heating element.



## SALIENT FEATURES & CONSTRUCTION

- Rectangular or circular body made of PCRC Sheet powder Coated.
- Heating Plate made of cast iron having heating upto 300°C.
- Fitted with insulated elements.
- Having J type Temperature Sensor.
- Temperature is controlled by electronic digital temperature indicator cum controller with auto tuning feature.
- Supplied complete with cord & plug to work on Single Phase 220 / 230 volts A.C. supply.

Model No.	B x L x H	Watts
BHP 1	250 X 300 X 150 mm	1000
BHP 2	250 X 400 X 150 mm	1200
BHP 3	300 X 450 X 150 mm	2000
BHP 4	450 X 600 X 150 mm	3000



## BIOVATION

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CE and ISO certificate no: **CE - 1516 | ISO 9001:2015 | ISO 13485:2016**



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