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Laboratory Incubators or High Performance Scientific Incubators

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Lab Incubators are the device that provides controlled laboratory conditions for the microbial cultures. They have applications in cytology, molecular biology, biomedical fields, microbiology genetic engineering, hematological studies, and stem cell research. They provide controlled temperature with the help of thermostat and controlled humidity for growing cell and tissue cultures.

There are different types of incubators with size ranging from table top to units including bacteriological incubator, biological oxygen demand (BOD) incubator, humid co2 incubator, cooling incubators and shaking incubators.

An incubator consist of a transparent chamber that is mostly made up of stainless steel sheet metal or anodized aluminum for regulating temperature, humidity and other environmental conditions, electrical heaters and hot water jackets for even distribution of the heat around the cabinet and thermostats for maintaining controlled temperature.

BOD incubators are ideally designed for the analysis of biochemical oxygen demand and for the preservation of medicinal vaccines and various chemicals that works under the conditions of controlled humidity and low temperature. They are used in various hospitals, research centers and nursing homes. It comprises of double walled cabinet with inner chamber made up of stainless steel.

They are used for incubating samples saturated with oxygen and also for incubation of bacterial and fungal culture. They have effective air circulation, stainless steel interior, microprocessor control, uninterrupted temperature control, and chlorofluorocarbon (CFC) free cooling. They have large number of applications including bacterial culturing, life cycle testing, serum incubation, seed germination and preservation of vaccines.

A microbiological incubator focuses mainly on the growth and storage of bacterial cultures under the control temperature ranging from 5 to 7 degree Celsius. They are used for living cultures with temperature up to 70 degree Celsius.

A bacteriological incubator is the closed cabinet that provides optimum temperature for bacterial growth. These incubators can be set to different temperatures for different range and species of bacteria.

Shaking incubators are designed for incubation and proliferation of cell and tissue cultures mixing of small samples, cell aeration, solubility studies and storage of biological and medical specimens. They provide constant and controlled environmental conditions for biological growth. There are different types of incubator shaker including orbital shaking incubator, laboratory shaking incubator and bench top shaking incubators.

The orbital shaker incubator has large number of applications in biotechnology industry, research institutes, and in the field of genomics, proteomics and molecular biology. They are also known as environmental shakers that can be used for long term cultivation of mammalian cells.

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Rodsi Bhatia - About Author:
Rodsi Bhatia writes articles for business products and other manufacturing units. Acmas Technocracy Pvt.Ltd is a leading a co2 Incubator Manufacturer in india of Lab Equipments such as Microbiological Incubator and a Shaking incubators.

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