

Long-term durability with our Laboratory Vacuum Ovens

Laboratory Vacuum Ovens are extremely adaptable pieces of machinery with uses in engineering, industry, and laboratory research. The premise of a vacuum oven, which is commonly used for drying hygroscopic and heat-sensitive materials, is to lower the chamber pressure below the boiling point of water by creating a vacuum. In particular, it can be filled with inert gases to dry some complex materials quickly. Additionally, the low-pressure setting reduces oxidation when drying.

The materials that need to dry are kept on trays, and a vacuum pump lowers the pressure. Heat transmission by conduction takes place as a result of steam flowing through the area between the trays and the jacket. To lower the pressure, the oven door is airtight-locked and connected to a vacuum pump. A microprocessor controller with a digital display makes sure that the temperature is controlled precisely and uniformly. For clear observation, a dual-layer tempered glass door is offered. For the best heat transfer inside the oven chamber, there are adjustable metal expansion shelves.

Drying heat-sensitive items, such as powder, in a Laboratory Vacuum Ovens help to remove moisture. Vacuum drying reduces the boiling point, which minimizes losses of substances other than water. Samples are gently heated and dried, leaving almost no residue behind. **Laboratory Vacuum Ovens** are used for a variety of tasks, such as solid outgassing, dry sterilization, and moisture content measurement.

There are manufacturers and suppliers of Laboratory Vacuum Ovens. These ovens are created at our factory in both rectangular and cylindrical shapes, and they have a temperature range of up to 150°C. Each item offers exceptional long-term durability.

Description of Laboratory Vacuum Ovens.

Design: Our Laboratory Vacuum Ovens are available with capacities ranging from 6 liters to 21 liters or more. They can be made with rectangular, square, or circular chambers, depending on the application.

Construction: A vacuum oven must be made tough and leak-proof, thus make these units from thick gauge stainless steel sheets that are formed, joined, and beautifully designed using arc welding. While the interior chamber is often constructed of stainless steel 304 or 316 and backed by high-density glass wool insulation, the exterior cabinet is typically built of a powder-coated GI sheet. There are also vacuum ovens with stainless steel on the inside and outside.

Vacuum: A vacuum of at least -750mmHg is attained. Standard vacuum oven units come with dial-type analog vacuum gauges that measure pressures up to 30 psi. For added precision and accuracy, an imported digital vacuum display and controller is there. On either side of the device, vacuum intake and release valves are installed.

Door: A sturdy clamp is used to close the door, and the door is built of a thick gauge of steel with toughened glass. The door's silicone gasket at the chamber assures leak-free operation.

Temperature: A microprocessor-based temperature controller with a dual display that shows set value and process value controls the temperature of a standard vacuum oven, which has a temperature range of ambient +10°C to 200°C (PV). Temperature sensor PT100 is used to support it.

Our Laboratory Vacuum Ovens come with a number of optional attachments, including an oil-free vacuum pump, a data logging system, a digital timer, and caster wheels with brakes at the bottom. There are a highly sophisticated PLC-based HMI controller in your vacuum oven that not only allows temperature adjustments but also vacuum control, a digital vacuum display, and data monitoring with a USB port for pen drive data transfer.

Vacuum ovens are extremely adaptable pieces of machinery with uses in engineering, industry, and laboratory research. The most frequent applications of a vacuum drying oven are for delicate drying procedures like the removal of dangerous liquids or the drying of small parts. Additionally, the low-pressure setting reduces oxidation when drying.

A typical vacuum oven is capable of operating between 200°C and 250°C. It has characteristics like a reliable, high-quality pressure chamber, gasket seals, and pump in addition to practical, programmable controls and an interface. In order to avoid over drying, vacuum drying ovens can also be found with specialist functions like solvent recovery or residual gas analysis. Look for a safe vacuum drying oven that has been authorized for use with flammable solvent drying.

Interested in purchasing the best Laboratory Vacuum Ovens Please [choose](#) the one that best suits your demands, and then get in touch with our sales team to complete the transaction. If there is something missing, kindly communicate your needs to our technical staff; we also manufacture huge vacuum ovens that are customized at a reasonable cost.