

# VACUUM OVEN



**CONTACT US**

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## ABOUT THE COMPANY

iGene Labserve Pvt. Ltd. is gaining recognition by offering resilient, innovative solutions in laboratory instrumentation across healthcare, genomics, drug discovery, biopharma, and food & beverage sectors. We strive to enhance lab efficacy and reduce challenges through advanced technologies and a diverse product portfolio tailored to our customers' needs.

## VACUUM OVEN

Vacuum ovens are used to dry heat-sensitive materials like powder and extract moisture. Vacuum drying reduces the boiling point, reducing losses of components other than water. Samples are gently heated and dried, leaving virtually no residue. Vacuum ovens are used for a variety of purposes, including moisture content assessment, dry sterilization, solid purification, and outgassing.

We provide a variety of optional accessories for vacuum ovens, including an explosion-proof heater, digital timer, PLC-based HMI controller, RS485 computer interface, 21 CFR software, data logger and circular chart recorder, HEPA filter air inlet, and so on.



## KEY FEATURES

### Versatile Chamber Designs:

- The vacuum oven is available in rectangular, square, and round chamber configurations to suit specific spatial or application requirements.
- Capacity Options: Chambers are designed according to the required capacity, accommodating a wide range of sample sizes and applications.

### Leak-Proof Arc Welding:

- Precision welding ensures an airtight, robust structure that prevents any leakage.
- This high-quality arc welding provides durability and integrity under various operational pressures.

### High-Temperature Silicon Gasket:

- Equipped with a premium silicon gasket that resists high temperatures, maintaining effective sealing even under demanding conditions.
- Ideal for prolonged operations at high temperatures, ensuring no heat escape and optimal chamber insulation.

### Secure and Durable Door Clamps:

- Designed with high-quality door clamps that provide secure sealing, maintaining vacuum and temperature consistency.
- Clamps are constructed for easy handling and durability to withstand frequent use without compromising performance.

### Temperature Control Range:

- Operates from ambient temperatures up to 150°C with an optional extension to 200°C.
- Ideal for a variety of applications, from drying to thermal testing, covering a comprehensive range of heating requirements.

### Advanced PID Controller with Dual Display:

- Features a PID temperature controller for accurate temperature settings.
- Dual Display for Set Value (SV) and Process Value (PV), providing clear visibility and control over temperature settings and real-time process monitoring.
- Integrated with a PT-100 sensor for precise and responsive temperature measurement.

### Optional Advanced Features:

- Data Logging: Allows for automatic recording of temperature and vacuum parameters for quality control and analysis.
- Digital Timer: Enables precise time management for heating cycles, crucial for process consistency.
- PLC-Based HMI Controller: Offers an easy-to-use touchscreen interface for advanced control and monitoring.
- Vacuum Display and Digital Vacuum Controller: Provides real-time vacuum measurement and precise control, ideal for sensitive applications that require specific vacuum levels.

## CONTROLLER FEATURES

- **Microprocessor PID Temperature Controller:** Equipped with a precise microprocessor-based PID temperature controller, providing clear display of both set value (SV) and process value (PV) for accurate monitoring and control.
- **Over-Temperature Alarm:** Includes an over-temperature alarm to alert users of any deviations, ensuring the protection of samples and maintaining safe operation within set parameters.
- **Auto-Tuning Function:** Features an auto-tuning capability, which optimizes temperature control settings automatically for consistent performance.
- **Timer Functionality:** The controller allows users to set operational timing, specifying how long the oven will be active, which enhances efficiency and conserves energy during scheduled use.
- **Password-Protected Temperature Settings:** Temperature adjustments are secured with password protection, ensuring that set parameters cannot be modified without authorization, adding a layer of security to critical settings.

## SPECIFICATIONS

Chamber design	Round and Rectangular
Vacuum range	Up to -760 mmHg
Temperature range	Ambient+5°C to 150°C (Optional 200°C)
Temperature sensor	PT100
Temperature controller	Digital PID controller Display of SV & PV
Inner chamber	Hermetically welded stainless steel 304 sheet
External cabinet	Powder-coated GI sheet
Door	Solid door with clamp & toughened glass window
Gasket	High-temperature silicon gasket
Shelves	Removable SS shelves
Vacuum fittings	Vacuum valve/exhaust valves (Rubber hose)
Standard fittings	Mains on/off switch Vacuum pump on/off switch Electric socket for vacuum pump
Power supply	220 Volts 50Hz
Optional	KF25 flange vacuum connection 21 CFR compliance software Temperature up to 250°C All SS 304 construction (GMP) Digital vacuum control through solenoid valves PLC + HMI controller with USB interface Diaphragm valves for inert gas Timer 99 hours 59 min Oil-free vacuum pump

## ORDERING INFORMATION

Model	Dimensions (W x D x H)	Dimensions (W x H x D)	Volume
IG-8VHA	8 x 8 x 8 Inch	200 x 200 x 200 mm	8 Liters
IG-28VHA	12 x 12 x 12 Inch	300 x 300 x 300 mm	28 Liters
IG-50VHA	15 x 15 x 15 Inch	380 x 380 x 380 mm	50 Liters
IG-95VHA	18 x 18 x 18 Inch	455 x 455 x 455 mm	95 Liters
IG-127VHA	18 x 18 x 24 Inch	455 x 455 x 609 mm	127 Liters

Model	Dimensions	Volume
IG-6VOA	200 x 200 mm	6 Liters
IG-12VOA	250 x 250 mm	12 Liters
IG-14VOA	250 x 300 mm	14 Liters

**NOTE:** The model's name e.g. IG-12VOA is for a vacuum oven in a cylindrical shape and e.g. IG-8VHA is for the standard shape vacuum oven.





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