® THERMANSYS

VACUUM OVENS
Cubic and Cylindrical Chamber Shapes - Max. Temperature 200 ˚C
Model family: OVN-VAC-200

Description.

THERMANSYS OVN-VAC-200 Vacuum Ovens family was designed to provide fast and uniform temperature control for applications requiring heating under Vacuum or inert atmosphere. Available in both **cubic chamber** shape for larger useful surface and **cylindrical chamber** shape for optimum temperature uniformity.

The inner chamber made of corrosion-free stainless steel ASTM 304, resistant to most acid, is designed to maintain Vacuum conditions up to **10^{-2} torr (mmHg)**. Heated by stainless steel heating jackets all around the chamber supports homogeneous temperature distribution through interior of the chamber.

With a door having a large double wall transparent window provides full visual inspection of the treated samples. The internal window is made of safety glass that is spring mounted to act as a safety valve in case of over pressure event. The outer window is made of poly carbonate transparent material as a double safety measure. The door vacuum seal is provided by an endless high temperature Silicone gasket.

Suitable for many applications including Electronics/Semiconductors, Pharmaceuticals/Cosmetics, Plastics, Agricultural and other. Not suitable for flammable solvents drying.

Standard equipped with a Digital LCD display temperature controller providing 15 step programming with 1 program storage. Pressure control – Pump Control

Optionally equipped with the specially designed PYROLOGISM 2.0 software, provide a really unique and friendly, windows oriented architecture interface, with multiple, advanced features.

Equipped with Stainless Steel sliding shelves, designed to have close contact with the chamber walls, enhance the fast and uniform heat transfer to the samples. Each shelve is fully removable for easy cleaning and disinfection.

Ergonomic design with no protruding edges, bolts or other features combines stainless steel parts with electrostatically painted finish parts for an improved aesthetic result.

Temperature, Pressure and Vacuum Pump are controlled and monitored digitally. Connecting an inert gas supply the software can provide upstream pressure control.
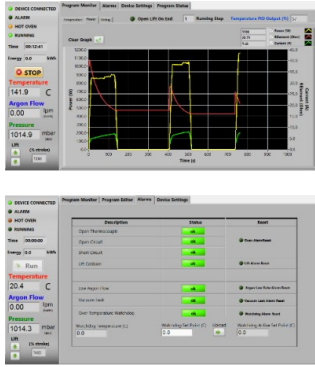
PYROLOGISM control and monitoring software.

- Quick setting of a single ramp rate to a set point -run on timer function.
- Set-point programming with up to 15 ramp and constant temperature and pressure programming steps – graphical inspection of programming.
- Storage and reload of unlimited number of distinct programs.
- Real time chart illustrating temperature, pressure and running set point.
- Real time true-RMS Current (A), Voltage (V) and Power (W) measurements.
- Real time actual Power (W) and totalized Energy (kWh) chart.
- Saves all data on local memory.
- Tools for manual PID tuning and auto-tuning.
- Virtual keyboard, alarm and event message tab.
- Watchdog over temperature limiter monitor/configuration.

Specifications and Ordering Information.

Standard features:

- Temperature control range, 5 ˚C above ambient to 200 ˚C. Monitoring resolution 0.1 ˚C.
- Operating Power: 220-240VAC-50/60Hz.
- Pt100 type embedded temperature sensors
- Temperature control setting resolution 0.1 ˚C. Typical control fluctuation ±0.1 ˚C
- Prsuure control setting resolution 10torr. Typical control fluctuation ±1 torr. Range 1-500 torr absolute.
- Permitted end vacuum 10^{-2} torr (mmHg). Permitted maximum pressure 780 torr (mmHg) absolute.
- Vacuum Pump connection port ½ in ISO, Inert gas inlet connection, ¼' Compression fitting
- Pressure transducer range 0.3-776 torr (mmHg), calibration acc. ±1% full scale, response time 2msec

Optional features:

- Remote, touch screen computer running the specially designed PYROLOGISM 2.0 software on a Tablet PC. **Add suffix _TSC.**
- Programmable stand-alone over-temperature limiter (Watchdog) with manual reset in accordance with EN 60519-2 to protect the heater and load, **Add suffix _WD.**
- UPS (Uninterrupted Power Supply). Keep system alive for short periods of power failure and restore program after power recovery **Add suffix _UPS**
- Optional Pump supplied with the Oven: Oil Rotary Vane, double stage, 2-5x10-2 torr end vacuum, free air displacement 118 lpm (170 lpm for 67 and 99 lt. models). **Add suffix _PUMP**

CE Certified. Compliant with **Low Voltage Directive 2006/95/EC** (harmonized referenced standard EN 61010-1: 2001 and EN 61010-2-010:2003) and **EMC Directive 2004/108/EC** (harmonized referenced standard EN 61326-1:2006). *Produced in* **GREECE**

TABLE1. OVN-VAC-200 Cubic Chamber Shape Models

Model Part Number	Max. Temp. ˚C x Heat up time* (min)	Oven Chamber internal dim. WxHxD mm	Heated Volume (liters)	Oven external dim. WxH**xD mm	Nominal Heater Max. Power (W)	Weight (kgr)	Rack No
OVN-VAC-V29-200	200 x 80	300x320x300	29	520x700x480	1600	55	2
OVN-VAC-V67-200	200 x 80	400x420x400	67	620x800x580	2000	90	3
OVN-VAC-V75-200	200 x8 0	400x420x450	75	620x800x630	2200	100	3
OVN-VAC-V99-200	200 x 80	400x620x400	99	620x1020x580	2800	105	4

TABLE2. OVN-VAC-200 Cylindrical Chamber Shape Models

Model Part Number	Max. Temp. ˚C x Heat up time* min	Oven Chamber internal dim. Diameter x Depth mm	Heated Volume (liters)	Oven external dim. WxH**xD mm	Nominal Heater Max. Power (W)	Weight (kgr)	Rack No
OVN-VAC-V22C-200	200 x 60	260x400	22	490x650x580	1400	45	2
OVN-VAC-V34C-200	200 x 60	330x400	34	560x720x580	1600	60	2

* Oven working with no load., ** Not Including rubber feet (add about 20mm)

Ordering Example:
OVN_VAC_V67-200: This Part Number includes one OVN-VAC-200 cubic chamber shape oven having 400x420x400mm internal chamber dimensions including all standard features.
NOTE: The above described part number are valid for the OVN-VAC-200 models without a pump included.

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