

// Incubation and drying

VACUUM DRYING OVEN EV SERIES

FOR OPERATIONS THAT REQUIRE A GENTLE, HOMOGENEOUS AND EXHAUSTIVE DRYING, WITH VACUUM PUMP OF ADJUSTABLE SPEED



Vacuum drying oven

Perfect equipment for testing and treating materials that require effective drying and are sensitive to heat. Reliable,

fast, comfortable and energy efficient. The brand new EV Series oven is precisely regulated by a digital PID microprocessor and controlled by a 3.5" touchscreen, samples dry quickly. The vacuum pump and the oven form a perfect unit for all types of applications.

INTENDED USE

- + ELECTRONIC COMPONENTS
- + FOOD
- + SMALL UTENSILS
- + PHARMACEUTICALS AND CHEMICALS



FEATURES

- Vacuum drying.
- Temperature range from 35°C to 200°C.
- Heating by electric elements mounted in an independent chamber for optimum temperature homogeneity and stability, vacuum by a double stage oil sealed rotary pump integrated with a settling vessel with a capacity of 2L and a final vacuum of 0.002 mbars*
- Temperature and time controlled by digital PID microprocessor, with 10 editable programs of customizable name, programmable with up to 10 temperature/time segments.
- Timer start and timer stop adjustable by date, hour and minute.
- Intuitive alphanumeric 3,5" LCD touchscreen user interface that

displays time, temperature and cycles in graphs, has audiovisual alarms and advanced cycle and timer programming.

- Ethernet connection that allows the use of the online **RAYPAnet** platform to view and export cycles, generate reports and simultaneously manage different equipment.
- Temperature probe Pt100 class A.
- Vacuum gauge with graduated scale from 0 to -1 relative Bars.
- Manual vacuum regulation valve that controls air access into the chamber.
- Special connection for inert gases injection.
- External metallic frame with epoxy resin coating.

- Inner chamber, double chamber and inner side door made of stainless steel AISI-304.
- Perforated trays made of galvanized aluminum.
- Double insulated walls and door with low conductivity glass wool.
- Safety double glass against implosions.
- Silicone sealing gasket.
- Adaptation of the vacuum generation set for cleanrooms on request*.
- Rear hole with cap for external probe access.

* Separate specifications for ovens equipped with the vacuum generation set adapted for cleanrooms, Ref. ENC-S4.



RAYPAnet NEW ONLINE DATA PROCESSING PLATFORM



All incubation and drying equipment have a Ethernet connection that allows the use of the **RAYPAnet** online platform on a PC to view and export all the information of the cycles with graphs and all the relevant data, with the ability to export data reports.



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All cycle data can be viewed on the platform in real time or through the cycle history registry. Furthermore, all data can be exported in .csv and .pdf file formats for later consultation, study and storage.



The platform is compatible with all web browsers and multiple equipment can be connected and controlled simultaneously.



Touchscreen microprocessor detail.

NEW MICROPROCESSOR FOR ALL INCUBATION AND DRYING EQUIPMENT

Intuitive alphanumeric user interface through a 3,5" LCD touchscreen that allows the display of time, temperature and cycle evolution in graphic format in real time.



Compatible with Celsius or Fahrenheit scales with a resolution of 0.1° C/°F.



Capable of advanced cycle and timer programming, with up to 10 preset programs editable in parameters and name, programmable at a fixed temperature during an infinite time or with up to 10 time and temperature segments. Timer start and timer stop customizable by date and time.



Audiovisual security alarms for cycle finalization, probe failure, heating error, overheating and temperature out of range.

Vacuum drying oven

Accessories

BEV-50
EV-50
6
2
412 x 310

alite

EV-50 0

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LOCKABLE HANDLE

Lockable door protects samples from unauthorized access.



VGS

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STANDARD VACUUM GENERATION SET

In-line installation consisting of 3 parts: settling vessel, filter and vacuum pump.

It also includes a silicone tube to connect the different components directly in situ.

Reference: VGS





		A Settling vessel B Filter C Vacuum pump	
SETTLING VES	SEL		
Capacity L	2	Settling vessel with large storage capacity.	
Dimensions L x H mm	150 x 550	Fastening system by central rod for attachment and reliable sealing.	
		 Emptying system without interruption of the 	

vacuum supply.

FILTER

Dimensions Ø x H mm	132 x 313

 Filter element with a porosity of 25µm.
Allows easy disassembly and cleaning of the

cartridge. • Fastening system by central rod for attachment and reliable sealing.



VACUUM PUMP		
Flow L/min	70	Two-stage vacuum pump with vacuum gauge
Ultimate vacuum mbar	0,002	and non-return valve to protect the system from oil contamination.
Dimensions L x D x H mm	285 x 124 x 230	 Ergonomic handle with protection, for a more comfortable grip.
Power W	186	 Visor with oil level indicator and oil drain system for easy emptying.
Voltage V	230	system for easy emptying.
Weight Kg	7,1	



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Accessories

EV OVEN ADAPTATION FOR **CLEANROOMS**

FV-50

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VACUUM GENERATION SET ADAPTED FOR CLEANROOMS

Vacuum generation set for EV-50 adapted to **cleanrooms** and for those applications requiring the drying of samples with a high moisture content.

In-line installation consisting of 3 parts: decanter, filter and hermetic vacuum pump with HEPA filter. It also includes a silicone tube to connect the different components directly in situ.

Reference: ENC-S4



SETTLING VESSEL

Capacity ∟	2	
Dimensions L x H mm	150 x 550	

- · Settling vessel with large storage capacity.
- · Fastening system by central rod for attachment and reliable sealing.
- Emptying system without interruption of the vacuum supply.



FILTER

Dimensions 132 x 313 ØxHmm

- Filter element with a porosity of 25µm.
- Allows easy disassembly and cleaning of the cartridge.
- · Fastening system by central rod for attachment and reliable sealing.

MEMBRANE VACUUM PUMP IN HERMETICALLY SEALED CONTAINER WITH HEPA FILTER

ENC-S4



Dimensions L x D x H mm	490 x 330 x 176
Filtration capacity µm	0,22
Flow L/min	48
Ultimate vacuum mbar	50
Power W	150
Voltage V	230

- Airtight easy to clean metal container coated with epoxy resin.
- It includes the bacteriological filter and the vacuum pump.
- Bacteriological filter of 0.22 µm for inlet and exhaust air that prevents cross contamination and particle flow.
- High-performance oil-free diaphragm vacuum pump placed inside the airtight container.

A Settling vessel B Filter C Airtight container with vacuum pump

VACUUM DRYING OVEN - EV SERIES 5

Dimensions and performance

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Reference	EV-50
Capacity ∟	50
Stability °C	±1
Homogeneity (at 100°C) °C	±5
Resolution °C	0,1
Temperature range °C	35 - 200
Maximum vacuum mbar	0,002
Internal dimensions L x D x H mm	420 x 350 x 348
External dimensions L x D x H mm	580 x 570 x 650
Maximum total load Kg	40
Maximum load per tray Kg	20
Power W	1500
Voltage* V	230
Weight Kg	82
* Also available with a voltage of 115 V.	

Features

EV-50	
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✓	
✓	
✓	
✓	
✓	

Included



RΔΥΡΔ

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R. ESPINAR, S.L.

Supplied with

- 2 perforated removable trays made of galvanic aluminium.
- Access to the online platform RAYPAnet.

Safety

- Safety double glass against implosions.
- Audiovisual security alarms: end of cycle, probe failure, heating error, overheating and temperature out of range.
- Manually adjustable class 2 hydraulic safety thermostat that interrupts heating in case of failure of the main regulator. Thermostat is accompanied by a push-button to reset the thermostat and a immobilization device that immobilizes the thermostat knob to avoid involuntary displacement. Thermostat's correct operation is displayed by a warning light that lights up after proper rearming.
- Stainless steel interior and corrosion-resistant easy-to-clean metallic exterior.
- Door lock protects samples from unauthorized access (optional accessory: MCLL).
- Safety according to EN 61010-1 and EN 61010-2-010 regulations.
- **Warning:** equipment not adapted to ATEX directive. Not compatible with samples that release flammable gases or vapors that may be explosive.



