ENVAIR LAB

Envair Lab HF Series CO_2 Incubators

Ideal Culture Conditions for Your Success

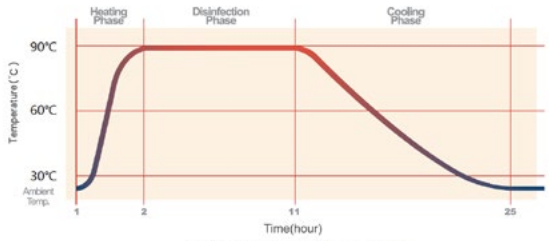
Envair Lab HF Series

Air-jacketed CO_2 Incubator

CO_2 incubators are widely used in scientific research to grow and maintain cell cultures. An Envair Lab CO_2 incubator provides you with unsurpassed natural simulation to ensure optimum growth conditions for your culture at all time. That's why they become the first choice of researchers in fields of application include tissue engineering, in vitro fertilization, neuroscience, cancer research and other mammalian cell research.

Safe for cultivation

Cell cultivation in particular is a highly sensitive process in which bacteria, viruses, fungal spores and mycoplasmas can destroy valuable cultures or distort test results, causing more work. Envair Lab solves this problem using a unique design and effective method to ensure sterile conditions.



90°C moist heat disinfection pattern


UV lamp

90°C moist heat disinfection (HF90 & HF240)

HF90 and HF240 are equipped with 90 °C moist heat disinfection system.
The validated overnight sterilization cycle ensures reliable destruction of germs that could interfere with your work and requires no extra work, such as removal of interior fittings. Mycoplasma is 100% eliminated in a routine disinfection cycle.

Ultraviolet disinfection (HF151UV & HF212UV)

A long-life ultraviolet lamp is equipped at the inner back of HF151 UV and HF212UV to sterilize chamber air and water in the reservoir to maintain contamination-free conditions within the chamber. To take maximum effect of disinfection, the wave-length of UV light is kept at 254nm.


Coved corners

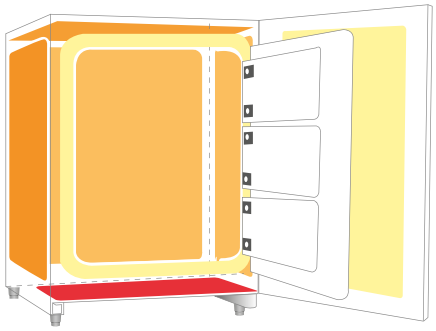

CO2 inlet filter

Easy-to-clean design

The cleaning process is significantly simplified by Envair Lab's unique, seamless, deep-drawn interior chamber, which reduces any areas where contamination could accumulate. Envair Lab incubators offer the best usable-space-to-volume ratio due to the total absence of any additional fittings in the interior chamber.

Inlet filter for CO_2 supply

All gas injection lines are filtered via HEPA filter to remove impurities and contaminants before being injected into the chamber. The HEPA filter is able to filter partciles larger than 0.3 at 99.998%.



- The main heater provides precise temperature control.
- The bottom heater warms the distilled warm and ensures chamber humidity.
- The outer door heater prevents condensation on the inner door and facilitates quick temperature recovery after door openings.

Optimum temperature control

A reliable air jacketed heating system combined with PT1000 temperature sensors ensures high precision with homogenous heat distribution in the interior.
Outstanding dynamics ensure short recovery times and balance out any flutuations caused by door open for Envair Lab CO_2 incubators. This provide reliable protection at any time, particularly for sensitive cultures.

Water reservior

Auto-start function

Absolutely condensation-free, even at high air humidity level

The high air humidity prevents cell cultures from drying out and also keeps the osmolarity constant in the culture medium. With our CO_2 incubators, you can work with air humidity up to 95% while the interal walls remain completely dry (in order to prevent contamination, however, no condensation must occur). The patented titled water reservoir system keeps the air humidity absolutely stable.

Auto-start function

The auto-start function, which considerably simplifies the equipment's operation, contains the incubator's automatic start-up and the measuring system's calibration.

HF90 with 3 inner glass doors (standard)

HF240 with 6 half-size inner glass doors and shelves (optional)

Divided, inner glass door

Three inner glass doors (HF-90) maintains stable climatic conditions, minimizes any changes to the humidity, heat and gas concentration, shortens recovery times significantly and also furthers reduces the risk of contamination. Six half-size sealed inner glass doors and shelves are optional for model HF240. This makes it possible for several users to work with the same equipment.

Technical Specification

Model	HF 90	HF 240	HF 151UV	HF 212UV
Construction				
External Dimensions (W x D x H) (mm)	637x762x909	780x820x944	615x768x865	910x763x795
Interior Dimensions (W x D x H) (mm)	470x530x607	607x583x670	470x530x607	600x588x600
Interior Volume	151 L/5.3cu.ft.	240L/8.5cu.ft.	151 L/5.3cu.ft.	212L/7.5cu.ft.
Net weight (kg)	80kg	80kg	75kg	95kg
Interior	Type 304, mirror finish, stainless steel			
Exterior	Electrolyzed galvanization steel, powder coated			
Inner door	3 (standard)	6 (optional)	1 (standard)	1 (standard)
Temperature				
Heating method	Direct Heat & Air Jacket (DHA)			
Temp. control system	Microprocessor			
Temp. sensor	PT 1000			
Temp. range	5 C above ambient temperature to 50 °C			
Temp. uniformity	+0.2 °C	+0.2 °C	+0.2 °C	+0.3 °C
Temp stability	+0.1 °C			
CO2				
Inlet pressure	0.1 MPa	0.1 MPa	0.1 MPa	0.1 MPa
CO_2 control system	Microprocessor			
CO_2 sensor	Thermal conductivity			
CO_2 range	0 to 20%			
CO_2 stability	+0.1%			
Humidity				
Humidifying system	Special designed water reservoir			
Relative humidity	>95%			
Water reservior volume	3L	3L	4L	6L
Shelves				
Shelf dimensions (WxD) (mm)	423x445	423x445	423x445	590x510
Sheld construction	3,10	3,12	3,10	3,12
Standard, Maximum	Type 304, mirror finish, stainless steel			
Fittings				
Access port	Standard	Standard	Optional	Optional
Air filter	0.3μm, Efficiency: 99.998% (for CO_2)			
Remote alarm contacts	Standard			
De-contamination	90 °C moist heat disinfection	90 °C moist heat disinfection	UV lamp	UV lamp
Rated power (W)	600W	735W	600W	700W
Power supply (V/Hz) Standard	220V/50Hz			
Power supply (V/Hz) Optional	110V/60Hz			
Alarm system	Power interruption , HigMow temperature , Deviation of CO, RH , Door ajar, Independent overheat protection			
Data output	RS232	RS232		

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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