Electrospinning station hood

Technical Datasheet

Ed-03/20

LINARI
NanoTech

Electrospinning station hood

A station to have all the electrospinning components in a single place.

Compact and Safe. Customized for chemistry use, with several accessories and special solutions design.

Specifications

Internal dimension: 1160x600x571 mm (WXHXD)

External dimension: 1220*X2060X690 mm (WXHXD)

Vertical sliding door: Plexiglass 5 mm

18mm thick melamine panels

Internal illumination: On/Off

Ventilation: 80mm axial fan (10m^3/h) On/Off

Door safety switch for High Voltage protection

Over pressure relief trap (on top)

Ground connection bar inside

All metal part grounded

690 mm

Dimension electrospinning station

Optional 1: Environmental control system

The device ESTA-ENV-HEAT is an accessory that has the purpose of monitoring the temperature and the humidity inside the electrospinning hood called ESTA, as shown in Figure **1**, produced by Linari Engineering S.r.l. and therefore it should not be used if not properly matched to his hood to avoid the risk of burns, fire or electric shock.

The control system and environmental monitoring ESTA-ENV-HEAT allows to heat the air contained inside the hood up to the maximum temperature of 50°C by setting the set point on the appropriate display and to keep monitored simultaneously the relative humidity level inside to the hood through a digital display. The temperature is regulated by modulating the power of an electric heater while the humidity can be reduced by using as the fluid supply system of the dry gas.

It is not possible, nor recommended to increase the moisture level inside the hood to avoid condensation that could cause sparks and short circuits when using voltage.

Figure 1

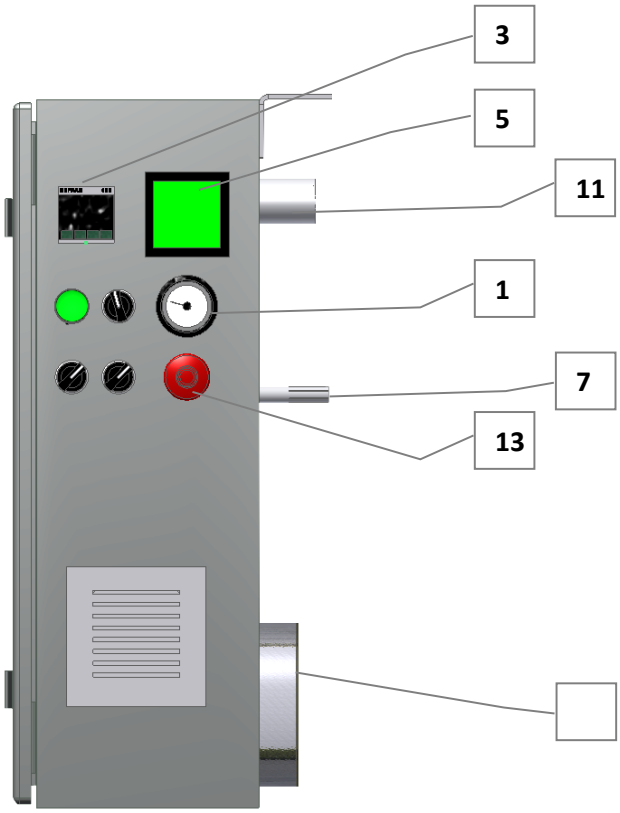
.

*Buying the Environmental heating/drying system the external dimension can be changed: W~1500 mm + 600 free work area

Environmental control system Cod: BI-ESTA-ENV-HEAT			
Control unit			
Dimensions		**Unit**	**Value**
	Length	**cm**	**40**
	Width	**cm**	**20**
	Height	**cm**	**60**
	Weight	**kg**	**20**
Enclosure material	**Painted steel**		
IP degree of protection	**IP20**		
Power supply	**230V, 50 Hz, 10 A**		
Maximum power	**2000 W**		
Max. output air temperature	**650°C**		
Max. settable temperature	**50°C**		
Relative humidity (not condensed)	**5 – 95%**		
Max. working pressure	**100 kPa**		
Gas connection	**Fitting for tube diameter 8 mm, plastic**		
Local interface			
	System Power Button		
	Thermoregulator		
	Digital indicator of humidity		
	Pressure gauge		
	Heater activated lamp		
	ON / OFF heater switch		
	ON / OFF inner light (ESTA) switch		
	ON / OFF inner aspiration (ESTA) switch		
Safety system	**Emergency stop**		
Supply cable	**2m Schuko connector (other on request)**		
Certification	**CE**		

The heater ESTA-ENV-HEAT consists in a metal electrical cabinet to be installed directly on the side of the hood ESTA that has been equipped with a special side wall with three calibrated holes for installation of the heater itself. This perforated wall may be made to Linari Engineering by all who are already in possession of a hood ESTA they want to add the heating module.

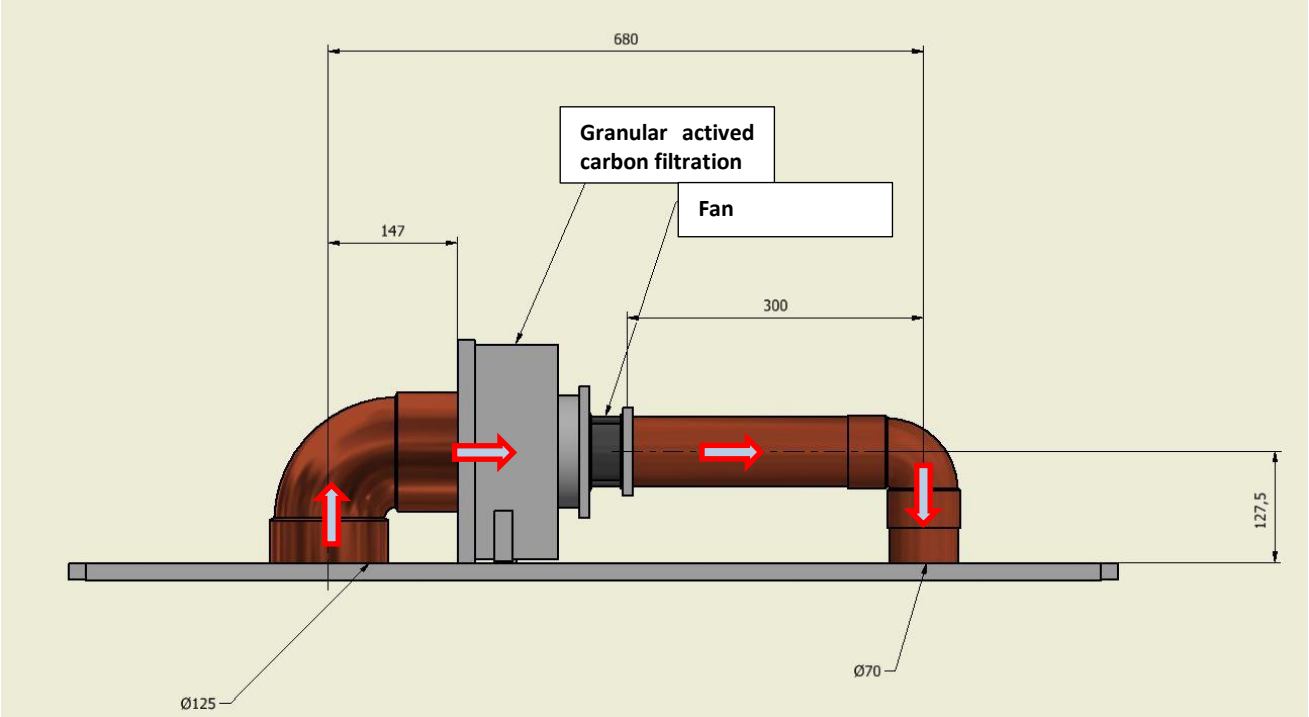
The vacuum system operates with compressed air with a pressure of the gas inlet at least of 3 bar and with a consumption of gas of 35 l/min.



1	Thermoregulatory
2	Digital indicator of humidity
3	Pressure gauge
4	Air aspiration from ESTA
5	Temperature / Humidity sensor
6	Heated air outlet into ESTA
7	Emergency stop

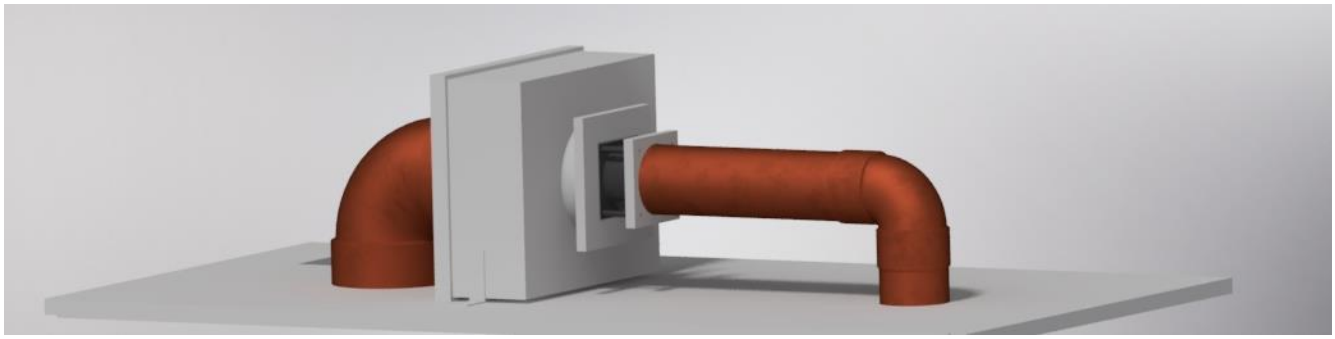
Optional 2: Air recycle system

Air recycle system with activated carbon filter (Cod: BI-HFE-AS0CF)



Granular activated carbon filter

Building materials: PVC; n.1 filter cartridge weight:1,75kg
Ø in- Ø out 125 mm.
External dimensions: mm 250x250x250 h
Filter cell dimensions: mm 240x240x40 h
Weight 3 kg.
This system is controlled by an on / off switch
Solvents emanated during the process are easily filtrated through activated carbon which allows air circulation
The replacement time of the filter cartridge depends on the use. However, replacement is suggested every year.



Optional 3: Air aspiration system

Air aspiration system with activated carbon filter, exhaust fan with 0,18kw motor and inverter control (duct ø 125 mm)

Control unit

Dimensions:

Length: 220 mm
Height: 300 mm
Width: 120 mm

Weight:
2 kg max
Power supply:
IEC socket
110/240V, 50/60 Hz, 10A
Interface:
Display
Potentiometer to adjust speed
Emergency push button
Certification: CE

Fan unit

Fan specifications:

Carbon filtration system for solvents

Granulated active carbon filter

Fan: *printed cochlea Pe-el conductive, Impeller in chrome-nickel stainless steel,*

Engine support in steel plate painted with powder, chrome-nickel stainless steel screws

Dimensions:

Fan type: 132

Eng. Gr: 63

Engine: 0.18 Kw

Rotations: 2800 rpm

Weight max: 8 Kg