

## E-Fiber

Modular electrospinning/electrospraying platform

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### **EF050 - Electrospinning/electrospraying Starter Kit**

Electrospinning and electrospraying starter kit, plug & play setup for users who deal with electrospinning techniques for the first time or for expert users who intend to develop new materials and require a new and easy setup for basic research. The Starter Kit, however simple and easy to use, still has all the requirements and the advantage of the higher-end versions, such as the EF100 and the EF300 models

This device creates a powerful and highly versatile technique for the production of different types of nanofibers, with reproducible conditions and controlled diameters. Due to its manufacturing technology (entirely made of insulating material) E-Fiber minimises influence on the electrospinning process: in fact it offers various technological solutions to accurately control each process guaranteeing batch-to-batch reproducibility and precise control of fibre parameters such as diameter, orientation and texture. External switch for safety interlock or fume-hood front panel included: this switch can be integrated to customer's fume hood and protect the operator against unwanted access during operations or electrical risks.

The Starter Kit includes all the necessary instrumentation for a complete, safe and ready to use setup, to instantly begin your electrospinning sessions.

E-Fiber EF050 Starter kit includes:

- High voltage power supply 0-40 kV,olt,
- Control system with LCD interface,
- 1-channel syringe pump (customizable upon request) with remote control
- insulating base with spinneret-collector
- Manual adjusting of spinneret-collector distance
- Spinneret and collector insulating supports
- Disposable kit.



The disposable kit includes 2 stainless steel spinneret of 2 different diameters, 100 syringes, tygon/ptfe tubing (7.5m), polypropylene male and female luer connectors (15+15).

Our smart solution can be placed inside your own fume-hood when you need it and removed in a minute when you do not need it, so you can keep busy your fume-hood only when you really need it.

## TECHNICAL DATA

### General Information

Dimensions	680 mm x 410 mm x 350 mm (W x D x H)
Weight	approx. 10 kg
Cable Length	AC power supply 1.5 meters
User interface	LCD with voltage and current monitor Pump button on/off High voltage on/off
Emergency Button	Yes
External safety switch (interlock)	Yes
Main power	110-240 Vac ~ 50/60Hz

### High-voltage power supply (CE and UL mark)

Voltage *	Single High Voltage power supply	0÷40kV
Polarity *	Positive (default) Negative can be customized on request	
Power *	4W for high voltage power supply (higher power on request)	
Current *	0,1 mA max	
Arc and Short-circuit protection	Yes	
Safety Interlock	Yes	
Voltage Accuracy	± 2%	
Voltage Stability	0,01% per 8h	
Regulatory Approvals	Compliant to 2004/108/EC EMC Directive Compliant to 2006/95/EC Low Voltage Directive	

\* Fully customizable features

### Syringe pump

#### Non programmable (default)

Channels	1
Syringe	1 mL up to 60 mL
Infusion rates	from 0.73µL/hr to 2568mL/hr
Dispensing accuracy	+/- 1.00 %

**Programmable (on request)**

Channels	1
Syringe	up to 140 cc
Flow rates	from 0.73 $\mu$ L/hr to 3470mL/hr
Dispensing accuracy	+/- 1.00 %

**Collector**

Shape *	square
Size *	120 [W] x 130 [D] mm (default) 200[W] x 200 [D] mm (on request)
Material *	Stainless Steel
Spinning Distance	50 ÷ 250 mm

**Spinneret**

Spinneret type	Single spinneret
Spinneret range size*	30G up to 10G
Length*	50 mm
Material	Stainless Steel

\* Fully customizable features

**ORDERING DETAILS**

Product code	EF050
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Standard Options:

EF050 w non-programmable syringe pump	EF050-HV4P-CS120130-SP1N
EF050 w programmable syringe pump	EF050-HV4P-CS120130-SP1P
EF050 w collector 200x200 mm	EF050-HV4P-CS200200-*

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