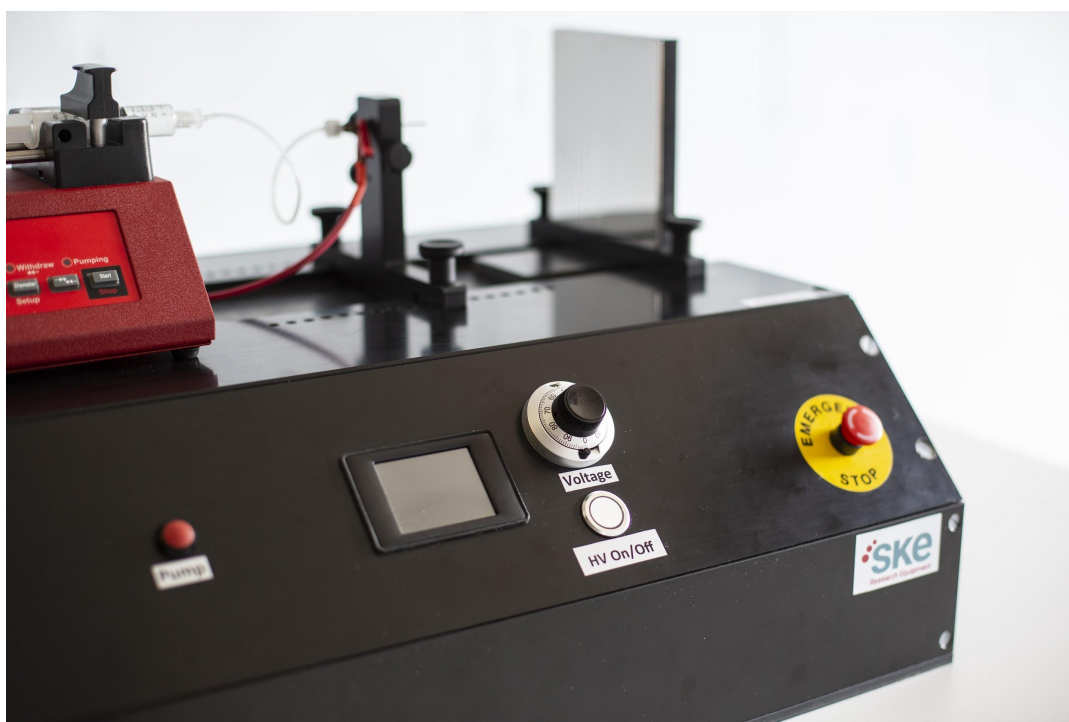


## E-Fiber

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 0-30 kV (customizable),
- 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
- Security switch for safety glass hood opening
- 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).

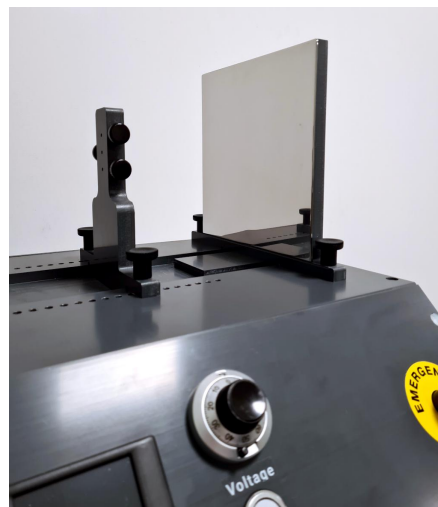
Our smart solution can be placed inside your own fume-hood when you need it and removed in a minute when you do not need it, so you can keep busy your fume-hood only when you really need it.

### EF050 - Accessories

E-Fiber can be equipped and upgraded with a variety of accessories to extend and best fit user requirements and applications.

### EFA125 - Bigger plate collector

Replaces the standard-size supplied flat collector with a bigger one of size 200mmx200mm, useful for bigger spinning area collection and for use with multiple needles.



### EFA320 - Coaxial setup

Coaxial spinneret needle made of two coaxial needles, used to simultaneously electrospin up to two different polymers. This is generally used to create fibers whose core and shell are made of different materials. Ideal for research purposes. Detachable options for easy cleaning operations. Minimum dead volume.

Fully customizable and made according to customer specifications (need at least a dual channel syringe pump or 2 single channel syringe pumps).



### **EFA185 - Additional second syringe pump**

Upgrade standard E-Fiber kit with a second 1-channel syringe pump for using multispinneret setup or coaxial needles.



### **EFA350 - Disposable kit**

The disposable kit includes:

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



## 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÷30kV (higher voltage on request)
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

#### First Pump (default)

Channels	1
Syringe	1 mL up to 60 mL

 **E-Fiber** Modular electrospinning/electrospraying platform

Infusion rates from 0.73 $\mu$ L/hr to 2568mL/hr  
Dispensing accuracy +/- 1.00 %

**Second pump (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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