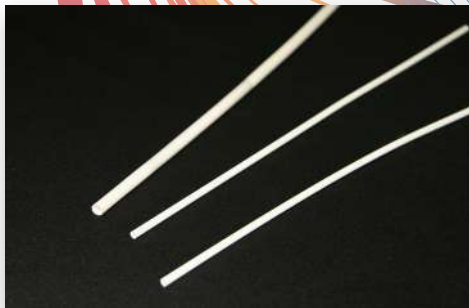


High-end model of electropinning device developed for medical and healthcare applications.



Aligned sheet



Nanofiber tube



■ Mechanical design to minimize dust generation.

The spinning chamber is mechanically designed to minimize dust

■ Use of unpainted and antibacterial stainless steels.

As many stainless steels as possible are used for the system for medical/ healthcare applications.

■ Large spinning chamber space

The system has a large spinning space, creating large samples.

■ Uniform fiber diameter and thickness.

The system can spin high quality nanofibers with a variety of

■ Quick and easy operation with a touch panel.

Various spinning conditions can be easily programmed with a touch

*This product is not approved as a medical device.

■ ESM-101 A high-end model with high extensibility

With the combination of nozzles and collectors, various nanofibers such as aligned sheets or core/shell structure sheets can be spun.

The large space in the spinning chamber, enables to create large samples. The high-end model with high extensibility can create nanofibers while changing spinning conditions such as addition of a high-voltage power supply of negative polarity optionally.



Coaxial spinneret



Aligned sheet



Drum collector

■ ESM-201 To Create nanofiber tubes

A model for spinning nanofiber tubes with a special mandrel collector to develop applications such as artificial blood vessels or covered.

The large spinning chamber is to spin tubes up to 600mm length. A built-in thickness meter makes automatic measurement at programmed intervals and data can be displayed and transmitted to a PC.

With two syringe pumps, different materials can be spun into nanofiber tubes.



Nanofiber tube



Special mandrel collector

Electropinning equipment for medical and healthcare	ESM-101	ESM-201
Typical objects	500mm-wide nonwovens Aligned membrane Core/shell·hollow nanofibers	600mm-wide tubular fiber
Standard collector	Plate (600mm)	Mandrel □ 50 to 100rpm □
Optional collector	-	-
Standard spinneret	Spindle	Spindle
Optional spinneret	Vertical Clip Coaxial DCNS (coming soon)	Coaxial
Spinneret operation	Range of motion □ 600mm Traversing speed □ 0 to 300mm/s	Range of motion □ 600mm Traversing speed □ 0 to 300mm/s
Spinning distance	50 to 300mm	50 to 300mm
Syringe pump	2 built-in (To mount 3 syringes each)	2 built-in (To mount 3 syringes each)
Feed rate	0.1 to 60ml/hr	0.1 to 60ml/hr
High voltage power supply	Spinneret Voltage: 0.5 to 50.0kV Current: 0.0 to 100.0μA Collector Voltage: -0.5 to -10.0kV Current: 0.0 to 100.0μA	Spinneret Voltage: 0.5 to 50.0kV Current: 0.0 to 100.0μA Collector Voltage: -0.5 to -10.0kV Current: 0.0 to 100.0μA
Inhaling and exhausting volume of fan	60m ³ /hr or more	60m ³ /hr or more
Capacity of syringes	2.0 / 5.0 / 10.0 / 20.0 / 50.0 (ml)	2.0 / 5.0 / 10.0 / 20.0 / 50.0 (ml)
Dimensions	1500W×1060D×1920H(mm)(except protrusions)	1500W×1060D×1920H(mm)(except protrusions)
Weight	1,200kg or less	1,200kg or less