



The NanoSpinner24 Advanced Electrospinning Machine, is Inovenso's most versatile and advanced laboratory-scale system, it is also our best-selling model with more than 50 units installed in renowned universities and companies around the globe.

This Electrospinning unit enables the collection of the nanofibers on a variety of collectors: a Flat collector, a Rotating drum collector with a high speed of 2000 rpm for obtaining well-aligned nanofibers.

It can also optionally accommodate a Rotating rod collector with different sizes to obtain tubular structure of nanofibers known as tube-like nanofibers membranes which can be used as artificial blood vessels. This model has 12 nozzles, but can also be used with a single nozzle for small-laboratory production.

NS24

Description	Advanced Level Multi Nozzle Electrospinning Unit
Spinning-Type	Bottom-Up Spinning

CONSTRUCTION

Chasis	Electrostatically Painted Steel
Feeding Area Material	PE 1000 (High Density, Chemical resistant)
Collector Material	7000 Series Aluminum Alloy, Stainless Steel
LED Illumination	
Exhaust Fan	
Atmosphere Control (Optional)	
Total Weight	Approx. 150 kgs
Dimensions	770mm x 675mm x 1040mm

HIGH VOLTAGE POWER SUPPLY

Voltage Range	0- 40 kV
Voltage Precision	0,1 kV
Max. Current	0.125 mA

HIGH PRECISION MICRO PUMP

Flow Rate	0.35 - 7123 ml/h (BD 60 ml syringe)
Flow Rate Precision	0.01 ml/h
Available Syringes	All types are available

FEEDING AREA

Number of Nozzles on Each Feeding Pipe Set	6 pcs
Number of Feeding Pipe Sets	Up to 2 Sets
Number of Nozzles	Up to 12 Nozzles (Also possible to use with single nozzle)
Single Nozzle Production	Available
Feeding Pipe Material	Aluminium
Nozzle Material	Electrically Conductive Stainless Steel
Nozzle Inner Diameter	0.8 mm
Minimum Required Solution for Single Nozzle Feeding	1 ml
Minimum Required Solution for Each Feeding Pipe Set	8,5 ml
Minimum Required Solution for Full Loading	16 ml

ROTATING COLLECTOR

Drum Collector	
Material	Aluminum
Dimensions of Drum (D x L)	120 mm x 280 mm
Fiber Deposition Area	376.8 mm x 280 mm
Drum Rotating Speed	100-2000 RPM (Able to produce aligned nanofibers.)
Surface Speed (cm/s)	62,8 cm/s - 1256 cm/s
Coating Homogeneity System	X-axis repetitive motion
Stroke of Coating Homogeneity System	Adjustable Between 30 mm and 80 mm
Speed of Coating Homogeneity System	Adjustable Between 2 mm and 20 mm/sec

SPINNING DISTANCE

Distance Between Nozzle and Collector	21 mm-221 mm
Distance Adjustment Precision	1 mm

STATIONARY PLATE COLLECTOR

Material	Stainless Steel
Distance Adjustment Precision	370mm x 130mm

REMOTE MONITORING and CONTROL SYSTEM

Wi-Fi Connectivity

Comprehensive Monitoring

Full Control

BatchID Management

Extended Storage

Graphical Data Display

User Authentication

Activity Logs

Log Monitoring

Fault and Alarm Management

UNIQUE USER INTERFACE

9" Touch screen control panel with well designed user friendly interface

Fully able to control all parameters

Saving & recalling all parameters via recipe & recall function

SAFETY FUNCTION

Safe Door

Emergency Button & Safety Relay

HV Warning Light

Electrical Isolated & Grounded Cabinet

Over Current Protection

Fully Sealed Cabinet