

CYLINDER COLLECTOR



FLAT COLLECTOR



UP TO 12 NOZZLES



SINGLE NOZZLE



NS24 is a fully automated high-throughput electrospinning machine for laboratory scale applications.

The parameters can be controlled by the automation system via a 9" touch screen panel for precise research application.

In the standard configuration, there is a 120 mm diameter by 280 mm length rotating drum collector and a 130 mm by 370 mm flat collector. The drum collector can rotate up to 2000 rpm, making it possible to obtain well-aligned nanofibers.

This system is designed to be used with core-shell nozzles to obtain bicomponent products and rotating mill collector to obtain tubular nanofiber membranes. Additionally, temperature and humidity control could be added to the system according to the user preference.

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

Flow Rate: 0.01 - 4464 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	23,5 mm-223,5 mm
Distance Adjustment Precision	1 mm

STATIONARY PLATE COLLECTOR

Material	Stainless Steel
Distance Adjustment Precision	370mm x 130mm

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