

Nano FMG Consultancy R&D, Textile Machinery Industry Trade Ltd Co.
Istanbul/TURKEY
Abdullah ASLAMACI
aslamaci@nanofmggroup.com
0090 212 670 13 95

Laboratory Scale Nanofiber Production Units with Electrospinning Method.

Below, Detailed Specifications are Explained and Two Units; Nanospinner24™ and NE300™ are compared.

Specification	Nanospinner 24	NE300
Automatic distance regulation of spinneret to collector (In “z” direction)	Yes	No (manually regulation)
Lcd display humidity controller	Yes	No
Lcd display temperature controller	Yes	No
Lcd display for the distance needle to collector	Yes	No
Collector type	Drum and plate	Drum and plate
Collector dimensions	180-240mm Diameter, 320-400mm width (Customer decides)	150-200mm diameter, 280-320mm width (Customer decides)
Fibre Deposition Area	1809(Min)-3015(Max) cm ² for Drum, 25*30=750 cm ² for plate collector	1319(Min)-2010(Max) cm ² for Drum, 25*25=625 cm ² for plate collector
Adjustable speed of the rotating drums motion in “x” direction (motion of the drum from left to right)	Yes	No (steady speed)
Total needle number for spinning	18-21	12-18
High voltage supply	0.1-60kV 1mA 60Watt with 0.1kV precision Lcd display for output voltage and ampere	0.1-60kV 1mA 40watt with 0.1kV precision Lcd display for output voltage and ampere
Micropump	0.1-500 ml/h flowrate with 0.1ml/h precision Lcd display for flowrate total dispensed volume and time	0.1-500 ml/h flowrate with 0.1ml/h precision Lcd display for flowrate total dispensed volume and time
Number of Attachable Syringe	One (standard), Two(can be attach if customer wishes)	One
Illumination Light	Yes	Yes
Adjustable speed of rotating drum collector	Yes	Yes
Drum and plate collector material	Nickel coated aluminum	Nickel coated aluminum
Dimensions	800(W) 650(D) 900(H) mm – All dimensions can be increase or decrease up to 150mm	700(W) 600(D) 800(H) mm – All dimensions can be increase or decrease up to 150mm
Materials	Steel chassis and High Density Polyethylene feeding	Steel chassis and High Density Polyethylene feeding table and

	table and base for acids and other chemicals	base for acids and other chemicals
Special Needles	Specially designed needles for optimum electrospinning process according to surface tensions of the solutions and to create a perfect droplet shape	Specially designed needles for optimum electrospinning process according to surface tensions of the solutions and to create a perfect droplet shape
Exhaust Fan	Yes – steady speed – 0.1m ³ /min	Yes – steady speed – 0.1m ³ /min
Window : A window or opening to view within the chamber as spinning takes place	Yes	Yes
Operation Units on Control Panel		
Power	Yes	Yes
Illumination Light	Yes	Yes
Exhaust Fan	Yes	Yes
Motor Speed	Yes	Yes
Needle to collector distance	Yes	No
Collector movement on “X” axis and speed	Yes	Yes
LCD Humidity display	Yes	No
LCD Temperature display	Yes	No
LCD Distance display	Yes	No
Micropump Control Units		
Flow Rate	Yes	Yes
Volume dispensed	Yes	Yes
Bolus	Yes	Yes
Other adjustments	Yes	Yes
Warranty, Installation, Education		
Unit and all spare parts are 18 months warrantied from the date of installation after completion of testing and commissioning	Yes	Yes
Unit will install to customers laboratory or where the customer wishes by Nano FMG engineers	Yes	Yes
Education and Testing	Yes - 3 Days	Yes – 2 Days
Pictures		