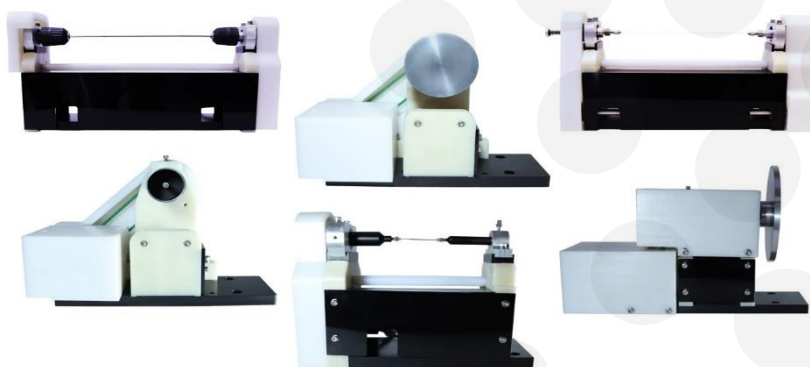


Collector Modules for Advanced Electrospinning



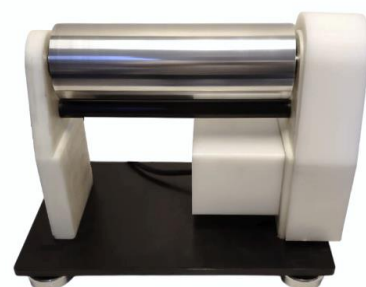
To build a comprehensive electrospinning platform, NanoSpin offers a versatile range of **rotary collectors**, each engineered for specific research and industrial needs. These collectors feature:

- **Adjustable rotation speeds** for precision control
- **User-friendly controllers** with integrated LCD displays
- **Compatibility with lab-scale and modular systems**
- **Support for both positive and negative high voltage configurations**

◆ Cylinder Collector

The **Negative Cylinder Collector** ensures uniform and controlled fiber deposition while minimizing scattered fibers and contamination within the chassis. Compatible with both positive and negative HV sources, it is ideal for conjugate spinning applications. It offers:

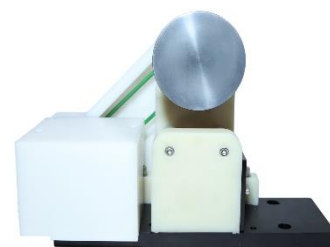
- Rotation speed: up to **3000 RPM**
- Collector length: **30 cm**
- Diameter options: **8 cm** or **10 cm**
- Independent or integrated operation



◆ Disk Collector

Designed for the production of **arranged nanofibers sheet**, the Disk Collector enables studies on linear speed effects and fiber formation. It supports:

- Rotation speed: up to **500 RPM**
- Diameters: **3 cm, 5 cm, 10 cm**
- Compatible with **negative HV source**



◆ Wet Collector

Ideal for spinning **insoluble polymers** (e.g., cellulose), the Wet Collector uses a **coagulation bath system** to solidify the jet. It is essential for fibers formed via **non-volatile liquid crystal solvents**.

- Rotation speed: up to **50 RPM**
- Collector length: **16 cm**
- Diameter: **10 cm**



◆ Mandrel Collector

This collector enables fabrication of **tubular nanofibers structures**. It includes a programmable stage, controller, and six interchangeable stainless-steel mandrels:

Mandrel diameters: **1, 2, 3, 4, 6, 8 mm**

Rotation speed: up to **3000 RPM**

Length: **25 cm**

Connectable to **negative HV source**



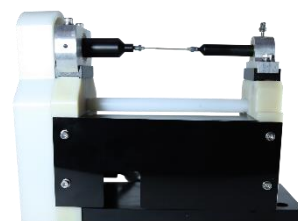
◆ Needle Collector

Designed for **coating hollow fibers**, this collector accommodates various needle sizes:

Compatible with **33G and larger needles**

Rotation speed: up to **500 RPM**

Connectable to **negative HV source**



◆ Radial Collector

Used for **nanofiber yarn fabrication**, this collector covers the cylinder's radius to ensure even fiber distribution:

Rotation speed: up to **500 RPM**

Diameters: **2, 3, 5 cm**

Compatible with **negative HV source**



◆ Single Wire Collector

Enables production of **ultra-thin hollow nanofibers** using a negatively charged rotating wire:

Wire diameter: **20–1000 μm**

Rotation speed: up to **500 RPM**

Cable length: **25 cm**

Compatible with **negative HV source**



◆ Wheel Collector

The Wheel Collector ensures **uniform cross-sectional fiber coating** for applications requiring precise alignment:

Diameter: **20 cm**

Thickness: **1, 2, 4 cm**

Rotation speed: up to **3000 RPM**

Compatible with **negative HV source**



◆ Multi Wire Collector

This collector uses multiple **thin stainless-steel wires** for aligned nanofiber production. Ideal for experiments requiring electrostatic-mechanical hybrid alignment.

Rotation speed: **up to 3000 RPM**

Length: **25 cm**

Diameter: **8 cm**

Compatible with **negative HV source**



◆ Collector Controller

The **Collector Controller** is designed for accurate and stable speed adjustment of NanoSpin's rotary collectors. It provides intuitive manual control through a high-resolution interface, making it ideal for precise fiber alignment and repeatable electrospinning experiments.

Compact and lab-ready design Speed range: **0–3000 RPM**

10-turn panel-mounted potentiometer for fine-tuned adjustments

Stable and smooth rotation control

2×16-character backlit LCD for real-time speed display and system feedback

Compatible with **all NanoSpin collector modules**



Specification

Collector type	Cylinder Collector	Disk Collector	Wet Collector	Multi Wire Collector	Mandrel Collector	Single Wire Collector	Wheel Collector	Needle Collector	Radial Collector
Application	Uniform Membrane Production	Arranged Fiber Sheets	Coagulation-Based Spinning	Aligned Fiber Generation	Tubular Scaffold Fabrication	Ultra-thin hollow nanofibers	Cross-sectional Coating	Hollow Nanofibers Coating	Nanofiber Yarn Fabrication
Rotation Speed (RPM)	Up to 3000	Up to 3000	Up to 50	Up to 3000	Up to 3000	Up to 3000	Up to 3000	Up to 50	Up to 50
Length (cm)	30 cm	N/A	16 cm	25 cm	25 cm	30 cm	N/A	N/A	N/A
Diameter / Size	Ø 8 or 10 cm	Ø 3, 5, 10 cm	Ø 10 cm	Ø 8 cm (with multiple wires)	Ø 1–8 mm (6 mandrels)	Wire Ø 20–1000 µm	Ø 20 cm / Thickness 1, 2, 4 cm	Ø ≥33G needles	Ø 2, 3, 5 cm
Speed control	10-turn potentiometer								
Display	2 ×16 character LCD								