



## ACS Material Equipment Series

# MicroSpin™ Microfluidic Spinning Machine

- I. Product Overview
- II. Product Features
- III. Product Specifications
- IV. Applications

**Contact Information:**

ACS Material, LLC

Address: 959 E Walnut St., Suite 100

Pasadena, CA 91106, USA

Phone: (866) 227-0656

Fax: (781) 518-0284

E-Mail: [contact@acsmaterial.com](mailto:contact@acsmaterial.com)

Revision: 122724

## I. Product Overview

### 1) Main Unit



Photo of MicroSpin™ Microfluidic Spinning Machine

## II. Product Features

Compared with the MicroSpin™ Microfluidic Spinning Machine, this instrument does not need high voltage electric field, the polymer used does not need to be conductive, and both conductive and non-conductive polymers are suitable for this device, so it is more broad-spectrum; at the same time, it has high spinnability, and it can achieve different solvents and different molecular weights of polymers spinning; it can be used for one-dimensional fibers and three-dimensional beads, and it can also be used to prepare inorganic-organic blended spinning; and it has high controllability: the fluid rate can be controlled, and the diameter of the fibers can be controlled. Highly controllable: fluid rate and fiber diameter. The instrument is safe and easy to operate.

### **Key Features:**

- **Abundant spinnable material**
- **Fiber arrays can be realized to be arranged in an orderly manner as required**
- **Precision propulsion device to ensure uniformity of filament formation**
- **Multi-axis system with precise control**
- **Controllable fiber diameter, controllable array structure**
- **A variety of receiving devices, flexible and diversified**

### III. Product Specifications

Product Name	MicroSpin™ Microfluidic Spinning Machine
SKU#	EMSMS001
Feed Rate Range	20.1 µl/h - 681.73 mL/min
Rotation Speed	0 - 1440 rad/min
Translation Speed	0 - 1000 mm/min
Temperature Curing System Power	200W
Temperature Control Range	RT~100°C
Temperature Control Accuracy	±1°C
Humidity Accuracy	±3%RH
Power Supply	220V±10%, 50Hz
Rated Power	600W
Overall Dimensions	950 x 550 x 600mm
Weight	55kg
Configuration Description	Includes 1x main unit, 1x electronic controlled mobile platforms, 1x spinning receiver, 1x microfluidic platform, 1x microfluidic chip, and 1 set of microfluidic needles.

### IV. Applications

- **Biomedical Materials:** Tissue engineering scaffolds, drug delivery, artificial blood vessels, cell culture, blood filtration membranes, drug delivery
- **Filtration Materials:** Masks, air filters, oil-water separation, extraction, filtration membranes, seawater desalination, selective adsorption
- **New Energy:** Energy storage materials, fuel cells, lithium-ion battery membranes, solar cells, sensor materials, flexible wearables
- **Defense Industry:** Thermal insulation materials, electromagnetic shielding, stealth wave absorption
- **Catalysis:** Catalyst support, photocatalysis, chemical catalysis, exhaust and wastewater, catalysis
- **Others:** Cosmetics, food processing, waterproofing and anti-corrosion, heat and thermal insulation

**Disclaimer:** ACS Material, LLC believes that the information in this Technical Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.