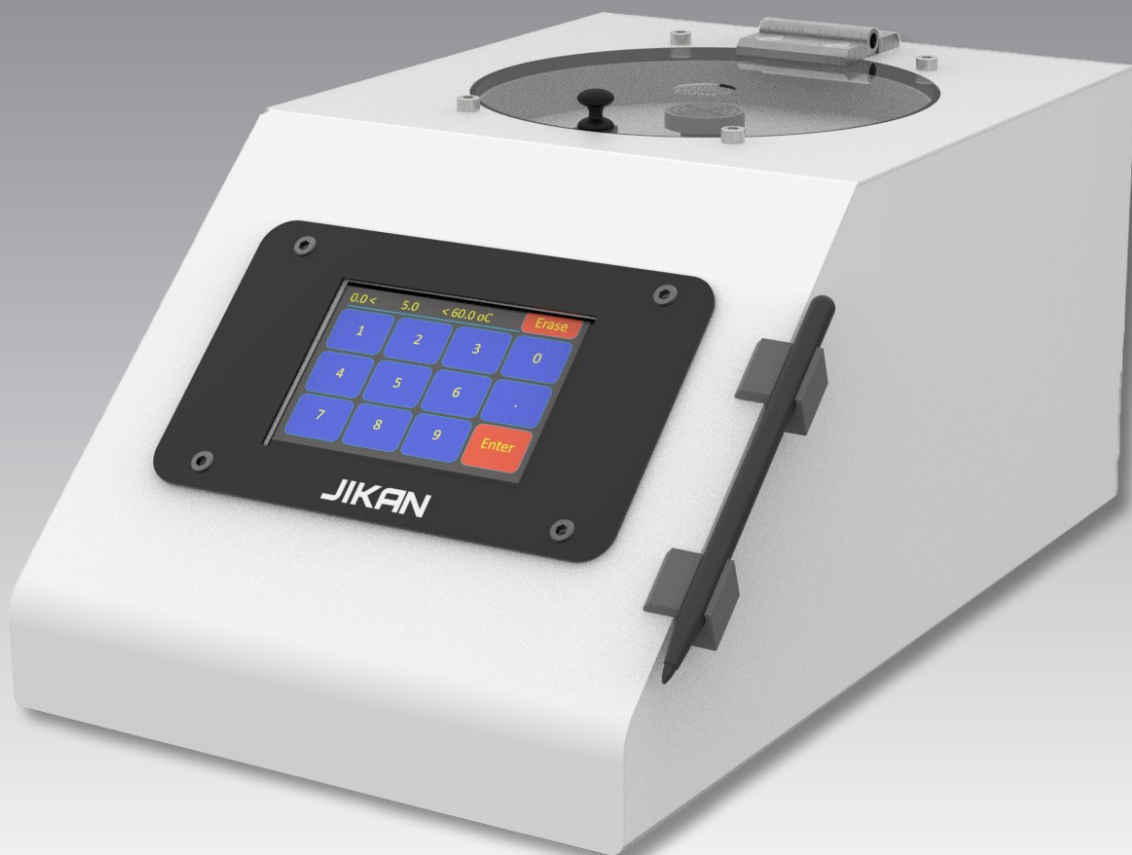


## SCM Series

Spin Coater Machine



Cost-Effective Spin Coater • Supports Substrates up to 5 inches • Clear lid with integrated syringe holder • Simple, Step-by-Step Recipe Setup • Vacuum Pump Connection Available • Connects to Syringe Pump for Precise Injection During Spinning

## Jikan SCM-10

The Jikan SCM-10 spin coater is a versatile laboratory tool engineered for precise and efficient sample coating. Designed to accommodate samples up to 5 inches in diameter, it features a vacuum attachment for secure handling. With a fully programmable interface, the device allows users to set up to 9 programs, each with 9 steps, providing flexibility in various scientific applications. The ability to add materials during the process further enhances its adaptability, making it ideal for advanced experimentation.

The Jikan SCM-10 spin coater delivers precise and adaptable performance with a wide spin speed range from 500 to 10,000 rpm, ensuring high accuracy within  $\pm 1$  rpm. This precision is complemented by a robust acceleration capability, reaching up to 3000 rpm per second, allowing for rapid transitions between speeds. The device supports extended operations with a maximum spin time of 59 minutes per cycle, making it suitable for various applications. Encased in durable natural polypropylene, the SCM-10 is both compact and lightweight, with dimensions and weight optimized for easy integration into different laboratory environments.

## User Interface

The Jikan SCM-10 spin coater features an intuitive, fully programmable user interface designed for ease of operation. Through this interface, users can create and store up to 9 custom programs, each consisting of up to 9 steps. The interface allows precise control over parameters such as spin speed, acceleration, and duration. It also offers real-time adjustments, such as the ability to pause and add materials during the coating process. The clear, user-friendly design ensures that both novice and experienced users can easily operate the device and achieve consistent results.

## Functionality

To operate the Jikan SCM-10 spin coater, begin by placing your sample on the vacuum chuck. Once the sample is positioned, activate the vacuum to securely hold the sample in place. Using the device's programmable interface, select an existing program or create a new one by setting up steps, by adjusting parameters. After finalizing your settings, start the spin cycle, and the device will follow your programmed instructions precisely.

1

**Design and Capacity:** The Jikan SCM-10 spin coater accommodates samples up to 5 inches in diameter and features a vacuum attachment for secure handling.

2

**Performance:** It offers a spin speed range of 500 to 10,000 rpm with  $\pm 1$  rpm accuracy, a maximum acceleration of 3000 rpm per second, and a spin time of up to 59 minutes.

3

**User Interface:** The device has a fully programmable interface allowing up to 9 programs with 9 steps each, real-time adjustments, and ease of use for both beginners and experienced users.

4

**Operation:** Place the sample on the vacuum chuck, activate the vacuum, set up or select a program, and start the cycle for precise coating according to the programmed settings.



A range of vacuum chucks can be designed and integrated into the SCM-10 device.



## Typical Applications

Spin coating is a fundamental technique for creating thin films, widely utilized in research, development, and manufacturing across various scientific and industrial domains. The Jikan SCM-10 spin coater is particularly advantageous for applications where uniformity and precision are critical, such as in the deposition of photoresists in microelectronics, where it ensures consistent film thickness. This makes it a valuable tool in semiconductor fabrication, where thin, uniform layers are essential for producing high-performance electronic components.

In the field of optics, the SCM-10 enables the production of thin polymer coatings for lenses and optical devices, ensuring precise control over film thickness and uniformity. The device's programmability allows for complex multi-step processes, making it suitable for creating anti-reflective coatings, waveguides, and other advanced optical materials. Its capability to add materials during the spin process further enhances its versatility, allowing for the development of multilayered coatings with specific optical properties.

Nanotechnology is another area where the SCM-10 shines, particularly in the fabrication of nanostructured coatings and films. Researchers can use the device to deposit nanomaterials, such as graphene or quantum dots, onto substrates, enabling advancements in fields like energy storage, sensors, and flexible electronics. The precise control over spin speed and acceleration ensures that even the most delicate nanomaterials can be uniformly coated, leading to consistent results in experimental and applied nanotechnology.

Beyond research, the SCM-10 is also suitable for small-scale industrial production, particularly in the biomedical and electronics sectors. It can be used to create biocompatible coatings for medical devices, ensuring that materials are safely and uniformly applied to sensitive components. In electronics manufacturing, the spin coater is ideal for producing insulating or conductive films on circuit boards and sensors. Its compact size, user-friendly interface, and reliable performance make it a versatile tool for both experimental setups and production lines.



## Technical Specifications

Available number of programs	Up to 9
Steps Per Program	Up to 9
Spin Speed*	500 – 10000 rpm
Spin Speed Accuracy	± 1 rpm
Max. Acceleration*	3000 rpm/sec
Spin Time	Up to 59 minutes
Housing Material	Natural Polypropylene
LCD	3.5 inch LCD Screen
Power Consumption	220 V   30 W
Dimensions	Width: 250 mm Height: 130 mm Depth: 250 mm
Weight	5.2 Kg

\* Higher and lower velocities and accelerations are uncalibrated and not recommended for implementation.



### Key Features

- Cost-effective coater
- Supports up to 5" substrates
- Clear lid with syringe holder
- Easy step-by-step setup
- Vacuum Pump Connection

### Accessories

- Vacuum Chuck (Customizable)
- Touch Screen Pen
- Adaptor

# JKAN

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