

KW-4C

TOUCH SCREEN SPIN COATER

The KW-4C is a spin coating system operated via a 4.3-inch touch interface. It incorporates a real-time vacuum interlock system that prevents motor initiation or triggers an emergency stop upon detection of an adsorption force drop. Featuring adjustable acceleration profiles and bidirectional rotation capabilities, it supports thin-film deposition workflows with integrated fluid intrusion and substrate detachment alarms.



AT A GLANCE

Max Substrate	Ø 150 mm (6")
Speed Range	50 – 10,000 rpm
Speed Stability	± 1 rpm
Coating Uniformity	± 1 %
Program Steps	10-Step Configurable

Process Uniformity

Provides $\pm 1\%$ coating uniformity and ± 1 rpm motor stability to maintain batch-to-batch consistency during thin-film deposition.

Vacuum Interlock System

Monitors adsorption force in real-time. Prevents motor initiation or triggers an emergency stop upon detection of insufficient vacuum pressure.

Fluid Isolation Architecture

Mechanical seals isolate process chemicals and solvents from the drive motor assembly to protect internal electronic systems from corrosive exposure.

Touch Screen Control

Features a 4.3-inch resistive touch screen interface supporting multi-step programming and adjustable speed acceleration profiles.

Technical Specifications

Process Capabilities	
Substrate Compatibility	5 mm up to Ø 150 mm (6 inches)
Speed Range	50 – 10,000 rpm
Acceleration Profile	10 – 10,000 rpm/s (Adjustable)
Rotation Direction	Bidirectional (Clockwise / Counterclockwise)
Speed Stability	± 1 rpm
Spin Coating Uniformity	± 1 %
Control System & Interface	
Human-Machine Interface (HMI)	4.3-inch Touch Screen
Stylus	BAMBOO Resistance Pen (Standard)
Communication Interface	USB (Compatible with wireless mouse/keyboard and USB disk storage)
Data Storage	Unlimited recipes (Standard: 10 speed steps per recipe)
Step Time	0 – 10,000 seconds per step
Data Protection	Power-down memory protection function
Power & Vacuum System	
Power Supply (Spin Coater)	AC 100–250 V, 1-Phase, 50/60 Hz
Power Consumption (Coater)	200 W
Power Supply (Vacuum Pump)	AC 220V Standard / AC 110V Optional
Vacuum Pump Model	SC-550V (350 W)
Pumping Speed / Max Vacuum	≥ 60 L/min / -85 kPa
Facilities & Mechanical Data	
Dimensions: Coater Unit (W×D×H)	210 mm × 220 mm × 160 mm
System Weight	10 kg (Coater) / 9 kg (Pump)
Acoustic Level	≤ 55 dB
Operating Environment	0 - 40 °C / < 85% RH
Warranty	1 Year

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