

KW-4E

THERMAL SPIN COATER

The KW-4E is an advanced spin coating system featuring an integrated high-speed thermal module capable of reaching 200°C within 2 seconds. Built with a solid PTFE processing chamber and powered by a high-performance German-sourced drive motor, it supports large-area substrates up to 200 mm (optional 600 mm) for rigorous thermal-curing and precision thin-film deposition workflows.



AT A GLANCE

Max Substrate	Ø 200 mm (Opt. 600 mm)
Speed Range	10 – 12,000 rpm (Opt. 20k)
Thermal Range	RT – 200°C
Chamber Material	Solid PTFE
Interface	8" Touch Screen

Integrated Thermal Processing

Equipped with a built-in heating module providing rapid thermal response. Achieves 100°C in 1 second and 200°C in 2 seconds, with a 2-second cooling rate to room temperature.

German-Sourced Drive Motor

Utilizes a high-precision imported German motor supporting bidirectional rotation (CW/CCW) and ultra-high acceleration up to 30,000 RPM/s.

Solid PTFE Processing Chamber

The entire processing chamber is machined from Polytetrafluoroethylene (PTFE), ensuring maximum chemical compatibility with aggressive resists and solvents.

8-Inch Touch Interface

Features an 8-inch high-resolution touch screen for intuitive recipe programming. Supports unlimited recipe storage with 15 steps per recipe.

Technical Specifications

Process Capabilities	
Substrate Compatibility	5 - 200 mm (Standard) / Up to 600 mm (Optional)
Speed Range	10 – 12,000 rpm (Standard) / 10 – 20,000 rpm (Optional)
Acceleration Profile	10 – 30,000 rpm/s (Adjustable)
Rotation Direction	Bidirectional (Forward / Reverse)
Speed Stability	± 1 rpm
Spin Coating Uniformity	± 1 %
Thermal Processing Module	
Temperature Range	Room Temperature to 200°C
Heating Rate	To 100°C in 1s ; To 200°C in 2s
Cooling Rate	To Room Temperature in 2s
Control System & Interface	
Human-Machine Interface (HMI)	8-inch Touch Screen (with BAMBOO Resistance Pen)
Communication Interface	USB & RS485 (Standard) / Bluetooth (Optional)
Data Storage	Unlimited recipes (15 speed steps per recipe)
Step Time	0 – 10,000 seconds per step
Data Protection	Power-down memory protection function
Facilities & Mechanical Data	
Power Supply (Spin Coater)	AC 100–250 V, 1-Phase, 50/60 Hz (650 W)
Vacuum Pump Model	SC-550V (350 W) / AC 220V Std, 110V Opt
Pumping Speed / Max Vacuum	≥ 60 L/min / -85 kPa
Dimensions: Coater Unit (W×D×H)	340 mm × 500 mm × 250 mm
Chamber Material	Solid PTFE
System Weight	18 kg (Coater) / 9 kg (Pump)
Operating Environment	0 - 40 °C / < 85% RH / Acoustic Level: ≤ 55 dB