

KW-4A

KEYPAD SPIN COATER (MANUAL TYPE)

The KW-4A is a manual spin coating system designed for standard substrate processing up to 100 mm. Equipped with a chemical-resistant mechanical keypad and a protective fluid isolation seal design, it provides bidirectional motor stability and a hardware-level vacuum safety interlock.



AT A GLANCE

Max Substrate	Ø 100 mm (4")
Speed Range	500 – 8,500 rpm
Speed Stability	± 1 rpm
Coating Uniformity	± 1 %
Program Steps	2-Step Configurable

Uniform Coating Performance

Delivers ±1% coating uniformity and ±1 rpm motor stability to maintain batch-to-batch thin-film thickness consistency.

Vacuum Interlock Protection

A hardware-level interlock prevents motor rotation if substrate suction pressure falls below operating thresholds, minimizing wafer flying risks.

Fluid Isolation Seals

Advanced structural seals prevent chemicals and processing solvents from contacting the drive motor assembly, protecting internal electronics.

Durable Keypad Controls

Features robust tactile mechanical buttons alongside dual LED digital displays for rotational speed and countdown progress.

Technical Specifications

Process Capabilities	
Substrate Compatibility	5 mm up to Ø 100 mm (4 inches)
Chucks type	Specially designed anti-intrusion vacuum chucks
Low Speed Range (Stage 1)	500 – 8,500 rpm
High Speed Range (Stage 2)	1,000 – 8,500 rpm
Acceleration Profile	5,000 rpm/s (Fixed curve)
Motor Speed Stability / Uniformity	± 1 rpm / ± 1 %
Process Spin Time	0 – 999 seconds per step
Control System & Interface	
Control Method	Set speed and time with the keypad
Display Technology	Dual LED (Real-time speed & digital process timer)
Data Storage	Supports 2 user-defined program steps for each recipe
Power & Vacuum System	
Power Supply / Consumption (Coater)	AC 100–250 V, 1-Phase, 50/60 Hz / 200 W
Power Supply / Consumption (Pump)	AC 220V Standard / AC 110V Optional (180 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
Dimensions: Pump Unit (L×W×H)	185 mm × 100 mm × 210 mm
System Weight	10 kg (Coater) / 4.5 kg (Pump)
Operating Environment	0 - 40 °C / < 85% RH / Acoustic Level: ≤ 55 dB

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