

KW-4A

HIGH-PRECISION THIN FILM DEPOSITION SYSTEM

The KW-4A is a highly precise and robust manual spin coating system engineered for uniform thin-film deposition in laboratory and pilot-scale production environments. Designed with uncompromising attention to process stability, it integrates a hermetic fluid isolation architecture and intelligent vacuum interlocks to deliver exceptional rotational accuracy and repeatability while ensuring maximum operational safety.

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



Maximized Process Yield

Exceptional ±1% coating uniformity and precise ±1 rpm motor stability ensures uncompromising batch-to-batch consistency and repeatability.

Engineered for Safety

A hardware-level vacuum interlock prevents motor actuation without sufficient substrate suction, actively eliminating the risk of detachment during high-rpm operations.

Hermetic Fluid Isolation

Advanced structural design physically isolates aggressive process chemicals and solvents from the drive motor, protecting internal electronics from corrosive degradation.

Intuitive Operation

Features tactile mechanical push-buttons and a dual-stage programmable logic controller, supported by a high-visibility LED digital process timer for precise recipe execution.

CONTACT US

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Request a quote: sales02@setcas.hk / Technical Support: support@setcas.com

Technical Specifications

Process Capabilities

Substrate Compatibility	5 mm up to Ø 100 mm (4 inches)
Chuck Architecture	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	± 1 rpm
Spin Coating Uniformity	± 1 %
Process Spin Time	0 – 999 seconds per step

Control System & Interface

Human-Machine Interface (HMI)	Tactile keypad input
Display Technology	Dual LED (Real-time speed & digital process timer)
Operational Flexibility	In-process Pause / Resume functionality

Vacuum Pump

System Architecture	External vacuum pump
Max Vacuum Capacity	-85 kPa
Pumping Speed	≥ 60 L/min

Facilities & Mechanical Data

Power Supply (Spin Coater)	AC 100–250 V, 1-phase, 50/60 Hz (200 W)
Power Supply (Vacuum Pump)	AC 220V Standard / 110V Optional (180 W)
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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