



Chemat Technology Inc.

KW Spin Coater Series

The First Time Experience to Make Thin Films and Coatings

KW Spin Coater Series

The Chemat Scientific Division of Chemat Technology Inc provides Spin and Dip Coating equipment to Universities and to Industry for laboratory research activities.

The principal products are the KW-4A spin coater and the Dipmaster dip coaters.

The KW-4A spin coater can also be provided with a precision dispenser, hotplate or UV curing systems and different sizes of vacuum chucks.



Key Features

- Compact design for minimized footprint
- Extremely reliable, least maintenance
- Most cost effective
- Can be purchased separately, saving unnecessary spending
- Quite easy to use, user-friendly interface
- CE approved

Chemat Technology Inc.

Founded in 1990 in Northridge, California, in the San Fernando Valley area of Los Angeles, Chemat Technology, Inc. has established itself as a world leader in the development of advanced materials via sol-gel technologies. Chemat's R&D labs are fully equipped with the state-of-art analytical and processing equipment. Chemat owns facilities for chemical precursor synthesis, design and manufacturing of equipment, and advanced materials processing and characterization.

Its R&D Division has successfully completed almost one hundred Research & Development contracts for government agencies and industry

clients. Its mission is the creation and commercialization of sol-gel based advanced materials and technologies, for its own use and to provide its clients with technologies they can use to create leading-edge products using advanced materials.

Chemat also offers specialty sol-gel processing equipment, professionally designed and manufactured with stringent quality control. In addition, Chemat manufactures custom processing equipment, including customized spin-coaters and dip coaters, fabricated to the specific needs of customers.

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Chemmat Technology Inc.

Spin Coater KW-4A

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Features

- Dual speed controls with continuous speed adjustment and individual timers
- LED speed indicator
- Easy to use, compact, affordable, desk-top
- Teflon coated stainless steel coating bowl
- Auto dispensing in conjunction with Chemmat Fluid Dispenser
- Customized vacuum chucks for irregular substrates
- Least maintenance



Descriptions

CHEMAT Technology, Inc. has designed and manufactured a compact and easy-to-use spin-coater, Model KW-4A, for precise and uniform deposition of thin films and coatings.

Its rugged, vibration-free and portable design makes it a versatile tool for your research facility.

A two-stage spin process allows dispensing at low speeds and homogenizing the coating at high speed.

The KW-4A spin coater can be used to deposit metal oxide thin films, polymer coating and organic thin film.

Customized chucks are available.

User-friendly interface



Technical Specifications

Power: 110/220 VAC, 50/60 Hz, 1 Amp

Vacuum: More than 2.1 CFM

Size: 11.0 inch X 8.5 inch X 10.6 inch

Net Weight: 7.5Kg

Two-stage Spinning
Stage I: 500-2500RPM
3-16 seconds
Stage II: 800-8000RPM
2- 60 seconds

Speed Stability: $\pm 1\%$

Coating Uniformity: $\pm 3\%$.

Substrates: 8-200mm

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Chemmat Technology Inc.

Hotplate KW-4AH

The First Time Experience to Make Thin Films and Coatings

Descriptions

The KW-4A hotplate is a compact and easy-to-use hotplate for baking and curing thin films and coatings. Its rugged, portable design and temperature uniformity make it a versatile tool for all types of research facilities.

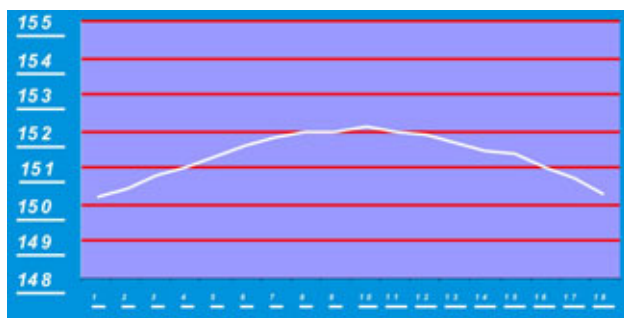
In conjunction with the KW-4A spin-coater, the system can be used to fabricate metal oxide thin films, polymer coatings and metal organic thin films.

The KW-4AH compact hotplate has uniform temperature profile across the substrate to provide even heating the films and coatings. No skin effect occurs on the hotplate since the hotplate baking heats the substrate from the bottom up.

This inside-out mechanism is especially for baking thick films since solvents in the films nearest the substrate are baked off before the film surface seals over.

The KW-4AH hotplate increases throughput

Temperature Profile



from a faster warm-up of the substrate. Bake times will be measured in seconds, rather than minutes or hours, as in conventional ovens.

Technical Specifications

- Operation: Manual Load
- Process Control: Programmable
- Temperature Fluctuation: $\leq \pm 1^\circ\text{C}$
- Temperature Uniformity: $\leq \pm 3\%$
- Temperature Range
 - $-30^\circ\text{C} - 350^\circ\text{C}$ (KW-4AH-350)
 - $-30^\circ\text{C} - 600^\circ\text{C}$ (KW-4AH-600)
- Substrate Size
 - 7.5 inch X 7.5 inch (KW-4AH-350)
 - 5.8 inch X 5.8 inch (KW-4AH-600)
- Inert gas purge (KW-4AH-600 only)

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Chemmat Technology Inc.

UV Curer KW-4AC & Dispenser KW-4AD

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Descriptions

KW-4AC is specially designed for curing photosensitive coatings and thin films. It equips four UV light sources with radiations at 365 nm and 245 nm. The coated substrates up to 6 in diameter will be rotated at 5-6 rpm to ensure uniform curing. The built-in interlock door to prevent the exposure of UV radiation gives safe operation.



In conjunction with the KW-4A spin coater, the system can be used to make various coatings and thin films via the photochemical process.

Key Features

- Built-in interlock door to prevent the exposure of UV radiation
- Simple design and user friendly
- Strong UV light penetration
- Easy to replace UV lamp

Technical Specifications

- UV Lamps 4X4W bulbs
- Wavelength 246nm/356nm
- Turntable Diameter 4 inch
- Turntable Rotary Speed 5~6 rpm
- Dimension 5.8 inch X 9.5inch 6.3 inch
- Power Requirement 120/220VAC, 50/60HZ, 6A

Descriptions

KW-4AD Dispenser is a compact and easy-to-use dispenser for precisely dispensing spin-on liquid onto the substrate to obtain uniform deposition of thin films and coatings. Its use of syringes allows easy change of dispensing liquids without tedious cleaning, eliminates potential contamination from other solutions.

These features enable the quick formulation and optimization work, thus makes it a powerful tool for your research. In conjunction with KW-4A spin coater, the system can be used to deposit varieties of coatings and films.



Technical Specifications

- Dispense fluids range: 1 to 100,000 cP
- Air input port: 1/4 inch OD tube
- Air input: 80-100 psi (filtration required)
- Dimensions: 4.5 inch X 10 inch X 6.5 inch

Key Features

- Small convenient desk top size
- Simple, user friendly design
- Adjustable output air pressure
- Manual vacuum control for thin fluids
- Multi-limited selection

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