



LabCoat

Silane Monolayer Deposition System



The LabCoat is a compact, tabletop unit ideal for Research & Development laboratories wishing to achieve uniform results. Our silane deposition technology enables modifications of surface properties. Materials that were formerly incompatible can be made to adhere to one another. Conversely, surfaces can be treated to ensure that moisture is repelled.

Dehydration under vacuum is followed by silane vapor deposition coating, providing a superior silane/substrate bond that is stable after exposure to atmospheric moisture, thereby extending the time available between process steps.

Benefits

- Total control over process environment
- Flexible system accommodates a variety of silanes, processes and surfaces
- Contact angle repeatability within $\pm 1-3^{\circ}\text{C}$
- Angstrom-level thickness control

COMMON APPLICATIONS

MEMS coating to reduce damaging stiction

Photoresist adhesion for semiconductor wafers

Silane/substrate adhesion for microarrays

Contact Us: We offer process demonstrations. If you would like to submit samples, please call us. We can run your samples and provide a detailed process report.

Yield Engineering Systems, Inc.

Call: **1-510-954-6889** (worldwide) or **1-888-YES-3637** (US toll free)

www.yieldengineering.com



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SPECIFICATIONS

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HARDWARE

Clean Room Compatibility	Class 10
Chamber Material	316L Stainless Steel
Chamber Size	21.9 cm (W) X 25.7 cm (D) X 21.9 cm (H) — (8.625" X 10.125" X 8.625")
Overall System Dimensions	96.5 cm (W) X 69.85 cm (D) X 55.9 cm (H) — (38" X 27.5" X 22") 27.5"H with Light Tower
Chemical Usage	0.1ml – 5ml
Chemical Volume Control	0.1ml increments
Vapor Flask Assemblies	1 (Standard), up to three
Safety	Audible and visual alarms, redundant over-temp monitoring

SOFTWARE

Number of Recipes	Six recipes with loop and link capability
Range of Exposure Time	1 second – 24 hours
Resolution of Timer Setting	1 second

PERFORMANCE

Operation Temperature	Ambient to 205°C
Uniformity	+/- 5°C
Vent N2Gas Consumption	2.6 ft ³ [0.07 m ³] Max
Wafer Throughput	50 – 150mm Wafers/Hr
Slide Throughput	300 – 75mm Slides/Hr — (Requires Slide Trays and Shelf Assembly)
Batch Size	1 - 6 inch cassette, maximum — (Many combinations may be applied)

ADDITIONAL

Power Requirements	US: 208 VAC, 50/60 Hz, 15 Amps — Non-US: 230 VAC, 50/60 Hz, 15 Amps
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OPTIONAL

Cart	91.44 cm (W) X 116.84 cm (D) X 91.44 cm (H) — (36" X 46" X 36")
Cassette Rack	Designed to hold glass slide cassettes

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