Kurt J. Lesker Company

# Atomic Layer Deposition

## System Platforms

Delivering Solutions You Can Trust Through...

- Quality
- Performance
- Flexibility
- Support

# ATOMIC LAYER DEPOSITI

We offer stand-alone ALD systems for basic research or completely integrated deposition systems for complex R&D applications. All three of our ALD system platforms feature computer control, integrated pumping, pressure measurement, and gas delivery packages optimized for your specific process.

## KJLC ALD System Platforms

### KJLC ALD-150L

Compact computer controlled system features an efficient viscous flow ALD reactor.

- Small footprint
- Stainless steel chamber
- Side load port
- Accommodates 6” substrates
- Heating to 400°C
- Heated lines to 200°C
- Remote plasma option
- Load lock option
- Bubbler option - with closed loop control
- Glove box option

### KJLC ALD-200L

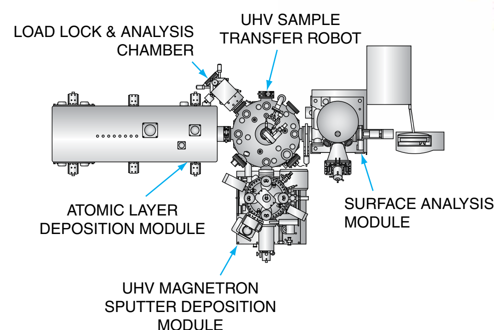
Computer controlled rack-sized system which supports an intermediate level of ALD research.

- Featuring a viscous flow ALD reactor
- Enclosed design accommodates a large number of reactant inputs
- Chamber accommodates up to 8” substrates
- Heating to 400°C - 500°C
- Fully exhausted cabinet with gas interlocks
- Remote plasma option
- Load lock option
- Bubbler option - with closed loop control

### KJLC ALD 8000

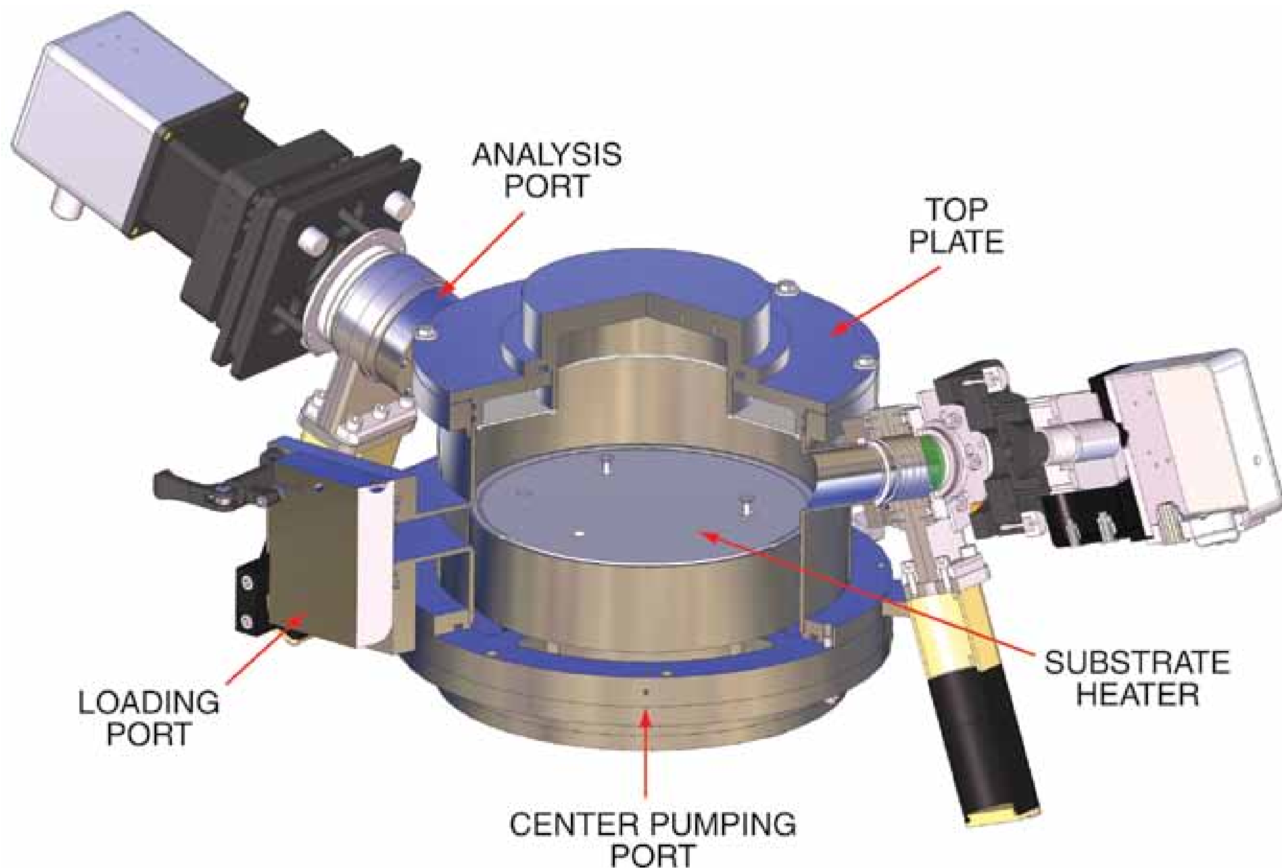
Fully integrated computer controlled system supports a wide range of process enhancements and metallurgy tools to complement our ALD reactor - all within the vacuum environment.

- Fully exhausted cabinet with gas interlocks
- Stainless steel chamber
- Up to 8” substrates with up to 500°C heating
- Heated lines to 200°C
- Maximum number of reactants and gas inputs
- Full in-vacuum transfer capability through central distribution center to connected system and processes



## KJLC ALD Reactant Chamber Design

The Kurt J. Lesker Company's ALD reactant chamber is designed to produce maximum flexibility. The sample is loaded through a rectangular port in the chamber (either manually or utilizing the optional load lock) and positioned in the reactant chamber where the deposition takes place. Up to four precursor or gas inputs are introduced through the top plate. A fifth input is available through the plasma port.




### Design Features

- Stainless steel construction
- Front loading port
- Close proximity back side heating to 500°C
- Substrates from small irregular pieces to 200mm wafers
- Analytical ports in reactor for in-situ analysis
- Remote plasma option for low temperature process
- Top mounted vapor delivery
- Curtain gas flow design to minimize contamination on reactor walls and reduce unwanted side reactions

### Available Options

- Vacuum load lock
- Remote plasma source
- Glove box option
- RGA system
- Ellipsometry package
- Bubbler
- 500°C substrate heating
- Chamber heating to 150°C
- Heated lines to 200°C
- Dry pumping options

# Process Control Software Functions

## Vacuum

- Visual display of valve position
- Visual display of pump status
- Display of vacuum status
- Substrate heater controls
- Substrate load/unload
- Chamber/foreline heating

## Operation Navigation

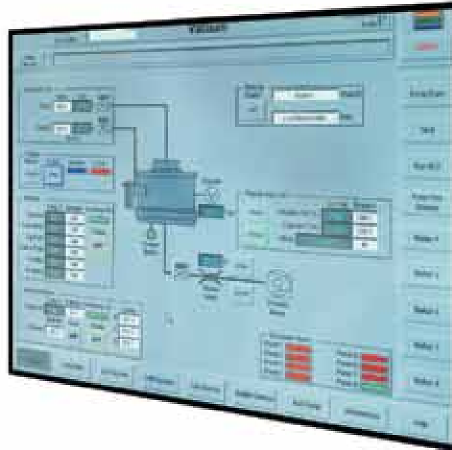
- Maintenance screen
- Three levels of password protection
- Data logging
- Pump down command button
- Vent command button

## Deposition

- MFC and valve status
- Displays plasma parameters
- Trend plotter

## Source(s) Tab

- Displays source heater parameters
- Displays all gas/vapor heated lines



Kurt J. Lesker Company

LOCATIONS

Providing global

08-069

www.lesker.com/locations.cfm

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