

DLI

MC-100 DLI - SYSTEM

100 mm DLI-CVD / DLI-ALD system

Up to 4 direct liquid injection vaporizers

R&D shower head for easy cleaning and exchange

Capability to deposit the widest range of materials



Applications

Simple and multi-metallic oxides

Metals, nitrides and alloys

III-V, wide band gap semiconductors

Nanotubes and nanowires

Etc.

Specifications

The Annealsys MC-100 system is a 100 mm DLI-CVD / DLI-ALD reactor developed for research and development applications.

The process chamber double configuration makes possible to perform CVD and ALD processes inside the same process chamber.

The Direct Liquid Injection (DLI) vaporizers provide perfect control of precursor flow and allow utilization of low vapor pressure and diluted chemical precursors. The fast switching of the precursor vapor flows associated with the by-pass valve provide perfect interface control for deposition of nanolaminates.

The automated liquid panel has been optimized for reduced consumption of chemical precursors. The no dead volume design provides full rising capability for easy change of chemicals and refilling of the precursor tanks in a glove box.

Basic features

Substrate size	Up to 100 mm diameter
Process chamber	Stainless steel thermalized process chamber Rotating substrate holder for enhanced process uniformity
Temperature range	From room temperature up to 800°C
Temperature control	Multi zones digital PID temperature controller
Vapors, gas and vacuum	Up to 4 direct liquid injection vaporizers State of the art liquid panels with full rising capability Up to 8 process gas lines with digital mass flow controllers Vacuum valve, vacuum gauge and automatic pressure control
Control	Full PC control, up to 400 operations or loops per recipe Human interface designed in respect of SEMI E95-0200 Full data logging and process historicals

Optional features

Rough vacuum pump, Turbo pump
Motorized vacuum loadlock loading
ALD kit for water vapor delivery

Customer support

Outstanding customer support for hardware, software and process
Efficient remote support using software diagnostic capabilities
High expertise in CVD / ALD processes and of chemical precursors of our process engineers
Capability to support customer for process optimization

Physical specifications

Facilities	Voltage : 3x400V+N+Gr / 3x220V+Gr		
	Power : 12 kW		
Facilities	Water : 2 to 4 bars, pressure drop 1 bar, 4 l/mn		
	Compressed air : 6 bars (valve actuation)		
	Process gas fittings : VCR ¼		
Dimensions and weight	Width	1,000 mm	39.4"
	Depth	2,104 mm	82.9"
	Height	2,062 mm	81.2"
	Mass	800 kg	1,764 lbs



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