

RTP

AS-Premium RTP - SYSTEM

RTP system for up to 156x156 mm² substrates

From room temperature up to 1300°C

Standard vacuum capability

Multi configurations reactor and lamp furnace



Applications

RTA (Rapid Thermal Annealing)

Selenization and Sulfurization

Diffusion

RTO (Rapid Thermal Oxidation)

Ohmic contact annealing

Crystallization and Densification

Specifications

The AS-Premium system can process samples up to 156x156 mm².

The reactor platform and the machine have been designed to accommodate a wide range of configurations to meet the process requirements of our customers.

The chamber can receive a single side or a double side lamp heating furnace. The design of the process chamber allows manual loading or the connection to a cluster tool or a glove box (options).

Pyrometer and thermocouple temperature control are standard features. The fast digital PID temperature controller provides high temperature reproducibility. Graphite and silicon carbide coated graphite susceptors are available for processing of samples with encapsulation.

Basic features

Substrate size	Up to 156x156 mm ² wafers Small substrates using susceptors
Process chamber	Stainless steel cold wall chamber technology
Temperature range	Standard version : 1100°C High temperature and double side heating versions : 1200°C
Temperature control	Thermocouple and pyrometer temperature control Fast digital PID / RTP temperature controller
Vacuum and gas	Up to 8 process gas lines with digital mass flow controllers One purge gas line Vacuum valve and vacuum gauge
Control	Full PC control, up to 100 steps per recipe Human interface designed in respect of SEMI E95-0200 Full data logging and process historicals

Optional features

Graphite and silicon carbide coated susceptors
Rough vacuum pump and turbo pump, automatic pressure control with throttle valve
Fast cooling system, Selenization kits

Customer support

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

Physical specifications

	Voltage : 3x400V+N+Gr / 3x220V+Gr
	Power : 46 kW, 56 kW or 80 kW
	Water : 2 to 4 bars, pressure drop 1 bar, 15 to 30 l/mn
	Compressed air : 6 bars (valve actuation)
Facilities	Process gas fittings : double ferrule ¼ or VCR ¼ (option)

Dimensions and weight	Width	730 mm	28,8"
	Depth	1,450 mm	57,1"
	Height	1,950 mm	76,8"
	Mass	350 to 450 kg	771 to 992 lbs



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