

RTP

AS-Micro RTP - SYSTEM

**3-inch RTP system for laboratories
From room temperature up to 1250°C**

Standard vacuum capability

Twin chamber version to avoid cross contamination



Applications

Rapid Thermal Annealing

Implantation annealing

Ohmic contact annealing

Rapid thermal oxidation (RTO)

Rapid thermal nitridation (RTN)

RTCVD of graphene

Specifications

The AS-Micro is a three-inch rapid thermal processor with vacuum capability dedicated to research applications. It can process substrates from few square millimeters up to 3-inch diameter or square. Optional susceptors are available to hold small samples and to process substrates with low infrared absorption.

The quartz tube process chamber with stainless steel flanges and tubular infrared halogen lamps furnace allows running processes up to 1250°C with very fast ramp rates ($> 250^{\circ}\text{C/s}$). The state of the art temperature controller provides accurate temperature control.

Basic features

Substrate size	Up to 3-inch diameter or 3"x3" Small substrates using susceptors
Process chamber	Quartz tube with water cooled stainless steel flanges Optional twin chamber version to avoid cross contamination
Temperature range	From room temperature up to 1250°C
Temperature control	Thermocouple and pyrometer temperature control Fast digital PID / RTP temperature controller
Vacuum and gas	Up to 5 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

Pyrometer temperature control
Graphite and silicon carbide coated susceptors
Rough vacuum pump, Turbo pump
Downstream pressure control with throttle valve

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

Facilities	Voltage : 3x400V+N+Gr / 3x220V+Gr				
	Power : 15 kW				
	Water : 2 to 4 bars, pressure drop 1 bar, 8 l/mn				
	Compressed air : 6 bars (valve actuation)				
	Process gas fittings : double ferrule ¼ or VCR ¼ (option)				

		Single chamber		Twin chamber	
Dimensions and weight	Width	700 mm	27,6"	700 mm	27,6"
	Depth	700 mm	27,6"	700 mm	27,6"
	Height	700 mm	27,6"	1,825mm	71,9"
	Mass	82 kg	181 lbs	142 kg	313 lbs



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