

AS-MICRO

3-inch RTP system for laboratories

APPLICATIONS

- Rapid Thermal Annealing
- Implantation annealing
- Compound semiconductor annealing
- Crystallization and Densification
- Etc.



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SPECIFICATIONS



Three-inch rapid thermal processor
Dedicated to research applications

Sample size: few square millimeters up to 3-inch
Optional 3-inch susceptor for 2-inch sample

Quartz tube with stainless steel flanges process chamber
Tubular infrared halogen lamps furnace
Very fast ramp rates (> 250 C/s)

Horizontal motion door with quartz tray for easy loading and unloading of the wafers and thermocouple installation.

Thermocouple temperature measurement and the fast digital PID temperature controller assure high and stable temperature control across the temperature range.
Optional pyrometer control.

Optional twin chamber to manage cross-contamination

The system is provided with full PC control with Windows compatible software.

PERFORMANCE CHARACTERISTICS

- Temperature range: RT to 1250 C
- Ramp rate up to 250 C/s
- Gas mixing capability with MFC
- Vacuum range: Atmosphere to 10^{-6} Torr

AS-MICRO

General features

Maximum substrate diameter	3-inch
Process chamber	Quartz tube with water-cooled stainless steel flanges Optional twin chamber to manage cross-contamination
Heating	Infrared tubular halogen lamp furnace Fan lamp air-cooling
Temperature control	Thermocouple temperature control Fast digital PID temperature controller Optional pyrometer control
Vacuum and gas	Purge gas line with needle valve Up to 3 process gas lines with mass flow controllers Vacuum valve Vacuum gauge Optional vacuum pump Optional pressure control with throttle valve Optional turbo pump
Control	Full PC control, up to 100 steps per recipe Ethernet connection to PC for fast control and data logging
Facilities	Electricity: 3x400V+N+Gr or 3x220V+Gr, 50/60 Hz, 15kW Water: 2 to 6 bars, pressure drop 1 bar, 8 l/mn Compressed air: 6 bars (valve actuation) Process gas fittings: Swagelok ¼ (VCR optional)

Dimensions and weight

Single chamber

Twin chamber

Width:	700 mm	700 mm
Height:	700 mm	1,825 mm
Depth:	700 mm	700 mm
Weight:	82 kg	142 kg

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