

# **AS-Premium**

Rapid Thermal Processing Furnace Up to 200x200 mm<sup>2</sup>, up to 1300°C

### **APPLICATIONS**

- RTA (Rapid Thermal Annealing)
- RTO (Rapid Thermal Oxidation)
- Diffusion
- Selenization, sulfuration
- Compound semiconductor annealing
- Nitridation, Silicidation
- Crystallization and Densification



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## **SPECIFICATIONS**

The system can process samples up to 200x200 mm<sup>2</sup> Floor standing system for reduced footprint, easy access for service High reliability and low cost of ownership

The stainless steel cold wall chamber technology provides high process reproducibility, ultra clean and contamination-free environment, as well as high cooling rates and low memory effect

Multi configuration with lamps on top, bottom or both sides. Multi-zone lamp furnace control for enhanced temperature uniformity.

Pyrometer and thermocouple associated with state of the art fast digital PID temperature controller provide accurate temperature control from low to high temperature range.

Edge pyrometer viewport insures enhanced temperature control of the susceptor for compound semiconductors and small samples.

Vacuum capability as a standard feature. A high vacuum version with base pressure down to 10<sup>-6</sup> mbar)is available upon request.



# Specifications are subject to change without notice. Non-contractual document - AS0400B03

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	General features
Maximum substrate size	200x200 mm <sup>2</sup>
Process chamber	Water-cooled stainless steel with quartz window Low volume of the process chamber Top or / and bottom heating capabilities
Heating	Infrared tubular halogen lamp furnace Silent fan lamp air-cooling
Temperature control	Thermocouple temperature control Optical pyrometer control (2 positions) Fast digital PID temperature controller Optional additional pyrometer
Vacuum and gas	Up to 8 process gas lines with digital mass flow controllers Vacuum valve and vacuum gauge Optional vacuum rotary or dry pump Optional turbo pump Optional pressure control with throttle valve
Control	Full PC control, up to 100 steps per recipe Ethernet connection to PC for fast control and data logging Wafer traceability and process historicals
Facilities	Electricity: 3x400V+N+Gr, 50/60 Hz Power: 46 kW (standard), 56 kW (double side heating) Water: 2 to 6 bars, pressure drop 1 bar, 12/15 l/mn Compressed air: 6 bars (valve actuation) Process gas fittings: Swagelok ¼ (VCR optional)
Dimensions and weight	W: 730 mm (manual loading), D: 1450 mm, H: 1760 mm W: 600 mm (cluster interface), D: 1450 mm, H: 1760 mm Weight: 350 kg

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