ANNEALSYS

RTP



Zenith-150

RTP - SYSTEM

High temperature RTP system
Annealing processes up to 2000°C RTP and RTCVD processes
High vacuum



Applications

Silicon Carbide implant annealing

Graphene by SiC sublimation

RTCVD of graphene

High temperature annealing

Specifications

The Zenith-150 high temperature rapid thermal processor can process samples up to 6-inch diameter at temperature up to 2000°C, one hour.

The system has a stainless steel water-cooled chamber. The cold wall chamber technology provides significant advantages: low memory effect, higher cooling rates.

The high temperature tungsten heaters provide enhanced temperature uniformity.
The pyrometer associated with the fast digital PID controller assure accurate and repeatable thermal control across the temperature range.
The design process chamber provides easy loading and unloading of the substrates and the installation of the thermocouple for calibration.

Wide range of pressure, from atmospheric pressure down to 5x 10-6 mbar, under various gas atmospheres and with a precise control of the process parameters.

Zenith-150

Basic features

Substrate size	Up to 150 mm diameter (6-inch)
Process chamber	Stainless steel cold wall chamber technology Low inertia tungsten heating elements
Temperature range	From 450°C up to 2000°C
Temperature control	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 Turbomolecular pump Leak rate < 10E-8 mbar.l/s
Control	Full PC control, up to 400 operations 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
Soft-pumping valve
Automatic 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 : 44kW - 125 Amp Water : 2 to 4 bars, pressure drop 1 bar, 15 l/mn Compressed air : 6 bars (valve actuation) Process gas fittings : VCR ¼		
Dimensions ans weight	Width Depth Height Mass	800 mm 1,750 mm 2,000 mm 500 kg	31.5" 68.9" 78.8" 1,102 lbs

Specifications are subject to change without notice. Non-contractual document - AS05B06

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ANNEALSYS

RTP



Zenith-100
RTP - SYSTEM

High temperature RTP system

Annealing processes up to 2000°C

RTP and RTCVD processes

High vacuum



Applications

Silicon Carbide implant annealing

Graphene by SiC sublimation

RTCVD of graphene

High temperature annealing

Specifications

The Zenith-100 high temperature rapid thermal processor can process samples up to 4-inch diameter at temperature up to 2000°C.

The system has a stainless steel water-cooled chamber. The cold wall chamber technology provides significant advantages: low memory effect, higher cooling rates.

The high temperature tungsten heaters provide enhanced temperature uniformity.
The pyrometer associated with the fast digital PID controller assure accurate and repeatable thermal control across the temperature range.
The design process chamber provides easy loading and unloading of the substrates and the installation of the thermocouple for calibration.

Zenith-100

Basic features

Substrate size	Up to 100 mm diameter (4-inch)
Process chamber	Stainless steel cold wall chamber technology Low inertia tungsten heating elements
Temperature range	From 450°C up to 2000°C
Temperature control	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
Automatic 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 : 38 kW Water : 2 to 4 bars, pressure drop 1 bar, 15 l/mn Compressed air : 6 bars (valve actuation) Process gas fittings : VCR ¼		
Dimensions and weight	Width Depth Height Mass	800 mm 1,750 mm 2,000 mm 500 kg	31.5" 68.9" 78.8" 1,102 lbs

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