

Model RTP-1200-100/RTP-1000-150/RTP-1000-200

Rapid Thermal Process oven with vacuum for single wafer
For up to 8" / 200mm wafers



Features:

- fast ramp up rates up to **150 °C/second**
- vacuum or inert gas atmosphere
- **up to 200mm wafer size**
- up to 4 gaslines
- RS-232 interface for easy PC programming

Applications:

- Annealing
- Rapid Thermal Processes
- SiAu, SiAl, SiMo alloying
- low k dielectrics
- post implanting annealing
- copper paste firing
- resistor paste firing
- SiSolar Wafer Cells on glass by Si wafer bonding
- LTO

Model RTP-1200-100, RTP-1000-150, RTP-1000-200

- rapid thermal annealing ovens
- programmable temperature profiles
- record of process data (.csv / .xls)
- Windows based software (Uni Soft)
- 20 program locations at 100 steps each
- process in gas or vacuum
- small required place

The Rapid Thermal Process oven series is an excellent tool for various semiconductor processes and single wafer processing up to 300mm wafer size. Some applications are: as laboratory furnace for all kind of developers implementing and researching new processes, prototype research, environmental research purposes and for small pre-series or series. There are 3 models available: for up to 100mm (4"), 150mm (6") or 200mm (8") wafer size.

The oven consists of 2 19" rack inserts: one is the chamber (quartz glass) with front loading. The second one is the controller unit with the controller and panel board. We also offer a „double chamber“ oven which allows to work with 2 chambers (e.g. for 2 different processes) with one controller unit.

Two gas lines with manual adjustable flow meters are standard, a third gas line is optional available (also Mass Flow Controllers).

By connecting an external pump makes the system vacuum capable up to 10^{-3} mbar (torr).

The maximum temperature is up to 1200 °C (only model RTP-1200-100) or 1000 °C for the other models. Key features are precise controlled fast ramp-up and ramp-down rates which are better up to **150 °C/second** or ramp up and better **200 °C/minute for ramp down** (depends on model and start temperature).

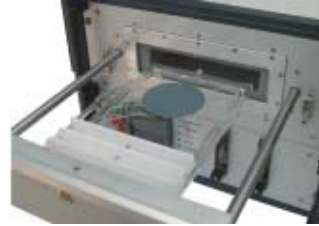
The process is programmed either by the external controller which is provided with the UniSoft Software. The process is controlled either directly at the controller (a display shows the actual status) or by using the RS-232 to PC interface. This allows storing of unlimited programs where all temperature profiles with segments can be saved. An additional feature is the choice between precisely programming the ramp-rate or the ramp-to-target value. This tool is a low cost solution for various applications and customers. A further advantage is the small size of table top system.

Water cooling is required.

RTP-1200-100



RTP-1000-150



RTP-1000-200



for wafer size
chamber material
Chamber height
Loading system
Vacuum capability
Process chamber size
Temperature max.
Heating
Heating zones

Ramp up rate
Ramp down rate

Interface
Controller
Program
Cooling
Inlet Pressure
Dimension oven

Weight
Programms

Voltage

Options and accessories:

RTP-FM
RTP-HV
RTP-MFC
RTP-RP
RTP-MP
RTP-PC
RTP-TC
RTP-VM
RTP-WC

100 mm (4")
quartz glass chamber
10 mm
quartz glass tray
up to 10-5 mbar/torr
100mm ø/10mm (H)
up to 1200 °C
IR lamps, 18 Kw
upper and lower heating
(programmable)

better 150 °C/sec
T=1200>400°C: 200K/Min
T=400>100°C 30K/Min
RS-232 to PC
fast PID controller
Win based „UniSoft“
water cooled
2 to 6 bar
555x375x520 (WxHxD)
(21.8"x14.7"x20.5")
45 kg
20 programs storable
(unlimited on PC)

**CEE 3x32,
230V,3phase**

additional gas line with manual adjustable flow meter
High vacuum option with turbomolecular pump
Mass Flow Controller (electrical)
Rotary Vane Pump
Membrane/Diaphragm Pump
additional (second) process chamber insert
additional thermo couple
vacuum measurement with data logging
closed loop water cooling system
other options and accessories on request

150 mm (6")
quartz glass chamber
40 mm
quartz glass tray
up to 10-5 mbar/torr
225x40x190 (WxHxD)
up to 1000 °C
IR lamps, 18 Kw
upper and lower heating
(programmable)

better 75 °C/sec
T=1000>400°C: 200K/Min
T=400>100°C 30K/Min
RS-232 to PC
fast PID controller
Win based „UniSoft“
water cooled
2 to 6 bar
555x375x520 (WxHxD)
(21.8"x14.7"x20.5")
45 kg
20 programs storable
(unlimited on PC)

**CEE 3x32,
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200 mm (8")
quartz glass chamber
50 mm
quartz glass tray
up to 10-5 mbar/torr
300x50x300 (WxHxD)
up to 1000 °C
IR lamps, 18 Kw
lower heating

(programmable)
better 10 °C/sec
T=1000>400°C: 50K/Min
T=400>100°C 5K/Min
RS-232 to PC
fast PID controller
Win based „UniSoft“
water cooled
2 to 6 bar
555x460x520 (WxHxD)
(21.8"x14.7"x20.5")
60 kg
20 programs storable
(unlimited on PC)

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