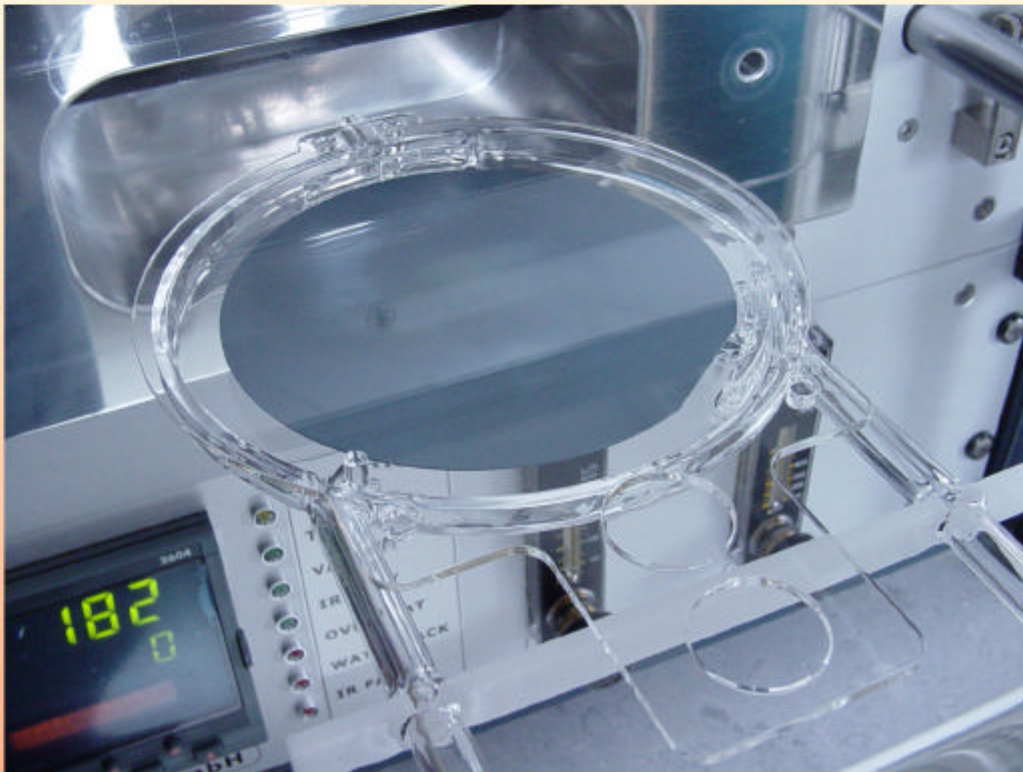


## Rapid Thermal Process Oven Model RTP-1200



- ramp up rates  $150^{\circ}\text{C}/\text{second}$
- vacuum or inert gas atmosphere
- for up to 4" wafer size

## Rapid Thermal Process Oven

### Model RTP-1200

- fast ramp-up rates up to 150°C/second
- heating with IR lamps
- process in gas or vacuum
- programmable temperature profiles
- Windows based Software
- record of the process data
- 20 programs saveable
- water cooled chamber
- small place requirements

The Rapid Thermal Process Oven allows the heat treatment for a **single Wafer up to 4" size**. The RTP-1200 is an **excellent tool for various semiconductor processes** and other applications. Some applications are: as laboratory furnace for all kind of developers implementing and researching new semiconductor processes, prototype research, quality control, environmental research purposes and for small pre-series.

The quartz chamber can be loaded manual with wafers up to 4" size. The RTP-1200 sets the industry standard for ease of operation and maintenance.

Two program controlled gas lines with flow meters allow the usage of two different gases, either Nitrogen or forming gas. By connecting an external pump the furnace is made vacuum capable.

Key features are precise controlled fast ramp-up and ramp-down rates which are **150°C/second for ramp-up** and a **ramp down rate** (e.g. T=600°C down to 400°C with up to 200K/minute). These steps are programmable from room **temperature up to maximum 1000°C (max. 1 minute)**.

The oven will be programmed using the RS-232 interface connected with a standard PC. This allows the storing of unlimited programs where all temperature profiles with segments can be saved. A further feature are precise programming ramp-rates or the ramps-to-target.

Options and accessories like water cooler, additional flow meters, additional gas lines, additional thermocouple etc. are available on request.

This tool is for various applications and customers. The small size (520mm x 400mm x 550mm) allows comfortable loading and unloading of the chamber. The oven can be easily placed on a standard laboratory table.

#### RTP-1200 Technical Data

Process chamber:	∅100mm, H: 10mm Quartz glass chamber with integrated gas in- and outlet with infrared lamps
Heating:	Total power: 18 kW Upper and lower heating area
Loading system:	manual, quartz glass tray in the process chamber, plug carrier integrated up to 4" wafers
Loading area:	up to 4" wafers
Controller:	fast PID temperature process controller, 100 steps programmable (temperature steps), free programmable process gas feed through with 2 adjustable gas flow meter, 20 programs storable with external pump
Vacuum:	from room temperature up to 700°C (long lasting)
Temperature:	max. Temperature: 1000°C
Ramp up rate:	free programmable max. 150°C/sec (empty furnace, real ramp-up rate depends on loading)
Ramp down rate:	T=600°C up to 400°C max. 200K/min T=400°C up to 100°C max. 30K/min
Electricity:	CEE 3 x 32A, 230V, 50Hz, 3 Phases
Cooling:	Water cooling required Inlet pressure 2 to 6 bar Minimum DP 2 bar
Interface:	RS-232
Dimensions:	520x400x550 (LxBxH)
Weight :	» 45 kg

#### Options and Accessories :

RTP-1200-FM	Additional gas line with flow meter
RTP-1200-MFC	Additional gas line with Mass Flow controller
RTP-1200-QM	Quartz glass carrier (customer specific)
RTP-1200-VM	Vacuum measurement
RTP-1200-WC	Closed loop water cooling system