

Mini Lamp Annealer MILA-5000 series



Best for research and development on small samples

● Applications

- Crystal annealing of ferroelectric thin films.
- Diffusion annealing, oxide film deposition annealing after ion implantation.
- Sintering, alloying treatment of Si and compound wafers.
- Glass substrate uniform temperature annealing.
- Thermal cycle, thermal shock, thermal fatigue testing.
- Temperature programmed desorption testing, catalytic effect testing.

● Specifications

Model	MILA-5000-P-N (high temperature type)	MILA-5000-P-F (uniform temperature type)
Temperature Range	RT ~ 1200 °C	RT ~ 800 °C
Sample Size	□ 20 × 2 (mm)	
Atmosphere	Air, Vacuum, Gas flow	

● Features

- 50°C/s high speed heating.
- Select the desired atmosphere from vacuum, gas, gas flow, air.
- Precise temperature control.
- Compact, table-top design.
- Simple input of temperature recipe into computer connected with USB
- Display temperature data on the PC monitor during heating

*Vacuum pumping system is optional.

*Heating temperature changes according to the heated sample's infrared reflectance, absorption, heat capacity, and material.

Ultra-High Vacuum Mini Lamp Annealer MILA-5000UHV



Capable of supporting high vacuum with its compact design

● Applications

- Heat treatment in an ultra-high vacuum.
- Temperature-programmed desorption gas analyzing furnace.

● Features

- Heat treatment in an ultra-high vacuum atmosphere.
- Handles up to 10^{-5} Pa (when using TMP).
- Inherits the capabilities of the MILA-5000-P-N (high temperature type).
- Simple input of temperature recipe into computer connected with USB
- Display temperature data on the PC monitor during heating

● Specifications

Model	MILA-5000UHV
Temperature Range	RT ~ 1200 °C
Sample Size	□ 20 × 2 (mm)
Atmosphere	Air, Vacuum, Inert gas

*Vacuum pumping system is optional.

*Heating temperature changes according to the heated sample's infrared reflectance, absorption, heat capacity, and material.

Mini Lamp Annealer MILA-5050



Heat treatment up to 50 mm square size

This system is a new model of MILA-5000 Series, which has been valued by many customers. It is capable of heat treatment of up to 50mm square size samples and has been developed with still having a compact body.

● Applications

- Rapid thermal annealing of Si wafer and compound wafer
- Rapid thermal annealing of electronics material like substrates of optical CVD
- Heat treatment of glass substrates, ceramics and compound materials etc
- Thermal cycle test
- Thermal annealing of metal materials
- Heat resistance evaluation of coating films
- Heating and drying of organic materials and resins

● Features

- Heat treatment up to the maximum 50 mm square size samples
- Maximum operating temperature 1200°C
- Desktop type in which heating furnace, chamber and temperature controller are all integrated
- Simple input of temperature recipe into computer connected with USB
- Display temperature data on the PC monitor during heating

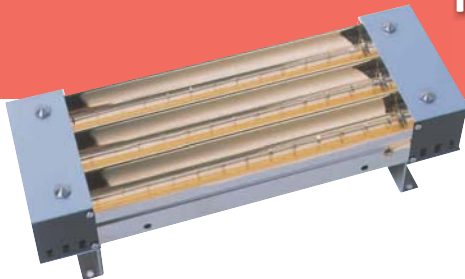
● Specifications

Temperature Range	RT ~ 1200 °C
Heating rate	50 °C/s
Sample Size	□ 50 or φ 50 × t 2 (mm)
Atmosphere	Vacuum, Gas flow

*Vacuum pumping system is optional.

*Heating temperature changes according to the heated sample's infrared reflectance, absorption, heat capacity, and material.

Infrared Gold Image Furnace System RHL-Ps / Pss series



Useable in wide fields from carbon nanotube growth equipment to production equipment

● Applications

- The Ps type has 40-mm wide reflective surfaces.
- The Pss type has 20-mm wide reflective surfaces that allow high density lamp configurations.
- Both the Ps type and the Pss type can heat a wide area by increasing the number of reflective surfaces.

The flat plate reflected infrared heating furnace can be used for applications such as a 2-inch to 300 mm diameter wafer lamp annealing system or a production baking furnace.

● Features

- Heating large glass substrates (Solar cells, FPD, etc.).
- High-temperature, high-speed heating of semiconductor wafers.
- Annealing of thin steel sheets

● Specifications

Model *1	Heating Method	Lamp Number	Heating Length (Light Emission length)	Lamp Voltage	Input
Ps15V	Planar radiation heating	1	140 mm	200 V	1.2 kW
Ps110V			265 mm		2 kW
Ps116V			420 mm	300 V	3 kW
Ps35V			140 mm	200 V	3.6 kW
Ps310V		3	265 mm	300 V	6 kW
Ps316V			420 mm		9 kW
Pss35V			140 mm	200 V	3.6 kW
Pss38V			200 mm		4.8 kW
Pss310V			265 mm		6 kW
Pss316V			420 mm	300 V	9 kW

• Please be aware that heating furnaces require cooling water.

• Heating temperature changes according to the heated sample's infrared reflectance, absorption, heat capacity, and material.

• For other specification requirements, please feel free to contact us.

*1 Model number meaning
For Ps(s)35V

P s(s) 3 5 V
① ② ③ ④ ⑤

- ① Paraboloidal surface type
P : Paraboloidal reflection
- ② Width of reflecting surface
s : 40mm-width
ss : 20mm-width
- ③ Lamp number
- ④ Lamp length
- ⑤ Planar Heating type