

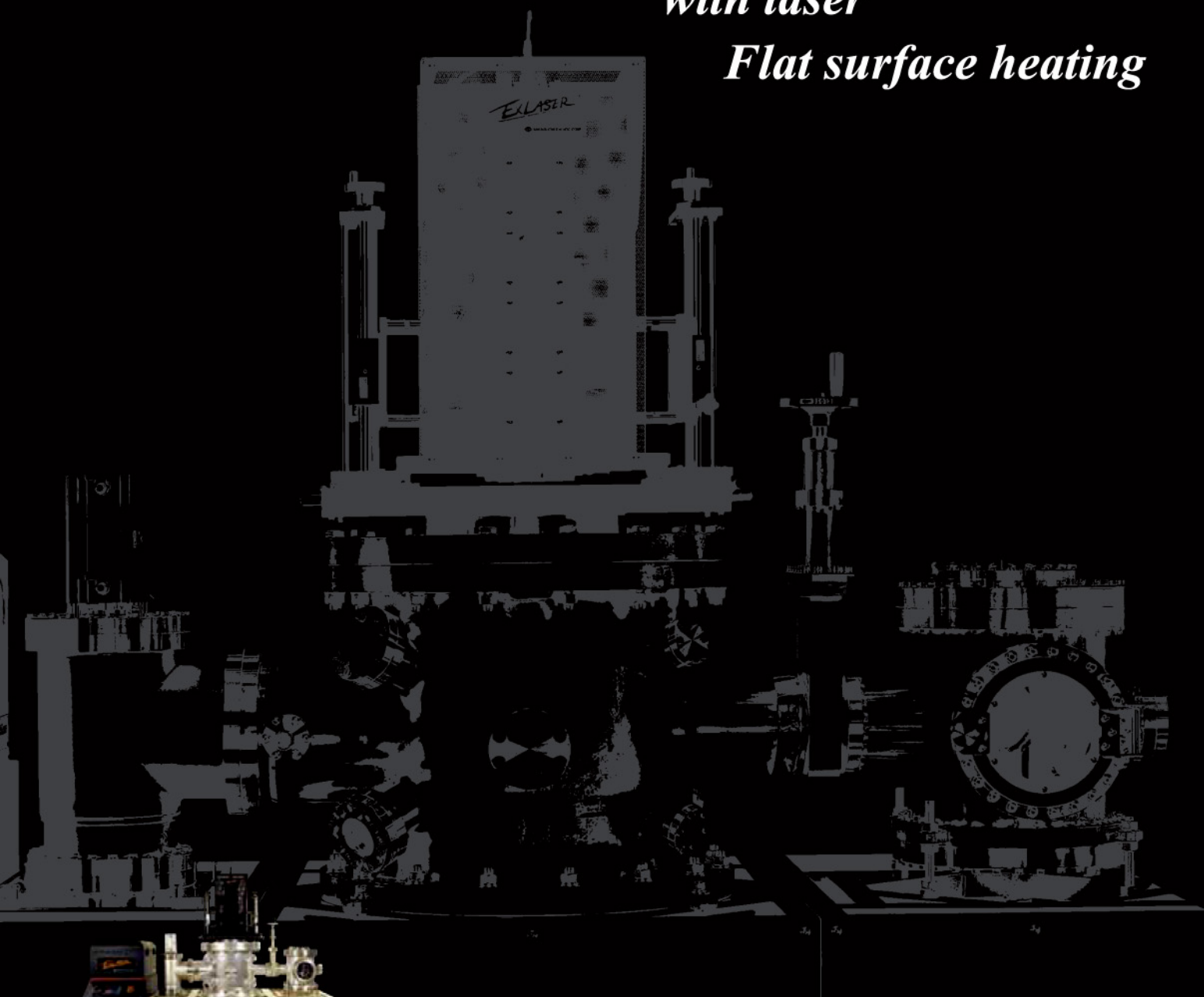
Laser flat surface heating equipment

®

EXLASER

*New Technology
with laser*

Flat surface heating



The "ExLASER" is a multi purpose rapid heating machine with LASER.

SAKAGUCHI E.H VOC CORP.

Features

Super high speed

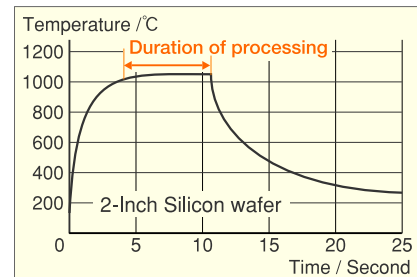
Rapid heat-up, Rapid cool-down.

Temperature control is available
depending on each thermal process.

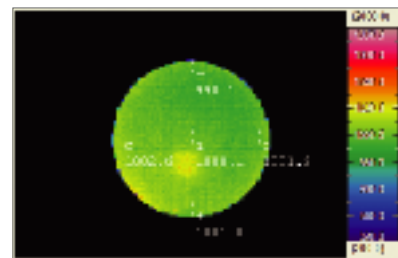
2 inch substrate can be evenly heated
by **ONE SHOT.**

Only the target can be heated
Energy-saving.

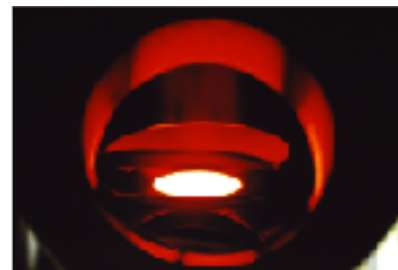
Only the target
can be heated **directly.**



Rapid heat up : 100°C→1000°C 4sec
Rapid cool down : 1000°C→400°C 7sec
(2-Inch diameter ×0.3t silicon cover panel)
in the vacuum of 10^{-3} Pascal



Temp. uniformity: ± 3 deg.c at 1000deg.c



This equipment can be provided with direct heating at any objects without heating atmosphere.

Applications

- Substrate heating in MBE machine.
- Wafer annealing (SiC、GaAS etc.)
- Available for surface annealing for top layer of multi layer device with device scaling. etc.

Sales reference



Japan Atomic Energy Agency

Laser power: 100W

Dimensions: H251×W200×D253 (mm)

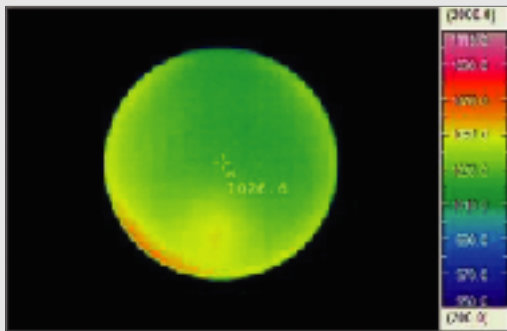
"ExLASER" Laser heating case study

Test device : EXL-CT-010DS55. Test sample is set up in the vacuum chamber.

Temp. measuring : Front and Back side of surface of test sample.

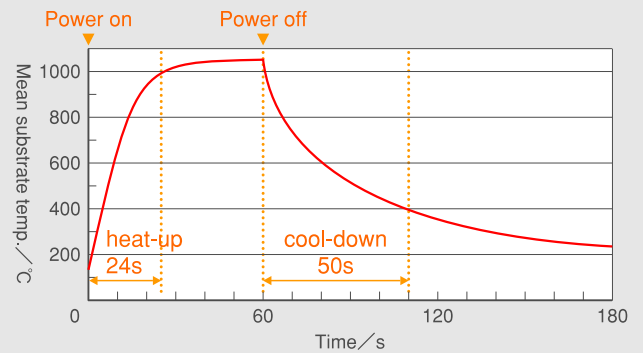
1 Sapphire substrate (2 inch dia.) ——— Transparent substrate

(1) Temp.distribution



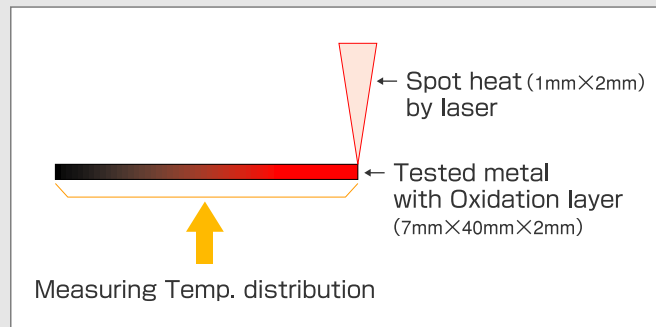
Laser power : 1000W

(2) Rapid heat up. Rapid cool down.

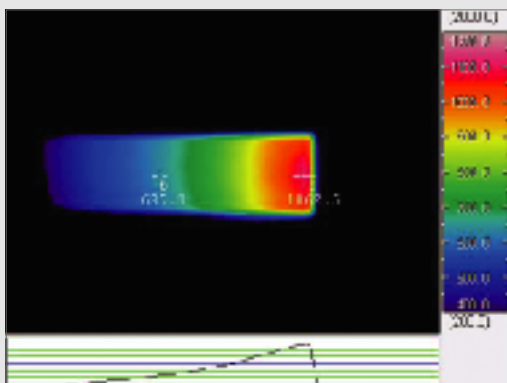


Laser power : 1000w

2 Temp Inclination ——— Combinatorial optic application

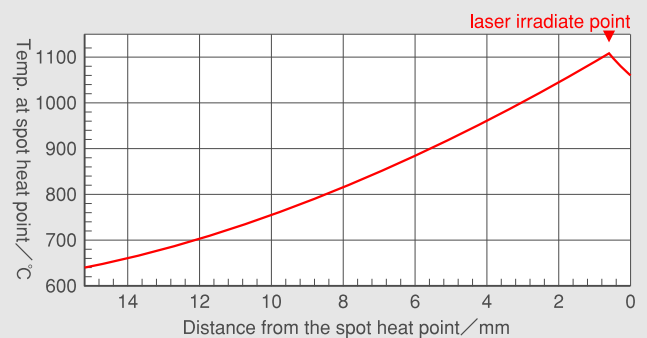


(1) Temp.distribution



Laser power : 86W
Concentrate : Right point

(2) Temp.Inclination chart



Basic Specifications

TYPE :EXL-CT-010-DS55			
Laser irradiating way	direct	Dimensions	H625mm×W700mm×D320mm
Laser power	Max 1kW	Accessories	Chiller
Wave length	808nm	Rated power	Laser core part : 1P200V20A
Laser Area	Square area		Chiller : 1P200V15A
Optical uniformity	Homogenizer (±5%)	Remark	JST original
Heated area	55mm square		Developed in 2005
Distance to target	400mm~		

Above specifications are our standard. It can be modified depending on your request.

Option

Please contact us in case of any requests.

- Vacuum chamber
- Temp. control unit
 - Fiber type temp. meter
 - Digital indication
 - Infrared-ray transmission indicating controller
- Substrate holder (for 2inch size)
- Combinatorial optic holder (for 10mm substrate)
- Substrate body (sapphire,silicon,GaAs,etc.)

Work Test

Evaluation is available upon customer's request at cost.



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