This chamber enables dehydrogenation annealing in low-temperature polysilicon TFT fabrication, activation annealing after ion doping, high oxygen annealing in oxide semiconductor TFT fabrication, polyimide film formation for flexible display devices, semiconductor passivation film curing, and other low and high oxygen heat treatment in a clean environment from 300 to 500°C. The highly efficient air conditioning system ensures high temperature uniformity performance, and a significant improvement in increase and decrease characteristics has enhanced processing capacity.

- Class 4 cleanness (equivalent to Class 10 of FED-STD-209E) even during temperature fluctuations. (Optional)
- Oxygen concentration of less than 60% at 10 ppm or less at temperature increase, decrease, and stable levels. Performs heat processing from extremely low oxygen environments to high oxygen environments. (High oxygen support is optional)
- Slim design with a 50% smaller installation space. (Compared to conventional model)
- 50% decrease in system power capacity. (Compared to conventional model)
- High performance temperature and oxygen concentration control system enables setting of the temperature, time, and concentration for each step.
- Special sealing technology enables processing while controlling the consumption of gas uses.
- Efficiently develop processes with the monitoring and data logging functions for the temperature setting, current temperature, oxygen concentration setting, current oxygen concentration, test area pressure, gas flow rate. All data can be output to a USB flash drive as a CSV file.

*1 The temperature can be pulled down while maintaining a low-oxygen high-cleanliness environment. Since the test area is not ventilated during temperature pull-down, the air in the test area is not mixed into the exhaust air, and thus no flammable gas and toxic gas impact the surrounding area even if they are generated from the specimen. This eliminates the need to install a scrubber.

Specifications (example)

Supported glass size	Generation 1 to 8.5 (Generations 6 to 8.5 are supported with special parts.)
Supported wafer size	150mm to 450mm
Temperature range	+50°C to +500°C
Temperature uniformity	±4.5°C (at +350°C) ±7.0°C (at +500°C) (At 35-minute mark after arrival to control temperature)
Cleanness	Class 100 (0.5 μm or larger particles) at temperature fluctuation
Effective inside dimensions	Type 1: W400×H200×D470mm Type 2: W420×H470×D500mm Type 4: W730×H710×D920mm
Outside dimensions	Type 1: W1200×H1140×D1386mm Type 2: W1400×H1760×D2090mm Type 4: W1710×H2000×D2510mm
Options	Class 10 cleanness support, high oxygen concentration, oxygen concentration control, sublimation trap, automatic sublimation drain, emergency stop switch, signal tower, automation support, SECS-HSMS communication support, GEM communication support

Examples

· Temperature range +80°C ~ +500°C

Temperature heat-up time +80°C ⇒ +500°C/within 90 min

No load Amount of N2 applied: 200 L/min

Temperature pull-down time +500°C ⇒ +100°C/within 330 min

Cleanliness Equivalent to Class 100 in the former FED-STD-209E

Residual oxygen concentration 10 ppm or less

Recommended products for customers viewing this product

Anaerobic Oven (Less than 100ppm)

Large Clean Oven