jipelec ECM GROUP

ECM GROUP THINK OUTSIDE THE CUBE

RAPID THERMAL PROCESSING FURNACE

JETFIRST 300 C

Stand-alone RTP 12" System

Versatile and cost-effective, software controlled stand alone type RTP tool,
specifically designed to meet requirements of R&D laboratories and small-scale production units

POSSIBLE PROCESSES :

_Rapid thermal annealing (RTA), Oxidation (RTO)
 Nitridation (RTN), Diffusion (RTD)
_Implant monitoring
_Cystrallization, Carbonization
_Contact alloying
_Selenization (with optional hardware)
_H2 process environment with specific feature

RTP MODULE CHARACTERISTICS :

_Stainless steel double wall water cooled chamber
_36 IR lamps heating system with tangential fans cooling
_Crossed lamps disposition, 6 independently controlled zones
_100kW heating power and 3x400V+N+Gnd power supply
_Temperature from Ambiant to 1200°C
_Temperature uniformity better than +/-5°C on 200mm wafer
_Ramp rate from 1°C/sec to 150°C/sec
_Control temperature thanks to 5 TCs K type and 1 pyrometer
_Digital PID température controller
_Dimensions mm (LxWxH) : 1100x1000x1400

KEY FEATURES :

_Software-controlled (PLC and PC)
_Cold-wall design for process reproducibility
_Chamber design for easily changeable
_Multi-zones IR halogen lamps heater
_Up to 6 MFC controlled gas introduction lines
_Substrate size up to 300mm diameter (340mm max Ø susceptor size)
_Platen designed for multi TC, pyrometer and support quartz pins locations
_Atmospheric and high vacuum process capabilities (better than 5*10-6mbar)
_Microprocessor-based thyristor technology

MAIN STRENGHTS :

_Large chamber (Ø400mm) for wafer up to 12" size and for multi-wafers on large diameter susceptor
_Easy control of temperature profiles to adjust the process : fast ramp up and cooling adjustable
_Versatile tool for a large range of applications, ideal for research labs and academic applications
_Optionals features : MFC gas lines, primary and secondary vacuum, pressure control, quenching system, …
_Process at atmospheric pressure or under vacuum, neutral gas or partial pressure, depending of options
_Spare chamber optionnaly offered to avoid cross-contamination between processes
_Standard equipement allowing short delivery time