SCALLABLE FOR PRODUCTION OR R&D APPLICATIONS

SVCS Vertical Thermal Reactor (VTR) is designed for all standard Atmospheric and Low Pressure CVD Processes. VTR is available with several lengths of flat zone for both Mass Production and R&D Application. The Single Tube Set-Up with Dual Boat Logistics is optimized for minimum downtime as well as low maintenance costs.

Features and Benefits

- Automatic wafer handling system for loading wafers from SMIF or FOUP closed pods
- Special automatic loading system which allows loading wafers from open cassettes and provides an exceptionally small footprint
- Quartz or SiC boats can be used
- Highly tailored state of the art modular control system, in house designed and manufactured
- | 10,4" high-res touchscreen for operator interface



Production | R&D

Vertical Furnaces

Technical Data

Wafer size (mm) Wafer load Heating system Flat zone Process temperature 100, 150, 200, 300 or any custom size
25 - 150 wafers/batch
3 or 5 zone
Up to 600 mm (24")
200°C to 1230°C, ± 0.5 °C across flat zone

Power consumption
Power supply (adapted to power grid of destination country)
Clean dry air
Cooling water
Exhaust

SVFur-RDPx

Processes

Atmospheric

- Diffusion (drive-in) high temperature processes
- Doping from solid, liquid and gaseous dopant sources e.g. BBr_3 , B_2H_6 , POCL₃, PH₃, BN
- Dry Oxide
- Pyrogenic Wet Oxide with External Burning System
- Various thermal processing e.g. annealing, sintering

LPCVD

- Silicon nitride / low stress nitride
- Oxynitride
- High temperature oxide (HTO)
- Low temperature oxide (LTO)
- Polysilicon, both with tilt and flat temperature profile
- Doped polysilicon
- TEOS oxide

DCE or HCl optional for all processes



22kW - 30kW

3-phase, 400 or 480VAC, 40 – 100A, 50 or 60Hz

70 – 110 psig (4,8 to 7,6 bar) 10 – 15 LPM 170m³/h