

UNIQUE COMPACT DESIGN, ALL FEATURES OF THE GROWN-UP FURNACE

SVFur-RDx

Features and Benefits

- Ideally suited for R&D labs and pilot fabs
- Small footprint
- Table or standalone solution (with stands)
- Stackable desing (e.g. double tabletop variant)
- Low power consumption
- Easy operation and maintenance
- Heating element with 1 or 3 temperature zones and max. temperature up to 1300 °C
- Modern modular proprietary control system
- Up to 8 gas lines and 2 liquid sources
- Independent hardware safety interlocks
- Integration of vacuum pump systems in cooperation with leading pump manufacturers

The SVCS Tabletop Furnace system provides a semiconductor grade quality tool for universities, R&D laboratories and pilot fabs. This system can be used for wide range of processes due to outstanding flexibility and amount of optional modules available to meet special and often unique requirements of every customer.



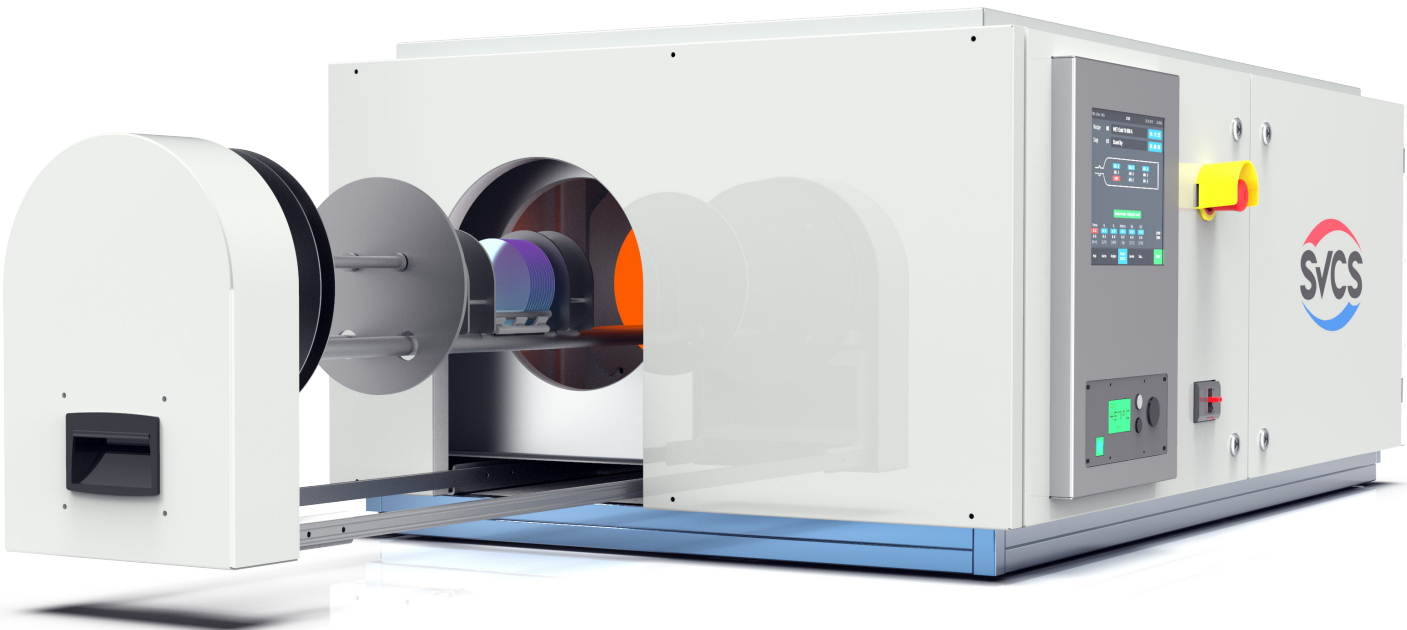
Processes

- Atmospheric**
- Diffusion (drive-in) high temperature processes
  - Doping from solid, liquid and gaseous dopant sources e.g. BBr<sub>3</sub>, B<sub>2</sub>H<sub>6</sub>, POCL<sub>3</sub>, PH<sub>3</sub>, BN
  - Various thermal processing e.g. annealing, curing, sintering
  - Pyrogenic Wet Oxide with External Burning System
  - Wet Oxide with ultra pure steamer
  - Dry Oxide
  - HiPOx (High Pressure Oxide)
- LPCVD**
- Silicon nitride
  - Low temperature oxide (LTO)
  - High temperature oxide (HTO)
  - TEOS oxide
  - Polysilicon, both with tilt and flat temperature profile
  - Doped polysilicon
  - Oxynitride
- PECVD**
- Silicon nitride (including anti-reflective SiN solar cell coating)
  - Silicon oxide
  - Oxinitride

DCE or HCl optional for all processes

R&D

Compact Tabletop Furnaces



Technical Data

Weight	350kg
Sample dimensions W x D x H (mm)	1900 x 1100 x 600 (Depending on configuration)
Wafer size (mm)	50, 75, 100, 150, 200
Wafer load	5 - 50 wafers
Heating system	1 or 3 zones
Flat zone	Up to 600 mm (24")
Process temperature	200°C to 1230°C, ± 0.5°C across flat zone
Power consumption	17kW
Power supply (adapted to power grid of destination country)	3-phase, 400 or 480VAC, 40 - 100A, 50 or 60Hz
Clean dry air	70 – 110 psig (4,8 to 7,6 bar)
Cooling water	10 – 15 LPM
Exhaust	100m³/h