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

Features and Benefits

- Ideally suited for R&D labs and pilot fabs
- Small footprint
- Table or standalone solution (with stands)
- Stackable design (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 a 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. BBr₃, B₂H₆, POCl₃, PH₃, 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
- Oxinitride

PECVD
- Silicon nitride
  (including anti-reflective SiN solar cell coating)
- Silicon oxide
- Oxinitride

DCE or HCl optional for all processes

Compact Tabletop Furnaces

Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Weight</td>
<td>350kg</td>
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<tr>
<td>Sample dimensions W x D x H (mm)</td>
<td>1900 x 1100 x 600 (Depending on configuration)</td>
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<tr>
<td>Wafer size (mm)</td>
<td>50, 75, 100, 150, 200</td>
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<tr>
<td>Wafer load</td>
<td>5 - 50 wafers</td>
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<tr>
<td>Heating system</td>
<td>1 or 3 zones</td>
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<tr>
<td>Flat zone</td>
<td>Up to 600 mm (24&quot;)</td>
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<tr>
<td>Process temperature</td>
<td>200°C to 1230°C, ± 0.5°C across flat zone</td>
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<tr>
<td>Power consumption</td>
<td>17kW</td>
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<tr>
<td>Power supply (adapted to power grid of destination country)</td>
<td>3-phase, 400 or 480VAC, 40 - 100A, 50 or 60Hz</td>
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<tr>
<td>Clean dry air</td>
<td>70 – 110 psig (4.8 to 7.6 bar)</td>
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<tr>
<td>Cooling water</td>
<td>10 – 15 LPM</td>
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<tr>
<td>Exhaust</td>
<td>100 m³/h</td>
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