



## MINI-TYTAN FURNACE

The Mini-Tytan Furnace Systems are designed for diffusion, oxidation, anneal and LPCVD applications. With an 18" flat zone, the systems require less space than the Standard TYTAN Furnace. Suitable for R&D, Universities, and Production environments.

- Innovative Isothermal Chamber Design
- Small Footprint
- Up-time Performance in Excess of 95%
- Gas and Electric Power (50%) Savings
- Extremely Compact and Space Efficient
- Superior Process Uniformity

## MINI SERIES

<b>Furnace Module</b>	4800
<b>Wafer Size</b>	8"
<b>Tubes (Up to)</b>	≤4 TUBES
<b>Wafer Per Tube</b>	100 ATM 50 LPCVD
<b>Flat Zone</b>	18"/457 mm
<b>Temperature Control Accuracy</b>	± 0.5 °C
<b>Ultimate Vacuum</b>	≤ 10 mTorr
<b>Vacuum Leak Rate (Pressure Rise Rate)</b>	≤ 10 mTorr/min
<b>Footprints(Length, Height, Depth)</b>	L 138"/ 3505mm H 94"/2388mm D 30"/762 mm
<b>Maximum Power</b>	50 KVA

## PROCESSES

### Atmospheric Processes

- Dry Oxidation
- Pyrogenic Wet Oxidation
- Drip Feed Wet Oxidation
- Diffusion of Solid Source Dopants (Bn, P<sub>2</sub>O<sub>5</sub>)
- Diffusion of Liquid Source Dopants (POCl<sub>3</sub>, BBr<sub>3</sub>)
- Anneal (Sintering, Alloy, Metal Annealing)
- Nano Materials APCVD

### Tystar Unique Processes

- Photo-enhanced CVD
- Modified CVD (Fiber Preform)

### LPCVD Processes

- Polysilicon, Doped Polysilicon, Amorphous Silicon LPCVD
- LTO, Doped LTO, BPSG, BSG, and PSG LPCVD
- HTO LPCVD
- TEOS LPCVD
- Silicon Nitride LPCVD (Low Stress, Stoichiometric)
- Silicon Oxynitride LPCVD
- Silicon Germanium (SiGe) LPCVD
- SIPOS LPCVD
- Silicon Carbide LPCVD
- Nano Materials LPCVD