



## 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

## TYTAN Furnace Comparison Chart

### MINI SERIES

Furnace Module	4600	4800	3600	3800
Wafer Size	6"	8"	6"	8"
Tubes (Up to)	≤4 TUBES	≤4 TUBES	≤3 TUBES	≤3 TUBES
Wafer Per Tube	100 ATM 50 LPCVD	100 ATM 50 LPCVD	100 ATM 50 LPCVD	100 ATM 50 LPCVD
Flat Zone	18"/457 mm	18"/457 mm	18"/457 mm	18"/457 mm
Footprints (Length, Height, Depth)	L 138"/3505 mm H 83"/2083mm D 30"/762 mm	L 138"/3505 mm H 94"/2388mm D 30"/762 mm	L 138"/ 3505mm H 69"/1753mm D 30"/762 mm	L 138"/ 3505mm H 82"/2083mm D 30"/762 mm
Maximum Power	50 KVA	50 KVA	40 KVA	45 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