

Standard Configuration

- CVDWinPrC™ based process control software for Real Time Process Control, Data Logging and Display, Recipe Generation and Editing
- Recipe Generation for Silicon Epitaxial Deposition
- Processes up to two (2) Float Zone Wafers Per Run
- High Purity Susceptor
- Cantilevered Automatic Substrate Loading/Unloading System
- Loadlock Isolates the Process Tube from Ambient Atmosphere During Loading and Unloading
- High Purity, Water Cooled, Cold Wall Quartz Process Tube
- RF Induction Heating
- Process Temperatures capable 700 °C-1500 °C
- 2 Mass Flow Controlled UHP Gas Lines (Gas Lines: UHP Argon & Hydrogen)
- Integrated Vacuum System for Evacuation of the Process Tube to a Base Pressure of < 20 millitorr
- Application Customized Safety Systems
- Factory Training on System Start-Up, Operation & Maintenance
- Onsite Installation Assistance and Training
- Comprehensive Software and Hardware Safety Interlocks
- One (1) Year Warranty
- Semi - S2/S8 and CE Certified

EasyTube® 3000 - SiQC is designed to grow ultra high purity (intrinsic) monocrystalline silicon layers on a monocrystalline silicon substrate for qualifying feedstock for Polysilicon manufacturing facilities.

Our system provides optimum control over Silicon epitaxial processing of float zone (FZ) wafers. A watercooled, high purity quartz process tube is provided to minimize tube deposits by keeping the quartz tube cool even during longest deposition runs. Minimum tube deposits allow more runs between tube cleanings.

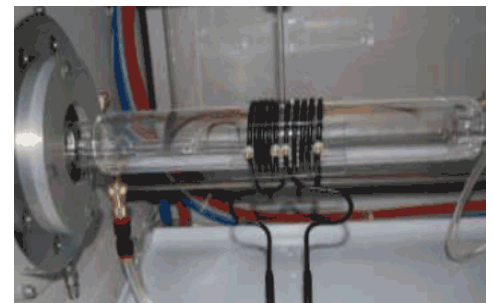
The SiQC can be configured with three different options to meet your exact QC needs:

- Continuous Chlorosilane Feed Option (TCS,DCS,SiCl₄), including liquid feed/drain, UHP Argon purge feed line, liquid flow controller, vaporizer and sample/UHP Argon purge line (vent to scrubber). Allows for real time characterization of liquid precursor material by sampling the feedstock continuously.



- Continuous Silane Feed Option allows for real time characterization of gaseous silane by sampling the feedstock continuously.

- Chlorosilane Bubbler Feed Option allows for batch sampling of the feedstock via removable Chlorosilane Bubbler (made of 316L stainless steel electropolished to a 15 ra finish including isolation valves).



RF Heater

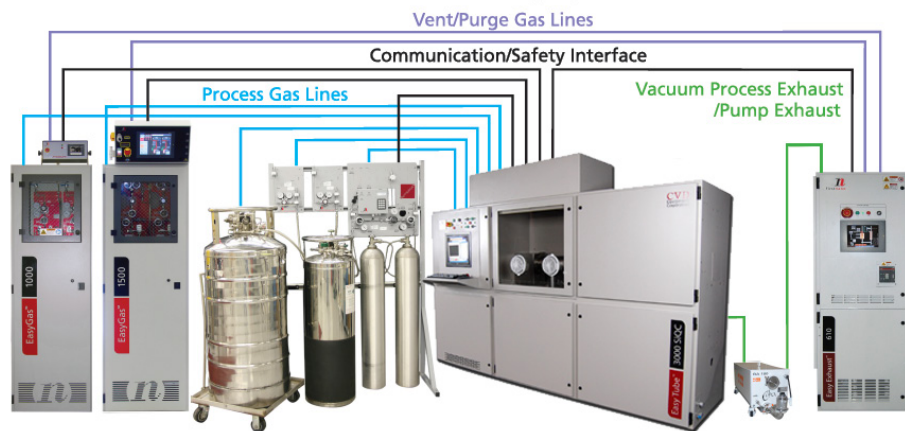
Gas Cabinets

Process Equipment

Gas Abatement

Options

- Clean Hood with Iris Ports to Minimize Contamination When Loading and Unloading Test Si Wafer(s) with high purity susceptor
- Continuous Chlorosilane Feed Option (TCS,DCS,SiCl₄)
- Continuous Silane Feed Option
- Chlorosilane Bubbler Feed Option - Removable Bubbler
- Hydrogen Purifier (20 SLPM Capacity) for Delivering High Purity Hydrogen
- EasyGas™ Hazardous Gas Cabinets
- EasyPanel™ UHP Gas Panels for Argon, Nitrogen, Helium, Oxygen
- EasyExhaust™ Gas Conditioning System
- Set up and Operational Processing at the CVD Application Lab
- Extended Warranty



CVD Equipment Corporation (CVD) offers turn-key solutions with support equipment such as the EasyGas™ 1000 Cabinets, the EasyPanel™ UHP Panel and the EasyExhaust™ 410 Gas Conditioning Systems. The EasyGas™ is capable of safely delivering UHP Hydrogen while the EasyExhaust™ will thermally pyrolyze and wet scrub the exhaust process effluents. The EasyPanel™ is used to deliver UHP Argon to the SiQC System.

Our field proven performance and solid customer base establishes CVD as the clear choice for Silicon Precursor Quality Control Silicon Epitaxial Test Sample Manufacturing System.

To discuss your needs please call us at (631) 981-7081 or email us at sales@cvdequipment.com.

BASELINE IMPURITY LEVELS

Boron (B)	< 40 ppta
Aluminum (Al)	< 30 ppta
Phosphorus (P)	< 10 ppta
Arsenic (As)	< 10 ppta

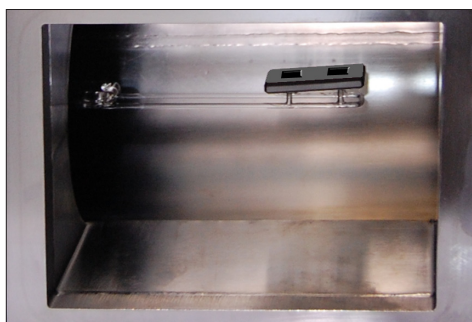
FACILITIES REQUIREMENTS

Electrical	380 V.A.C	3 Phase	50 AMP
Dimension	96" L	32" W	83" H
Exhaust	500 SCFM@ 1" Static Pressure 8" Diameter Duct		
Cooling Water	6 GPM	50-75 PSIG	3/8 FNPT
Pneumatic Supply	Clean Air or N ₂	5 SLPM@80 PSG	¼ Swagelock®
Facility Nitrogen	10 SLPM	20 PSIG	¼ Swagelock®
Process Gases	UHP Ar	UHP H ₂	Application Specific

* Note: Electrical varies with country; facilities requirements vary with system options.



Iris Ports and Loadlock



Coated FZ Wafer in Loadlock



Chlorosilane Bubbler Feed Option - Removable Bubbler