CVD Equipment Corporation

enabling tomorrow's technologies™

EasyTube™ 3000 - SiQC

Standard Configurations

- Windows™ Based Computer Controlled Operations, Data Logging, Safety Interface and Recipe Generation
- Preprogrammed Recipes for Silicon Epitaxial Deposition
- RF Induction Heating for Temperatures > 1200 °C
- Processes up to (2) two 13 mm Round Wafers Per Run. Larger systems available - consult factory
- High Purity, Rectangular, Water Cooled, Cold Wall Quartz Process Tube
- Mass Flow Controlled UHP Gas lines
- Chlorosilane Liquid Source Vapor Delivery System
- Cantilevered Automatic Loading System
- Silicon Carbide Coated Graphite Susceptor
- Integrated Vacuum System to Evacuate the Process Tube to a Base Pressure of < 20 millitorr and for Vacuum Baking of Susceptors
- Comprehensive Software and Hardware Safety Interlocks
- Semi – S2/S8 and CE Compliant
- One Year Warranty

EasyTube™ 3000 - SiQC Horizontal, Silicon Epitaxial Chemical Vapor Deposition System is designed to grow ultra high purity (intrinsic) monocrystalline silicon layers on a monocrystalline silicon substrate for qualifying TCS and other Chlorosilanes for Polysilicon manufacturing facilities. The system is capable of meeting the exact criteria needed to produce quality Silicon Epitaxial layers to evaluate your feedstock.

EasyTube™ 3000 - SiQC provides optimum control over processing (2) two 13mm round wafers per run at temperatures up to 1200 degrees Celsius using RF Induction Heating. A water-cooled, high purity quartz process tube is provided to minimize tube deposits and keep the quartz tube cool even during the long deposition runs. Minimum tube deposits allow more runs to be done between tube cleanings, reduces the influence of previous run deposits on subsequent runs and prevents the leaching out of impurities from within the quartz tube (i.e. Boron) when it gets hot.

The EasyTube™ 3000 - SiQC Chlorosilane Liquid Source Vapor Delivery System uses a stainless steel bubbler with automatic liquid source fill and purge valves. It is interfaced with the customer provided Chlorosilane delivery line to provide continuous sample collection from the Chlorosilane production line.

EasyTube™ 3000 - SiQC is easy to use with our PC controlled recipe driven software that also automatically acquires and logs data for verifiable repeatability.

EasyTube™ 3000 - SiQC is designed to meet today's stringent safety standards. The comprehensive hardware and software interlocks monitor all critical equipment and process conditions. The system is Semi-S2/S8 and CE compliant.

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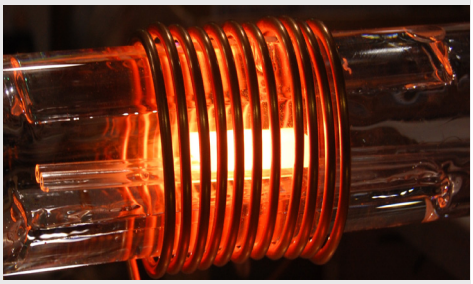
EasyTube™ 3000 - SiQC

Modular Options

- Loadlock Isolates the Process Tube from Ambient Atmosphere during Loading and Unloading
- Hydrogen Purifier for Delivering High Purity Hydrogen
- Laminar Flow Clean Hood with Iris Ports to Minimize Contamination When Loading and Unloading of Test Si Wafer Substrates
- Exhaust Gas Conditioning System
- Additional Mass Flow Controlled UHP Gas Lines
- Extented Warranty

Iris Port & Loadlock



RF Heater

CVD Equipment Corporation offers turn-key system capabilities with support equipment such as EasyGas™ Cabinets and EasyExhaust™ Gas Conditioning Systems. The EasyGas™ Cabinets is capable of delivering a variety of toxic and hazardous gases. The EasyExhaust™ System will thermally pyrolyze and wet scrub the exhaust process effluents. Combining all major components from one vendor makes interfacing easy.

Our field proven system performance and solid customer base establishes CVD Equipment Corporation as the clear choice for quality control and process development for the Si precursor processing facility.

Call us at (631) 981-7081 to discuss a product solution for your project. We also provide customized solution upon request.

We can also be reached at sales@cvdequipment.com or visit our website at http://www.cvdequipment.com

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 N2	5 SLPM@80 PSG	¼ Swagelock®
Facility Nitrogen	10 SLPM	20 PSIG	¼ Swagelock®
Process Gases	UHP Ar	UHP H_2	TCS

* Note: Electrical varies with country; facilities requirements vary with system options. Consult Factory for details.

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