CVD
Equipment
Corporation

firstnano

EasyTube® 3000 / 3000EXT

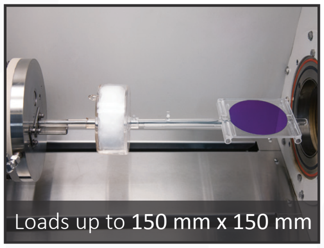
For a wide range of process configurations and high quality multi-layers

EasyTube® 3000 CVD system with loadlock option

The EasyTube® 3000 advanced CVD system is our best-selling and most capable product for university labs and industry R&D facilities.

The base system includes a cylindrical quartz process tube which can be from 70 mm to 130 mm ID depending on the desired substrate size. A range of optional modules can be configured to meet the specific requirements of the end user. Many of the options are available as upgrades after installation.

The system is designed to meet today's safety standards for handling pyrophoric, corrosive, flammable, and toxic gases such as hydrogen, silane, germane, diborane, hydrogen chloride, and metal organic precursors.



Loads up to **150 mm x 150 mm**

Optional Inert Glovebox

Optional EasyExhaust Burn Box

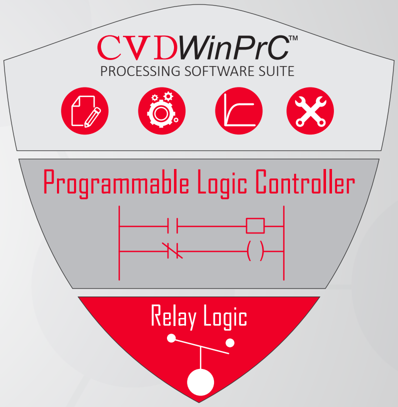
The EasyTube® 3000EXT model has an extended frame size to accommodate larger system modules. These can include a glovebox, loadlock, a rolling furnace for rapid heating and cooling, an upstream RF plasma generator, and/or an option to increase the process chamber ID up to 200 mm to accommodate full 6" wafers.

powered by CVD*WinPrC*™

Operated through our CVD*WinPrC*™ process control software, the system automatically logs data and graphically shows time-dependent values of user-selected parameters. CVD*WinPrC*™ also allows users to load preprogrammed recipes, modify, check and create new recipes, and view realtime or saved process data.

Safety Protocols

The system has application configured safety protocols embedded into relay logic, PLC, and CVD*WinPrC*™ software.



Standard Features

- CVD*WinPrC*™ system control software for realtime process control, data logging, and recipe editing
- Preprogrammed process recipes
- Substrate sizes up to 150 mm x 150 mm (batch processing of multiple wafers per run also possible)
- Cantilevered automatic substrate loading/unloading system
- Up to 12 mass flow-controlled UHP gas lines
- Atmospheric and/or low pressure process configurations available
- 3-zone resistance furnace for temperatures up to 1200 °C or optional infrared/RF induction heating
- Water-cooled end cap and gas ring
- Proprietary realtime cascade process temperature control
- High throughput with FastCool™ furnace
- User ability to set warnings and alarms
- Comprehensive software and hardware safety interlocks
- 1 year warranty
- On-site system startup and training
- Semi - S2/S8 and CE Compliant

Options

- High temperature resistance furnace up to > 1200 °C
- Infrared heating for rapid thermal processing > 1100 °C
- RF induction heating for process temperatures > 1500 °C
- Upstream plasma
- DC bias field assisted growth
- Substrate rotation for improved process uniformity
- Rectangular process tube for improved laminar gas flow
- Liquid/solid source vapor delivery kit
- Bubbler liquid auto refill
- Run/vent: stabilizes gas flows (bypassing the process tube) before flowing into process tube
- Loadlock to isolate the process tube from ambient atmosphere
- Glovebox with exhausted inert purge or recirculating purifier
- High vacuum process chamber and/or loadlock chamber
- Residual gas analyzer
- Air to water heat exchanger for cooling water
- EasyGas™ hazardous gas cabinets
- EasyPanel™ UHP gas panels for argon, nitrogen, helium, oxygen
- EasyExhaust™ exhaust gas conditioning system (scrubber/pyrolyzer)
- Gas purification
- NRTL certification

Facility Requirements

Dimensions*	96” - 119” Length	33” - 40” Width	60” - 70” Height
Electrical*	208 VAC / 60 Hz	L1, L2, L3, Neutral, Ground	40 - 60 Amps
Cooling Water*	2 GPM	20 - 50 PSIG	75 °F Max
Pneumatic Supply	1 SCFM	80 PSIG	Clean Air or Nitrogen
Facility Nitrogen*	20 SLPM	20 PSIG	
Cabinet Exhaust*	500 SCFM	1” WC	
Process Gases	Customer specified		

*Note:
Electrical requirements vary by Country | Facility requirements vary with system options | Consult factory for details

FirstNano® offers CVD processing systems with support equipment such as gas cabinets and exhaust gas conditioning systems. All major components from one vendor makes component interfacing easy.

Call us at **+1 631-981-7081** to discuss a product solution for your project.
We can also be reached at **sales@firstnano.com** or visit our website.

CVD Equipment Corporation

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