EasyTube® 101

A low-cost, reliable, and repeatable CVD system with a small footprint

The EasyTube® 101 is a budget friendly, small footprint, reliable, and repeatable CVD system for the advanced R&D user.

The system has a usable processing area of 25 mm x 50 mm. Up to 8 input lines are available for gases. 3 of the input lines can be configured for vapor delivery of solid or liquid sources. The system can be configured for vacuum and/or atmospheric processes. Most system 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, germaine, diborane, hydrogen chloride, and metal organic precursors.

Our entry level EasyTube® 101 is the product of choice for the researcher that has a limited budget and floor space, and needs turnkey equipment with a baseline process recipe, and a proven safety system.

powered by CVDWinPrC™

Operated through our CVDWinPrC™ process control software, the system automatically logs data and graphically shows time-dependent values of user-selected parameters. CVDWinPrC™ 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 CVDWinPrC™ software.
Standard Features

- CVDWinPrC™ system control software for realtime process control, data logging, and recipe editing
- Preprogrammed process recipes
- Substrate area 25 mm x 50 mm
- Cantilevered automatic substrate loading/unloading system
- Up to 8 mass flow-controlled UHP gas lines
- Atmospheric and/or low pressure process configurations available
- Dual o-ring process seals with a vacuum monitoring system to ensure leak-free operation
- 3-zone resistance furnace for temperatures up to 1200 °C
- Proprietary realtime cascade temperature control
- 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

- Atmospheric or low pressure liquid/solid source vapor delivery - maximum of 3
- Run/vent: stabilizes gas flows (bypassing the process tube) before flowing into process tube
- Purge/reactant: inert gas purge for reactive gas lines
- Air pump for air feed into system for removing carbon build up on process tube
- Oil-based vacuum pump
- Dry mechanical screw pump
- Seismic mounts
- Wheels to allow easy mobility of system into your laboratory
- Imperial (inch) tool kit
- EasyGas™ hazardous gas cabinets
- EasyPanel™ UHP gas panels for argon, nitrogen, helium, oxygen
- EasyExhaust™ exhaust gas conditioning system (scrubber/pyrolyzer)
- NRTL certification

Facility Requirements

<table>
<thead>
<tr>
<th></th>
<th>Dimensions*</th>
<th>Electrical*</th>
<th>Pneumatic Supply</th>
<th>Facility Nitrogen*</th>
<th>Cabinet Exhaust*</th>
<th>Process Gases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>49” Length</td>
<td>40” Width</td>
<td>60” Height</td>
<td></td>
<td></td>
<td>Customer specified</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td>208 VAC / 60 Hz</td>
<td>L1, L2, L3, Neutral, Ground</td>
<td>20 - 30 Amps</td>
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<tr>
<td><strong>Pneumatic Supply</strong></td>
<td>1 SCFM</td>
<td>80 PSIG</td>
<td>Clean Air or Nitrogen</td>
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<tr>
<td><strong>Facility Nitrogen</strong></td>
<td>5 SLPM</td>
<td>20 PSIG</td>
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<tr>
<td><strong>Cabinet Exhaust</strong></td>
<td>300 SCFM</td>
<td>1” WC</td>
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</tbody>
</table>

*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.