



EasyTube™ 2000



EasyTube™ 3000



EasyTube™ 101



EasyTube™ 4000



EasyTube™ 6000

First Nano is proud to offer EasyTube™

turn key CVD systems for nanomaterial synthesis and thin

film deposition. The EasyTube™

product line is designed and

manufactured modularly. All

EasyTube™ systems offer standard

configuration including computer

controlled operation, recipe driven

process, automatic loader, and

comprehensive software and

hardware interlocks. There are

different options available on each

EasyTube™ system that allow the

user to configure the system in

different ways to meet their special

requirement. Those options include

heating methods, wafer size,

precursor chemicals selection,

operating pressure, plasma choice,

loadlock, etc. Most options can be

added in the field; the EasyTube™

system can be continuously upgraded

to meet new process requirements.

Items	ET101 (Thermal CVD)	ET2000 (Thermal CVD)	ET3000 (Thermal CVD)	ET4000 (PECVD)	ET6000 (Thermal CVD)
Standard Features					
CVDWinPrC™ Process Control	✓	✓	✓	✓	✓
Safety System	✓	✓	✓	✓	✓
Mass Flow Controlled Gas Lines	✓	✓	✓	✓	✓
Standard Gas Lines	4	4	4	4	4
System Safety Enclosure	✓	✓	✓	✓	✓
Factory Training	✓	✓	✓	✓	✓
On-Site Start-Up Assistance	Optional	✓	✓	✓	✓
Exhaust Treatment System	Optional	Optional	Optional	Optional	Optional
Gas Cylinder Cabinets	Optional	Optional	Optional	Optional	Optional
Reactor Type	Hot or Cold wall tube reactor	Hot or Cold wall tube reactor	Hot or Cold wall tube reactor	Cold wall chamber	Multi-stack Hot wall tube reactor
Heating Methods:					
- Resistance 1100°C	✓	✓	✓	400°C	✓
- Resistance 1200°C	Optional	Optional	Optional	800°C	Optional
- Infrared 1100°C	Optional	Optional	Optional	N/A	N/A
- RF Induction >1500°C	N/A	N/A	Optional	N/A	N/A
Wafer Sizes up to	25mm	50mm	150mm	150mm	150mm
Number of Wafers	2	1	5-10 vertical position	1	Up to 100
Wafer Rotation	N/A	Optional	Optional	Optional	N/A
Vacuum Systems:					
- Wet Pump Fomblin Prepared	Optional	Optional	Optional	✓	Optional
- Dry Pump	Optional	Optional	Optional	Optional	Optional
- Ultra High	N/A	N/A	Optional	Optional	N/A
Loadlock	N/A	Optional	Optional	Optional	N/A
HotLoad™	N/A	Optional	Optional	N/A	N/A
Plasma - Optional	N/A	N/A	Remote RF plasma	DC or RF plasma	N/A
Gas Lines - Optional	Up to 8	Up to 8	Up to 12	Up to 12	6 per tube
Liquid Source Precursor (Optional)	Up to 3	Up to 3	Up to 4	Up to 4	1 per tube
Solid Source Precursor	Optional	Optional	Optional	N/A	Optional
Pyrogenic Furnace	N/A	N/A	N/A	N/A	Optional
System Size:					
- Width/Depth	40"	30"	33"	42"	43"
- Length	49"	64"	96"/119"	96"	118"
- Height	60"	60"	70"	70"	90"

EasyTube™ system offers reliability, flexibility, and safety in one platform.

First Nano provides recipes for nanomaterials synthesis and thin film deposition with the system.

We also offer EasyGas™ Gas Cabinets and EasyExhaust™ Gas Conditioning systems to support the EasyTube System. The EasyTube™ turn key solution is clearly the best choice for your materials synthesis.

Call us at (631) 981-7081 to discuss a product solution for your project.

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

Items	ET101 (Thermal CVD)	ET2000 (Thermal CVD)	ET3000 (Thermal CVD)	ET4000 (PECVD)	ET6000 (Thermal CVD)
Processes					
Nanomaterial Synthesis	✓	✓	✓	✓	✓
Carbon Nanotubes	✓	✓	✓	✓	✓
Silicon Nanowires	✓	✓	✓	N/A	✓
Gallium Nitride Nanowires	✓	✓	✓	✓	N/A
Zinc Oxide Nanowires	✓	✓	✓	N/A	N/A
TCO: Doped ZnO	✓	✓	✓	N/A	N/A
Atmospheric Pressure CVD	✓	✓	✓	N/A	✓
Low Pressure CVD	✓	✓	✓	✓	✓
Epitaxial Deposition	✓	✓	✓	N/A	N/A
Dry Oxidation	N/A	N/A	✓	N/A	✓
Wet Oxidation	✓	✓	✓	N/A	✓
Diffusion	✓	✓	✓	N/A	✓
Silicon Nitride	✓	✓	✓	✓	✓
Polysilicon	✓	✓	✓	✓	✓
Silicon Dioxide	✓	✓	✓	✓	✓
Annealing	✓	✓	✓	N/A	✓
Chemical Vapor Infiltration	✓	✓	✓	N/A	✓
Atomic Layer Deposition	✓	✓	✓	✓	N/A
Rapid Thermal Processing	✓	✓	✓	N/A	N/A
CVDGraphene™:					
- 1-3 Layers on Ni	N/A	✓	✓	N/A	N/A
- 3-10 Layers on Ni	✓	✓	✓	N/A	✓
- 1 Layer on Cu	✓	✓	✓	N/A	N/A
- 2/3 Layer on Cu	✓	✓	✓	N/A	N/A