| FEATURES | ET101 | ET2000 | ET3000 | ET3000EXT | ET6000 |
|---|---|---|---|---|---|
| **Maximum Substrate Area** | 25 mm x 50 mm | 50 mm x 50 mm | 100 mm x 100 mm (opt. wafer boat) | 150 mm x 150 mm (opt. wafer boat) | 200 mm diameter (wafer boat up to 100) |
| **CVD*WinPrC*™ Process Control** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Safety System** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Exhausted Metal Enclosure** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Mass Flow Controlled Gas Lines** | Up to 8 | Up to 8 | Up to 12 | Up to 16 | 6 per tube |
| **External Vapor Delivery System (eg. bubbler)** | Up to 3 | Up to 3 | Up to 4 | Up to 4 | 1 per tube |
| **Internal Vapor Delivery System** | N/A | Optional | Optional | Optional | Optional |
| **Air to Water Heat Exchanger** | N/A | Optional | Optional | Optional | Optional |
| **Process Support Demo (CVD Lab or On-site)** | Optional | Optional | Optional | Optional | Optional |
| **Factory Training** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **On-Site Startup Assistance** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Heating:** | | | | | |
| Resistance Hotwall 1100 °C | ✔ | ✔ | ✔ | ✔ | ✔ |
| Resistance Hotwall 1200 °C | Optional | Optional | Optional | Optional | Optional |
| Rolling Resistance Furnace | N/A | N/A | N/A | Optional | N/A |
| Infrared Coldwall 1100 °C | N/A | Optional | Optional | Optional | N/A |
| Substrate Heater Coldwall 400 °C (for PECVD) | N/A | Optional | N/A | N/A | N/A |
| Substrate Heater Coldwall up to 2200 °C | N/A | N/A | Optional | Optional | N/A |
| RF Induction Coldwall > 1500 °C | N/A | N/A | Optional | Optional | N/A |
| **Vacuum:** | | | | | |
| None (ATM operation) | ✔ | ✔ | ✔ | ✔ | ✔ |
| Wet Pump (Fomblin Prepared) | Optional | Optional | Optional | Optional | Optional |
| Dry Pump | Optional | Optional | Optional | Optional | Optional |
| High / Ultra-High Vacuum | Optional | Optional | Optional | Optional | Optional |
| **Plasma** | N/A | Optional | Optional | Optional | N/A |
| **Remote Upstream Plasma** | N/A | N/A | Optional | Optional | N/A |
| **DC Substrate Bias** | N/A | Optional | Optional | Optional | N/A |
| **Wafer Rotation** | N/A | Optional | Optional | Optional | N/A |
| **Loadlock** | N/A | N/A | N/A | Optional | N/A |
| **Glovebox** | N/A | N/A | Optional | Optional | N/A |
| **Residual Gas Analyzer** | Optional | Optional | Optional | Optional | Optional |
| **Air Pump** | Optional | Optional | Optional | Optional | Optional |
| **System Size (W x L x H)** | 40" x 49" x 60" | 30" x 64" x 60" | 33" x 96" x 70" | 40" x 119"+ x 70" | 43" x 118" x 90" |

| PROCESSES | ET101 | ET2000 | ET3000 | ET3000EXT | ET6000 |
|---|---|---|---|---|---|
| **Carbon Nanotubes** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Graphene** | ✔ | ✔ | ✔ | ✔ | N/A |
| **2D Materials (TMDs, h-BN, etc)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Semiconducting Nanowires (Si, Ge, ZnO, GaN, etc)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Transparent Conductive Oxide (SnO:F, ZnO:B, etc)** | ✔ | ✔ | ✔ | ✔ | N/A |
| **Epitaxial Deposition** | ✔ | ✔ | ✔ | ✔ | N/A |
| **Atmospheric Pressure CVD (APCVD)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Low Pressure CVD (LPCVD)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Metal Organic CVD (MOCVD)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Plasma Enhanced CVD (PECVD, PACVD, ICP-CVD)** | N/A | ✔ | ✔ | ✔ | N/A |
| **Rapid Thermal Processing (RTP)** | N/A | ✔ | ✔ | ✔ | N/A |
| **Chemical Vapor Infiltration (CVI)** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Fluidized Bed CVD (FBCVD, FBR)** | N/A | ✔ | ✔ | ✔ | N/A |
| **Atomic Layer Deposition (ALD)** | ✔ | ✔ | ✔ | ✔ | N/A |
| **Dry Oxidation** | N/A | N/A | ✔ | ✔ | ✔ |
| **Wet Oxidation** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Pyrogenic Oxidation** | N/A | N/A | N/A | ✔ | ✔ |
| **Diffusion** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Silicon Nitride** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Polysilicon** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Silicon Dioxide** | ✔ | ✔ | ✔ | ✔ | ✔ |
| **Annealing** | ✔ | ✔ | ✔ | ✔ | ✔ |

All systems include CVD*WinPrC*™ system control software, comprehensive software and hardware safety interlocks, preprogrammed process recipes, and startup support. Other configurations available, consult factory for details.