

# SC Qube



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|---------------------------|--|
| <b>Chamber Type</b>       | Thermal<br>MW PE-ALD<br>Fluidized Bed Reactor  |
| <b>Chamber Dimensions</b> | Dimensions of chamber are optimally adapted to the parts and production volumes Tailored up to 70 L within 450 × 450 × 350   |
| <b>Temperature</b>        | Up to 300°C (up to 500°C on request)   |
| <b>Loading/Unloading</b>  | Manual or automated front loading<br>Cleanroom and glovebox compatible.  |
| <b>Substrate Sizes</b>    | Single or multiple wafers 4" to 12".<br>Multiple 3D objects of various shapes, sizes, and materials.   |
| <b>Precursor Lines</b>    | Up to 10 precursor bottles and 5 process gases with individual inlets to the chamber (Non-)heated precursor bubbler bottles<br>Ozone generator option                          |
| <b>Standard Materials</b> | Al <sub>2</sub> O <sub>3</sub> , ZnO, SiO <sub>2</sub> , TiO, Y <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub> , HfO <sub>2</sub> , LiNbO <sub>5</sub> , Nitrides, and others. |

## Batch (PE)ALD for 3D Parts

One platform to scale from R&D to pilot production

### Interchangeable Chambers

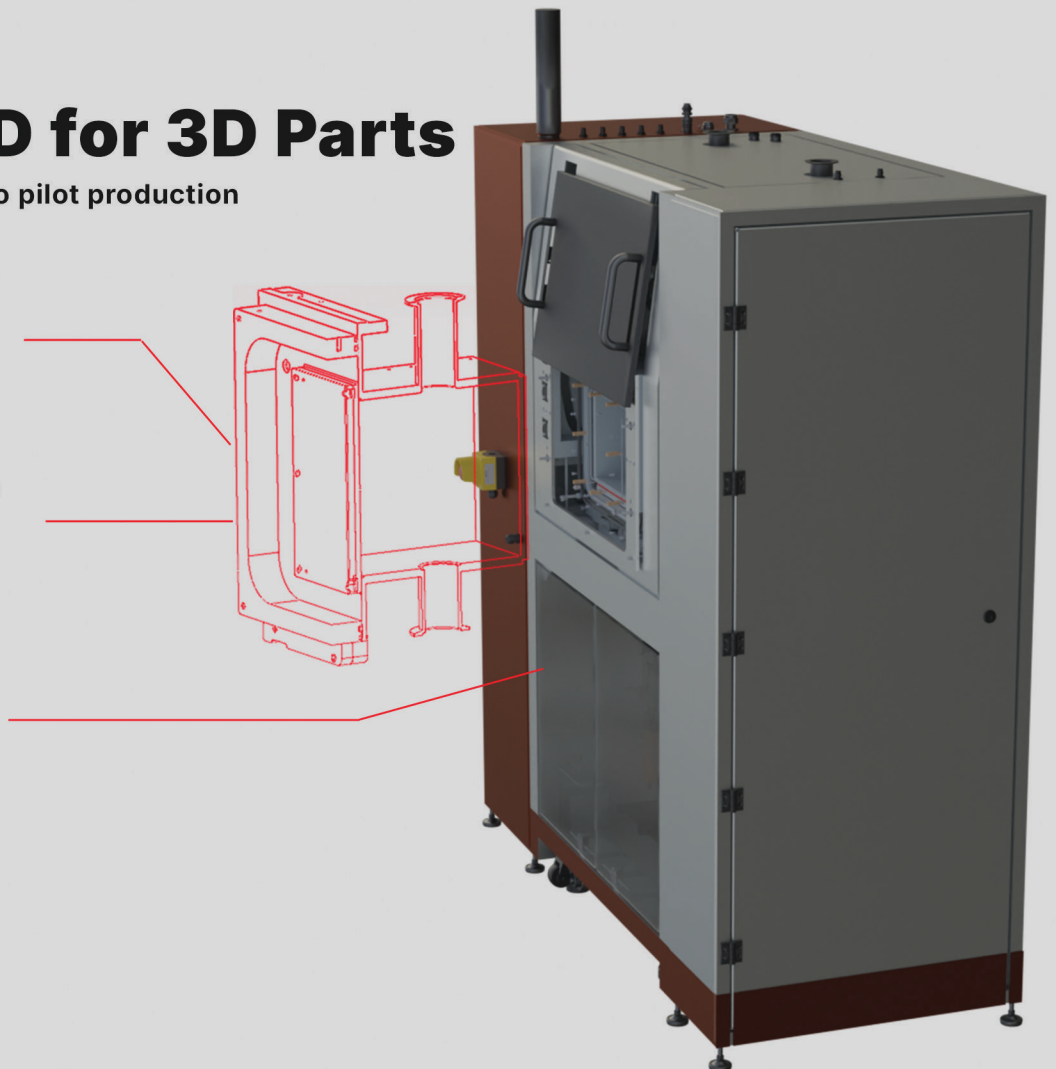
Optimized chamber size for your samples and throughput

### Fast and homogeneous coating process

Unbeatable door-to-door times  
Outstanding uniformity

### Separated chemistries inlet/outlet control

Individual precursor inlets and dual-exhaust outlet to separate chemistries



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## Batch (PE-)ALD for 3D Parts

One platform to scale from R&D to pilot production.

### **Interchangeable Chambers:**

Tailored volumes up to 70L to scale seamlessly from R&D to pilot production.

### **Substrate Versatility:**

Process complex 3D parts, powders (FBR), and single or batch wafers up to 12".

### **High Chemical Capacity:**

Run 10 independent precursors and 5 process gases without hardware swaps.

### **Separated Chemistry Flow:**

Individual inlets and dual exhausts isolate incompatible chemistries, preventing parasitic CVD and extending pump life.

### **Multi-Process Platform:**

Combines Thermal ALD, Microwave PE-ALD, and Fluidized Bed (FBR) on a single tool.

### **High-Throughput Batching:**

Fast, homogeneous coatings with optimized door-to-door cycle times.

### **Seamless Integration:**

Compact footprint ready for cleanroom or glovebox installation.

### **Proven Materials**

$\text{Al}_2\text{O}_3$ , ZnO,  $\text{SiO}_2$ ,  $\text{TiO}_2$ ,  $\text{Y}_2\text{O}_3$ ,  $\text{ZrO}_2$ ,  $\text{HfO}_2$ ,  $\text{LiNbO}_x$ , Nitrides, and more.