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## BENEQ TFS 200

## The Beneq TFS 200 is our most installed and

 trusted research tool in academic and corporate R\&D. The TFS 200 has a myriad of upgrades and configurations available to fit your specific lab or application needs making this a flexible ALD research platform that will grow with you.

## Example applications include:

- $\mathrm{Al}_{2} \mathrm{O}_{3} \mathrm{ALD}$ on barrier applications
- $\mathrm{HfO}_{2}, \mathrm{SiO}_{2}$ and SiN ALD on semiconductor applications
- $\mathrm{SnO}_{2}$ ALD for photovoltaic cells
- TiN and NbN ALD for superconductor applications

CUSTOMIZABLE: Work with our experts to find the right configuration for your lab environment. Choose from number of options including direct/remote plasma, small batch chambers, and ranges of gas lines and sources.

INTEGRATABLE: TFS 200 is easy to integrate into existing production lines or cluster tools and can be equipped with auxiliary tools, like a glove box or load lock, for added versatility and automation.

TRUSTED: Over 250 TFS 200 tools are currently in operation at nearly 150 universities and institutes, resulting in hundreds of published articles and countless impactful results.


## BENEQ TFS 200 Specifications

| PROCESS TYPE | Thermal ALD <br> Plasma-Enhanced ALD |
| :---: | :--- |
| USAGE | Research \& Development, Production |
| INTEGRATION | Stand-alone, Cluster, Glovebox, Loadlock |
| DIMENSIONS | $1325 \times 600 \times 1298 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \times \mathrm{H})$ |
| TEMPERATURE RANGE | $25-500^{\circ} \mathrm{C}$ |
| SUBSTRATE TYPE | Up to 200 mm round wafers <br> Up to $200 \times 200$ mm square wafers <br> Wafer batch <br> 3D parts <br> Particles <br> Porous and high aspect ratio structures |

## Beneq Research Equipment

Beneq maintains the largest install base of ALD research equipment for academic research and corporate R\&D. We are dedicated to providing customers with premium, versatile research equipment to meet demanding lab environments and enable cutting-edge results.


## Beneq TFS 200

The most flexible and highly customizable ALD research platform.


## Beneq TFS 500

Diverse configurations available for single and batch processes.

