

BENEQ TFS 500

The Beneq TFS 500 extends the versatility of the TFS-series for bigger substrate and batch sizes for the most demanding R&D projects. The TFS 500 is the perfect tool for scaling R&D efforts and ramping into an ALD pilot production phase.



Example applications include:

- Al₂O₃ ALD on barrier applications
- HfO₂, SiO₂ and SiN ALD on semiconductor applications
- SnO₂ ALD for photovoltaic cells
- TiN and NbN ALD for superconductor applications

SCALABLE: TFS 500 maintains all the flexible perks of the TFS 200 but on a bigger scale. A larger chamber enables deposition on new substrates, like 300 mm wafers, and the processing of more sizable batches of 3D objects.

ERGONOMIC: A front-mounted loading door and external precursor lines make depositions in the TFS 500 easily adjustable, accessible and with quick turnaround times.

INTEGRATABLE: Beneg TFS 500 can be seamlessly integrated with a large glove box and manual load lock for additional wafer processing. Plasma-enhanced ALD is available, as well as custom reaction chamber designs for specific substrate or application needs.





BENEQ TFS 500Specifications

PROCESS TYPE	Thermal ALD Plasma-Enhanced ALD
USAGE	Research & Development, Production
INTEGRATION	Stand-alone, Cluster, Glovebox, Loadlock
DIMENSIONS	1800 x 900 x 2033 mm (L x W x H)
TEMPERATURE RANGE	25-500 °C
SUBSTRATE TYPE	 Up to 300 mm round wafers Up to 300 x 300 mm square wafers Wafer batch / 3D parts up to 300 x 350 x 125 mm Porous and high aspect ratio structur

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.

