



## BENEQ P1500

**The Beneq P1500 is the world's largest** ALD reactor. With a vacuum chamber width of 1.7 meters, this tool is uniquely designed to coat very wide area substrates and large batches of 3D components. As the latest innovation in Beneq's P-Series, the P1500 continues to enable ALD on the biggest scale with viable high-volume manufacturing solutions.



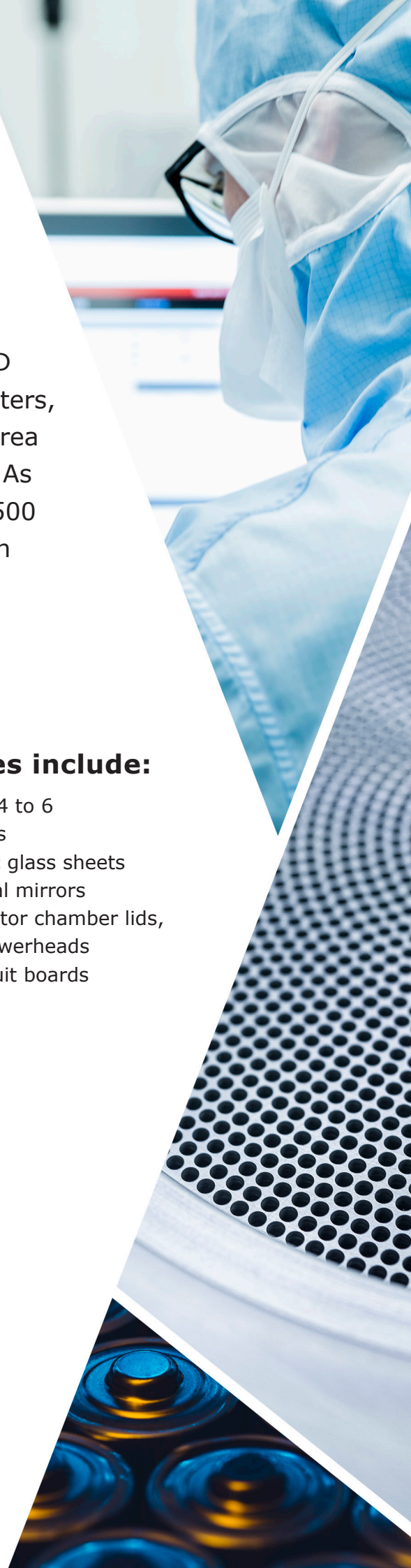
### Example substrates include:

- Generation 4 to 6 display glass
- Photovoltaic glass sheets
- Astronomical mirrors
- Semiconductor chamber lids, liners & showerheads
- Printed circuit boards

**SIZE:** Accommodate parts up to 1300 × 2400 mm in size or coat batches of parts in the 300 to 1000 mm size range in a reaction chamber fitted perfectly for your use case.

**ENABLEMENT:** The P1500 enables the introduction of ALD to applications which were not feasible before, like depositing optical coatings on astronomical mirrors.

**ROBUSTNESS:** Continuously switchable reaction chambers and a proprietary pre-heating oven allow users to enjoy maximum tool uptime and easy maintenance.



# P1500 Specifications

<b>PROCESS TYPE</b>	Thermal ALD
<b>INTEGRATION</b>	Stand-alone
<b>DIMENSIONS</b>	6195 × 2480 × 2600 mm
<b>VACUUM CHAMBER DIMENSIONS</b>	W: 1700 mm
<b>TEMPERATURE RANGE</b>	25–400 °C
<b>SUBSTRATE TYPE</b>	Glass or metal sheets 3D and freeform parts
<b>SUBSTRATE SPACE EXAMPLE</b>	1300 × 2400 × 750 mm

## Beneq 3D & Batch Equipment

Beneq's P-Series provides the largest scale, general purpose ALD production systems ideal for coating diverse substrate types and thick films. Easily scale up ALD deposition from the R&D phase to full manufacturing workflows.



### **Beneq P400A**

Optimized at the intersection of deposition rate, batch size and uniformity.



### **Beneq P800**

Perfect system for industrial batch production and manufacturing.



### **Beneq P1500**

World's biggest ALD system for coating large substrates and batches.

