

BENEQ P400A

The Beneq P400A is a highly optimized, production-proven batch ALD system for high volume manufacturing of optical coatings and moisture barriers. P400A is large enough to offer significant capacity, but small enough to maintain excellent uniformity within batches and short cycle times.



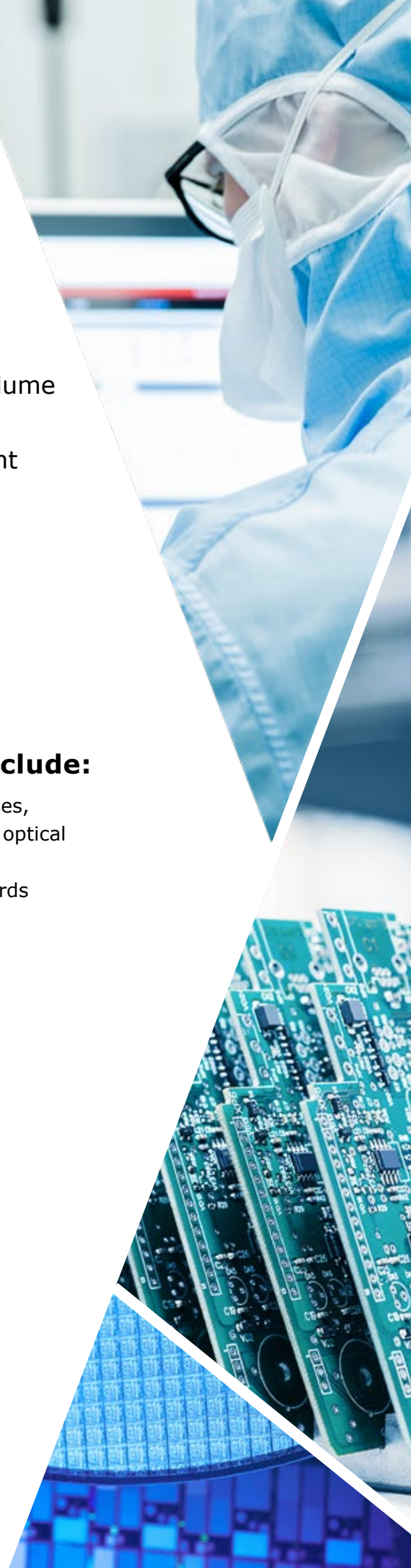
Example substrates include:

- Highly curved lenses, optical fibers, and optical microstructures
- Printed circuit boards and scintillators

SIZE: Coat parts with a size between 20 and 300 mm. Batch setups can be optimized for specific parts, wafers, or sheets with a maximum batch size for flat substrates up to 8 m².

OPTIMIZATION: The P400A was designed specifically to coat various substrates in an optimized batch size. This tool lives at the intersection of large batch size, fast deposition and incomparable uniformity.

ROBUSTNESS: Beneq P400A is equipped with high-capacity precursor sources, deactivation and filtration systems to enable easy deposition of micron-thick film stacks.



BENEQ P400A Specifications

PROCESS TYPE	Thermal ALD
INTEGRATION	Stand-alone
DIMENSIONS	2400 × 930 × 2420 mm
VACUUM CHAMBER DIMENSIONS	Ø: 400 mm
TEMPERATURE RANGE	25–550 °C
SUBSTRATE TYPE	Wafers Glass or metal sheets 3D and freeform parts
SUBSTRATE SPACE EXAMPLE	240 × 240 × 720 mm 370 × 470 × 25 mm

Beneq Batch Production 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.

