

BENEQ C2R

The Beneq C2R is a cluster-compatible spatial ALD tool equipped with a continuous rotary mechanism and robust plasma-enhancement. With rotation speeds up to 200 rpm and in-situ optical broadband monitoring (BBM), C2R is the perfect production tool for high throughput optical coatings with tailored plasma ALD processes.



Example substrates include:

- Optical domes
- High curvature lenses
- Electrostatic chucks
- 200 mm wafers

THROUGHPUT: C2R's rotary spatial mechanism continuously moves substrates through deposition zones rather than keeping them static, allowing users to enjoy ultrafast deposition rates of up to 1.5 $\mu\text{m}/\text{hour}$.

PLASMA PROCESS: Plasma-enhancement makes the deposition of materials, like SiO_2 and nitrides, possible at low-temperatures with high uniformity and low stress.

CHARACTERIZATION: C2R's in-situ optical broadband monitoring provides fast measurement of transmittance and reflectance spectra in the infrared, visible, and ultraviolet ranges for precise depositions and automated process control.



BENEQ C2R Specifications

PROCESS TYPE	Plasma-Enhanced ALD Single-side coating
INTEGRATION	Cluster or Stand-alone
DIMENSIONS	3770 × 1284 × 1948 mm
LOADING MODULE	Automatic Brooks M × 400
BATCH CAPACITY	7 pcs of 200 mm wafer
TEMPERATURE RANGE	25–200 °C
SUBSTRATE TYPE	Wafers, Lenses, Mirrors
NUMBER OF PLASMA LINES	Up to 3
DEPOSITION RATE	1.5 μm/hr

Beneq Spatial ALD Equipment

Beneq’s line of spatial ALD equipment brings the power of ALD to viable high-throughput manufacturing solutions. The plasma-enhanced rotary and web-based options provide the largest substrate and process coverage available for emerging applications like optical coatings, batteries, and solar.



Beneq C2R
Plasma-enhanced spatial ALD
for ultrafast depositions



Genesis ALD
World’s only commercially
available roll-to-roll ALD system

