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
- Polymer optics e.g., mobile phone camera lenses
- 200 mm wafers

THROUGHPUT: C2R's rotary spatial mechanism continously moves substrates through deposition zones rather than keeping them static, allowing users to enjoy ultrafast deposition rates of up to 1.5 µm/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 measurment of transmittance spectra in the infrared, visible, and ultraviolet ranges for precise depositions process control.

BENEQ C2R Specifications

PROCESS TYPE	Plasma-Enhanced ALD Single-side coating
INTEGRATION	Cluster or Stand-alone
DIMENSIONS	3770 × 1284 × 1948 mm
AUTOMATION	Brooks MX400 Transfer Module Optional preheating and cooling
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	up to 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