![Beneq logo]

BENEQ Prodigy™

Beneq Prodigy™ sets a new standard for affordable volume manufacturing of compound semiconductors (CS) and MEMS devices with ALD. It is the ideal manufacturing solution providing best-of-breed passivation and encapsulation films across various wafer sizes and types. Prodigy is a simple, yet elegant, solution for enhancing device performance on 75–200 mm wafers with a low-cost batch tool with the latest ALD technology.

Application areas for CS and MEMS:

- RF IC's (GaAs, GaN, InP)
- LED
- VCSEL
- Light Detectors

VALUE: Combining a low price point with proven higher end technology, Prodigy offers a unique breakthrough in economy, capacity and reliability.

SIMPLICITY: Prodigy offers pure simplicity through an automated loader with horizontal wafer handling and easy maintenance & serviceability with easy side access.

INNOVATION: We use simple automation, reliable reactor design proven for higher end applications, and large-size, mini batch design to set a new standards for industry.

FAB-READY: Equipment is cleanroom compatibility, has SECS/GEM communication capabilities and is compliant with SEMI S2 standard.

BENEQ Prodigy™ Specifications

DIMENSIONS	3320 x 910 x 2400 mm
INTEGRATION	Stand-alone, SECS/GEM, SEMI S2 compliant
BATCH SIZE	Up to 25 x 200 mm wafers, 50 x 150 mm wafers, 75 x 100 mm wafers
SAFETY STANDARDS	SEMI S2
ALD PROCESSES	Al_2O_3, TiO_2, SiO_2 and others
PROCESSING TEMPERATURE	< 420 °C
THROUGHPUT: AL2O3–300°C–50NM	>14 wafers/hour, 50 pcs 150 mm wafer batch
SUBSTRATE SIZES	75, 100, 150, or 200 mm

BENEQ Semiconductor Equipment

Beneq is dedicated to providing the most flexible and high-end ALD cluster tools to address the high manufacturing demand of the semiconductor industry across all wafer sizes.

Beneq Transform® 300
The only 300 mm cluster ALD tool to combine thermal batch and plasma processing.

Beneq Transform®
The most versatile cluster ALD tool for MtM device fabrication for 200 mm wafers and below.

Beneq Prodigy™
The simple and elegant ALD solution for compound semiconductor and MEMS processing.