

Key Features:

- ▶ 200mm & 300mm Wafer capability
- ▶ Handling flexibility for different substrates
- ▶ Multi-segment chamber supports up to 3 target materials
- ▶ Rotating Table
- ▶ Active ICP cooling
- ▶ Load Lock-integrated Degas module
- ▶ Innovative Magnetron

Versatile small-footprint design

World-class layer deposition

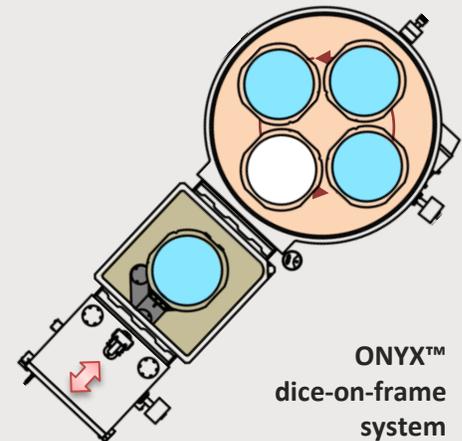
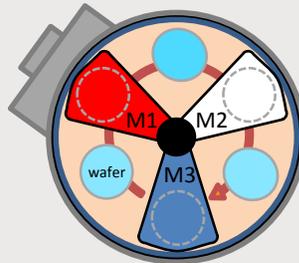
Leading conformity

The Most Versatile Small Footprint PVD tool on the Market Today

Specifically designed for specialized foundry and lower-volume production requirements, the ONYX™ PVD system provides a versatile small-footprint system capable of delivering the highest levels of performance and reliability. Factory or field-level configuration options provide the flexibility to suit a wide variety of application needs.

Derived from the proven AXCELA™ design, the ONYX™ system delivers the same industry-leading process results. With high throughput, reliability and low maintenance requirements, the ONYX™ platform is especially well-suited to low-volume operations requiring a variety of processing steps or highly specialized R&D applications.

Triple-Magnetron PVD Chamber design



ONYX™ dice-on-frame system

Performance by Design

The elegant, versatile design employs a multi-target chamber configuration, allowing for three different materials to be processed within the same chamber. Cooled by a table-chiller and a rotating stage design, the system maintains the lowest processing temperature in the industry to ensure excellent performance. Furthermore, the flexibility to conduct successive deposition cycles with different materials in the same chamber maximizes production efficiency.

Additionally, the patent-protected, dynamically oscillating magnetrons and delta-style targets in each chamber result in higher film uniformity and target life-time compared to conventional magnetron and target designs. An integrated ICP chamber and Degas incorporation within the Load Lock ensures that the wafer-lot is consistently pre-cleaned for the best process performance.

Small Footprint Processing Flexibility

The ONYX™ system provides attractive chamber processing flexibility, allowing up to 3 potentially different target materials to be processed by a single system in a compact footprint. Successive thin-film layering or combinations of different thick- and thin-film material depositions are supported to meet a wide variety of application requirements.

Combined with cooled substrate rotation and patented process technologies, the ONYX™ platform is the most flexible and best-performing small-footprint PVD system on the market today.

SPECIFICATIONS:

- ▶ Smallest Footprint: 2.5m²
- ▶ Height: 2.0m
- ▶ MTBF: > 250 hours
- ▶ Max. Power Consumption: 15 kWh
- ▶ Mechanical Throughput: 60 UPH
- ▶ MTTR: < 4 hours

APPLICATIONS:

- ▶ EMI Shielding
- ▶ 3D / TSV
- ▶ MEMS
- ▶ WLP

The TANGO Product Line

In addition to the ONYX™ single-chamber design, Tango also offers the multi-chamber AXCELA™ product line for advanced 200mm and 300mm wafer applications as well as the multi-chamber TOPAZ™ solution for glass and organic panel applications of up to 530mm x 530mm.

TANGO Systems

Based in Silicon Valley, Tango Systems develops advanced PVD technology semiconductor PVD systems. With American innovation, American manufacturing and global support we deliver leading performance, high reliability and the results that matter to our worldwide customers.

