



EV Group Launches New Automated SmartNIL Nanoimprint and Wafer-Level Optics System – February 3, 2022



[EV Group \(EVG\)](#), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology, and semiconductor markets, has introduced the **EVG7300 automated SmartNIL®** nanoimprint and wafer-level optics system. The EVG7300 is the company's most advanced solution to combine multiple UV-based process capabilities, such as nanoimprint lithography (NIL), lens molding, and lens stacking (UV bonding), in a single platform.

This industry-ready, multi-functional system is designed to serve advanced R&D and production needs for a wide range of emerging applications involving micro-and nano-patterning as well as functional layer stacking. These include wafer-level optics (WLO), [optical sensors](#) and projectors, automotive lighting, waveguides for augmented reality headsets, bio-medical devices, meta-lenses and meta-surfaces, and optoelectronics. Supporting wafer sizes up to 300 mm and featuring high-precision alignment, advanced process control, and high throughput, the EVG7300 meets the high-volume manufacturing needs for a variety of freeform and high-precision nano- and micro-optical components and devices.

“With more than 20 years of experience in nanoimprint technology, EV Group continues to pioneer this critical field to develop innovative solutions to meet our customers’ evolving needs,” stated Thomas Glinsner, corporate technology director at EV Group. “The latest introduction to our family of nanoimprint solutions, the **EVG7300**, combines our SmartNIL full-field imprint technology with lens molding and lens stacking in a state-of-the-art system with the most precise alignment and process parameter control on the market—providing our customers with unprecedented flexibility for their industry research and production needs.”

The [EVG7300](#) system is offered as both a stand-alone tool as well as an integrated module in **EVG's HERCULES® NIL** fully integrated UV-NIL track solution where additional pre-processing steps, such as cleaning, resist coating and baking or post-processing, can be added to optimize for particular process needs. The system features industry-leading alignment accuracy (down to 300 nm), which is enabled by a combination of alignment stage improvements, high-accuracy optics, multi-point gap control, non-contact

gap measurement, and multi-point force control. The **EVG7300** is a highly flexible platform that offers three different process modes (lens molding, lens stacking, and SmartNIL nanoimprint) and supports substrate sizes ranging from 150-mm to 300-mm wafers. Quick loading of stamps and wafers, fast alignment optics, high-power curing, and a small tool footprint enable a highly efficient platform capable of serving the industry's manufacturing needs for emerging WLO products.

Product Availability

EVG is currently accepting orders for the system, and product demonstrations are now available at **EVG's NILPhotonics® Competence Center** located at the company's headquarters.

<https://www.gophotonics.com/news/details/2834-ev-group-launches-new-automated-smartnil-nanoimprint-and-wafer-level-optics-system>