

First EVG UV Nanoimprint step&repeat lithography system will be delivered to AMO

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EV Group launches a step-and-repeat nanoimprint lithography system for industrial fabrication of nanoscale devices

EV Group (EVG), a leading manufacturer of MEMS, nano and semiconductor wafer-processing equipment, said today it will install a fully automated, ultra-violet step-and-repeat nanoimprint lithography (UV-NIL) system at AMO GmbH (AMO) in Germany.

UV-NIL is a next-generation lithography technology and a contender to succeed optical lithography for the 32-nm node, according to the International Technology Roadmap of Semiconductor (ITRS).

Applications include integrated photonic devices, nanoelectronics, life sciences, patterned media and nextgeneration memories.

"Nanoimprint lithography is an innovative patterning technology that provides a lower cost-of-ownership model compared to current manufacturing lithography tools," said Dr. Peter Podesser, chief executive officer of EV Group. "EV Group has the largest installation base worldwide for single-step imprinting equipment and this new NIL stepper enhances our product portfolio substantially."

AMO, which has been participating in joint-development programs with EVG in the area of advanced UV-NIL since 1997, is a leading research center for the technology. In addition, AMO is a charter member of NILCom, the consortium founded by EV Group that is dedicated to speeding the commercialization of NIL. NILCom is a technology platform supported by an established infrastructure and qualified

processes, including leading technology companies and research centers. Its mission is to establish a high-volume manufacturing NIL platform in nano-electronics, data storage, life sciences and opto-electronics.

The special features of EV Group's new NIL stepper include a dual-stage alignment approach in lower pressure environments, which enhances pattern fidelity compared to other technical solutions in ambient pressure. The step-and-repeat NIL system targets sub-50-nm overlay alignment accuracy and a lithography resolution down to 10 nm. The system will be delivered in the first quarter of 2005.

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