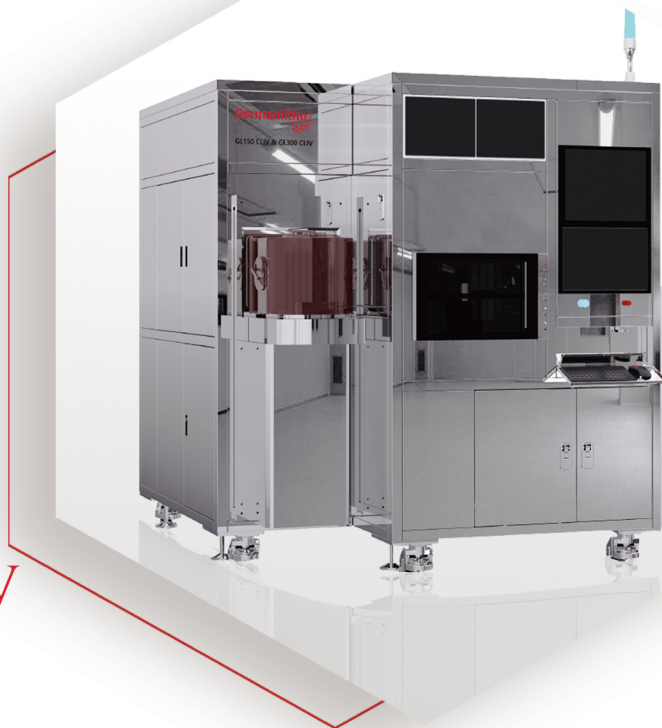


Introduction

The GL150 CLIV & GL300 CLIV are GermanLitho's latest fully-automatic, full-field, high resolution UV nanoimprint equipment. The proprietary CLIV (Contact Litho into Vacuum) technology guarantees the accuracy of imprinted structures and replication fidelity. The GL150 CLIV & GL300 CLIV enable fully-automatic mass production of high-resolution (higher than 10nm*) and high-aspect-ratio (greater than 10: 1*) nanostructures on up to 150mm/300mm wafers. This equipment supports cassette to cassette automatic wafer loading and unloading, as well as automatic flexible composite working stamp replication and loading and unloading. All process steps are carried out in a closed and clean environment to guarantee imprinting quality. The GL150 CLIV & GL300 CLIV are suitable for mass production of DOEs, AR/VR waveguides (including slanted gratings), WGPs, metalenses, biochips, LED PSSs, MLAs and myriad other applications.

GL150 CLIV & GL300 CLIV

150mm&300mm High-resolution UV nanoimprint lithography equipment for mass production



Technical Data

Substrate size	GL150 CLIV (open cassette): 2inch, 3inch, 100mm, 150mm GL300 CLIV: 200mm (open cassette, SMIF customized) / 300mm (FOUP) (Special sizes can be customized)
Substrate material	Silicon, glass, quartz, plastic, metal, etc.
Wafer loading & unloading	Cassette to cassette automatic loading/unloading
Wafer pre-alignment	Optical pre-alignment
Supported NIL process	UV-NIL with GermanLitho proprietary CLIV (Contact Litho into Vacuum) technology guarantees the accuracy of imprinted structures and replication fidelity.
Resolution	Higher than 10 nm*
Aspect ratio	Greater than 10:1*
Residual layer thickness (RLT)	Less than 10nm*
UV curing light source	High power UV LED panel light source (365nm), light intensity >1000mW/cm ² , water cooling, (2000mW/cm ² optional)
Mini-environment and climate control	Standard, external environment class 100, internal environment better than class 10*
Automatic imprinting	Supported
Automatic separation	Supported
Automatic working stamp replication	Supported
Automatic working stamp loading/unloading	Supported
Automatic alignment	Optional
Throughput	Up to 40 wph*

* Parameters depend on the mold, material, process and operating environment, not equipment limits

* GermanLitho reserves the right to interpret the information

Features

- Fully-automatic nanoimprint lithography equipment for mass production of high-resolution, high-aspect-ratio structures on up to 150mm/300mm wafers.
- CLIV technology guarantees the accuracy of imprinted structures and replication fidelity.
- Cassette to cassette automatic wafer loading/unloading and optical pre-alignment.
- Automatic flexible composite working stamp replication and working stamp loading/unloading, suitable for mass production.
- Fully-automatic nanoimprinting processes including working stamp replication, alignment, imprinting, curing and separation. All process steps are carried out in a closed and clean environment to guarantee the imprinting quality.
- High power UV LED panel (365nm, light intensity >1000mW/cm²) with water cooling, light sources of different power and wavelength can be provided according to customer specifications, perfectly supporting a variety of commercial nanoimprint materials.
- Throughput of up to 40 wph, suitable for mass production of DOEs, AR / VR waveguides (including slanted gratings), WGPs, metalenses, biochips, LED PSSs, MLAs and myriad other applications.
- Based on our experiences, we have created nanoimprint process and material starter-kits to be delivered with our products, enabling our customers to immediately make use of the world-leading level of nanoimprint technology.

OUR 
CONTACT!

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