



UV LED Mask Aligner for Photolithography Exposure



Product Overview:

A modular mask alignment and exposure system designed for various substrates sizes up to 600mm.

Built around a high-power, highly collimated UV-LED light source, it combines the Modular Alignment Stage (MAS) with a Double Image Microscope (DIM) to provide precise and flexible alignment for photolithography exposure processes.

Available in manual, semi-automatic, or fully automatic versions.

Benefits:

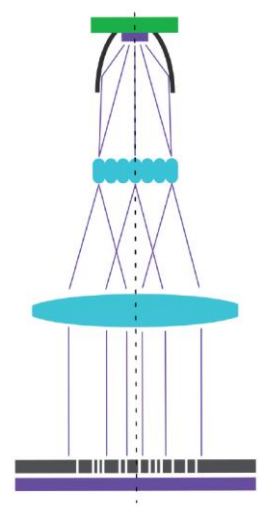
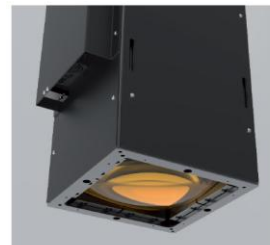
- High resolution
- Automated high precision alignment
- Compatible with special size substrates
- Flexible modular configuration
- Custom-made solutions
- Cost efficient

Key parameters:

- Substrate size: up to 600x600 mm
- Frontside and backside alignment
- Resolution < 1µm
- Alignment precision < 1µm
- Irradiance: up to 100 mW/cm²
- Small collimation angle < +/-1°
- Wavelength: 365 / 405 / 435 nm and others

Application:

- Photolithography exposure
- Flood exposure
- Bonding aligner
- Thin film bonding
- Nanoimprint

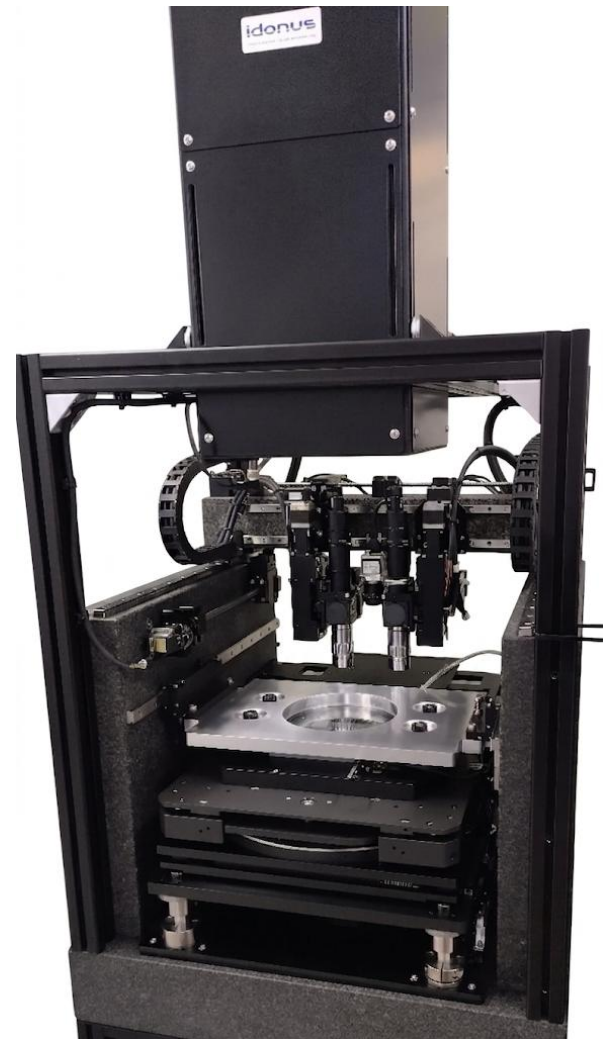


Product and Technology Description:

- High-power UV LED technology for advanced photolithography exposure
- Replacing mercury-arc sources with high- efficiency UV LED arrays
- High uniformity and irradiance through integrated high-end optics
- Improved energy efficiency and production throughput
- Extended equipment lifespan and high stability
- Advanced control system
- Reduced carbon footprint

Specifications:

- Substrate size: 150 / 200 / 300 /600 mm
- Substrate format: round or square
- Frontside and backside alignment
- Resolution: < 1um
- Alignment precision: <1um
- Irradiance: up to 100mW/cm²
- Small collimation angle: < +/-1°
- Wavelength: 365 / 405 / 435 nm and others

**About idonus:**

idonus sàrl is a Swiss precision engineering company founded in 2004, specializing in equipment for the MEMS, semiconductor, and advanced watchmaking industries. Based in Neuchâtel, idonus develops microfabrication solutions, including UV LED exposure systems, vapour phase chemical etchers (VPE), and infrared (IR) microscopes.

Thanks to its full vertical integration, idonus bridges the gap between R&D and industrial production, offering rapid prototyping, short lead times, and tailored equipment built to meet strict client and cleanroom specifications.