



Laser Blade Debonder

Fully automated LLO system



The LDB is optimized for High speed Laser Lift-Off (LLO) process independent of part size. This system combines a flexible workstation with an external laser associated to homogenizing optics to create a laser beam line for high throughput production.

The beam length is adjustable and automatically switchable in function of the application. Automation can be provided as an option with cassette or wafer loading including automated pre-alignment, robotics and machine vision.

KEY FEATURES

- Motorized X,Y,Z axes
- 308nm laser wavelength
- Up to 45mm beam line length
- $>600\text{mJ}/\text{cm}^2$ on the part
- Off axis vision
- User friendly softwares
- CAD compatible
- All granite structure
- Class 1 machine

OPTIONS

- 248nm laser wavelength
- Switchable beam line length
- 75mm beam line length
- Fully Automated part loading/unloading
- Motorized Theta stages
- Beam profiler on target position
- Energy meter on target position



Beam Delivery Unit

| | | |
|-------------------|----------------------------------|----------------------------|
| Wavelength | 308nm | |
| Energy density | From 50 to 600mJ/cm ² | Trade-off line beam length |
| Rep rate | max 200 Hz | |
| Beam line length | 22 or 45mm with 75mm in option | |
| Beam line width | 1 or 1.2mm | |
| Depth of focus | >0.5mm | |
| Focus Range | 25mm | Motorized |
| Attenuation range | from 5 to 100% | |

Part Positioning

| | |
|---------------------|---------------------------|
| Processing area | 200x200mm |
| Travel range | 450x300mm |
| Resolution | 1µm |
| Repeatability | <2µm |
| Absolutely accuracy | <2µm with DMC calibration |

