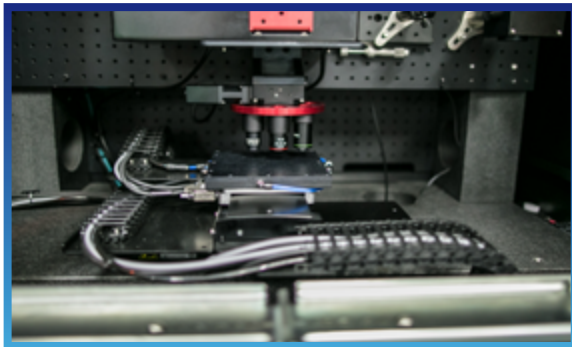


LS-LAB

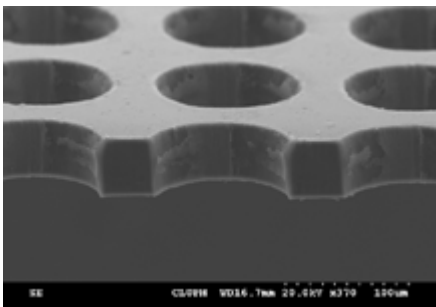
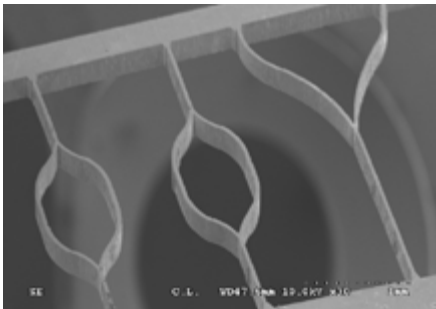


CUSTOMIZABLE LASER PROCESSING MACHINE FOR HIGH ACCURACY APPLICATIONS



LS-LAB is a versatile, compact workstation designed for highly demanding laser processing applications where nanometer resolutions and laser spots sizes down to 1 micron are required. Based on a compact aluminum and granite structure, LS-LAB provides high accuracy and stability at an affordable cost, integrating advanced solutions such as closed loop surface measurement for automatic focus correction. User friendly software with a CAD GUI environment (codeless programming) ensures efficient and fast process development.

STANDARD SPECIFICATIONS



Working Area	200 x 100 x 20 mm
Resolution	20 nm (XY), 0.1 μm (Z)
Repeatability	$\pm 0.3 \mu\text{m}$ (XY); $\pm 0.1 \mu\text{m}$ (Z)
Accuracy	$\pm 2.5 \mu\text{m}$ (XY); $\pm 1 \mu\text{m}$ (Z)
Available Laser Sources	From UV to IR. Pulsed and CW
Substrate Holder	100 x 100 mm Aluminum vacuum plate
Minimum Laser Spot Size	Typical from 1 μm
External Dimensions	1400 x 1750 x 2050 mm (W x D x H)
Weight	Approx. 600 Kg without laser source
Control Unit	Workstation with dual 23" monitor

Courtesy of Laser Centre Universidad Politecnica de Madrid

FEATURES:

- Fixed optic head with automatic objective change.
- Collinear vision system with motorized optics.
- Collinear surface measurement laser system with closed-loop correction or 2D scanning option.
- Automated camera calibration.
- Automated camera-based feature recognition for precision alignment and rotation compensation.
- Based on CAD GUI environment (*Import DXF, DWG, DWT, ACIS... files*)
- Class 1 enclosure.

OPTIONS:

- Multiple laser sources with automatic path change.
- Processing objectives from 50x to 4x for different wavelengths.
- Customized vacuum holder.
- Fast 3D module for fixed optic head.
- Customized software for special applications.