LS-FPRO

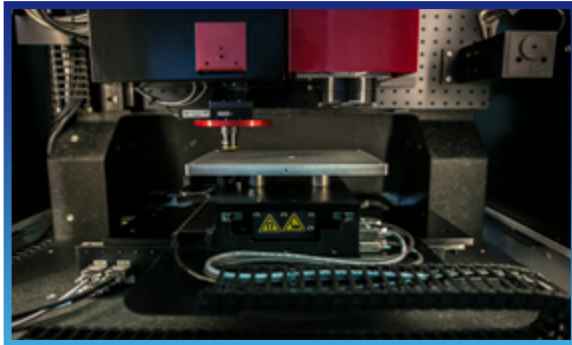## CUSTOMIZABLE LASER PROCESSING MACHINE FOR HIGH ACCURACY APPLICATIONS

LS-FPRO is a versatile workstation designed for high demanding laser processing applications where nanometer resolutions and laser spot sizes down to 1 micron are required.

The main heavy granite structure, with passive damping and advanced solutions like close loop surface measurement for automatic focus correction, provides extremely high accuracy and stability even for complex trajectories.

User friendly software with CAD GUI enviroment (codeless programming) ensure an efficient and fast process development.

STANDARD SPECIFICATIONS

Cortesy of Laser Centre Universidad Politecnica de Madrid
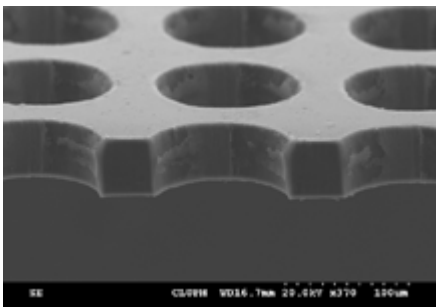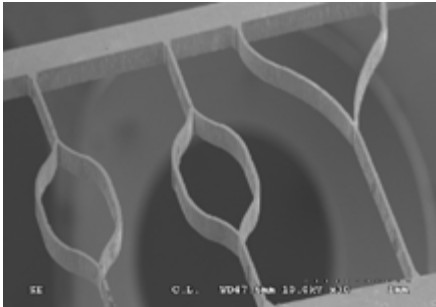
Working Area	300 x 200 x 100 mm
Resolution	10 nm (XY), 0.3 μm (Z)
Repeatability	± 40 nm (XY); ± 0.5 μm (Z)
Accuracy	± 2.5 μm (XY); ± 2.5 μm (Z)
Available Laser Sources	From UV to IR. Pulsed and CW
Substrate Holder	250 x 200 mm Aluminium vacuum plate
Minimum Laser Spot Size	Typical from 1 μm
External Dimensions	1400 x 1500 x 2200 mm (W x D x H)
Weight	Aprox. 1700 Kg without laser source
Control Unit	Workstation with dual 23" monitor

FEATURES:

- Fixed optic head with automatic objective´s change.
- High precision scan head.
- Automatic change from Fixed Head to Scanner setup.
- Co-lineal vision system with motorized optics.
- Co-lineal surface measurement laser system with close-loop correction or 2D scanning option.
- Automated camera calibration.
- Automated feature camera recognition for precision aligment and rotation compensation.
- Based on CAD GUI enviroment *(Import DXF, DWG, DWT, ACIS... files)*
- Class 1 high end enclosure with automatic door and HMI panel.

OPTIONS:

- Multiple laser sources with automatic path change.
- Processing objectives from 50x to 4x for different wavelengths.
- F-Theta and telecentric lenses for scanner head up to 160 mm FL.
- Customized vacuum holder.
- Fast 3D module for Galvo and Fixed optic heads.
- Customized software for special applications.