

SWISS FLEXIBLE AUTOMATION SOLUTION



AVAILABLE WITH  
**LASER fs | LASER ps | LASER ns**

## Laser engraving and marking machine for micro-technical parts

### DESCRIPTION

Designed for laser engraving and welding of small parts, the **Microparts laser engraver** workstation is a high-precision system. It is ideal for small to medium volume production runs, for individual parts as well as small and large series. The integrated smart

vision system can automatically identify the orientation of the parts, and automatically adjust the position of the laser beam to ensure it always processes the correct location. The machine can be equipped with femtosecond, picosecond or nanosecond lasers. The processing head is a scanner head which is mounted on fixed or motorized 3 axis gantry (XYZ).

### ADVANTAGES



#### Repositioning

Part localisation and orientation with vision, followed by automatic correction (offset) with optical (scanner head) system.



#### Precision

The ns, ps or fs laser beam coupled to the 2D or 3D scanner enables engravings and markings of high quality and accuracy.



#### Flexibility

Different laser wavelengths (ns, ps and fs lasers), as well as numerous positioning combinations are possible.



#### Upgradable

The cell can be upgraded / enhanced with standard automation tools / processes of the CP Series platform.



#### Design

Compact and flexible machine design, based on the CP Series platform.



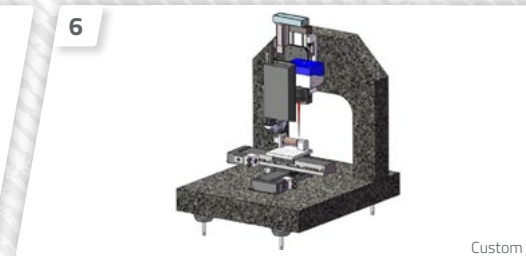
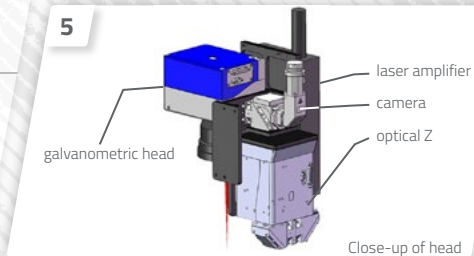
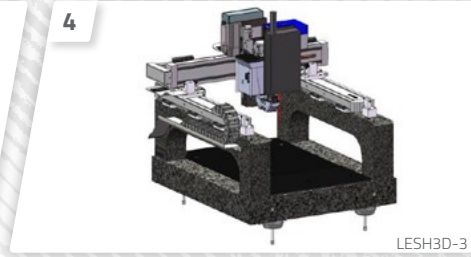
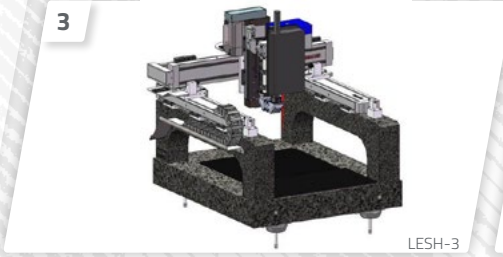
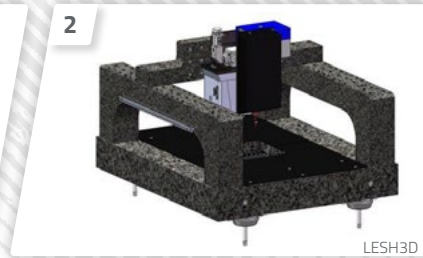
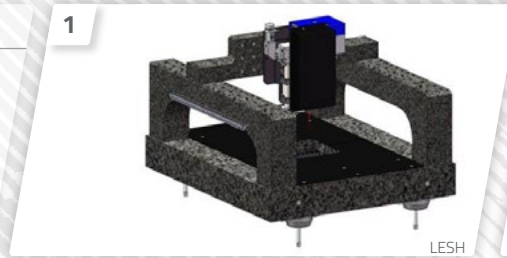
#### Service

Remote assistance for diagnostics and intervention.

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**STANDARD MODULES**

- 1** LESH: 2D scanner mounted on a fixed gantry
- 2** LESH3D: 3D scanner mounted on a fixed gantry
- 3** LESH-3: 2D scanner mounted on a motorised gantry (XYZ)
- 4** LESH3D-3: 3D scanner mounted on a motorised gantry (XYZ)
- 5** 3D scanner head (shown in module 2 and 4) comprising the laser amplifier, the optical Z, the galvanometric head and coaxial camera.



**SPECIFIC MODULE**

- 6** Custom configuration: 3D scanner mounted on a Z motorised gantry. XY axis and 1 axis divider fixed on the base block.

**TECHNICAL FEATURES**

Door movement	Automatic / vertical
Laser	Picosecond laser (1060 nm, 30W, 150 ps, up to 600 kHz), Femtosecond laser (1030 nm, 20 W, < 400 fs, up to 2 MHz), Nanosecond laser (1064 nm, 30W, 4-200 ns, up to 1 MHz). Other lasers available on request.
Galvanometric head	Advanced galvanometric head with thermal drift compensation. Available in 2D or 3D version.
Camera	Camera coaxial to laser beam / Mosaic imaging to ensure ultra-high resolution.
Positioning	Fixed or positional gantry (motorised XYZ linear axes), 1 or 2-axis divider. Custom configurations on request.
User interface	Intuitive, user-friendly software enabling control of the laser, the positioning axes and the galvanometric head.
Compatible engraving files	2D: .dxf, .dwg, .mcl, .cnc, .ai, .tif, .jpg, .png, .plt, ... 3D: .STL
Options	Fume extractor, inert gas protection system, automatic parts localisation, palletiser/ de-palletiser, laser power and energy measurement.

**TECHNICAL DRAWING**

