LS5

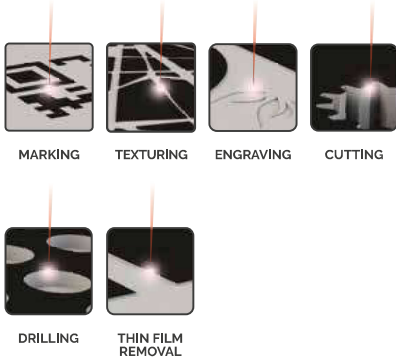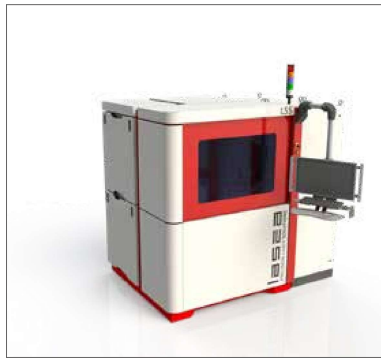MARKING TEXTURING ENGRAVING CUTTING
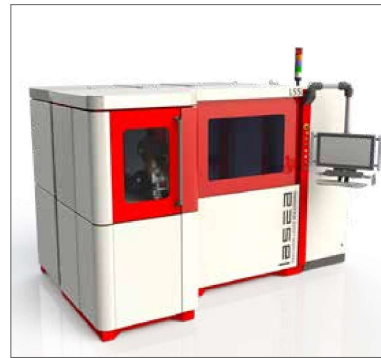

DRILLING THIN FILM REMOVAL

The flexible machine for high precision micromachining

High precision work can be achieved with no risk of external disturbance thanks to its granite structure and external enclosure perfectly isolated from the internal structure. The LS5 can include all kinds of laser sources (some of the most powerful on the market), including femtosecond sources for micro-machining, or even multiple lasers for more flexibility. Extremely accurate features can be obtained at very high speed (several meters per second with acceleration ramps of only a few microns). The 3D version allows machining of complex 3D parts thanks to the combination of mechanical and optical axis movements. The integration of a robot in the enclosure (or externally) combined with a double-head make it an ideal machine for production environments.

LS5

LS5 connected to LS-Robot

LS5-2 with integrated robot

Main specifications

MACHINE	LS5 ACCURATE	LS5 ACCURATE 3D
Mechanical axis	XYZ	XYZAC
XYZ Travel	500 x 300 x 200 mm	
A Travel	-	Depends on the application
C Travel	-	n x 360°
Femtosecond laser source	5 to 100 W	
Scanner	LS-Scan XY	
Lens	Telecentric F-Theta	
Beam management module	LS-Shape	
Vision	Visualization and positioning camera	
Autofocus	Laser distance sensor	
Door	Automatic	
Air conditioned working area	Yes	
Electrical camera	Air conditioned	
Table	Marble	
Assistance for laser focus	Dual laser guide	
Table	Marble	
Software	KYLA™ 2D and EasyKYLA	
Assistance for laser focus	Dual laser guide	
ACCURACY / REPEATABILITY		
XY axis (per axis)	A : +/- 2 µm R : +/- 0,5 µm	
A axis	-	A +/- 5 arcsec R +/- 3 arcsec
C axis	-	A +/- 6 arcsec R +/- 3 arcsec

Options

LASER SOURCES		
Picosecond	30 W	
Dual source	Combination of 2 sources (fs and ns)	
LS-MODULES		
3D Scanner	LS-Scan Z (KYLA™ 3D included)	
Zero taper cutting and drilling	LS-Precess	
Vision through the scanner	LS-View	
Robotization	Pick & Place (plates, palets and/or workpieces) / LS-Robot module (plates, palets and/or work-pieces) / Machine preparation for external robot	
OTHER		
Vision	Cognex camera, shape recognition	
Metrology	Optical profilometry (confocal sensor)	
Automation	LS-HMI (PLC)	
Autofocus	Laser distance sensor	
Accessories	Power meter, fume extractor, cutting nozzle	

Dimensions

Width x Depth x Height	2120 x 1680 x 1950 mm (LS5) / 3060 x 2130 x 1950 mm (LS5 connected to LS-Robot)

• Standard / o Option / — Not available in this configuration