

# LightShot

## High Resolution Excimer system



Optec's Lightshot is an excimer laser micromachining system based on excimer laser predominantly used for high resolution applications. Superior flexibility makes the system for well suited laser structuring, grooving, drilling on a variety of substrate, such as polymers, glass, thin metallic layers, ceramics.

### KEY FEATURES

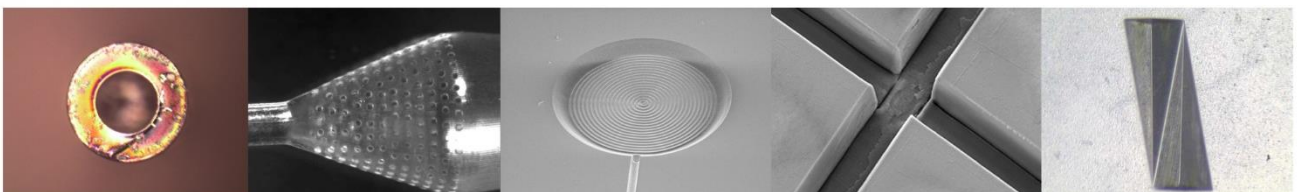
- Motorized X,Y,Z axes
- 100x100mm XY travel range
- 1 $\mu$ m machining resolution
- Switchable demagnification 10-16X
- Motorized motifs selection
- >10J/cm<sup>2</sup> on the part
- Motorized zoom TTL vision
- User friendly softwares
- CAD compatible
- Table top excimer laser @193nm

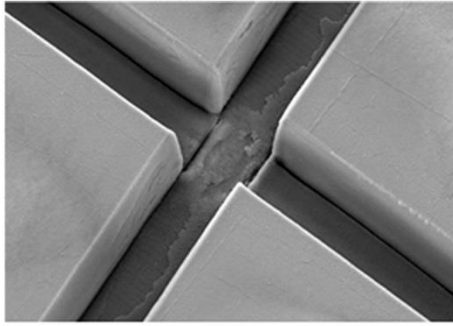
### OPTIONS

- 200x200mm XY travel range
- MRA module
- Smooth Groove module
- Theta stages
- 248nm

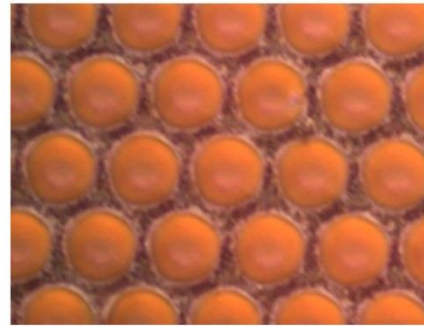
### APPLICATIONS

- Milling/drilling of a wide range of polymers, glass, ceramics ...
- Micro hole drilling/grooving
- Micro-fluidic prototyping
- Deep drilling in medical components
- Optical fiber structuring
- Trimming of electronics/sensors
- DOE manufacturing





50µm channel in PMMA



6µm holes on 8µm step on PI

## Beam Delivery Unit

Wavelength	193nm	option 248nm
Maximum e.d.	>10J/cm <sup>2</sup>	Trade-off adjustment between energy density vs spot size
Rep rate	200 Hz	500Hz & 1kHz options available
Feature size	1 - 250µm	32 motifs on motorized selector (limit at 250µm)
Machining resolution	0.7µm	UVFS/CAF2 optics NA 0,2
Focus Range	50 mm	Motorized
DMG ratio	10X and 16X	Manual switching

## Part Positioning

Travel range	150x150mm
Resolution	1µm
Repeatability	2µm
Absolutely accuracy	<10µm (1µm in option)

## Machine vision

TTL image	Colour
Zoom ratio	Motorized from 12.5x to 1000X
FOV	220µm to 5mm
Lighting	Coaxial and Ringlight

