

MicroMaster

High performance, multi-featured excimer laser micromachining tool -
the big system in a compact, ergonomic package



KEY FEATURES

- ❖ High laser beam brightness & short pulse.
- ❖ Mask projection optics with continuously variable demagnification under PC control.
- ❖ X,Y part positioning stages on rigid granite frame,- linear drive, 1 μ m resolution.
- ❖ Motorized Z-axis/focus control.
- ❖ TTL & navigation cameras; PRS options.
- ❖ Comprehensive ProcessPower software with CAD/CAM interface.
- ❖ Fast Set-up times, user friendly s/w routines

TYPICAL APPLICATIONS

- ❖ Selective polymer removal for wire & contact pads
- ❖ Micro hole drilling/grooving.
- ❖ Micro milling/Surface structuring.
- ❖ 3D structures, including lenses
- ❖ Thin metal film patterning.
- ❖ OLEDs, microfluidics, sensors.

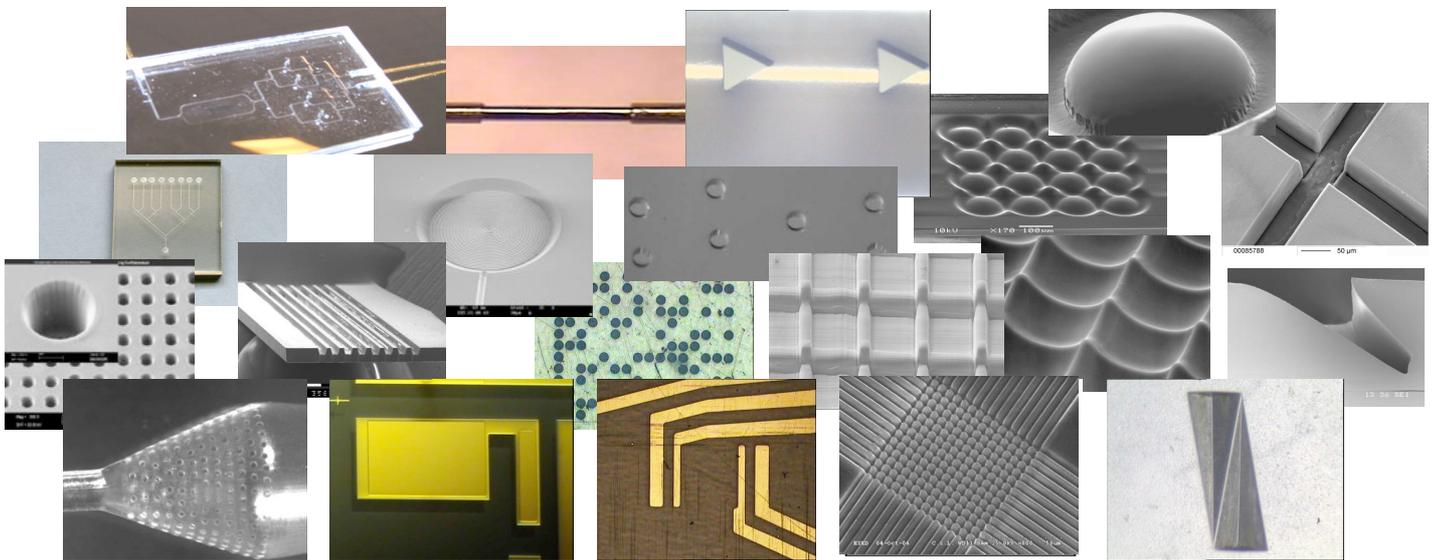
POLYMERS-CERAMICS –METALS-INORGANICS

OPTEC
laser micromachining systems

Avenue des Nouvelles Technologies 53, BE-7080 Frameries, Belgium
Tél. +32 (65)78.18.08 - Fax +32 (65)78.20.35 - info@optec.be - www.optec.be

PERFORMANCE

- * *Materials for UV laser micromachining with minimum HAZ include a wide range of polymers, ceramics, glasses, metals, thin films.*
- * *Typical feature sizes 5µm – 2mm. Mask options include 32-position motif selector, and/or MRA option for rectangular shapes. Combination motifs possible. Build up complex patterns by combining motif selection laser firing and part motion over 300x300mm.*
- * *The part is viewed through the projection lens (TTL vision), which has unique **WYSIWYG** confocal performance;- when the part is in focus on the CCTV monitor the laser beam is automatically in focus on the part, just fire the laser for accurate machining of the highlighted area with the selected process parameters.*
- * *Select continuously variable demag. 4-20X to best suit the process,- fully automatic(**unique MM feature**).*
- * *Energy density to suit different materials in the range 0.25-10J/cm², friendly on-board s/w routines help determine optimum processing parameters.*
- * *Perfect depth control with material dependent machining rates 0.05 - 5 µm/laser shot, optimum conditions determined with the help of s/w routines.*
- * *Optical resolution 1.5 µm;- step contrast function 15-85% 1.5µm.*
- * *Aspect ratio is material and energy density dependent, between 10° wall angle and practically zero taper.*



Just a few examples of structures produced by MicroMaster; consult Optec for process advice & see our Technotes available as .pdf downloads on www.optec.be

EASE OF USE

- * *Fully integrated system*
- * *Ergonomic work position.*
- * *Fully interlocked safety covers*
- * *Class 1 laser system.*
- * *CE certified.*

REQUIREMENTS

*220 VAC/115 VAC Single phas.e
Premix and Flush gas.*

SERVICE

☎ +32.65.78 18 08
📠 +32.65.78 20 35
e-mail: info@optec.be

