optec
laser systems

MicroMaster

Tunable demagnification ratio

Optec's MicroMaster is a high performance, flexible excimer laser micromachining tool, including a short pulse excimer laser, precision part positioning with linear drive stages and a rigid granite frame. The system includes a variable demagnification projection system.
Sophisticated & user friendly ProcessPower™ and OptecCAD™ softwares includes handy routines.

KEY FEATURES

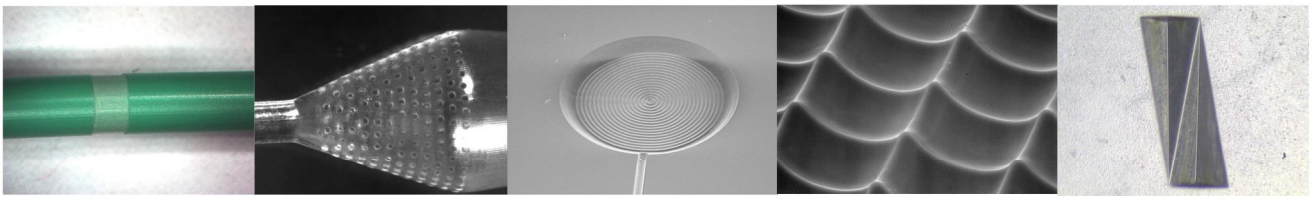
- Mask projection optics with continuously variable DMG ratio under PC control.
- X,Y part positionning stages on rigid granite frame, linear drive, 1µm resolution
- Motorized Z-axis/focus control
- High resolution WYSIWYG optics
- User friendly softwares with CAD interface
- Table top excimer laser @193nm or 248nm

OPTIONS

- MRA module
- Smooth Groove module
- Theta stage
- Parttern Recognition System
- Homogenization module
- Motorized DMG selection

APPLICATIONS

- Selective polymer removal for wire and contact pads
- Micro hole drilling/grooving
- Micro-fluidics prototyping
- Thin metal film patterning



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Beam Delivery Unit

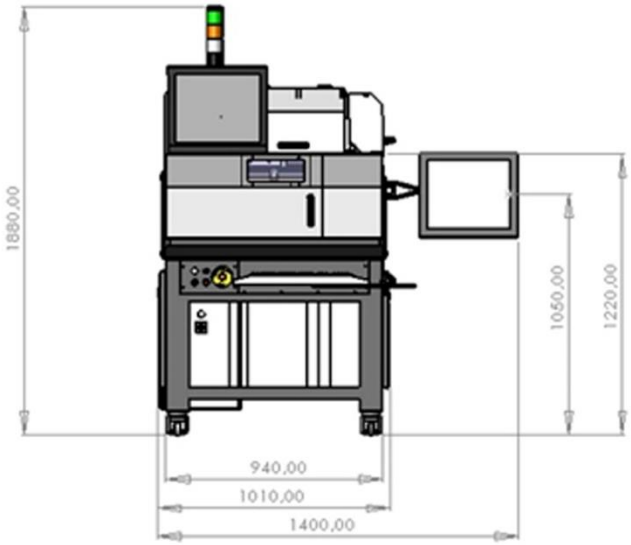
Wavelength	193 or 248nm	
Maximum e.d.	From 0.05 to 10J/cm²	Trade-off adjustment between energy density & DMG ratio
Rep rate	200 Hz	500Hz & 1kHz options available
Feature size	From 5µm to 2mm	Depends on selected DMG ratio and laser
UV resolution	1.5µm	UVFS/CAF2 optics NA 0,1
Focus Range	50mm	Motorized
DMG ratio	from 5 to 15	Motorized as option
Attenuation range	from 2 to 100%	Depends on wavelength
Depth control	0.5 to 5µm per shot	Depends on sample/part material

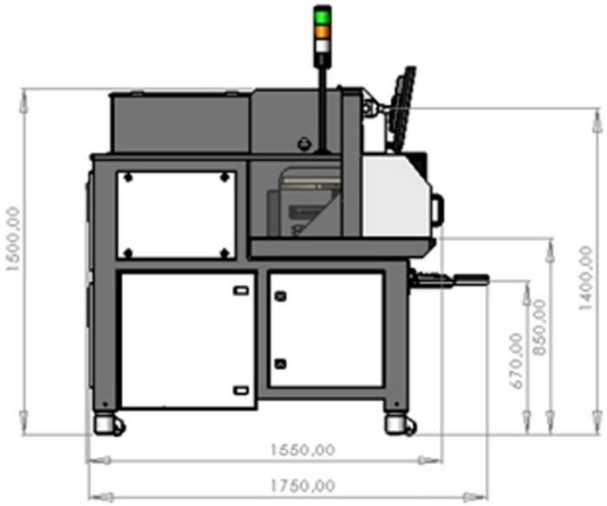
Part Positionning

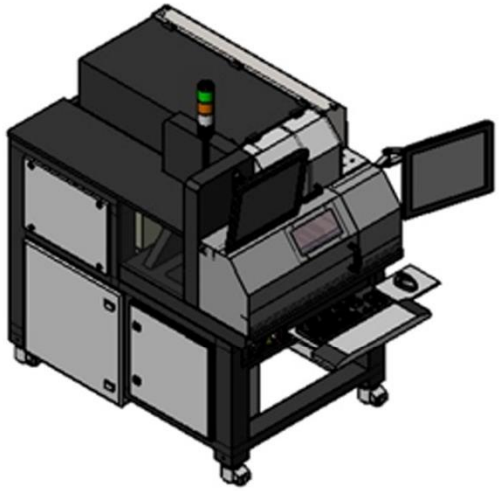
Travel range	300x300mm
Resolution	1µm
Repeatability	1µm
Absolutely accuracy	<2µm with DMC calibration
Air bearing in option	

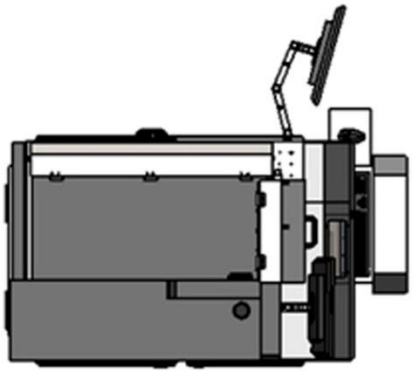
Machine vision

2 colors cameras	
TTL vision	150-500X related to DMG









CLASS 1
LASER PRODUCT

CE

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