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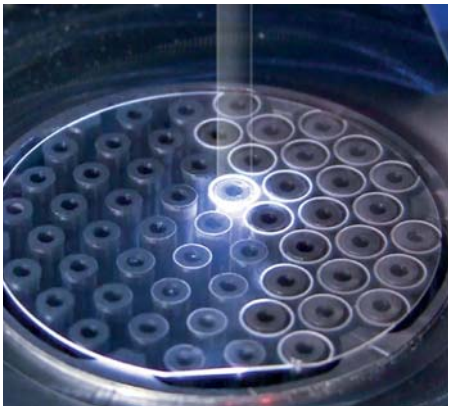
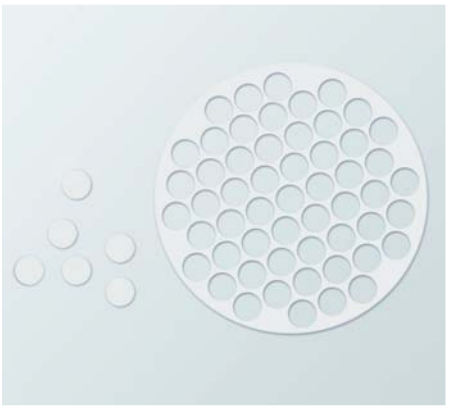
passion for efficiency

ELC 420
LASER PLATFORMS FOR ELECTRONICS

ELC 420

Laser Platforms for Electronics





TECHNICAL SPECIFICATIONS

ELC 420	
Dimensions (L x W x H)	2,900 mm x 2,800 mm x 2,700 mm
Weight	5,000 - 5,500 kg
Power supply	200 - 480 V
Compressed dry air	6 - 7 bar
Cooling Water	5 - 20 l/min
Working area	2 x 2 chucks Scan field 55 mm x 55 mm
Accuracy	$< \pm 20\ \mu m$ absolute $< \pm 10\ \mu m$ repeatability
Laser sources	Several laser sources
Laser spot size	10 - 300 μm
Beam delivery	Scanner
Safety	CE

PROCESS AND SYSTEM VALUES	
Material	plane sapphire (different crystal orientations)
Material thicknesses	$< 650\ \mu m$
Sidewall roughness values	$\sim 0{,}8\ \mu m$
Ablation rate	25 mm^3/min (parallel operation of 2 scanner)
Generation of chamfer possible	

PROCESS AND SYSTEM LIMITATIONS
Occurrence of side wall taper angle ($\sim 10°$)
For basic trials only mechanical aligners possible
Distance between neighboring structures $> 750\ \mu m$

FEATURES

- *Universal cutting system*
- *Scanner setup*
- *Highly modular system design*
- *Fast manufacturing*
- *High volumes and quick ramp-up*
- *Highly accurate system*
- *Standalone and line integrable system*
- *4 x Scanner heads*
- *Highly effective exhaust system*

OPTIONAL

- *Several laser sources available*
- *Fully automatic handling (mass production)*
- *Semi-automatic handling (R&D)*
- *MES interface*
- *Integrated process metrology*
- *Import of CAD files (e.g. DXF, DWG)*
- *Vision system*
- *1 x or 2 x Scanner heads*

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