



## Competence overview ILT Fineworks

Version: 2 E

Laser cutting		
	Fine cutting	Regular cutting
Cutting contour: maximum dimensions:	300x350mm	1000x600mm
Material thickness:	t = 0,010 to 1,500mm	t = 0,300 to 3,000mm
Contour accuracy:	Tolerances: +/- 0,005mm	Tolerances: +/- 0,020mm
Material types:	Steel, Stainless St, Titanium, Nickel, Al. and high alloyed steels	

Laser micro welding	
Hand- and CNC controlled machines inside and outside our cleanroom facility	
Maximum dimensions (LxWxH):	500x800x200mm
Material types:	Steel, Stainless St, Titanium, Nickel and high alloyed steels

Laser micro drilling / ablation	
Ultra short pulse laser processing with 7-axis machine	
Maximum dimensions (LxWxH):	400x300x250mm

Laser engraving	
Maximum dimensions (LxWxH):	400x400x200mm

Micro bending / forming	
Sheet thickness:	0,05 to 0,8mm. Complex multibendings. Small bending radius

Measurements and qualification	
Electron Beam Microscope (SEM):	100.000x enlargement, analyse reports possible
Video 2D contour measurement:	Measurement test reports
3D measurement:	Measurement test reports
Welding-analysis:	Cross section analyses of samples
Helium- and vacuum leak detection:	Vacuum pressure 10 <sup>-9</sup> mbar.l/sec (with test report)

For more detailed information please contact us on our website, emailadres or by phone.

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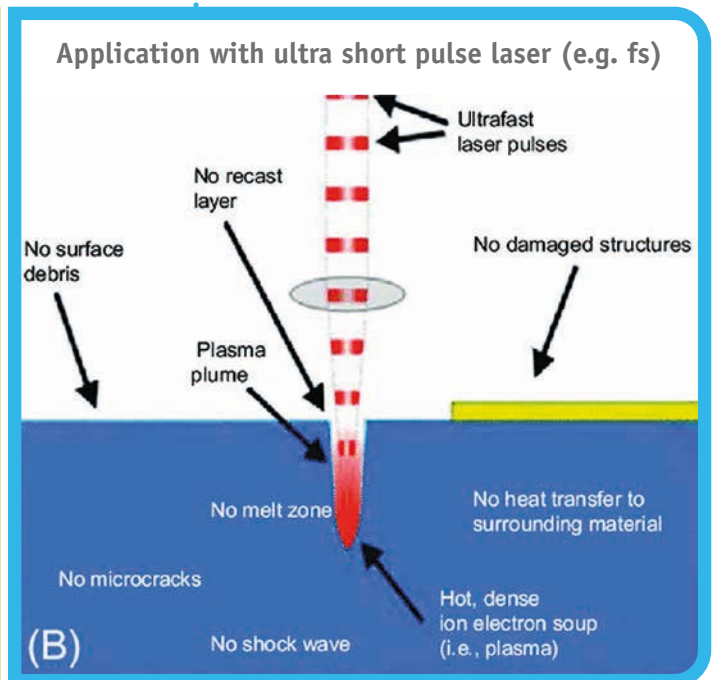
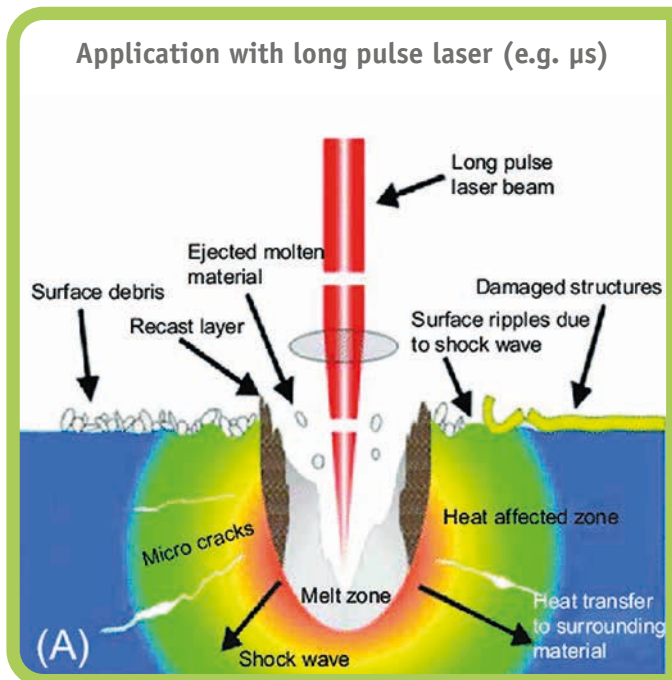
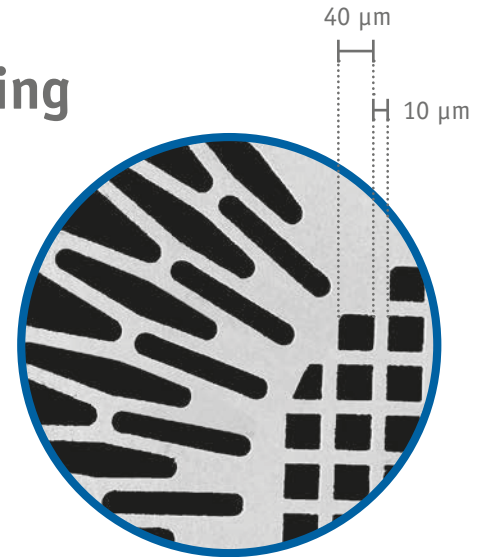
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## 7-axis Ultra Short Pulse Laser processing

- ▶ Femtosecond laser with pulse length  $10^{-15}$  seconds
- ▶ Cold ablation, drilling, structuring of material surfaces
- ▶ Holes with diameter down to  $15 \mu\text{m}$
- ▶ Material processing without thermal influences



Measurements by:  
Scanning Electron Microscope (SEM)



precision with  
the speed of light