



industrial laser technology

precision  
with the  
speed  
of light



- Laser (micro) cutting ◀
- Laser (micro) welding ◀
- Micro machining ◀
- Laser (micro) drilling ◀
- Laser engraving ◀
- Micro bending and setting ◀

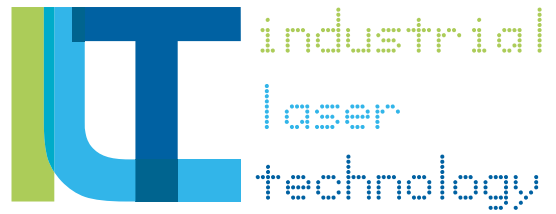
# IT cleanroom, the ultimate welding environment

- Laser-machined precision components
- Ultra-short pulse laser machining
- Complex shapes
- Micro bending
- 2D and 3D measuring machine
- SEM measurement system
- Material analysis and weld quality assessment



Precision

Flexibility



#### ULTRA-SHORT PULSE LASER TECHNOLOGY

ILT Fineworks is equipped with ultra-short pulse laser technology. This enables us to machine materials by means "cold ablation" techniques.

The laser source used to generate these ultra-short pulses is basically a femto laser source with pulse lengths of  $10^{-15}$  seconds. These extremely short pulses take the material from solid to gaseous form, thus removing it.

- Micro machining
- Micro drilling
- Ablation operations



Speed Lot sizes from 1



### Laser (micro) cutting

- Steel, Stainless steel, Spring steel, Copper, Fosforbronz, Silver, Gold, Platinum, Titanium, Inconel, Hastelloy, etc.
- Material thickness of 10  $\mu\text{m}$  to 3 mm

### Laser (micro) welding

- Low heat input
- Preservation of product tolerances
- No filler materials
- Stainless steel, titanium and various alloys

### Micro machining

- Ultra-short pulse micro laser ablation

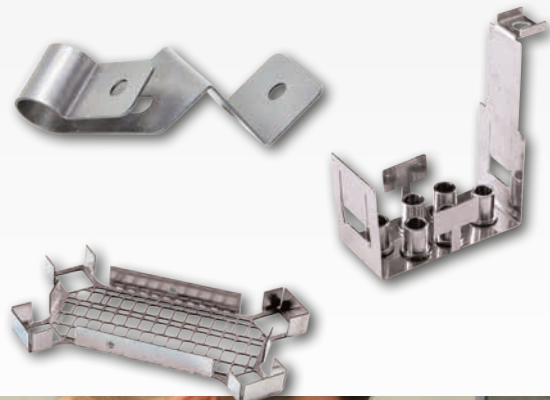
### Laser (micro) drilling

- Holes from 15  $\mu\text{m}$
- Tolerances from 1  $\mu\text{m}$

### Laser engraving

### Micro bending and setting

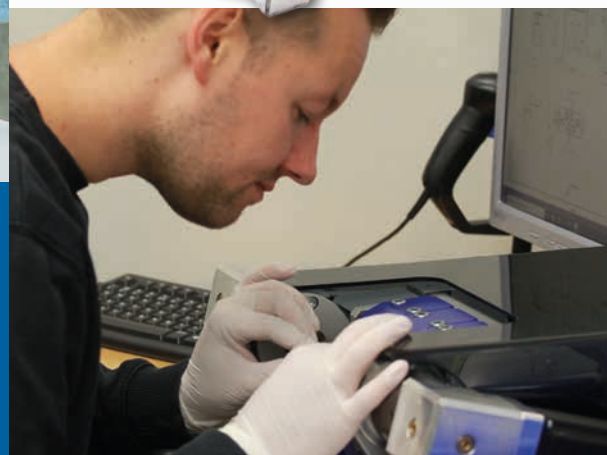
- All materials from 50  $\mu\text{m}$  - 0,8 mm
- Also single piece and prototyping



### EXPERT IN MICRO LASER MACHINING

ILT produces components and (sub-)assemblies with a focus on single pieces and small series of products with high accuracies and complex shapes, especially for the precision engineering industry in the Netherlands and Europe.

We have a cleanroom for laser welding and assembly of products applied under clean conditions, for example for the medical sector and the semiconductor industry.



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