

PRODUCT

Various high-tech components for watch/medtech/space & defense industries

Micromachining of high-tech parts:

- Functional watch parts
- Memory shape or PtIr parts cutting for implants or needles
- Jet fighter small parts
- Telecom parts for defense applications

LMJ used for:

- Prototyping to larger series (up to 10k pcs)
- Cutting and drilling – damage free processes



CHALLENGE

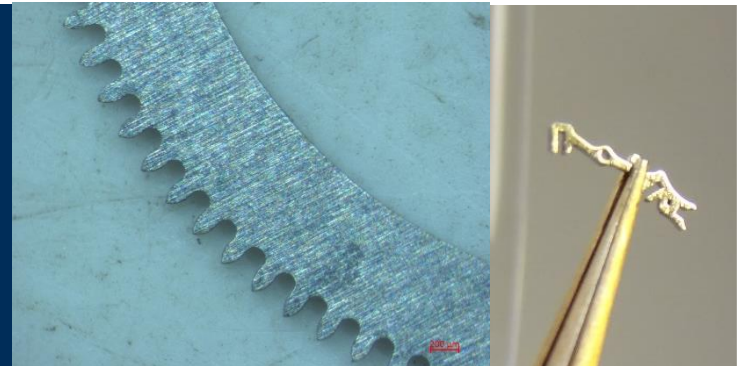
Flexible & stable tool for perfect/heat damage-free processes

Main processing criteria:

- Process flexibility: any kind of metals & ceramics
- Homogeneous roughness (Ra 0.2 μm)
- No burrs
- Perfect verticality
- Narrow tolerances
- Very low forces on the substrate during cutting

Machining technologies able to reach these criteria:

- EDM
- Laser MicroJet (LMJ) - water jet guided laser technology



SOLUTION

Best flexibility, ease to use and reach expected top quality/tolerances, production-proven, better ROI

LMJ advantages vs EDM:

- Unique solution for specific high-tech applications
- Production-proven
- Flexibility
- Very short warmup and setup times

Installed machine type:

- 1 x LCS 300
- Dual laser (100 W green laser + 20 W short pulse green source)

