

CASE STUDY



Vuichard (Medical/Watch/Industrial Jobshop Services), France

Watch case-05 Date: 23.07.2020



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PRODUCT

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

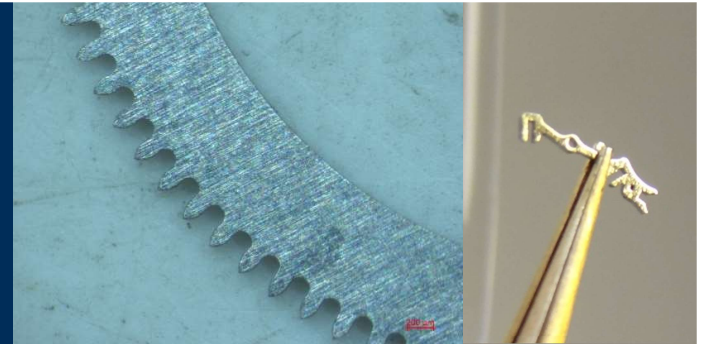
- Micromachining of high-tech parts:
 - Functional watch parts
 - Memory shape or PtIr parts cutting for implants or needles
 - Jet fighter small parts
 - Telecom parts for defense applications
- LMJ used for:
- Prototyping to larger series (up to 10k pcs)
 - Cutting and drilling – damage free processes



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)

