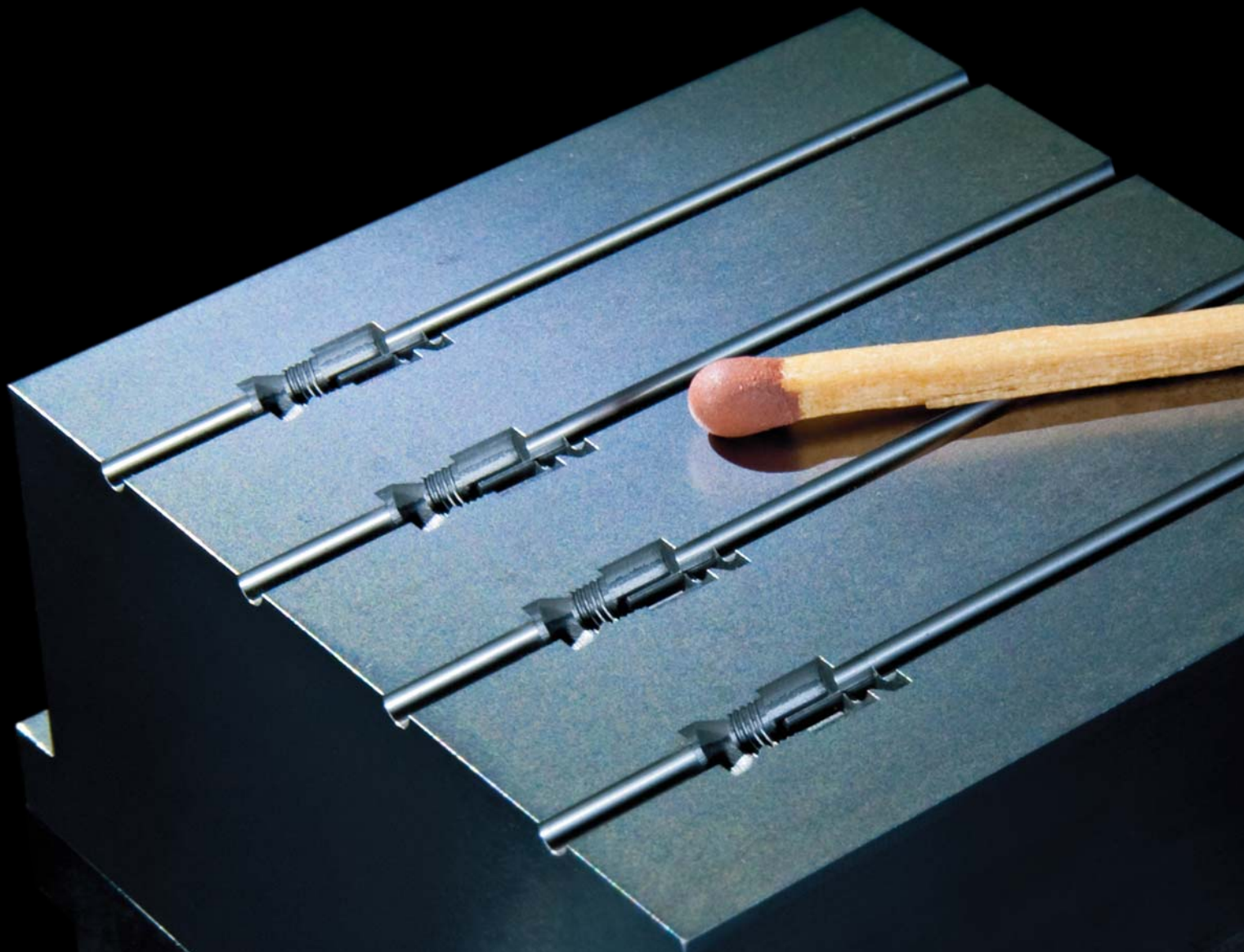


premacomp®

Precision Machining Competence



From the top of precision machining

ULTRASONIC – The technology of the future

Ultrasonic machining is used as a machining method for very hard to machine, special materials. The machining is performed with special diamond tools which doesn't only rotate but also oscillates in axial direction. This reduces process forces which enable manufacturing of thin walls, reduces micro-cracks in the material and surface qualities of $Ra < 0,2 \mu m$ can be achieved. The combination of Ultrasonic machining and 5-axis high speed milling enables to produce complex parts. Ultrasonic machining can be used to machine for instance carbide, technical ceramics, different kinds of glass materials etc. The 5-axis Ultrasonic machine is also suitable for high speed milling of normal steel materials. With this modern and dynamic machine very complex parts can be machined cost effective – and with excellent surface finish.

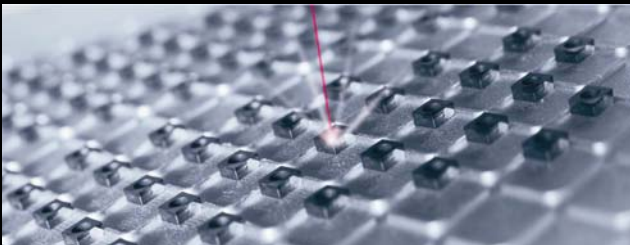
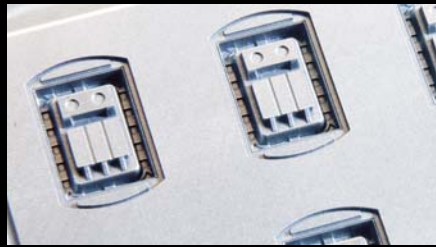
Hard to machine materials, examples:

- Aluminium oxide (Al_2O_3) • Silicon nitride (Si_3N_4) • Silicon carbide (SiC)
- Sapphire • Ruby • Glass • Glass ceramics • Zerodur • Quartz glass
- Zirkonium • Zirkonium oxide (ZrO_2) • Zirkonium carbide (ZrC) • Cobalt chrome (CoCr) • Carbide • Inconel • Titanium • Titanium silicon carbide (Ti_3SiC_2) • Boric nitride (CBN) • PCD



3D Laser ablation

3D laser ablation is used for precision machining of very small and complex forms – such as textures and engravings on cast molds and mold tools. Vertical walls are possible to machine by inclining the laser beam with multi axis technology. Also laser machining is suitable for hard to machine materials.





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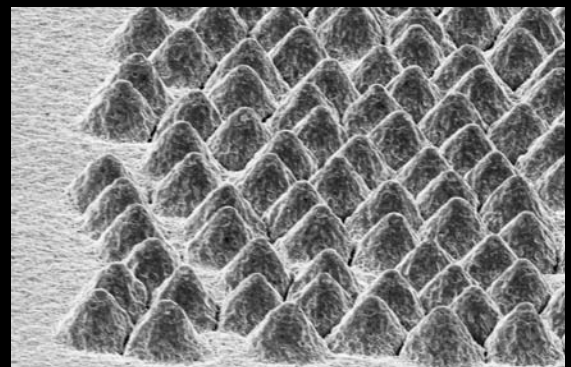
Wire cut machining

Wire cut machining is suitable for all materials with electrical conductivity. Our modern wire cut machines enable to cut all kinds of shapes with high precision.

Other CNC machining

Our modern machinery includes also the following machining methods:

- CNC milling
- CNC turning
- CNC grinding



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Premacomp – Precision Machining Competence is Oy Suomen EDM Abís trademark for machining services of small, delicate parts. As a speciality, we machine also hard to machine materials. We produce parts for many different lines of business such as mold makers, medicine industry, chemical and optical industry.

