

Founded in 1943, Posalux is a leading manufacturer of micro-technology machines intended for mass production. From our headquarters in Biel, Switzerland, we engineer and produce world-renowned system solutions.

Our clients are distinguished companies leading the automotive, electronic, watch, and medical industries. Thanks to our global network of Posalux branches and agents, we are able to provide reliable services and support to our customers worldwide.

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FEMTO-LASER

High-tech solution for guide plates μ -machining



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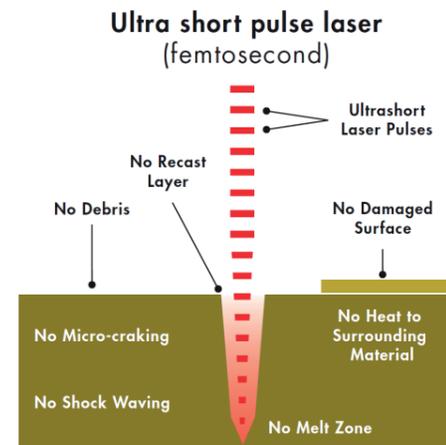
FEMTO MONO

THE MOST ADVANCED LASER SOLUTION IN THE MARKET

- High repetition rate and excellent beam quality
- Repeatability of hole quality
- Machine calibration accuracy $< \pm 1 \mu\text{m}$
- Process accuracy $\pm 2 \mu\text{m}$ (\pm Metrology equipment error MPE_XY)
- Unequaled productivity with higher yield rate
- Flexibility (drilling and routing)
- Wide range of materials (hard ceramics, polymers, copper and steel)
- No thermal effects (NAZ)
- Round, rectangular and any other hole shape capability
- Hole taper control
- Minimum diameters $\leq 20 \mu\text{m}$ with tight hole pitch (wall thickness $\leq 10 \mu\text{m}$)

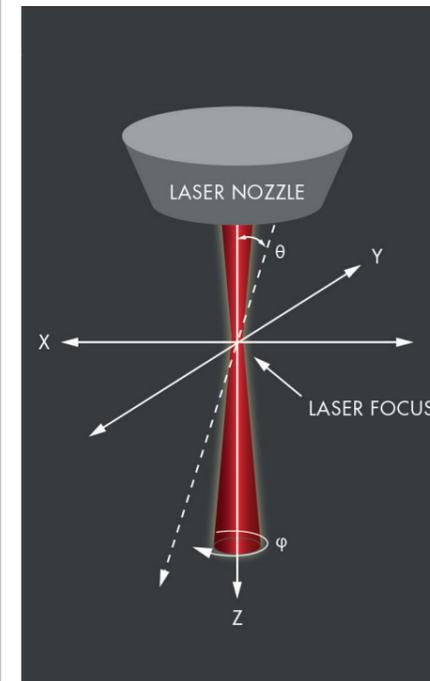
Technical highlights

- Ultrashort pulses laser source ($< 300 \text{ fs}$)
- Precession head with 5 optical axis
- High precision positioning X-Y table
- Interchangeable clamping devices
- Robust and multifunctional software
- Focal length measurement (autofocus)
- Powermeter for laser stability check
- Thermal stability control
- High resolution camera for repositioning jobs

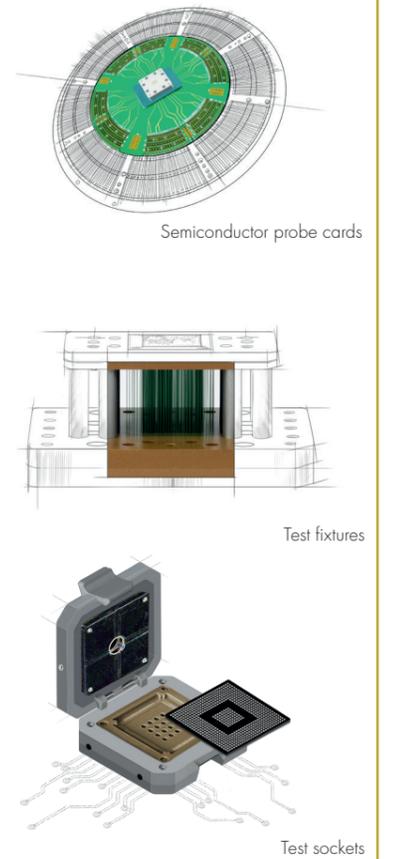


5-axis precession head

- Allows complete geometry achievement
- Avoids any damage on hole shapes



Electronic applications



<p>Square holes $25 \times 25 \mu\text{m}$ in Si_3N_4 Material thickness $300 \mu\text{m}$</p>	<p>Wall thickness $\leq 10 \mu\text{m}$ Corner radius $< 4 \mu\text{m}$</p>	<p>Round holes $\varnothing 30 \mu\text{m}$ in Si_3N_4 Wall thickness $< 10 \mu\text{m}$</p>	<p>Reference hole $\varnothing 2$ and 3 mm in ceramic or polymer material</p>
<p>Cloud holes in Photoveels IIs</p>	<p>Round holes $\varnothing 20 \mu\text{m}$ in Si_3N_4</p>	<p>Oblongs $\varnothing 80 - \varnothing 90 \mu\text{m}$ in Photoveel IIs</p>	<p>Round holes $30 \times 30 \mu\text{m}$ in PPS or S1000, material thickness $350 \mu\text{m}$</p>

Any kind of hole shapes on a wide range of materials