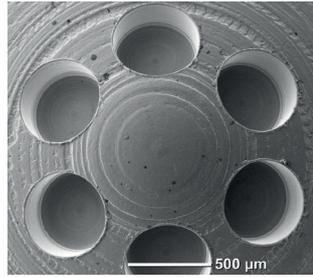


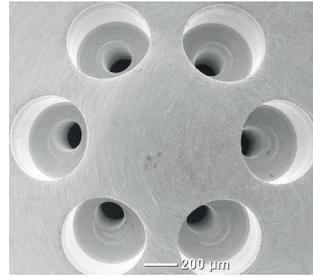
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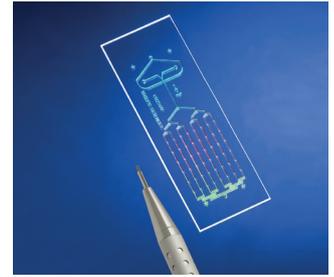
world design premiere of the newest EDM on EMO 2015



GDI nozzle step holes machined by Milling



GDI nozzle spray hole (smaller diameter) machined by FEMTO LASER (Laser-F)



lab-on-a-chip for cancer cell research (designed by Shilps Sciences Private Limited)

Posalux AG, Biel/Bienne, Switzerland

Custom solutions of micro-technologies for mass production

Hall 09
Booth
B10/C09

Founded in 1943, Posalux is a leading manufacturer of micro-technology machines intended for mass production. Posalux's clients are distinguished companies leading the automotive, electronic, watch, and medical industries.

Posalux engineers and produces world-renowned system solutions from their headquarters in Biel, Switzerland. Through a global network of branches and agents, Posalux provides reliable services and support to customers worldwide.

Visit us at EMO 2015 in Hall 09, Stand B10/C09. We proudly present the **newest generation of micro-erosion** in an innovative, ergonomic design. Having realized numerous considerable improvements, you receive genuine added value for your production, i.e. 30% higher productivity by shorter cycle times as well as more programming flexibility. In addition, the aggre-

gates are completely integrated. Additionally, we will be exhibiting following high-quality machines producing the illustrated working pieces:

Milling FP1

This mass production one spindle Milling machine is dedicated to a milling process in hard materials up to 67 HRC / 900 HV in order to achieve Milling \varnothing 0.1-2 mm (typical for step hole 0.3-0.6 mm). The Milling spindle is air bearing spindle with rotation up to 60.000 rpm (optional 100.000 rpm). Increased tool life up to 5.000 holes. The innovative spindle design reduces the vibration in the process. The cutting force is also optimized. The Milling FP1 is based on a dry machining technology. It has a suction system for extracting waste chips.

Laser-F (versions: MONO, TWIN, and COMBI)

This LASER Ultra short pulses FEMTO technology allows for

excellent surface roughness Ra 0.05 μ m (like polishing) drilling holes with diameter down to 90 μ m. The Laser-F shows flexibility in circular hole shapes machining (ellipses). With less than 2 s / hole the Laser-F offers a high productivity. Due to cold ablation, there is no heat transfer to surrounding material. Result: No deposits, no recasts, no micro-cracks. Moreover, you can work with a wide range of materials. The Mono FEMTO-Laser is a one head LASER machine with 6 axis for mass or lab production. The Twin FEMTO-LASER is fitted with twin stages and a linear system of 11 axis prepared for high dynamic and accurate motions. The COMBI version allows two operations in one: Laser & HD-Milling. It is an 8 axis machine including a deburring automatic tool loader.

SACE

Spark Assisted Chemical Engraving is a hybrid technology combining chemical and thermal mechanism

to micro-machine bur and debris free glass while keeping its optical transparency.

Since a few years glass has seen a real renaissance in several high tech applications such as in Micro-Electro-Mechanical Systems (MEMS) or Lab-on-Chip devices. Its unique properties, like optical transparency or chemical inertness, which are important for bio-sensing or optical printed-circuit-board manufacturing, makes it an interesting material.

Applications are in the field of micro-fluidics, opto-electronics, through glass vias and lab-on-a-chip devices.

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We are looking forward to your visit.

