



Release 1000

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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.

Notes:



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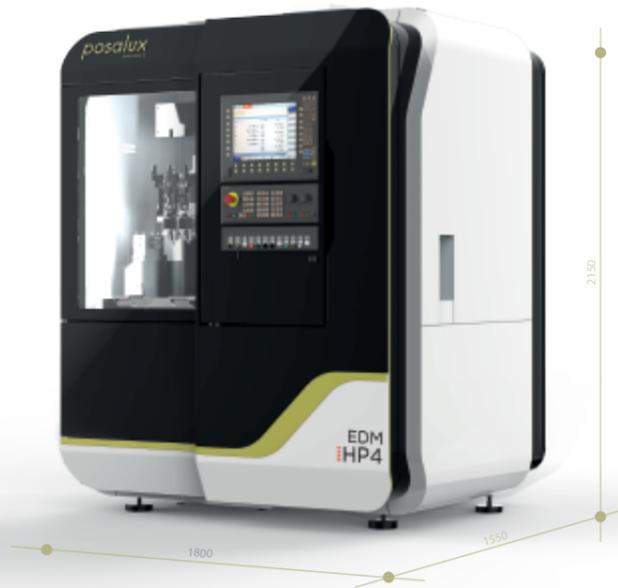
••• HP4
• FP1

Ultratechnologies for mass production

DESIGNED FOR MASS PRODUCTION

- High productivity
- High positioning accuracy
- Process stability
- Easy machine maintenance
- Multi spindle machine available
- Compact water deionization system
- Siemens 840D SL

HP4



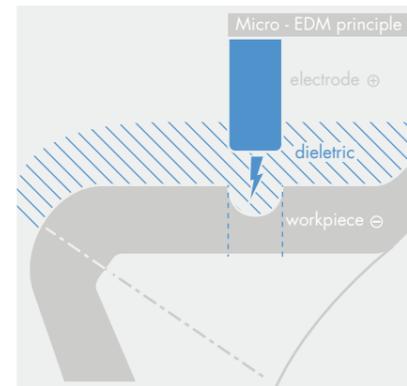
FP1

DESIGNED FOR FLEXIBLE SMALL BATCH PRODUCTION

- Prototyping small series machine
- High positioning accuracy
- Process stability
- Easy machine maintenance
- Single spindle
- Compact water deionization system
- Siemens 840D SL

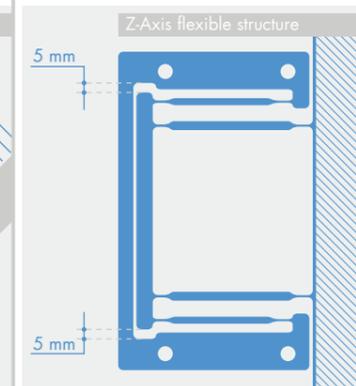
Micro-EDM

- Based on the electro erosion principle the integrated micro-EDM generator allows machining with shorter cycle times implying 30 % more productivity.
- The Posalux CN machine communicate with the micro-EDM generator interface with high-speed mode.



Electrode Management

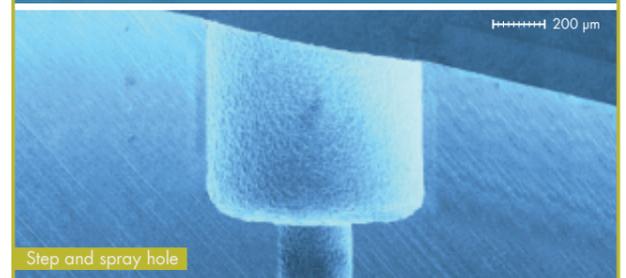
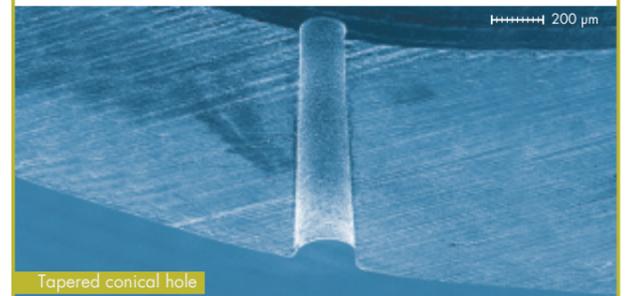
- The shifting and guiding collets precisely feed the smallest electrodes available in the market, down to 35 µm.
- Spindle rotation up to 3500 rpm for shortest erosion time.
- The erosion z-axis with parallelogram type flexible structure removes mechanical axis resonances.



- Possibility to machine with low energy to obtain surface finish with Ra < 0.2 µm.
- Filtration tank separated from the machine frame to eliminate all micro-vibrations.
- Setting of the electrode and the part fixture facilitated with screen integrated on camera and automatic positioning program.
- Decrease of leak check time by 50 %.
- New interactive HMI:
 - Real time monitoring of process parameters
 - More flexible programming possibilities
 - Storage and visualization of erosion time and electrode wear

Micro-Machining

- Hole diameter from 50 µm to 2 mm (0.002 to 0.08 inch)
- Tapered hole with reverse taper up to 150 µm/mm
- Wall thickness / hole diameter, ratio up to 12
- Without burrs and material deposit, no micro-cracks
- Smooth roughness : Ra < 0.2 µm ; Rz < 1 µm
- Example:
 - 6 holes application diameter 110 µm; thickness 0.85 mm
 - Actual erosion time 14.2 sec / hole; before 19.3 sec / hole -> 25 % improved
 - Actual cycle time 119.2 sec / 4 parts floor to floor; before 169.8 sec -> 35 % more productivity



- Automatic loading/unloading with 8 grippers
- Accurate clamping devices
- Short cycle times
- Customized software development
- Posalux technology support on micro-EDM parameters
- User interface options like MES, Flow measurement, traceability, etc.

Based on our profound experience in automotive applications we provide solutions for all high-end micro drilling needs

Innovation

Custom devices and support

EDM

micro-machining

