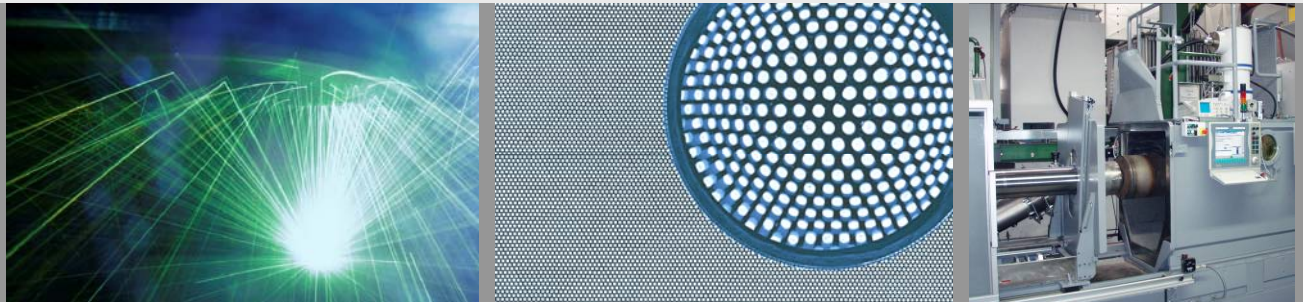


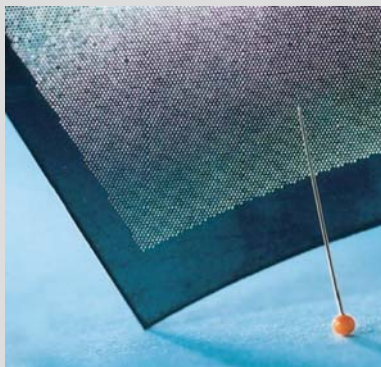
Fascination Electron Beam



Electron beam drilling: precise results at a high drilling frequency

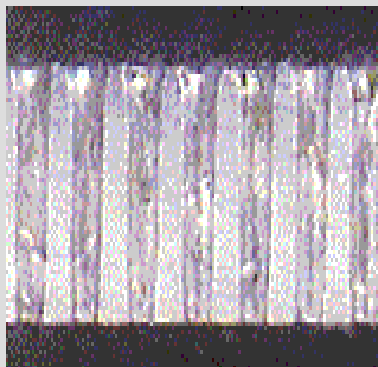
The electron beam is the typical technology for drilling many small holes in thick and tough materials.

"Many" means in this context 2.000 holes or more per machining cycle. By "tough" we particularly understand metal-based materials, but also other materials. All metal-based materials means of course that CrNi or Co alloys as well as titanium, aluminium or copper can be machined without any problem. As "small" holes we consider diameters ranging from 80 µm up to 5 mm in particular at an aspect ratio of up to 1:20. Open areas up to 25% are possible.



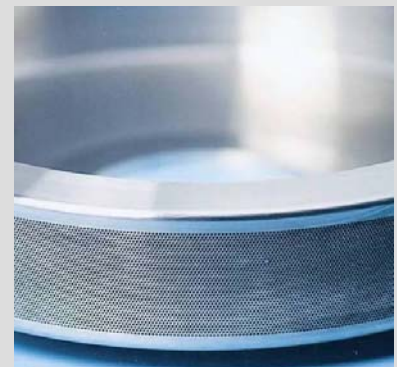
Food Industry (Tofu)

Material: 1.4301
 Thickness: 0.5 mm
 Diameter: 110 µm
 Open area: 12%
 Frequency: 2000 Hz
 (holes/second)



Pulp & Paper

Material: 316L (1.4404)
 Thickness: 3 mm
 Diameter: 0.2 mm
 Open area: up to 15%
 Frequency: up to 120 Hz
 (holes/second)



Insulating Industry

Material: 2.4879
 Thickness: 5 mm
 Diameter: 0.7 mm
 Open area: up to 22%
 Frequency: up to 40 Hz
 (holes/second)

CONTACT

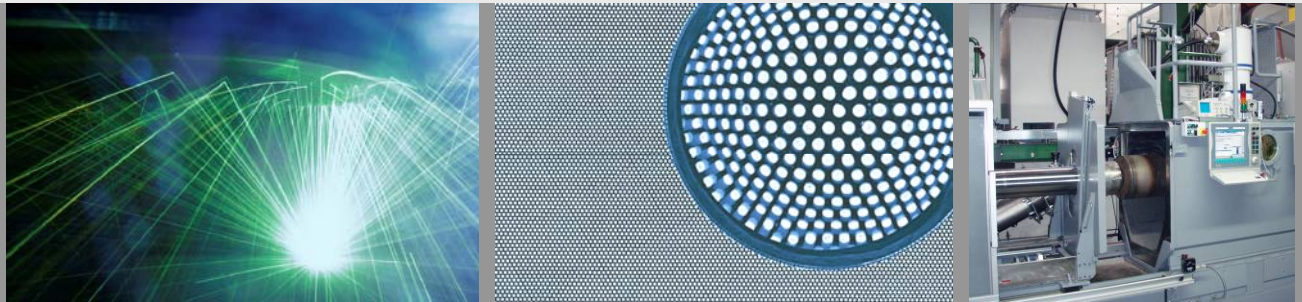
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Mr. Tobias Böhme, Dipl. Phys.

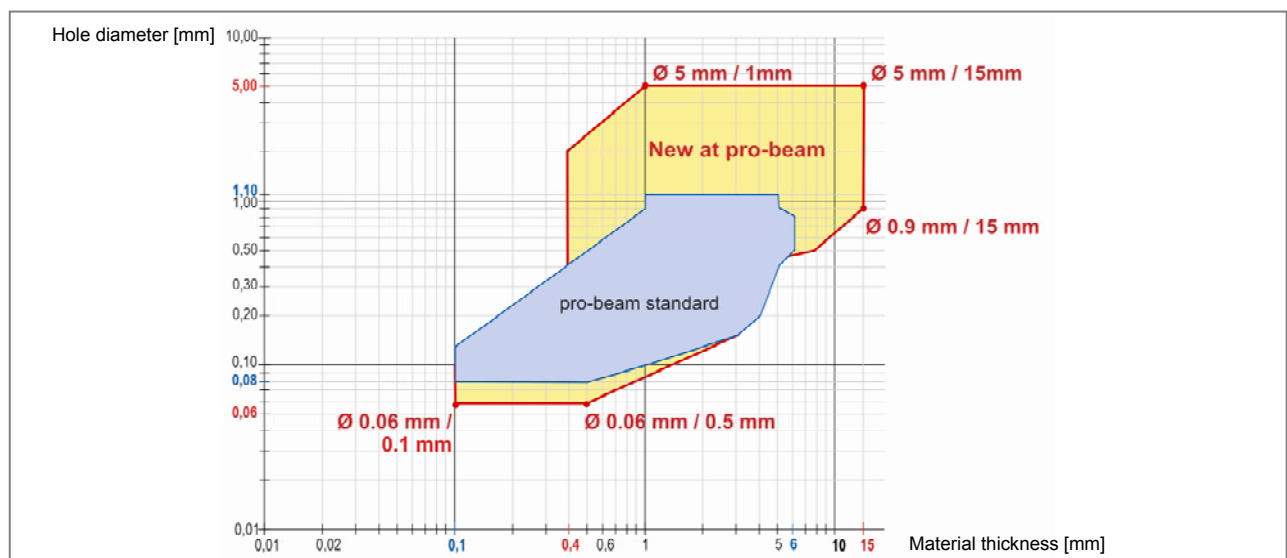
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Fascination Electron Beam



Feasibility: hole diameter depending of material thickness



Beyond the long term pro-beam standard we now offer drilling of material thickness more than 6 mm and hole diameters of up to 5 mm as well as down to 60 µm.

Typical markets and applications

- paper industry / pulp and paper
- food industry (starch, sugar, tofu)
- machinery / plant engineering (screens, filters, centrifuges)
- spinner disk / glass wool for insulation

Benefit of drilling with an electron beam:

- productivity: 10 to 3000 holes/second (depending on the size)
- precision: Outstanding reproducibility of hole diameter
- bore geometry: Hole shapes ranging from cylindrical to conical, including inclined angles to the surface, with depth/diameter ratios of up to 20:1

CONTACT

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