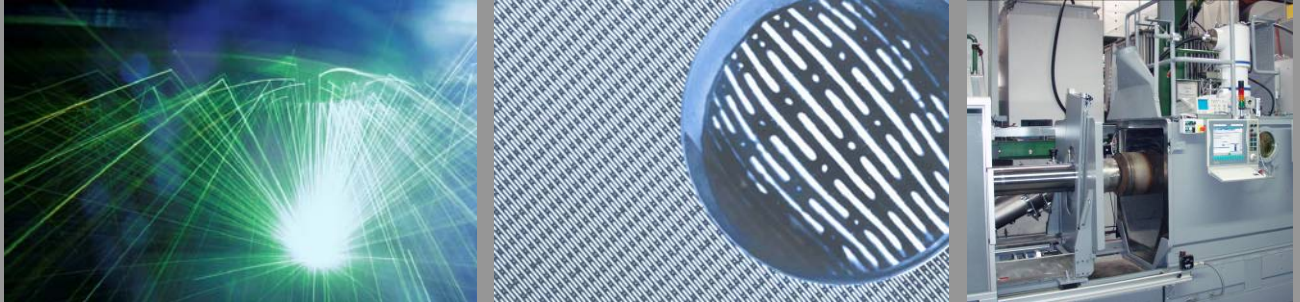


Fascination Electron Beam



New: thin slots in thick material

With the new opportunities offered by fast beam deflection in modern perforation systems, we can produce various slot shapes by means of a defined beam spot.



Stainless steel: 0,5 mm
Slots: 5 mm x 150 µm, open area: 18%



Stainless steel: 3,0 mm
Slots: 3 mm x 180 µm, open area: 18%

The challenge in filtration and separation processes

In many filtration and separation processes, the substrates often lead to rapid clogging of the round holes and thus to obstruction of the available screen area.

As an alternative hole shape, slots can improve matters because slotted holes and slots are rarely completely covered and therefore the flow is maintained.

However, filtration with slot-type screens was previously only possible by using very thin sheets of low strength together with elaborate support structures (e.g. 0.4 mm Ni-screen, 1 mm laser screens), or by using gap screens with the related disadvantage of the small open area.

CONTACT

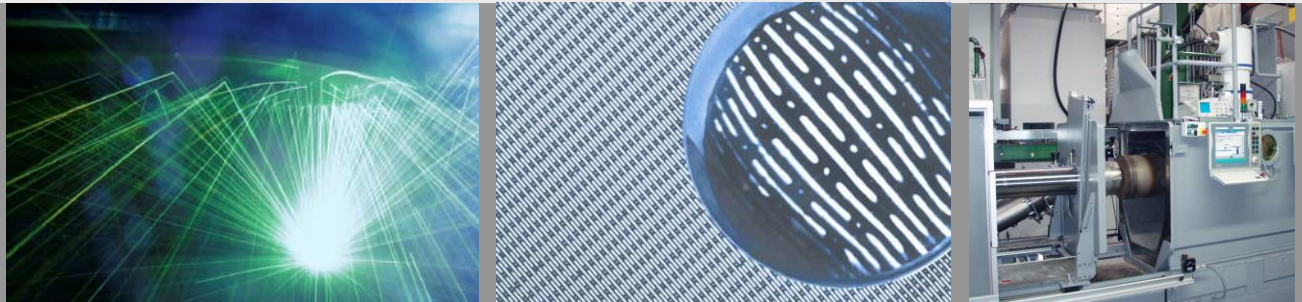
pro-beam AG & Co. KGaA

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Fascination Electron Beam



The pro-beam solution

Electron beam drilled slot screens with material thicknesses up to 4 mm.

Benefits

- no support structures such as cages are required
- longer screen life because of thicker material
- higher process pressures thanks to greater screen rigidity
- larger open area compared to gap screens
- less clogging of the slots compared to round holes

Markets and applications

- paper industry / pulp and paper (replacement of gap screens)
- food industry (starch / sugar)
- machinery / plant engineering (screens, filters, centrifuges)

Feasibility summary

Material thickness	Slot width (minimum)	Slot length	Open area (maximum)	
0.5 mm	100 μ m	2-5 mm	8%	12%
1.0 mm	120 μm	2-5 mm	15%	
2.0 mm	150 μm	2-5 mm	18%	
3.0 mm	180 μm	2-5 mm	18%	
4.0 mm	220 μm	2-5 mm	18%	

State of the art
 pro-beam technology

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