

Title (en)
SEPARATION DEVICE IN THE HIGH-GRADIENT MAGNETIC SEPARATION TECHNIQUE

Publication
EP 0050281 B1 19850522 (DE)

Application
EP 81108146 A 19811009

Priority
DE 3039171 A 19801016

Abstract (en)
[origin: US4432873A] A high gradient magnetic separating device contains a filter structure with a stack of wire screens, arranged closely, one behind the other, of noncorroding ferromagnetic material with a predetermined mesh size and wire thickness. The filter structure is arranged between two parts, forming the magnetic poles, of a ferromagnetic yoke of a magnetic device. The flow direction of the medium to be filtered through the filter structure and the direction of the magnetic field are arranged perpendicular to the wire screens. To prevent turbulence at high flow velocities, which causes inhomogeneous separation, at least on the inlet side of the filter structure, magnetic field carrying elements of ferromagnetic material are connected to the corresponding yoke part and extend up to the filter structure, the elements distributed at least approximately uniformly over the entrance surface of the filter structure, and the total cross-sectional area of the elements occupying approximately between 1/4 and 1/2 of the entrance area.

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IPC 8 full level
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CPC (source: EP US)
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