

Title (en)

METHOD AND DEVICE FOR THE CENTRIFUGAL SEPARATION OF FINE-GRAINED MINERAL MIXTURES

Publication

EP 0163112 A3 19871104 (DE)

Application

EP 85104851 A 19850422

Priority

CH 212984 A 19840502

Abstract (en)

[origin: US4673491A] Separating elements (14) arranged about a central shaft (1a) rotate in common about the main axis (A) and individually about their longitudinal axes (B). A centrifugal distributor (6) distributes fine-grain mineral mixture mixed with fluid uniformly to the separating elements (14). In each separating element (14) the partial material flow (2a) is set in rotation about the longitudinal axis (B) by entrainment vanes (18) arranged in a first separating element section (15a) and the heavy fraction is centrifuged on to the separator wall (16a). In the second section (15b), formed as conical tubular worm conveyor, which contains no entrainment vanes, the heavy fraction is transported to the collecting chamber (21) and discharged through first discharge openings (22), the fine-grain mineral mixture being fluidized in pulsation on the separating wall (16b) by the combined rotating movements and the heavy fraction being concentrated. From an annular chamber (26) fluid can be injected into the second section (15b) and the heavy fraction can thus be still further purified. A displacement body (24) guides the light fraction and fluid to second discharge openings (23). The separator apparatus is axially movably mounted and is set in axially oscillations by means of a wobble plate (31). Due to the collaboration of the movements a continuous separation of fine-grain mineral mixture is guaranteed without blockage of the apparatus.

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Citation (search report)

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