Title (en)

CYCLONE SEPARATOR WITH TWO SEPARATOR CHAMBERS AND STATIC GUIDE DEVICES

Publication

EP 0215075 B1 19890614 (DE)

Application

EP 86901811 A 19860319

Priority

- DE 3509789 A 19850319
- DE 3607023 A 19860304

Abstract (en)

[origin: WO8605417A1] The cyclone contains an immersible pipe column (5, 6, 7) which encloses the cyclone axis (1) to the entire height of the separation chamber (h). The pipe column is mounted in the vortex core of the conventional cyclone, and penetrates the conventional solid material collection chamber (2a). Through this, the external twisted flow in the external separation chamber (3a) as well as the internal twisted flow in the secondary separation chamber, concentrated in the immersible pipe column (3b) are stabilized in combination with a return flow-free solid material removal device (4). Under strong twisted flow an additional separation process with axial return flow (18) from the twisting pipe (17) takes place in a secondary solid material collection chamber (2b). The individual components of the immersible pipe column consist of the conventional immersible pipe (5), a slotted immersible separation pipe (6) mounted downward in its axial prolongation, and a central immersible pipe (7) mounted downward of the preceding pipe (6), on which the secondary solid material collection chamber (26) is flange mounted. The immersible suction separation pipe (6) serves as a feeder device for the twisting pipe (17) and contains four parallel walled, bent, inlet channels (10) evenly distributed around the circumference of the immersible pipe, each with a straight inlet edge (9), which have a speeding-up effect on the flow. Recovery of the kinetic energy of the twisting flow is effected by means of an exit spiral (8) above the cyclone cover (13).

IPC 1-7

B04C 5/02; B04C 5/103; B04C 5/12; B04C 5/14; B04C 5/181; B04C 5/26

IPC 8 full level

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CPC (source: EP US)

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Cited by

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