

Title (en)

Method and device for separating fine-grained solids into two grain size fractions

Title (de)

Verfahren und Vorrichtung zur Trennung eines feinkörnigen Feststoffes in zwei Kornfraktionen

Title (fr)

Procédé et dispositif pour séparer des matières solides à grains fins en deux fractions granulométriques

Publication

**EP 0638365 B1 19990526 (DE)**

Application

**EP 94112005 A 19940801**

Priority

DE 4326605 A 19930807

Abstract (en)

[origin: US5894935A] Method and device for separating a fine-grained solid material into a fines fraction and a coarse fraction at a cut point size of below 50  $\mu$  m, preferably below approx. 10  $\mu$  m. The fine-grained solid is dispersed in a liquid capable of forming drops and this dispersion is forced into a defined sink flow with a superimposed rotational flow that is generated independently from the sink flow. The relationship between the two rates, namely the sink flow rate and the rotational flow rate, is dictated by the cut point size. The device includes a deflector wheel which has a direction of flow from the outside to the inside, and vanes are fitted in the wheel parallel to its rotational axis to form flow channels, whereby the feed dispersion is charged to the deflector wheel at its outer periphery.

IPC 1-7

**B03B 5/60**

IPC 8 full level

**B03B 5/28** (2006.01); **B03B 5/32** (2006.01); **B03B 5/60** (2006.01); **B07B 7/083** (2006.01)

CPC (source: EP KR US)

**B03B 5/32** (2013.01 - EP US); **B03B 5/60** (2013.01 - EP KR US); **B04B 3/04** (2013.01 - KR); **B04C 5/18** (2013.01 - KR); **B07B 7/083** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)

**US 5894935 A 19990420**; AT E180420 T1 19990615; CN 1056787 C 20000927; CN 1122262 A 19960515; DE 4326605 A1 19950209; DE 59408302 D1 19990701; EP 0638365 A2 19950215; EP 0638365 A3 19950913; EP 0638365 B1 19990526; EP 0638365 B2 20031126; ES 2134296 T3 19991001; JP 2752585 B2 19980518; JP H07155638 A 19950620; KR 0148400 B1 19981116; KR 950005382 A 19950320; TW 259722 B 19951011

DOCDB simple family (application)

**US 28603794 A 19940804**; AT 94112005 T 19940801; CN 94116159 A 19940805; DE 4326605 A 19930807; DE 59408302 T 19940801; EP 94112005 A 19940801; ES 94112005 T 19940801; JP 18467494 A 19940805; KR 19940019375 A 19940805; TW 83106983 A 19940730