

Title (en)

DEVICE FOR SEPARATING SOLIDS PARTICLES FROM THE GAS FLOW OF A FLUID BED

Title (de)

TRENNVORRICHTUNG ZUM ABSCHIEDEN VON FESTSTOFFPARTIKELN AUS DEM GASSTROM EINER WIRBELSCHICHT

Title (fr)

DISPOSITIF DE SEPARATION POUR SEPARER DES PARTICULES SOLIDES CONTENUES DANS LE COURANT GAZEUX D'UN LIT FLUIDISE

Publication

EP 0817943 A1 19980114 (DE)

Application

EP 97902297 A 19970203

Priority

- DE 19604565 A 19960208
- EP 9700464 W 19970203

Abstract (en)

[origin: DE19604565A1] The invention concerns a device for separating solids particles from a gas flow of a circulating fluid bed reactor (1), the solids particles being conveyed in this gas flow. Means are provided which influence the gas flow such that centrifugal and gravitational forces which are greater than the gas flow entrainment forces act on the solids particles, so enabling particles of a given minimum size to be separated from the gas flow. According to the invention, the structure of the circulating fluid bed plant is rendered particularly compact in that the gas flow leaving the circulating fluid bed reactor (1) passes to a flow duct (4) which guides said flow about a horizontal cyclone axis (16) on a circular arc (17) in the downward direction. From here, the gas flow is delivered to a transfer duct (7) suitable for conveying it further. In the vertical direction the flow duct (4) merges into a separation chamber (15) which widens in corresponding manner at the bottom and in which the separated solids particles drop to the bottom.

IPC 1-7

F23C 11/02; **F23J 3/04**

IPC 8 full level

B01D 45/12 (2006.01); **B01J 8/00** (2006.01); **B01J 8/18** (2006.01); **B01J 8/38** (2006.01); **B04C 1/00** (2006.01); **B04C 7/00** (2006.01); **B07B 7/086** (2006.01); **F23C 10/10** (2006.01); **F23J 15/02** (2006.01)

CPC (source: EP US)

B01J 8/0055 (2013.01 - EP US); **B01J 8/1836** (2013.01 - EP US); **B01J 8/386** (2013.01 - EP US); **B04C 1/00** (2013.01 - EP US); **B04C 7/00** (2013.01 - EP US); **B07B 7/086** (2013.01 - EP US); **F23C 10/10** (2013.01 - EP US); **F23J 15/027** (2013.01 - EP US); **B01J 2208/00256** (2013.01 - EP US); **F23C 2206/101** (2013.01 - EP US); **F23J 2900/15026** (2013.01 - EP US)

Citation (search report)

See references of WO 9729324A1

Designated contracting state (EPC)

AT DE FR GB IT SE

DOCDB simple family (publication)

DE 19604565 A1 19970814; EP 0817943 A1 19980114; ID 15924 A 19970821; JP H11504261 A 19990420; US 5878892 A 19990309; WO 9729324 A1 19970814

DOCDB simple family (application)

DE 19604565 A 19960208; EP 9700464 W 19970203; EP 97902297 A 19970203; ID 970371 A 19970206; JP 52812597 A 19970203; US 94671697 A 19971008