

Title (en)

APPARATUS FOR HEAT TREATING, PARTICULARLY DRYING OF PULVERIZED BULK MATERIAL

Publication

EP 0039039 B1 19840718 (DE)

Application

EP 81103003 A 19810418

Priority

DE 3016448 A 19800429

Abstract (en)

[origin: US4439932A] A method for thermal treatment, especially drying, of finely particulated bulk material comprises the steps of stirring the material in a reactor by means of a rotating stirrer while simultaneously discharging a heated gas under pressure through openings in a hollow arm of the stirrer so as to form in the reactor a whirling fluidized bed from the material, and introducing the necessary amount of heat for the thermal treatment of the material at least in part through a heat exchanger extending into the whirling fluidized bed. The apparatus for carrying out the method mainly comprises an arrangement for feeding the material through an inlet into a reactor forming a whirling chamber in which a rotating stirring device is arranged having at least one hollow stirring arm provided with openings through which a preferably heated gas under pressure is discharged into the material so as to form a whirling fluidized bed in the reactor, a heat exchanger extending through the fluidized bed, and an outlet for discharging the gas and treated material from the reactor. The reactor may also include an arrangement extending into the whirling fluidized bed for retarding flow of the material from the inlet to the outlet of the reactor, which arrangement may be constituted by a heat exchanger of lamellar construction so that the material will pass in cascades through the reactor.

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IPC 8 full level

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CPC (source: EP US)

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Cited by

DE102015121619B4; CN102393127A; EP0343817A3; CN112361719A; CN107894157A; EP0819902A1; CN113028788A; DE102015121619A1; EP0819904A1; EP0686253A4

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