

Title (en)
DEVICE FOR THE SELECTIVE GRANULOMETRIC SEPARATION OF SOLID POWDERY MATERIALS USING CENTRIFUGAL ACTION, AND METHOD FOR USING SUCH A DEVICE

Title (de)
VORRICHTUNG ZUR SELEKTIVEN GRANULOMETRISCHEN TRENNUNG VON FESTPULVERMATERIALIEN MITHILFE EINER ZENTRIFUGALOPERATION SOWIE VERFAHREN ZUR VERWENDUNG EINER SOLCHEN VORRICHTUNG

Title (fr)
DISPOSITIF DE SÉPARATION GRANULOMÉTRIQUE SÉLECTIVE DE MATIÈRES PULVÉRULENTES SOLIDES, À ACTION CENTRIFUGE, ET PROCÉDÉ D'UTILISATION D'UN TEL DISPOSITIF

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Application
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Abstract (en)
[origin: CA2750690A1] The invention relates to a device for the selective granulometric separation of solid powdery materials using centrifugal action, capable of separating materials into two fractions, i.e. a fine material fraction and a coarse material fraction, including: a housing (6), a cylindrical rotor (2) which is rotatable, relative to said housing, about a vertical axis inside said housing and provided with blades (3) evenly distributed on the periphery of an upper outlet opening through which a stream of gas, laden with particles having a size lower than a predetermined particle size, is drawn, a set of vertical adjustable vanes evenly distributed about the rotor along the generatrices of a virtual cylinder and directing the gas stream towards the rotor, means for feeding the particles between the vanes and the rotor, collecting means lower than the rotor for collecting the unfed particles having fallen and having a size larger than the predetermined particle size. According to the invention, said collecting means includes a peripheral system with a fluidised bed, wherein the bed extends about the rotor axis, at least underneath said vanes and the gap between the vanes (7) and the rotor (2), the speed of the fluidisation gas in a horizontal section of the fluidised bed being lower than 1 m/s so as to induce another separation of the fine materials and of the coarse materials in which said fine materials are fed back into the gap between said areas and said rotor.

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