

Title (en)

APPARATUS AND METHOD FOR CIRCULAR VORTEX AIR FLOW MATERIAL GRINDING

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ZERKLEINERUNG VON MATERIAL MITTELS TURBULENTER LUFTSTRÖMUNG

Title (fr)

INSTALLATION ET METHODE DE BROYAGE DE MATERIAUX AVEC ECOULEMENT TOURBILLONNAIRE DE L'AIR

Publication

**EP 1194242 B1 20081217 (EN)**

Application

**EP 00916384 A 20000316**

Priority

- CA 2357938 A 20010928
- US 0006853 W 20000316
- US 12557099 P 19990323

Abstract (en)

[origin: WO0056460A1] A material grinding apparatus (10) includes an annular upper enclosure (12) defining an upper chamber (34) into which material to be ground is introduced from above, a conical lower enclosure (14) defining a lower chamber (36) and supported in tandem with the upper enclosure (12), and one or more angled slots (56) defined in the sidewall of the upper enclosure (12) through which compressed air is introduced relatively circumferentially into the upper chamber (34) so as to generate a circular vortex flow of air and material in the upper enclosure (12) for grinding and drying to take place. The air flow is exhausted by a pipe (92) through an upper end of the upper enclosure (12) and the dried ground material is discharged through an open lower end of the lower enclosure (14). The lower enclosure (14) is a downward continuation and extension of the upper enclosure (12) so as not to extend upwardly into nor past the upper chamber (34) thereof.

IPC 8 full level

**B02C 19/06** (2006.01); **F26B 17/10** (2006.01)

CPC (source: EP)

**B02C 19/061** (2013.01); **F26B 17/107** (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 0056460 A1 20000928**; AT E417668 T1 20090115; AU 3749300 A 20001009; AU 773852 B2 20040610; CA 2357938 A1 20030328; CA 2367908 A1 20000928; CA 2367908 C 20070821; DE 60041136 D1 20090129; DK 1194242 T3 20090406; EP 1194242 A1 20020410; EP 1194242 A4 20061025; EP 1194242 B1 20081217; ES 2319851 T3 20090514; MX PA01009555 A 20030819

DOCDB simple family (application)

**US 0006853 W 20000316**; AT 00916384 T 20000316; AU 3749300 A 20000316; CA 2357938 A 20010928; CA 2367908 A 20000316; DE 60041136 T 20000316; DK 00916384 T 20000316; EP 00916384 A 20000316; ES 00916384 T 20000316; MX PA01009555 A 20000316