

Title (en)

Apparatus for extracting heat from a hygroscopic pulverulent material with a temperature lower than 100 degrees centigrade.

Title (de)

Vorrichtung zum Entziehen von Wärme aus einem hygroskopischen körnigen Material mit einer Temperatur unter 100 Grad Celsius.

Title (fr)

Dispositif pour l'extraction de la chaleur d'un matériau pulvérulent hydrophile au-dessous de 100 degrés C.

Publication

**EP 0047914 A1 19820324 (FR)**

Application

**EP 81106805 A 19810901**

Priority

FR 8019093 A 19800904

Abstract (en)

[origin: ES8206823A1] Spray nozzles (16, 18, 20) inject just sufficient water to produce the desired cooling of hot powdered substance by evaporation of the water. The water is sprayed finely and uniformly onto said substance to avoid wet lumps agglomerating. The substance comes from a hopper (2), and flows through the apparatus in the opposite direction to a drying gas flow from inlet (21) to a condenser (22) where the heat is recovered from the water vapor. Application to recycling foundry sand and, more generably, to using sand which has been heated.

Abstract (fr)

Dispositif pour l'extraction de la chaleur d'un matériau pulvérulent hydrophile au-dessous de 100°C. On pulvérise finement et uniformément, à l'aide de pulvérisateurs (16, 18, 20) sur le matériau chaud provenant d'une trémie (2), la quantité d'eau juste nécessaire pour assurer son refroidissement par évaporation ultérieure de l'eau dans un courant d'air. Application au recyclage du sable de fonderie et, plus généralement à l'utilisation de sable qui a été chauffé.

IPC 1-7

**B22C 5/08**; **F28C 3/16**

IPC 8 full level

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CPC (source: EP US)

**B22C 5/08** (2013.01 - EP US); **F28C 3/14** (2013.01 - EP US); **F28C 3/16** (2013.01 - EP US)

Citation (search report)

- US 3205543 A 19650914 - MORRIS JOHN M, et al
- US 3161485 A 19641215 - ERWIN BUHRER
- US 2863190 A 19581209 - ERWIN BUHRER
- DE 942271 C 19560503 - METALLGESELLSCHAFT AG
- DE 2540124 A1 19760422 - GEN KINEMATICS CORP
- [A] US 3172177 A 19650309 - BRAUCHLA HERBERT C

Designated contracting state (EPC)

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DOCDB simple family (publication)

**EP 0047914 A1 19820324**; **EP 0047914 B1 19850102**; AT E11017 T1 19850115; BR 8105611 A 19820518; CA 1162842 A 19840228; DE 3168042 D1 19850214; ES 505181 A0 19820816; ES 8206823 A1 19820816; FR 2489489 A1 19820305; FR 2489489 B1 19840427; MA 19259 A1 19820401; US 4377937 A 19830329

DOCDB simple family (application)

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