

Title (en)

Device for performing controlled melting of a material

Title (de)

Vorrichtung zur Gewährleistung des kontrollierten Schmelzens eines Materials

Title (fr)

Dispositif permettant d'assurer la fusion contrôlée d'un matériau

Publication

**EP 2083240 B1 20120321 (FR)**

Application

**EP 09290055 A 20090127**

Priority

FR 0800424 A 20080128

Abstract (en)

[origin: EP2083240A1] The fusion device comprises an enclosure (3) connected to a thermostated chamber (4) receiving a molten material (2) in its lower part, a grid (6) formed by heating elements for separating the enclosure from the thermostated chamber, and a unit to prevent the passage of grains from the material through the grid. The heating elements of the grid are parallel tubes (7) or hollow components within which a coolant reaches a temperature greater than the melting temperature of the material. The thermostated chamber is maintained in a temperature by a hot casing (5) covering walls of the chamber. The fusion device comprises an enclosure (3) connected to a thermostated chamber (4) receiving a molten material (2) in its lower part, a grid (6) formed by heating elements for separating the enclosure from the thermostated chamber, and a unit to prevent the passage of grains from the material through the grid. The heating elements of the grid are parallel tubes (7) or hollow components within which a coolant reaches a temperature greater than the melting temperature of the material. The thermostated chamber is maintained in a temperature by a hot casing (5) covering walls of the chamber. The bottom of the enclosure is heated by the casing. The tubes are connected at each end to a connection casing, which is connected to the hot casing, and have a triangular section. A tip of the triangle is directed towards the enclosure, and a base of the triangle opposite to the tip is directed towards the thermostated chamber. The unit to prevent the passage of grains comprises non-joint coil springs, which are placed in slits separating the tubes. The slit has an overall dimension of less than the dimension of grains.

IPC 8 full level

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CPC (source: EP)

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