

Title (en)
Cooling element for molten material

Title (de)
Abkühlelement für Flüssigschmelzen

Title (fr)
Élément de refroidissement pour matériau en fusion

Publication
EP 1160531 A3 20031105 (DE)

Application
EP 01113315 A 20010531

Priority
DE 10027437 A 20000602

Abstract (en)
[origin: EP1160531A2] Cooling element has integrated surface cooling devices in the form of cooling boreholes or channels (1) arranged inside the cooling element to receive a primary cooling medium (2). The surface of the cooling element facing the liquid melt has longitudinal recesses (3) for receiving a secondary cooling medium. The recesses run parallel to the cooling channels. Preferred Features: The cooling element has one or more boreholes (5) connected to the recesses for distributing the secondary cooling medium into the recesses. The primary cooling medium is a molten metal such as a bismuth (alloy) melt. The secondary cooling medium is an inert gas such as nitrogen, a liquefied gas, a moist gas or an inert powder.

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F28F 3/12; **C21D 1/00**

IPC 8 full level
C21C 5/46 (2006.01); **F27D 1/12** (2006.01)

CPC (source: EP)
C21C 5/4646 (2013.01); **F27D 1/12** (2013.01); **F28D 9/0037** (2013.01); **F28F 3/12** (2013.01); **F28F 9/026** (2013.01)

Citation (search report)

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