

Title (en)

ELECTROMAGNETIC STIRRING METHOD FOR CRYSTALLISERS AND RELATIVE CRYSTALLISER

Title (de)

ELEKTROMAGNETISCHES REHRVERFAHREN FÜR STRANGGIESSKOKILLEN UND SPRECHENDE KOKILLE

Title (fr)

PROCEDE DE BRASSAGE ELECTROMAGNETIQUE POUR CRISTALLISATEURS ET CRISTALLISATEUR ASSOCIE

Publication

EP 1001862 A1 20000524 (EN)

Application

EP 98929575 A 19980709

Priority

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- IT UD970122 A 19970710

Abstract (en)

[origin: WO9902286A1] Electromagnetic stirring method for crystallisers, of the type including plates or based thereon, employed in the continuous casting of billets, blooms, slabs, round pieces, the method employing means to generate a magnetic field interacting with the metal cast inside the crystalliser, the method including the circulation of electric currents (13) directly along the sidewalls of the crystalliser (10), the principal component of the currents (13) having a direction parallel to the casting axis (12) of the crystalliser (10) and a desired direction and intensity, the currents (13) generating electromagnetic forces with a direction perpendicular to the casting axis (12) with the function of obtaining a separation of the skin of the solidifying metal from the sidewall of the crystalliser and a consequent reduction in the friction between the skin and the sidewall. Crystalliser to achieve the method as above whereby each plate element (11), or each group of plate elements (11), is electrically insulated lengthwise from the adjacent plate elements (11), or the adjacent group of plate elements (11), and is associated with its own electric power supply means generating an electric current (13) whose principal component has a direction parallel to the casting axis (12) of the crystalliser (10) and the desired intensity and direction.

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