

Title (en)  
METHOD AND ARRANGEMENT FOR PRODUCING CASTING MOULDS FROM METAL

Title (de)  
VERFAHREN UND ANORDNUNG ZUM HERSTELLEN VON GUSSKÖRPERN AUS METALL

Title (fr)  
PROCEDE ET DISPOSITIF DE FABRICATION DE CORPS COULES EN METAL

Publication  
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Application  
**EP 00936838 A 20000531**

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Abstract (en)  
[origin: DE10026816A1] The invention relates to a method for producing essentially segregation-free and especially freckle-free casting moulds from metal, especially high-alloy steels as well as Ni and Co base alloys having great dimensions, according to an electroslag melting or casting method and using a short, electrically conductive, water-cooled chill mould (10). Electrically conductive elements (16) which are not directly water-cooled are mounted in the wall of said chill mould in an electrically insulated manner in relation to the component of the chill mould (10), whereby said component forms the casting mould. An essentially segregation-free and freckle-free bloom (24) of a surface cross-section that amounts to not more than 90 % of said component of the chill mould (10) is arranged in said chill mould, whereby said component forms the casting mould. The bloom is connected to the supplied metal by means of a slag bath (31) which is heated by the current passage and is situated in the area of the electrically conductive elements (16) and by continually pouring liquid metal (34) in a dosing manner or by supplying solid metal, in the form of granulated metal or rods for instance, that melts open in the hot slag bath (31). The level of the slag (32) in the chill mould (10) is approximately held constant by means of a relative movement between the chill mould (10) and the bloom (24) until the bloom (24) is radially doubled in the desired length. This process involving the doubled bloom (24) and a chill mould (10) of greater dimension is repeated once or several times until the desired final dimension of the casting mould is obtained.

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