

Title (en)  
CONTINUOUS CASTING INSTALLATION FOR THE ELECTROMAGNETIC ROTATION OF MOLTEN METAL MOVING INSIDE THE NOZZLE

Title (de)  
STRANGGUSSANLAGE ZUR ELEKTROMAGNETISCHEN DREHUNG VON SICH IN DER DÜSE BEWEGENDER METALLSCHMELZE

Title (fr)  
INSTALLATION DE COULEE CONTINUE POUR UNE MISE EN ROTATION ELECTRO-MAGNETIQUE DU METAL LIQUIDE EN TRANSIT DANS LA Busette de coulee

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Application  
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Abstract (en)  
[origin: WO2005002763A2] The invention relates to a continuous casting installation for metals, particularly steel, in which the submerged nozzle (8) is surrounded by an annular electromagnetic inductor (1) with a magnetic field that rotates around the casting axis, which is intended to drive the molten metal in axial rotation therewith. The invention is characterised in that the aforementioned inductor is of the polyphase type with a magnetic field passing therethrough and is equipped with a pair of projecting poles (3) per phase. Moreover, the end of each projecting pole opposite the nozzle is provided with a lateral narrowing (12) which increases the distance separating the polar ends (4). In this way, the inductor is extremely compact and very powerful and can deliver an intense traversing field into the central part of the nozzle, using a high-frequency primary current, such as to produce the effective rotation of the molten metal moving therein. The invention is particularly suitable for the continuous casting of slabs, using a submerged nozzle with lateral outlets.

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