

Title (en)

METHOD AND DEVICE FOR OPTIMIZING THE COOLING CAPACITY OF A CONTINUOUS CASTING MOLD FOR LIQUID METALS, PARTICULARLY FOR LIQUID STEEL

Title (de)

VERFAHREN UND VORRICHTUNG ZUM OPTIMIEREN DER KÜHLKAPAZITÄT EINER STRANGGIESSKOKILLE FÜR FLÜSSIGE METALLE, INSBESONDERE FÜR FLÜSSIGEN STAHL

Title (fr)

PROCEDE ET DISPOSITIF POUR OPTIMISER LA CAPACITE DE REFROIDISSEMENT D'UNE COQUILLE DE COULEE CONTINUE POUR METAUX LIQUIDES, NOTAMMENT ACIER LIQUIDE

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Abstract (en)

[origin: US2004256080A1] The invention relates to a method for optimizing the cooling capacity of a continuous casting mold (1) for liquid metals, particularly for liquid steel, by homogenizing the thermal load (22) above the height of the continuous casting mold (1). According to the method, the cooling medium (5) is guided through a cross-sectional area of a large number of cooling medium channels (3) or cooling medium boreholes (4) running approximately parallel to the cast billet (9). The cooling medium cross-sectional areas between the mold entry (6) and the mold exit (7) are configured differently. In order to homogenize the thermal mold load (22), a smaller cross-sectional area sets the flow rate of the cooling medium (5), which is conducted from the top downward, inside the cooling medium channel (3) or inside the cooling medium borehole (4) higher in the upper area of the continuous casting mold (1) than in the lower area of the continuous casting mold (1) in which the flow rate is set lower by a larger cross-sectional area and/or the covering of the cooling medium is adjusted by a cross-sectional shape that varies from the top downward.

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