

Title (en)
METHOD FOR THE CONTINUOUS CASTING OF A METAL STRAND

Title (de)
VERFAHREN ZUM STRANGGIESSEN EINES METALLSTRANGS

Title (fr)
PROCÉDÉ DE COULÉE CONTINUE D'UNE BARRE MÉTALLIQUE

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EP 2279052 B1 20161109 (DE)

Application
EP 09749696 A 20090422

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Abstract (en)
[origin: WO2009141206A1] The invention relates to a method for the continuous casting of a metal strand in a continuous casting plant, a strand being withdrawn from an in-line die, supported in a strand support unit, cooled by a coolant and optionally metallurgically reduced, thermodynamic changes in the entire strand being calculated in a mathematical model containing a thermal conduction equation. The aim of the invention is to provide a method which can be used to improve the product quality of a metal strand, for example by reducing the porosity and/or liquation and by improving the surface quality and form stability. Said aim is achieved by a method, according to which the natural shrinkage of the strand is calculated in real time in the mathematical simulation model, taking into consideration the physical parameters of the metal, the temperature in the casting distributor, the frequently measured withdrawal speed, the cooling of the strand and the thickness of the strand and strand guide rollers of the strand support unit, said rollers being placed against the strand, are set by taking into consideration the natural shrinkage of the metal strand.

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