

Title (en)  
METHOD AND APPARATUS FOR CONTINUOUS CASTING

Title (de)  
VERFAHREN UND VORRICHTUNG ZUM STRANGGIESSEN

Title (fr)  
PROCEDE ET DISPOSITIF DE COULEE CONTINUE

Publication  
**EP 1937429 A1 20080702 (DE)**

Application  
**EP 06841185 A 20061228**

Priority  
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• DE 102006001464 A 20060111  
• DE 102006056683 A 20061130

Abstract (en)  
[origin: DE102006056683A1] The cast strip is cooled in a first section (6) between the continuous casting die (3) and the mechanical deformation stage (5). The heat transfer coefficient lies between 2500 W/m<sup>2</sup>>K and 20000 W/m<sup>2</sup>>K. In the next section (7), temperature equalization commences within the metal strip, with or without reduced surface cooling. The result is surface heating to a temperature exceeding Ac3 or Ar3 (temperature arrest points representing transformations). Then in a third section (8), mechanical deformation (5) takes place. The heat transfer coefficient in the first section is 3000 W/m<sup>2</sup>>K to 10000 W/m<sup>2</sup>>K. Before cooling, the strip surfaces are cleaned. The first section is divided, for intermittent cooling. In the first subsection (6A) just after the continuous casting die, it is cooled intensively; in the following subsection (6B) cooling is reduced and then becomes more intensive. The mechanical deformation process (5), i.e. rolling or similar, causes straightening. Cooling in the first section is confined to the vertical section. The strand guidance (4) in this section is provided by metal rollers (10) with coolers (11) applying liquid to the strip surface. These can be moved vertically and/or horizontally. They can be oscillated. More fixed coolers are included. All coolers may be encased. The coolant is projected by nozzles. An independent claim IS INCLUDED FOR the corresponding continuous casting plant.

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