

Title (en)
CASTING EQUIPMENT AND CASTING METHOD USING SAME

Title (de)
GIESSVORRICHTUNG UND GIESSVERFAHREN DAMIT

Title (fr)
ÉQUIPEMENT DE COULAGE ET PROCÉDÉ DE COULAGE UTILISANT CELUI-CI

Publication
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Application
EP 14762821 A 20140314

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Abstract (en)
The present invention relates to casting equipment for producing a casting with a large cross-section for a very thick steel material and a casting method using the same, and the casting equipment includes; a casting part with a passage for a molten steel for casting the molten steel into a casting; a support part arranged separately from the casting part for receiving and supporting the casting in at least one of the sides of the casting; and a solidifying part arranged outside the casting provided with a first quality control device for solidifying the casting, whereby the casting method includes the steps of: preparing a molten steel for casting; casting the molten steel in the casting part with the passage opened or closed into a casting; conveying the casting to the solidifying part; and conveying the solidified casting to a subsequent process so as to improve the quality of the casting, thus increasing substantially the yield rate of castings. In addition, the molten steel is continuously stirred through the quality control device and a solidification inducement device from the start of casting to the end of solidifying the casting so as to enhance the exquiaxed surface ratio of the casting, and decrease segregation/porosity and the internal defects such as a pipe generated at an end of casting. Also, when producing a casting with a large cross-section for a very thick steel material, the casting part can produce another casting continuously while the previous casting is solidified in the solidifying part, thus saving the time consumend for solidifying the casting for a very thick stell material by means of the continuous solidifying part. This prevents the casting process from being stopped, thereby enhancing the productivity of a casting and the efficiency of the casting equipment.

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