

Title (en)
CONTINUOUS CASTING NOZZLE FOR THE VERTICAL UPWARDS CONTINUOUS CASTING OF METAL

Title (de)
STRANGGIESSKOKILLE ZUM VERTIKALEN AUFWÄRTSSTRANGGIESSSEN VON METALL

Title (fr)
LINGOTIERE POUR LA COULEE CONTINUE VERTICALE DE METAUX

Publication
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Application
EP 10725223 A 20100518

Priority
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Abstract (en)
[origin: WO2010133765A1] A continuous casting nozzle, which is suitable for the vertical upwards continuous casting of metal (M) into continuous cast products (P). The nozzle (1) comprises a cooling mantle (10) provided with two cylindrical channels (7a, 7b), which are co-directional with pipe members and which are apt for causing a flow-through of cooling water (W); a mold section (2) whose top end extends coaxially into an interior of the cooling mantle (10). The mold section has an internal mold cross-section for providing an external shape for the continuous cast product (P). In addition, the continuous casting nozzle (1) comprises a fourth innermost pipe member (14) inside said third inner pipe member (13), whereby said fourth pipe member (14) extends coaxially inside the third pipe member; has an internal cooling cross-section (A4) whose size is equal to or larger than said mold cross- section (A2); has an external surface (15), by which this fourth pipe member (14) fits inside the third pipe member (13); and comprises, on its external surface, length channels (9), as well as in its lower frontal surface (4p), or in the vicinity thereof, one or more radially directed openings (8) which are in flow communication with the length channel, whereby the length channel and the radially directed opening are apt for causing a protective cooling gas (G) to flow through and to be delivered inside this fourth pipe member, into an intermediate space (B) between said continuous cast product (P) and the fourth pipe member (14).

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CPC (source: EP FI)
B22D 11/055 (2013.01 - EP FI); **B22D 11/145** (2013.01 - EP FI)

Citation (search report)
See references of WO 2010133765A1

Cited by
CN108746519A; CN108515155A; CN108526422A; CN109465414A

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