

Title (en)

METHOD FOR FILLING A CASTING MOULD ASSEMBLY

Title (de)

VERFAHREN ZUM BEFÜLLEN EINER GUSSFORMANORDNUNG

Title (fr)

PROCÉDÉ DE REMPLISSAGE D'UN ENSEMBLE MOULE DE COULÉE

Publication

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Application

**EP 21819414 A 20211123**

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Abstract (en)

[origin: WO2022112223A1] The invention relates to a method for filling a casting mould assembly comprising a casting mould and at least one measuring section, in which method: the casting mould has a cavity, the cavity is filled with electrically conductive casting material, the at least one measuring section has at least one transmitter coil (40, 41) and at least one receiver coil (42), the transmitter coil (40, 41) and the receiver coil (42) are arranged in a hollow conductor (2), the measuring section is arranged inside the casting mould and surrounds a casting channel, an electrical signal having a time-variable curve is applied to the transmitter coil (40, 41), the transmitter coil (40, 41) generates a time-variable electromagnetic field, the electromagnetic field generated by the transmitter coil (40, 41) and influenced by the casting material is received by the receiver coil (42), and a measure of speed is determined from at least one received signal from the at least one receiver coil (42) when there is a laminar flow of the casting material at the edge of the casting channel. In a numerical simulation of the hot, liquid casting material, it is possible to achieve more precise results by additionally applying a DC voltage across the receiver coil (42), wherein the receiver coil (42) has a temperature-dependent receiver coil resistance, the direct current is measured by the receiver coil (42), and a measure of surface temperature of the casting material is determined from the measured direct current.

IPC 8 full level

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Citation (search report)

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