Title (en)

PROCESS AND DEVICE FOR CONTROLLING AND REGULATING THE MOULD FILLING RATE AND CASTING PRESSURE OF A LOW-PRESSURE CHILL CASTING MACHINE

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Application

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Abstract (en)

[origin: WO9101833A1] The invention relates to a device and a process for controlling and regulating the mould filling rate and casting pressure of a low-pressure chill casting machine, preferably for casting aluminium. The furnace chamber containing the molten casting material can be hermetically sealed and communicates with the mould via a rising pipe connected to the mould. Gas pressure built up in a pressurized gasline forces the casting material from the furnace chamber into the mould. A contact probe (13) can be inserted to varying depths in a probe chamber (10) which extends downward into the furnace chamber (7) and which is open at its lower end (8) to admit the casting material. When contact is made, the contact probe sends a signal to a device (37) for controlling the flow of pressurized gas to the furnace chamber (7). When contact is made, the contact probe can be moved in the probe chamber (10) to a height which is not reached by the molten casting material during the casting process. In addition, a measurement device (36) for measuring the gas pressure in the furnace chamber (7) transmits the measured pressure in the form of a signal to the device (37) for controlling the flow of pressurized gas.

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