

Title (en)

METHOD OF AND INSTALLATION FOR PRODUCING CASTINGS FROM PRESSURE TREATED MELTS FROM STEEL ALLOYS

Publication

EP 0280765 B1 19911227 (DE)

Application

EP 87114822 A 19871010

Priority

AT 46287 A 19870303

Abstract (en)

[origin: EP0280765A2] A method of producing castings, such as blocks, billets or dead-mould castings from metals, in particular steel and steel-like alloys, which have higher proportions of elements with high vapour pressure or gases than at atmospheric pressure in the molten state and remain in solution during solidification is to be improved by virtue of the fact that a melt produced in an open melting unit is poured first of all under atmospheric pressure into a refractory-lined, heatable treatment vessel, a gas pressure above atmospheric pressure is then built up over the melt and is maintained during the entire heating and treatment time, the melt is continuously stirred and/or flushed by means of gas and, either by flushing with the elements or substances in the gaseous state and/or by the addition of alloys containing the element or substance, is brought to the desired content of this element or substance, the gas pressure above the melt corresponding at least to the partial pressure of the corresponding element or substance, which partial pressure is in equilibrium with the desired content of the melt, and that the melt, after the composition and the casting temperature are set, is poured directly from the treatment vessel via a closure and casting element which can be closed and opened in a suitable manner into an ingot mould, likewise under pressure, a ceramic or metallic casting mould or a continuous-casting ingot mould, or that the melt is pushed directly into a casting mould according to the die casting method by increasing the pressure above the melt, and the casting thus formed is left to solidify.

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CPC (source: EP)

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