

Title (en)

Foundry moulding process and mould for low-pressure precision casting with a gasifiable model and binderless sand mould.

Title (de)

Giessformverfahren und Giessform für Niederdruck-Präzisionsgiessen unter Verwendung vergasbaren Modells und binderfreier Sandgiessform.

Title (fr)

Procédé de moulage en fonderie et moule pour la coulée de précision sous basse pression, avec modèle gazéifiable et moule en sable sans liant.

Publication

EP 0152754 A1 19850828 (FR)

Application

EP 85100311 A 19850114

Priority

FR 8402907 A 19840215

Abstract (en)

[origin: ES8606043A1] A foundry mould for low pressure moulding of metal parts is constructed of a mould chamber (14) with a bottom surface (17) having an opening (31) through which molten casting metal can ascend. A peripheral pressure chamber (15) surrounds the side walls of the chamber (14) and a suction bell (18, 19) connected to a suction duct (23) covers the top of the mould chamber and pressure chamber. Communicating apertures (20, 21) provide gas flow paths from the mould chamber and pressure chamber to the suction bell. Patterns of gasifiable expanded polystyrene are located in the mould chamber and are supported therein by a masking device, such as a masking shell (28), by means of pattern appendages (26) connected to tubular supporting members (27) of the masking shell. A sleeve (34) is locked to the opening (31) and supports the masking device. Compacted, binderless, sand fills the remaining volume of the mould chamber. Moulded metal parts are produced according to the moulding process of the invention by forcing molten metal under low pressure upwardly through the sleeve, and the masking device to the pattern of gasifiable material, the heat of the molten metal gasifying the pattern material, the molten metal filling the voids left by the gasified patterns.

Abstract (fr)

Moulage de précision en fonderie avec moule en sable sans liant et modèle perdu gazéifiable et alimentation ascendante en métal liquide sous basse pression, avec application d'une dépression sur le moule. Le moule 2 comporte une paire de modèles 24 en polystyrène expansé raccordés à un masque de fonderie 28 donnant la forme de l'embouchure de coulée 29. Le masque 28 est positionné et centré dans le moule par un manchon 34 de centrage et de verrouillage sur le fond 17 du châssis de moule 14. Une extrémité 26 de chaque modèle 24 s'emboîte dans une ouverture 27 du masque 28. Application à la coulée de la fonte, de l'acier allié ou non et des superalliages.

IPC 1-7

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IPC 8 full level

B22C 9/04 (2006.01); **B22D 18/04** (2006.01)

CPC (source: EP US)

B22C 9/046 (2013.01 - EP US); **B22D 18/04** (2013.01 - EP US)

Citation (search report)

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