

Title (en)

Countergravity casting apparatus and method using elastomeric sealing gasket and cooled vacuum chamber.

Title (de)

Unterdruckgiessvorrichtung und Verfahren mit einem elastomerischen Dichtungsring und gekühlter Vakuumkammer.

Title (fr)

Procédé et dispositif de coulée à depression utilisant un joint d'étanchéité élastomère et une chambre sous vide refroidie.

Publication

EP 0352406 A1 19900131 (EN)

Application

EP 89106902 A 19890418

Priority

US 21946088 A 19880715

Abstract (en)

A vacuum countergravity casting apparatus includes a vacuum chamber (34) having a thermally conductive peripheral wall (42) and a gas permeable mold (14) sealed to the lower end (44) of the peripheral wall (42) by an elastomeric sealing gasket (50) engaged therebetween. The peripheral wall (42) is cooled at a location (90) above and remote from the sealing gasket and an underlying molten metal pool (13) when the mold is immersed in the pool (13) during casting to maintain, by thermal conduction through the peripheral wall (42), the sealing gasket (50) at a temperature to reduce thermal degradation thereof during casting; e.g., at a temperature below the gasket's (50) thermal degradation temperature. Reduced thermal degradation of the sealing gasket (50) during casting prolongs its useful life in casting successive molds.

IPC 1-7

B22D 18/06

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [A] US 4658880 A 19870421 - VOSS KARL D [US]
- [A] DE 953191 C 19561129 - PHILIPS NV
- [A] US 2637882 A 19530512 - PLOTT ROBERT F

Cited by

EP0415091A3

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