

Title (en)

Method for producing a series of cast components and device for producing a cast component

Title (de)

Verfahren zum Herstellen einer Serie von Gussbauteilen und Vorrichtung zum Herstellen eines Gussbauteils

Title (fr)

Procédé de fabrication d'une série de composants en fonte et dispositif de fabrication d'un composant en fonte

Publication

EP 2460605 A1 20120606 (DE)

Application

EP 11007794 A 20110926

Priority

DE 102010053125 A 20101201

Abstract (en)

The method of producing a series of cast components, in which a casting mold (10) having a cavity and gate points is provided, comprises introducing a light metal melt by two gate points, each of which has temperature and pressure in the casting mold for producing a first cast component, where the light metal melt flows along two ways in two streams, each of which has a front in the casting mold. The fronts of the streams meet in a region of the casting mold, where the temperature and/or the pressure meet in the region, in which the streams are measured. The method of producing a series of cast components, in which a casting mold (10) having a cavity and gate points is provided, comprises introducing a light metal melt by two gate points, each of which has temperature and pressure in the casting mold for producing a first cast component, where the light metal melt flows along two ways in two streams, each of which has a front in the casting mold. The fronts of the streams meet in a region of the casting mold, where the temperature and/or the pressure meet in the region, in which the streams are measured. The measured temperature and/or the measured pressure is considered during the preparation of a second cast component in the casting mold for the selection of the respective temperature and/or the respective pressure and/or the respective trigger time point on the respective gate point during the insertion of the light metal melt. The light metal melt is: introduced into the casting mold with the pressure increased in comparison with the ambient pressure; poured as a semi-solid casting paste with a solid phase proportion; and applied at the gate points by hot runner nozzles (14, 16), whose temperature and/or pressure is adjusted. A temperature distribution and/or a pressure distribution coincidence over a specific way in the region, in which the streams are measured. An adjustment of the respective temperature and/or the respective pressure is effected at each gate point during introducing the light metal melt such that the streams meet in the same place and at the same temperature and/or the same pressure as part of tolerance intervals during the production of each individual cast component in the series. Independent claims are included for: (1) a device for producing a cast component; and (2) a cast component.

Abstract (de)

Es wird ein Verfahren zum Herstellen einer Serie von Gussbauteilen offenbart. Eine Gussform (10) mit einer Kavität und einer Mehrzahl von Angusspunkten wird bereitgestellt. Eine Leichtmetallschmelze wird durch wenigstens zwei Angusspunkte mit jeweils einer Temperatur und einem Druck in die Gussform (10) zur Herstellung eines ersten Gussbauteils eingebracht. Die Leichtmetallschmelze fließt entlang wenigstens zweier Wege in wenigstens zwei Strömen mit jeweils einer Front in die Gussform (10) ein, wobei sich wenigstens zwei Fronten der Ströme in einem Bereich der Gussform (10) treffen. Wenigstens eine Temperatur und/oder wenigstens ein Druck im Bereich werden, in welchem die Ströme zusammentreffen, gemessen. Die gemessene Temperatur und/oder der gemessene Druck werden beim nachfolgenden Herstellen eines zweiten Gussbauteils in der Gussform (10) für die Wahl der jeweiligen Temperatur und/oder des jeweiligen Drucks und/oder des jeweiligen Auslösezeitpunkts am jeweiligen Angusspunkt beim Einbringen der Leichtmetallschmelze berücksichtigt. Beschrieben wird des Weiteren eine entsprechende Vorrichtung zum Herstellen eines Gussbauteils, die geeignet zur Durchführung des Verfahrens ist.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

- DE 102008052062 A1 20100422 - PORSCHE AG [DE]
- DE 4444092 A1 19960418 - KOTZAB WERNER [DE]

Citation (search report)

- [YD] DE 102008052062 A1 20100422 - PORSCHE AG [DE]
- [Y] EP 0982089 A1 20000301 - ALUSUISSE LONZA SERVICES AG [CH]

Cited by

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Designated contracting state (EPC)

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