

Title (en)

Device and method for melt metering and casting machine

Title (de)

Vorrichtung und Verfahren zur Schmelzezudosierung und Gießmaschine

Title (fr)

Dispositif et procédé de dosage de masses fondues et machine de coulée

Publication

EP 2407260 A1 20120118 (DE)

Application

EP 10169551 A 20100714

Priority

EP 10169551 A 20100714

Abstract (en)

The melt metering device comprises a melt reception unit movable between a melt receiving location and a melt discharge location and designed to remove a dosable quantity of casting melt material from a melt bath at the melt receiving location and then transfer and deliver to the casting device at the melt discharge location, where the melt reception unit is formed by an evacuable dosing container (1), an evacuating device coupled with the container for evacuating the dosing container, and a controllable locking unit for selectively opening and closing a melt opening (4) of the container. The melt metering device comprises a melt reception unit movable between a melt receiving location and a melt discharge location and designed to remove a dosable quantity of casting melt material from a melt bath at the melt receiving location and then transfer and deliver to the casting device at the melt discharge location, where the melt reception unit is formed by an evacuable dosing container (1), an evacuating device coupled with the dosing container for evacuating the dosing container, and a controllable locking unit for selectively opening and closing a melt opening (4) of the dosing container. The locking unit contains a longitudinally movable locking plugs arranged in the dosing container and the melt opening is provided in a bottom area of the dosing container. The melt opening is formed by a tubular support area projecting from the bottom area of the dosing container. The melt metering device includes a controllable protective gas impacting unit (9) for controllably impacting the dosing container with a protective gas. The dosing container has a melt bath-immersion sensor, whose sensor signal forms a control signal for the evacuating device, the protective gas impacting unit and/or locking unit, and a melt fill level sensor, whose sensor signal forms a control signal for the evacuating device, the protective gas impacting unit and/or locking unit. The evacuating device contains a vacuum pump (7) or a controllably operated piston-cylinder-unit. The melt metering device has a transfer unit, to which the dosing container is movably coupled between the melt receiving location and the melt discharge location. Independent claims are included for: (1) a method for metering melt for a casting machine; and (2) a metal die-casting machine.

Abstract (de)

Die Erfindung bezieht sich auf eine Schmelzezudosiervorrichtung für eine Gießeinrichtung, wobei die Schmelzezudosiervorrichtung ein zwischen einem Schmelzeaufnahmeort und einem Schmelzeabgabeort bewegbares Schmelzeaufnahmemittel aufweist, das dafür eingerichtet ist, eine dosierbare Menge an Gießschmelzmaterial am Schmelzeaufnahmeort aus einem Schmelzebad zu entnehmen, an den Schmelzeabgabeort der Gießeinrichtung zu überführen und dort abzugeben, auf ein mit einer solchen Vorrichtung durchführbares Schmelzezudosierungsverfahren und auf eine mit einer solchen Schmelzezudosiervorrichtung ausgerüstete Gießmaschine. Bei der erfindungsgemäßen Schmelzezudosiervorrichtung ist das Schmelzeaufnahmemittel von einem evakuierbaren Dosierbehälter (1) gebildet. Eine Evakuiereinrichtung (7) ist zur Evakuierung des Dosierbehälters mit diesem gekoppelt.

IPC 8 full level

B22D 17/30 (2006.01); **B22D 39/00** (2006.01)

CPC (source: EP KR)

B22D 17/30 (2013.01 - EP KR); **B22D 39/00** (2013.01 - EP KR)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

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