

Title (en)
Mold for continuous casting of metal

Title (de)
Kokille zum Stranggießen von Metall

Title (fr)
Coquille pour la coulée continue de métaux

Publication
EP 1792675 A2 20070606 (DE)

Application
EP 06019527 A 20060919

Priority
DE 102005057580 A 20051130

Abstract (en)
A permanent chill mold (1) for the continuous casting of metal comprises a mold cavity (2) having a pouring slot (3), an exit opening (4) and a casting cone (6). At least one concave bulging (7) is provided that extends in the casting direction (G), which begins at a distance (A) below a predetermined casting bath level position (5) and extends up to the exit opening. The beginning of the concave bulging is in an initial region that extends 30-70 (preferably 50)% of the mold cavity length (L), measured from the pouring slot. The distance between the predetermined casting bath level position and the concave bulging is greater than 10 (preferably greater than 20)% of the length (L) of the mold cavity. Conicity at the deepest part of the concave bulging decreases down to at most 0% per meter. Conicity at edges of the bulgings decreases to 0.6-1.5% per meter. Adjacent bulgings form an undulating profile, and an imaginary center line of the undulating profile forms a determining optimum line for design of the permanent chill mold with regard to conicity. The concave bulging is produced at least partially by a depositing method. A contour of the concave bulging is produced at least partially by material removal.

Abstract (de)
Die Erfindung betrifft eine Kokille zum Stranggießen von Metall mit einem Formhohlraum (2), der eine Eingießöffnung (3), eine Austrittsöffnung (4) und einen Gießkonus (6) aufweist. Es ist wenigstens eine sich in Gießrichtung (G) erstreckende konkave Ausbauchung (7) vorgesehen, die in einem Abstand (A) unterhalb einer vorbestimmten Gießspiegellage (5) beginnt und sich bis zur Austrittsöffnung (4) erstreckt.

IPC 8 full level
B22D 11/04 (2006.01)

CPC (source: EP KR US)
B22D 11/04 (2013.01 - EP US); **B22D 11/0406** (2013.01 - EP KR US); **B22D 11/041** (2013.01 - EP KR US); **B22D 11/043** (2013.01 - EP KR US); **B22D 17/00** (2013.01 - KR); **C22C 9/00** (2013.01 - KR)

Citation (applicant)
EP 0958871 A1 19991124 - CONCAST STANDARD AG [CH]

Cited by
AT508822B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1792675 A2 20070606; **EP 1792675 A3 20080702**; **EP 1792675 B1 20101117**; AT E488315 T1 20101215; BR PI0603979 A 20071009; CA 2569437 A1 20070530; CA 2569437 C 20121211; CN 1974061 A 20070606; DE 102005057580 A1 20070606; DE 502006008320 D1 20101230; ES 2356554 T3 20110411; JP 2007152431 A 20070621; KR 20070056923 A 20070604; RU 2006142221 A 20080610; RU 2414322 C2 20110320; UA 92147 C2 20101011; US 2007125511 A1 20070607; US 7455098 B2 20081125

DOCDB simple family (application)
EP 06019527 A 20060919; AT 06019527 T 20060919; BR PI0603979 A 20060928; CA 2569437 A 20061130; CN 200610115606 A 20060816; DE 102005057580 A 20051130; DE 502006008320 T 20060919; ES 06019527 T 20060919; JP 2006315118 A 20061122; KR 20060077154 A 20060816; RU 2006142221 A 20061129; UA A200612577 A 20061129; US 60642906 A 20061129