

Title (en)  
Mould pipe

Title (de)  
Kokillenrohr

Title (fr)  
Tube pour lingotière

Publication  
**EP 1332811 A3 20030820 (DE)**

Application  
**EP 03000356 A 20030109**

Priority  
DE 10203967 A 20020131

Abstract (en)  
[origin: CA2415517A1] A chill tube (1) having a double T-shaped inner and outer cross section in beam blank format is encased in a water-guiding jacket (12) adapted to its outer contour while forming a water gap (14). The wall thickness (D) of chill tube (1) in the rounded transition regions (2) from middle crosspieces (4), which face each other head to head and are drawn in towards longitudinal axis (3), to the neighboring crosswise positioned flanges (5) is dimensioned at least partially smaller than in the remaining wall sections (6, 7). The reduction in wall thickness is implemented by longitudinal hollow recesses (8). These recesses (8) extend only in the height range of the bath level. Into the cross sectional regions which are formed by the outer contour of chill tube (1) as well as the inner contour of water-guiding jacket (12), filler pieces (17) are incorporated, adapted to this cross section,

IPC 1-7  
**B22D 11/041; B22D 11/04**

IPC 8 full level  
**B22D 11/00** (2006.01); **B22D 11/04** (2006.01)

CPC (source: EP KR US)  
**B22D 11/04** (2013.01 - KR); **B22D 11/0406** (2013.01 - EP US)

Citation (search report)  
• [A] US 5797444 A 19980825 - VILLANUEVA HECTOR [DE], et al  
• [A] DZIERZAWSKI J T: "CONTINUOUS CASTING OF BEAM BLANKS", IRON AND STEEL ENGINEER, ASSOCIATION OF IRON AND STEEL ENGINEERS. PITTSBURGH, US, vol. 76, no. 9, September 1999 (1999-09-01), pages 36 - 41, XP000875980, ISSN: 0021-1559  
• [A] CYGLER M ET AL: "NEAR NET SHAPE CASTING AND ASSOCIATED MILL DEVELOPMENTS", IRON AND STEEL ENGINEER, ASSOCIATION OF IRON AND STEEL ENGINEERS. PITTSBURGH, US, vol. 72, no. 1, 1995, pages 32 - 38, XP000488398, ISSN: 0021-1559  
• [A] DATABASE WPI Derwent World Patents Index; AN 1978-37738a, XP002228707  
• [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13 30 November 1999 (1999-11-30)  
• [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 01 30 January 1998 (1998-01-30) & JP S5213428 A 19770201 - KAWASAKI STEEL CO

Cited by  
WO2013000555A3

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

DOCDB simple family (publication)  
**DE 20219419 U1 20030403**; AT E376465 T1 20071115; BR 0300258 A 20030909; CA 2415517 A1 20030731; CA 2415517 C 20100223; CN 1248802 C 20060405; CN 1436622 A 20030820; DE 10203967 A1 20030814; DE 50308443 D1 20071206; DK 1332811 T3 20080218; EP 1332811 A2 20030806; EP 1332811 A3 20030820; EP 1332811 B1 20071024; ES 2291549 T3 20080301; JP 2003225741 A 20030812; KR 20030065403 A 20030806; MX PA03000876 A 20050214; PT 1332811 E 20071113; RU 2304485 C2 20070820; TW 200302758 A 20030816; TW I259114 B 20060801; US 2003141430 A1 20030731; US 2005028960 A1 20050210; US 7198092 B2 20070403

DOCDB simple family (application)  
**DE 20219419 U 20020131**; AT 03000356 T 20030109; BR 0300258 A 20030128; CA 2415517 A 20030103; CN 03101771 A 20030122; DE 10203967 A 20020131; DE 50308443 T 20030109; DK 03000356 T 20030109; EP 03000356 A 20030109; ES 03000356 T 20030109; JP 2003008197 A 20030116; KR 20030005803 A 20030129; MX PA03000876 A 20030129; PT 03000356 T 20030109; RU 2003102598 A 20030130; TW 92101682 A 20030127; US 34255903 A 20030115; US 93176604 A 20040901