

Title (en)
IMMERSION CASTING PIPE FOR THIN SLABS

Title (de)
TAUCHGIESSROHR FÜR DÜNNBRAMME

Title (fr)
BUSETTE DE COULEE PAR IMMERSION POUR BRAMES MINCES

Publication
EP 0589998 B1 20000315 (DE)

Application
EP 92912758 A 19920622

Priority

- DE 4120999 A 19910621
- DE 4142447 A 19911218
- DE 9200517 W 19920622

Abstract (en)
[origin: US5402993A] The invention is directed to an immersion casting pipe for feeding molten steel from a casting vessel into a mold having wide side walls and narrow side walls for the production of flat products. The immersion casting pipe has a pipe piece which adjoins the casting vessel and expands in cross section in the direction of the narrow side walls of the mold. The pipe piece is provided with a central base member at the lower end which allows for outlet openings for the melt. For the purpose of developing an immersion outlet which allows higher slab withdrawal speed of up to 6 m/min with slabs measuring 50 to 100 mm in thickness and 600 mm to 2000 mm in width, the inner wall of the portion of the immersion casting pipe which widens in cross section forms flow channels in conjunction with the opposite wall parts of the base member. The axes of the flow channels enclose an angle alpha between 10 DEG and 22 DEG , where the smaller angle corresponds to a distance of approximately 600 mm between the narrow side walls of the mold and the larger angle corresponds to a distance of 2000 mm or more between the narrow side walls of the mold. The distance between the wide side walls of the mold is 50 to 100 mm.

IPC 1-7
B22D 41/50

IPC 8 full level
B22D 11/10 (2006.01); **B22D 41/50** (2006.01)

CPC (source: EP KR US)
B22D 41/50 (2013.01 - EP KR US)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
US 5402993 A 19950404; AT E190533 T1 20000415; CA 2111981 A1 19930107; CA 2111981 C 19990406; DE 4142447 A1 19921224; DE 4142447 C2 19931111; DE 4142447 C3 19990909; DE 59209821 D1 20000420; DK 0589998 T3 20000605; EP 0589998 A1 19940406; EP 0589998 B1 20000315; ES 2147552 T3 20000916; GR 3033633 T3 20001031; JP 2965217 B2 19991018; JP H06508559 A 19940929; KR 100226530 B1 19991015; KR 940701312 A 19940528; UA 26335 C2 19990830; WO 9300191 A1 19930107

DOCDB simple family (application)
US 16789794 A 19940217; AT 92912758 T 19920622; CA 2111981 A 19920622; DE 4142447 A 19911218; DE 59209821 T 19920622; DE 9200517 W 19920622; DK 92912758 T 19920622; EP 92912758 A 19920622; ES 92912758 T 19920622; GR 20000401320 T 20000608; JP 50129293 A 19920622; KR 930703978 A 19931221; UA 94030665 A 19920622