

Title (en)  
REFRACTORY POURING NOZZLE

Publication  
**EP 0254909 B1 19890315 (DE)**

Application  
**EP 87109646 A 19870704**

Priority  
DE 3623660 A 19860712

Abstract (en)  
[origin: US4819840A] The invention relates to a refractory submerged pouring nozzle for the continuous casting of molten metals, especially molten steel, in a mould for thin slabs. The submerged pouring nozzle 2 is covered by a bottom plate 13 on its lower end face and has two opposing outflow orifices 11. While the edge of the bottom 13 forms a breakaway edge 11' for the molten metal, there adjoins the remaining edge of the especially archway-like outflow orifice 11 a roof-shaped guide element 15, the sideparts 15'0 of which have free edges 15'' projecting from the outer edge of the upper part 15'' of the guide element 15 and extending obliquely downwards to the lower breakaway edge 11'.

IPC 1-7  
**B22D 11/10**

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

CPC (source: EP KR US)  
**B22D 11/10** (2013.01 - KR); **B22D 41/50** (2013.01 - EP US)

Cited by  
US5944261A; US5785880A; EP0685282A1; CN1042504C; US6027051A; EP0482423A1; EP0403808A1; TR24409A; EP0352346A1; US6464154B1; WO9529025A1

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

DOCDB simple family (publication)  
**EP 0254909 A1 19880203; EP 0254909 B1 19890315**; BR 8703549 A 19880322; CN 87104752 A 19880302; DE 3623660 A1 19880114; DE 3760064 D1 19890420; ES 2007301 B3 19900816; GR 3000021 T3 19891031; JP S6372454 A 19880402; KR 880001352 A 19880422; US 4819840 A 19890411; ZA 875017 B 19880113

DOCDB simple family (application)  
**EP 87109646 A 19870704**; BR 8703549 A 19870710; CN 87104752 A 19870711; DE 3623660 A 19860712; DE 3760064 T 19870704; ES 87109646 T 19870704; GR 890400019 T 19890320; JP 17130287 A 19870710; KR 870007474 A 19870711; US 7208887 A 19870710; ZA 875017 A 19870709