

Title (en)  
PROCESS FOR INCREASING THE LIFE OF GAS-PERMEABLE REFRACTORY ELEMENTS IN THE BOTTOMS OF METALLURGICAL VESSELS,  
ESPECIALLY FOR STEEL-BASIC-OXYGEN FURNACES

Publication  
**EP 0093040 B1 19880406 (FR)**

Application  
**EP 83400766 A 19830418**

Priority  
FR 8207118 A 19820422

Abstract (en)  
[origin: US4690386A] The service life of permeable refractory elements is improved by conserving in a vessel a fluid slag formed during refining of a charge after a liquid metal has been cast by tipping the vessel, depositing and spreading the slag over the bottom by bringing the vessel back to its upright position, and leaving the slag to harden and set on the bottom, while a sufficient pressure is maintained in the permeable refractory elements to ensure a permanent flow of a stirring fluid.

IPC 1-7  
**C21C 5/44**; **C21C 5/32**; **C21C 5/36**; **C21C 7/00**; **F27D 1/16**

IPC 8 full level  
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CPC (source: EP KR US)  
**C21C 5/35** (2013.01 - EP US); **C21C 5/36** (2013.01 - EP US); **C21C 5/44** (2013.01 - EP KR US); **C21C 7/0087** (2013.01 - EP US); **F27D 1/16** (2013.01 - EP US); **F27D 1/003** (2013.01 - EP US); **F27D 2003/161** (2013.01 - EP US); **F27M 2003/025** (2013.01 - EP US)

Cited by  
DE19913335A1; AT403291B; DE3936715A1

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**EP 0093040 A1 19831102**; **EP 0093040 B1 19880406**; AT E33401 T1 19880415; BE 896539 A 19830816; BR 8302006 A 19831227; CA 1205637 A 19860610; DE 3376225 D1 19880511; FR 2525633 A1 19831028; FR 2525633 B1 19841109; IT 1194212 B 19880914; IT 8320765 A0 19830422; IT 8320765 A1 19841022; JP S5941412 A 19840307; KR 840004372 A 19841015; KR 910002863 B1 19910506; LU 84742 A1 19831205; US 4690386 A 19870901; US 4735398 A 19880405; ZA 832760 B 19831228

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