

Title (en)  
Device for decarbonising a steel melt

Title (de)  
Vorrichtung zur Entkohlung einer Stahlschmelze

Title (fr)  
Dispositif de décarburation d'une fonte d'acier

Publication  
**EP 1764421 A3 20071226 (DE)**

Application  
**EP 06020935 A 20030715**

Priority  
• EP 03792199 A 20030715  
• AT 12502002 A 20020821

Abstract (en)  
[origin: EP1764421A2] Decarburization of molten steel (3), especially in stainless steel production in a metallurgical vessel (2) and particularly a converter, involves treatment with oxygen and an inert gas if required and especially argon and/or nitrogen. To decarburize molten steel with carbon content of =0.3 wt.%, the gas is introduced through an opening (5) below the molten steel level and a blower lance (6, 7) over the molten steel surface, to bring the gas into contact with the metal.

IPC 8 full level  
**C21C 5/35** (2006.01); **C12N 5/06** (2006.01); **C12N 15/87** (2006.01); **C21C 5/00** (2006.01); **C21C 5/32** (2006.01); **C21C 5/46** (2006.01); **C21C 7/068** (2006.01); **C21C 7/072** (2006.01)

CPC (source: EP)  
**C21C 5/005** (2013.01); **C21C 5/32** (2013.01); **C21C 5/35** (2013.01); **C21C 5/4606** (2013.01); **C21C 7/068** (2013.01); **C21C 7/0685** (2013.01); **C21C 7/072** (2013.01); **F27D 3/16** (2013.01)

Citation (search report)  
• [X] JP H06158142 A 19940607 - SUMITOMO METAL IND  
• [A] US 5540753 A 19960730 - TAKANO HIRONORI [JP], et al  
• [A] US 4545786 A 19851008 - TANOUE TOYOSUKE [JP], et al

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EP2216110A3

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 RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004018714 A1 20040304**; AT 411530 B 20040225; AT A12502002 A 20030715; AT E363546 T1 20070615; AU 2003257462 A1 20040311; CN 100532581 C 20090826; CN 1675383 A 20050928; DE 50307383 D1 20070712; EP 1530648 A1 20050518; EP 1530648 B1 20070530; EP 1764421 A2 20070321; EP 1764421 A3 20071226; ES 2287557 T3 20071216; RU 2005107698 A 20050910; RU 2319750 C2 20080320

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**EP 0307634 W 20030715**; AT 03792199 T 20030715; AT 12502002 A 20020821; AU 2003257462 A 20030715; CN 03819762 A 20030715; DE 50307383 T 20030715; EP 03792199 A 20030715; EP 06020935 A 20030715; ES 03792199 T 20030715; RU 2005107698 A 20030715