

Title (en)  
Method for refining molten steel in a vacuum.

Title (de)  
Verfahren zum Behandeln von Stahl im Vakuum.

Title (fr)  
Procédé d'affichage d'acier liquide sous vide.

Publication  
**EP 0325242 A2 19890726 (EN)**

Application  
**EP 89100866 A 19890119**

Priority  
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• JP 3110589 A 19890213

Abstract (en)  
A method for refining molten steel in a vacuum comprises an immersion process, wherein two immersion nozzles (5) (6) arranged at the lower portion of a vacuum vessel (4) are immersed in molten steel (2) in a ladle (1); a dissolving process, wherein gases are dissolved in molten steel by blowing gases containing at least gas soluble in the molten steel from a gas blow-in opening (3) arranged in a ladle (1) in the molten steel; a first degassing process, wherein the molten steel is degassed by keeping the the vacuum vessel evacuated, having the molten steel circulated between the ladle and the vacuum vessel by injecting gases containing at least an inert gas from the middle (7) of the rising tube (5) and blowing gases containing at least gas soluble in the molten steel from a gas blow-in opening (3) arranged in the ladle (1); and a second degassing process, wherein the molten steel is degassed by keeping the vacuum vessel evacuated, stopping a gas blow-in from the gas blow-in opening (3) arranged in the ladle (1) and having the molten steel circulated between the ladle and the vacuum vessel by injecting gases containing at least an inert gas from the middle (7) of the rising tube (5) in the molten steel (1).

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