Title (en)

PROCESS AND DEVICE FOR THE PRODUCTION OF STEEL HAVING AN ELEVATED DEGREE OF PURITY AND A REDUCED GAS CONTENT

Publication

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Application

EP 84110166 A 19840825

Priority

- DE 3331710 A 19830902
- DE 3347718 A 19831231

Abstract (en)

[origin: US4544405A] A method for producing steels of high purity and low gas content in steel mills and steel foundries comprises melting the steel with the desired alloying components in a ladle, directing an inert gas and oxygen mixture to the ladle with the molten steel to decarburize the steel in at least one phase, and carrying out decarburization, deoxidation and fining in separate operational steps without disturbing the coherence of the entire process cycle. The apparatus for carrying out the method includes a converter for the decarburization of the steel in several phases permitting successively a treatment with an air inert gas oxygen mixture and pure inert gas in gas amounts greatly varying from each other. In addition, a ladle is required for fine-flushing the steel succeeding the converter. The converter mouth advantageously has a mechanism permitting temporary reduction of the converter opening area. The converter also has a gas volume control and injection holes permitting a variation of the different gases to be injected. Injection holes are advantageously provided with individual controls. A ladle for the finished melt is lined with basic or neutral refractory materials so that the ladle lining can furnish no oxygen to the melt. A tapping ladle for the finished melt is advantageously lined with dolomite.

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C21C 5/00; C21C 7/068; C21C 7/072

IPC 8 full level

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CPC (source: EP US)

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