

Title (en)

METHOD FOR PRODUCING PIG-IRON BASED STAINLESS STEEL WITHOUT USING A SUPPLY OF ELECTRICAL ENERGY

Title (de)

VERFAHREN ZUR ROSTFREISTAHLERZEUGUNG OHNE ELEKTRISCHE ENERGIEZUFUHR AUF DER BASIS VON ROHEISEN

Title (fr)

PROCÉDÉ POUR PRODUIRE DE LA FONTE BRUTE À BASE D'ACIER INOXYDABLE SANS UTILISER DE L'ÉNERGIE ÉLECTRIQUE

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Application

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Abstract (en)

[origin: CA2671074A1] The aim of the invention is to produce stainless steel for all stainless steel products both in the austenitic and the ferritic range, based on liquid pig-iron and FeCr solids, without using a supply of electrical energy. According to the invention, the liquid pig-iron, after being pre-treated in a blast furnace (1), is subjected to a DDD treatment (dephosphorisation, desilicification and desulphurisation), is heated, finished or alloyed and deoxidated. The quantity of slag-free liquid pig-iron that has been pre-treated in the blast furnace (1) is separated and introduced into two classic "twin" AOD-L converters (2, 3), where the required chemical process steps (of the DDD treatment and of the heating, decarburisation and alloying stages) take place in parallel contrary processes using autogenous chemical energy, the DDD treatment being carried out first in the first twin AOD-L converter (2) and the decarburisation being carried out in the second twin AOD-L converter (3).

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