

Title (en)

METHOD FOR PRODUCING DIRECTLY-REDUCED IRON, LIQUID PIG IRON AND STEEL

Title (de)

VERFAHREN ZUR HERSTELLUNG VON DIREKT REDUZIERTEM EISEN, FLÜSSIGEM ROHEISEN UND STAHL

Title (fr)

PROCEDE POUR PRODUIRE DU FER DE REDUCTION DIRECTE, DE LA FONTE BRUTE LIQUIDE ET DE L'ACIER

Publication

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Application

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Abstract (en)

[origin: WO9924627A1] According to the inventive method for producing directly-reduced iron, liquid pig iron and steel, input materials made up of iron ore, preferably in lump and/or pellet form and optionally, aggregates are directly reduced to sponge iron in a first reduction area. The sponge iron is melted into liquid pig iron in a melt down-gasification area, carbon carrier substances and oxygen-containing gas being added, and a reduction gas is produced. After waste gas cleaning, the reduction gas is introduced into the first reduction area, reacted and drawn off as top gas. The top gas is subjected to a waste gas cleaning process and optionally conveyed to an additional reduction area for direct reduction of iron ore to sponge iron, reacted with the iron ore, drawn off as export gas and subjected to waste gas cleaning again. The liquid pig iron and optionally the sponge iron from the additional reduction area are introduced into a steel production process, especially a steel production process carried out using the electrosteel technique, the waste gases from the steel production process being cleaned. The invention also relates to a device for carrying out this method.

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