

Title (en)

METHOD AND APPARATUS FOR CONTINUOUS THERMAL TREATMENT OF A STEEL STRIP

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KONTINUIERLICHEN WÄRMEBEHANDLUNG EINES STAHLBANDES

Title (fr)

PROCEDE ET INSTALLATION DE TRAITEMENT THERMIQUE EN CONTINU D'UNE BANDE D'ACIER

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Application

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Abstract (en)

[origin: WO2015083047A1] The invention relates to a method for continuous thermal treatment of a steel strip wherein: the strip passes through consecutive thermal treatment chambers; the strip is quickly cooled, in particular at more than 200 °C/sec, in at least one of the chambers by spraying liquid onto the strip, or by spraying a fluid made up of gas and liquid or spraying a combination of gas and liquid forming a mist; and, after the quick cooling, a protective metal layer is deposited on the strip by dip coating. The fluid sprayed for cooling the strip is a fluid with properties for stripping iron oxides or other alloy elements contained in the steel to be treated, in order to minimise the oxidation of the strip and reduce the oxides that may have formed on the strip such as to reduce or eliminate surface defects during the dip-coating operation. The fluid is sprayed at a pressure and at a distance from the strip such that the combined effect of the stripping property and the mechanical action of the sprayed fluid reduces the layer of oxides on the surface of the strip. The temperature of the strip at the end of the cooling step is the temperature necessary for carrying out the desired treatment cycle, in particular between 200 °C to 750 °C, typically higher than 200 °C.

IPC 8 full level

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