

Title (en)
METAL SHEET-QUENCHING APPARATUS, CONTINUOUS ANNEALING FACILITY, METAL SHEET-QUENCHING METHOD, COLD-ROLLED STEEL SHEET PRODUCTION METHOD, AND PLATED STEEL SHEET PRODUCTION METHOD

Title (de)
BLECHKÜHLVORRICHTUNG, DURCHLAUFGFLÜHANLAGE, BLECHKÜHLVERFAHREN, VERFAHREN ZUR HERSTELLUNG VON KALTGEWALZTEM STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG VON PLATTIERTEM STAHLBLECH

Title (fr)
APPAREIL DE TREMPERIE DE TÔLE MÉTALLIQUE, INSTALLATION DE RECUIT CONTINU, PROCÉDÉ DE TREMPERIE DE TÔLE MÉTALLIQUE, PROCÉDÉ DE PRODUCTION DE TÔLE D'ACIER LAMINÉE À FROID ET PROCÉDÉ DE PRODUCTION DE TÔLE D'ACIER PLAQUÉE

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Application
EP 22845679 A 20220511

Priority
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Abstract (en)
Provided are a quenching apparatus for a metal sheet with which it is possible to inhibit shape defects from occurring in the metal sheet when quenching is performed regardless of the sheet passing speed or the sheet thickness of the metal sheet, continuous annealing equipment, a method for quenching a metal sheet, a method for manufacturing a cold rolled steel sheet, and a method for manufacturing a coated steel sheet. A quenching apparatus for a metal sheet, the quenching apparatus having a water tank in which the metal sheet is passed and immersed in a liquid to cool the metal sheet, a water injection apparatus placed in the water tank, and plural restraining roll pairs with which the metal sheet that is passed in the water tank is restrained, in which the water injection apparatus has plural water injection nozzles arranged in a sheet passing direction of the metal sheet on front and back surface sides of the metal sheet so that cooling water is injected in facing directions from the front and back surface sides, and in which a position of each of the plural restraining roll pairs is separately adjusted with respect to the metal sheet in accordance with operation conditions.

IPC 8 full level
C21D 9/573 (2006.01); **C21D 1/00** (2006.01); **C21D 1/63** (2006.01); **C22C 38/00** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR)
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Designated contracting state (EPC)
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