

Title (en)

Cooling system for thick plate or steel plate

Title (de)

Kühlssystem für Groblech oder Stahlplatte

Title (fr)

Système de refroidissement pour tôle d'acier ou plaque épaisse

Publication

EP 2623224 B1 20160316 (EN)

Application

EP 12173837 A 20120627

Priority

KR 20120012038 A 20120206

Abstract (en)

[origin: EP2623224A1] Disclosed is a cooling system for a thick plate or a steel plate, which includes: a conveying unit conveying a cooling object; and a nozzle unit (120) disposed above the conveying unit and having a plurality of ejection holes (122) to eject cooling water supplied through a plurality of channels (123) formed therein to the cooling object, in which spiral swirl patterns are formed on the inner sides of the channels (123) such that cooling water comes in contact with the cooling object while spirally rotating and flowing from the nozzle unit (120). Therefore, according to the cooling system for a thick plate or a steel plate of the present disclosure, it is possible to improve cooling performance and cooling efficiency by preventing cooling water from remaining on a cooling object such as a thick plate or a steel plate such that cooling water comes in direct contact with the cooling object such as a thick plate or a steel plate.

IPC 8 full level

B21B 45/02 (2006.01)

CPC (source: EP KR)

B05B 1/3415 (2013.01 - EP); **B21B 45/02** (2013.01 - KR); **B21B 45/0233** (2013.01 - EP); **B21B 45/0218** (2013.01 - EP)

Cited by

CN109550607A; EP3281705A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2623224 A1 20130807; EP 2623224 B1 20160316; KR 101190609 B1 20121015

DOCDB simple family (application)

EP 12173837 A 20120627; KR 20120012038 A 20120206