

Title (en)  
THICK STEEL PLATE MANUFACTURING FACILITY AND MANUFACTURING METHOD

Title (de)  
ANLAGE ZUR HERSTELLUNG DICKER STAHLPLATTEN UND HERSTELLUNGSVERFAHREN

Title (fr)  
INSTALLATION DE FABRICATION ET PROCÉDÉ DE FABRICATION DE PLAQUE D'ACIER ÉPAISSE

Publication  
**EP 3195946 A4 20170906 (EN)**

Application  
**EP 15836765 A 20150814**

Priority  
• JP 2014171045 A 20140826  
• JP 2015004055 W 20150814

Abstract (en)  
[origin: EP3195946A1] It is an object to provide a facility and a method for manufacturing a steel plate having excellent shapes and excellent mechanical properties, by performing uniform cooling in a cooling step by uniformizing scales that are generated on surfaces of the steel plate in a descaling step. A facility for manufacturing a steel plate includes a hot rolling apparatus, a shape correcting apparatus, a descaling apparatus, and an accelerated cooling apparatus which are set in this order from an upstream side in a conveyance direction, wherein jetting nozzles of the descaling apparatus are set in two rows with respect to a longitudinal direction of a steel plate, and wherein energy density E of descaling water that is jetted towards a surface of the steel plate from the two rows of jetting nozzles is greater than or equal to 0.08 J/mm<sup>2</sup> in total.

IPC 8 full level  
**B21B 1/38** (2006.01); **B21B 45/02** (2006.01); **B21B 45/06** (2006.01); **B21B 45/08** (2006.01)

CPC (source: EP KR)  
**B21B 1/38** (2013.01 - EP KR); **B21B 45/02** (2013.01 - EP); **B21B 45/0218** (2013.01 - KR); **B21B 45/0233** (2013.01 - KR);  
**B21B 45/06** (2013.01 - EP KR); **B21B 45/08** (2013.01 - EP KR)

Citation (search report)  
• [Y] EP 2412455 A1 20120201 - JFE STEEL CORP [JP]  
• [Y] JP 2003181522 A 20030702 - NIPPON STEEL CORP  
• [Y] JP S5970418 A 19840420 - SUMITOMO METAL IND  
• See references of WO 2016031168A1

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3195946 A1 20170726**; **EP 3195946 A4 20170906**; **EP 3195946 B1 20210127**; BR 112017003566 A2 20171205;  
BR 112017003566 B1 20221206; CN 106794500 A 20170531; CN 106794500 B 20200131; JP 6264464 B2 20180124;  
JP WO2016031168 A1 20170427; KR 101940428 B1 20190118; KR 20170036003 A 20170331; WO 2016031168 A1 20160303

DOCDB simple family (application)  
**EP 15836765 A 20150814**; BR 112017003566 A 20150814; CN 201580045928 A 20150814; JP 2015004055 W 20150814;  
JP 2016544932 A 20150814; KR 20177004919 A 20150814