

Title (en)

METHOD AND DEVICE FOR DESCALING A METAL STRIP

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENTZUNDERN EINES METALLBANDES

Title (fr)

PROCEDE ET DISPOSITIF DE DECALAMINAGE D'UNE BANDE METALLIQUE

Publication

**EP 1814678 B1 20080521 (DE)**

Application

**EP 06723474 A 20060316**

Priority

- EP 2006002429 W 20060316
- DE 102005012296 A 20050317

Abstract (en)

[origin: CA2779481A1] The invention concerns a method and a device for descaling a metal strip (1), especially a hot-rolled strip of normal steel or a hot-rolled or cold-rolled strip of austenitic or ferritic stainless steel, in which the metal strip (1) is guided in a direction of conveyance (R) through at least one plasma descaling unit (2, 3) in which it is subjected to a plasma descaling. The objective of the invention is to improve the production of this type of metal strip. To this end, the metal strip (1) is subjected to an automatically controlled cooling process in a cooling unit (4, 5) following the plasma descaling in the one or more plasma descaling units (2, 3) in such a way that it has a well-defined temperature downstream of the cooling unit (4, 5). The invention also concerns a method in which the strip is coated with a coating metal after the plasma descaling operation and in which the heating of the strip caused by the plasma descaling operation is utilized in the coating operation.

IPC 8 full level

**B21B 45/06** (2006.01); **B08B 7/00** (2006.01); **C23C 2/02** (2006.01)

CPC (source: EP KR US)

**B08B 7/0035** (2013.01 - EP KR US); **B21B 15/005** (2013.01 - KR); **B21B 45/0203** (2013.01 - KR); **B21B 45/04** (2013.01 - EP US);  
**B21B 45/06** (2013.01 - KR); **C23C 2/0035** (2022.08 - EP KR US); **C23C 2/0038** (2022.08 - EP KR US); **C23C 2/004** (2022.08 - EP US);  
**C23C 2/0224** (2022.08 - EP KR US); **C23C 2/024** (2022.08 - EP KR US); **C23C 2/52** (2022.08 - EP KR US); **B21B 15/005** (2013.01 - EP US);  
**B21B 45/0203** (2013.01 - EP US); **B21B 45/06** (2013.01 - EP US)

Cited by

DE102009017701A1; WO2010083797A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 102005012296 A1 20060921**; AR 053183 A1 20070425; AT E395987 T1 20080615; AU 2006224727 A1 20060921;  
AU 2006224727 B2 20090813; AU 2009202178 A1 20090618; AU 2009202178 B2 20120510; BR PI0605933 A2 20090526;  
CA 2589605 A1 20060921; CA 2589605 C 20130129; CA 2779481 A1 20060921; CA 2779481 C 20121218; CN 101142037 A 20080312;  
CN 101142037 B 20110706; DE 502006000800 D1 20080703; EA 010615 B1 20081030; EA 200701265 A1 20071026; EG 24523 A 20090825;  
EP 1814678 A1 20070808; EP 1814678 B1 20080521; EP 1814678 B2 20140827; ES 2306432 T3 20081101; JP 2008520442 A 20080619;  
JP 5085332 B2 20121128; KR 101158334 B1 20120622; KR 20070112759 A 20071127; MX 2007011017 A 20071112; MY 139748 A 20091030;  
PL 1814678 T3 20081031; RS 20070281 A 20090122; RS 51457 B2 20110430; TW 200643219 A 20061216; UA 89810 C2 20100310;  
UA 96468 C2 20111110; US 2008190449 A1 20080814; US 2011186224 A1 20110804; US 2011195200 A1 20110811;  
US 8057604 B2 20111115; US 8728244 B2 20140520; WO 2006097311 A1 20060921; ZA 200703347 B 20080528

DOCDB simple family (application)

**DE 102005012296 A 20050317**; AR P060101065 A 20060317; AT 06723474 T 20060316; AU 2006224727 A 20060316;  
AU 2009202178 A 20090602; BR PI0605933 A 20060316; CA 2589605 A 20060316; CA 2779481 A 20060316; CN 200680008494 A 20060316;  
DE 502006000800 T 20060316; EA 200701265 A 20060316; EG NA2007000569 A 20070611; EP 06723474 A 20060316;  
EP 2006002429 W 20060316; ES 06723474 T 20060316; JP 2007542006 A 20060316; KR 20077010509 A 20060316;  
MX 2007011017 A 20060316; MY PI20061190 A 20060317; PL 06723474 T 20060316; RS P20070281 A 20060316; TW 95109083 A 20060317;  
UA A200708882 A 20060316; UA A200908026 A 20060316; US 201113086635 A 20110414; US 201113086678 A 20110414;  
US 88639706 A 20060316; ZA 200703347 A 20070424