

Title (en)  
HOT ROLLING INSTALLATION

Title (de)  
WARMWALZANLAGE

Title (fr)  
INSTALLATION DE LAMINAGE A CHAUD

Publication  
**EP 1414596 B1 20050126 (DE)**

Application  
**EP 02794551 A 20020805**

Priority  
• DE 10137944 A 20010807  
• EP 0208715 W 20020805

Abstract (en)  
[origin: WO03013750A2] A hot rolling installation should be constructed and able to be operated so that strips of materials, which can be shaped with different levels of difficulty and have a thickness of less than 1 mm, can be rolled. According to the invention, strip speeds of 15 m/sec should not be exceeded at the outlet of the last roll stand regardless of the material being used, and the hot-rolled strip should have austenitic structures. To this end, the invention provides that thin slab thicknesses of approximately 50 mm are used for easily shapeable material, that the first of seven stands is driven or executes only a smoothing pass, the slab is de-scaled in front of and behind the first stand, and that the second to seventh stand effects the reduction in thickness to less than 1 mm.

IPC 1-7  
**B21B 1/46**

IPC 8 full level  
**B21B 1/26** (2006.01); **B21B 1/46** (2006.01); **B21B 45/08** (2006.01)

CPC (source: EP KR US)  
**B21B 1/26** (2013.01 - EP US); **B21B 1/46** (2013.01 - KR); **B21B 1/466** (2013.01 - EP US); **B21B 45/08** (2013.01 - EP US); **B21B 2013/003** (2013.01 - EP US); **B21B 2201/02** (2013.01 - EP US); **Y10T 29/49991** (2015.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)  
**WO 03013750 A2 20030220; WO 03013750 A3 20030925**; AT E287769 T1 20050215; AU 2002355347 B2 20070621; BR 0211496 A 20040817; CA 2456933 A1 20030220; CA 2456933 C 20091110; CN 1250350 C 20060412; CN 1538884 A 20041020; DE 10137944 A1 20030220; DE 50202130 D1 20050303; EP 1414596 A2 20040506; EP 1414596 B1 20050126; ES 2232785 T3 20050601; HU 224681 B1 20051228; HU P0401143 A2 20040928; JP 2004537418 A 20041216; JP 4455878 B2 20100421; KR 100853666 B1 20080825; KR 20040015384 A 20040218; MX PA04001161 A 20040708; PL 201660 B1 20090430; PL 365390 A1 20050110; RU 2004106612 A 20050327; RU 2297889 C2 20070427; UA 77964 C2 20070215; US 2004232605 A1 20041125; US 7213432 B2 20070508; ZA 200400396 B 20040823

DOCDB simple family (application)  
**EP 0208715 W 20020805**; AT 02794551 T 20020805; AU 2002355347 A 20020805; BR 0211496 A 20020805; CA 2456933 A 20020805; CN 02815493 A 20020805; DE 10137944 A 20010807; DE 50202130 T 20020805; EP 02794551 A 20020805; ES 02794551 T 20020805; HU P0401143 A 20020805; JP 2003518743 A 20020805; KR 20047001798 A 20020805; MX PA04001161 A 20020805; PL 36539002 A 20020805; RU 2004106612 A 20020805; UA 2004031658 A 20020805; US 48641004 A 20040628; ZA 200400396 A 20040120