

Title (en)

Process and device for cooling a moving metallic strip

Title (de)

Verfahren und Vorrichtung zur Kühlung eines sich bewegenden metallischen Bandes

Title (fr)

Procédé et installation de refroidissement d'une bande métallique en défilement

Publication

EP 1486573 A1 20041215 (FR)

Application

EP 03291389 A 20030611

Priority

EP 03291389 A 20030611

Abstract (en)

A cooling of continuously defiling metal strip (2) consists of applying the strip on a principal cooling roller (10); maintaining the strip in contact with the principal cooling roller by means of a thrust roller (14); and evacuating the heat transmitted by the strip. The cooling of continuously defiling metal strip (2) consists of: (a) applying the strip on a principal cooling roller (10) in a manner such that the strip forms an arc of which the inner surface delimits with the external surface of the roller a contact zone adapted for an evacuation of a part of the heat of the strip towards the interior of the roller; (b) maintaining the strip in contact with the principal cooling roller by means of a thrust roller (14) on the outer surface of the strip, made of a material that is elastically deformable and thermo-capacitive; and (c) evacuating the heat transmitted by the strip to the thrust roller via a secondary cooling roller (16). An independent claim is also included for an installation for cooling continuously defiling metal strip by this method.

IPC 1-7

C21D 9/00; **C21D 9/573**; **C21D 9/56**

IPC 8 full level

C21D 9/573 (2006.01)

CPC (source: EP US)

C21D 9/5737 (2013.01 - EP US); **C21D 9/573** (2013.01 - EP US)

Citation (search report)

- [A] EP 0418166 A1 19910320 - LORRAINE LAMINAGE [FR]
- [A] US 6056913 A 20000502 - EBNER PETER [AT], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 131 (C - 346) 15 May 1986 (1986-05-15)
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 351 (C - 0968) 29 July 1992 (1992-07-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 006, no. 118 (C - 111) 2 July 1982 (1982-07-02)
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 137 (C - 0702) 15 March 1990 (1990-03-15)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2002, no. 03 3 April 2002 (2002-04-03)

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1486573 A1 20041215; **EP 1486573 B1 20051214**; AT E312948 T1 20051215; BR PI0411380 A 20060801; BR PI0411380 B1 20140812; CA 2528688 A1 20041223; CA 2528688 C 20120306; CN 100424194 C 20081008; CN 1802444 A 20060712; DE 60302777 D1 20060119; DE 60302777 T2 20060706; ES 2253645 T3 20060601; JP 2006527307 A 20061130; JP 4676432 B2 20110427; RU 2006100290 A 20060610; RU 2336338 C2 20081020; US 2006254682 A1 20061116; US 7527701 B2 20090505; WO 2004111280 A2 20041223; WO 2004111280 A3 20050217

DOCDB simple family (application)

EP 03291389 A 20030611; AT 03291389 T 20030611; BR PI0411380 A 20040609; CA 2528688 A 20040609; CN 200480015991 A 20040609; DE 60302777 T 20030611; ES 03291389 T 20030611; FR 2004001441 W 20040609; JP 2006516279 A 20040609; RU 2006100290 A 20040609; US 56017504 A 20040609