

Title (en)

Device for continuous heat treatment of metal strips

Title (de)

Vorrichtung zur Wärmebehandlung metallischer Bänder im Durchlauf

Title (fr)

Dispositif pour le traitement thermique en continu de bandes métalliques

Publication

EP 1443120 B1 20060712 (DE)

Application

EP 03029982 A 20031230

Priority

DE 10303228 A 20030128

Abstract (en)

[origin: US2004154182A1] A device for heat treating metallic webs in-line, in particular for operation with a low-density protective gas, comprises stabilising nozzle systems which stabilise the course of the web and effect heat transfer, primarily by forced convection, in the heating portion and at least in the first portion of cooling. The web is guided in a non-contact process in the treatment portion localised by rollers. The course of the web exhibits a concave curvature (as viewed from above), at least in a partial area in the treatment portion. The area of said concave curvature can be in a fluid which is different from the fluid with which the web is blown in the heating portion and at least in the first portion of the cooling area.

IPC 8 full level

C21D 9/63 (2006.01); **C21D 9/66** (2006.01); **F27B 9/04** (2006.01); **F27B 9/10** (2006.01); **F27B 9/20** (2006.01); **F27B 9/24** (2006.01); **F27B 9/40** (2006.01); **F27D 19/00** (2006.01); **F27D 21/00** (2006.01); **C21D 9/56** (2006.01)

CPC (source: EP US)

C21D 9/63 (2013.01 - EP US); **C21D 9/66** (2013.01 - EP US); **F27B 9/045** (2013.01 - EP US); **F27B 9/10** (2013.01 - EP US); **F27B 9/20** (2013.01 - EP US); **F27B 9/2476** (2013.01 - EP US); **F27B 9/40** (2013.01 - EP US); **F27D 19/00** (2013.01 - EP US); **F27D 21/00** (2013.01 - EP US); **C21D 9/561** (2013.01 - EP US); **C21D 9/565** (2013.01 - EP US); **F27D 2019/0059** (2013.01 - EP US)

Cited by

CN105800376A; WO2016096173A1; EP2722112B1

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DOCDB simple family (publication)

US 2004154182 A1 20040812; **US 6895692 B2 20050524**; AT E332983 T1 20060815; DE 10303228 B3 20040415; DE 50304206 D1 20060824; EP 1443120 A1 20040804; EP 1443120 B1 20060712; EP 1443120 B2 20101013

DOCDB simple family (application)

US 76467204 A 20040126; AT 03029982 T 20031230; DE 10303228 A 20030128; DE 50304206 T 20031230; EP 03029982 A 20031230