

Title (en)

DEVICE FOR DISCHARGING EXHAUST AIR FROM THE SURROUNDINGS OF A METAL STRIP

Title (de)

VORRICHTUNG ZUM ABFÜHREN VON ABLUFT AUS DER UMGEBUNG EINES METALLBANDES

Title (fr)

DISPOSITIF D'ÉVACUATION D'UN AIR VICIÉ DE L'ENVIRONNEMENT D'UN RUBAN MÉTALLIQUE

Publication

EP 3215283 B1 20180411 (DE)

Application

EP 15777705 A 20151012

Priority

- DE 102014222519 A 20141104
- DE 102015209399 A 20150522
- EP 2015073583 W 20151012

Abstract (en)

[origin: WO2016071080A1] The invention relates to a device for discharging exhaust air from the surroundings of a metal strip. Known devices of this type comprise at least one fan which is arranged at one side of a conveying path of the metal strip in order to generate an airflow to conduct the exhaust air in a blowing direction (BR) transverse to the conveying path. In contrast, the device (100) according to the invention has air quantity boosters (110) with an opposing suction device on the other side of the conveying path in the blowing direction in order to suction and discharge the airflow generated by the air quantity boosters together with the exhaust air. In order to reduce costs for the operation of the device, a sensor device (130) is provided in order to detect whether the metal strip (200) is present or not and at which speed the metal strip is being moved. Additionally, a controller (140) is provided in order to adjust the delivery rate of the air quantity boosters (110) and the suction device (120) depending on the measured speed.

IPC 8 full level

B21B 9/00 (2006.01); **F04D 25/08** (2006.01)

CPC (source: CN EP KR US)

B21B 9/00 (2013.01 - CN EP KR US); **B21B 45/0275** (2013.01 - KR); **B21B 45/0287** (2013.01 - US); **B21B 99/00** (2013.01 - EP US);
F04D 25/08 (2013.01 - CN EP KR US); **F04D 27/001** (2013.01 - CN EP KR US); **F04D 27/008** (2013.01 - CN EP KR US);
B21B 45/0275 (2013.01 - CN EP US)

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

DOCDB simple family (publication)

DE 102015209399 A1 20160504; CN 107073535 A 20170818; CN 107073535 B 20190412; EP 3215283 A1 20170913;
EP 3215283 B1 20180411; JP 2017531562 A 20171026; JP 6364126 B2 20180725; KR 101944356 B1 20190131; KR 20170067874 A 20170616;
US 10610916 B2 20200407; US 2017333965 A1 20171123; WO 2016071080 A1 20160512

DOCDB simple family (application)

DE 102015209399 A 20150522; CN 201580058233 A 20151012; EP 15777705 A 20151012; EP 2015073583 W 20151012;
JP 2017522019 A 20151012; KR 20177012914 A 20151012; US 201515523904 A 20151012