

Title (en)
METHOD AND DEVICE FOR ELECTROSTATIC COATING METAL STRIPS

Title (de)
VERFAHREN UND VORRICHTUNG ZUR ELEKTROSTATISCHEN BESCHICHTUNG VON METALLBÄNDERN

Title (fr)
PROCÉDÉ ET DISPOSITIF POUR LE REVÊTEMENT ÉLECTROSTATIQUE DE BANDES DE MÉTAL

Publication
EP 4210877 B1 20240403 (DE)

Application
EP 21777247 A 20210909

Priority
• DE 102020123740 A 20200911
• EP 2021074819 W 20210909

Abstract (en)
[origin: WO2022053559A1] The invention relates to a method for electrostatically coating a metal strip (1) with a coating material (2) using at least one nozzle bar (3), wherein: the metal strip (1) is moved in the longitudinal direction relative to the at least one nozzle bar (3); the at least one nozzle bar (3) comprises at least one slotted nozzle with a nozzle slot (3A), which slotted nozzle at least partially overlaps in the transverse direction the metal strip (1) being moved in the longitudinal direction; an electrostatic field is generated between the at least one nozzle bar (3) and the metal strip (1) via a voltage source (4); and the metal strip (1) is coated electrostatically, over at least a partial area, with at least one coating material (2). The problem of providing a method for electrostatically coating a metal strip with a coating material and a corresponding device, with which method and/or device the coating application on the metal strip can be adjusted with less effort and coating the metal strip while producing few rejects is made possible, is solved for a method by using a plurality of addressable dosing means (5) which are arranged on the at least one nozzle bar (3) distributed in the longitudinal direction thereof and with which the size of the nozzle slot (3A) of the at least one nozzle bar (3) can be modified locally during coating using a control signal.

IPC 8 full level
B05B 1/04 (2006.01); **B05B 1/32** (2006.01); **B05B 5/14** (2006.01); **B05B 12/08** (2006.01); **B05B 13/02** (2006.01); **B05B 1/24** (2006.01); **B05C 5/02** (2006.01); **B05C 9/06** (2006.01)

CPC (source: EP)
B05B 1/044 (2013.01); **B05B 1/32** (2013.01); **B05B 5/14** (2013.01); **B05B 12/084** (2013.01); **B05B 1/24** (2013.01); **B05C 5/0262** (2013.01); **B05C 9/06** (2013.01)

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 102020123740 A1 20220317; EP 4210877 A1 20230719; EP 4210877 B1 20240403; EP 4210877 C0 20240403; WO 2022053559 A1 20220317

DOCDB simple family (application)
DE 102020123740 A 20200911; EP 2021074819 W 20210909; EP 21777247 A 20210909