

Title (en)

Apparatus for electrochemical deposition on surfaces and electrochemical system

Title (de)

Vorrichtung zur galvanischen Abscheidung von Oberflächen und Galvanisierungssystem

Title (fr)

Appareil pour placage électrochimique sur des surfaces et système de placage

Publication

**EP 1865094 B1 20091021 (DE)**

Application

**EP 06115181 A 20060608**

Priority

EP 06115181 A 20060608

Abstract (en)

[origin: EP1865094A1] The position of the return roller (5) between two adjacent contact rollers (2) can be varied. This varies the returned length of substrate between the two contact rollers. Variation is carried out in accordance with extension of the starter layer to be coated. Return roller position is varied by an electrical- or mechanical actuator. The electrolyte (3) is replenished from an anode basket (11) filled with metal bodies. The basket is height-adjustable in the electroplating bath (4). The contact rollers carry the substrate through the electroplating bath. Each has a speed-controlled drive with timing belt transmission. The contact rollers are ground to a barrel-profile, to retain the substrate in a central position during transport. The return roller has an airturn, i.e. a non-contacting pneumatic levitation device. The electroplating bath includes an overflow. On the side of the contact rollers which first touches the substrate leaving the bath, a wiper (8) is provided. On the opposite side there is a scraper (10) removing adherent electrolyte from the roller. Slip rings on both sides of the contact rollers supply electrical current. A potential divider, or segmented contact rollers with suitable voltage supply, ensure uniform voltage distribution. The return roller is carried in glass ball bearings. Spacer units intervene between the contact roller bearing housings and the bath sidewalls. A flap in the bath permits anode basket replacement. Outside the bath, there is an electrolyte replenishment system. The substrate is supplied from a feeder and is taken up on leaving. The electroplating unit (1) has a preliminary electrolyte bath ahead of it. Between two or more electroplating baths, an instrument measures the starter layer thickness and/or variation in its resistance. Individual electroplating units can be taken off line from the electroplating system, to carry out maintenance work. A cleaning and/or inerting module is included.

IPC 8 full level

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CPC (source: EP US)

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**EP 1865094 A1 20071212**; **EP 1865094 B1 20091021**; AT E446393 T1 20091115; DE 502006005186 D1 20091203; US 2008000769 A1 20080103; US 7837839 B2 20101123; WO 2007140949 A1 20071213

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