

Title (en)

Rotogravure cylinder electroplating apparatus using ultrasonic energy

Title (de)

Vorrichtung zur Elektroplattierung eines Tiefdruckzylinders unter Verwendung von Ultraschallenergie

Title (fr)

Dispositif d'électroplacage d'un cylindre de rotogravure utilisant l'énergie ultrasonore

Publication

EP 0884404 B1 20040225 (EN)

Application

EP 97250241 A 19970818

Priority

US 85487997 A 19970512

Abstract (en)

[origin: EP0884404A2] An apparatus for electroplating and deplating a rotogravure cylinder out of a plating solution includes a plating tank adapted to rotatably maintain the cylinder and to contain a plating solution so that the cylinder is at least partially disposed into the plating solution. The apparatus also includes a mounting structure mountable within the tank partially on each side of and generally below the cylinder, along with a plurality of conductors comprising elongate metallic strips at least partially disposed within the plating solution. A current source is electrically connected to the upper portions of the conductor strips and to the cylinder. An ultrasonic system to introduce wave energy into the plating solution includes at least one transducer element mountable within the tank and a power generator adapted to provide electrical energy to the transducer element. A holding tank having a circulating pump and heating and cooling elements for the plating solution may be provided. <IMAGE>

IPC 1-7

C25D 5/20; **C25F 5/00**; **C25D 7/04**

IPC 8 full level

C25D 5/20 (2006.01); **C25D 7/04** (2006.01)

CPC (source: EP US)

C25D 5/20 (2013.01 - EP US); **C25D 5/617** (2020.08 - EP US); **C25D 7/04** (2013.01 - EP)

Cited by

US7556722B2; US6929723B2; US7914658B2; US8298395B2; US8758577B2

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EP 0884404 A2 19981216; **EP 0884404 A3 19991027**; **EP 0884404 B1 20040225**; DE 69727791 D1 20040401; DE 69727791 T2 20040805; DE 884404 T1 19990506

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