

Title (en)

Process for cleaning metals after their thermal treatment

Title (de)

Vorrichtung zur Reinigung von Metallen nach deren Bearbeitung mit hohen Temperaturen

Title (fr)

Procédé de nettoyage de métaux après leur traitement thermique

Publication

**EP 1022361 B1 20060621 (DE)**

Application

**EP 99125871 A 19960827**

Priority

- EP 96930346 A 19960827
- IT MO950131 A 19950927
- IT MO950156 A 19951110

Abstract (en)

[origin: WO9712081A1] The device proposed for cleaning metal surfaces consists of a pad (12, 34, 91) of insulating material held between a beak-shaped (11, 52, 94) electrode (10, 26, 46) and the metal surface (8) to be cleaned, plus a low-voltage a.c. power supply (2) which is connected via the other electrode to the metal (7). A pump supplies the pad with a highly corrosive, high-density, acid solution. The pad consists of relatively thick hose or tape. The device has slots (36) into which the gases and vapours produced during cleaning are drawn by an extractor fan (40) and then passed through a washing bottle (41) where they are cleaned. The electrode may have various shapes, and it is possible to replace the tip (28, 94, 98). The electrode is preferably designed with bores through which the acid solution can be fed. The main body (97) of the electrode and the replaceable tip (94, 98) may be coated with a layer (101, 100) of insulating material which prevents short-circuits occurring and concentrates the electrolytic action at the end surface (102) of the electrode. Woven or felt fabric made of polyetheretherketone is preferably used as the insulating material of the pad. The lifetime and working capacity of the device are maximized by using a double-layer pad (92, 93), the inner layer being made of woven fabric (92) and the outer layer of felt (93).

IPC 8 full level

**C25F 7/00** (2006.01)

IPC 8 main group level

**C25F** (2006.01)

CPC (source: EP US)

**C25F 7/00** (2013.01 - EP US)

Cited by

WO2004003260A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 9712081 A1 19970403**; AT E197318 T1 20001115; AT E331056 T1 20060715; AU 6942996 A 19970417; CA 2232571 A1 19970403; CA 2232571 C 20061024; CN 1067121 C 20010613; CN 1197487 A 19981028; DE 59606100 D1 20001207; DE 59611360 D1 20060803; EP 0852629 A1 19980715; EP 0852629 B1 20001102; EP 1022361 A2 20000726; EP 1022361 A3 20001129; EP 1022361 B1 20060621; ES 2153126 T3 20010216; IT 1279857 B1 19971218; IT MO950131 A0 19950927; IT MO950131 A1 19970327; JP 3160603 B2 20010425; JP H11511512 A 19991005; US 5964990 A 19991012

DOCDB simple family (application)

**IT 9600165 W 19960827**; AT 96930346 T 19960827; AT 99125871 T 19960827; AU 6942996 A 19960827; CA 2232571 A 19960827; CN 96197161 A 19960827; DE 59606100 T 19960827; DE 59611360 T 19960827; EP 96930346 A 19960827; EP 99125871 A 19960827; ES 96930346 T 19960827; IT MO950131 A 19950927; JP 51327397 A 19960827; US 4385898 A 19980526