

Title (en)

PROCESS AND APPARATUS FOR CLEANING THREAD- OR STRIP-SHAPED ARTICLES, IN PARTICULAR WIRE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM REINIGEN VON FADEN- ODER VON BANDFÖRMIGEN ERZEUGNISSEN, INSBESONDERE VON DRAHT

Title (fr)

PROCEDE ET APPAREIL POUR NETTOYER DES PRODUITS EN FORME DE FILS OU DE BANDES, NOTAMMENT DU FIL METALLIQUE

Publication

**EP 0895489 B1 20041006 (DE)**

Application

**EP 98908083 A 19980209**

Priority

- DE 19706007 A 19970210
- EP 9800753 W 19980209

Abstract (en)

[origin: WO9834738A1] A process is disclosed for cleaning thread- or strip-shaped articles, in particular wire, by ultrasound emitted by an ultrasonic sonotrode and a liquid, according to DE-196 02 917.1-15. The object of the invention was to develop a process of said type that enables ultrasound to act directly on the article to be cleaned. This object is attained in that the article to be cleaned is led through at least one bore (2) that matches the diameter of the article, along its longitudinal axis, and/or through at least one bore transverse to the longitudinal axis, at the point where the maximum resonance of a special flexural resonator (3) which resonates in air is reached. The flexural resonator (3) resonates at a very high amplitude to generate an intense cavitation field in the bores (2). The flexural resonator (3) is punctually or linearly excited by the ultrasonic sonotrode (1) up to a line of constant amplitude. The cleaning liquid is supplied to the bore (2) so as to fill it completely and is evacuated from the flexural resonator (3) through the bore (2).

IPC 1-7

**B08B 3/12**

IPC 8 full level

**B08B 3/12** (2006.01)

CPC (source: EP KR)

**B08B 3/12** (2013.01 - KR); **B08B 3/123** (2013.01 - EP); **B21C 43/04** (2013.01 - KR)

Designated contracting state (EPC)

AT BE CH DE ES FI FR GB IT LI SE

DOCDB simple family (publication)

**WO 9834738 A1 19980813**; AT E278479 T1 20041015; CN 1166462 C 20040915; CN 1216008 A 19990505; DE 19706007 C1 19980709; DE 59812069 D1 20041111; EP 0895489 A1 19990210; EP 0895489 B1 20041006; ES 2227806 T3 20050401; JP H11514924 A 19991221; KR 100333341 B1 20020905; KR 20000064836 A 20001106

DOCDB simple family (application)

**EP 9800753 W 19980209**; AT 98908083 T 19980209; CN 98800116 A 19980209; DE 19706007 A 19970210; DE 59812069 T 19980209; EP 98908083 A 19980209; ES 98908083 T 19980209; JP 53378698 A 19980209; KR 19980707842 A 19981001