

Title (en)
ULTRASONIC TREATMENT DEVICE

Title (de)
ULTRASCHALLBEHANDLUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE TRAITEMENT PAR ULTRASONS

Publication
EP 2389273 A4 20120822 (EN)

Application
EP 09838694 A 20090126

Priority
FI 2009050064 W 20090126

Abstract (en)
[origin: WO2010084234A1] The invention relates to a method and a treatment device, which operates by means of a vibrating movement for treating a workpiece. The treatment device comprises, in addition to a first vibrator (21), at least one other vibrator (22), which operates at a different frequency or in a different vibration mode than the first vibrator (21).

IPC 8 full level
B21J 5/00 (2006.01); **B24B 1/04** (2006.01); **B24B 39/00** (2006.01)

CPC (source: EP)
B24B 1/04 (2013.01); **B24B 39/006** (2013.01)

Citation (search report)

- [X] US 5741173 A 19980421 - LUNDT HOLGER [DE], et al
- [X] US 5968841 A 19991019 - LANDERS WILLIAM FRANCIS [US], et al
- [X] US 2007077871 A1 20070405 - PARK MOO-YONG [KR], et al
- See references of WO 2010084234A1

Designated contracting state (EPC)
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 SE SI SK TR

DOCDB simple family (publication)
WO 2010084234 A1 20100729; EP 2389273 A1 20111130; EP 2389273 A4 20120822; EP 2389273 B1 20130717

DOCDB simple family (application)
FI 2009050064 W 20090126; EP 09838694 A 20090126