

Title (en)
CIRCULAR NEEDLING LOOM WITH SMOOTH TABLE

Title (de)
VERNADDELUNGSMASCHINE MIT GLATTEM TISCH

Title (fr)
MACHINE D'AIGUILLETAGE CIRCULAIRE A TABLE LISSE

Publication
EP 1397546 A1 20040317 (FR)

Application
EP 02727701 A 20020426

Priority
• FR 0201456 W 20020426
• FR 0105798 A 20010430

Abstract (en)
[origin: US6367130B1] In a circular needling machine for needling an annular preform and comprising both a vertically movable needling table serving as a horizontal support for said annular preform, and a needling head having a determined number of barbed needles disposed over the needling table in a needling zone and driven with vertical reciprocating motion, provision is made for the annular preform to be placed directly on the needling table and for it to be driven in rotation on the needling table by drive means while the needling table remains rotationally stationary during said rotation. The drive means comprise a set of conical friction rollers kept continuously in contact with the annular preform.

IPC 1-7
D04H 18/00; **D04H 13/00**

IPC 8 full level
D04H 1/48 (2012.01); **D04H 1/70** (2012.01); **D04H 18/02** (2012.01); **D04H 18/00** (2012.01)

CPC (source: EP KR US)
D04H 1/48 (2013.01 - KR); **D04H 1/70** (2013.01 - KR); **D04H 18/02** (2013.01 - EP KR US)

Designated contracting state (EPC)
AT DE ES FR GB IT

DOCDB simple family (publication)
US 6367130 B1 20020409; AT E512244 T1 20110615; BR 0209322 A 20040615; CA 2445986 A1 20021107; CA 2445986 C 20070814; CN 1312341 C 20070425; CN 1505714 A 20040616; EP 1397546 A1 20040317; EP 1397546 B1 20110608; FR 2824086 A1 20021031; FR 2824086 B1 20030801; HU P0304037 A2 20040428; HU P0304037 A3 20080828; IL 158387 A0 20040512; IL 158387 A 20090211; JP 2004526881 A 20040902; JP 4128876 B2 20080730; KR 100805421 B1 20080220; KR 20040041543 A 20040517; MX PA03009882 A 20040217; RU 2003131882 A 20050227; RU 2283387 C2 20060910; UA 75132 C2 20060315; WO 02088451 A1 20021107

DOCDB simple family (application)
US 90026001 A 20010706; AT 02727701 T 20020426; BR 0209322 A 20020426; CA 2445986 A 20020426; CN 02809099 A 20020426; EP 02727701 A 20020426; FR 0105798 A 20010430; FR 0201456 W 20020426; HU P0304037 A 20020426; IL 15838702 A 20020426; IL 15838703 A 20031013; JP 2002585724 A 20020426; KR 20037013874 A 20031023; MX PA03009882 A 20020426; RU 2003131882 A 20020426; UA 2003109726 A 20020426