

Title (en)

Apparatus for hydroentangling the fibres of a fibre web

Title (de)

Vorrichtung zum hydrodynamischen Verschlingen der Fasern einer Faserbahn

Title (fr)

Dispositif d'hydro-enchevêtrement de fibres d'une nappe fibreuse

Publication

EP 0859076 A3 20000503 (DE)

Application

EP 98102048 A 19980206

Priority

- DE 19705292 A 19970212
- DE 19706610 A 19970220

Abstract (en)

[origin: US5960525A] A device for hydrodynamic entanglement operates to compact the fibers of a fiber web made of natural and/or manmade fibers. The device includes a first endless belt supporting the fiber web, the first endless belt being guided under tension and stretched between at least two rolls, including a reversing roll, and a second endless belt likewise stretched between at least two rolls, the second endless belt being located opposite the first endless belt and traveling in the same direction as the first endless belt, a tight side of the second endless belt being located opposite a tight side of the first endless belt. The second endless belt is driven to turn in the same direction as the first endless belt. The tight sides of the first and second endless belts are directed conically toward one another along their lengths, so that the fiber web lying on the tight side of the first endless belt is increasingly compressed between the advancing first and second endless belts. A pair of rolls is provided for pressing the second endless belt against the reversing roll of the first endless belt for greater wrapping of the reversing roll by the first and second endless belts. An associated needling drum is provided with which at least one nozzle beam is associated across the working width and axially parallel thereto. An additional nozzle beam is provided between the pair of rolls for wetting the fiber web, water jets of the additional nozzle beam being directed against the back of and through the second endless belt and against the fiber web which is compressed and held between the first and second endless belts.

IPC 1-7

D04H 1/46

IPC 8 full level

D04H 1/46 (2006.01); **D04H 18/04** (2012.01); **D04H 3/10** (2006.01); **D04H 5/02** (2006.01)

CPC (source: EP US)

D04H 18/04 (2013.01 - EP US)

Citation (search report)

- [A] GB 2300429 A 19961106 - COURTAULDS ENG LTD [GB]
- [AD] FR 2730246 A1 19960809 - ICBT PERFOJET SA [FR]
- [A] FR 2601970 A1 19880129 - VUILLAUME ANDRE [FR]
- [A] FLEISSNER VON A: "ALLES AUS EINER HAND", AVR ALLGEMEINER VLIESTOFF REPORT,DE,DPW VERLAGSGESELLSCHAFT MBH., HEUSENSTAMM, vol. 24, no. 3, 1 January 1996 (1996-01-01), pages 17 - 18,20, XP000636527, ISSN: 0170-4060

Cited by

US7631406B2; CN107620159A; EP1126064A3; EP1462557A1; CN108166153A; US8782861B2; WO2004046444A1; WO2008110134A1

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)

US 5960525 A 19991005; EP 0859076 A2 19980819; EP 0859076 A3 20000503; EP 0859076 B1 20020828; JP 4005205 B2 20071107; JP H10226950 A 19980825

DOCDB simple family (application)

US 2262998 A 19980212; EP 98102048 A 19980206; JP 2820598 A 19980210