

Title (en)

DEVICE FOR THE HYDRODYNAMIC ENTANGLEMENT OF THE FIBERS OF A FIBER WEB

Title (de)

VORRICHTUNG ZUM HYDRODYNAMISCHEN VERSCHLINGEN DER FASERN EINER FASERBAHN

Title (fr)

DISPOSITIF D'ENTRELACEMENT HYDRODYNAMIQUE DES FIBRES D'UNE BANDE DE MATIERE FIBREUSE

Publication

EP 1567705 B1 20090107 (DE)

Application

EP 03811392 A 20031107

Priority

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- EP 0350799 W 20031107

Abstract (en)

[origin: WO2004046444A1] In a previously known device, the voluminous fleece that is conveyed on an endless belt for water needling is compacted between a needling drum and the belt while being wetted by a first water curtain from a nozzle beam, the water jets of which initially penetrate the endless belt, then the fiber web, and finally the needling drum. A second endless belt which is associated with the first one is disposed thereabove, the two endless belts being conically directed towards each other in the operating zone, thereby pre-compacting the fiber web that is to be delivered to the needling drum. The two endless belts are pressed against the needling drum along with the fiber web that is disposed therebetween by means of two rolls and are simultaneously wetted with the aid of water jets of a nozzle beam which is arranged between the tightly associated rolls. The wetting point is not located in the compacting zone of the two superimposed endless belts but downstream of the compacting zone in the direction of conveyance of the fiber web in order to rinse one endless belt from the fibers that adhere thereto while the fiber web is redirected onto the needling drum without longitudinal tractive power being applied.

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