

Title (en)

Method and process for fibrillating a web of textile by projecting a liquid under high pressure

Title (de)

Verfahren und Vorrichtung zum Fibrillieren eines bahnförmigen Textilflächengebildes durch Beaufschlagen mit einer Hochdruckflüssigkeit

Title (fr)

Méthode et procédé de fibrillation d'une nappe textile par projection d'un liquide sous haute pression

Publication

EP 0937803 A1 19990825 (DE)

Application

EP 98810147 A 19980224

Priority

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Abstract (en)

To break down continuous textile materials (3) into fibers, they are subjected to high pressure fluid streams as a continuous fluid curtain (14) over the whole width of the material and at least on one side, delivered by a wide slit jet (6). The fluid is delivered by the wide slit jet (6) at a pressure of 25-70 bar. At the fluid beating station (4), where the pressure fluid jet stream strikes the fabric (3), the material is supported by a smooth and impermeable surface pref. as a rotating roller (1). The fluid enters the jet (6) through connections on both sides, impelled by a recirculating pump. The gap between the jet (6) and the material (3) is not more than 20 mm and preferably not more than 8 mm. The fluid is pref. water, with additives especially to swell cellulose and other natural material fibers and mixed with air. The water jet stream strikes the fabric (3) at an angle (α) of 40-150 degrees and pref. 60-120 degrees . An Independent claim is included for an apparatus with a wide slit jet (6) to form a continuous fluid curtain (14) on the running textile material (3).

Abstract (de)

Zum Fibrillieren eines kontinuierlich geförderten Textilflächengebildes (3) wird eine Flüssigkeit unter Hochdruck durch eine Breitschlitzdüse (6) als durchgehender Flüssigkeitsvorhang (14) auf das Flächengebilde (3) abgegeben. Mit dieser schonenden Art des Fibrillierens können alle Arten von Geweben fibrilliert werden, insbesondere auch leichte Stoffe. Die Breitschlitzdüse (6) ist einfach und kostengünstig herstellbar. <IMAGE>

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Citation (search report)

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