

## Title (en)

Device for hydraulic needling of nonwoven fabrics, tissues

## Title (de)

Vorrichtung zum hydrodynamischen Vernadeln von Vliesen, Tissue od. dgl.

## Title (fr)

Dispositif pour l'aiguilletage hydraulique d'étoffes nont-tissées, tissus

## Publication

**EP 0841424 A1 19980513 (DE)**

## Application

**EP 97119513 A 19971107**

## Priority

- DE 19646477 A 19961111
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## Abstract (en)

In an arrangement for the hydrodynamic strengthening of nonwoven materials, tissue, or paper, or for the needling of woven or knitted materials, a liquid processing medium is sprayed from a number of nozzles (7) against the material (2). The arrangement includes a permeable sheet metal drum (10) arranged opposite the nozzles and possibly subjected to a negative internal pressure, which acts as an intrinsically rigid support for the material during the needling process. The cylindrical surface of the drum is covered by a thin, liquid-permeable, sheet (12) with micro-fine holes, and between the drum surface (10) and the cover (12) is placed an inherently unstable under-covering made up of strips (13) which act solely to increase the distance between the drum surface (10) and the covering (12). The strips are arranged at a small and regular distance apart on the whole of the drum surface, the drum surface lying directly against their inner surfaces and the outer covering lying directly against their outer surface.

## Abstract (de)

Die durchlässige Trommel zum Vernadeln von Tissue, Nonwovens oder sonstigen durchlässigen Materialien einer gewissen Breite besteht aus einer normalen, gelochten Blechtrommel, auf der jetzt über die Länge der Trommel achsial sich erstreckende dünne Streifen mit geringem Abstand voneinander um die Trommel angeordnet sind. Die Streifen stützen einen mikrofein gelochten sehr dünnen Blechmantel radial ab und erzeugen die gleichmäßige Durchflutung des außen auf dem Blechmantel aufliegenden Gutes. Die Streifen können z. B. zu einem Honigwabenprofil miteinander verbunden sein und damit die entstehende hydrodynamische Belastung bei der Vernadelung auf die Siebtrommel gleichmäßig übertragen.

<IMAGE>

## IPC 1-7

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## IPC 8 full level

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## CPC (source: EP US)

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## Citation (search report)

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