

Title (en)
Curved perforated plate

Title (de)
Gekrümmte perforierte Platte

Title (fr)
Plaquette perforée courbée

Publication
EP 2712679 A1 20140402 (FR)

Application
EP 13005660 A 20090828

Priority
• FR 0900192 A 20090116
• EP 09737039 A 20090828

Abstract (en)
The device comprises a body (4) defining a chamber (6) and an outlet (7) longitudinal to outside of the chamber, and a single plate (1) in one piece and with perforations interposed between the chamber and the output. The plate is supported by two longitudinal bearings (3), which are bent along a curved surface of a same longitudinal generator that turns its concavity towards the outlet. The bearings are housed on the body or on the plate. The perforations are rotated, and imaginary axes (2) of the perforations are normal to the curved surface when the plate is applied on the bearings. The device comprises a body (4) defining a chamber (6) and an outlet (7) longitudinal to outside of the chamber, and a single plate (1) in one piece and with perforations interposed between the chamber and the output. The plate is supported by two longitudinal bearings (3), which are bent along a curved surface of a same longitudinal generator that turns its concavity towards the outlet. The bearings are housed on the body or on the plate. The perforations are rotated, and imaginary axes (2) of the perforations are normal to the curved surface when the plate is applied on the bearings. The distance between the two neighbor perforations is 0.4-30 mm. The perforations are staggered or aligned in rows perpendicular to the longitudinal rows of other perforations. The plate has a thickness of 0.6-1.4 mm. The free longitudinal edge of the bearings is removed from the chamber. The longitudinal median plane of the outlet is inclined according to a longitudinal median plane of a passage of the chamber. Independent claims are included for: (1) an installation for consolidating non-woven fibers by water jets; and (2) a perforated plate.

Abstract (fr)
Plaquette perforée (1) dont le diamètre des perforations est compris 50 et 250 microns et dont le rapport de la longueur à la largeur est compris entre 20 et 200, caractérisée en ce qu'elle a une partie courbée suivant une surface courbée de génératrice longitudinale et les perforations sont ménagées dans la partie courbée de manière à former des jets convergents.

IPC 8 full level
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CPC (source: EP)
D04H 18/04 (2013.01); **B05B 1/20** (2013.01); **B05B 1/26** (2013.01)

Citation (applicant)
WO 03007038 A1 20030123 - UNIV BROWN RES FOUND [US]

Citation (search report)
• [I] US 6357115 B1 20020319 - TAKATSUKA TSUTOMU [JP], et al
• [A] US 2709112 A 19550524 - CURTICE JEAN M

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