

Title (en)

Apparatus to disperse a high consistency paper fibers slurry and linings for this apparatus

Title (de)

Vorrichtung zur Dispergierung von hochkonsistentem Papierfaserstoff sowie Garnituren für diese Vorrichtung

Title (fr)

Appareil pour disperser une pâte à papier de haute consistance et garnitures pour cet appareil

Publication

EP 1147806 B1 20040728 (DE)

Application

EP 01104248 A 20010222

Priority

DE 10017899 A 20000411

Abstract (en)

[origin: EP1147806A1] An assembly to disperse paper fiber material, with a high consistency, has a structured clothing tooth set (1, 2). At least a part of the minimum axial gaps (a, b) between the clothing sections at their radial inner zone is significantly larger than the minimum axial gaps (c, d) in the radial outer zone. The paper fiber dispersion clothing set has the feet of at least 80% of the radially outer teeth (3', 3, 4', 4) of a clothing set on a common plane (E1, E2). One clothing set is a component part of a stator (6) and the other clothing set is a part of a powered rotor (5). The minimum axial gap (a) at the tips of the teeth at the radial inner zone of the clothing sets is significantly larger than the minimum axial gap (c) at the teeth tips in the radial outer zone. At the clothing set for the rotor, in at least two of the rows of the radially inner teeth and a maximum of five rows, the minimum axial gaps (a) at the tips of the teeth are significantly larger than the minimum axial gaps (b) in the other rows of teeth in the clothing set. The minimum axial gaps (d) between the tooth flanks are equal in different rows of teeth, as long as their feet lie on the common planes. The minimum axial gaps (b) at the tooth flanks in the radial inner zones of the clothing sets are significantly larger than the minimum axial gaps (d) at the tooth flanks in the radial outer zone. At the clothing set for the rotor, in at least two of the rows of the radially inner teeth and a maximum of five rows, the minimum axial gaps (b) at the flanks of the teeth are significantly larger than the minimum axial gaps (d) in the other rows of teeth in the clothing set. At the clothing set for the stator and the rotor, in at least two of the rows of the radially inner teeth and a maximum of four rows, the height of the teeth are lower over the clothing laying surface than in the other rows. The difference of the minimum axial gaps is at least 2 mm or at least 5 mm and at least 10% of the axial tooth height.

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IPC 8 full level

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Cited by

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