

Title (en)  
Apparatus for pulping fibrous materials

Title (de)  
Vorrichtung zum Auflösen von Faserstoffen

Title (fr)  
Dispositif de mise en pâte de matériaux fibreux

Publication  
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Application  
**EP 01117171 A 20010714**

Priority  
DE 10046169 A 20000919

Abstract (en)

The assembly for repulping used paper (F) has a preferably vertical drum (1) with a feed opening (3) for the material at the upper end, and a take-off opening (4) at the bottom. A rotor (2) within the drum is rotated by a drive (5). The assembly for repulping used paper has a drum with its mantle line angled against the vertical by a maximum of 45 degrees or a maximum of 30 degrees. The drum is fixed, with a concentric rotor within it. The rotor core is drum-shaped, and can have an oval contour. The minimum width of the ring gap between the rotor core and the inner wall surface of the drum is at maximum 500 mm. The rotor has outer carrier bars (6), with an axial length of at least 200 mm and a radial extension of maximum 100 mm or maximum 50 mm. The carrier bars have a shape and dimensions to prevent released plastics film or strips clinging to them. The carrier bars are angled against the axial line. The drum is fitted with interior brake bars (7) with a radial extension of maximum 100 mm or a maximum of 50 mm. The shape and dimensions of the brake bars prevent released plastics film or strips clinging to them. The brake bars are angled against the axial line. The minimum gap between the rotor and the drum gives at least 30 mm free or at least 100 mm free. The drum structure has feed points (8) for diluting water (W'), at the lower one-third of the drum height, leading into the ring gap between the rotor core and the inner surface of the drum wall. The take-off opening is a ring surface under the drum base, with a sliding ring (14) to alter the free opening of the ring surface. The free opening of the ring surface can be increased or decreased by raising or lowering the drum. The rotor can have only an upper mounting with the drive. The ring gap between the rotor and the inner surface of the drum wall is larger in the lower one-third section than at the remainder of the drum over it.

Abstract (de)

Die Vorrichtung zum Auflösen von Faserstoff (F) besteht im Wesentlichen aus einer vorzugsweise senkrecht stehenden Trommel (1) mit einer Einfüllöffnung (3) für den Faserstoff (F) an ihrer oberen Stirnseite und einer Austragsöffnung (4) an ihrer unteren Stirnseite, in deren Innerem sich ein Rotor (2) befindet, der mit Hilfe eines Antriebes (5) rotierbar ist. Der aufzulösende Faserstoff (F) kann bevorzugt verschmutztes Altpapier, aber auch nativer Zellstoff sein. Die Vorrichtung ist besonders unempfindlich gegenüber Schmutzstoffen im Faserstoff, kommt mit einem geringen Energiebedarf aus und nutzt das beanspruchte Bauvolumen optimal zur Auflösung. <IMAGE>

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IPC 8 full level  
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CPC (source: EP US)  
**D21B 1/30** (2013.01 - EP US); **D21B 1/345** (2013.01 - EP US)

Citation (search report)

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