

Title (en)
Method and device for spraying a moving fibrous web

Title (de)
Verfahren und Vorrichtung zum Besprühen einer bewegten Faserstoffbahn

Title (fr)
Procédé et dispositif de pulvérisation d'un produit sur une nappe fibreuse en défilement

Publication
EP 1088594 A2 20010404 (DE)

Application
EP 00116349 A 20000728

Priority
DE 19946479 A 19990928

Abstract (en)
The assembly to spray the surface of a moving paper or cardboard web (12) has a jet (14) which sprays an adjustable vol. of the coating medium (16) on to the web surface. A pulsation valve (20) is in the feed of the medium to the jet, where the flow pulsations are damped or weakened. The vol. flow to the jet (14) is set by the pulsation valve (20), which is an armature or plate armature valve. The pulsations in the vol. flow of the coating medium (16) to the jet (14) are suppressed by a pulsation damper (18) in front of the jet (14) and/or by the use of a jet (14) with a larger jet width in the direction (L) of web travel and/or by the use of a flexible feed conduit to the jet (14). The jet width along the direction (L) of web travel can be 30% of the width across the web line and preferably 50% of the lateral width. The jet (14) is preferably an elliptical flat-stream jet, oriented at an angle to the web (12) to spray the surface against the direction (L) of web travel at ≤ 80 degrees and preferably ≤ 70 degrees. The jet is suitable for webs (12) moving at speeds of ≥ 1200 m/min. and preferably ≥ 1500 m/min. The jet (14) can also be a solid cone jet. The vol. flow is set by the pulsation valve (20) using pulse width modulation. The pulsation valve is controlled at a constant cycle frequency. An Independent claim is included for a web coating assembly (10) with a jet (14) to spray the web (12) surface with a coating medium (16). At least one pulsation valve (20) in the flow feed with units (18,14) to dampen or weaken pulsations in the medium flow.

Abstract (de)
Bei einem Verfahren zum Besprühen einer bewegten Faserstoffbahn 12, insbesondere Papier- oder Kartonbahn, mittels wenigstens einer Düse 14 wird der Düse 14 ein vorzugsweise einstellbarer Volumenstrom des betreffenden Sprühmediums 16 über wenigstens ein Pulsationsventil 20 zugeführt, wobei im Volumenstrom des Sprühmediums 16 auftretende Pulsationen vorzugsweise gedämpft oder abgeschwächt werden. Es wird auch eine entsprechende, eine Düse 14 sowie wenigstens ein Pulsationsventil 20 umfassende Vorrichtung beschrieben. <IMAGE>

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B05B 12/06

IPC 8 full level
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CPC (source: EP US)
B05B 1/30 (2013.01 - EP US); **B05B 9/03** (2013.01 - EP US); **D21G 7/00** (2013.01 - EP US); **D21H 23/50** (2013.01 - EP US); **B05B 1/08** (2013.01 - EP US)

Citation (applicant)
• DE 68924433 T2 19960509 - JIMEK AB [SE]
• DE 4139671 C2 19971023 - STAIGER STEUERUNGSTECH [DE]
• DE 4419446 C2 19981105 - STAIGER STEUERUNGSTECH [DE]

Cited by
WO2022096266A1; EP1321571A3; EP1366825A3; EP1366824A1; CN100464726C; WO03101622A3; DE102020129160A1

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