

Title (en)

Doctor rod for metering systems for distributing and stripping a fluid or viscous medium on moving strips of material

Title (de)

Rakelstange für Dosiersysteme zum Verteilen und Abstreifen eines flüssigen oder viskosen Mediums auf laufenden Materialbahnen

Title (fr)

Tige de racle pour systèmes de dosage destinée à répartir et racle un support fluide ou visqueux sur une bande de matériau déroulante

Publication

EP 2314382 A2 20110427 (DE)

Application

EP 10075712 A 20101014

Priority

DE 102009050917 A 20091023

Abstract (en)

The doctor blade of a dosing system for distributing and stripping a fluid or viscous medium on running material web such as paper or cardboard web, where the fluid or viscous medium is applied in excess and is removed by the doctor blade from the desired stroke weight is claimed. The doctor blade is a cold drawn profile tube (10) that is equipped at its external circumference (12) with two axially parallel, molded lips (11), which have a thickness increasingly enlarging from external circumference of the tube, where the thickness is reverted radially to external circumference of the tube. The doctor blade of a dosing system for distributing and stripping a fluid or viscous medium on running material web such as paper or cardboard web, where the fluid or viscous medium is applied in excess and is removed by the doctor blade from the desired stroke weight is claimed. The doctor blade is a cold drawn profile tube (10) that is equipped at its external circumference (12) with two axially parallel, molded lips (11), which have a thickness increasingly enlarging from external circumference of the tube, where the thickness is reverted radially to external circumference of the tube. The tear-off edges of the lips lie related to the external circumference. The lips are distributed over the external circumference and arranged symmetrically to each other or asymmetrically on the profile tube. A high-strength layer (15) reducing the friction is applied on the surface of the lips and is a diamond-like-carbon coating based on carbon. The number of lips is dependent upon the running speed of the paper or cardboard web to be coated and the layer thickness applied on the paper- and cardboard web. The interior diameter (16) of the profile tube is circular and is formed like the external profile.

Abstract (de)

Rakelstange für Dosiersysteme zum Verteilen und Abstreifen eines flüssigen oder viskosen Mediums auf laufenden Materialbahnen, insbesondere Papier- und Kartonbahnen, bei denen das flüssige oder viskose Medium im Überschuss aufgetragen und mittels der Rakelstange auf das gewünschte Strichgewicht abgerakelt wird. Wobei die Rakelstange ein kaltgezogenes Profilrohr (10) ist, das an seinem Außenumfang mit mindestens einer achsparallel angeformten Lippe (11) versehen ist.

IPC 8 full level

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CPC (source: EP US)

B05C 11/045 (2013.01 - EP US); **D21H 25/12** (2013.01 - EP US); **B05C 11/025** (2013.01 - EP US)

Citation (applicant)

- DE 69603969 T2 20000309 - BELOIT TECHNOLOGIES INC [US]
- DE 10084391 T1 20030703 - METSO PAPER INC [FI]
- DE 19631913 A1 19980219 - VOITH SULZER PAPIERMASCH GMBH [DE]
- DE 19626580 A1 19980108 - JAGENBERG PAPIERTECH GMBH [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

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