

## Title (en)

Device and process for applying a fluid or pasty material onto a moving bed

## Title (de)

Vorrichtung und Verfahren zum Auftragen eines flüssigen oder pastösen Mediums auf eine laufende Materialbahn

## Title (fr)

Dispositif et procédé d'application de matériau fluide ou pâteux sur une bande en mouvement

## Publication

**EP 0969147 A3 20000712 (DE)**

## Application

**EP 99108451 A 19990430**

## Priority

DE 19829449 A 19980701

## Abstract (en)

[origin: EP0969147A2] At the assembly (10) to apply a liquid or paste coating (18) to the surface of a moving web of paper or cardboard, using a spray curtain applicator (16), a system (30,34) to register the air back pressure determines the pressure of built-up air in front of the strike line (T) of the coating curtain (20) in the direction (L) of web (12a) travel. A control (32) sets the suction power of the air suction unit (24) according to the air back pressure recorded by the measurement system (30,34). The air pressure monitor gives a direct reading of the air back pressure with at least one sensor (30), located in front of the coating curtain (20) strike line (T) in the direction (L) of web (12a) travel. The monitor also has at least one sensor (34) to register the speed of travel by the web surface (12a). The coating medium (18) has a solid content of 5-50% and pref. 30-75%. It contains at least one inorganic or organic pigment and at least one synthetic or natural bonding agent. It is applied in a coating with a weight of 2-40 g/m<2> and pref. 3-30 g/m<2>. The speed of web surface (12a) travel is  $\geq 600$  m/min. and pref.  $\geq 1000$  m/min. The web (12) width to be coated is  $\geq 2.5$  m and pref.  $\geq 4.0$  m. A scraper bar (36) is in front of the coating strike line (T), in the direction (L) of web travel, to detach any air (26) carried by the moving web surface (12a). In a direct coating application, a unit (38) stabilizes the web (12) movement, such as by a further suction unit (38) which applies an underpressure to the side of the web (12) opposite the coating applicator (16), to draw the web (12) against a support and pref. a support roller (14). An Independent claim is included for a web coating process, where a suction unit (24) extracts air (26) carried by the moving web surface (12a) in front of the coating curtain strike line (T). The suction power of the air extractor (24) is set according to the air back pressure sensor (30) readings. Preferred Features: The sensor (30) gives a direct reading of the air back pressure at the moving web surface (12a) in front of the coating curtain strike line (T). The web (12) movement speed is indirectly registered by a sensor (34).

## IPC 1-7

**D21H 23/48**

## IPC 8 full level

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## CPC (source: EP US)

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## Citation (search report)

- [AD] US 5624715 A 19970429 - GUEGGI MARKUS [CH], et al
- [A] DE 3424884 C1 19860220 - DU PONT DEUTSCHLAND
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