

Title (en)  
Process and apparatus for inserting security elements into a paper web

Title (de)  
Verfahren und Vorrichtung zum Einbringen von Merkmalsstoffen in eine Papierbahn

Title (fr)  
Procédé et dispositif pour insérer des éléments de sécurité dans une bande de papier

Publication  
**EP 1253241 A3 20040204 (DE)**

Application  
**EP 02007221 A 20020327**

Priority  
DE 10120818 A 20010427

Abstract (en)  
[origin: EP1253241A2] In a process to introduce a watermark into pre-moistened but adequately strong paper web, the watermark is applied to the surface as a low pressure-regulated laminar jet. The laminar jet pressure is carefully regulated to ensure that the pressure from each jet is identical irrespective of the number of jets. The fluid is a water-based marker substance. The pressure applied is in the range 30 to 200 mbar. Also claimed is a commensurate paper web (2) spray assembly with a liquid reservoir (13) discharging to jets (11). The assembly further has a pressure regulation device (P1, P2, 26)

IPC 1-7  
**D21H 21/42**

IPC 8 full level  
**D21H 23/28** (2006.01); **D21H 21/42** (2006.01); **D21H 21/48** (2006.01); **D21H 23/50** (2006.01); **D21H 23/78** (2006.01)

CPC (source: EP US)  
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Citation (search report)

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