

Title (en)

Electrostatic nozzle, in particular for injecting high-viscosity liquids

Title (de)

Elektrostatikdüse, insbesondere zum Ausspritzen hochviskoser Flüssigkeiten

Title (fr)

Buse électrostatique, en particulier pour injecter des matériaux fluides à haute viscosité

Publication

EP 0590165 B1 19970226 (DE)

Application

EP 92116182 A 19920922

Priority

EP 92116182 A 19920922

Abstract (en)

[origin: EP0590165A1] The invention relates to an electrostatic nozzle for the production of printing screens which are used in particular in the field of the textile industry. Said printing screens consist of a fine-meshed screen (1) bearing a pattern. The pattern is produced by spraying a highly viscous masking liquid with the aid of the electrostatic nozzle only at those points on the screen (1) at which the screen (1) has to be covered for the purposes of the pattern and leaving those parts of the screen (1) uncovered at which the screen has to remain permeable. To be able to spray the highly viscous masking liquid, a plunger (31) projects into a spray channel (30) of the nozzle (2), which plunger is excited to high-frequency oscillation. From the intense disturbances thus caused, there result pronounced regular constrictions, corresponding to the oscillation frequency, of the liquid jet leaving the spray channel, so that, outside the spray channel, drops can very rapidly form as a result of the surface tension of the liquid. This leads to a short overall length of the nozzle. <IMAGE>

IPC 1-7

B05B 5/025; **B05B 17/06**; **B05D 1/04**; **B41C 1/14**

IPC 8 full level

B05B 5/025 (2006.01); **B05B 17/06** (2006.01); **B41C 1/14** (2006.01)

CPC (source: EP)

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Cited by

EP1498262A1; US6135357A; AU696182B2; US5875712A; EP0678337A1; US5630793A; US10073949B2; US11938056B2; WO0030762A1; WO9625293A1; WO9526236A1; US10639194B2; US10646373B2; US10154923B2; US10839960B2; US11011270B2; US11398306B2; US11839487B2

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