

Title (en)

A device for direct electrostatic printing (DEP) comprising a magnetic brush and printhead structure with special geometry

Title (de)

Vorrichtung zum direkten elektrostatischen Drucken mit aus einer magnetischer Bürste und Druckkopf bestehende Struktur mit spezieller Geometrie

Title (fr)

Dispositif pour l'impression électrostatique directe comprenant une structure à brosse magnétique et à tête d'impression à géométrie particulière

Publication

EP 0731394 B1 19980610 (EN)

Application

EP 95200556 A 19950307

Priority

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Abstract (en)

[origin: EP0731394A1] A DEP device is provided that comprises : a back electrode (105), a printhead structure (106), at the front side of the receiving substrate (109), an array of printing apertures (107) in said printhead structure (106) through which a particle flow can be electrically modulated by a control electrode (106a), a toner delivery means (101), comprising a magnetic brush (103), comprising toner particles and magnetically attractible carrier particles, the reference surface of said magnetic brush being placed at a distance B (in mm) from the front of said printhead structure (106b), facing said magnetic brush, characterised in that (i) a magnetic field is formed over said distance B (ii) said magnetic brush has a curvature in the development zone fulfilling the equation $I = \frac{R}{C}$ wherein the curvature R of said magnetic brush in the development zone is expressed as the radius (in mm) of a circle that best fits to said curvature of said magnetic brush in the development zone and C is the extension (in mm) of the array of printing apertures (107) in the direction of the movement of said receiving substrate (109) measured from the middle of the apertures in the first row to the middle of the apertures in the last row. <IMAGE>

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