

Title (en)
A device for DEP (direct electrostatic printing)

Title (de)
Direkte elektrostatische Druckvorrichtung (DEP)

Title (fr)
Imprimante électrostatographique directe (DEP)

Publication
EP 0740224 A1 19961030 (EN)

Application
EP 96200890 A 19960402

Priority

- EP 96200890 A 19960402
- EP 95201048 A 19950425
- EP 95201269 A 19950516

Abstract (en)

There is provided a device for direct electrostatic printing comprising a back electrode (105), a printhead structure (106), 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), an image receiving substrate (109) travelling between said back electrode (105) and said printhead structure (106) in the direction of arrow A and toner delivery means (101), comprising a charged toner conveyer (103), the reference surface of said charged toner conveyer being placed at a distance B (in mm) from the front of said printhead structure (106), and a magnetic brush to provide charged toner on to the CTC, wherein the linear surface speed of the magnetic brush LSM has a specified minimal ratio versus the travelling speed LSS of the image receiving substrate, such that $LSM/LSS \geq 0.5$. In a preferred embodiment the surface speed of the CTC LSC has also a specified minimal ratio versus the travelling speed LSS of the image receiving substrate, such that $LSC/LSS \geq 0.5$. In a further preferred embodiment the surface speed of the magnetic brush LSM has also a specified minimal ratio versus the linear surface speed LSC of the CTC, such that $LSM/LSC \geq 0.5$. More over the radius of the CTC is chosen as a function of the extension of the array of printing apertures present in the printhead structure. <IMAGE>

IPC 1-7
G03G 15/34; B41J 2/415

IPC 8 full level
B41J 2/415 (2006.01); **G03G 15/34** (2006.01)

CPC (source: EP)
B41J 2/4155 (2013.01); **G03G 15/346** (2013.01); **G03G 2217/0025** (2013.01)

Citation (search report)

- [DA] US 5040004 A 19910813 - SCHMIDLIN FRED W [US], et al
- [A] US 4743926 A 19880510 - SCHMIDLIN FRED W [US], et al
- [A] US 3779166 A 19731218 - FROHBACH HUGH F [US], et al
- [A] US 5298358 A 19940329 - RUBIN BRUCE J [US], et al
- [AD] US 5214451 A 19930525 - SCHMIDLIN FRED [US], et al
- [A] US 5204696 A 19930420 - SCHMIDLIN FRED [US], et al
- [A] WO 9426527 A1 19941124 - ARRAY PRINTERS AB [SE]

Cited by
US6102523A; EP0849087A1; US6074112A; EP0849645A1; EP0810493A3; US6056390A; US6227655B1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0740224 A1 19961030; EP 0740224 B1 19980708

DOCDB simple family (application)
EP 96200890 A 19960402