

Title (en)

Low airflow catcher for continuous ink jet printers

Title (de)

Tintenauffangvorrichtung mit geringem Luftstrom für kontinuierlich arbeitenden Tintenstrahldrucker

Title (fr)

Intercepteur à écoulement d'air réduit pour imprimantes à jet d'encre continu

Publication

EP 0805039 A1 19971105 (EN)

Application

EP 97302696 A 19970421

Priority

US 64023796 A 19960430

Abstract (en)

An improved catcher device is provided for use with a continuous ink jet printer of the kind for generating a row of parallel selectively charged drop streams catches charged ink drops. The improved catcher device includes a catcher face (20) for receiving selectively charged drops of ink. A catcher radius (28) associated with the catcher face directs the flow of selectively charged drops of ink from the catcher face into a catcher throat (22). The catcher throat is associated with the catcher radius and accepts a flow of selectively charged drops of ink from the catcher radius. The catcher throat (22) has a short, narrow gap (34) with a sudden enlargement (36) downstream of the gap and two converging-diverging channels (33) formed by an elliptical island (30) and elliptical sidewalls. Finally, a catcher vacuum port (26), comprising the catcher face (20), the catcher radius (28), and the catcher throat (22), establishes reduced airflow and returns the selectively charged drops of ink from the printhead to the fluid system.

<IMAGE>

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IPC 8 full level

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CPC (source: EP)

B41J 2/185 (2013.01); **B41J 2002/1853** (2013.01)

Citation (search report)

- [XA] EP 0561205 A2 19930922 - EASTMAN KODAK CO [US]
- [X] US 4839664 A 19890613 - ARCHER TIMOTHY H V [US], et al
- [X] US 3836914 A 19740917 - DUFFIELD P
- [X] US 4268836 A 19810519 - HULIBA DAVID A, et al

Cited by

WO2004082946A1; EP1435295A1; US6962411B2; US9505220B1

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