

## Title (en)

Apparatus for printing paper or plate-shaped materials

## Title (de)

Vorrichtung zum Bedrucken von Papier oder plattenförmigen Werkstoffen

## Title (fr)

Dispositif pour imprimer papier ou matériaux en forme de plaque

## Publication

**EP 1132784 A1 20010912 (DE)**

## Application

**EP 01100623 A 20010111**

## Priority

DE 10001452 A 20000115

## Abstract (en)

[origin: DE10001452A1] The transport system, to move materials through a printing station, has a conveyor and centering unit (2,3) of a screen printer combined with an electrostatic and especially electrophotographic printer (EDE). The printing section can be raised vertically or swung on one end as the upper section of a screen printer. The electrostatic and especially electrophotographic printer (EDE) is contained within a holding frame (4), as a continuous belt (8) which passes around two tensioning rollers (9). An electrostatic printing head is over the upper level of the belt (8), with an optical photo conductive roller (10) and a developing unit (11). At the lower level of the belt (8), on the side away from the conveyor/ centering unit (2,3), an electrostatic scraper (12) with a linear movement transfers the toner from the continuous belt (8) on to the workpiece to be printed. An ultrasonic unit can be at the electrostatic scraper, which is a roller (12) which presses the belt (8) against the workpiece to be printed. The workpiece material to be printed is laid on a conductive plate. A voltage is applied to the plate and the roller (12), with a control to set its level according to the toner release. A transfer unit can be integrated into the upper structure, with the electrostatic printing head. The rotary speed of the transfer unit is synchronized with the linear movement over the workpiece material to be printed. Or the linear movement of the workpiece material is synchronized with the rotary speed of the transfer unit, mounted at the holding frame (4).

## Abstract (de)

Die Erfindung betrifft eine Vorrichtung zum Bedrucken von Papier oder plattenförmigen Werkstoffen, wie Glas-, Keramik-, Glaskeramik- oder Kunststoffplatten, mit einer Transporteinrichtung (1) für die zu bedruckenden Platten und einer darüber angeordneten elektrostatischen, insbesondere elektrophotographischen Druckeinrichtung (EDE). Mit dem Druckvorgang wird auf wirtschaftliche Weise erreicht, dass als Transporteinrichtung eine Förder- und Zentriereinheit einer Siebdruckeinrichtung (BE) mit der elektrostatischen, insbesondere elektrophotographischen Druckeinrichtung (EDE) kombiniert ist, die mit dem Oberwerk der Siebdruckeinrichtung (OW) kompatibel ist. <IMAGE>

## IPC 1-7

**G03G 15/16**

## IPC 8 full level

**G03G 15/16** (2006.01)

## CPC (source: EP US)

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## Citation (search report)

- [DXY] EP 0727778 A1 19960821 - OCE NEDERLAND BV [NL]
- [XY] US 4436405 A 19840313 - KINDT ROBERT J [US]
- [XY] FR 2126817 A5 19721006 - PHILIPS NV
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- [Y] EP 0465210 A2 19920108 - XEROX CORP [US]
- [Y] US 4116557 A 19780926 - KUSHIMA TEIZO, et al
- [A] US 3549251 A 19701222 - OLDEN ROGER G

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## DOCDB simple family (application)

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