

Title (en)
Method for patterning the surface of workpieces

Title (de)
Verfahren zum Bemustern der Oberfläche von Werkstücken

Title (fr)
Procédé pour décorer la surface de pièces

Publication
EP 1867488 A1 20071219 (DE)

Application
EP 06012041 A 20060612

Priority
EP 06012041 A 20060612

Abstract (en)

The device for patterning the surface of work pieces (2) such as wood, wood materials or plastics, comprises an ink-jet pressure unit/rotary pressure unit (4), a web supply unit (6) for supplying web shaped material (8) along the pressure unit, a web loading unit (10) for continuous loading of the web shaped material to the web supply unit, and an application unit. The web shaped material can be printed by the pressure unit. The application unit is intended for applying the printed, web shaped material on the surface of the respective work piece. The device for patterning the surface of work pieces (2) such as wood, wood materials or plastics, comprises an ink-jet pressure unit/rotary pressure unit (4), a web supply unit (6) for supplying web shaped material (8) along the pressure unit, a web loading unit (10) for continuous loading of the web shaped material to the web supply unit, and an application unit. The web shaped material can be printed by the pressure unit. The application unit is intended for applying the printed, web shaped material on the surface of the respective work piece. A conveyer system is arranged to produce a relative movement between the respective work pieces and application unit. The pressure unit is arranged in such a manner that the side of the web shaped material is printed. The web loading unit has a reception for the supply of web shaped material, which has multilayers and which is structured and/or transparent. The device has a structure formation unit for forming a structure at the web shaped material, which is upstream to the pressure unit, a structure recording unit for recording a structure at the web shaped material, which is upstream to the pressure unit, and a control device, which is connected with the pressure unit and which is stored in the image data for the pattern, which can be applied on the web shaped material. In the control device, data is available via type and positioning of a structuring of the web shaped material. The control device is connected with the structure formation unit and/or structure-recording unit. The device has an adhesive application unit for applying adhesive on the web shaped material and/or the work pieces. The device is formed as processing center or as running machine and has a connection section operationally connectable with a spindle unit. The components of the exchangeable unit are selected from pressure unit, web supply unit, application unit, structural formation unit, structure recording unit and adhesive application unit. An independent claim is included for a method for patterning the surface of work pieces such as wood, wood materials, or plastics.

Abstract (de)

Die Erfindung betrifft eine Vorrichtung (1) zum Bemustern der Oberfläche (2') von Werkstücken (2), die bevorzugt zumindest teilweise aus Holz, Holzwerkstoffen, Kunststoffen oder dergleichen bestehen, mit einer Druckeinheit (4), einer Bahnzufuhreinheit (6) zum Zuführen eines bahnförmigen Materials (8) entlang der Druckeinheit (4) derart, dass das bahnförmige Material (8) durch die Druckeinheit (4) bedruckt werden kann, einer Bahnbereitstellungseinheit (10) zum kontinuierlichen Bereitstellen des bahnförmigen Materials (8) an die Bahnzufuhreinheit (6), einer Aufbringeinheit (12) zum Aufbringen des bedruckten, bahnförmigen Materials (8) auf die Oberfläche (2') des jeweiligen Werkstücks (2), und einer Fördereinrichtung, die eingerichtet ist, eine Relativbewegung zwischen den jeweiligen Werkstücken und zumindest der Aufbringeinheit zu erzeugen.

IPC 8 full level

B41J 11/00 (2006.01); **B41J 3/407** (2006.01); **B41J 3/44** (2006.01); **B44B 1/00** (2006.01); **B44C 1/10** (2006.01); **B44C 1/17** (2006.01); **B44C 5/04** (2006.01); **B44F 9/02** (2006.01); **B65C 1/00** (2006.01)

CPC (source: EP)

B41J 3/407 (2013.01); **B41J 3/44** (2013.01); **B44C 1/105** (2013.01); **B44C 1/1733** (2013.01); **B44C 5/043** (2013.01)

Citation (applicant)

- EP 05009326 A 20050428
- DE 10142432 C1 20030528 - HOMAG HOLZBEARBEITUNGSSYSTEME [DE]
- EP 0095046 A1 19831130 - INTERPRINT ROTATIONSDRUCK GMBH [DE]

Citation (search report)

- [XY] WO 2004018216 A1 20040304 - ESPERA WERKE GMBH [DE], et al
- [XY] WO 9742086 A1 19971113 - WILLETT INT LTD [GB], et al
- [Y] US 2003048343 A1 20030313 - ANDERSON BRIAN L [US], et al
- [Y] WO 0148333 A1 20010705 - PERSTORP FLOORING AB [SE]

Cited by

WO2023237522A1; DE102009011486A1; DE102009011486B4; EP2266844A1; FR2946934A1; CN113423546A; DE102022131523A1; WO2020165040A1; DE102020129550A1; WO2022101123A1; DE102022108256A1; WO2023194243A1; DE102022114231A1; DE102021121527A1; WO2023021077A1; EP2035211B2

Designated contracting state (EPC)
DE ES FR IT PL

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1867488 A1 20071219; EP 1867488 B1 20120321; ES 2384575 T3 20120709

DOCDB simple family (application)
EP 06012041 A 20060612; ES 06012041 T 20060612