

Title (en)

Method and device for ink-jet printing on curved container surfaces

Title (de)

Verfahren und Vorrichtung für den Tintenstrahldruck auf gekrümmte Behälteroberflächen

Title (fr)

Dispositif et procédé pour l' impression à jet d'encre sur des surfaces incurvées de récipients

Publication

EP 2591917 B2 20180919 (DE)

Application

EP 12191421 A 20121106

Priority

DE 102011086015 A 20111109

Abstract (en)

[origin: EP2591917A1] The method involves moving a print surface relative to rows of nozzle (4) which are aligned transversely or diagonally to movement direction (5). Ink drops (9) are discharged to ejection points for the individual ink droplets as a function of the respective printing gap (6) of the ejecting nozzle (4a) to be set. The nozzles are provided lying one behind the other in the movement direction, and also the ejection timing can be set between the rows of nozzles as a function of a distance (X). An independent claim is included for a device for ink jet printing on curved surfaces of containers such as polyethylene terephthalate (PET) bottles or glass bottles.

IPC 8 full level

B41J 3/407 (2006.01)

CPC (source: EP US)

B41J 3/4073 (2013.01 - EP US); **B41J 3/40733** (2020.08 - EP US)

Citation (opposition)

Opponent :

- US 2010245423 A1 20100930 - SUMI KATSUTO [JP]
- DE 69502605 T2 19980910 - HEWLETT PACKARD CO [US]
- DE 69808976 T2 20030807 - LEXMARK INT INC [US]
- US 9011967 B2 20150421 - TRUONG NUGENT [US], et al
- US 2008024536 A1 20080131 - HIRANO MASANORI [JP], et al
- WO 2004009360 A1 20040129 - SEALED AIR LTD [GB], et al
- WO 2004016438 A1 20040226 - CREO IL LTD [IL], et al
- US 2004252174 A1 20041216 - BAXTER WILLIAM RONALD STUART [GB], et al
- WO 2009088867 A2 20090716 - EXATEC LLC [US], et al
- JP 2001328254 A (+ENGLISCHER ABSTRACT UND MASCHINENÜBERSETZUNG) 27.11.2001
- JP H10278241 A (+ENGLISCHER ABSTRACT UND MASCHINENÜBERSETZUNG) 20.10.1998
- JP 2007008110 A (+ENGLISCHER ABSTRACT UND MASCHINENÜBERSETZUNG) 18.01.2007

Cited by

DE102017215429A1; CN104943404A; BE1025818B1; CN110254055A; EP3243806A1; FR3084282A1; EP3330095A1; BE1025835B1; CN106218236A; EP3208746A1; EP3243805A1; BE1025819B1; US11739024B2; WO2018100132A1; WO2017194653A1; WO2015193138A1; WO2017194656A1; WO2018108361A1; US9833990B2; US10343418B2; US9975327B1; US10639908B2; US10214026B1; WO2019042632A1; US11447295B2; EP3679466B1; EP3455180B1

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