

Title (en)
METHOD AND DEVICE FOR DIVERTING A FLOW OF FLEXIBLE FLAT ITEMS

Title (de)
VERFAHREN UND VORRICHTUNG ZUM WANDELN EINES STROMS AUS FLEXIBLEN FLACHEN GEGENSTÄNDEN

Title (fr)
PROCÉDÉ ET DISPOSITIF POUR DÉVIER UN FLUX D'OBJETS PLATS FLEXIBLES

Publication
EP 2507155 A1 20121010 (DE)

Application
EP 10787264 A 20101129

Priority
• CH 18502009 A 20091202
• CH 2010000302 W 20101129

Abstract (en)
[origin: WO2011066665A1] The invention relates to a device and a method for rearranging flexible flat items (1), in particular printed products, which are delivered continuously in a delivery flow (S1, S2, S3), relative to the delivery direction (F1, F2, F3) of the delivery flow (S1, S2, S3). The items are delivered in an incoming delivery flow (S1) in a first delivery direction (F1) and with substantially identical orientation of the surface normals (N1) thereof, and in a predetermined cycle, to a diverting region (101). There, the delivery in the first delivery direction (F1) is ended and the individual items (1) are accelerated in a second delivery direction (F2), which is perpendicular to the first delivery direction (F1) and to the orientation of the surface normals (N1) in the incoming delivery flow (S1), by an acceleration element (130) which acts on the items (1) in the diverting region in a predetermined cycle. The delivery flow (S2) moving in the second delivery direction (F2) is subsequently diverted. After exiting the diverting region (101), the items (1) are conveyed onward in an outgoing delivery flow (S3) in a third delivery direction (F3) which is perpendicular to the first delivery direction (F1) and which encloses a non-zero angle with the second delivery direction (F2). The surface normals (N1, N2, N3) of the items (1) are aligned substantially perpendicular to the present delivery direction at all times. The invention has the advantage that a rearrangement of the items within the delivery flow and a simultaneous change of the delivery direction can be attained in a very small space without the continuous conveyance being interrupted. This is of interest in particular in conjunction with an upstream folding process.

IPC 8 full level
B65H 29/00 (2006.01); **B65H 29/66** (2006.01)

CPC (source: EP US)
B65H 29/00 (2013.01 - EP US); **B65H 29/6609** (2013.01 - EP US); **B65H 29/6627** (2013.01 - EP US); **B65H 2301/321** (2013.01 - EP US); **B65H 2301/33214** (2013.01 - EP US); **B65H 2301/34112** (2013.01 - EP US); **B65H 2301/3422** (2013.01 - EP US); **B65H 2301/4451** (2013.01 - EP US); **B65H 2301/44712** (2013.01 - EP US); **B65H 2404/111** (2013.01 - EP US)

Citation (search report)
See references of WO 2011066665A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2011066665 A1 20110609; CA 2782473 A1 20110609; CA 2782473 C 20180320; CH 702390 A1 20110615; EP 2507155 A1 20121010; EP 2507155 B1 20160113; US 2012285798 A1 20121115; US 8915350 B2 20141223

DOCDB simple family (application)
CH 2010000302 W 20101129; CA 2782473 A 20101129; CH 18502009 A 20091202; EP 10787264 A 20101129; US 201013511485 A 20101129