

Title (en)

HANDLING DEVICE AND METHOD FOR HANDLING AN UNCLOSED FOLDING BOX AND FOR HANDLING PIECE GOODS TO BE PLACED INTO THE FOLDING BOX

Title (de)

HANDHABUNGSVORRICHTUNG UND VERFAHREN ZUM HANDHABEN EINER UNVERSCHLOSSENEN FALTSCHACHTEL UND ZUM HANDHABEN VON IN DIE FALTSCHACHTEL EINZULEGENDEM STÜCKGUT

Title (fr)

DISPOSITIF ET PROCÉDÉ DE MANIPULATION D'UNE BOÎTE PLIANTE NON FERMÉE ET DE MANIPULATION D'UN ARTICLE À PLACER DANS LA BOÎTE PLIANTE

Publication

**EP 3044101 A1 20160720 (DE)**

Application

**EP 14759152 A 20140903**

Priority

- DE 102013109948 A 20130911
- EP 2014068699 W 20140903

Abstract (en)

[origin: WO2015036298A1] The invention relates to a handling device, comprising a folding-box lifting station (1) for lifting an unclosed folding box (2), wherein the folding-box lifting station (1) comprises at least one suction gripper (4) for attaching to a folding-box surface (6) formed by a lid (29) of the folding box (2), wherein a suction force directed perpendicularly to the folding-box surface (6) can be applied to the folding-box surface (6) by means of the suction gripper (4), and comprising a gripping station (3) for gripping piece goods (28) to be positioned in the folding box (2), wherein the gripping station (3) comprises at least one gripping element (7a, 7b), which forms a supporting surface for the folding box (2) by means of one of the lateral surfaces (8) of the at least one gripping element during the lifting of the unclosed folding box (2), wherein a pressure force can be applied perpendicularly to the direction of the suction force of the suction gripper (4) to a side wall (9) of the folding box (2) arranged perpendicularly to the folding-box surface (6) of the lid (29) by means of the lateral surface (8) of the gripping element (7a, 7b) during the lifting of the unclosed folding box (2).

IPC 8 full level

**B65B 35/36** (2006.01); **B65B 43/46** (2006.01); **B65B 61/28** (2006.01); **B65G 47/91** (2006.01)

CPC (source: EP)

**B65B 35/36** (2013.01); **B65B 43/265** (2013.01); **B65B 43/285** (2013.01); **B65B 43/46** (2013.01); **B65B 43/54** (2013.01); **B65B 61/28** (2013.01);  
**B65G 47/91** (2013.01); **B65G 2201/0235** (2013.01)

Citation (search report)

See references of WO 2015036298A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**DE 102013109948 B3 20140904**; CN 105531188 A 20160427; EP 3044101 A1 20160720; KR 20160054554 A 20160516;  
WO 2015036298 A1 20150319

DOCDB simple family (application)

**DE 102013109948 A 20130911**; CN 201480050354 A 20140903; EP 14759152 A 20140903; EP 2014068699 W 20140903;  
KR 20167009197 A 20140903