

Title (en)

METHOD AND APPARATUS FOR PACKAGING OBJECTS OF DIFFERENT TYPES

Title (de)

VERFAHREN UND VORRICHTUNG ZUM VERPACKEN VON GEGENSTÄNDEN UNTERSCHIEDLICHER ART

Title (fr)

PROCÉDÉ ET APPAREIL POUR EMBALLER DES OBJETS DE DIFFÉRENTS TYPES

Publication

EP 4056481 A1 20220914 (EN)

Application

EP 22160825 A 20220308

Priority

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Abstract (en)

A method comprises the steps of:- positioning a plurality of objects (2), having different dimensions to each other, on an infeed conveyor (3);- delivering to an intermediate conveyor (19) a flow of objects (2) coming from the infeed conveyor (3) and movable along an advancement direction (F);- feeding a packaging unit (20) with the objects (2) coming from the intermediate conveyor (19), the packaging unit (20) producing a plurality of packages (36), starting from a web of packaging material (28), each package (36) containing one of said objects (2). The method further comprises the step of checking if, in the flow of objects (2) which advance along the intermediate conveyor (19), there are empty positions in which an object (2) is missing. If an empty position is detected, there is provided filling the empty position by accelerating the objects (2) which follow the empty position relative to the objects (2) which precede the empty position. The intermediate conveyor (19) comprises a plurality of conveyor belts (21) arranged in sequence along the advancement direction (F). If the number of objects (2) arriving on the intermediate conveyor (19) in the unit of time is greater than or equal to a predetermined value, the production speed of the packaging unit (20) is adjusted in such a way as to keep in the intermediate conveyor (19) a predetermined average filling level.

IPC 8 full level

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Citation (search report)

- [YA] US 2018141686 A1 20180524 - CHRISTMAN RUSSELL T [US], et al
- [YA] US 5711410 A 19980127 - CAI CHUNSHENG [US], et al
- [A] US 2012247926 A1 20121004 - BUCHBERGER PETER [DE], et al
- [A] US 2009114508 A1 20090507 - HARA KOJI [JP], et al
- [A] WO 2020128731 A1 20200625 - TECNOBREVETTI S N C DI PONTI GIUSEPPE & BIANCONI MIRELLA [IT]

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