Title (en)

DEVICE FOR STACKING WORKPIECES SOAKED WITH A FLUID AND A METHOD FOR STACKING WORKPIECES SOAKED WITH A FLUID

Title (de)

VORRICHTUNG ZUM STAPELN VON MIT EINER FLÜSSIGKEIT DURCHNÄSSTEN WERKSTÜCKEN UND VERFAHREN ZUM STAPELN VON MIT EINER FLÜSSIGKEIT DURCHNÄSSTEN WERKSTÜCKEN

Title (fr

DISPOSITIF D'EMPILAGE DE PIÈCES IMPRÉGNÉES D'UN FLUIDE ET PROCÉDÉ D'EMPILAGE DE PIÈCES IMPRÉGNÉES D'UN FLUIDE

Publication

EP 3231752 A2 20171018 (EN)

Application

EP 17158223 A 20170227

Priority

PL 41640216 A 20160307

Abstract (en)

The object of the invention is a device for stacking applicable in production plants, in particular in industrial stacking of individual workpieces of nonwoven fabric, soaked with a fluid, of any basis weight and various sizes. The device for stacking workpieces soaked with a fluid is provided with elastic belts, contacting each other with their surfaces, of a guiding conveyor (1.1) and of a pressing conveyor (1.2), above the belt of the pressing conveyor (1.2), a counting sensor (5) is arranged, and along the elastic belts of the guiding conveyor (1.1) and of the pressing conveyor (1.2), forks (4.1) (4.2) are mounted. The device consists of at least two stacking units, preferably, the first unit consist of elastic belts, contacting each other with their surfaces, of a guiding conveyor (2.1) and of a pressing conveyor (3.1), a stacking star (6.1) arranged beneath them, provided with longitudinal, directed inwards, curved slots, and a lift (7) mounted on a horizontal extension arm, at a close distance to the stacking star (6.1). Below the lift (7), there is a belt of a delivery conveyor (8). The device is provided with vertical transporters (7,1, 7,4) having adjustable bands (7,2, 7,5) mounted below the stacking star (6.1) and which are provided with belts (1.2) with pickers. Adjustable stops (7.3, 7.6) are mounted to the vertical transporters, further, the vertical transporters (7,1, 7,4) are provided with receiving transporters (8,1, 8,2). A method for stacking workpieces soaked with a fluid, consisting in that the soaked workpieces are guided to the units of the guiding conveyor (1.1) and of the pressing conveyor (1.2) which are counted by means of a counting sensor (5) and are guided through the fork (4.1) to stacking units in which workpieces are guided by means of the guiding conveyor (2.1) and of the pressing conveyor (3.1) onto the arms of the stacking star (6.1) which, by rotational movement, buffers them and passes them onto the lift (7.1) where the workpieces are arranged into an even stack which is carried onto the delivery conveyor (8). The stacking units operate alternately, at the time the lift (7.1) is activated the fork (4.1) is closed and respectively the fork (4.2) is opened, guiding the workpieces to the second stacking unit, the said workpieces being guided by means of the guiding conveyor (2.2) and the pressing conveyor (3.2) onto the arms of the stacking star (6.2) which, by rotational movement, buffers them and passes them onto the lift (7.2) where the workpieces are arranged into an even stack which is carried onto the delivery conveyor (8) transporting the workpiece stack outside the machine, wherein at the time the lift is activated (7.2), the fork (4.2) is closed and the fork (4.1) is opened. By means of the vertical transporters (7,1; 7,4) with belts provided with pickers, the stacked products is separated from the star (6.1) and the product is then carried by means of the adjustable stop (7,3; 7,6), preferably set in a given position depending on the packet length, and the adjustable bands (7,2; 7,5) set depending on the packet width. Reception of the stacks is carried out by receiving transporters (8,1; 8,2) moving at a constant speed so that the transporter (8,1) is intended to receive the packet from the stacking transporter (7,4) and to pass it onto the transporter (8,2), whereas the transporter (8,2) is intended to transport the packet between the pickers of the vertical transporter (7,1) and to receive the next packet stack from this conveyor and to transport it outside the machine.

IPC 8 full level

B65H 31/10 (2006.01); B65H 29/40 (2006.01)

CPC (source: EP)

B65H 29/40 (2013.01); B65H 29/60 (2013.01); B65H 31/10 (2013.01); B65H 31/24 (2013.01); B65H 2220/09 (2013.01); B65H 2701/1924 (2013.01)

Citation (applicant)

PL 407908 A1 20151026 - AUTOMATEC SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ [PL]

Cited by

CN118422176A

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)

EP 3231752 A2 20171018; EP 3231752 A3 20171129; PL 229702 B1 20180831; PL 416402 A1 20170911

DOCDB simple family (application)

EP 17158223 A 20170227; PL 41640216 A 20160307