

Title (en)  
SECTION OF A PACKAGING LINE FOR BEVERAGE CONTAINERS AND METHOD FOR HANDLING BEVERAGE CONTAINERS DURING THEIR TRANSPORT ALONG A PACKAGING LINE

Title (de)  
ABSCHNITT EINER VERPACKUNGSLINIE FÜR GETRÄNKEBEHÄLTNISSE UND VERFAHREN ZUM UMGANG MIT GETRÄNKEBEHÄLTNISSEN WÄHREND IHRES TRANSPORTES ENTLANG EINER VERPACKUNGSLINIE

Title (fr)  
SEGMENT D'UNE LIGNE D'EMBALLAGE POUR DES CONTENANTS DE BOISSON ET PROCÉDÉ DE MANIPULATION DE CONTENANTS DE BOISSON LORS DE LEUR TRANSPORT LE LONG D'UNE LIGNE D'EMBALLAGE

Publication  
**EP 3423361 B1 20200805 (DE)**

Application  
**EP 16819081 A 20161221**

Priority  
• DE 102016203435 A 20160302  
• EP 2016082098 W 20161221

Abstract (en)  
[origin: WO2017148557A1] Disclosed is a section (1) of a packaging line for beverage containers (3). The section (1) comprises a shrink tunnel (13), by means of which tunnel (13) thermoplastic packaging material can be shrunk onto groups of beverage containers (3) to form packaged units (5). The section (1) also comprises at least one manipulator (20), designed to receive and handle, preferably by gripping and/or interlocking engagement, packaged units (5) produced by means of the shrink tunnel (13). The at least one manipulator (20) is positioned directly downstream of the shrink tunnel (13).

IPC 8 full level  
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CPC (source: EP)  
**B65B 53/063** (2013.01); **B65B 61/28** (2013.01); **B65B 65/003** (2013.01); **B65B 2220/16** (2013.01)

Citation (opposition)  
Opponent : KHS GmbH  
• DE 102007062329 A1 20090625 - KRONES AG [DE]  
• DE 102011080812 A1 20130214 - KRONES AG [DE]  
• EP 1693300 A1 20060823 - KHS AG [DE]  
• WO 2008138556 A2 20081120 - KRONES AG [DE], et al  
• EP 2174895 A2 20100414 - KRONES AG [DE]  
• DE 69628245 T2 20040401 - NEWTEC PALETTISATION ST LAUREN [FR]  
• EP 3205609 A1 20170816 - KRONES AG [DE]  
• EP 1073589 B1 20050525 - CERF ALAIN [US]  
• WO 2014145412 A2 20140918 - ILLINOIS TOOL WORKS [US]  
• EP 2254819 B1 20121003 - KHS GMBH [DE]  
• EP 2368801 A1 20110928 - KRONES AG [DE]  
• EP 2470438 B1 20150708 - AL MA C PACKAGING S R L [IT]

Designated contracting state (EPC)  
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DOCDB simple family (application)  
**DE 102016203435 A 20160302**; CN 201690001466 U 20161221; EP 16819081 A 20161221; EP 2016082098 W 20161221