

Title (en)  
DEVICE FOR LOADING AND UNLOADING A FREEZE DRYING SYSTEM

Title (de)  
BE- UND ENTLADEVORRICHTUNG FÜR EINE GEFRIERTROCKNUNGSANLAGE

Title (fr)  
DISPOSITIF DE CHARGEMENT ET DE DÉCHARGEMENT POUR UNE INSTALLATION DE LYOPHILISATION

Publication  
**EP 2488808 B1 20150114 (DE)**

Application  
**EP 10770999 A 20101011**

Priority  
• DE 102009049142 A 20091012  
• EP 2010006180 W 20101011

Abstract (en)  
[origin: WO2011045008A1] A device principally used for loading and unloading the utility space (3') of the drying chamber (2) of a freeze dryer, which utility space (3') is located in a pre-defined height position, is characterised by a carriage (8), which is arranged slightly above said freeze dryer and extends, during loading or unloading, transversely to a movement direction (8') and parallel to said storage surface (3') and which forms a movable guiding edge for the drying vessels (5), and by guides (7), which extend parallel to said movement direction and form rigid guiding edges for the drying vessels (5). The carriage (8) is driven by two linear motors, the respective primary parts (9) of which are rigidly connected to both ends of the carriage (8) and which at the same time support the guides (7) accommodating the secondary parts. All of the components of the devices thus defined are located within the drying chamber (1), wherein a mechanically extremely simple and low-wear design is achieved.

IPC 8 full level  
**F26B 5/06** (2006.01); **F26B 25/00** (2006.01)

CPC (source: EP US)  
**F26B 5/06** (2013.01 - EP US); **F26B 25/001** (2013.01 - EP US)

Cited by  
EP3473959A1; US10982896B2; EP3499160A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 2011045008 A1 20110421**; CN 102356294 A 20120215; CN 102356294 B 20150401; DE 102009049142 A1 20111117; DE 102009049142 B4 20130627; DE 202010018267 U1 20150318; EP 2488808 A1 20120822; EP 2488808 B1 20150114; ES 2534645 T3 20150427; US 2012186947 A1 20120726; US 8820516 B2 20140902

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