

Title (en)

LOADING AND UNLOADING DEVICE FOR A FREEZE-DRYING INSTALLATION

Title (de)

BE- UND ENTLADEVORRICHTUNG FÜR EINE GEFRIERTROCKNUNGSANLAGE

Title (fr)

DISPOSITIF DE CHARGEMENT ET DE DÉCHARGEMENT POUR UNE INSTALLATION DE LYOPHILISATION

Publication

EP 2627959 A1 20130821 (DE)

Application

EP 11761013 A 20110922

Priority

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- EP 2011004736 W 20110922

Abstract (en)

[origin: WO2012048789A1] The invention relates to a device essentially for loading and unloading the floor area (3') of the drying chamber (2) of a freeze-drying installation, said floor area being located at a defined height position of the unloading position, which is characterised by a carriage (8) that is arranged slightly above said floor area, extends transversely to a movement direction (8') during loading or unloading and parallel to the floor area and forms a movable guiding edge for the drying vessels (5), and by guides (7) that are arranged on both sides of the floor area (3'), extend parallel to said movement direction and form fixed guiding edges for the drying vessels (5). The carriage (8) is driven by two linear motors, the respective secondary parts (18) of which are rigidly connected to the two ends of the carriage (8) and on which the guides (7) simultaneously receiving the primary parts are mounted. All components of the device thus defined are located inside the drying chamber (1), resulting in a mechanically extremely simple, low-wear construction. The structural design of such a device permits the implementation of lateral guides (7) independent of the floor area within the drying chamber (2) and is suitable for a retrofitting by progressive stages of existing freeze-drying installations with a view to using a plurality of carriages, rendering the guides (7) displaceable laterally, i.e. transversely to the movement direction (8'), etc.. Because the essential components of said device can be constructed in a hermetically sealed manner and can therefore easily be sterilised, from the point of view of hygiene the device can be managed safely.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2012048789A1

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