

Title (en)

APPARATUS AND METHOD FOR CRUST FREEZING ARTICLES

Title (de)

VORRICHTUNG UND VERFAHREN ZUM KRUSTENGEFRIEREN VON ARTIKELN

Title (fr)

APPAREIL ET PROCÉDÉ DE CONGÉLATION SUPERFICIELLE D'ARTICLES

Publication

**EP 3333511 A1 20180613 (EN)**

Application

**EP 17172274 A 20170522**

Priority

US 201615370353 A 20161206

Abstract (en)

In order to overcome the limitations and problems that earlier apparatus and methods have experienced, an apparatus (10) for crust freezing articles (12), in particular cylindrically shaped articles, for example cylindrically shaped food articles or food logs, on multiple transport paths (14, 16) of at least one conveyor (18) is proposed, said apparatus (10) comprising: - an enclosure (20) having a ceiling (22), a floor (24) and a plurality of sidewalls (26), - the at least one conveyor (18) for transporting the articles (12) through the enclosure (20) and defining at least the first transport path (14) and the second transport path (16), - a cryogen gas supply (29), - at least one gas circulation device (30) positioned for circulating cryogen gas (33) along a gas circulation path (34), in particular along a cryogen gas circulation path, across short axes (19) of the first transport path (14) and of the second transport path (16), said gas circulation device (30) in particular comprising a centrifugal blower, for example a plurality of inline centrifugal blowers, positioned laterally to the at least one conveyor (18), - a gas impermeable barrier (28) positioned between the first transport path (14) and the second transport path (16), and defining the gas circulation path (34) whereby the cryogen gas (33) passes across the articles (12) on the first transport path (14) and returns to the gas circulation device (30) passing across the articles (12) on the second transport path (16), said gas circulation path (34) in particular being substantially perpendicular to the first transport path (14) and to the second transport path (16). A related method of crust freezing articles (12), in particular cylindrically shaped articles, for example cylindrically shaped food articles or food logs, in a freezing apparatus (10), is also proposed.

IPC 8 full level

**F25D 3/11** (2006.01); **F25D 13/06** (2006.01); **F25D 3/12** (2006.01)

CPC (source: EP)

**F25D 3/11** (2013.01); **F25D 3/127** (2013.01); **F25D 13/067** (2013.01); **F25D 2317/063** (2013.01); **F25D 2317/0683** (2013.01); **F25D 2400/30** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

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Designated extension state (EPC)

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DOCDB simple family (publication)

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