

Title (en)

Method for deaerating a filling installation, and device for performing the method.

Title (de)

Verfahren zum Entlüften einer Befüllungsanlage und Vorrichtung zur Durchführung eines solchen Verfahrens.

Title (fr)

Procédé pour désaérer une installation de remplissage et dispositif pour la mise en oeuvre du procédé.

Publication

**EP 0366997 B1 19931229 (DE)**

Application

**EP 89119060 A 19891013**

Priority

DE 3837097 A 19881101

Abstract (en)

[origin: EP0366997A1] Method for deaerating an installation for filling containers (2) with a metered amount of liquid not including any air by means of a metering pump (9), in which two control valves (11', 12') arranged at the inlet of a filling tube (4) are intermittently opened and closed, and the liquid (17) is conveyed via a buffer container (13). <??>In order to prevent the faulty filling of initial production material at the beginning of the filling operation, and in order to be able to specify as accurate a switched-on period as possible for the actual filling operation, it is provided according to the invention that, in order to deaerate the filling tube (4) and the metering pump (9) connected thereto, two control valves (11', 12'), connected in series, are controlled separately from each other in such a way that when the vacuum is generated in the buffer container (13), both control valves (11', 12') are opened; after the majority of the air has bubbled off upwards, firstly the upper control valve (12') and, after a period of time which can be set, the lower control valve (11') are closed; and then the upper control valve (12') is opened and, after a further time interval, is closed. <IMAGE>

IPC 1-7

**B65B 37/00**

IPC 8 full level

**B65B 3/00** (2006.01); **B65B 3/18** (2006.01); **B65B 37/00** (2006.01); **B67C 3/20** (2006.01); **G05D 27/00** (2006.01)

CPC (source: EP KR US)

**B65B 37/00** (2013.01 - EP KR US)

Citation (examination)

EP 0269507 A1 19880601 - ERCA HOLDING [FR]

Cited by

CN111483964A

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0366997 A1 19900509; EP 0366997 B1 19931229**; AT E99245 T1 19940115; AU 4378489 A 19900510; AU 625836 B2 19920716; BR 8905548 A 19900529; CA 2001917 A1 19900501; CA 2001917 C 19980616; DE 3837097 A1 19900503; DE 3837097 C2 19920319; DE 58906569 D1 19940210; DK 166142 B 19930315; DK 166142 C 19930809; DK 542189 A 19900502; DK 542189 D0 19891031; ES 2047642 T3 19940301; FI 895142 A0 19891030; FI 90648 B 19931130; FI 90648 C 19940310; JP 2782100 B2 19980730; JP H02233301 A 19900914; KR 0138762 B1 19980601; KR 900007717 A 19900601; NO 177588 B 19950710; NO 177588 C 19951018; NO 894333 D0 19891031; NO 894333 L 19900502; RU 2003170 C1 19931115; US 5009339 A 19910423

DOCDB simple family (application)

**EP 89119060 A 19891013**; AT 89119060 T 19891013; AU 4378489 A 19891025; BR 8905548 A 19891031; CA 2001917 A 19891031; DE 3837097 A 19881101; DE 58906569 T 19891013; DK 542189 A 19891031; ES 89119060 T 19891013; FI 895142 A 19891030; JP 27874289 A 19891027; KR 890015801 A 19891101; NO 894333 A 19891031; SU 4742330 A 19891031; US 42268389 A 19891017