

Title (en)

Filling-head with separate return gas channel

Title (de)

Füllkopf mit separatem Rückgaskanal

Title (fr)

Tête de remplissage avec canal séparé d'évacuation des gaz

Publication

**EP 1544156 B1 20110112 (DE)**

Application

**EP 04019340 A 20040814**

Priority

DE 20319789 U 20031220

Abstract (en)

[origin: EP1544156A1] A filling system for bottles and other containers which minimises the contact between residual gas in the containers and the liquid has a venting pipe (11) concentric to the filling system and extending from inside the neck of the container to an upper outlet inside a venting duct (13) above the liquid reservoir. The reservoir is ring shaped and serves a number of similar filling positions. The reservoir and the venting duct are connected to an exhaust system with one or more vacuum pumps. Control valves (15, 16) regulate the venting process. The venting pipe passes into the venting duct via an aperture (17) sufficiently wide to permit a limited amount of pressure compensation.

IPC 8 full level

**B67C 3/06** (2006.01); **B67C 3/26** (2006.01)

CPC (source: EP US)

**B67C 3/06** (2013.01 - EP US); **B67C 3/2614** (2013.01 - EP US); **B67C 2003/2602** (2013.01 - EP US)

Cited by

US2015191339A1; US9682850B2

Designated contracting state (EPC)

DE FR IT PT

DOCDB simple family (publication)

**DE 20319789 U1 20040226**; DE 502004012107 D1 20110224; EP 1544156 A1 20050622; EP 1544156 B1 20110112; PT 1544156 E 20110331; RU 2004137061 A 20060610; RU 2365538 C2 20090827; US 2005150571 A1 20050714; US 7347231 B2 20080325

DOCDB simple family (application)

**DE 20319789 U 20031220**; DE 502004012107 T 20040814; EP 04019340 A 20040814; PT 04019340 T 20040814; RU 2004137061 A 20041217; US 1285904 A 20041215