

Title (en)  
COUNTER-PRESSURE FILLING DEVICE AND METHOD FOR COUNTER-PRESSURE FILLING

Title (de)  
GEGENDRUCK-FÜLLVORRICHTUNG UND VERFAHREN ZUM GEGENDRUCKFÜLLEN

Title (fr)  
DISPOSITIF ET PROCEDE DE REMPLISSAGE A CONTRE-PRESSION

Publication  
**EP 1660402 A1 20060531 (DE)**

Application  
**EP 04763939 A 20040810**

Priority  
• EP 2004008919 W 20040810  
• DE 10337663 A 20030816

Abstract (en)  
[origin: WO2005019090A1] The invention relates to a counter-pressure filling device (G) for filling bottles (F) with gasified drinks (B) from a filling nozzle (8), cooperating with a closing element (V) and a seal arrangement (11) for the bottle opening (2). The closing element (V) has a full-jet nozzle (12) to generate a full jet (ST) of the gasified drink directed without contact through the bottle neck (1) to the bottle base (3), the cross-section of which corresponds to a given proportion of the inner cross-section of the bottle neck and, together with the bottle neck, defines a gas return path (W) and a fluid channel (17), at least for return gas (E), opens outside the filling nozzle and within the sealing arrangement. On filling, a free full jet (ST) is formed from the gasified drink directed without contact through the bottle neck (1) to the bottle base (3), whilst the return gas (E) is led off externally between the full jet and the bottle neck and outside the filling nozzle (8).

IPC 1-7  
**B67C 3/26**; B67C 3/28; B65B 3/22; B65B 39/04

IPC 8 full level  
**B67C 3/26** (2006.01); **B67C 3/28** (2006.01)

CPC (source: EP US)  
**B67C 3/2611** (2013.01 - EP US); **B67C 3/281** (2013.01 - EP US)

Citation (search report)  
See references of WO 2005019090A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005019090 A1 20050303**; CN 1835886 A 20060920; EP 1660402 A1 20060531; US 2006283518 A1 20061221

DOCDB simple family (application)  
**EP 2004008919 W 20040810**; CN 200480023495 A 20040810; EP 04763939 A 20040810; US 56907306 A 20060623