

Title (en)
METHOD AND DEVICE FOR THE COUNTER-PRESSURE FILLING OF CONTAINERS WITH CARBONATED LIQUIDS, ESPECIALLY WITH BEVERAGES

Publication
EP 0331137 B1 19930804 (DE)

Application
EP 89103559 A 19890301

Priority
DE 3807046 A 19880304

Abstract (en)
[origin: EP0331137A1] For the counter-pressure filling of containers with carbonated liquids, especially with beverages, during a filling phase following the container prestressing the liquid under a filling pressure runs into the particular container which is sealed by a filling element and from which at least temporarily the return gas displaced by the liquid running in is carried away via a return-gas path of the filling element. On completion of the filling phase and with the container still being sealed by the filling element, firstly in a pre-relieving phase a pre-relieving of the container to a pre-relieving pressure is carried out, and subsequently a relieving of the container to atmospheric pressure is carried out. To permit in particular optimum filling, in a method of the abovementioned type and in a corresponding device, the pre-relieving pressure is set at a pressure lying between atmospheric pressure and the saturation pressure of the liquid, and to be precise in such a way that during the pre-relieving phase it is still just possible for liberated carbon dioxide to rise in the filled liquid without the undesired escape during the relieving to atmospheric pressure of liquid from the filled container due to the liquid frothing up. <IMAGE>

IPC 1-7
B67C 3/06; B67C 3/12

IPC 8 full level
B67C 3/08 (2006.01); **B67C 3/06** (2006.01); **B67C 3/12** (2006.01)

CPC (source: EP US)
B67C 3/06 (2013.01 - EP US); **B67C 3/12** (2013.01 - EP US)

Citation (examination)
DE 1127241 B 19620405 - HOLSTEIN & KAPPERT MASCHF

Cited by
EP0416473A1; CN114590762A; CN103476679A; EP0582190A1; DE4225476C2; EP0539791A1; US5313990A; EP3663255A1; EP3995441A1; CN114436194A; US6470922B2; US9718567B2; US11370646B2; WO2012104018A1

Designated contracting state (EPC)
BE DE ES FR GB IT NL

DOCDB simple family (publication)
EP 0331137 A1 19890906; EP 0331137 B1 19930804; BG 49937 A3 19920316; BR 8901003 A 19891024; DE 3807046 A1 19891012; DE 58905082 D1 19930909; DE 8916036 U1 19930211; ES 2046347 T3 19940201; JP H024695 A 19900109; US 5016684 A 19910521

DOCDB simple family (application)
EP 89103559 A 19890301; BG 8750389 A 19890302; BR 8901003 A 19890303; DE 3807046 A 19880304; DE 58905082 T 19890301; DE 8916036 U 19890301; ES 89103559 T 19890301; JP 5017489 A 19890303; US 56686490 A 19900810