

Title (en)
Closure device

Title (de)
Verschlussvorrichtung

Title (fr)
Dispositif de fermeture

Publication
EP 1614636 A1 20060111 (EN)

Application
EP 04077002 A 20040709

Priority
EP 04077002 A 20040709

Abstract (en)
A closure device (1) for closing a fluid container (3) comprising: a mount piece (2) for fixing the device (1) to said fluid container (3); a closure cap fixed to said mount piece along a perimeter of said cap, the closure cap (4) provided with an outflow opening (5); a stud coupled to said mount piece, corresponding with said outflow opening (5) of said closure cap (4) for closing said outflow opening in a closing position, said closure cap (4) being movable, under the influence of overpressure in the fluid container, in axial direction of the stud (6) between said closing position and an outflow position freeing the outflow opening (5) with respect to the stud (6). According to the invention, said mount piece (2) comprises a concentric enclosure (7) arranged around said closure cap (4) and housing a valve member that is seated against a wall of said enclosure (7) to form a valve arrangement for return air flow (12) into the container (3), said enclosure (7) provided with a shielding wall comprising micro perforations (13) to shield said valve member (11) from said fluid in said container.

IPC 8 full level
B65D 47/20 (2006.01); **B65D 47/32** (2006.01)

CPC (source: EP)
B65D 47/2081 (2013.01); **B65D 47/32** (2013.01)

Citation (search report)
• [A] US 5988448 A 19991123 - FOTH GARY S [US]
• [A] US 6305570 B1 20011023 - ATKIN EDWARD [GB], et al
• [A] WO 0021851 A1 20000420 - GEORG MENSCHEN GMBH & CO KG [DE], et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 06 30 June 1997 (1997-06-30)

Cited by
FR2950036A1; CN102712395A; WO2015149160A1; US8863998B2; US10543963B2; JP2009533284A; WO2011030062A1; US8579142B2; US8727151B2; EP2080709A1; EP2080710A1

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)
EP 1614636 A1 20060111; **EP 1614636 B1 20080102**; AT E382554 T1 20080115; DE 602004011039 D1 20080214; DE 602004011039 T2 20090102; DK 1614636 T3 20080505; ES 2298674 T3 20080516

DOCDB simple family (application)
EP 04077002 A 20040709; AT 04077002 T 20040709; DE 602004011039 T 20040709; DK 04077002 T 20040709; ES 04077002 T 20040709