

Title (en)  
Closure device

Title (de)  
Verschlusseinrichtung

Title (fr)  
Dispositif de fermeture

Publication  
**EP 0834456 A3 19981021 (DE)**

Application  
**EP 97117069 A 19971001**

Priority  
DE 19642073 A 19961001

Abstract (en)  
[origin: EP0834456A2] A closure device (1) used in the removal of solid and/or fluids from e.g. casings, vessels or bottles comprises a vent (7), closing a complementary opening detachably. It includes a suction pipe connection (2) and suction tube (6) passed through the vent. The new feature is the pressure equalisation unit of the vent. This has at least one membrane (5) impermeable to fluids and/or solids but permeable to gases. The suction tube connection (2) or the suction pipe (6) is connected gas and/or fluid tight to the outer wall of the vent. Preferably the membrane is polypropylene, polyester, polyamide, polyether, polytetrafluoroethylene, polysulphone, ethylene tetra-fluoroethylene copolymer, fluorinated ethylene polypropylene and tetrafluoroethylene/perfluoro(propylvinyl)ether copolymer. The membrane is orientated microporous polytetrafluoroethylene.

IPC 1-7  
**B65D 47/32**

IPC 8 full level  
**B05B 11/00** (2006.01); **B65D 51/16** (2006.01)

CPC (source: EP US)  
**B05B 7/2408** (2013.01 - EP US); **B05B 11/0044** (2018.07 - EP US); **B05B 11/00444** (2018.07 - EP US); **B65D 51/1616** (2013.01 - EP US); **B65D 51/1622** (2013.01 - EP US)

Citation (search report)  
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• [A] US 4476995 A 19841016 - BELLINO RALPH R [US], et al  
• [A] EP 0500249 A1 19920826 - PILKINGTON VISIONCARE INC [US]  
• [A] EP 0246075 A1 19871119 - CHICHIBU CEMENT KK [JP]

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