

Title (en)  
EXPANDABLE RING CLOSURE DEVICE

Publication  
**EP 0228662 A3 19880907 (EN)**

Application  
**EP 86117623 A 19861218**

Priority  
US 81691186 A 19860108

Abstract (en)  
[origin: EP0228662A2] A closure device for serving the frangible section between the cap and body of a blow-fill-seal plastic container comprising an expandable ring constructed and arranged to encircle the container cap, an outer ring having at one end internal threads compatible with the external threads located on the neck of the container body and a tamper proof overcap. Counterclockwise rotation of the outer ring transmits uniform upward pressure to the expandable ring which causes tension between the container cap and container body, rupturing the frangible line of weakness on the container, to permit opening of the container. Conversely, clockwise rotation of the outer ring causes compression to rupture the frangible line of weakness. Subsequent counterclockwise rotation opens the container. In either case the container cap is retained within the outer ring and is replaceable on the container.

IPC 1-7  
**B65D 51/22**

IPC 8 full level  
**B65D 47/36** (2006.01); **B65D 1/02** (2006.01); **B65D 41/62** (2006.01); **B65D 51/22** (2006.01)

CPC (source: EP)  
**B65D 1/0238** (2013.01); **B65D 41/62** (2013.01); **B65D 51/228** (2013.01); **B65D 2251/0015** (2013.01); **B65D 2251/0056** (2013.01); **B65D 2251/0071** (2013.01)

Citation (search report)

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- [A] US 4405053 A 19830920 - CHEROT HARRISON [US]
- [A] GB 2084119 A 19820407 - INT VERPAKKING MIJ BV [NL]

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CN106794917A; US2011114653A1; US8551385B2; KR20170077110A; RU2692820C2; US10336495B2; WO2016066238A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 0228662 A2 19870715; EP 0228662 A3 19880907**; AU 583170 B2 19890420; AU 6713487 A 19870709; CA 1281682 C 19910319; JP S62168866 A 19870725

DOCDB simple family (application)  
**EP 86117623 A 19861218**; AU 6713487 A 19870105; CA 526887 A 19870107; JP 115887 A 19870108