

Title (en)
Closing apparatus for closing an opening

Title (de)
Verschlusseinrichtung zum Schliessen und Öffnen

Title (fr)
Dispositif de fermeture pour clore et ouvrir

Publication
EP 1122366 A1 20010808 (EN)

Application
EP 01200389 A 20010202

Priority
NL 1014258 A 20000202

Abstract (en)
A closing device 1 for the liquid-tight closing of an opening 37 in a floor 39 has a cover 3 and sealants 5. A sealing body 7, two closing elements 9 and 11 and movement elements 13 form the sealants 5. The closing elements 9 and 11 can be moved toward each other by a movement element 15 of the movement elements 13 to press the sealing body 7 together. Thus the sealing body 7 extends in a radial direction, so that the opening 37 is closed. Between a collar 45 at the end of the movement element 15 and the cover 3 and between the cover 3 and the floor 39 there are elastic rings 51 and 53. So the cover 3 is moveable with respect to the sealants. The sealing body 7 is not burdened if forces are exerted on the cover 3. In addition, the cover 3, when the movement element 15 is tightened, is pulled downward so that it comes to lie tightly against the floor 39. <IMAGE>

IPC 1-7
E02D 29/14

IPC 8 full level
E02D 29/14 (2006.01); **E02D 29/12** (2006.01)

CPC (source: EP)
E02D 29/14 (2013.01); **E02D 29/149** (2013.01)

Citation (search report)
• [XA] DE 8905287 U1 19890810
• [DA] NL 1005931 C2 19981123 - GERARDUS MAJELLA DE JONG [NL]
• [A] US 5230437 A 19930727 - KELLY GLENN R [US]

Cited by
EP2754753A1; GB2420143A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1122366 A1 20010808; **EP 1122366 B1 20050302**; AT E290133 T1 20050315; DE 60109071 D1 20050407; DE 60109071 T2 20060119; DK 1122366 T3 20050704; ES 2239093 T3 20050916; NL 1014258 C2 20010803; PT 1122366 E 20050729

DOCDB simple family (application)
EP 01200389 A 20010202; AT 01200389 T 20010202; DE 60109071 T 20010202; DK 01200389 T 20010202; ES 01200389 T 20010202; NL 1014258 A 20000202; PT 01200389 T 20010202