

Title (en)  
PUMP

Title (de)  
PUMPE

Title (fr)  
POMPE

Publication  
**EP 0934123 B1 20030129 (DE)**

Application  
**EP 97948681 A 19971027**

Priority  

- DE 9702508 W 19971027
- DE 19645393 A 19961104

Abstract (en)

[origin: DE19645393C1] On order to simplify the design of a pump intended for use with flowable elements, especially a cosmetic pump provided with a base plate (1) which can be secured to a container (2) and presents, once mounted, a lower side (6) turned to the container and an upper side (7) turned in the opposite direction, with an inlet (14) for letting through the element stored in the container (2) and, around the inlet on the upper surface, a sleeve for receiving a pumping device with a cover-fitted piston (21), which is pushed by at least one compression spring against the base plate (1), while said piston cover has a lower side (21a) turned to the container (2), an upper side (21b) turned in the opposite direction and an outlet (23), while said lower side (21a) is provided with a sealing sleeve (22) mounted moveable in a substantially axial direction, it is suggested that the pumping device should be fitted with a valve spring (4) presenting a sealing bottom plate (20) laid on the inlet in the base plate and a sealing top plate (31) laid on a support emerging radially relative to the longitudinal axis (20, 50) of the pump, while both the bottom plate (30) and the top plate (31) are linked by at least one spring element.

IPC 1-7  
**B05B 11/00**

IPC 8 full level  
**B65D 47/34** (2006.01); **B05B 11/00** (2006.01); **B65D 83/00** (2006.01); **B65D 88/54** (2006.01); **F04B 9/14** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP US)

**B05B 11/007** (2013.01 - EP); **B05B 11/0075** (2013.01 - EP); **B05B 11/1004** (2023.01 - EP); **B05B 11/1064** (2023.01 - EP);  
**B05B 11/1074** (2023.01 - EP); **B05B 11/1077** (2023.01 - EP); **B65D 83/00** (2013.01 - US); **B65D 88/54** (2013.01 - US);  
**F04B 9/14** (2013.01 - EP US); **F04B 53/10** (2013.01 - EP US); **F04B 53/1072** (2013.01 - EP); **B05B 11/0044** (2018.08 - EP)

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)

**US 6186369 B1 20010213**; AT E231744 T1 20030215; AU 7001398 A 19980529; BR 9712861 A 19991207; CA 2270936 A1 19980514;  
CA 2270936 C 20030318; DE 19645393 C1 19980205; DE 59709241 D1 20030306; EP 0934123 A1 19990811; EP 0934123 B1 20030129;  
JP 2001508351 A 20010626; WO 9819796 A1 19980514

DOCDB simple family (application)

**US 29752499 A 19990503**; AT 97948681 T 19971027; AU 7001398 A 19971027; BR 9712861 A 19971027; CA 2270936 A 19971027;  
DE 19645393 A 19961104; DE 59709241 T 19971027; DE 9702508 W 19971027; EP 97948681 A 19971027; JP 52094098 A 19971027