

Publication

**EP 0565977 A3 19940302**

Application

**EP 93105558 A 19930403**

Priority

DE 4212413 A 19920414

Abstract (en)

[origin: EP0565977A2] The metering pump (1) made of plastics for delivering metered quantities of paste-like media consists of a bottle-like, can-like or tube-like container (60) with a spring-elastic bellows (4) as a pumping member which is arranged in a communicating manner between an upper housing part (2) and a lower housing part (3) which is coaxial thereto and is movable in the manner of a telescope and whose interior (32) forms a pump chamber. Its upper end section (38) is connected to an annular wall (35) of the upper housing part (2). Its lower end section (45) bears in a sealing manner against an annular collar (46) of a radial partition (19) of the lower housing part (3). A second pump chamber (33, 33/1) for a second medium is formed by two annular wall nozzles (30, 31) which are guided telescopically one inside the other, surround the bellows (4) concentrically with radial spacing and are moulded in each case onto one of the two housing parts (2, 3), which second pump chamber communicates through a second outlet valve and/or at least one passage opening (34) in the intermediate wall (13) with the outlet aperture (10) of the upper housing part. On the suction side, it communicates via at least one eccentric suction channel (82) in the radial wall (19) of the lower housing part (3) with an annular chamber (81) of a container (61) or with a second container. <IMAGE>

IPC 1-7

**B65D 47/34**; **B05B 11/00**; **F04B 13/02**

IPC 8 full level

**F04B 9/14** (2006.01); **B05B 11/00** (2006.01); **B65D 47/34** (2006.01); **B65D 81/32** (2006.01); **F04B 13/02** (2006.01); **F04B 43/08** (2006.01)

CPC (source: EP KR US)

**B05B 11/0038** (2018.07 - EP US); **B05B 11/0054** (2013.01 - EP US); **B05B 11/028** (2023.01 - EP US); **B05B 11/1035** (2023.01 - EP US); **B05B 11/1046** (2023.01 - EP US); **B05B 11/1085** (2023.01 - EP US); **B65D 81/325** (2013.01 - EP US); **F04B 9/00** (2013.01 - KR)

Citation (search report)

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- [AP] EP 0520315 A1 19921230 - ANDRIS RAIMUND GMBH & CO KG [DE]
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- [AD] DE 8800880 U1 19890524
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**EP 93105558 A 19930403**; DE 4212413 A 19920414; JP 8425493 A 19930412; KR 930006306 A 19930414; TW 82102726 A 19930412; US 4664893 A 19930413