

Title (en)
Multi layer priming pump

Title (de)
Mehrschichtige Ansaugpumpe

Title (fr)
Pompe d'amorçage multicouche.

Publication
EP 1389684 B1 20080924 (FR)

Application
EP 03291743 A 20030715

Priority
FR 0210265 A 20020813

Abstract (en)
[origin: EP1389684A1] The priming pump consists of an envelope with an elastically deformable central zone (1) linked to two connecting zones (2) and comprising an outer layer (3) of an elastomer and an inner layer (4) that forms a barrier for the fluid inside the pump. The envelope can also have an intermediate layer connecting the outer and inner layers. The outer layer is between 0.1 and 2 mm thick, while the inner layer is 0.1 - 1 mm thick.

IPC 8 full level
F04B 43/08 (2006.01); **F04B 43/12** (2006.01); **F02M 37/16** (2006.01); **F04B 53/00** (2006.01)

CPC (source: EP US)
F02M 37/16 (2013.01 - EP US); **F04B 43/08** (2013.01 - EP US)

Cited by
WO2006071156A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1389684 A1 20040218; EP 1389684 B1 20080924; AT E409284 T1 20081015; BR 0302754 A 20040824; DE 60323714 D1 20081106; ES 2314166 T3 20090316; FR 2843619 A1 20040220; FR 2843619 B1 20060106; JP 2004076729 A 20040311; MX PA03007057 A 20041015; PL 361511 A1 20040223; RU 2003125140 A 20050227; RU 2277184 C2 20060527; SI 1389684 T1 20090430; US 2004033143 A1 20040219; US 7021195 B2 20060404

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EP 03291743 A 20030715; AT 03291743 T 20030715; BR 0302754 A 20030808; DE 60323714 T 20030715; ES 03291743 T 20030715; FR 0210265 A 20020813; JP 2003205332 A 20030801; MX PA03007057 A 20030807; PL 36151103 A 20030730; RU 2003125140 A 20030812; SI 200331475 T 20030715; US 63669303 A 20030808