

Title (en)  
Membrane clamping avoiding deformation

Title (de)  
Atmungsfreie Membraneinspannung

Title (fr)  
Serrage de membrane sans déformation

Publication  
**EP 1134414 B1 20070124 (DE)**

Application  
**EP 01105805 A 20010308**

Priority  
DE 10012902 A 20000316

Abstract (en)  
[origin: EP1134414A2] The membrane pump with a hydraulically driven membrane (10) comprises an insert (34) bounding the delivery space (12) and/or an insert (32) bounding the hydraulic drive space (14). The membrane is clamped between the insert (34) and the pump housing (28) or between the insert (32) and the pump lid (26). Alternatively, in the case where both inserts are present, the membrane is clamped between the inserts.

IPC 8 full level  
**F04B 43/067** (2006.01); **F04B 43/00** (2006.01)

CPC (source: EP US)  
**F04B 43/0063** (2013.01 - EP US); **F04B 43/067** (2013.01 - EP US); **F05C 2225/04** (2013.01 - EP US)

Cited by  
FR2913732A1; CN103429894A; US7836814B2; US11590440B2; WO2018036979A1; US10781807B2; US10914299B2; US11215174B2

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 1134414 A2 20010919; EP 1134414 A3 20020717; EP 1134414 B1 20070124**; DE 10012902 A1 20010927; DE 10012902 B4 20040205; DE 50111921 D1 20070315; US 2001038796 A1 20011108; US 6464474 B2 20021015

DOCDB simple family (application)  
**EP 01105805 A 20010308**; DE 10012902 A 20000316; DE 50111921 T 20010308; US 80810901 A 20010315