

Title (en)  
**MEMBRANE PUMP**

Publication  
**EP 0427988 B1 19921230 (DE)**

Application  
**EP 90120510 A 19901025**

Priority  
DE 3937847 A 19891114

Abstract (en)  
[origin: EP0427988A1] In the case of a diaphragm pump (4), which is intended in particular as a dosing pump for use in biochemical engineering plants and which is provided with at least one self-closing inlet valve (22) and one self-closing outlet valve (21), additional lines, which in the nature of a bypass allow the valves to be circumvented, are provided for the purpose of carrying out a complete in-situ sterilisation of those areas of the pump in contact with the product. These additional lines can be shut off by means of valve spindles (32-35) and are each connected to an annular chamber enclosing the inlet and outlet valves. <IMAGE>

IPC 1-7  
**F04B 15/00**; **F04B 21/02**; **F04B 43/02**

IPC 8 full level  
**F04B 15/00** (2006.01); **F04B 43/02** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP US)  
**F04B 15/00** (2013.01 - EP US); **F04B 43/02** (2013.01 - EP US); **F04B 53/1097** (2013.01 - EP)

Cited by  
CN100436818C; WO2004029458A1; WO9624768A1; US7175397B2; US8322994B2

Designated contracting state (EPC)  
AT CH DE LI

DOCDB simple family (publication)  
**EP 0427988 A1 19910522**; **EP 0427988 B1 19921230**; AT E84122 T1 19930115; DE 3937847 C1 19910228; DE 59000693 D1 19930211

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