Title (en)

Rotary positive displacement pump

Title (de)

Rotationsverdrängerpumpe

Title (fr)

Pompe volumétrique rotative

Publication

EP 0874157 B1 20021218 (DE)

Application

EP 98107092 A 19980418

Priority

DE 29707480 U 19970425

Abstract (en)

[origin: EP0874157A2] A rotary positive displacement pump comprises a stator (1) with a clamping plate (6) and a base plate (3) with an annular surface (5) on the clamping plate (6)-facing side. A membrane (11) covering the annular surface (5) is held between the clamping plate (6) and base plate (3) and forms a pumping channel (12) extending from an inlet (13) to an outlet (15) between the membrane (11) and base plate (3). A powered rotor (2) running around the concentric axis (4) of the annular surface (5) has at least one roller (21) running around the rear face of a circle of individual pressure transfer elements (14) which press the membrane (11) onto the annular surface to progressively interrupt the path from inlet (13) to outlet (15). The annular surface (5) is a layer of a softer material than the base plate (3). Preferably, the soft material layer (5) is a silicone polymer with a 20-50 Shore hardness extending over the area covered by the pressure transfer elements (14) and is either cast, vulcanised or bonded into a recess in the base plate (3) so that it projects above the recess edges. The base plate (3) is made of a dimensionally stable plastic and is held between the fixed clamping plate (6) and a removable clamping plate (24).

IPC 1-7

F04B 43/14

IPC 8 full level

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CPC (source: EP US)

F04B 43/021 (2013.01 - EP US); **F04B 43/1269** (2013.01 - EP US); **F04B 43/14** (2013.01 - EP US)

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DOCDB simple family (publication)

EP 0874157 A2 19981028; **EP 0874157 A3 19990428**; **EP 0874157 B1 20021218**; AT E230069 T1 20030115; DE 29707480 U1 19970717; DE 59806668 D1 20030130

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