

Title (en)

Device for the propulsion of a fluid.

Title (de)

Vorrichtung zur Förderung einer Flüssigkeit.

Title (fr)

Dispositif de propulsion d'un fluide.

Publication

EP 0412856 A1 19910213 (FR)

Application

EP 90401297 A 19900516

Priority

FR 8910808 A 19890811

Abstract (en)

The propulsion device forms a pump and comprises an alternately displaced flexible diaphragm. An annular passage 10, formed between the smooth, parallel or slightly divergent internal faces 11, 12 of two walls 2, 3, extends radially all round a central orifice 8 and the flexible diaphragm 4 extends freely into the annular passage 10 and is connected to a vibrating element 6, capable of causing the periphery of the diaphragm 4 to oscillate in a manner essentially perpendicular to its local mid-plane, in such a way that it is subjected to trains of concentric oscillations directed towards its centre. Application in low-power booster pumps such as circulating pumps for central heating.

Abstract (fr)

Le dispositif de propulsion forme pompe et comprend une membrane flexible déplacée alternativement. Un passage annulaire 10 compris entre les surfaces intérieures 11, 12 lisses, parallèles ou peu divergentes de deux parois 2, 3 s'étend radialement tout autour d'un orifice central 8 et la membrane flexible 4 s'étend librement dans le passage annulaire 10 et est reliée à un organe vibrant 6 apte à faire osciller la périphérie de la membrane 4 de façon sensiblement perpendiculaire à son plan médian local, de telle manière qu'elle soit soumise à des trains d'oscillations concentriques dirigés vers son centre. Application à des pompes à faible surpression telles que des circulateurs pour chauffage central.

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F04B 43/00; F04B 43/04

IPC 8 full level

F04B 43/00 (2006.01); **F04B 43/04** (2006.01)

CPC (source: EP US)

F04B 43/0018 (2013.01 - EP US); **F04B 43/04** (2013.01 - EP US); **F04B 43/14** (2013.01 - EP US)

Citation (search report)

- [A] FR 355700 A 19051109 - LEOPOLD SELME [FR]
- [A] FR 972512 A 19510131
- [A] US 2888877 A 19590602 - SHELLMAN KENNETH S, et al
- [A] GB 2197914 A 19880602 - MATSUSHITA ELECTRIC WORKS LTD
- [A] GB 2105819 A 19830330 - SELWOOD LTD WILLIAM R [GB]
- [A] SU 244126 A

Cited by

JP2011529549A; FR2870897A1; FR2891321A1; FR2891322A1; EP1523038A3; FR2893991A1; FR2927131A1; FR2744769A1; FR2918128A1; JP2021502513A; FR2934651A1; CN102112744A; FR3074620A1; FR3021074A1; CN106489026A; EP3279475A1; FR3054861A1; US6361284B2; US7841843B2; WO2009000895A3; WO9729282A1; WO2007039510A1; WO2007063206A1; WO2015173280A1; US10933181B2; US11623077B2; US8834136B2; US11791702B2; US11191946B2; US11512689B2; WO2007039501A1; WO2005119062A1; US10188779B1; US11446480B2; WO2010012889A1; WO2019110694A1; US10166319B2; US11097091B2; US11712554B2; US6659740B2; US9080564B2; US9968720B2; US10398821B2; US10799625B2; US11298522B2; US12005245B2

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