

Title (en)

A positive-displacement rotary pump with helical rotors

Title (de)

Drehkolben-Verdrängungspumpe mit Schraubenrotoren

Title (fr)

Pompe rotative à déplacement positif avec de rotors hélicoïdaux

Publication

EP 1132618 A2 20010912 (EN)

Application

EP 01105738 A 20010308

Priority

IT BO20000119 A 20000308

Abstract (en)

A positive-displacement rotary pump comprises a pair of meshing rotors or gears (10, 11), that is, a driving rotor or gear and a driven rotor or gear, respectively, enclosed in a casing with a delivery opening and an intake opening for a fluid. The gears (10, 11) comprise a plurality of teeth (16a, 16b) meshing without encapsulation and at the same time defining sets of helical teeth with a face overlap substantially equal to or close to unity. The combination of a profile of the teeth which prevents encapsulation and of the helical arrangement of the teeth reduces ripple and the noise resulting therefrom when the pump is in operation. <IMAGE>

IPC 1-7

F04C 2/16

IPC 8 full level

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CPC (source: EP)

F04C 2/084 (2013.01); **F04C 2/088** (2013.01); **F04C 2/16** (2013.01); **F04C 15/0042** (2013.01)

Citation (applicant)

- IT BO950095 A 19950310
- C.BONACINI: ""on the capacity of gear pumps"", THE ENGINEER, no. 9, 1961

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EP1371848A1; EP2317144A2; CN103486023A; CN102052447A; CN103850932A; EP2154372A1; ITBO20080522A1; WO2013011535A2; US7726115B2; US9404366B2; US7530217B2; WO2008111017A1; WO2015183135A1; US6769891B2; US7854111B2; US8708643B2; US6887055B2; US8556609B2

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