

Title (en)
VALVELESS PUMP

Title (de)
VENTILLOSE PUMPE

Title (fr)
POMPE SANS SOUPAPE

Publication
EP 1438514 B1 20110713 (DE)

Application
EP 02778979 A 20021021

Priority
• AT 0200299 W 20021021
• AT 16872001 A 20011023

Abstract (en)
[origin: WO03036098A1] The invention relates to a pump which comprises a tube (4) through which a fluid is delivered, and a device (2) for producing transverse oscillations in the fluid. On the inlet side (5), the tube (4) has a first section (1) with an invariable delivery cross-section and on the outlet side (6) a second section (3) with a variable delivery cross-section. The inventive pump functions according to the following principle: the fluid, when induced to oscillate, performs transverse oscillations in the second section (3) with the variable delivery cross-section and can thereby expand or flow in said oscillating system, while in the first section (1) with the invariable delivery cross-section the fluid oscillates not at all or only to a much lesser extent depending on the compressibility of the medium. The waves caused by the oscillation produced in the fluid therefore substantially expand in the direction of the second section (3) with the variable delivery cross-section so that the fluid inevitably flows from the first section (1) to the second section (3).

IPC 8 full level
F04D 33/00 (2006.01); **F04B 43/00** (2006.01); **F04B 43/09** (2006.01); **F04F 7/00** (2006.01)

CPC (source: EP US)
F04B 43/0027 (2013.01 - EP US); **F04B 43/09** (2013.01 - EP US); **F04D 33/00** (2013.01 - EP US); **F04F 7/00** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
WO 03036098 A1 20030501; AT 412416 B 20050225; AT A16872001 A 20040715; AT E516442 T1 20110715; EP 1438514 A1 20040721; EP 1438514 B1 20110713; US 2005031474 A1 20050210; US 7101159 B2 20060905

DOCDB simple family (application)
AT 0200299 W 20021021; AT 02778979 T 20021021; AT 16872001 A 20011023; EP 02778979 A 20021021; US 49320504 A 20040805