

Title (en)  
A pulsation-free volumetric pump.

Title (de)  
Pulsationsfreie Messpumpe.

Title (fr)  
Pompe volumétrique sans pulsation.

Publication  
**EP 0050296 A1 19820428 (EN)**

Application  
**EP 81108256 A 19811013**

Priority  
JP 14507480 A 19801018

Abstract (en)  
An improved pulsation-free reciprocating volumetric pump is disclosed, which comprises two reciprocating plungers (10, 10), a cam (12) for driving said plungers (10, 10), a driving motor (40) connected to said cam (12), a circuit (44, 46, 48) connected to said driving motor for controlling rotational rate, and another circuit (34, 36, 38) for detecting a pressure of combined volume discharged by the two plungers (10, 10) and for correcting a control signal of said rotation controlling circuit (44, 46, 48) through the detected signal.

IPC 1-7  
**F04B 49/00**

IPC 8 full level  
**F04B 9/04** (2006.01); **F04B 11/00** (2006.01); **F04B 13/00** (2006.01); **F04B 49/06** (2006.01); **F04B 49/20** (2006.01)

CPC (source: EP)  
**F04B 11/0058** (2013.01); **F04B 49/20** (2013.01); **F04B 2203/0209** (2013.01)

Citation (search report)  
• DE 2737062 B1 19790329 - ZUMTOBEL KG  
• DE 2759056 A1 19780727 - MAGNUSSEN JUN

Cited by  
EP0260764A1; GB2481624A; EP0278739A1; EP0215525A3; GB2180467A; EP0810370A3; US7770697B2

Designated contracting state (EPC)  
CH DE FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0050296 A1 19820428; EP 0050296 B1 19850605**; CA 1181509 A 19850122; DE 3170869 D1 19850711; JP S5770975 A 19820501;  
JP S6343591 B2 19880831; MX 154463 A 19870828

DOCDB simple family (application)  
**EP 81108256 A 19811013**; CA 387924 A 19811014; DE 3170869 T 19811013; JP 14507480 A 19801018; MX 18967081 A 19811015