

Title (en)
COMPOUND PUMP

Title (de)
COMPOUNDPUMPE

Title (fr)
POMPE COMPOUND

Publication
EP 1017944 B1 20030625 (DE)

Application
EP 98954252 A 19980904

Priority
• DE 29717079 U 19970924
• EP 9805611 W 19980904

Abstract (en)
[origin: WO9915793A1] The invention relates to a friction vacuum pump (1) containing at least one turbomolecular pump step (6, 7), a screw pump step (11, 12) connected to the delivery side of the pump, and a filling step (24) arranged between the turbomolecular pump step (6, 7) and the screw pump step (11, 12). According to the invention, said filling step (24) is configured as a centrifugal step in order to simplify the construction thereof.

IPC 1-7
F04D 19/04

IPC 8 full level
F04D 17/16 (2006.01); **F04D 19/04** (2006.01)

CPC (source: EP US)
F04D 17/168 (2013.01 - EP US); **F04D 19/046** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 29717079 U1 19971106; DE 59808840 D1 20030731; EP 1017944 A1 20000712; EP 1017944 B1 20030625; JP 2001517757 A 20011009; US 6422829 B1 20020723; WO 9915793 A1 19990401

DOCDB simple family (application)
DE 29717079 U 19970924; DE 59808840 T 19980904; EP 9805611 W 19980904; EP 98954252 A 19980904; JP 2000513061 A 19980904; US 50845100 A 20000309