

Title (en)
Vacuum pump

Title (de)
Vakuumpumpe

Title (fr)
Pompe à vide

Publication
EP 0931939 A2 19990728 (EN)

Application
EP 98111113 A 19980617

Priority
IT TO971139 A 19971224

Abstract (en)
The invention concerns a vacuum pump (1) for achieving high vacuum conditions comprising a pump casing (5), a first plurality of molecular pumping stages (2) formed by rotor disks (8a,8b) cooperating with stator rings (9a,9b) and housed in a first portion (4a) of said pump casing, and a second plurality of pumping diaphragm stages (3) housed in a second portion (4b) of said pump casing, a first electric motor (13) for driving said rotor disks of the molecular stages, a second electric motor (30) for actuating the diaphragms (40) of the diaphragm stages, and at least a common passage (7) for the passage of the gas discharged from said molecular pumping stages (2) and sucked by said diaphragm pumping stages (3).
<IMAGE>

IPC 1-7
F04D 19/04; F04D 25/16; F04B 45/047; F04B 37/14

IPC 8 full level
F04B 27/053 (2006.01); **F04B 45/047** (2006.01); **F04D 19/04** (2006.01)

CPC (source: EP US)
F04B 27/053 (2013.01 - EP); **F04B 45/047** (2013.01 - EP US); **F04D 19/046** (2013.01 - EP)

Citation (applicant)
• EP 0445855 A1 19910911 - VARIAN SPA [IT]
• EP 0256234 A2 19880224 - HITACHI LTD [JP]
• EP 0373975 A1 19900620 - CIT ALCATEL [FR]

Cited by
EP1078671A3; JP2013209928A; EP1270949A1; EP1243795A1; FR2822200A1; EP2821650A3; US6644931B2; US6840736B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0931939 A2 19990728; **EP 0931939 A3 20000830**; **EP 0931939 B1 20030625**; DE 69815806 D1 20030731; DE 69815806 T2 20040519; HK 1021401 A1 20000609; IT 1297347 B1 19990901; IT TO971139 A1 19990624

DOCDB simple family (application)
EP 98111113 A 19980617; DE 69815806 T 19980617; HK 00100211 A 20000113; IT TO971139 A 19971224