

Title (en)
HIGH VACUUM ROTARY PUMP

Publication
EP 0086460 B1 19851009 (FR)

Application
EP 83101276 A 19830210

Priority
FR 8202496 A 19820216

Abstract (en)
[origin: US4512725A] A hard vacuum pump of the type having a pump body (4) to which a multi-stage stator (3) and a multi-stage rotor (2) mounted on a shaft (1) are connected, said shaft (1) being driven by a motor and rotating in at least two ball bearings (5, 6) disposed in a sleeve (18) formed by an extension of said pump body (4), a dynamic molecular seal (7) being set on said shaft (1) at the body end of the sleeve (18), wherein the opposite end (11) of the sleeve (18) is closed, a nozzle (8) communicating with an outside source of gas being provided at said closed end (11), said pump body (4) also being connected to an exterior primary vacuum pump whereby said ball bearings (5, 6), and the rotor (9) of said motor are permanently swept by said gas entering via said nozzle and leaving via said dynamic seal, said gas flowing at a pressure intermediate between atmospheric pressure and the pump discharge pressure. The invention is used in microelectronics techniques.

IPC 1-7
F04D 19/04; **F04D 29/04**; **F04D 29/08**

IPC 8 full level
F04D 17/16 (2006.01); **F04D 19/04** (2006.01); **F04D 29/04** (2006.01); **F04D 29/059** (2006.01); **F04D 29/08** (2006.01); **F16C 37/00** (2006.01)

CPC (source: EP US)
F04D 17/168 (2013.01 - EP US); **F04D 19/042** (2013.01 - EP US); **F04D 29/059** (2013.01 - EP US); **F04D 29/08** (2013.01 - EP US)

Cited by
CN103671578A; US11338258B2; EP0159464A1; EP2826999A1; EP0245843A3; FR2567208A1; US4588361A

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

DOCDB simple family (publication)
EP 0086460 A1 19830824; **EP 0086460 B1 19851009**; DE 3360947 D1 19851114; FR 2521650 A1 19830819; FR 2521650 B1 19840406; JP H0133677 B2 19890714; JP S58150096 A 19830906; US 4512725 A 19850423

DOCDB simple family (application)
EP 83101276 A 19830210; DE 3360947 T 19830210; FR 8202496 A 19820216; JP 2265783 A 19830214; US 46704583 A 19830216