

Title (en)
Multistage vacuum pump.

Title (de)
Mehrstufige Vakuumpumpe.

Title (fr)
Pompe à vide multiétagée.

Publication
EP 0198936 A1 19861029 (DE)

Application
EP 85104947 A 19850424

Priority
EP 85104947 A 19850424

Abstract (en)
1. A multi-stage, fluid-sealed vacuum pump, having a housing and a separation plate (11) to form two drawing chambers as well as a rotor system comprising two rotors mounted on a common shaft and bearings for the rotor system, in which the rotor system is held in two front-side bearings (18, 19), characterised in that the ducting of the rotor system through the separation plate (11) is constructed as a per se known contactless split- and/or labyrinth packing (25), that the chambers in which the bearings (18, 19) of the rotor system are located are separated by means of packing rings (28, 29) and/or split- or labyrinth packings (31) from the associated drawing chambers (9, 13) and that the feed of the split- or labyrinth packings is provided by the sealing agent of the vacuum pump which is circulated in a cycle independent of the bearing frames.

Abstract (de)
Die Erfindung bezieht sich auf eine mehrstufige Vakuumpumpe mit einem Gehäuse und einer Trennscheibe (11) zur Bildung von zwei Schöpfräumen (9, 13) sowie mit einem Rotorsystem, das zwei gemeinsam auf einer Welle (17) angeordnete Rotoren (15, 16) und Lagerungen (18, 19) für das Rotorsystem umfaßt; zur Reduzierung von Schmierproblemen bei den Lagern wird auf eine Lagerung des Rotorsystems in der Trennscheibe (11) verzichtet; die Durchführung des Rotorsystems durch die Trennscheibe (11) ist als berührungsreie Spalt- und/oder Labyrinthdichtung (25) ausgebildet.

IPC 1-7
F04C 27/00

IPC 8 full level
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CPC (source: EP)
F04C 18/3441 (2013.01); **F04C 23/001** (2013.01); **F04C 27/009** (2013.01)

Citation (search report)
• [X] DE 1811285 A1 19700618 - LINDE AG
• [X] DE 1628395 A1 19700108 - SVENSKA ROTOR MASKINER AB
• [X] US 3265292 A 19660809 - BENEDICTUS SCHIBBYE LAURITZ
• [Y] NL 296852 A
• [Y] DE 3216990 A1 19831110 - SIHI GMBH & CO KG [DE]
• [A] US 4329126 A 19820511 - NISHIMURA YOSHIYUKI
• [A] FR 2242579 A1 19750328 - SVENSKA ROTOR MASKINER AB [SE]

Cited by
CN102656368A; DE4439637A1; EP3056736A1; US2018142763A1; US10707723B2; CN109026707A; WO2014044440A3; WO2011058339A2; WO2011058339A3; EP2499374B1

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