

Title (en)
High speed rotor for a vacuum pump

Title (de)
Schnell drehender Rotor für eine Vakuumpumpe

Title (fr)
Rotor tournant rapidement pour une pompe à vide

Publication
EP 2597313 A2 20130529 (DE)

Application
EP 12191948 A 20121109

Priority
DE 102011119506 A 20111126

Abstract (en)
The rotor (10) has a casing (16), a supporting structure i.e. disk-shaped hub (14), and another casing (18) arranged within the former casing, where the casings form a chemically-stable interconnection. The former casing is made of carbon fiber-reinforced material, and the latter casing is made of metal alloy. The latter casing has a helix-like groove on an inner surface, where the former casing and the supporting structure are connected with one another by an adhesive joint. The latter casing and the supporting structure are designed as a single-piece. An independent claim is also included for a vacuum pump.

Abstract (de)
Die Erfindung betrifft einen schnell drehenden Rotor (10) für eine Vakuumpumpe (2), welcher eine erste Hülse (16) und eine Tragstruktur (14; 60) umfasst. Um die vakuumtechnische Leistungsfähigkeit zu steigern, wird vorgeschlagen, dass innerhalb der ersten Hülse (16) eine zweite Hülse (18) angeordnet ist und erste und zweite Hülse einen Verbund bilden.

IPC 8 full level
F04D 19/04 (2006.01); **F04D 29/02** (2006.01)

CPC (source: EP)
F04D 19/044 (2013.01); **F04D 29/023** (2013.01); **F05D 2300/17** (2013.01); **F05D 2300/603** (2013.01)

Citation (applicant)
• DE 19632375 A1 19980219 - PFEIFFER VACUUM GMBH [DE]
• EP 1408237 A1 20040414 - CIT ALCATEL [FR]

Cited by
EP2896837A3; EP3611381A1; WO2015062909A1; WO2015007598A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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EP 12191948 A 20121109; DE 102011119506 A 20111126; JP 2012256006 A 20121122