

Title (en)  
Vacuum pump

Title (de)  
Vakuumpumpe

Title (fr)  
Pompe à vide

Publication  
**EP 2565463 A3 20151014 (DE)**

Application  
**EP 12180536 A 20120815**

Priority  
DE 102011112691 A 20110905

Abstract (en)  
[origin: EP2565463A2] The vacuum pump has a case (24) comprising carbon fiber composite material layer embedded with fibers in matrices. A helical groove (30) is formed between adjacent longitudinal bars (28) such that the direction of the fibers is aligned with the groove, for enabling the rotor portion (22) to resist the action of centrifugal forces during operation of pump. An acute angle region (312) is oriented towards end portion (26) from the outer surface of the case. An independent claim is included for method for manufacturing rotor of vacuum pump.

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); **F05C 2253/04** (2013.01); **F05D 2300/6034** (2013.01)

Citation (search report)

- [A] GB 2420379 A 20060524 - BOC GROUP PLC [GB]
- [A] US 6419444 B1 20020716 - KABASAWA TAKASHI [JP], et al
- [A] JP 2009108752 A 20090521 - EDWARDS KK
- [A] DE 102005008643 A1 20060831 - LEYBOLD VAKUUM GMBH [DE]
- [A] DE 60319585 T2 20090326 - EDWARDS LTD [GB]
- [A] WO 2006090103 A1 20060831 - BOC GROUP PLC [GB], et al

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CN105971905A; EP2787218B1; EP2886870B1

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

DOCDB simple family (publication)  
**EP 2565463 A2 20130306; EP 2565463 A3 20151014; EP 2565463 B1 20190123**; DE 102011112691 A1 20130307; JP 2013053627 A 20130321; JP 5468117 B2 20140409

DOCDB simple family (application)  
**EP 12180536 A 20120815**; DE 102011112691 A 20110905; JP 2012193204 A 20120903