

Title (en)  
VACUUM PUMP ARRANGEMENT

Title (de)  
VAKUUM-PUMPENANORDNUNG

Title (fr)  
SYSTEME DE POMPE A VIDE

Publication  
**EP 1880111 B1 20091230 (DE)**

Application  
**EP 06754953 A 20060502**

Priority  
• EP 2006061977 W 20060502  
• DE 102005020904 A 20050507

Abstract (en)  
[origin: US2009068011A1] A vacuum pump arrangement, especially a turbomolecular pump arrangement, comprises a rotor (14) and a stator (16) in a pump housing (10). The pump housing (10) is connected to a vacuum chamber housing (26) through a pump flange (10). Retaining elements (34) are provided for this connection. To avoid a twisting of the retaining elements (34) in the event of a damage, such as the blocking of the rotor (14) and the high moments occurring thereby, the retaining element (34) comprises an anti-twist structure (40) cooperating with the vacuum chamber housing (26).

IPC 8 full level  
**F04D 19/04** (2006.01); **F04D 29/64** (2006.01); **F04D 29/66** (2006.01)

CPC (source: EP US)  
**F04D 19/042** (2013.01 - EP US); **F04D 29/601** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2009068011 A1 20090312**; AT E453802 T1 20100115; CN 100575711 C 20091230; CN 101171428 A 20080430;  
DE 102005020904 A1 20061109; DE 502006005788 D1 20100211; EP 1880111 A1 20080123; EP 1880111 B1 20091230;  
HK 1109440 A1 20080606; JP 2009500549 A 20090108; TW 200643308 A 20061216; TW I390112 B 20130321; WO 2006120132 A1 20061116

DOCDB simple family (application)  
**US 91996306 A 20060502**; AT 06754953 T 20060502; CN 200680015396 A 20060502; DE 102005020904 A 20050507;  
DE 502006005788 T 20060502; EP 06754953 A 20060502; EP 2006061977 W 20060502; HK 08103572 A 20080331;  
JP 2008510538 A 20060502; TW 95112443 A 20060407