

Title (en)  
Vacuum pump stage

Title (de)  
Vakuumpumpstufe

Title (fr)  
Etage de pompe à vide

Publication  
**EP 2385257 B1 20171018 (DE)**

Application  
**EP 11002911 A 20110407**

Priority  
DE 102010019940 A 20100508

Abstract (en)  
[origin: EP2385257A2] The vacuum pump riser (100) has an inlet (104), an outlet (106), a rotor (112) and a channel (108). A rotor section is provided with design elements (114,116), by which the pumping action is operated in molecular flow range according to Gaede principle and within a higher pressure range according to a side channel principle. An independent claim is also included for a vacuum pump, which has a high vacuum side pump riser and an atmospheric side pump riser.

IPC 8 full level  
**F04D 17/16** (2006.01); **F04D 19/04** (2006.01); **F04D 23/00** (2006.01)

CPC (source: EP)  
**F04D 17/168** (2013.01); **F04D 19/04** (2013.01); **F04D 19/046** (2013.01); **F04D 23/008** (2013.01)

Cited by  
EP2886870A1; US2015167679A1; 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

DOCDB simple family (publication)  
**EP 2385257 A2 20111109; EP 2385257 A3 20140903; EP 2385257 B1 20171018**; DE 102010019940 A1 20111110;  
DE 102010019940 B4 20210923; JP 2011236900 A 20111124; JP 6302615 B2 20180328

DOCDB simple family (application)  
**EP 11002911 A 20110407**; DE 102010019940 A 20100508; JP 2011095953 A 20110422