

Title (en)  
Vacuum pump system

Title (de)  
Vakuumpumpsystem

Title (fr)  
Système de pompe à vide

Publication  
**EP 1441128 A3 20040901 (DE)**

Application  
**EP 03028333 A 20031210**

Priority  
DE 10302764 A 20030124

Abstract (en)  
[origin: EP1441128A2] The vacuum pump system (1) includes at least one high vacuum pump (3, 4). It has at least one intermediate pump (6) fitted directly and with low conductance loss on the ejection side of the high vacuum pump. There may be several intermediate pumps, which may be arranged in series or in parallel. At least one of them may have a suction capacity at least 50% that of the high vacuum pump.

IPC 1-7  
**F04D 27/00; F04D 19/04; F04C 23/00**

IPC 8 full level  
**F04D 19/04** (2006.01); **F04D 25/00** (2006.01); **F04D 27/00** (2006.01)

CPC (source: EP US)  
**F04D 19/04** (2013.01 - EP US); **F04D 25/00** (2013.01 - EP US); **F04D 27/00** (2013.01 - EP US)

Citation (search report)  
• [A] DE 3828608 A1 19900308 - ALCATEL HOCHVAKUUMTECHNIK GMBH [DE]  
• [A] DE 4410903 A1 19951005 - LEYBOLD AG [DE]  
• [A] EP 0833059 A2 19980401 - LINDE AG [DE]

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

DOCDB simple family (publication)  
**EP 1441128 A2 20040728; EP 1441128 A3 20040901; EP 1441128 B1 20080326**; AT E390561 T1 20080415; DE 10302764 A1 20040729;  
DE 50309460 D1 20080508; US 2004146410 A1 20040729; US 7033142 B2 20060425

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**EP 03028333 A 20031210**; AT 03028333 T 20031210; DE 10302764 A 20030124; DE 50309460 T 20031210; US 35093503 A 20030124