

Title (en)  
Vacuum pump

Title (de)  
Vakuumpumpe

Title (fr)  
Pompe à vide

Publication  
**EP 1398509 A3 20050615 (EN)**

Application  
**EP 03020360 A 20030909**

Priority  
JP 2002264327 A 20020910

Abstract (en)  
[origin: EP1398509A2] A vacuum pump has a main pump, a booster pump and a coupling member. The main pump has a first housing and a first pump mechanism accommodated in the first housing. The booster pump has a second housing and a second pump mechanism accommodated in the second housing. The booster pump and the main pump are coupled in series such that gas is sent from the booster pump to the main pump. The coupling member couples the first housing and the second housing to each other. The coupling member is directly coupled to a portion of the first housing that surrounds a last stage of the first pump mechanism such that transmission of heat to the portion is permitted. <IMAGE>  
[origin: EP1398509A2] The booster pump (61) and main pump (11) are connected by a coupler, in a series such that gas is sent into the main pump from booster pump. The coupler is directly attached to specific portion of the housing (H1) that surrounds last stage of pump mechanism (P1) of main pump, such that transmission of heat to the specific portion is permitted.

IPC 1-7  
**F04C 23/00**; **F04C 29/04**; **F04C 18/08**

IPC 8 full level  
**F04C 18/18** (2006.01); **F04B 37/14** (2006.01); **F04B 37/16** (2006.01); **F04C 18/12** (2006.01); **F04C 23/00** (2006.01); **F04C 25/02** (2006.01); **F04C 29/00** (2006.01); **F04C 29/12** (2006.01)

CPC (source: EP KR US)  
**F01C 21/007** (2013.01 - EP US); **F04B 37/16** (2013.01 - KR); **F04C 18/126** (2013.01 - EP US); **F04C 23/001** (2013.01 - EP US); **F04C 23/005** (2013.01 - EP US); **F04C 2220/10** (2013.01 - EP US)

Citation (search report)

- [DY] PATENT ABSTRACTS OF JAPAN vol. 017, no. 479 (M - 1471) 31 August 1993 (1993-08-31)
- [DY] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03 31 March 1997 (1997-03-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 686 (M - 1529) 15 December 1993 (1993-12-15)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 686 (M - 1529) 15 December 1993 (1993-12-15)

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