

Title (en)  
VACUUM EXHAUST DEVICE

Title (de)  
VAKUUMABFÜHRVORRICHTUNG

Title (fr)  
DISPOSITIF D'ÉCHAPPEMENT À VIDE

Publication  
**EP 1811176 A1 20070725 (EN)**

Application  
**EP 05745938 A 20050601**

Priority  
• JP 2005010044 W 20050601  
• JP 2004165221 A 20040603

Abstract (en)  
To improve the isolation rate of vibrations propagating from a vacuum pump to a vacuum device. A turbo-molecular pump 1 is connected to a main vacuum chamber 2 via a vacuum seal structure 4. Further, a sub-vacuum chamber 3 is provided so as to contain the main vacuum chamber 2, the vacuum seal structure 4, and an inlet 110 of the turbo-molecular pump 1. The roughing evacuation of the sub-vacuum chamber 3 is accomplished by using a roughing vacuum pump 6 to make the sub-vacuum chamber 3 in a medium vacuum state. Since the vacuum seal structure 4 is arranged in the sub-vacuum chamber 3 in a medium vacuum state, a difference in pressure between the main vacuum chamber 2 and the sub-vacuum chamber 3 can be made extremely small. Thereby, the amount of gas leakage to the main vacuum chamber 2 can be kept at a small value. Also, the vacuum seal structure 4 can use, for example, a non-contact seal structure or a highly flexible seal member because it does not perform a function of supporting the turbo-molecular pump 1.

IPC 8 full level  
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CPC (source: EP)  
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Cited by  
US8403566B2; GB2459233A; GB2459233B

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