

Title (en)

A method and apparatus for minimizing noise from fan filter unit

Title (de)

Verfahren und Vorrichtung zur Geräuschminderung einer Filter-Lüftereinheit

Title (fr)

Procédé et dispositif minimisant le bruit d'un bloc soufflerie-filtre

Publication

EP 1378669 A1 20040107 (EN)

Application

EP 03077576 A 19970903

Priority

- EP 97945156 A 19970903
- SG 9700040 W 19970903

Abstract (en)

In order to provide a fan filter unit whereby the noise from the fan filter unit is minimised without requiring conventional sound insulation material in contact with the airflow path and without introducing contaminants from such sound insulation material into the airflow through the fan filter unit, the fan filter unit comprises at least a fan blower (12) disposed on a base plate (14), a top housing (16) coupled to said base plate (14) with an inlet opening (18) and a side housing (22) coupled to said top housing (16) for enclosing the fan filter unit, said side housing (22) further having an outlet opening, the fan (12) being for drawing air through the inlet opening (18) and for discharging air through the outlet opening. The fan filter unit has at least a pair of S-shaped guides (24) disposed on said base plate (14) within said fan filter unit and circumferentially of said fan blower (12) for receiving air discharged therefrom; guide means (26,28) disposed within the fan filter unit and at the output of said S shaped guides (24) for diffusing the airflow therefrom; and for directing airflow to below said base plate (14); and means for evenly distributing the airflow whereby the flow of air is guided with reduced turbulence compared to a fan filter unit which does not have the S shaped guides (24) and guide means (26,28) .

IPC 1-7

F04D 29/66; **F24F 7/007**; **F24F 13/24**

IPC 8 full level

F04D 17/16 (2006.01); **F04D 29/42** (2006.01); **F04D 29/66** (2006.01); **F04D 29/70** (2006.01); **F24F 7/007** (2006.01); **F24F 13/24** (2006.01)

IPC 8 main group level

F04D (2006.01)

CPC (source: EP)

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Citation (search report)

- [Y] US 4560395 A 19851224 - DAVIS GEORGE B [US]
- [Y] US 4768424 A 19880906 - FRENKLER FRIEDRICH K [DE], et al
- [A] US 3065684 A 19621127 - O'DAY CORTLAND N
- [A] US 4023472 A 19770517 - GRUNDER HANS, et al

Cited by

CN115111198A; GB2426288A; GB2426288B; US9752794B2; WO2015100094A1; WO2005073563A1

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