

Title (en)

Vortex flow blower and method of manufacturing the same.

Title (de)

Wirbelstromgebläse und Verfahren zu dessen Herstellung.

Title (fr)

Ventilateur à tourbillon et sa méthode de fabrication.

Publication

EP 0383238 A2 19900822 (EN)

Application

EP 90102729 A 19900212

Priority

- JP 3103389 A 19890213
- JP 5139089 A 19890303

Abstract (en)

The present invention relates to a vortex flow blower used as an air source to be incorporated into general industrial machines. The vortex flow blower according to the present invention is characterized in that the shape of the blade (5) in its impeller (1) is three dimensionally formed such that at least the inner portion of the blade (5) can be adapted to the three dimensional internal flow. According to the present invention, the aerodynamic performance can be significantly improved and the size of a vortex flow blower can be reduced. Furthermore, an impeller (1) having three dimensionally shaped blades (5) is manufactured by independently manufacturing the shroud (11) and the blades (5) and coupling them, so that the impeller (1) of a complicated shape can be readily manufactured. Furthermore, since the blade (5) can be made of a thin and light material, the secondary moment of inertia of the impeller can be reduced.

IPC 1-7

F04D 23/00

IPC 8 full level

F04D 23/00 (2006.01); **F04D 29/26** (2006.01); **F04D 29/30** (2006.01)

CPC (source: EP KR)

F04D 23/008 (2013.01 - EP); **F04D 29/26** (2013.01 - EP); **F04D 29/30** (2013.01 - EP); **F04D 29/38** (2013.01 - KR)

Cited by

EP0506974A4; CN108479201A; EP0612923A1; US5628615A; DE19955955A1; EP4209679A1; WO9710440A1; US10273960B2; US12000411B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0383238 A2 19900822; EP 0383238 A3 19911016; EP 0383238 B1 19971119; DE 69031713 D1 19980102; DE 69031713 T2 19980604; KR 900013215 A 19900905; KR 940007889 B1 19940827

DOCDB simple family (application)

EP 90102729 A 19900212; DE 69031713 T 19900212; KR 900001678 A 19900212