

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 435 193 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **90125094.4**(51) Int. Cl.⁵: **F04C 18/107**(22) Date of filing: **21.12.90**

(30) Priority: **26.12.89 JP 337524/89**
13.04.90 JP 96304/90
13.04.90 JP 98432/90
13.04.90 JP 98437/90

(43) Date of publication of application:
03.07.91 Bulletin 91/27

(84) Designated Contracting States:
DE IT

(88) Date of deferred publication of the search report:
19.02.92 Bulletin 92/08

(71) Applicant: **Kabushiki Kaisha Toshiba**
72, Horikawa-cho Saiwai-ku
Kawasaki-shi(JP)

(72) Inventor: **Fujiwara, Takayoshi, c/o Intellectual**
Property Div
Kabushiki Kaisha Toshiba, 1-1 Shibaura
1-chome

Minato-ku, Tokyo 105(JP)

Inventor: **Honma, Hisanori, c/o Intellectual**
Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura
1-chome

Minato-ku, Tokyo 105(JP)

Inventor: **Sone, Yoshinori, c/o Intellectual**
Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura
1-chome

Minato-ku, Tokyo 105(JP)

Inventor: **Hirayama, Takuya, c/o Intellectual**
Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura
1-chome

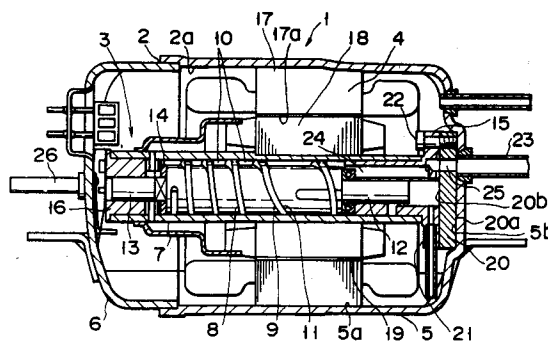
Minato-ku, Tokyo 105(JP)

(74) Representative: **Henkel, Feiler, Hänzel &**
Partner
Möhlstrasse 37
W-8000 München 80(DE)

(54) **An axial flow fluid compressor and a method of assembling the same.**

(57) A compressor includes a cylinder (7), and a rotating body (8) located in the cylinder. A spiral groove (11) is formed on the outer periphery of the rotating body. A spiral blade (9) is fitted in the groove and divides the space between the inner periphery of the cylinder and the outer periphery of the rotating body into operating chambers (10) which have volumes gradually decreasing with distance from one end of the cylinder. A drive motor (4) rotates the cylinder and the rotating body relative to each other. The drive motor includes a cylindrical stator (17) fixed on a closed casing and a rotor (18) mounted on the cylinder (7) and situated inside the stator (17) coaxially, with a motor air gap provided therebetween. A main bearing (15) is engaged with the axial end portion of the cylinder (7) and fixed on the inner wall of the casing by means of a fixing member (20) situated radially more inward than the

stator. The main bearing is fixed on the closed casing, with the position of the main bearing adjusted by a master rotor.

**FIG. 1**



European
Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 90 12 5094

DOCUMENTS CONSIDERED TO BE RELEVANT

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
D,X	US-A-4 875 842 (IIDA ET AL.) 		