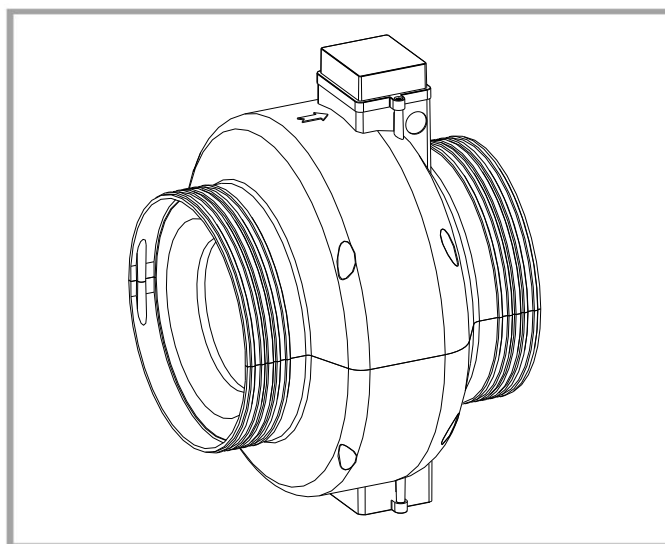


# Powerflow

## In-Line Duct Fans

Installation and Wiring Instructions



Stock Ref. N°

ACP10012B  
ACP12512B  
ACP15012B  
ACP16012B  
ACP20012B  
ACP25012B  
ACP31512B  
ACP31512HP

220-240V~50Hz

**Vent-Axia®**

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH THE ILLUSTRATIONS.  
PLEASE SAVE THESE INSTRUCTIONS

UK  
CA  
CE

## Installation and Wiring Instructions for AIRTRAK POWERFLOW (ACP) fan range.



**IMPORTANT: READ THESE INSTRUCTIONS BEFORE COMMENCING THE INSTALLATION**

DO NOT install this product in areas where the following may be present or occur:

- Excessive oil or a grease laden atmosphere.
- Corrosive or flammable gases, liquids or vapours.
- Ambient temperatures higher than 40°C or less than -5°C.
- Relative humidity above 95%
- Possible obstructions which would hinder the access or removal of the fan.
- Sudden ductwork bends or transformations close to the fan.

### SAFETY AND GUIDANCE NOTES

- A.** All wiring must be in accordance with the current I.E.E. Regulations, or the appropriate standards of your country.
- B.** The fan should be provided with a local double pole isolator switch having a contact separation of at least 3mm.
- C.** Ensure that the mains supply (Voltage, Frequency and Phase) complies with the rating label.
- D.** The fan should only be used in conjunction with the appropriate Vent-Axia products.
- E.** It is recommended that the connection to the terminal box is made in flexible cable or conduit for easy maintenance.
- F.** The fan should not be sited within 600mm horizontally of/or 2250mm vertically of a bath/shower tray, in accordance with the current I.E.E. Regulations for bathrooms.
- G.** When the Fan is used to remove air from a room containing a fuel-burning appliance, precautions must be taken to avoid back-flow of gases into the room from the open flue of gas or other appliance. Ensure that the air replacement is adequate for both the fan and the fuel-burning appliance.
- H.** This fan is designed as an inline duct fan to be positioned between lengths of ducting. Short duct runs terminating within 1.5m must incorporate suitable guards unless the fan is mounted higher than 2.3m.
- I.** This fan should not be used where it is liable to be subject to direct water spray from hoses etc.
- J.** Where ducted fans are used to handle moisture-laden air, a condensation trap should be fitted. Horizontal ducts should be arranged to slope slightly downwards away from the fan.
- K.** Certain applications may require the installation of sound attenuation material to achieve the sound levels required. An auto transformer speed controller is also recommended.
- L.** This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- M.** Young children should be supervised to ensure that they do not play with the appliance.

### INSTALLATION

#### FAN MOUNTING

1. The fan is suitable for mounting at any angle using the mounting bracket supplied (see Fig 5 for dimension details)
2. Securely mount the fan using the appropriate screws, bolts, anti-vibration mounts etc.
3. Flexible connections should be used at the fan inlet and outlet.
4. Ensure that there is adequate clearance for accessing the fan.

# WIRING



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE. THE EQUIPMENT MUST BE EARTHED**

1. Select and follow the appropriate wiring diagram (Figs. 1-4).
2. Check that all connections have been made correctly. Ensure that all terminal screws and cable clamps are securely fastened.
3. The cable entry must be made using a suitable grommet or cable gland.
4. Switch the mains supply on and check the system is operating correctly.

## ROUTINE INSPECTION AND MAINTENANCE

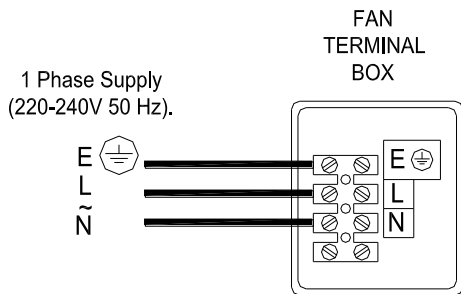
**ISOLATE THE UNIT FROM THE POWER SUPPLY AND ENSURE THAT IT CANNOT BE ACCIDENTALLY SWITCHED BACK ON**

1. At intervals appropriate to the installation, the fan should be inspected and cleaned to ensure there is no build up of dirt or other deposits on the impeller or the motor (Caution – do not dislodge any balance weights which may be fitted to the impeller). If the fan is handling dust laden air, it is recommended that a filter is installed.
2. All Vent-Axia AIRTRAK fan motors are fitted with sealed for life bearings and do not require lubrication.

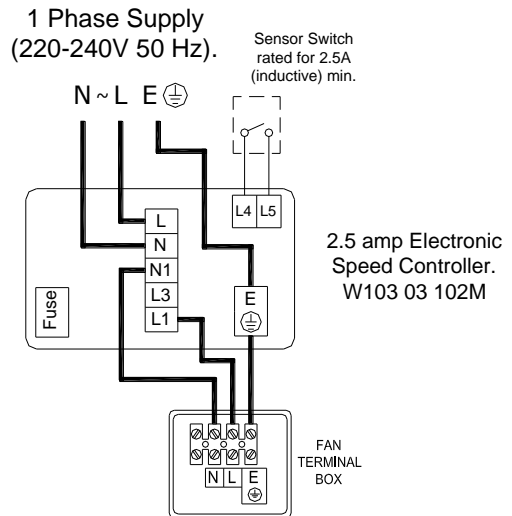
## OVERHEATING PROTECTION

The fan motor is fitted with Standard Thermal Overload Protection. This will automatically switch the fan Off in the event of a fault condition. If this occurs, isolate the fan, check for any obstruction, leave the fan for a short time for the motor to cool before reconnecting the power supply. If the fault reoccurs, isolate the power supply and call a service engineer.

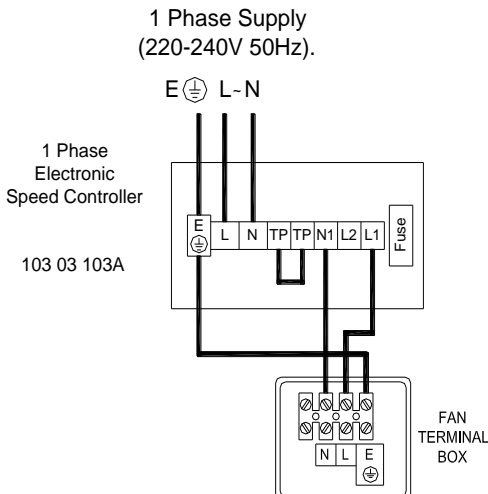
**Fig. 1**  
Fan Controlled by a Remote Switch



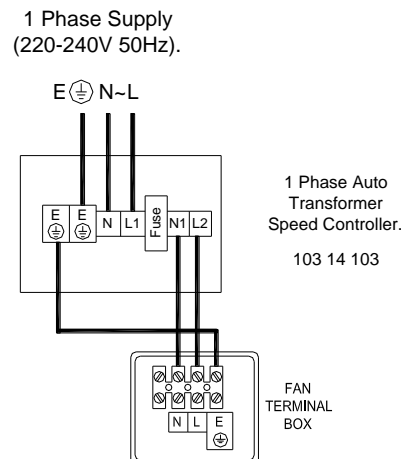
**Fig. 2**  
Fan Controlled by a 2.5 Amp Electronic Speed Controller (Stk Ref. W103-03-102M).



**Fig. 3**  
Fan Controlled by a 3.0 Amp Electronic Speed Controller (Stk Ref. 103-03-103A).

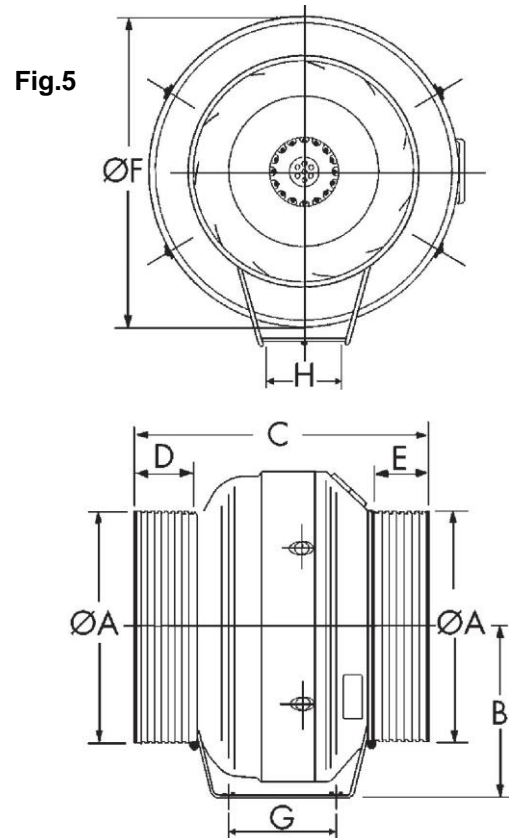


**Fig. 4**  
Fan Controlled by a 3.0 Amp Auto Transformer Speed Controller (Stk Ref. 103-14-103).



Dimensions(mm)	100	125	150	160	200	250	315
AØ	100	125	149	160	200	250	315
B	146	146	175	175	193	218	250
C	287	287	287	287	290	312	366
D	52	60	52	52	47	65	76
E	52	60	52	52	47	65	76
FØ	254	254	301	301	344	367	405
G FIXING CTRS	110	110	110	110	92	92	92
H FIXING CTRS	270*	270*	270*	270*	130	130	130

\* Sizes 100, 125, 150 & 160 have a flat mounting foot.



## The **Vent-Axia** Guarantee

Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.

Vent-Axia guarantees its products for two years from date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's option replaced, without charge, provided that the product:-

- Has been installed and used in accordance with the instructions given with each unit.
- Has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit).
- Has not been subjected to misuse, neglect or damage.
- Has not been modified or repaired by any person not authorised by the company.

### IF CLAIMING UNDER TERMS OF GUARANTEE

Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked "Guarantee Claim" stating the nature of the fault and providing evidence of date and source of purchase.

The guarantee is offered to you as an extra benefit, and does not affect your legal rights

# Vent-Axia®

Head Office: Fleming Way, Crawley, West Sussex, RH10 9YX. Tel: 01293 526062 Fax: 01293 551188

EU Authorised Representative: Vent-Axia Bedrijvenweg 17 7442 CX Nijverdal Nederland. [authorisedrep@vent-axia.nl](mailto:authorisedrep@vent-axia.nl)

UK NATIONAL CALL CENTRE, **Newton Road, Crawley, West Sussex, RH10 9JA**

SALES ENQUIRIES: Tel: 0344 8560590 Fax: 01293 565169

TECHNICAL SUPPORT: Tel: 0344 8560594 Fax: 01293 539209

For details of the warranty and returns procedure please refer to [www.vent-axia.com](http://www.vent-axia.com) or write to Vent-Axia, Fleming Way, Crawley, RH10 9YX