



# E-VAC 5400 AIR MOVER INSTRUCTION MANUAL

**CAUTION:** Read these instructions before using this appliance.



## MODELS E-VAC HEPA 5400 NEGATIVE AIR MOVER

# **OPERATING INSTRUCTIONS**

Flow readings are nominal, measured with clean filters, without any ducting fitted and in accordance with the procedure laid down in BS 8520-2:2009.

The models are manufactured in accordance with the requirements of BS 8520-2:2009.

BS 8520-2:2009 states the following -

#### WARNING

#### **READ THIS INSTRUCTION MANUAL BEFORE USE.**

## THIS EQUIPMENT MUST ONLY BE OPERATED UNDER THE SUPERVISION OF COMPETANT AND TRAINED PERSONNEL WHO HAVE RECEIVED INFORMATION, INSTRUCTIONS AND TRAINING ON THE USE OF THE APPLIANCE AND THE SUBSTANCES FOR WHICH IT IS TO BE USED INCLUDING THE SAFE METHOD OR REMOVAL AND DISPOSAL OF THE CONTAMINATED ITEMS.

Part 1, Section 6 of the Health & Safety at Work Act 1974, requires that manufacturers to ensure as far as reasonably practicable that the articles manufactured are so designed and constructed as to be safe and without risk when properly used.

All products are manufactured and tested to the relevant British and European Standards where applicable and are accompanied by operating instructions. Additional copies of operating instructions are available quoting model numbers.

If a change is made in the use of the new product from which it was originally supplied, consult Vent Duct Tools as to the suitability of the new use.

Any queries relating to the electrical matters, must be referred either to the manufacturer or a qualified competent electrical engineer. Disconnect the appliance from the mains before carrying out any maintenance. The appliance must never be operated or used in areas where there may be potentially explosive dust, vapour or gases.

## **Important Information**

The use of flexible ducting on the inlet or discharge of the appliance will result in reduced airflow, the amount depending on the diameter, length and number of bends in the ducting.

The discharge air from the appliance should be ducted outside the building where practicable.

The appliance must be operated under supervision of competent personnel.

The operating and maintenance procedures must be adhered to.

When transporting the appliance, it must be firmly secured to avoid damage and when removed from the vehicle placed gently on the ground.

When handling the appliance use the handles fitted, for heavier items it is recommended that two people are utilised (one on each side). The appliance must be handled with care and attention to avoid any potential damage.

When in use the appliance should have the locking castors secured and not be moved from the working position.

When in storage the appliance must be situated away from extremes of temperature, humidity and moisture.

It is recommended that the appliance is inspected and tested for electrical safety and filter integrity by a competent certification body every six months.

Electrical testing shall include, earth continuity and insulation resistance, filter testing measurements of airflows, differential pressures and filter penetration.

Any contaminated filters arising from operating the appliance must be disposed of in impervious bags and in accordance with current waste regulations.

For user servicing and maintenance, the appliance shall be dismantled, cleaned and serviced as far as is reasonably practicable without causing risk to maintenance staff and others. Suitable precautions may include decontamination prior to dismantling, provision for local filtered exhaust ventilation where the appliance is dismantled, cleaning of the maintenance area and suitable personal protection

## Product Description

This model is fitted with 2 stages of filtration -

HEPA filters, H13/H14 grade and Primary or Pre filter, G4 grade.

(Filter classification according to EN779, CENT TC195, EN 1822)

The fitting of a HEPA filter to this classification enables the appliance to be used for the collection of small particle hazardous dusts.

## **Operating Instructions**

As a general rule of thumb adopt the following procedure:

Set up the equipment as it would be used on the actual enclosure at the commencement of the job.

Take actual pressure gauge readings in normal use with clean filters and any ducting fitted, by means of observation, measurement and judgement determine when the pre filters require changing and record the gauge reading at this point.

This information will enable any future changes to be related to the actual observed pressure gauge readings.

This is very dependent on the judgement and experience of the person given this task and will be subject to a certain amount of trial and error.

After a period of time replacing primary or secondary filters will no longer restore the pressure gauge readings to the 'start values'. For example, reading 350 Pascals initially, after a number of primary and secondary filter changes may read 650 Pascals, this would be an indication to the user that the HEPA has a significant loading of dust and may require replacement.

When taking pressure gauge readings, the following needs to be borne in mind, the use of flexible ducting will affect the performance of the equipment and also increases or decrease pressure gauge readings depending on whether the ducting are used on the inlet or outlet of the machine.

The ideal method of use is for the appliance to be situated against the outside of the enclosure with the inlet spigot (or open front section) passing through polythene and the pre filter box (three stage model) mounted internally so that the pre filter can be changed by the persons working inside. Two stage machines have an open front section, the pre filter can be changed inside the closure by removing the clamp frame.

Whenever possible the machine should be situated opposite to the airlock to provide a flow of air across the working area.

For three stage machines the intermediate filter can be changed by removing the front section, this may be held on with clips or bolts depending on the model and replacing the filter ensuring the direction of airflow shown on the filter is observed.

For all model's user changing of the HEPA filter is not recommended as the filter is easily subject to damage and unless a DOP test is carried out, filter and filter seal integrity cannot be guaranteed.

## List of Spare parts E-vac 5400 - 110v & 240v

F07 - Intermediate Pre-filter G4 594mm x 594mm x 95mm

F25 HEPA filter - H14



Vent Duct Tools



ventductcleaningtools.co.uk

Vent Duct Tools 3 Tiverton Way, Tiverton Devon. UK. EX16 6TG

T: +44 1884 684084

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