

Installation Guide and Checklist

Decentralised Continuous Mechanical Extract Ventilation

(Version – 11 February 2011)

The Electric Heating and Ventilation Association have developed this guidance and checklist document in partnership with the Residential Ventilation Association (a HEVAC association), BRE and EST.

NOTE: This guide and checklist has been superseded for dwellings assessed under 'The Building Regulations 2010', specifically SAP 2009 and Approved Documents L and F. Completion of this document is therefore only required for dwellings assessed by SAP 2005.

Customer Details
Customer Name:
Address:
Telephone Number:
Date of Installation:
Name of Lead Contractor:
Design Project Number:

It should be noted that this guidance is not intended to replace product manufacturer installation instructions; it is a generic addition which defines good practice. Installers are advised to complete this form for each installation and keep a copy to provide to Building Control Officers in case requested.

Introduction

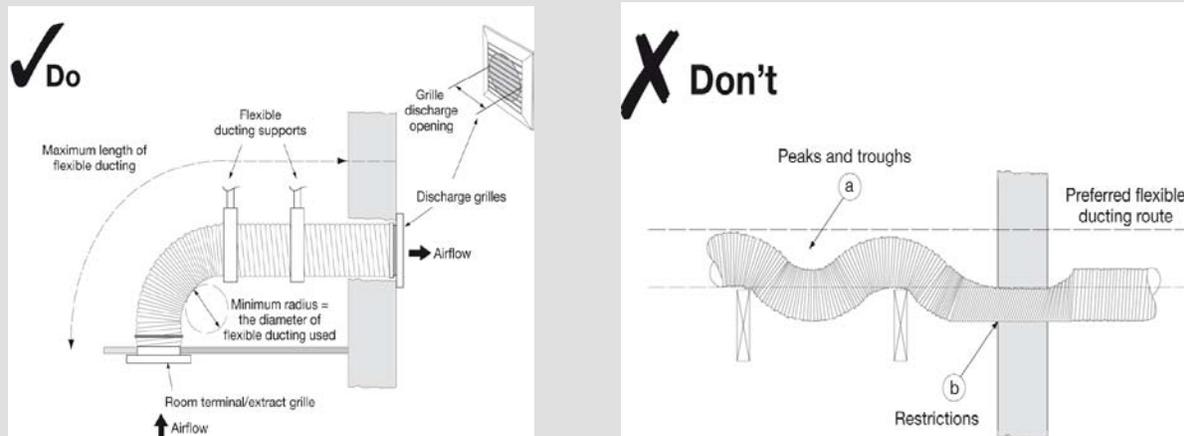
This document is to be used in support of the SAP Appendix Q scheme which provides tested performance values for De-centralised MEV products.

Note that all checklist items must be answered YES in order for the SAP Appendix Q test figures to be used in 'As built' SAP calculations. If any checklist items are answered NO then SAP default figures must be used. Systems must be designed by a manufacturer designer and sized correctly to qualify for SAP Appendix Q figures.

SECTION 1: INSTALLATION GUIDANCE

1. Ductwork Installation	Decision Yes, No or N/A
<p>Have the ducts been installed with as little air resistance and leakages as possible (flexible ducts should be avoided)?</p> <p>Note: Refer to HVCA DW/143 document 'A Practical Guide to Ductwork Leakage Testing' for detailed guidance on air tightness. Rigid plastic ducting is recommended and flexible duct should only be used in very short lengths and mainly just to connect the ductwork to the units/diffusers or to overcome particular obstructions.</p>	
<p>If flexible ducting has been used, has it been pulled taut to minimise system resistance?</p>	
<p>Has the number of duct bends been minimised to ensure adequate air flow and least resistance? Bends should have a minimum radius at least the same as the diameter of the ducting used?</p> <p>Refer to Figure 1 if using flexible ducting</p>	
<p>Have the fans and ducting placed in unheated voids been insulated to reduce the possibility of condensation forming (see notes below)?</p> <p>Note: Ducts should be insulated with the equivalent of at least 25mm of insulating material with a thermal conductivity of 0.04W/mK. Where a duct rises vertically it may be necessary to fit a condensation trap in order to prevent backflow of any moisture in the product. Insulation should be applied to both warm and cold air ducts. Cold air ducts should be wrapped additionally with a vapour barrier outside the insulation. Ducts with cold air running in warm environments will condense on the outside of the duct.</p>	
<p>Have recommended duct jointing collars and components been used to ensure appropriate duct performance (duct runs should be as air tight as possible)?</p> <p>Note: All the joints should be sealed correctly either using duct tape or silicon.</p>	

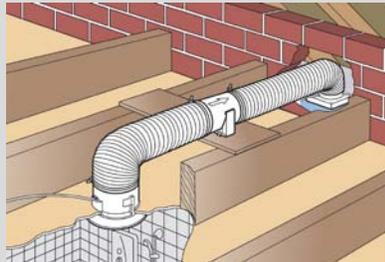
Figure 1 Ductwork Visual Guide



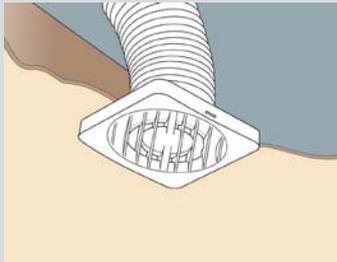
Source: Approved Document F (England & Wales) 2006

2. Unit Fixing	Decision Yes, No or N/A
Have the fans been fitted to a stable element of the building fabric (e.g. wall, ceiling or joist) using manufacturer recommended/supplied fixing instructions?	
Have all the fans been mounted and installed inline with the IEE wiring regulations?	
Has the unit been installed in a position that will permit access for maintenance purposes?	
Have all grilles or ductwork that penetrate the building's air barrier, as identified in the construction drawings, been sealed to ensure continuity of the air barrier?	
Have the grilles within the rooms been installed with a visible identification that they are SAP Appendix Q listed products Note: This may either be on the cover itself or behind a cover that can be opened without special tools	

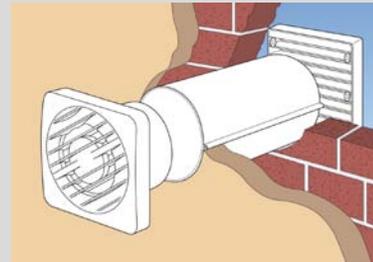
Figure 2 Sample Mounting Position



Induct



In room



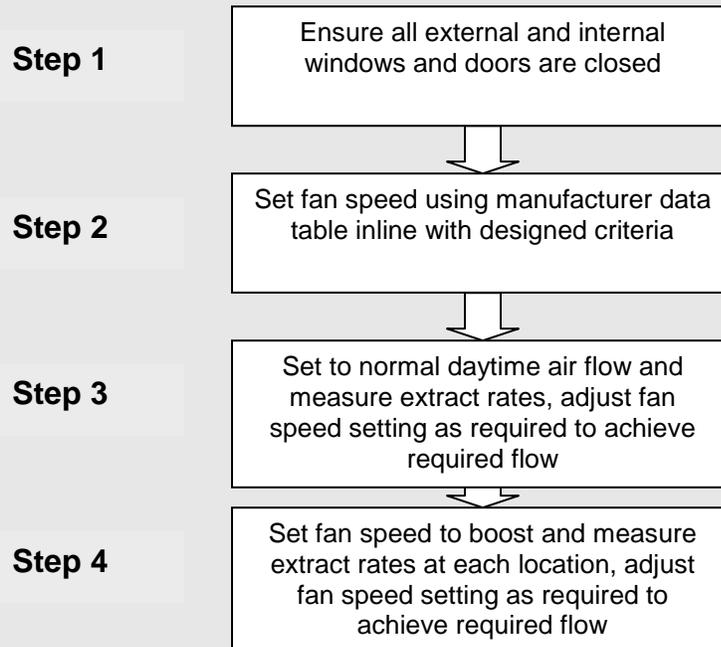
Through Wall

3. Electrical Connection	Decision Yes, No or N/A
Has the rating label been verified to establish suitability for the installation strategy and whether an earth is required (e.g. voltage, class I or II product status)?	
Has a local isolator been provided to enable the unit to be isolated for maintenance purposes?	
Has the unit been fused in accordance with its power rating?	

SECTION 2: COMMISSIONING GUIDANCE

1. System Balancing & Calibration	Decision Yes, No or N/A
<p>Has the air flow been checked using a proprietary device such as an anemometer (recommended)?</p> <p>Note: the need for background ventilators will depend on the air permeability of the dwelling, and this is not normally known at the design stage. Therefore, as a precaution, it is recommended that controllable background ventilators having a minimum equivalent area of 2,500mm² are fitted in each room, except wet rooms from which air is extracted. Where this approach causes difficulties (e.g. on a noisy site) seek expert advice</p>	
<p>Have the fan speeds been set following a defined process?</p> <p>Refer to figure 3 flow diagram</p>	

Figure 3



2. Handover and Control/Maintenance Advice	Decision Yes, No or N/A
Has the customer been supplied with suitable documentation detailing maintenance and operational requirements?	
Has the customer been advised not to seal natural air flows from room to room (e.g. avoid door seals and thick pile carpets)	
Has the customer been advised not to alter settings post-commissioning?	