



Polypipe Installation Guidelines

Please read these guidelines in conjunction with the installation instructions supplied with your chosen appliance paying particular attention to condensate drainage, wiring, controls and any other specific requirements that need to be addressed prior to installing the ductwork.

At this stage it would be prudent to draw to scale a simple room layout for each floor of your property.

Following the guidance provided in the appliance installation instructions choose the optimum position to mount the appliance and draw it onto your plan.

Next, draw the positions of the exhaust terminal/grille and for MVHR systems, the position of the fresh air supply terminal/grille. **Note:** These should be kept to a minimum of 2m apart to avoid recirculation contamination problems.

In order to provide maximum circulation of air in each room to be ventilated, position individual air valves diagonally opposite the door into the room or as near to this position as building construction limitations allow. **Note:** It is recommended that internal doors have a 10mm air gap at the bottom to allow the transfer of air flows whilst the door is shut.

Using a convenient colour code of your choice for each main duct system, draw onto the plan, the exhaust duct from the appliance to the exhaust terminal/grille and if MVHR, the fresh air supply duct from the terminal/grille to the appliance. These ducts should be as short and straight as possible.

As near as is possible, the duct system that connects all of the extract air valves together should ideally form the shape of a stylised 'fir tree', consisting of a central 'trunk' duct connected to the appliance with the valves positioned at the end of individual branch ducts to provide an approximately balanced air flow. The final air-flows will be balanced by adjusting the individual 136-25 air valves.



For MVHR systems, the same format should be followed for connection of the fresh air supply valves. The actual duct size used is determined by the diameter of the duct connections fitted to the appliance.

For MEV and EAHP systems, separate provision must be made for replacement air; a type 2404 fresh air supply kit should be installed in every habitable room other than "wet" rooms within in the property, at a minimum of 1.7m above floor level and should be positioned to provide maximum air circulation throughout the property. The internal grilles should be positioned so that they are unlikely to be covered by curtains or blinds. Also, due consideration should be given to access to the internal grilles by the occupier for future cleaning of the integral filter. **Note:** A more detailed installation instruction is supplied with each 2404 kit.



To avoid condensation forming inside the extract duct from the wet rooms, the duct should be insulated if it passes through an area likely to be colder than the temperature of the extract air; for example, when passing through a cold loft space. In these instances, Thermapipe pre-insulated pipes and fittings should be employed; the outer vapour barrier should be made into a continuous single sleeve using type 50TP45 aluminium duct sealing tape.

If it is more practical to use a flexible hose in this situation, type 5210 insulated flexible hose should be employed, again making good the outer vapour barrier with type 50TP45 tape.

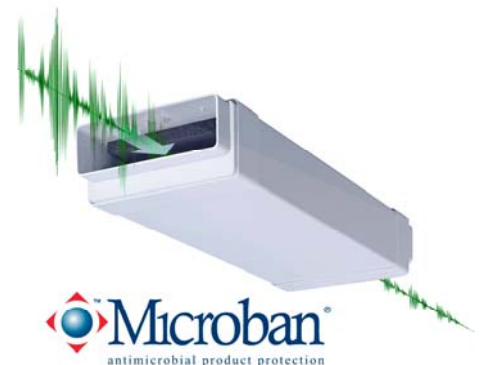
Note: Due to the excellent efficiencies achieved by exhaust air heat pumps, the exhaust air will have reduced in temperature by such an extent that condensation will form on the outside of the exhaust duct leading to potential moisture damage to adjacent surfaces such as plasterboard ceilings. To counter this, the exhaust duct must be insulated in the same way as previously described.

To ensure optimum performance is achieved by the appliance and to avoid damage from condensate leakage, all duct joints must be 100% sealed with type DDSEAL acrylic duct sealant. Duct sealing tape or solvent weld should be avoided. **Note:** The use of mechanical fixings is unnecessary as these could create air leaks and may corrode in a moist air stream.

To reduce fan noise and/or noise from rooms connected by common duct systems (cross-talk), 0.5m long type 5SL05M Microban® protected duct silencers should be fitted adjacent to each individual air valve.

The ducting should be supported using good quality proprietary duct support systems or products such as galvanised steel strapping is an acceptable alternative, however care must be taken to ensure that the ducting or insulation is not damaged or pierced.

It is recommended that the ducting is supported at least every 1.0m and either side of any joint to provide extra mechanical strength.



Based on the information entered into the program, the duct system selected will contain sufficient duct and fittings of the correct capacity to work efficiently with the selected appliance in the house described. The system also includes duct terminations for both inside and outside of the property, sufficient fittings, sealant and insulation for the system.

However the program has to make a certain number of assumptions using average individual room sizes, current house-building techniques and standard construction details, therefore, it is possible that some items may be surplus to requirements or it may be necessary to purchase extra individual items. If extra items are required, contact your local stockist for price and availability.

By now, using the information contained in the program and these guidelines you should be sufficiently prepared to install the duct system, however, should you require further information or assistance please call our technical department on **08443 715523** (local call rate will apply).

Commissioning

Upon completion of the installation, check that the duct systems are complete and are connected to the correct air valves and appliance duct connections.

For larger more complicated duct systems, each duct should be identified using coloured electrical insulation tape in the same colours as those employed on your plan. This will also help in the future if a change or repair has to be made to the system.

Ensure that every joint is sealed and is adequately supported and ensure that insulation has been applied appropriately.

Important: Carry out the requirements of the commissioning guidance supplied with the appliance instructions.

Prior to switching on the appliance, partially open all of the air valves.

If the ventilation system is to be approved by Building Control, you may be required to prove that the individual room ventilation rates comply with Approved Document F of the Building Regulations – these flow rates will be included with your quotation providing that the information has been entered into the program fully and correctly.

It will be necessary to adjust the air valves a number of times as a change to one will affect all of the others.

When commissioning is complete the valve adjustment should be fixed using the lock-nut provided.

In order to accurately measure flow rates, measuring equipment is available in the form of a vane anemometer.

To purchase please call the number below or [CLICK HERE](#) for more information

Polypipe are able to provide various levels of technical support, including on-site commissioning by one of our Technical Engineers and bespoke CAD drawings for ventilation systems. For more information please call the number below*

*Charges may apply

Did you know?

Domestic ventilation became notifiable work on the 1st of October 2010 as part of the 2010 revision to

Approved Document F of the Building Regulations.

This means that ventilation provision in new homes must be commissioned by a suitably qualified installer.

How can I become qualified to commission ventilation provision?

Join Polypipe Ventilation's BPEC accredited installer training course and learn the skills needed to commission domestic ventilation.

To book direct please call the number below or [CLICK HERE](#)



For support, please contact
our Technical Department on
08443 715523

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