



The following are some of the recommendations contained in the *Domestic Ventilation Compliance Guide - 2010 Edition (Amended July 2011)* produced by the Department for Communities and Local Government, and apply to passive stack and mechanical ventilation & extraction systems.

Installation of Ducting

Rigid ducts should be used wherever possible. Where necessary, flexible ducts may be used, but their lengths should be kept to a minimum. The routing of ducts should minimise the overall duct length and minimise the number of bends required.

Ducting should be properly supported along its length to ensure that the duct can run straight without distortion or sagging and that there are no kinks at any bends or the connections to ceiling and outlet terminals. Flexible ducting should be fully extended and pulled taut to ensure that the full internal diameter is obtained and air flow resistance minimised. It should also be supported at suitable intervals, typically not exceeding 600mm, to minimise sagging.

In the roof space the duct should be secured to a wooden strut that is securely fixed at both ends. A flexible duct should be allowed to curve gently at each end of the strut to attach to the ceiling terminal and roof outlet terminal.

Ducts should be securely fixed to the roof outlet terminal so that they cannot sag or become detached. Connection of lengths of flexible duct should not be taped only and must use a rigid connector and jubilee clips or similar to ensure a long term seal is achieved.

For extractor systems, ensure that the free area of the terminal opening is a minimum of 90% of the free area of the ducting being used. The location of the external discharge terminal should ensure that the potential for recirculation of extract air through any ventilation air inlets is minimised.

A tile ventilator may be used to terminate a passive stack ventilation system on the roof slope, but the terminal should be positioned no more than 0.5m from the ridge.

Ducting Insulation

All extractor ducting should be insulated where it passes through unheated areas and voids (e.g. loft spaces) with the equivalent of 25mm of material having a thermal conductivity of $\sim 0.04\text{W/mK}$ to reduce the possibility of condensation forming.



Condensation Traps

Horizontal ducting should be arranged to slope slightly downwards away from the extractor fan to prevent any backflow of moisture. Vertical ducting will require a condensation trap in order to prevent backflow of any Typical Condensation Trap moisture. Condensation traps are simple and inexpensive devices that are incorporated into the rigid pipework, but they do require a small diameter drain to the outside. These products can be readily found through appropriate distributors or via an internet search.

Soil Pipes

It is not usually recommended that soil pipes be insulated as they generally carry far less moisture than extractor pipes, however the connection to the rigid soil pipework should be adequate to ensure that any condensate does not leak at this connection.

Further Information

Take a look at our technical guidance for dry fix on our website, we also have a dedicated team to help with queries regarding our products, get in touch with them at techhelp@hambleside-danelaw.co.uk.

To further support roofing contractors, this year we launched Hambleside Danelaw Hub where learners can develop their skillset.

Technical Guidance

Hambleside Danelaw's Technical Guidance series is devoted to helping contractors and developers with relevant information from broad topics like condensation, to more specific information detailing key products for use on the roof. All previous articles can be found in the news section of our website.