

# Case Study



## Best Homes in Scotland

Vent-Axia has supplied central extract units to a refurbished property named as one of the '100 best homes in Scotland since 2000'



Lo-Carbon Sentinel Multivent H

Vent-Axia has supplied two Sentinel Multivent H central extract units to a refurbished tenement property in Edinburgh New Town. The former basement store has been redeveloped and extended to create a luxury 5-bedroom home and has been named as one of the '100 best homes in Scotland since 2000' according to the Royal Incorporation of Architects in Scotland.

The project, led by Capital A Architecture, involved an extensive redesign and extension that created a more open plan living area, split over two levels. The rear garden is steep and the re-designed garden room has a lowered floor level to connect to the garden with as few steps as possible. The 7-month build included installation of Vent-Axia's Sentinel Multivent H continuous mechanical extract ventilation (MEV) units which provided ventilation to the kitchen, bathroom and three en-suite areas.

A continuous running MEV system, the Sentinel Multivent H was ideal for the project since its integral humidity sensor is designed for the simultaneous ventilation of separate areas in the home. The integral humidity sensor increases fan speed in proportion to relative humidity levels, saving energy and reducing noise. By reducing moisture levels and removing pollutants in the air such as carbon dioxide, indoor air quality is much improved and helps to create a healthier living environment.

Both energy efficiency and the Multivent's humidity sensor were key drivers for the MEV system's specification. Boasting energy efficient EC/DC motors the Multivent helps achieve carbon footprint reduction targets since the motors lose a third less energy to heat than a conventional AC motor. Meanwhile, the integral humidity sensor also reacts to small but rapid increases in humidity, even if the normal trigger threshold is not reached. This unique feature ensures adequate ventilation, even for the smallest wet room. And its night time relative humidity increment setback feature suppresses nuisance tripping as humidity gradually increases with falling temperature. These options are ideal in this type of property that has low levels of natural ventilation.

Sentinel Multivent has been designed to meet the exacting demands of developers, installers and users offering advanced control options and easier installation and commissioning. An integral LCD display allows the installer to select appropriate low, normal and boost speeds to meet demand as well as manual and automatic control options. It features Plug-n-Play automatic sensor detection, an integral adjustable overrun timer and delay on timer and there is the option of wireless control with up to four controllers per system. In buildings suffering from high moisture levels at the point of installation, there is a Dry Out setting which boosts Sentinel Multivent for 1 week to assist in removing moisture.

As a listed building, ventilation specification had to be considered carefully to minimise alterations to the building's structure.

"The Vent-Axia Multivent was specified since it minimised the number of penetrations on the external wall, a serious consideration for alterations to a listed building."

Níall Hedderman - Director at Capital A Architecture

SAP PCDB for a kitchen and up to 6 wet rooms

Low noise levels of only 18.1 dB(A) @ 3m

Specific fan power as low as 0.16 W/l/s

Lowest SFP figure of any demand control MEV system