



Seamless Comfort: Retrofitting Unico's sdHV System into a Modern Devon Home

Introduction

A recent installation in a modern detached home in Devon showcases how the Unico Small Duct High Velocity (sdHV) system can be seamlessly retrofitted into existing properties of this kind, delivering year-round heating, cooling, and ventilation from one compact, all-in-one solution. The Litchfield family moved into their Bloor Homes property when it was first built. Its original design included a Daikin Altherma Air Source Heat Pump

(ASHP) providing a renewable energy source for the home's radiator central heating and hot water system, which worked efficiently. In recent summers, rising temperatures have made well-insulated, airtight bedrooms increasingly uncomfortable. Like many owners of similarly designed homes, Brian Litchfield began exploring solutions to tackle both excessive heat and humidity. However, options such as opening windows, installing fixed air conditioning, or relying on portable units all came with significant drawbacks.

Strategy

In his professional capacity as the owner of Climate Controls and Spares, an independent Heating, Refrigeration and Air Conditioning National Distributor covering Devon and Cornwall, Brian has extensive knowledge of air conditioning technology.

He is also a Unico Specialist partner, making him familiar with the benefits of Unico's sdHV system, which uses forced air and a technique known as aspiration to provide a highly efficient means of heating and cooling properties via a central air distribution system.



Brian comments, "I think Unico is so good, I wanted to use it at home. Having lived in Canada, where forced air distribution systems in general are common, I knew they are efficient, versatile and can be easily retrofitted. I would always recommend them".

The system includes a Unico xxxx air handler conveniently located in the loft space. With the ASHP as the energy source, it provides heating and cooling to the upper floor of the home.

Warmed or cooled air is distributed into the bedrooms via highly flexible sound-deadening supply tubing, which can be easily twisted and fed through the ceiling void and cavity walls. This culminates in 21 highly discreet room outlets carefully positioned throughout the upper floor accommodation for maximum, even coverage. One outlet is also located at the top of the stairwell to cool hot air that rises from ground level.



Results

“Having the Unico System adds a whole extra dimension to the air movement in the house and to the benefits of using the heat pump. Whether it’s heating, cooling, ventilation or the air filtration that the system provides, it is making a huge difference.

This installation has moved us up to a whole new level of cooling, heating and comfort,” says Brian.

“The unobtrusiveness of the system, it’s very quiet operation and ability to cool a bedroom very quickly are major benefits for the family. We can look forward to more comfortable nights as well as highly efficient indoor climate control for years to come.”

Bell Plumbing provides full support to Unico installers and Specialist Partners all around the country for this type of project. The installer network is fully qualified to undertake all types of installation after comprehensive training at the company's West Midlands centre. Alan Carruthers of HPE Airflow South-West was the main installer for the Litchfield family home and was supported by James McClennon of Concept Cooling.

Key Features

Installation Date: Spring 2023

Property Type:
Modern, new-build home.

System Specification:
Daikin Altherma Air Source Heat Pump (ASHP)