

Toshiba Solutions

Toshiba SMi heat recovery saves costs for new company headquarters

Case Study: Bewley Homes

Air conditioning and heating without impinging on the period feel of the property.



Application

In just ten years Bewley Homes has become one of the top house-builders in the UK, with awards aplenty. It not only builds luxury homes but refurbishes properties with architectural merit and incorporates smart technology and environmental concern into its designs. As you would expect, Bewley Homes demanded the best when it came to a system for its own idyllic headquarters - Inhurst House, a 13-acre estate on the Hampshire/Berkshire borders, with seventeenth century origins, rescued by Bewley Heritage from a variety of recent institutional uses.



The solution

A three-pipe Toshiba heat recovery system reclaims heat from computers and a south-facing aspect. It satisfied the brief for environmental friendliness, energy efficiency, low noise, compatibility with a restored historic building and above all both heating and cooling - making a separate heating system unnecessary.

Bewley Homes wanted a period feel to its new interiors. The air conditioning system had to be discreet both in terms of sound level and physical presence. Demonstrations of the Toshiba Super Multi convinced the client of its quietness. One of Toshiba's accredited installers and Bewley Homes itself designed and built the radiator box-style casings. A mock-up allowed trying different grille designs and air throws.

Toshiba VRF systems offer chassis-style fan coils that are ideal for concealment in the radiator boxes. The Multi Controllers in the system were all installed in the roof. A gravity drain eliminates the need for pumps. The pipework was mainly ducted underground from the remote outdoor unit site behind the outbuildings.

In all there are 29 indoor units and four outdoor units. Some of the indoor units have been installed as carefully balanced twins. Units are individually controllable. Night set back is provided to cover temperature extremes on winter mornings. Auxiliary heat is available for the toilets and a separate high-wall has been provided for the communications room. Additional offices in a converted stable block are served by a separate Toshiba split system using the latest high-efficiency inverter-controlled RAS units.

During the refurbishment the original sliding sash windows were overhauled and upgraded to include a purpose-made system for draught proofing to enhance heating efficiency. To further increase thermal efficiency, some of the external walls were insulated, where aesthetically practical; in addition 200 mm of insulation has been laid in the loft.

"A huge showpiece installation of Toshiba's versatile VRF systems by CF Environmental Services."



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