

Case Study: Off-Site Modular Construction

Description: 450 modular student rooms, built by CIMC, ZhongShan, China

Project: Kelvinhaugh St, Glasgow

Client: LSK PropCo Ltd & Capita

ThermaSkirt Profile: Deco BM2



CIMC is the worlds' largest off-site manufacturing provider.

The Challenge

When Capita were instructed to provide the M&E design consultancy on the new build 595 bed student accommodation project of both traditional and modular construction, to be located on Kelvinhaugh Street, Glasgow, they started with a clean sheet of paper. When the proposed room layouts were produced by the Architects (KKA) it was clear that whilst the large floor to ceiling windows that provides a wealth of natural light and openings for fresh air were welcome, they presented a problem in so far as where the radiators would go.

In addition, traditional radiators not only steal valuable wall space, but also present an on-going maintenance problem for estates managers as they are constantly being damaged or dislodged as well as used by the students for drying washing which creates problems with damp and odors.

Mr. Richard Combes from Capita P&I explains "The overall design and look had been agreed, and we knew that the Client wanted an energy efficient wet heating system – but the problem was where to put the radiators. I had this idea that we could put a small trench heater into a boxed in section to create a heat source in the skirting"

Richard contacted M&E Specialist Suppliers 'Hurlstones' to come in and discuss such a design and Paul Phillips from Hurlstones takes up the story;

"As soon as Richard started describing his idea, I immediately knew a ready-made product that absolutely

ticked all the boxes.”

Paul then showed Richard the ThermaSkirt product which had already been specified on several other student accommodation projects, including 200 units at Cambridge.

Immediately Richard realised this was exactly the product he was looking for.

The Solution



Room space was maximised by eliminating bulky radiators, as well as reducing on-going maintenance and repair costs

Manufactured in the UK by DiscreteHeat Ltd, ThermaSkirt is a radiant heating system that is designed to replicate a skirting board profile. Made from aluminum, the warm water from the primary heat source passes through integral tubes on the back of the profile. The front face then heats up and radiates heat from a low level all around the room.

This not only has the advantages of providing a very evenly distributed, comfortable heat, it is also very responsive to the rapidly changing heat demands of a student room. With very low water content compared to a radiator or even underfloor heating, it is an ideal emitter for use with renewable energy or centralised heat sources (CHP) as well as conventional boilers.

With the ThermaSkirt system specified & ordered, Discrete Heat were able to send an engineer to ZhongShan to train the installers at CIMC how to fit the product. Being a simple ‘above ground’ installation, it was possible to install the complete system, take it all out again, train and let their fitters re-install – **all in under an hour.**



DiscreteHeat provided an engineer to train the 20 installers at CIMC



Paul Farrelly, CIMC's Production Manager in ZhongShan, China, admitted to being sceptical in the beginning; "At first, I thought 'what on earth was the client doing specifying skirting heating', which I recalled looked like office trunking. I came to the training expecting to see a bulky box with grilles, but couldn't believe it when I saw it. It looks *exactly like* normal skirting but because it clips on wall brackets and is pre-painted, its actually better looking and quicker to fit than the MDF. I was blown away".



Installation, removal, training and re-intsallation took less than an hour.

The Result

The ThermaSkirt system has proven itself to be a versatile, space saving and energy efficient alternative to radiators, and a far more practical alternative to underfloor heating.

Paul Farrelly goes on "We avoid using UFH as it's difficult to fit in our modular buildings, but more importantly impossible to repair if it goes wrong or gets damaged. The ThermaSkirt gives us all the advantages of having no radiators and more useable wall space, but it's also a doddle to fit and looks better than our normal MDF skirting. It really is a *no-brainer*".

As a result, Thermaskirt is being specified on 1,000s more student rooms and off site modular constructed apartments and bedrooms.



ThermaSkirt is now being specified and installed in 1,000s of modular construction units.