RADIANT SKIRTING – PERFECT FOR HEAT PUMPS

Heat pumps provide low grade heat so we must use them smartly to gain the best from them. There are several solutions such as under floor heating and oversized radiators, however they come with difficulties. Martin Wadsworth, Managing Director of Discrete Heat explains how ThermaSkirt is the problem-free answer to getting the best from your heat pump.

Heat pumps can provide high-efficiency, renewable energy heating with minimal carbon footprint. However because they run at lower flow temperatures you need to install an emitter of greater surface area, compared to a conventional radiator operating at 70°C, in order to meet the heat demands of the occupied space.

The best of all options

There are a few common options that installers currently use to achieve this. Firstly there is under floor heating, but this requires substantial disruption to the property and occupants during installation, which can put a lot of homeowners off the idea completely. Consequently under floor heating is often best suited to new builds rather than retrofit, and then usually under hard surfaces such as tiles rather than carpets or wood for example, which act as insulators spoiling efficiency.

Secondly there is the option of oversized radiators, but they are seen as intrusive as they take up a great deal of wall space and are also often seen by homeowners as not being 'hot enough'. Indeed, in some tenanted properties complaints of poor performance and uneven heat distribution have led to new heat pumps being removed and conventional boilers being put back in!

Thirdly there is the option of installing fan assisted units, but these are often industrial looking space stealers, and require an additional electrical supply – pushing up installation and running costs. None of those options offer a hassle-free, client focussed solution.

ThermaSkirt from Discrete Heat, recent winner at the 2012 National Heat Pump Awards, is now being seen by many as the answer. Radiant skirting replaces the skirting boards and radiators in one – very often also utilising the existing plumbing. Skirting boards have a large surface area – perfect for emitting heat at a low flow temperature to heat rooms. The fact that thermal skirting also heats the occupied space from a low level, and from all sides, creates the even heat that under floor heating aims to achieve. Many homeowners agree that it is the evenness of the heating that helps to maximise the comfort levels, (although this is currently not a factor in SAP or heat loss calculations) and helps to maximise energy efficiency.

Perhaps the most crucial factor when considering using ThermaSkirt with a heat pump is that as the radiant heating acts just like a pipe (rather than a radiator or UFH system that needs to be filled with many litres heated water) it has low water content and therefore delivers rapid response times, with minimal depletion of any thermal store maximising the efficiency of the heat pump.

Easy installation

Installing ThermaSkirt is straight-forward as it is above floor level so there is very little disruption and furniture needs only to be displaced temporarily rather than being removed from the house during installation as it would with an UFH installation. If the property is undergoing a whole house make-over an added advantage is that the new skirting boards are 'effectively free', minimising overall cost.

ThermaSkirt is Renewable Heat Incentive and Green Deal ready. Cost and simplicity of installation are major factors in delivering the Green Deal and ThermaSkirt ticks both boxes – it's easier to install than many other solutions and as a consequence it's less expensive.

Similarly, there are other hidden cost savings such as complete freedom of final floor finish (UFH requires low Tog carpets of 2.5 or less, costing typically 3 times that of normal carpets), and pipe runs are often shorter to and from the rooms being heated as the system can start anywhere rather than on an outside wall as would be for a radiator.

Thermaskirt from Discrete Heat won Product Innovation of the Year Award at the 2012 National Heat Pump Awards

Customer feedback

Consider the opinion of one Housing Association currently installing ThermaSkirt:

"At St Vincent's, we are fully retro fitting properties with the very latest sustainable and energy efficient products. After investigating ThermaSkirt we thought it would lend itself perfectly to what we are trying to do. Upon fitting an air source heat pump, we found that ThermaSkirt worked well, both in terms of improved performance and energy efficiency and thus potentially easing fuel poverty and reducing CO_2 emissions. The system at first glance looks like any new well-fitted painted skirting but has the added benefit of effectively heating the rooms efficiently and economically," says Patrick McKendry, Sustainability Manager, at St Vincent's Housing Association.

With nearly 10,000 systems installed over the last 5 years, mainly in retrofit applications, radiant skirting heating now has a track record and history of problem solving that is second to none.