

Heating designed for today



"Radiators? . . .  
. . . No Thanks!"

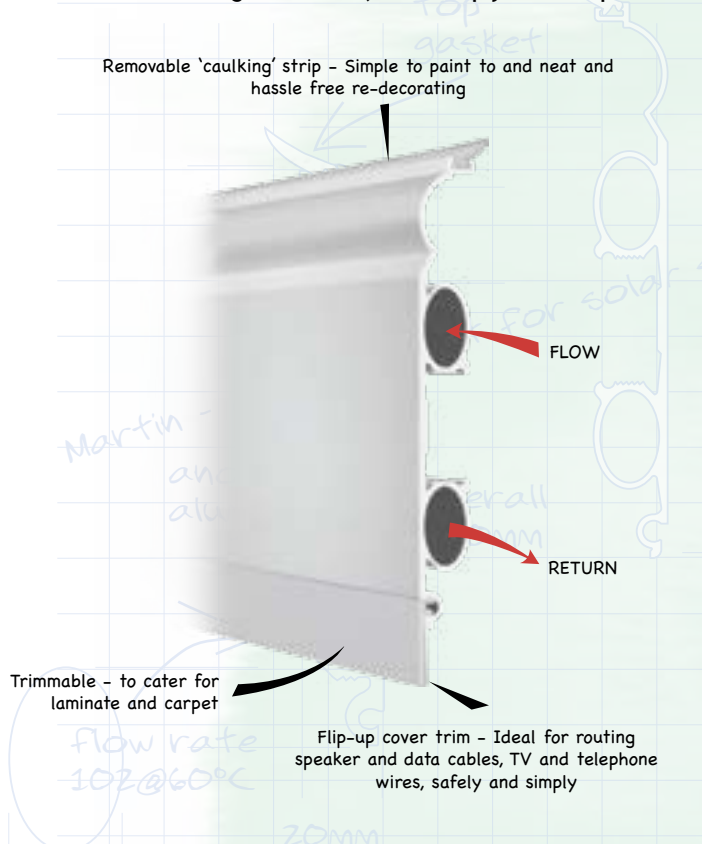


- the response of a radiator .
- the comfort of underfloor heating .
- the simplicity of skirting .



# What is ThermaSkirt?

ThermaSkirt® is a high tech alloy polymer extrusion that replaces the skirting boards and radiators in one. Warm water flows through the patented integral oval tubes and heats the skirting front. This distributes the heat quickly and evenly all around the room, at low level - just like under floor heating. In addition, it frees up your wall space to maximise your usable living area.



- ✓ **ThermaSkirt provides the skirting boards and radiators in one - saving cost**
- ✓ **True radiant heating solution like under floor heating, without the hassle**
- ✓ **Available in a range of profiles, finishes and colours to suit your home**
- ✓ **Easy to install - renovation or new-build, extension or conversion**
- ✓ **Works with conventional boilers and renewables such as Heat Pumps**
- ✓ **Manufactured in the UK & tested to European Standards EN442-1**
- ✓ **Elegantly heat your room without losing space to ugly radiators**
- ✓ **Improved Energy efficiency, typically up to 25% with renewables**
- ✓ **Clean, hygienic heat, maintenance free and no dust marks**
- ✓ **Quickly creates a comfortable, controllable & even room temperature**
- ✓ **Safe & Secure with no sharp edges or exposed pipes, and lower operating temperatures**
- ✓ **Simple re-decoration with no draining down or radiators to move**

## Comfort

ThermaSkirt® can make the room feel comfortable at lower operating temperatures. This can save up to 25% on your annual heating costs and significantly reduce your carbon footprint.

## Control

ThermaSkirt® is able to respond in minutes, whatever your floor construction or finish, and being able to control the heating so quickly enables you to use just enough energy, only when you need it. This can also help reduce your fuel bills. (For a choice of control systems, see Control Systems section).

## Eco Friendly

The larger surface area afforded by ThermaSkirt® enables renewables such as solar panels or heat pump system to be used. As it is fitted 'above ground' it can be installed in many more existing buildings - something that would be impossible without the upheaval required to fit underfloor heating.

## Versatile

ThermaSkirt® can be installed directly onto the existing heating system if required, eliminating the need for sophisticated manifold, control & actuators. Alternatively, a manifold and room sensor may be employed for precise room temperature and surface temperature control. (See Control Systems - Thermiser).

## Mixed Systems

ThermaSkirt® can work in conjunction with UFH to provide a responsive and complimentary alternative to radiators at 1st floor, or when renewable energy sources are employed. ThermaSkirt® can be installed and operated in conjunction with existing radiators.



All images shown are real customer installations.

.. distributes heat quickly and evenly all round the room

## Where Can I use It?



Mr & Mrs Antonelli, Glasgow

### Living and Dining Spaces

By freeing up valuable wall space and improving the comfort levels of your living and dining spaces, you can increase the desirability and value of your home.

ThermaSkirt® is supplied with a removable top 'caulking gasket' and bottom 'cable cover trim'. The colour coordinated caulking gasket enables you to remove it for painting and decorating, and replace for a perfect neat finish, whilst the removable bottom cable cover allows you to route computer, home cinema and AV cables around the room, hidden behind the skirting.

### Kitchen and Bedroom

Even rooms with fitted furniture can have ThermaSkirt®. By installing along the plinths of the units you can maximise usable storage space without losing a wall to a radiator. The plinth heating panels are easily fixed into place onto the existing plinths if required. The Urban LT and Deco PR are most suitable for this application.



Mr & Mrs Pluta, Lincolnshire



### Conservatories, bi-fold fold doors, basements and loft conversions

Heating a conservatory is notoriously hard to do, and with many constructed with low walls or bi-folding doors, usable wall space is at a premium.

ThermaSkirt® can provide a number of innovative solutions, including curved walls, colour match foil to the windows, and across-the-threshold heating to ensure the conservatory is as comfortable and as cosy as is practically possible.



Mr & Mrs Vaughan, Ireland



Brian Caswell



Mr Alan Littlehales, Wolverhampton



B&Q Eco House, Southampton



Mr & Mrs Kelly

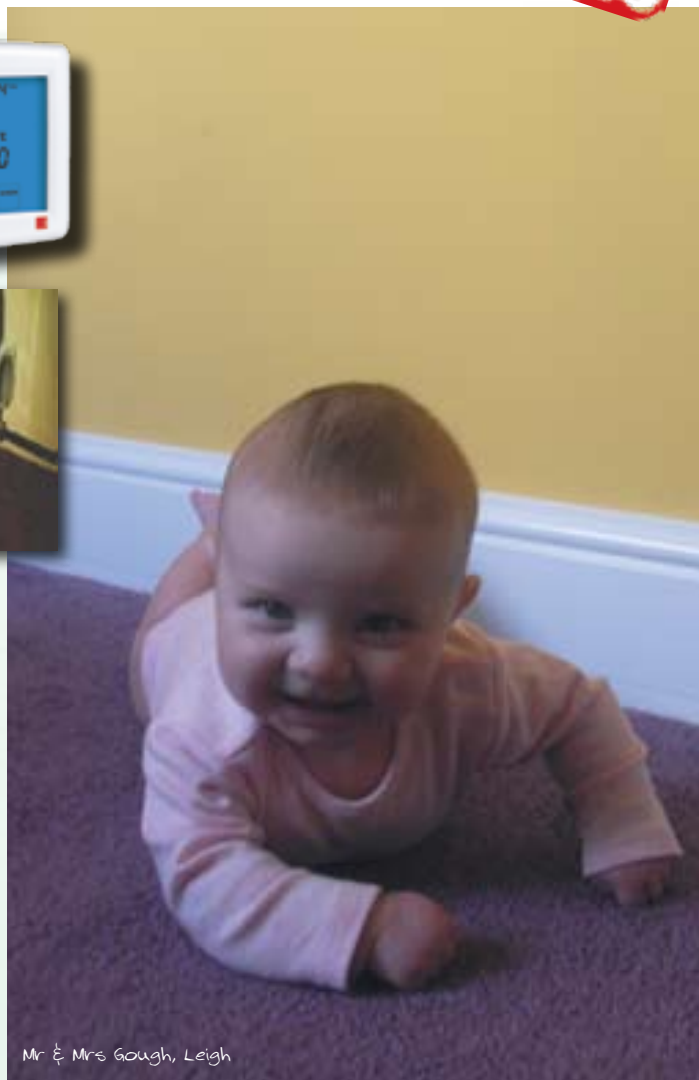
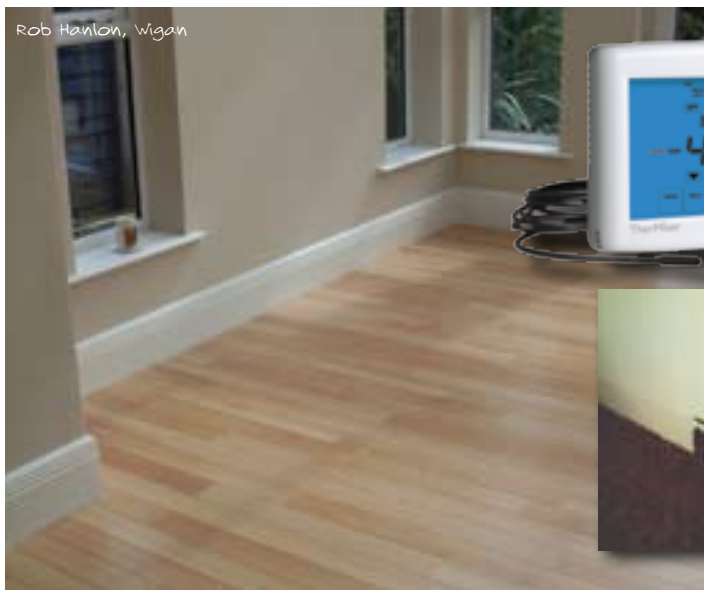


Mr & Mrs Stevenson

All images shown are real customer installations.

.. designed and manufactured for contemporary living





**How Can ThermaSkirt help me with my RHI or Green Deal project?**

Installing renewables such as ground source and air source heat pumps and solar thermal systems is only half the story. Renewables work best when the properties are well insulated and the room heating system can operate at lower temperatures.

Lower operating temperatures allow the heat pumps and solar thermal systems to achieve a greater Coefficient of Performance (CoP). Higher operating temperatures reduce the heat pumps and solar thermal systems CoP and thus efficiency, and may require an electric immersion heater back up - eliminating any energy or CO<sub>2</sub> savings.

Lower operating temperatures therefore require greater surface areas and better heat distribution - something ThermaSkirt® easily delivers. Underfloor heating is often promoted as the most suitable room heating system, but this would require major disruption to an existing property and is practically impossible to achieve full efficiency under timber or carpet floor coverings.

Oversized radiators are often specified, but these can be up to double the size of the high temperature radiator they are replacing, and take up even more wall space. Fan assisted radiators tend to spread dust and allergens, but even these cannot evenly heat the room, and also create cold and hot spots.

ThermaSkirt® is suitable for the retro fitting of renewable heat sources such as heat pumps, as it provides the greater surface area and even heat distribution of UFH, with minimal disruption and response times.

**Surface Temperature Controls**

Special low surface temperature controls are available for use in Nurseries, Care Homes and all sensitive areas.



ThermaSkirt is also the winner of the prestigious Best Innovative Product award at the National Heat Pump Awards for 2012.



.. lower operating temperatures and greater efficiency



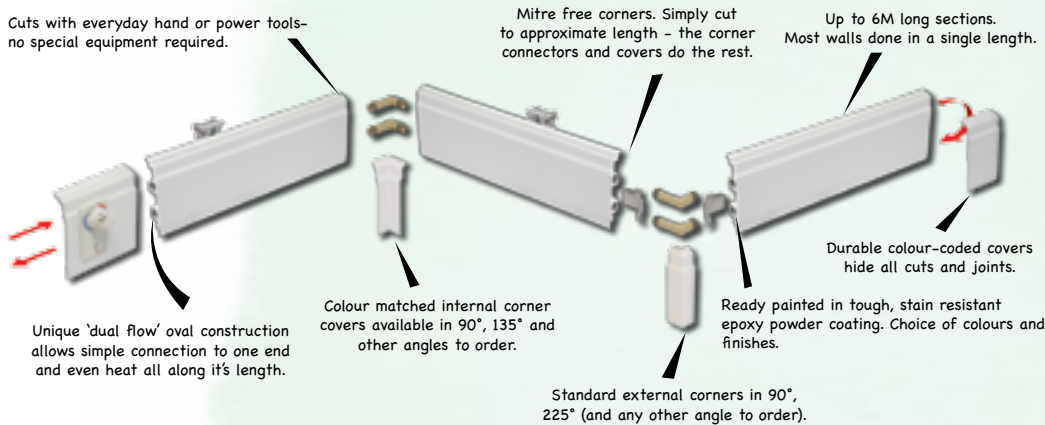
# Easy to Install

ThermaSkirt® can be installed into both new build and refurbishment projects - often utilizing the existing pipework layouts. As it is 'above ground' there is minimal disturbance to the property and there is no restriction on the final choice of floor finish - ThermaSkirt® works as well with carpets and laminate as it does with tiles or marble. Simply connect onto standard radiator style plumbing with the patented connectors (radiator replacement kits available) and in a matter of hours your room or even the whole house can be radiator free, and with the added benefit of new, freshly painted skirting boards.

In a new build, ThermaSkirt® can reduce and simplify pipework runs as feed and returns are to 'one end' of the room, usually near the door, and it eliminates the need for additional skirting board, its installation and painting.

Matching MDF in all profiles is available for other non-heated areas or where conventional radiators are retained. Special solutions including curved wall sections, crossing thresholds, heating across bi-fold sun room doors and even up and over doors are all available with ThermaSkirt®.

## Simple Installation

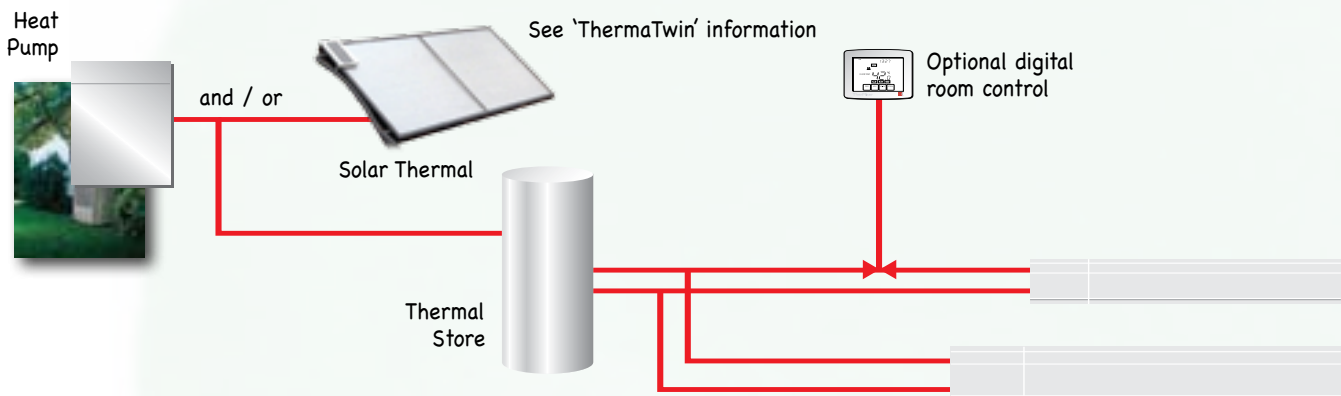


Retrofit Installation at St. Vicent's Housing Association

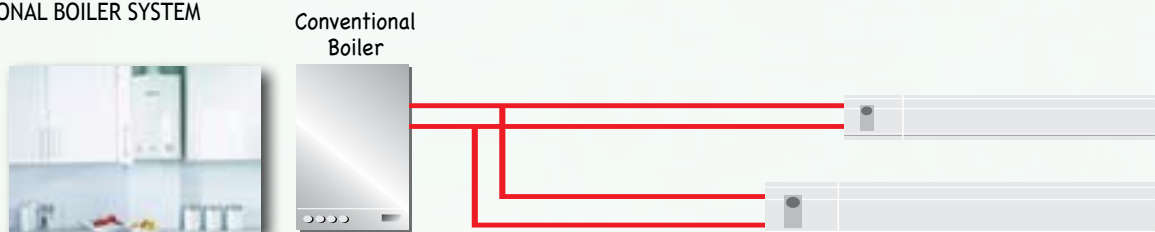
Highly efficient aluminium composite extrusion gives up to 170W per metre length.

## Typical Installation Examples

### TYPICAL RENEWABLE ENERGY SOURCE SYSTEM



### TYPICAL CONVENTIONAL BOILER SYSTEM



Reduced flow temperatures are possible, improving boiler efficiency. (Source: BRE and Energy Saving Trust)

.. stylish, practical and energy and space efficient

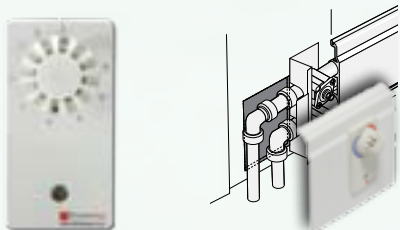


# Flow Control Systems

Simple mechanical TRV, either 'on board' or via capillary operation, provides a cost effective and practical room control system. TherMiser control systems are designed to provide precise remote control of ThermaSkirt heating system, to closely maintain the desired room temperature and timings and providing a completely discreet heating system. Low surface temperature control for additional safety, or wireless multi-room zone control for ease of installation are also available.

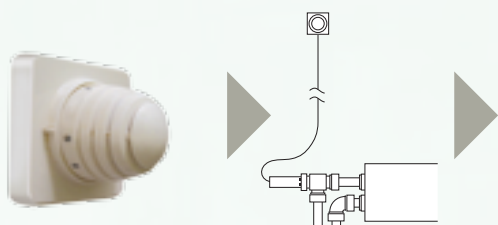
## MECHANICAL

### MANUAL TRV



- ✓ Simple comfort control TRV
- ✓ 'On-board' design for instant operation
- ✓ Colour coordinated knob and fascia plate
- ✓ Integrated lock shield valve for local isolation
- ✓ Direct connection to standard 15mm pipes

### WALL MOUNTED CAPILLARY ACTION TRV

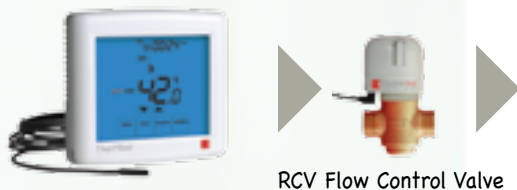


- ✓ Simple room temperature control at accessible height
- ✓ Ideal for care homes or elderly residents
- ✓ Accurate temperature with lockable Min/Max settings
- ✓ Easy to clean and easy to read
- ✓ Miniature capillary tube connects to hidden TRV control valve

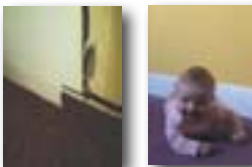
## ELECTRONIC

### THERMISER SINGLE ROOM & LOW SURFACE TEMPERATURE CONTROL SYSTEM

Hard Wired, Type TM- ETS with TM RCV



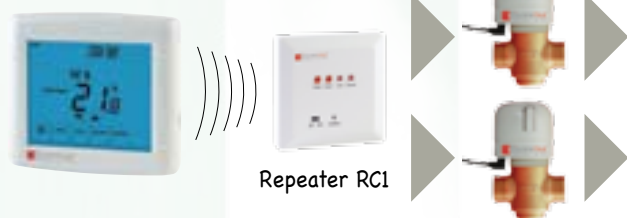
RCV Flow Control Valve



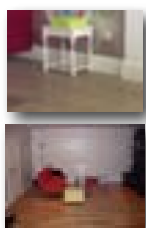
- ✓ Electronic Touch Screen with 7 day/ 4 period programming
- ✓ Room and ThermaSkirt surface temperature control for LST applications such as hospitals, care homes and nurseries.
- ✓ Standard 35mm Switch back box mounting
- ✓ 230v AC control
- ✓ Eliminates manual TRV control knob on skirting

### WIRELESS 2 ROOM / CONTROL SYSTEM

Type TM WTS & TM RC1 shown with TM RCV



Repeater RC1



- ✓ Wireless Touch Screen with 7 day/4period programming.
- ✓ 2 Zone wireless receiver can control 2 separate zones/room
- ✓ Eliminates manual TRV control knob on skirting
- ✓ Control valve secreted in cupboard or floor/wall/ ceiling void
- ✓ Rechargeable battery (Touch Screen)
- ✓ 230v Hard wire supply to TM RC1 and onto TM RCV control valve

### WIRELESS MULTI ROOM MANIFOLD CONTROL SYSTEM

Type TM - WTS



TM 8ZW



- ✓ Wireless room control for up to 8 Zones/areas
- ✓ Direct connection from Control unit to Manifold actuators - no intermediate control unit required.
- ✓ Rechargeable, portable touch screen thermostats
- ✓ Programmable for time & temperature.
- ✓ Complete range of manifolds from 2 - 8 ways

*.. heat, when and where you want it - quickly*

# Technical Information

## Performance \*

Output/Flow Temp	Profile	Typical Radiator Temp. $\Delta T_{50}$ (72°C / 160°F flow)	Typical Heat Pump/Solar Thermal System				Typical Boiler Flow Temps.		
			40°C / 104°F	45°C / 113°F	50°C / 122°F	55°C / 131°F	60°C / 140°F	70°C / 158°F	75°C / 167°F
Watts/m @ 56 g/sec flowrate	URBAN LT	148.5	46	59	73	88	104	142	159
	CLASSIC TS	150	47	60	74	89	105	144	160
	REGENCY OG	171	53	68	84	101	119	163	183
	DECO PR	134	41.5	53	66	79	94	128	143

$\Delta T_{50}$  is the EN 442-1 norm for comparing radiator outputs

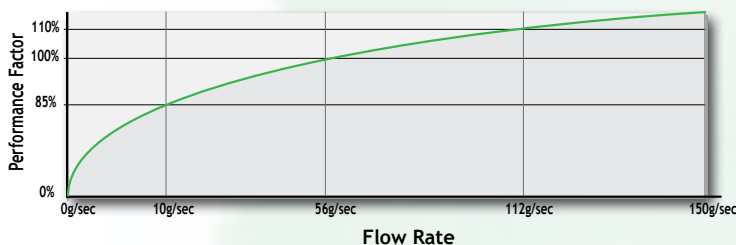
Low flow temperature to maximise annualized COP

Renewables often produce flow temperatures in excess of 45° if required

Reducing flow temperatures ensures condensing boilers operate most efficiently 100% of the time and not just on start-up. (Source: BRE & Energy Saving Trust).

\* DiscreteHeat recommends an allowance of up to 3% to these outputs on exterior walls to allow for back losses. Further precautions may be required depending on the age and/or nature of the construction of the building - please contact DiscreteHeat for advice.

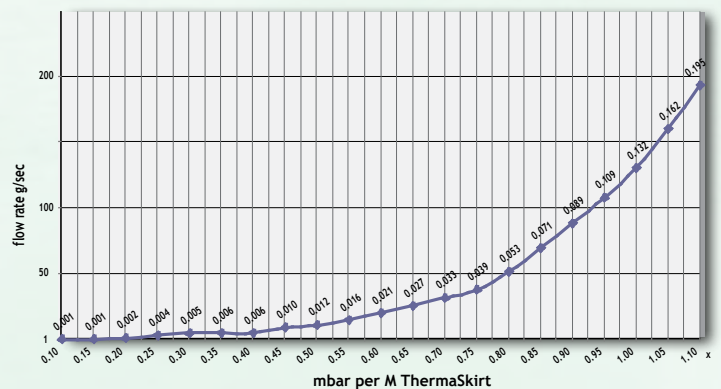
### Stated Performance Vs Flow Rate



### Performance Vs Flow Rate

Output in Watts/m (or BTU/ft) is only slightly affected over a wide range of flow rates. Our typical test data is based on 56g/sec in accordance with the BSRIA test BS EN 442-1. Output data is given here for flow rates between 10g/sec & 112g/sec which covers the lower and upper ranges of suitable performance for central heating systems.

### ThermaSkirt Flow Resistance mbar per M



For more technical details please visit: [www.thermaskirt.com/technicaldata.aspx](http://www.thermaskirt.com/technicaldata.aspx)

### Design On-line

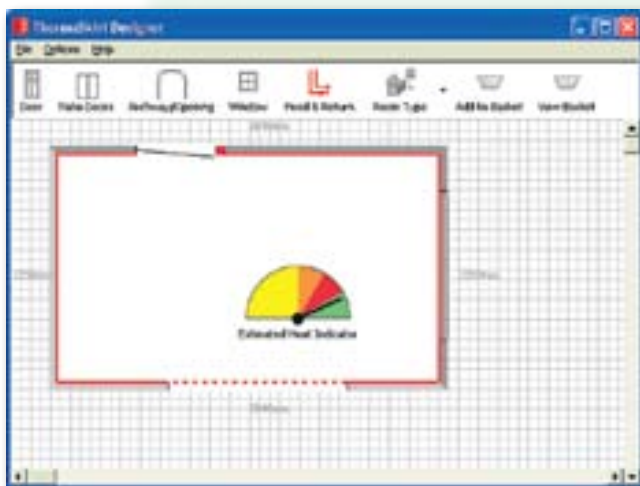
Log on to our website - [www.discreteheat.co.uk](http://www.discreteheat.co.uk) and go to the software page. Just follow the simple steps and you can create your own ThermaSkirt® heating system - in minutes! It will even work out your heat loss estimate!

ThermaSkirt® can be supplied in pre-cut ready-to-install room kits, complete with your numbered room plan. You or your installer can also buy in 6m lengths and follow the step-by-step instructions supplied. Our unique algorithm program will give you a cutting schedule to minimise waste when you click 'Cut it Yourself' on the checkout page.

Full instructions from: [www.discreteheat.co.uk/downloads/technical/instructions.pdf](http://www.discreteheat.co.uk/downloads/technical/instructions.pdf)

Warranty: ThermaSkirt® is protected by a 10 year parts warranty on all wet parts when installed in accordance with BS EN 5793.

Further details at: [www.discreteheat.co.uk](http://www.discreteheat.co.uk)



### ThermaSkirt Design On-line Screen

Other information available:



QR Code



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As Seen On:



ThermaSkirt is protected by patents, granted and pending in the UK, Europe, Australasia, China & the USA.

[www.discreteheat.co.uk](http://www.discreteheat.co.uk)