



The skirting board that *heats* your home™



Benefits of using the system



the difference...





The skirting board that *heats* your home...

Imagine a home without radiators. Imagine a home where you can decide the layout and arrange the furniture however you want. Imagine a controllable, comfortable, energy efficient heating system that responds in minutes, and works just as well with any floor covering or finish.

ThermaSkirt is a radically simple, innovative and proven radiant heating system that combines the heating into a stylish, sleek and unobtrusive skirting board. No more storage heaters, no more panel radiators and no need for underfloor heating. Available in wet and electric versions.





ThermaSkirt is a simple installation onto any suitable central heating system or electrical heating circuit, whether the project is a new build apartment or a refurbished manor house. Heating from low-level, and from all-around the room is a proven way to save energy without sacrificing comfort (Source: Energy Saving Trust). No drafts, no hot spots and no under-heating - whatever the floor construction or finish.

With more than **45,000** systems installed worldwide, ThermaSkirt is the No1 alternative to radiators and underfloor heating.

ThermaSkirt: The World's Smartest Heating System.







Shown: Deco BM2





Shown: Bm3 profile

Shown: Bme2 profile

Shown: Bm2 profile

Create the room you want and the look you desire

Whether it's a kitchen diner, bedroom, basement, living room or loft, ThermaSkirt creates valuable wall space by removing the radiators – without disturbing your floors.

Just imagine; extra kitchen units or fitted bedroom furniture where the radiator used to be, a sofa where everyone can enjoy the TV, or just more space to roam around.

Saying goodbye to your bulky storage heaters or replacing your panel radiators doesn't mean you have to take up the floor coverings to install underfloor heating.

ThermaSkirt can either connect straight onto any conventional plumbing system or any suitable electrical heating circuit. ThermaSkirt provides a freshly painted new set of skirting boards that are durable, versatile and energy efficient.

ThermaSkirt h_20 is available in a wide range of profiles and colours. With integral oval pipes, ThermaSkirt h_20 will work with any primary heat source of hot water; boilers (gas, oil or LPG), wood pellet and bio mass and renewables such as heat pumps and solar assisted systems.

ThermaSkirt^e is available with a range of interchangeable top profiles to effortlessly change the look from room to room.

Provided as standard, modern Deco pencil round profile. A range of designer top cappings are available.

Special colours, sizes and top profiles are available for volume project orders.

ThermaSkirt - the advantage

ThermaSkirt^{H20}

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Patented design gives unparalleled performance and amazing aesthetics

Only ThermaSkirt^{H2O} features the unique elliptical flow and return pipes to not only achieve a super slim 20mm profile, but also to maximise heat output.

Providing a profile that replicates a typical skirting board not only creates incredible aesthetics, but the increased turbulence created by the elliptical tubes ensures more heat from the water is transferred to the radiant surface. This coupled with a high quality aluminium polymer alloy ensures a high heat output per metre and an even spread of heat across the length and breadth of the system.







A conventional round pipe reates a 'bullseye' effect hereby the hot water ravels down the centre, miting heat transfer to the surface.



ThermaSkirt's patented Oval pipe creates tremendous turbulence eleasing the heat and significantly improving output per metre.



ThermaSkirt^e

Designed for safety

As well as providing the same energy saving radiant & heat distribution characteristics of the H₀0 heating version, ThermaSkirte has another unique and important benefit - safety.

Unlike conventional electric panel or storage heaters, ThermaSkirte utilises a specially developed fire safe heating element that will not over heat, even if covered over by insulating materials such as books or bedding. Furthermore, the heating system continues to work wherever it is not covered over without fusing or burning itself out.

The maximum operating temperature of the system is fixed, even wherever there is a thermal obstruction.

Whenever the thermal obstruction is removed, ThermaSkirt^e naturally re-sets itself and recommences heating as normal.

ThermaSkirt - anything else is a compromise

ThermaSkirt is not only the most stylish, smartest and sophisticated radiant heating system you could choose, it's the most practical and energy efficient one as well.

ThermaSkirt Vs radiators

As well as stealing valuable wall and floor space, radiators also emit heat by convection - that is by moving air around. Not only does this create uncomfortable hot and cold spots it can lead to dust marks on the walls and potentially aggravate respiratory illnesses such as asthma.

ThermaSkirt on the other hand not only frees up your walls, but emits an even, gentle radiant heat from all sides, creating greater comfort for less energy (Source: BSRIA Test 53197/1).

ThermaSkirt is so effective at radiating the heat energy from the hot water, that it is possible to reduce your boiler flow temperature or even use a heat pump, further increasing energy savings. Recently, ThermaSkirt won Most Innovative New Product at the National Heat



Furthermore, by removing the bulky steel radiators off the wall the risk of injury through falls, trips and stumbles is eliminated. Given that there are over 27,000 radiator related injuries per year (source: RoSPA), this is a significant improvement in health and safety.



For some, having no radiators means only one thing- under floor heating (UFH) But for many, UFH is impractical as it cannot be easily retrofitted without major upheaval. UFH is often installed under insulating surfaces such as carpet or wood, hindering performance and response times.

ThermaSkirt provides the benefits of UFH but with significantly less hassle.

ThermaSkirt is simple to retrofit - often using the existing radiator pipework or electrical circuitsand floor coverings usually stay undisturbed. Unlike the installation of UFH doors do not need cutting down, and controls can be as simple or as sophisticated as you like - including wireless, Wi Fi or smart phone enabled (see page 18 for options).

In operation, ThermaSkirt responds in minutes, avoiding under and overheating, which in the long run means real energy savings (Source: Energy Saving Trust).

In addition, ThermaSkirt works just as well with any floor coverings, -timber, laminate, carpet tiles or vinyl - and is readily accessible and simple to amend in the unlikely event you ever need to.

Finally, as ThermaSkirt is a simple, radiant heating solution using standard pipework, it is perfectly possible to mix and match ThermaSkirt with other heating options: a towel radiator in an en-suite or underfloor heating in a kitchen extension for example.







Radiator Thermal Distribution

ThermaSkirt Thermal Distribution



Central heating skirting

A highly efficient alloy polymer composite provides exceptional radiant heating efficiency, whatever the floor construction and covering.



IFETIME

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NAL HEAT PL

AWARDS

WINNER

Most innovative

new product

....

Fully fitted profile

KEY POINTS

Connections

 Push fit connectors with Teflon coated poly elastomer O rings create a perfect seal with no soldering, glues or sealants, and has 10 year warranty.

Retaining clip

2. Retaining clips retain the connectors, withstanding pressures of up to 15bar

Return manifold

 Return manifold returns the flow back to the beginning, providing even heat all along the length as well as draining and bleeding options.

Easy to install

Cuts with conventional power tools and fitted 'above ground'; enables rapid and trouble free installation.

Colour matched internal corner cover - available in 90°, 135° and other angles are available to order

Versatile

Removable bottom cable cover allows discreet installation of data and AV cables and can be trimmed to suit uneven floors.



Mounts to the wall with secure, adjustable brackets that allow for uneven walls.

The profiles



Deco BM2/OV/TS





Deco profiles can be fitted with optional profiled cappings to suit the décor & style required. Capping height 45mm

MATERIALS

Skirting: Aluminium polymer alloy Connectors: Reinforced glass nylon Paint finish: Epoxy powder coat

APPROVALS AND WARRANTY

CE Marked to BS EN 442-1 Tested by BSRIA, TUV and KTH **10 year warranty:** Aluminium friendly inhibitor required

SPECIFICATIONS

Operating pressure: Max testing pressure: Typically 10 bar Max operating length: Typically 20-25m

Typically 2-3 bar per 15/16mm feed

Technical specifications

BS EN 442-1:2014 BSRIAD TOV SE

Profile	Typical Flow rate	Flow temp Vs W/m						
		72°C (ΔΤ50)	45°C	50°C	55°C	65°C	75°C	
			< Typical He	at Pump / Renewable Ener	< Typical Boiler; Gas, oil LPG or Pellet $>$			
ECO BM2/OV/TS	56-80 gm/s	134	53	66	80	105	143	
URBAN LT	56-80 gm/s	148.5	59	73	88	124	159	
CLASSIC TS	56-80 gm/s	148.5	59	73	88	124	159	
ECO BM3/OV/TS	56-80 gm/s	197	80	98	119	166	215	

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.



FLOW RATE RESISTANCE (Bm2 shown)







Unique self regulating heating element uses less energy as the room heats up and will not overheat even if covered by insulating materials.







Fully fitted profile

Flooring

KEY POINTS

Works just as effectively and efficiently with any construction or covering. Beam & block, tiles and carpet, wood or laminate.

Electrics

32A, Type C 30mA RCBO or RCD unit is all that's needed to provide a suitable circuit.

Controls

Wired, wireless and even smart phone enabled available.

> Standard external corners available in 90° and 225° - other angles are available to order

Neat finish

Flexible top gasket seal eliminates any caulking and filling and makes redecoration easy.

Minimum connections

Skirting panels available up to 6m length and heating elements up to 50m. Simply cut to size; minimal joints means aesthetic perfection.

The details

All skirting panels and covers pre finished in a tough, durable epoxy powder coat paint finish. No painting required and no brush marks.



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The profiles





Deco profiles can be fitted with optional profiled cappings to suit the décor & style required. Capping height 45mm

MATERIALS

Skirting:	Aluminium polymer allog
Covers:	316 stainless steel
Paint finish:	Epoxy powder coat

APPROVALS

CE Marked to Low Voltage Directive Tested to EN 60335-2-30 (Room Heaters) EMC Test Certificate No C106457

ELECTRICAL RATING

Supply:	Supply: 220~240V		
Inrush:	Typically 1.2 A/m at 10°C		
Protection:	Type C 30mA RCBO		
	to IEC 60898		

Technical specifications

20mm

EN 60335-2-30 ROHS ((



Deco BM^e3



1	Op temp 220-240vAC	Heat output	Recommended max. Skirting lengths Vs FSU Rating					Total System
			Room start up temp	10A	13A	16A	20A	RCBO
0mm	40~45°C	80~95w/m	@10°C	8m	10m	13m	16m	80m
	50~60°C	120~140w/m	@10°C	8m	10m	13m	16m	50m
	60~70°C	160~185w/m	@10°C	8m	10m	13m	16m	40m

¹ Soft start units available for longer lengths. Details on request.

Control systems

compatible with all well-known home automation and smart control systems. These include (but not limited to)

Nest by Google, Hive by British Gas, EvoHome by Honeywel, Control 4 and Heatmiser.

For more information contact your local ThermaSkirt installer or info@discreteheat.co.uk



Lot 20 Compliance; From 1st January 2018, all electric room space heating systems require additional control and/ or learning functions to comply with the European ECo Design Directive.











Typical installations

ThermaSkirt^{H20}

Typical radiator replacement



Heat pump/solar assisted renewables



Typical boiler

- 2 Secondary pump may be required on large or complicated systems
- Air vent or aerator recommended

Solar thermal or PV & immersion

2 Air source or ground source heat pump

3 Thermal store with heat interface coil(s)

Digital or wireless room thermostat control

6 Remote or wireless 2 port valve (hidden)

4 'On board' manual TRV



Basic storage heater/panel radiator alternative



 Consumer unit 2 PCB control unit 8 Ring main 4 Digital or wireless room thermostat control







Manifold control



Balancing/check valves

- Plow control valve actuated by wired
- or wireless thermometers
- 3 Wired, Wireless or Wifi thermostat

Central 'electric manifold' control





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ThermaSkirt - versatile, innovative space saving solutions

With over 45,000 installations worldwide, there aren't many applications we haven't heated or problems we've had to overcome.. Here are just a few examples of just how versatile ThermaSkirt can be.

Across Patio & Bi-fold doors

Architects and home-owners love to bring the outside-inside with large floor to ceiling walls and doors - but where is the heating going to go?

ThermaSkirt can provide a heated 'threshold' solution to provide the heat just where it's needed most.

Bay Windows & Odd Angles

Flexible connectors and configurable covers cope with any angle.



Under Doorways & Openings

Sub-floor connections allow bridging of doors, archways and fireplaces with ease.











Kitchen units & fitted wardrobes

Plinth heating is a stylish way to heat your kitchen and bedroom, and free up valuable wall space. Choice of heights and colours available.

Coving Heating

No available walls? Coving heating in small spaces like en-suite bathrooms provides a smart alternative to infra red lamps or fan convectors.



Curved walls

Live in a windmill or water tower? Fancy a feature wall or a curved



Commercial & public spaces

Double or even triple height solutions are available for larger commercial or public spaces such as gyms, meeting halls, churches, shops and libraries. See our EasyClean brochure for Healthcare and assisted living

ThermaSkirt - the 21st century heating solution

From listed buildings to modular construction, from offices to restaurants, from nurseries to assisted living, from schools to ships, ThermaSkirt is a practical, affordable and energy efficient heating solution

Listed buildings and stately homes

Renovating an existing building, especially one that is listed requires sensitive and commensurate measures; to modernise but not to mess. ThermaSkirt can add warmth and comfort to even the oldest, most prestigious buildings, without damaging the fabric or feel.

Special profiles and colours are available for especially sensitive projects.



Modular construction

21st century construction techniques requires 21st century heating solutions.

None more so than modular, where time is money and off-site construction requires everything to fit right first time.

Combining the heating into the skirting saves time and money, and DiscreteHeat is working with some of the largest modular manufacturers in the world.

Offering a pre-cut, pre painted room-kit solution enables manufacturers to plug'n'play when assembling their products.





ThermaSkirt has been fitted in Several Grade I listed buildings



Images courtesy of nHouse

ThermaSkirt – for difficult and demanding environments



Healthcare and assisted living

With an ever-ageing population, products that are designed for life are of ever increasing importance. We are working with some of the leading specialists in retirement and assisted living to provide safe, comfortable and energy efficient homes for the future.

The 'EasyClean' version of ThermaSkirt has been developed with and approved for use in the MHS in some of the most difficult and challenging environments. Ask about our EasyClean range for for healthcare and assisted living applications

Schools, student living and public buildings

Schools and places of learning require responsive, controllable, quiet and comfortable heating systems to create an environment conducive to learning.

Versions of ThermaSkirt have been installed in student living, primary and secondary schools (both mainstream and special educational learning) as well as nurseries and playschools all over the UK and Europe.



Image courtesy of the Iris Murdoch Dementia Centre, and the BRE Dementia Friendly Home

For free design and advice, contact our Commercial Sales Team today - 01942 88 00 66

Case studies

The Bridges by Adlington Homes



Description: 62 New Build Retirement apartments in a Macclesfield Canal Side Setting

Client: Gladman Developments / Adlington lomes

Heating System: All Electric ThermaSkirt Profile: Deco BMe2 & BMe3 (Installed by Byrnes Mechanical M&E)

The Challenge

Heating in apartments is often challenging in that space is a premium commodity and the needs and wants of the client can vary enormously. This can be especially true in retirement apartments - properties specifically aimed at the over 55's.

Why? Well many will have downsized from larger family homes but still want to keep important items of furniture and so useable floor space becomes very often a deciding factor. This is why traditional radiators are losing their appeal to developers like Gladman as they try to offer more living room in the same constructed envelope.

The alternative of underfloor heating is not always suitable as it can be slow to operate, and often under performs under carpet or other insulating finishes like wood. In addition, the problems installing underfloor heating into a multi-unit, multi storey building can introduce many extra weeks into the program, prevent other trades making progress, as well as often requiring temporary heating to ensure the screed is fully cured before floor covering can commence.



The Solution

Gladmans opted for the all-electric ThermaSkirt e as they prefer not to use boilers and plumbing. Being 'above ground' ThermaSkirt works with any floor construction or finish; tile, laminate, carpet or wood. In retro-fit projects the existing radiator pipeworks or storage radiator electrics can often be used.

Simon Pallent, Site Manager for Gladman's goes on "I was pleasantly surprised by the ThermaSkirt performance. During a really cold spell the apartments were heated up nicely, and it does feel like underfloor when it's on. The support we've had from DiscreteHeat has also been 1st class."

As a result ThermaSkirt e has been specified on further Gladman Developments.



Barn Conversion, Knutsford, Cheshire



Description: Refurbished barn to provide B&B accommodation Client: Smart Build & Design Ltd

Heating System: Wet Central Heating (with option to use a Heat Pump)

ThermaSkirt Profile: Deco BM2 TS & BM 2 (Installed by Smart Build & Design Ltd)



The Challenge

The client wanted to create a self-contained annex to their home with all the services, and yet retain part of the ground floor for a garage. This gave some challenges in making best use of the footprint. The clients were looking for a cost-effective heating solution that could later be adapted to work with a heat pump, as part of their long term strategy to move off fossil fuels.

It was originally thought that the only option was UFH. However, it was soon realised that cutting away the joists was risky and raising the floor height via an 'overlaid' system would negatively impact on head height."

The Solution

Smart Build and Design Ltd installed ThermaSkirt Deco BM2 and in some areas Deco BM2 with a Torus top cap. A heated kitchen plinth version was provided in a complementary grey finish.

"The client and ourselves are absolutely delighted with the end result. ThermaSkirt is an excellent product. It looks great, works well and far cheaper to install than UFH. It's also oven ready for when the annex swaps over to a heat pump with no further changes necessary."

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Case studies

Farmhouse with Ground Source Heat Pump



Description: Family home, re-imagined using renewable heating and smart technologies

ThermaSkirt Profile: Deco BM 2 on a Ground source heat pump **Clients:** Bateson Family, Cheshire



The Challenge

Originally built in the 1800's the property needed extensive updates to create the dream 5 bedroom family home. With plenty of land to lay the heat collector pipes, a ground source heat pump was to be installed along with the latest standards of insulation. The challenge was to find an alternative to fan assisted radiators, which would have to be twice the size to work properly.

The Solution

The Bateson's opted for the simple Deco Profile in BM2 – a square edge 115mm high skirting which they felt complimented the desired look of the finished farmhouse.

Although the taller (170mm) BM3 is more often used with heat pumps due to the greater output per metre, in this case the BM2 has proved more than satisfactory.

The System is controlled via smart thermostats that can be programmed and activated by a mobile phone as well as on the screen. ThermaSkirt can work with any floor covering, including heavy carpets even when using a Heat Pump

"Its absolutely spot on" said Simon "and working beautifully, the whole house is lovely and warm"



Despite the large glass areas, ThermaSkirt threshold heating colour coded to the frames provided heating where it's most needed.





Assisted Living Apartments

Description: Apartments for persons with physical and learning Disability

ThermaSkirt Profile: EasyClean LST and Deco BM (Cricket White) Clients: HB Villages and Blackburn Council



The Challenge

HB Villages is one of the UK's most successful provider of assisted living apartments to local authorities and one of the most progressive in terms of adopting new techniques and technologies.

HB Villages provide a custom built assisted living 'centre' allowing persons with both physical and learning disabilities to live in comfort and with dignity, with on-site 24 hour care and assistance if and as needed by the clients.

The challenge is delivering these units on budget, and also with an accurate 20 year prediction of operating and maintenance cost that enable local authorities to invest better for the future.

There are a number of issues with radiators as they have to be anti ligature and so have bulky covers that not only take up valuable space in a small apartment, but are a major trip and fall hazard. In addition, if any fluids or worse are allowed into the covers, we have a major deep clean to undertake otherwise smells and infection can really cause problems and huge cost.

Initially, underfloor heating was considered, but previous experience had shown that slow response times can cause over and under heating, leading to distress to clients in many cases In addition the need to dry out the screed for several weeks, often by using temporary heating added significant hidden costs as well as problems with final floor finishes lifting if hurried.

The Solution

ThermaSkirt replaces the radiators and skirting boards in one cost effective, energy and space saving package. The Easyclean low surface temperature version of ThermaSkirt has been well received in the NHS and HealthCare sector.

By simply moving the 1st fix feed and returns, the builders were able to install the EasyClean instead of the proposed MDF skirting and control it using the existing thermostat system designed for the LST radiators.

The EasyClean version incorporates a security top strip that is naturally anti ligature and prevents the system being removed without tools. The same top strip incorporates a flexible edge that provides a seal to the walls to prevent ingress, and can also come with a bottom lip that seals the system to the coved vinyl flooring for a simple deep clean when mopping the floors. Running costs will be lower than with the LST radiators due to the EasyClean's unique low temperature all around heating pattern.

"The EasyClean has been a real find for us, and the finished look and performance just superb. As a result we are specifying it on further projects."







DiscreteHeat Company Limited 1 Victoria Works Industrial Estate, Atherton, Manchester, M46 0FY. 01942 88 00 66 info@discreteheat.com

www.discreteheat.com





Making things better