

## WALL HEATING & COOLING SOLUTIONS FROM IHS

Every building presents its own unique set of challenges and sometimes more conventional heating systems don't suit. At IHS we constantly endeavour to identify and develop solutions to help our clients achieve the most energy efficient heating and cooling systems possible.

Suitable for all building types including renovations, offices and pre-fabricated systems, wall heating provides an alternative to underfloor heating that is just as efficient and easy to install. Additionally, it offers a very similar range of advantages to underfloor heating, delivering radiant heat versus convector heat (5-20% less energy use compared with radiators) and in fact can be a particularly effective means of cooling.

### INSTALLATION

With the IHS dry build wall heating system, it's possible to install a heating system in a full wall or wall section. The underlay can be of wood, metal frame or solid wall manufacture. Because the heating system can carry its own weight, fixing it to walls or in ceilings is not a problem.

### Benefits

- Ease of installation
- Dry application
- No wait time for drying out
- Can be integrated into pre-fabricated panels
- Efficient cooling



### Advantages

- Heats up rapidly; responds quickly to temperature changes
- Space saving; very thin (18mm profile + 12mm plasterboard)
- Can be integrated into both walls and ceilings
- Just like underfloor heating, easy to control and highly energy efficient; works very well with low temperature heat sources (heat pumps, solar etc)
- Also suitable for cooling

### Suitable finishes include:

- Tiles
- Plasterwork
- Perforated sheet steel, aluminium etc

IHS Solutions

Underfloor and Wall Heating

Ground Source Heat Pumps

Air Source Heat Pumps

Thermal Stores & Hot Water Tanks

Solar Thermal Systems

Manifolds, Pipe & Controls

Road Energy

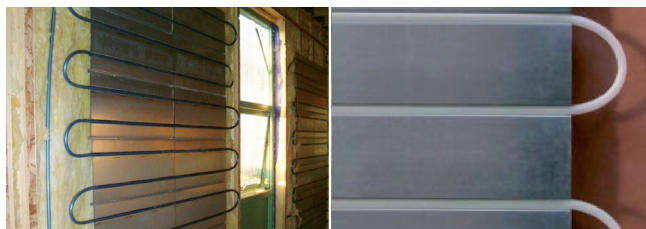
Lewis Plates

Micro District Heating System

## APPLICATIONS

### Older Properties

Wall heating is a potentially viable solution for existing buildings which have no capacity for underfloor heating. In older or listed properties, where use of a low temperature heat source such as heat pump or solar thermal is being used wall heating can be used as it's unobtrusive and easy to install.



### Offices

Many office sub-floors carry ducting and underfloor cabling; wall heating offers the perfect solution for the installation of an energy efficient, invisible heating system that's easy to control and also provides for effective cooling.

## IHS WALL HEATING & COOLING PLATES – TECHNICAL DATA

### Sizes

Plate Thickness	0.6 mm
System Depth	18 mm
Working Width	320 mm (332 - 12 mm)
Length	80 / 120 200 cm
	Other lengths can be ordered

### Weight

6 kg/m<sup>2</sup> (7 kg/m<sup>2</sup> including water in the pipes)

### Description

Radiant heating and cooling in walls, ceilings and floors for

- New and existing buildings
- Wood or steel stud partition work

### Wall construction

Plasterboard or steel plate

### Design Criteria

Pipe Length	120 m (Max)
Square area per pipe length	12 m <sup>2</sup>
Pipe Spacings	160 mm centre to centre
Heat Output	Ceiling 0 - 100 W/m <sup>2</sup> Wall 0 - 200 W/m <sup>2</sup> P Wand = 133 W/m <sup>2</sup> at T comfort = 20° C and T water = 50°C
Cooling	Ceiling 0 - 40 W/m <sup>2</sup> Wall 0 - 40 W/m <sup>2</sup>