



BRENTON GROUP

Underfloor Heating Specialists

UNDERFLOOR HEATING SPECIFICATION SHEET

Product information, system options
and technical data



COMPLETE SYSTEM
SOLUTIONS



SUITABLE FOR NEW BUILD
AND RENOVATION



LOW-PROFILE AND
HIGH-PERFORMANCE OPTIONS



SPECIFICATION SUPPORT
YOU CAN RELY ON



Choosing the right UFH system

A clear route from floor construction to the correct Brenton® system.

Underfloor heating can be integrated into new-build and refurbishment projects across screeded, overlay and suspended floor constructions. The correct system depends on available floor height, substrate, pipe size, final floor finish and the required heat output.

01

SCREED / NEW BUILD



Castellated panels and pipework secured before screed installation.

Best for: new slabs, extensions and high-output designs.

02

LOW-PROFILE OVERLAY



EPS, XPS, gypsum fibre, chipboard and Lowfix systems reduce build-up.

Best for: refurbishment and limited floor height.

03

SUSPENDED TIMBER



Heat emission or fit-from-below plates distribute heat beneath the deck.

Best for: joisted floors and retained floorboards.

SYSTEM SELECTION CONSIDERATIONS

FLOOR STRUCTURE

New-build screed, low-profile overlay or suspended timber construction.

AVAILABLE HEIGHT

Low-profile EPS, XPS, gypsum fibre, chipboard and Lowfix options minimise additional build-up.

PIPE SIZE

Products in this guide accommodate 12mm, 15mm or 16mm pipe depending on the selected system.

FLOOR FINISH

Tiles, timber, laminate, carpet and vinyl require the preparation stated for the chosen panel.

CONTROL METHOD

Manifold balancing, mixed-water temperature and room controls complete the UFH system.

PRODUCT MAP

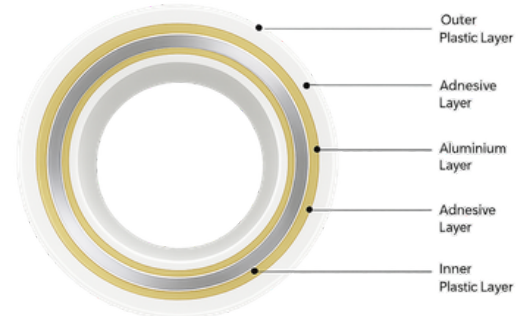
Use the page references below to compare each construction method and its technical requirements.

Category	Products	Page
Pipework & distribution	MLCP pipe; manifold; blending control pack	3-5
Suspended floors	Heat emission plates; fit-from-below plates	6, 10
Overlay systems	EPS400; XPS cement-coated; gypsum fibre; P5 chipboard; Lowfix 12	7-12
Screed systems	Castellated panel system	13
Controls	Heatmiser smart and hard-wired thermostats	14

Specification note: outputs and product suitability depend on project design, insulation, water temperature, floor finish and site conditions. Confirm final selections before installation.

Brenton® Multi-Layer Composite Pipe (MLCP)

Five-layer PE-RT / aluminium construction for underfloor and low-temperature heating.



FIVE-LAYER CONSTRUCTION

1. Outer PE-RT: protects the aluminium core and retains strength at elevated temperature.
2. Adhesive: permanently bonds the outer PE-RT layer to the aluminium core.
3. Aluminium: 0.25mm layer provides form retention and an oxygen barrier.
4. Adhesive: permanently bonds the inner PE-RT layer to the aluminium core.
5. Inner PE-RT: smooth bore helps limit pressure loss and deposit accumulation.

Brenton® MLCP PE-RT pipe is a durable five-layer composite pipe designed for underfloor and low-temperature heating systems. Its aluminium core provides an oxygen-tight barrier, reduces expansion and helps the pipe retain its shape, while the smooth internal bore supports efficient water flow. Suitable for temperatures from 40°C to 95°C and pressures up to 10 bar.

Its low-friction internal surface helps minimise pressure loss and reduces the risk of deposit build-up within the system. The bonded aluminium layer also limits snapback and thermal movement, making the pipe easier to shape, position and install securely while maintaining reliable long-term performance.

TECHNICAL DATA

Construction	PE-RT / adhesive / aluminium / adhesive / PE-RT
Linear expansion	0.025 mm/mK
Bore roughness	k = 0.0004
Service temperature	40°C to 95°C
Maximum pressure	10 bar
Oxygen barrier	100% diffusion tight
Application	UFH and low-temperature heating

PERFORMANCE BENEFITS



Retains its formed shape to simplify neat installation.

The pipe retains its formed shape after bending, helping installers create neat, accurate layouts with reduced movement and easier positioning.



Reduces snapback and thermal expansion movement.

Minimises spring-back and thermal movement, helping the pipe stay securely positioned for a stable, precise installation.



Smooth, low-friction bore supports efficient water flow.

Minimises spring-back and thermal movement, helping the pipe stay securely positioned for a stable, precise installation.



Aluminium core helps protect system components from oxygen ingress.

The aluminium core creates an oxygen-tight barrier, helping protect system components from corrosion and supporting long-term reliability.

Brenton® 22mm 2-Port Motorised Zone Valve

Compact flow control for domestic, commercial and light industrial heating systems.

PRODUCT OVERVIEW

The Brenton® motorised zone valve controls water flow in iron and copper pipe systems. A brass valve body supports long operating life, while the prewired detachable actuator simplifies installation and servicing.

KEY BENEFITS

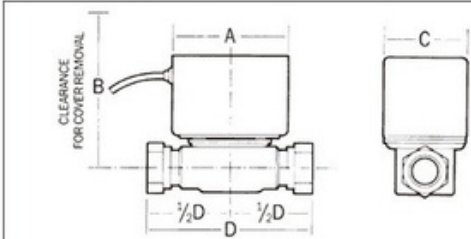
- ✓ Clip-on detachable head for straightforward servicing.
- ✓ Prewired cable reduces on-site wiring time.
- ✓ Metal manual operating lever for strength and stability.
- ✓ Motorised head can be retrofitted to compatible valve bodies.



22mm motorised zone valve

APPLICATION & SPECIFICATION

Dimensions (mm)

	A	87
	B	98
	C	60
	D 1/2	94
	22mm	112
	1"	92
	28mm	127

Application

Designed primarily for small-bore central-heating systems, the valve can also be used in suitable commercial and industrial applications. It controls the flow of water through iron and copper pipe systems.

Construction and servicing

The brass valve body is intended to provide a long operating life and flexible installation. A clip-on detachable head allows the actuator to be removed for servicing. The supplied hardwired cable connects to the motorised head, while the metal manual operating lever provides a strong and stable override.

Compatibility

The motorised head is described as suitable for retrofitting to compatible valve bodies from other manufacturers. Confirm dimensional and electrical compatibility before replacement.

TECHNICAL DATA

Connection size	22mm
Power supply	220-240V AC
Frequency	50-60Hz
Power consumption	5W
Valve body	Brass
Actuator	Clip-on detachable
Cable	Prewired
Manual operation	Metal lever

SOURCE SPECIFICATION NOTES

Electrical requirement
220-240V AC, 50-60Hz, 5W.

Wiring

The actuator is supplied with a prewired cable to simplify connection and disconnection. Installation must be completed in accordance with the product wiring diagram and applicable electrical requirements.

INSTALLATION & SAFETY

The valve should be installed in an accessible position with adequate clearance for servicing or actuator replacement. Before installation, isolate the electrical supply and confirm the valve is correctly aligned with the system flow direction. All electrical work should be completed by a suitably qualified person in accordance with current regulations.

Balanced multi-zone distribution with controlled flow temperature for UFH circuits.

PRODUCT OVERVIEW

The nickel-plated brass manifold distributes water across individual underfloor heating circuits. Integrated flow meters allow each loop to be monitored and balanced, helping maintain consistent flow. Return-side isolation valves enable circuits to be shut off for commissioning, adjustment or maintenance without affecting the remaining loops. The blending control pack mixes hotter boiler water with cooler return water to deliver a stable UFH flow temperature, supporting circulation and reliable system.

KEY BENEFITS

- ✓ Nickel-plated brass construction.
- ✓ Individual flow meters for circuit balancing.
- ✓ Isolation valves and pressure gauge on return beam.
- ✓ Thermostatic blending control with A-rated Grundfos pump.

APPLICATION & SPECIFICATION



Manifold arrangement

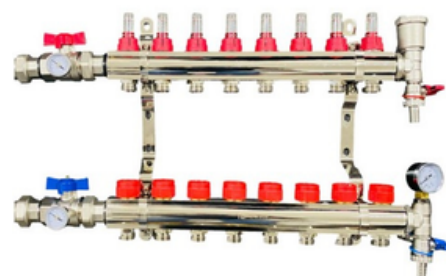
The nickel-plated brass manifold is supplied with isolation valves, mounting brackets and screw connectors for the correct pipe size. The flow beam incorporates flow meters so each circuit can be viewed and balanced, together with an automatic air vent. The return beam incorporates individual isolation valves for shutting off loops and a pressure gauge for system monitoring.

Water-temperature control

The thermostatic blending valve is the core of the control pack. Used with the flow and return manifolds, it mixes hot boiler water with returning water and supplies the UFH pipework at the selected lower temperature.

Adjustment

The guide gives an operating range of approximately 35°C to 60°C, depending on the floor construction. The water-supply temperature should be adjusted to suit the complete floor build-up and system design.



Manifold and water temperature control pack

TECHNICAL DATA

Manifold material	Nickel-plated brass
Flow beam	Flow meters and automatic air vent
Return beam	Isolation valves and pressure gauge
Control pack	Thermostatic blending valve
Pump	A-rated Grundfos
UFH temperature range	35°C to 60°C
Application	Flow and return manifold systems

SOURCE SPECIFICATION NOTES

System purpose

Provides multi-loop distribution, visual flow balancing, loop isolation and mixed-temperature control in one manifold assembly.

Supply contents stated

Isolation valves, brackets and screw connectors are included with the manifold. Confirm manifold size, connector size and pump/control-pack configuration for the project.

INSTALLATION GUIDE

Install the manifold in an accessible, level position to allow accurate flow balancing, commissioning and future servicing. Flush the system before connection and check all joints, isolation valves and loop connections for leaks. The blending valve and pump settings should then be adjusted to match the required design flow temperature and floor construction.

Heat Emission / Aluminium Diffuser Plates

UK-manufactured aluminium plates for efficient heat distribution between floor joists.

PRODUCT OVERVIEW

Flat aluminium heat-emission plates feature true omega-shaped grooves that securely hold the UFH pipe and distribute heat evenly across the underside of the floor deck. Lightweight and easy to install, the system provides a clean, efficient alternative where biscuit mix or screed is unsuitable, while helping maintain consistent pipe spacing and reliable heat transfer.

KEY BENEFITS

- ✓ True omega groove helps retain the pipe.
- ✓ Factory spacing supports consistent installation.
- ✓ Lightweight and clean compared with biscuit mix.
- ✓ Distributes heat evenly when installed with suitable insulation.



Double-groove heat emission plate

APPLICATION & SPECIFICATION



System arrangement

The plates are formed from flat aluminium sheet with two true omega-shaped grooves. The pipe clips into the grooves, maintaining the set spacing and increasing contact between the pipe and the underside of the floor deck.

Installation use

Designed for wet underfloor heating in suspended timber floors, the plates are intended for standard floor joists at 400mm centres. Their lightweight construction makes them suitable where a biscuit mix cannot be used and provides a cleaner installation with less mess.

Heat distribution

When used with the required insulation, the aluminium spreads heat across the floor area rather than concentrating it directly above the pipe route. The factory groove layout supports consistent 200mm pipe spacing along the plate.

TECHNICAL DATA

Plate size	1000 x 390mm
Thickness	Up to 0.5mm
Material	Aluminium 1050A H14
Grooves	2 omega-shaped channels
Groove spacing	200mm
Pipe compatibility	15mm and 16mm
Typical joist centres	400mm

SOURCE SPECIFICATION NOTES

Plate specification

1000mm long x 390mm wide x up to 0.5mm thick, manufactured from aluminium 1050A H14.

Pipe compatibility

Two grooves are formed to suit 15mm or 16mm UFH pipe. Confirm the joist layout and plate coverage before ordering.

INSTALLATION GUIDE

Fit the plates securely between joists with the omega grooves facing upward. Ensure suitable insulation is installed directly beneath the plates to reduce downward heat loss and improve heat transfer through the floor above. Press the pipe fully into each groove and check that it remains firmly clipped before completing the floor build-up.

Brenton® EPS400 Foil-Faced Overlay Board

High-compressive-strength, low-profile panel for fast dry UFH installation.

PRODUCT OVERVIEW

The EPS400 overlay panel is designed for refurbishment projects where a low build-up is required. The aluminium facing improves heat spread, while routed channels set the pipe at 150mm centres. Laminate and engineered timber can be laid above the system; tile, carpet and vinyl finishes require the specified preparation method.

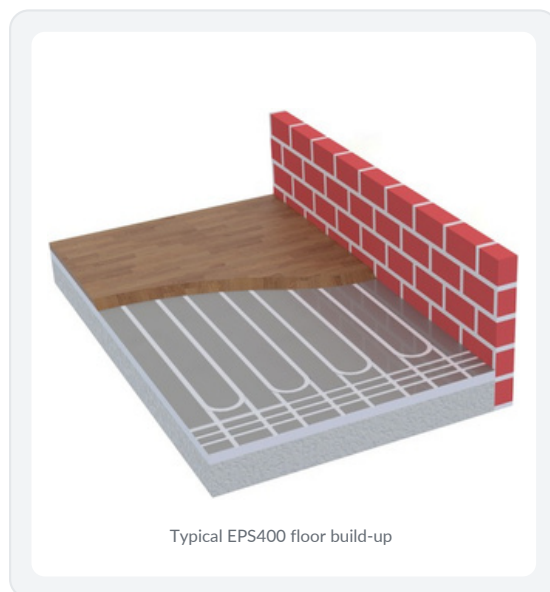
KEY BENEFITS

✓ 400kPa compressive strength.

✓ Foil facing supports improved lateral heat distribution.

✓ Dry installation avoids screed weight and drying time.

✓ Simple cutting and routing around room geometry.



APPLICATION & SPECIFICATION

Typical build-up

1. Prepared concrete or suitable existing base
2. EPS400 foil-faced board
3. UFH pipework at 150mm centres
4. Approved adhesive, primer or backer board as required
5. Final floor finish

Substrates and installation

The source guide describes the panels as suitable for placement over existing wood, carpet, vinyl and tiled surfaces, subject to the base being suitable, stable and correctly prepared. The panels are bonded using spray contact adhesive and can be cut to shape using basic tools.

Floor-finish guidance

Laminate and engineered wood may be laid directly over the prepared system. Tiles require the specified Mapei or Instamatic approved primer and S2 flexible adhesive method. Carpet and vinyl require a suitable backer board over the overlay panels.

Performance note

The recommended maximum linear loop length stated for the 20mm board is 100m. Output depends on insulation standards and environmental conditions.

The EPS400 system is suited to refurbishment and retrofit projects where a low-profile, lightweight floor build-up is required. Its high-density construction supports domestic floor loads, while the aluminium facing helps distribute heat across the panel surface. System performance should be confirmed against the room heat-loss calculation, insulation level and selected floor finish.

TECHNICAL DATA

Panel size	1200 x 600mm
Panel thickness	20mm
Compressive strength	400kPa
Pipe centres	150mm
Recommended max loop	100m
Tile method	Mapei / Instamatic approved system
Floor finishes	Tile; laminate; engineered wood; carpet/vinyl with backer

SOURCE SPECIFICATION NOTES

Panel strength

The guide identifies the board as EPS400 with 400kPa compressive strength and describes it as using substantially more material than lower-density alternatives.

Dry-system benefit

The overlay method avoids the moisture, weight, mess and drying time associated with a screeded UFH system.

INSTALLATION GUIDE

Ensure the existing floor is clean, dry, level and structurally sound before installation. Bond the panels using the specified spray contact adhesive, keeping all joints tightly butted and channels correctly aligned. Install the UFH pipe at 150mm centres without kinking, pressure-test the completed circuits, then apply the approved primer, adhesive or backer-board preparation required for the chosen floor finish.

Brenton® XPS Cement-Coated Panel

Waterproof, reinforced overlay panel for direct tile bonding and low-profile UFH.

PRODUCT OVERVIEW

The routed panel combines 300kPa high-density XPS insulation with a reinforced cement coating. It is lightweight, waterproof and robust enough for direct bonding of ceramic tiles using an approved system. The panel can be installed over suitable solid floors and boarded suspended timber floors.

KEY BENEFITS

- ✓ Reinforced cement surface for direct tile bonding.
- ✓ Low-profile construction limits floor-height impact.
- ✓ Waterproof XPS core with 300kPa compressive strength.
- ✓ Promotes efficient, even heat spread across the floor.

APPLICATION & SPECIFICATION

Panel construction

The routed overlay panel is manufactured from high-density XPS rated at 300kPa. The XPS core is thermally insulating, lightweight and waterproof, while the reinforced cement coating provides a robust surface for the floor finish.

Suitable substrates

The guide identifies concrete, screed and asphalt floors, together with suspended timber floors that have been fully boarded using suitable tongue-and-groove planking or chipboard.

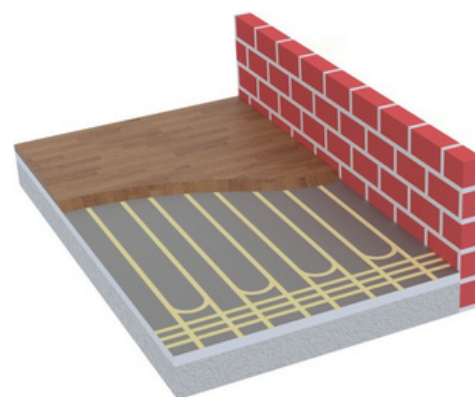
Floor finishes

Ceramic tiles can be bonded directly to the reinforced cement face using the approved system. Engineered wood, carpet and vinyl can also be used where the required additional panel preparation is completed.

System benefit

The low-profile construction minimises the effect on finished floor height and is designed to provide an efficient, even spread of heat across the floor.

The cement-coated XPS overlay panel is suitable for retrofit and new-build projects requiring a low-profile, moisture-resistant underfloor heating solution. Its high-density 300kPa core provides strength and insulation, while the reinforced cement face creates a stable surface for tiles and other prepared floor finishes. Final system performance should be checked against the room heat-loss requirement and complete floor build-up.



Typical XPS cement-coated floor build-up

TECHNICAL DATA

Panel size	1200 x 600mm
Thickness / weight	20mm / 2.4kg
Compressive strength	300kPa
Pipe centres	150mm
Pipe diameter	15mm and 16mm
Thermal conductivity	0.033 W/mK
Reaction to fire	Euroclass E

SOURCE SPECIFICATION NOTES

Declared values

Panel size 1200 x 600mm; thickness 20mm; approximate weight 2.4kg; pipe centres 150mm; pipe diameter 15mm or 16mm.

Material data

Thermal conductivity 0.033W/mK and reaction-to-fire classification Euroclass E, as stated in the supplied guide.

INSTALLATION GUIDE

Ensure the base is clean, dry, level and structurally sound before installation. Bond the panels securely using the approved adhesive, keeping all joints tightly butted and the routed channels correctly aligned. Install the UFH pipe at 150mm centres without kinking or damaging the cement coating. Pressure-test the completed circuits, then apply the specified primer, flexible adhesive or preparation layer required for the selected floor finish.

Brenton® High-Density Gypsum Fibre Overlay

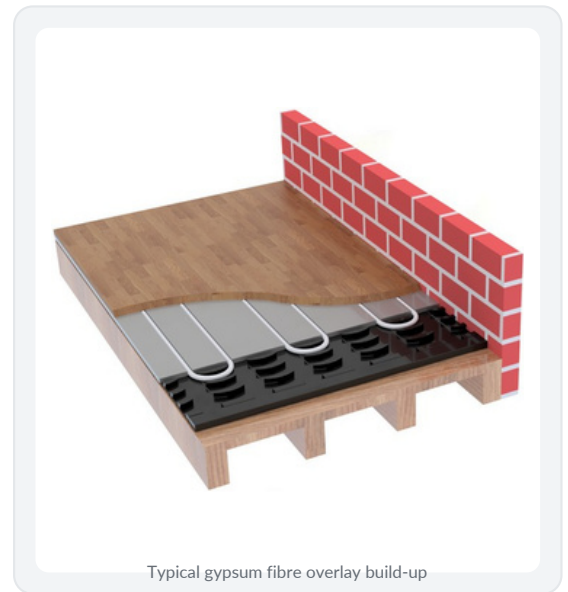
A highly conductive 18mm dry system for new-build and refurbishment floors.

PRODUCT OVERVIEW

The grooved high-density gypsum fibre panels provide fast and even heat transfer in a low-profile build-up. Hard finishes such as tiles and timber can be laid above the prepared system. Carpet and vinyl require an additional levelling or plywood layer to create a smooth surface.

KEY BENEFITS

- ✓ High thermal conductivity for rapid heat response.
- ✓ Low 18mm profile reduces impact on thresholds.
- ✓ Suitable for both concrete and timber bases.
- ✓ Straight and fully routed panels simplify room coverage.



Typical gypsum fibre overlay build-up

APPLICATION & SPECIFICATION

Board Size	Fully Routed 900mm (L) 600mm (W) 18mm (T)	Straights 1200mm (L) 600mm (W) 18mm (T)
Weight	18kg/m ² (excluding any filling compound)	
Pipe Size	12mm OD Pipe	
Minimum operation temperature	Heat output up to 105W/m ² *	
Panel Groove Patterns	Straights and Fully Routed	

Application

The grooved high-density gypsum-fibre system is suitable for new-build and refurbishment projects. The panels must be installed on a solid base that is fit, level and capable of supporting the completed floor construction.

Heat transfer

The high-density board provides strong thermal conductivity, supporting efficient and even heat distribution throughout the floor while keeping the overall system profile low.

Floor-finish guidance

Hard finishes such as ceramic tiles and timber flooring may be laid directly over the correctly prepared overlay system. For carpet or vinyl, the supplied guide requires an additional 6mm levelling compound or plywood layer to provide a flat, smooth surface.

Panel options

Straight and fully routed panel patterns are available to form the main pipe runs and end-return areas across the room.

TECHNICAL DATA

Fully routed panel	900 x 600 x 18mm
Straight panel	1200 x 600 x 18mm
Weight	18kg/m ² excluding filling compound
Pipe size	12mm OD
Heat output	Up to 105W/m ² *
Groove patterns	Straight and fully routed
Floor finishes	Tile; timber; carpet/vinyl with preparation

SOURCE SPECIFICATION NOTES

Panel information stated

Fully routed panel: 900 x 600 x 18mm. Straight panel: 1200 x 600 x 18mm. Pipe size: 12mm outside diameter.

Performance

The supplied guide lists heat output up to 105W/m². Actual output depends on water temperature, insulation, floor finish and the complete project design.

INSTALLATION GUIDE

Ensure the supporting base is clean, dry, level, stable and structurally suitable before installation begins. Plan the circuit layout carefully, positioning straight and fully routed panels so that all grooves align and the pipe route remains continuous. Keep panel joints tightly butted and secure the boards in accordance with the recommended installation method. Fit the 12mm UHF pipe carefully into the routed channels without kinking or damaging it, then pressure-test all circuits before applying any filling compound, levelling layer or floor-finish preparation required for the selected covering.

Fit-From-Below Aluminium Plates

Retrofit UFH beneath existing floorboards without lifting the finished floor.

PRODUCT OVERVIEW

The fit-from-below system is installed from underneath an existing floor deck. Double spreader plates suit standard 400mm joist centres, while single J-plates can be overlapped to accommodate alternative joist layouts and create additional pipe runs where required.

KEY BENEFITS

- ✓ Installed below retained floorboards.
- ✓ Double and single plate formats suit varied joist layouts.
- ✓ Pipe clips securely into the formed channel.
- ✓ Equivalent output to standard spreader plates of the same area.

APPLICATION & SPECIFICATION

Fit-from-below double plate

The system is designed for installation underneath floorboards that are already in place, allowing UFH to be added without lifting the finished deck. The double plate suits joists at 400mm centres and uses 250mm pipe centres to maximise aluminium contact with the underside of the floorboards.

J-plate option

The single-channel J plate can be overlapped to suit a variety of joist spacings. It may also be combined with an FFB150 plate to create an effective triple run where required. Each formed channel allows the 16mm pipe to clip into position.

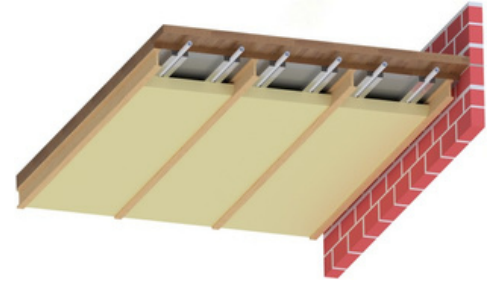
Plate size and output

The J plate is 1000mm long x 180mm wide x 0.5mm thick. The guide states that FFB and J plates provide the same heat output as standard spreader plates covering the same area.

Installation sequence

Confirm the joist layout, fix the plates against the underside of the floor deck, install the pipe and position suitable insulation below the plate system.

The fit-from-below plate system is ideal for retrofit projects where the finished floor must remain undisturbed. By fixing the aluminium plates directly beneath existing floorboards, the system transfers heat efficiently into the floor deck while avoiding the need to lift boards from above. The double-plate and J-plate options provide flexibility for standard and non-standard joist layouts, with performance dependent on correct plate coverage, pipe spacing and insulation.



Typical fit-from-below floor build-up

TECHNICAL DATA

Installation position	Below existing floorboards
Typical joist centres	400mm
Double plate pipe centres	250mm
J-plate size	1000 x 180mm
J-plate thickness	0.5mm
Pipe compatibility	16mm
Insulation	Required below plates

SOURCE SPECIFICATION NOTES

Standard layout

Double spreader plates are intended for 400mm joist centres. Where joists are wider or non-standard, the plate arrangement should be selected for the specific floor.

Pipe route

Double-plate pipe centres: 250mm. J-plate channel: suitable for 16mm pipe.

INSTALLATION GUIDE

Confirm the joist spacing and planned pipe route before fixing the plates securely against the underside of the floorboards. Keep the channels aligned, press the 16mm pipe fully into position and avoid sharp bends or damage. Fit suitable insulation directly beneath the plates to reduce downward heat loss, then pressure-test all circuits before closing the floor void.

Brenton® 22mm P5 Foil-Faced Chipboard

Routed tongue-and-groove structural panels for 12mm UFH pipe at 150mm centres.

PRODUCT OVERVIEW

The moisture-resistant P5 chipboard panel combines a structural floor deck with a routed underfloor heating pattern. A foil facing supports even heat distribution across the floor. The interlocking tongue-and-groove format is available in two lengths to suit room layout and joist positioning.

KEY BENEFITS



Structural P5 moisture-resistant chipboard.



Foil facing improves heat distribution.



Tongue-and-groove edges support fast floor installation.



Available in 1200mm and 2400mm lengths.



22mm foil-faced routed P5 chipboard

APPLICATION & SPECIFICATION

Product configuration

The system uses 22mm flooring-grade P5 tongue-and-groove chipboard panels with routed channels for 12mm pipe at 150mm centres. The foil facing improves lateral heat distribution across the finished floor.

Installation position

The chipboard is installed before the final floor finish and is described in the supplied guide as a floating-floor construction. Where plywood or another covering layer is introduced, use suitable fixings while protecting the pipe routes below.

Floor-finish guidance

Laminate, hardwood flooring and carpet should be installed with a suitable underlay and in accordance with the floor-finish manufacturer's instructions. Check the combined thermal resistance of the finish and underlay as part of the project design.

Available sizes

Panel width is 600mm, with lengths of 1200mm and 2400mm. The routed, moisture-resistant board is intended to provide a structural easy-lay surface with integrated UFH channels.

The 22mm structural chipboard overlay system is suitable for projects where the underfloor heating panels must form part of the finished floor structure. The moisture-resistant P5 board provides a strong, stable walking surface, while the foil facing helps spread heat away from the routed pipe channels. The complete floor build-up, supporting joists and final covering should be checked to ensure suitable strength, thermal performance and compatibility.

TECHNICAL DATA

Board thickness	22mm
Board width	600mm
Lengths	1200mm / 2400mm
Pipe size	12mm
Pipe centres	150mm
Board grade	P5 flooring-grade chipboard
Surface	Foil-faced and routed
Floor finishes	Follow finish manufacturer guidance

SOURCE SPECIFICATION NOTES

Declared panel data

22mm thick P5 flooring-grade tongue-and-groove chipboard; 600mm width; 1200mm or 2400mm length; 12mm pipe; 150mm pipe centres.

Important

The exact supporting structure, fixing method and final floor finish must be checked against the structural and floor-finish requirements for the project.

INSTALLATION GUIDE

Ensure the supporting structure is level, dry and capable of carrying the completed floor build-up. Lay the tongue-and-groove panels with joints properly supported and securely connected, keeping the routed channels aligned throughout the installation. Fit the 12mm UFH pipe at 150mm centres without kinking, protect the pipe routes when applying fixings, and pressure-test all circuits before installing the selected underlay and final floor finish.

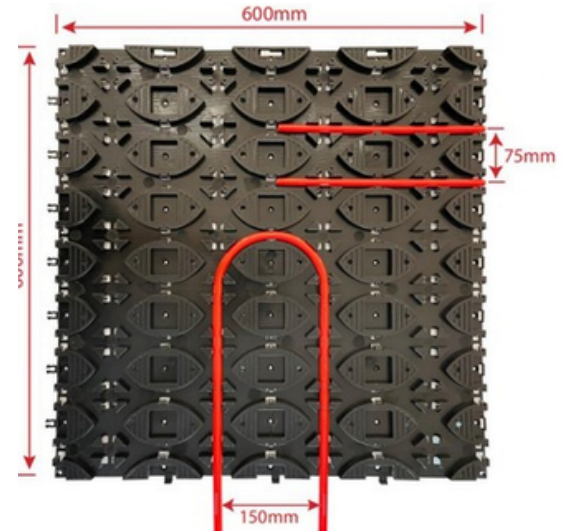
Brenton® Lowfix 12 Panel System

Interlocking pipe-retention panel for floor heating, wall heating and ceiling cooling applications.

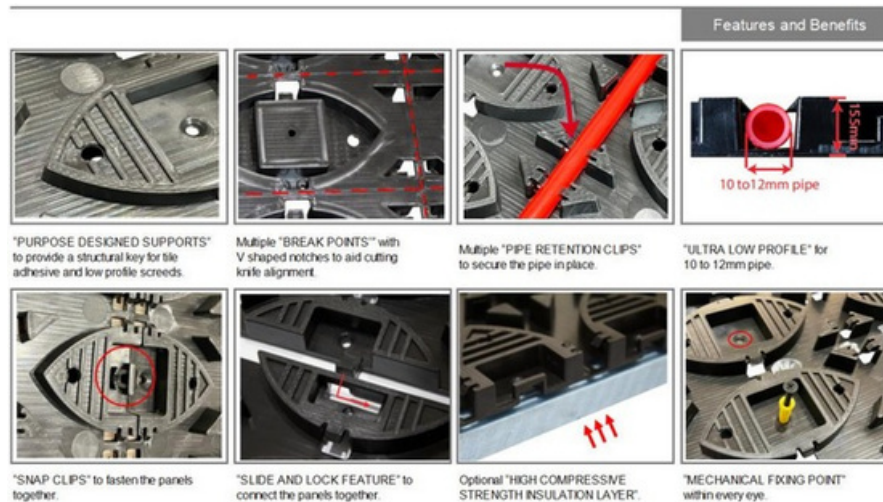
PRODUCT OVERVIEW

The Lowfix 12 panel provides a fast, dry and simple pipe-retention solution. Interlocking snap clips, pipe-retention clips and break points support quick installation around room geometry. The system accepts 10-12mm pipe and has an ultra-low 15.5mm profile.

The Lowfix 12 system is ideal for refurbishment and retrofit projects where floor height is limited and a fast, dry installation is preferred. Its interlocking panel design allows layouts to be adapted around room shapes, while the integrated clips hold the pipe securely and maintain consistent spacing. Once installed and pressure-tested, the system can be covered using the specified levelling layer or floor-finish build-up.



FEATURES & BENEFITS



TECHNICAL DATA

Panel size	600 x 600mm
Overall profile	15.5mm
Pipe size	10-12mm
Pipe spacing	75mm / 150mm routes
Panel connection	Slide-lock and snap clips
Fixing	Mechanical fixing points
Standard note	Guide outputs to BS EN 1264

INDICATIVE HEAT OUTPUTS

Heat output W/m² floor surface temperature °C by mean water temperature

Floor covering	30°C	35°C	40°C	45°C	50°C
Tile	56.5 25.2°C	84.9 27.9°C	113.2 30.5°C	141.6 33.1°C	169.8 36.7°C
Vinyl / 6mm laminate	40.1 23.6°C	60.3 25.6°C	80.4 27.5°C	100.6 29.3°C	120.7 30.5°C
Carpet & underlay (1.5 tog)	30.0 22.8°C	45.0 24.2°C	60.0 25.6°C	75.0 26.9°C	90.0 28.6°C

Indicative only. Final outputs depend on the complete floor build-up and project design.

Brenton® Castellated Panel System

Interlocking pipe-retention panel for fast, accurate pipe spacing before screeding.

PRODUCT OVERVIEW

Castellated panels secure the underfloor heating pipe before and during screed installation. The formed knobs act as a setting-out template for consistent spacing, while overlapping panel edges create a continuous interlocking grid across the floor.

KEY BENEFITS



Fast installation with accurate pipe retention.



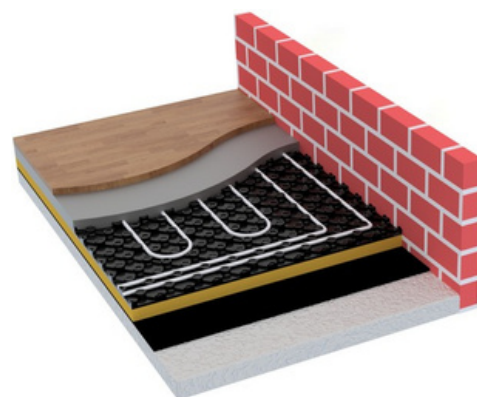
Consistent pipe spacing supports even heat distribution.



Lightweight panels are easy to cut around room shapes.



Self-adhesive backing and interlocking edges simplify placement.



Typical castellated panel screed build-up

APPLICATION & SPECIFICATION

Typical build-up

1. Concrete slab
2. Suitable insulation
3. Castellated panel
4. 12mm UFH pipe
5. Screed
6. Final floor finish

Pipe retention and spacing

The castellated knobs hold the UFH pipe securely before and during screeding. They also act as a fixing template, allowing accurate pipe spacing and supporting even heat distribution. The panels can be overlapped to create a continuous interlocking grid across the room.

Installation features

The panels are lightweight and can be cut to fit irregular room shapes. Openings allow screed to flow through the panel, while the self-adhesive backing assists placement on the prepared floor. The supplied guide lists pipe-centre options of 50mm, 100mm, 150mm and 200mm.

System planning

Confirm the selected pipe spacing, loop arrangement, insulation and screed depth before installation.

The castellated panel system provides secure pipe retention and flexible spacing for solid-floor UFH installations. Interlocking panels form a continuous grid, while raised knobs maintain accurate pipe positioning before screeding. Pipe centres, insulation and screed depth should suit the project heat-loss requirements.

TECHNICAL DATA

Panel size	1220 x 820mm
Coverage	Approximately 1m ² per panel
Panel depth	20mm
Low-profile options	16mm and 20mm
Pipe size	12mm
Pipe centres	50 / 100 / 150 / 200mm
Screed	Openings allow screed penetration
Backing	Self-adhesive

SOURCE SPECIFICATION NOTES

Panel data stated

Panel size 1220 x 820 x 20mm, giving approximately 1m² coverage. Low-profile variants are listed at 16mm and 20mm.

Pipe compatibility

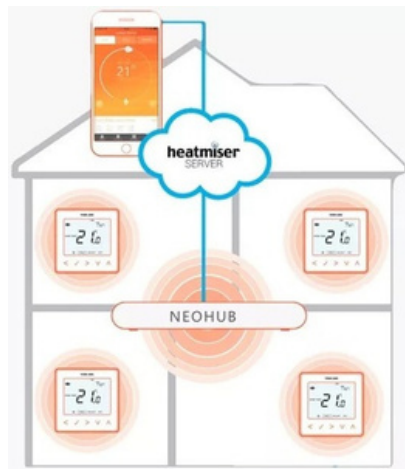
The supplied guide specifies 12mm pipe and optional 50mm, 100mm, 150mm and 200mm pipe centres.

INSTALLATION GUIDE

Ensure the slab is clean, dry, level and fitted with suitable insulation. Lay the panels with joints securely overlapped, using the self-adhesive backing to assist positioning. Install the 12mm UFH pipe at the specified centres, keeping bends smooth and circuits correctly arranged. Pressure-test the system before applying screed, ensuring it flows fully through the panel openings and covers the pipe to the required depth.

Heatmiser Control System

Room by room control options for underfloor heating, radiators and domestic hot water.



CONTROL OPTIONS

NEOAIR

Wireless/RFroom thermostat

Flexible control where hard wiring is impractical.

NEOSTAT

Hard-wired smart thermostat

Suitable for zoned UFH and connected heating control.

SLIMLINE

Room thermostat range

Straightforward programmable control for individual zones.

SMART CONTROL BENEFITS



Room-by-room zoning can reduce unnecessary heating.



Remote control and scheduling through the connected Neo ecosystem.



Key locking helps prevent unauthorised setting changes.



Flexible programming supports varied occupancy patterns.

ECOSYSTEM

Applications	UFH, radiators and hot water
Control types	Wireless / RF and hard-wired
Features	Scheduling, key lock, remote control
Integrations shown	Alexa, Google Home, IFTTT, HomeKit
Updates	Software feature updates



Control compatibility, wiring centres, actuator type and smart-home integration should be confirmed against the selected Heatmiser model before specification.

Source guide identifies NeoAir, Slimline and NeoStat product families.