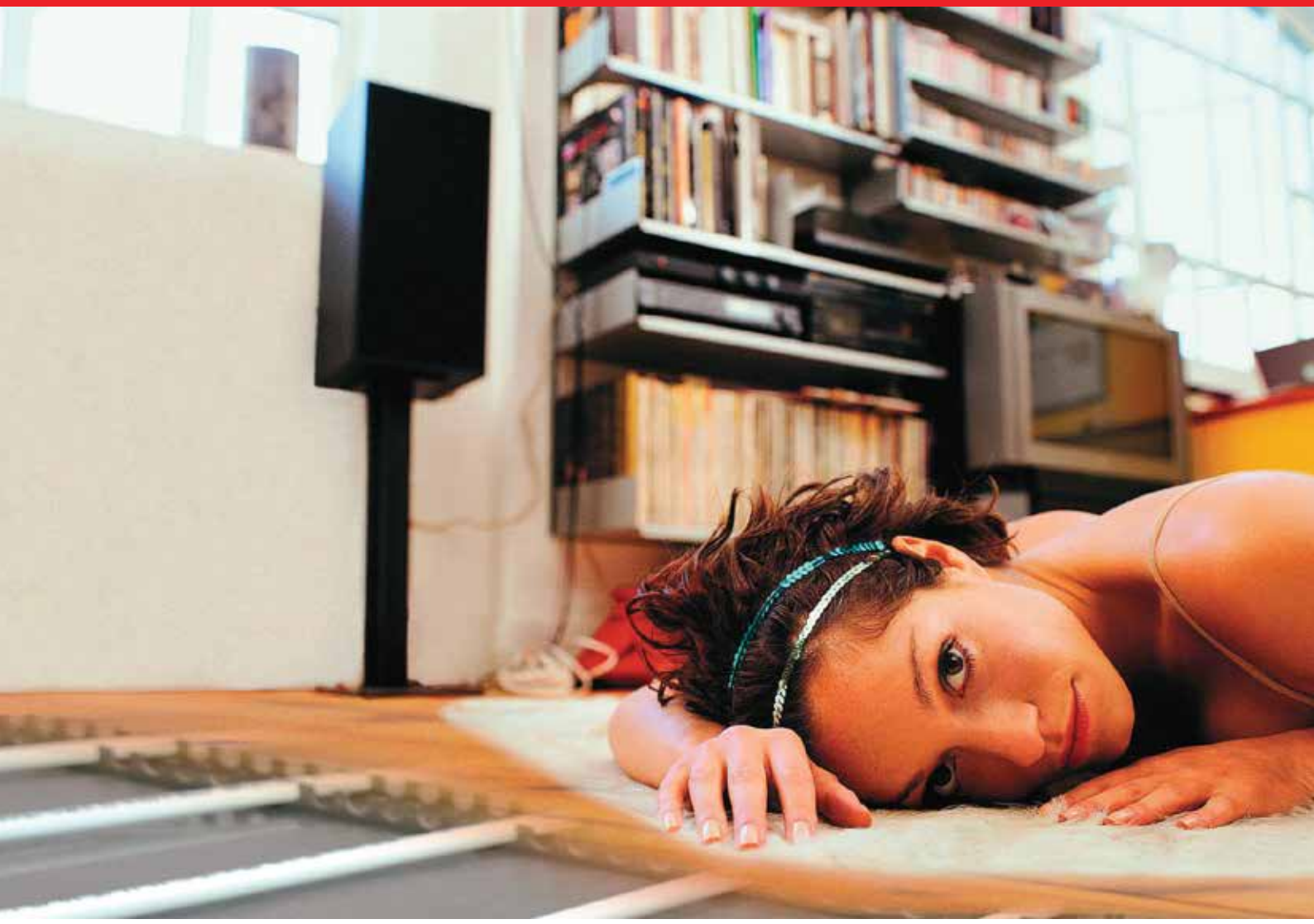
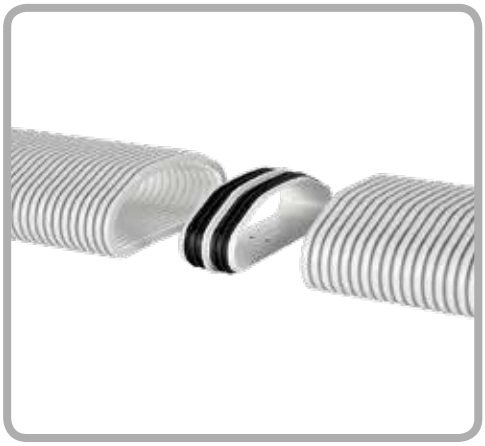
ROBBENS SYSTEMS®

is a part of FRÄNKISCHE





www.underfloorheating.co.uk

Robbens Systems®

The name you can trust
Robbens Systems®

Why Choose Robbens?
Through our many years of supplying underfloor heating systems we have prided ourselves in creating the perfect blend of design, quality and service.

Our flagship range of manifolds all come pre-built and supplied mounted on a board and all of our pipe comes labelled to match our pipe layout drawings. Ultimately small features like this save time and money on site.

We provide total support through the entire project. Whether this is pre-sales or after sales, we can help in the specification, installation and set up advice to the end user. No mater what part of the project you are working we will be there to help.

Experience is the key
Robbens Systems® have been at the forefront of the UK underfloor heating market since 1992, developing state of the art design methods and products. Through supplying thousands of domestic projects, Robbens have gained intimate knowledge of building methods and the information/service needs of clients, matching our services to these specific needs. Through excellent products, high levels of customer service and responsible trading, Robbens have continued To delight their customers.

Our focus: the customer
At Robbens, each customer is an individual, and each project is a one off, both receiving the advice and personal attention they deserve. Our technology is definitely of the modern world, but we have a strong belief in old fashioned service!

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What we do

Since 1992 we at Robbens Systems® have prided ourselves in designing and supplying high quality and high performance underfloor heating systems. We use only the finest components and use the best design principles to provide bespoke underfloor heating systems.

Nowadays we have the backing of our German parent company Frânkische. They are market leaders in the manufacture of plastic pipes and supply us with the best possible pipes for use with our systems.

Frânkische also manufacture modern and high quality mechanical ventilation and heat recovery (MVHR) systems. The high efficiency units, coupled with a range of Frânkische corrugated plastic pipes provide us with state of the art home ventilation systems.

Robbens supply these MVHR systems fully designed for use in your home. The combination of heat recovery and underfloor heating creates the perfect blend of comfort in your home along with energy efficiency.

Underfloor heating

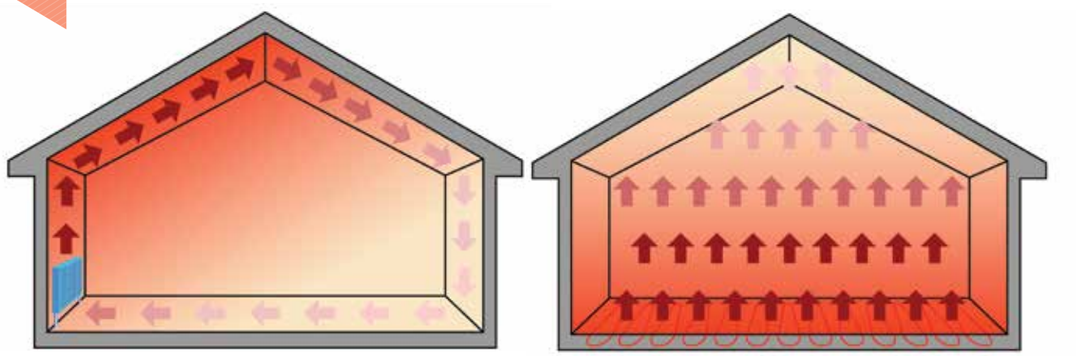
Radiator heating systems heat from the top down, which can create an uncomfortable environment

The heat generated by radiators is normally concentrated into relatively small areas, heating the air directly around them. The air then rises up the wall, along the ceiling into the centre of the room. When it reaches the centre of the room, it cools slightly, and then descends towards the floor. The outcome of this is a warm head and cold feet!

Our feet naturally act as the body's own 'thermostat', having warm feet will generally mean we feel more comfortable. Underfloor heating heats the whole floor area which generates the opposite heat cycle to that of conventional heat sources, and results in warm feet and even room temperatures. Compared to conventional radiators, an underfloor heating system generates more radiant heat as opposed to convective heat. Radiators heat up the room by recirculation, along with the permanent flow of dust particles and micro-organisms. In contrast, the underfloor heating system delivers predominantly radiant heat. As known from the ‚tile stove', this will create a very cosy and comfortable feel within the room.

Underfloor heating can result in a 15% energy saving over traditional heating systems, assuming the system has been installed correctly and is running using a suitable setback facility. Underfloor heating systems evenly disperse radiant heat. This means the room temperature can be reduced by about 2–3 degrees because a human body is able to assimilate the radiant heat directly. Furthermore, the flow temperature of the underfloor heating system will be between 40–60 degrees, which is considerably lower than the temperatures required by radiators. This allows the perfect combination with thermal heat sources such as heat pumps and solar systems, which reach such temperatures over the whole year.

The different heat circulation pattern between wall hung radiators and underfloor heating



Radiator heating **Underfloor heating**

New build or refurbishment

New Build

New builds are built in the UK to extremely high standards with high levels of thermal insulation. This makes the specification of the underfloor heating much easier to provide the building with an efficient and comfortable heating system even in the depths of winter.

Because of these high levels of insulation modern new builds usually require a lower amount of heat than older properties. This often means that the inclusion of modern low temperature heat sources such as ground or air source heat pumps are often included in the specification. By pairing these types of heat source with a Robbens Underfloor Heating system you can get the perfect blend of comfort and efficiency.

As new builds are built from scratch they can often be treated as a 'blank canvas' allowing a whole range of different floor constructions. This allows Robbens, the builder and the architect to specify the ideal system for your project.

Refurbishments

Older buildings are often built without the same levels of insulation as more modern buildings. The heat loss calculation of the project is essential to ensure that the heating system can provide enough heat for the project.

Robbens will look at the building plans at quotation stage, and use the ceiling, door and window heights combined with their U-values to calculate the heat loss of the building. The systems outputs can then be checked against this to ensure that system will provide enough heat for the project.

If in the case of a very old, poorly insulated property the system will not perform satisfactory enough to heat the building we will highlight this for you and recommend either increasing the insulation values of the project or adding supplementary heating. Although this is a rare requirement we believe it's best to know at this early stage than to find out after the project is completed.

Design and quotations

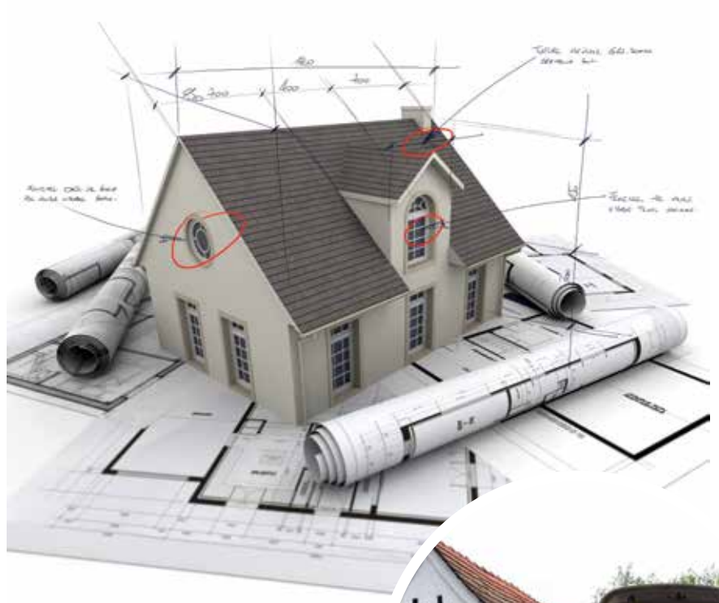
Technical Support

Since 1992, Robbens have been supplying both domestic and commercial buildings with underfloor heating, giving unparalleled knowledge, technical expertise and comfort. Each of our underfloor heating projects will be attended to by professional and qualified staff members, from the heat loss calculation through to the pipe layouts, manuals and wiring. With customized installation manuals and detailed pipe layout drawings, any heating engineer, installer, or practical person can install one of our systems.

Heat Loss Calculations

Heat loss calculations are the first step in the design of an underfloor heating system. It is also one of the most important aspects of the system. The heat loss calculation establishes how much heat will leave the building, through windows, walls, ceilings, doors and roofs etc. This is essential to ensure the correct heat supply is provided to each room.

Every building is constructed in a different way, different materials might have been used, not to mention the varying impact of the buildings location. By closely examining these factors, we gather an overall picture of your buildings thermal performance and heating requirements, optimum routes for pipes, along with the correct spacing's for each room.



Specifications

Multiple solutions for mutliple floor types and building construction methods.

We at Robbens provide wet underfloor heating systems for all manner of projects. Each building new or old can be faced with different floor constructions that make up your building. These floor constructions can include screed / concrete floors, timber suspended or batten floors and modern overlay type systems for renovations with limited head room.

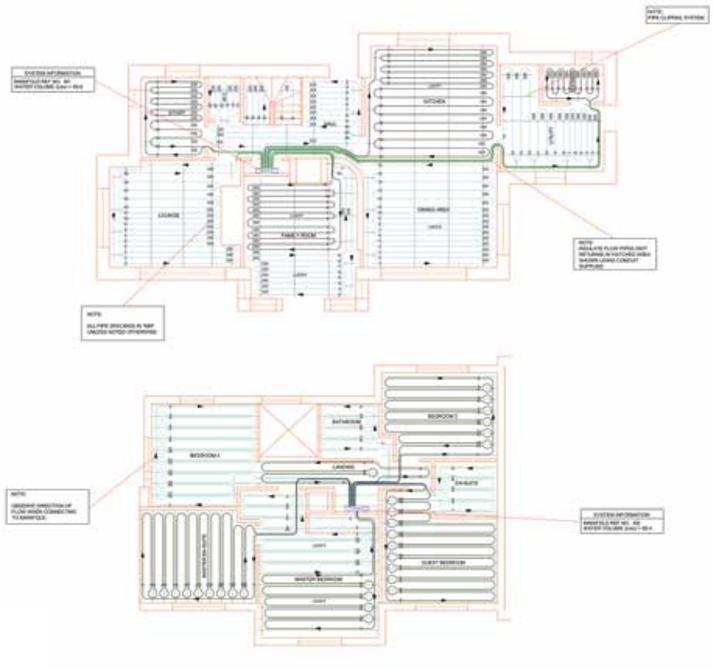
Systems can vary their design based on the type of heat source as well as their construction type. For example if a traditional high temperature heat source is used then blending units and wider pipe spacings can be used as part of the design. However if the building is being designed to be as energy efficient as possible then lower water temperature heat sources may well be used.

If lower water temperature water is required for your project, the underfloor heating system must be designed accordingly. This must allow the most efficient use of the available heat without compromising the performance of the heating system. In design terms this would normally mean the removal of blending units from the manifolds and closer pipe spacings.

At the quotation stage this type of information will be built into the design. This ensures that the project runs smoothly right from the start.

Insulation

All underfloor heating systems must be installed over the top of a suitable layer of insulation. This helps direct the heat into the room above and ensures that there is minimal heat wasted downwards. This also means that the system is running at its most efficient. The thickness of insulation required will vary depending on the floor construction and building specification. Building Regulations for your area will help determine what's required for your project.



Profi-Screed

For traditional screeded floors

Profi-Screed floors are probably the most popular of all the floor constructions that we supply underfloor heating systems for. They are essentially systems where pipes carry warm water through the floor while encased within concrete or screed.

The Profi-Screed system is designed to be used in projects where a solid floor is to be installed. These systems traditionally tend to be used with a normal screed or concrete, however there are now modern liquid screeds available that can make the installation quicker and even improve the thermal output of the system. One of the major benefits of the profi-screed system is its compatibility with low temperature heat sources, such as ground or air source heat pumps. The pipe spacing can be reduced or increased depending on the heat loss of the building and the water temperature being supplied by the heat source.

Basements and ground floors are the typical scenarios that these systems get used in. However when Underfloor heating systems are to be used with heatpumps on intermediate floors then Profi-screed systems must be considered to maintain the low water temperatures and the efficiency of the heat pump. These types of installation usually consist of a block and beam construction although there other methods also available.

Build up Heights:

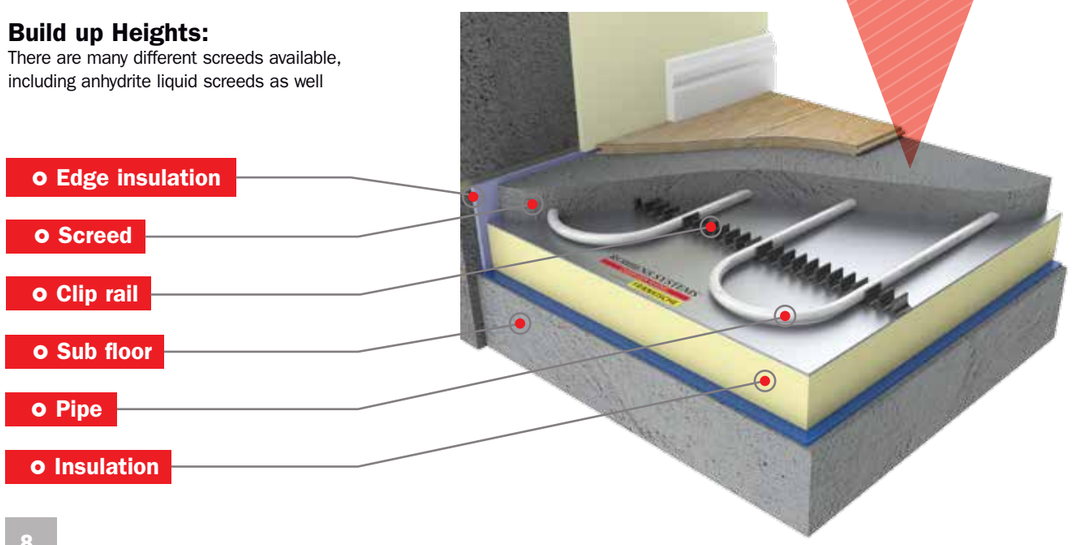
There are many different screeds available, including anhydrite liquid screeds as well as traditional pumped and mixed screeds. 4:1 sand and cement screeds should be between 65mm and 75mm thick. Modern liquid screeds can be laid much thinner than traditional screeds, usually allowing a minimum of 55mm.

Insulation must be used directly beneath the screed to prevent the heat from being lost downwards. The thickness can vary though depending on building regulations and type of insulation used. However a good rule of thumb is to allow 50mm for a PIR (polyisocyanurate) insulation board.

Installation:

If installed in a basement or ground floor, the floor build up would normally stop after the damp proof membrane had been installed. At this point the insulation for the underfloor heating would be laid and the vapour barrier and clip rail would then be installed on top of the insulation.

Once the pipe work and manifold has been installed and pressure tested, the screed would then be laid. If using liquid screeds then particular attention should be paid to ensure that the screed does not run between the boards and through gaps in the vapour barrier. The screed supplier will always advise you of any specific requirements for their products.



Profi-Joist

With no increase in floor height

The main advantage of the Profi-Joist floor system is a faster response time than with a solid floor. They are also very light and add very little weight to the construction.

Applications:

The Profi-Joist system can be used in a variety of installation scenarios. The most common tend to be on first floors in new and older buildings. You also are very likely to find them on older buildings when carrying out renovation work.

They are a very light weight system making the system suitable for most joist types. These systems have no thermal mass like a solid floor and rely on heat spreader plates to distribute the heat. This means they are very fast acting and heat up very quickly, even from cold.

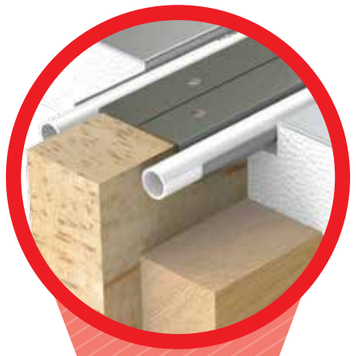
Build up Heights:

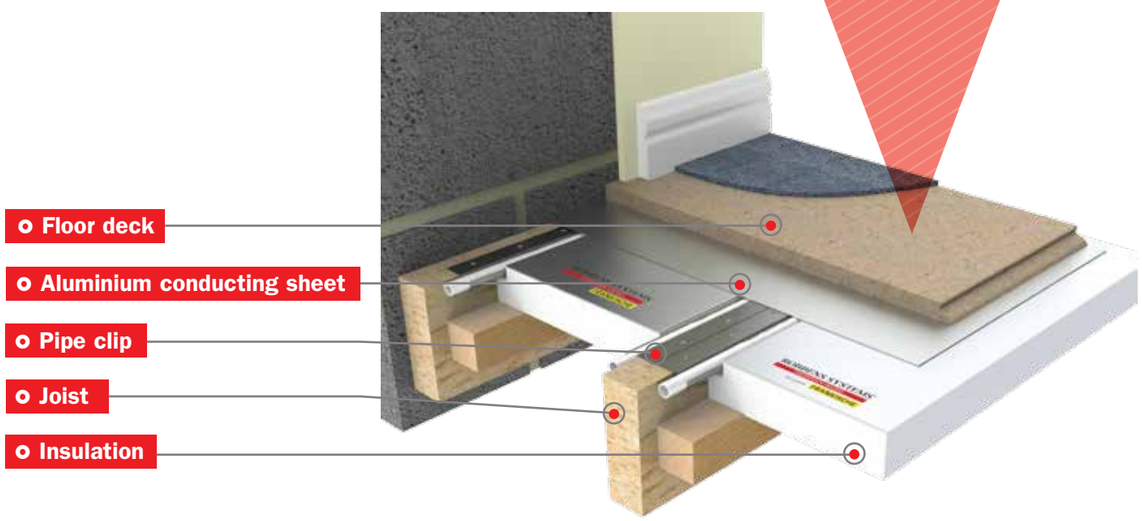
Profi-Joist floors are very convenient, in that they do not significantly raise the floor level. The height is set by the top of the joists that the underfloor heating is fitted to. This is especially useful when the project has existing joists and limited build up heights. thickness of the pipe clip is 0.6mm and the heat spreader plate is 0.5mm thick. This means that there is no significant rise in floor heights from that originally planned for when joists were specified.

Insulation:

The first step of installation for the Profi-Joist system is to fix the insulation between the joists. If using a rigid board a suitable batten needs to be fitted on the sides of the joist to support the insulation.

Once the insulation is installed you must first fit the pipe clips, and then the pipe, remaining insulation, aluminium conducting sheets, vapour barrier and finally the floor deck.





Profi-Batten

Low profile and quick to respond

Profi-Batten floors are traditionally used for installing real or engineered timber floors. they provide support for the timber and a fixing point for holding the timbers in place.

Applications:

Profi-Batten floors have traditionally been the preferred method of installation for real or engineered floor boards on to existing floors. The batten itself provides the perfect fixing point for the secret nail method of installation.

The Profi-Batten system can be installed over the top of any existing floor providing there is sufficient headroom left above the finish floor level. To ensure the best use of the available height the batten thickness can be adjusted to suit the build up height required.

Build up Heights:

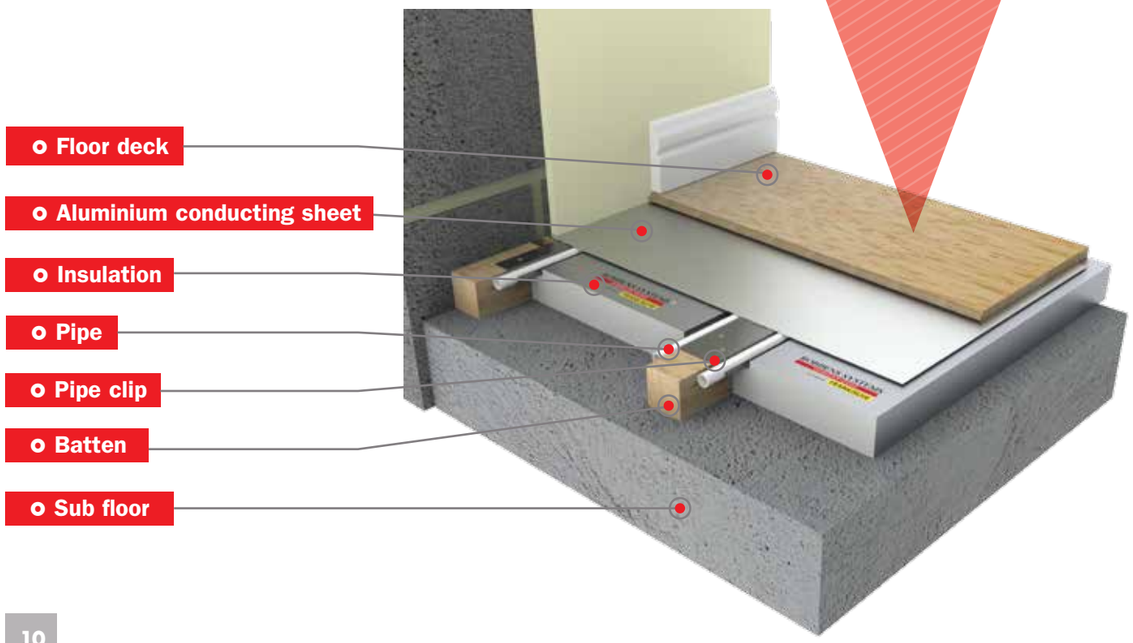
Profi-Batten floors are installed on to a batten of the specific depth to suit the installation. Usually this depth is determined by the thickness of insulation required. The ideal insulation thickness is normally about 50mm - 70mm thick.

A structural floor must be installed on top of the battens once the insulation and underfloor heating has been installed.

Installation:

The first step of the installation is to lay the battens. These are normally fitted 400 centres apart. When using a 50mm deep batten the easiest option is to fit the insulation in two 25mm layers.

With the first layer installed, fit the pipe clips and pipework in accordance with the supplied layout plans. Once this is installed you can lay the remaining insulation, aluminium conducting sheets, vapour barrier and floor deck.



Profi-Panel Suspended

Ideal for refurbishments

Designed to be quick and easy to install. Supplied as a grooved and foiled insulation board that is cut to fit perfect between joists at 400 centres

Applications:

The Profi-Panel suspended floor is an alternative installation method for installing underfloor heating into projects with joisted floors. These tend to be found on first floors and older renovation projects.

To help save time on site this system consists of a foiled 50mm thick layer of high density insulation that has been pre-grooved and covered with a heat transfer foil to help ensure a even spread of heat across the floor.

The boards have been designed to fit between 400 centre joists, however can be easily trimmed on-site to fit narrower spacings.

Build up Heights:

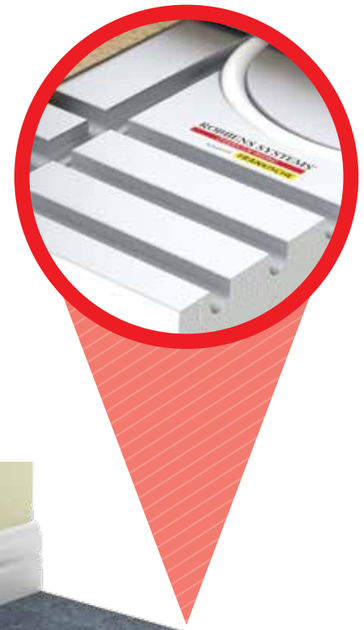
The Profi-Panel suspended floors are very convenient, in that they do not significantly raise the floor level. The height is set by the top of the joists that the underfloor heating is fitted to. This is especially useful when the project has existing joists and limited build up height available.

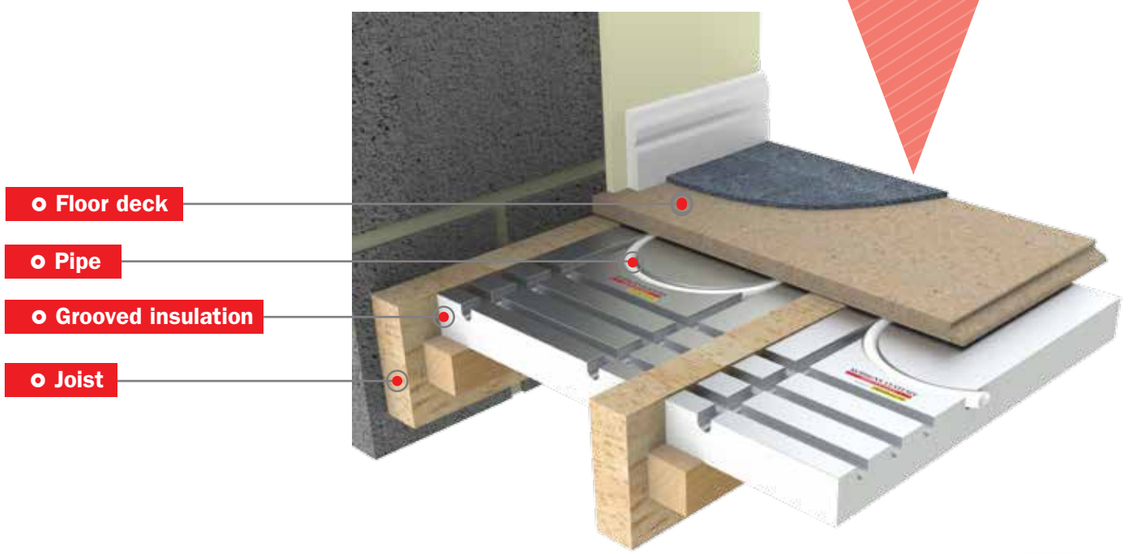
Insulation:

Initially battens need to be installed along the side of the joists to provide support for the profi-panel suspended boards.

Once the battens are in place the panels need to be fitted and the pipe installed in accordance with the supplied pipe layouts.

The final step is to lay the vapour barrier directly across the top of the entire floor and install the floor deck. In the case of real or engineered structural floor boards they can be installed directly over the top of the battens. However if carpets or tiles are to be used then a suitable sub floor such as chipboard or ply should be laid first.





Profi-Panel Batten

Perfect for timber floors

One advantage of a Profi-Panel Batten floor is a faster response time than that of a solid floor.

Applications:

Profi-Panel Batten floors have traditionally been the preferred method of installation for real or engineered floor boards on to existing floors. The batten itself provides the perfect fixing point for the secret nail method of installation.

The Profi-Panel Batten system can be installed over the top of any existing floor providing there is sufficient headroom left above the finish floor level. To ensure the best use of the available height the batten thickness can be adjusted to suit the build up height required.

Build up Heights:

Profi-Panel Batten floors are installed on to a batten of the specific depth to suit the installation. Usually this depth is determined by the thickness of insulation required. The available insulation thickness is 30mm or 50mm thick.

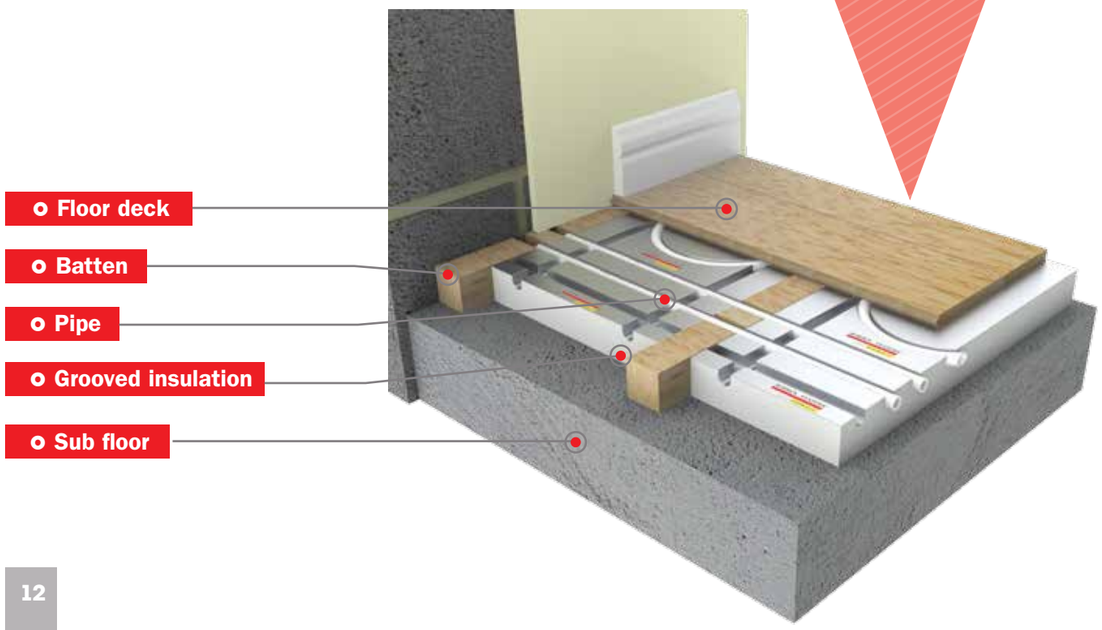
A structural floor must be installed on top of the battens once the insulation and underfloor heating has been installed.

Installation:

The first step of the installation is to lay the battens, these need to be fitted at 400 centres apart to suit the profi-panel batten system.

Once the battens are in place the panels need to be placed between the battens in accordance with the supplied pipe layouts. Once this done you will need to notch the battens and install the pipe work.

The final step is to lay the vapour barrier directly across the top of the entire floor and install the floor deck. In the case of real or engineered structural floor boards they can be installed directly over the top of the battens. However if carpets or tiles are to be used then a suitable sub floor such as chipboard or ply should be laid first.



Profi-Panel

Retro fit with ease

Profi-Panel floors are the perfect system for installation into refurbishment projects where there are limited build up heights.

Applications:

The Profi-Panel system can be used in any project where underfloor heating is required but there is limited build up height available. These can vary from new builds through to older renovation projects.

Profi-Panels are available in foiled or unfoiled versions for use with aluminium heat spreader plates. The panels are supplied pre-grooved to accept a 16mm pipe that pushes into the grooves during installation.

Once the pipe has been installed a structural floor must be installed over the top which can include tongue and groove chipboard, screed replacement boards, real or engineered timber.

Build up Heights:

Depending on the grade of board used the profi-panel system can be supplied in boards between 25 and 80mm thick.

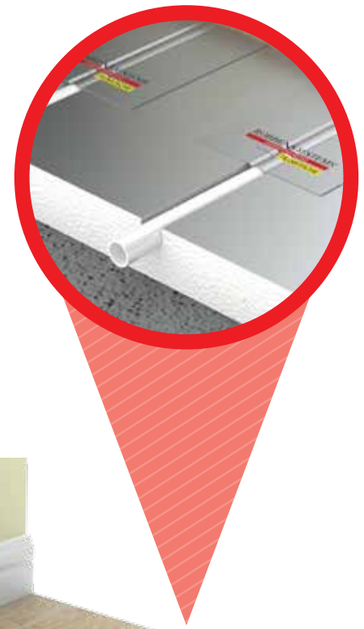
Building regulations will advise you of any insulation thickness requirements for your project. If additional insulation is required then it can be placed under the Profi-Panels to increase the insulation values.

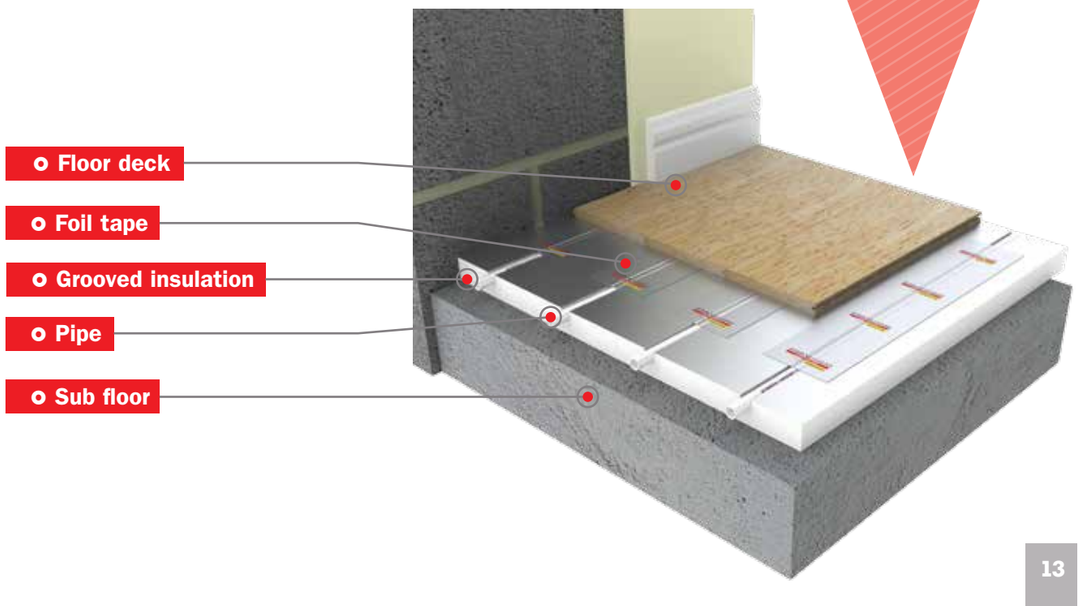
Once the Profi-Panels have been installed then a suitable floor covering needs to be installed over the top. This is usually around 19 - 22mm for engineered or real timber, 18 to 22mm for screed replacement boards or tongue and groove chipboard.

Insulation:

The Profi-Panels must be laid either on top of additional insulation or directly onto the existing floor. If it is an existing floor then particular care must taken to ensure that the floor is flat and clear from dirt and debris.

After the pipe has been installed a foil tape needs to laid along the main runs of pipe to help transfer the heat to the floor. After this has been done a polythene vapour barrier must be laid across the entire floor and then the floor deck can be laid.





Profi-Panel Screed Board

Low build up and ideal for tiles

The Profi-Panel Screed Board is a quick and easy alternative to using a traditional screed.

Applications:

Renovation projects can have limited build up heights or there is excessive work involved lifting existing floors. This means that traditional underfloor heating systems are not ideally suited to this type of project.

At just 18mm - 23mm thick the Profi-Panel Screed Board can lay directly over the top of any existing structural floor. The system itself is designed to incorporate a 12mm pipe and can be tiled over directly. Laminates and timbers can also be laid directly over the top but carpets require a ply base to be installed first to provide a totally flat surface.

Build up Heights:

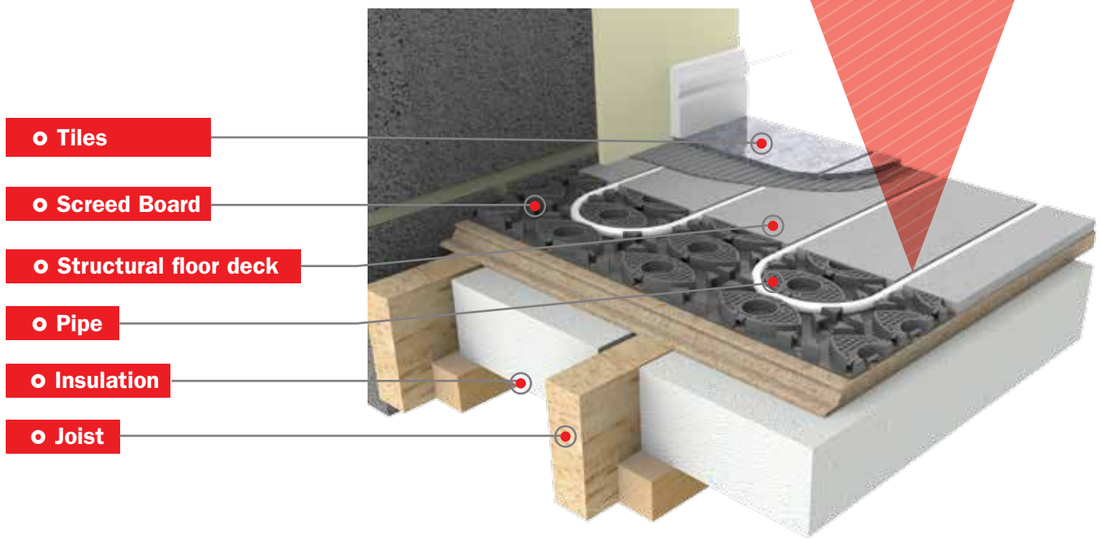
The Profi-Panel Screed Board system is an ultra thin underfloor heating system. With a thickness including the pipe work of just 18 - 23mm thick it has very little impact on available headroom in the project.

When installed over the top of a suspended floor it may be possible for insulation to be installed beneath the floor boards adding no additional height to the construction.

Installation:

The installation for the Profi-Panel Screed Board is particularly simple and straightforward. You simply ensure the existing floor the board is being laid on top of is structural and flat. The profi-panel screed board consists of a tongue and groove construction that locks together and should then be laid in accordance with the supplied layout plans.

The floor covering is then installed directly over the top. The only exception to this is when carpets or vinyl's are used. It is recommended to install a 6mm ply directly over the top of the screed board to provide an even and comfortable base.



Profi-Chip

Easy to install and low profile

Profi-Chip panels are the perfect system for installation into new or refurbishment projects where there are limited build up heights.

Applications:

When installing any suspended floor construction a chipboard floor deck is normally installed as part of the installation as standard. Its these situations that the Profi-Chip system is perfectly suited to.

The 22mm grooved chipboard sheets are not only suited for use with suspended floors but can also be laid over the top of insulation to create a floating floor or laid directly on top of any existing structural floor to create a low profile easy to install underfloor heating system.

Build up Heights:

The grooved chipboard sheets are just 22mm thick and would normally lie directly over the top of the joists. Once the pipe work is installed a thin 6mm ply must be glued directly down over the top of the entire surface of the floor.

Insulation in this type of construction would normally be installed directly beneath the chipboard and would add no additional height. In the case of it being used as a floating floor then the insulation would be placed directly onto the existing floor and the chipboard floated over the top.

The thickness of the insulation would depend on the project and type of insulation used but a good rule of thumb is a 50mm PIR (polyisocyanurate) insulation.

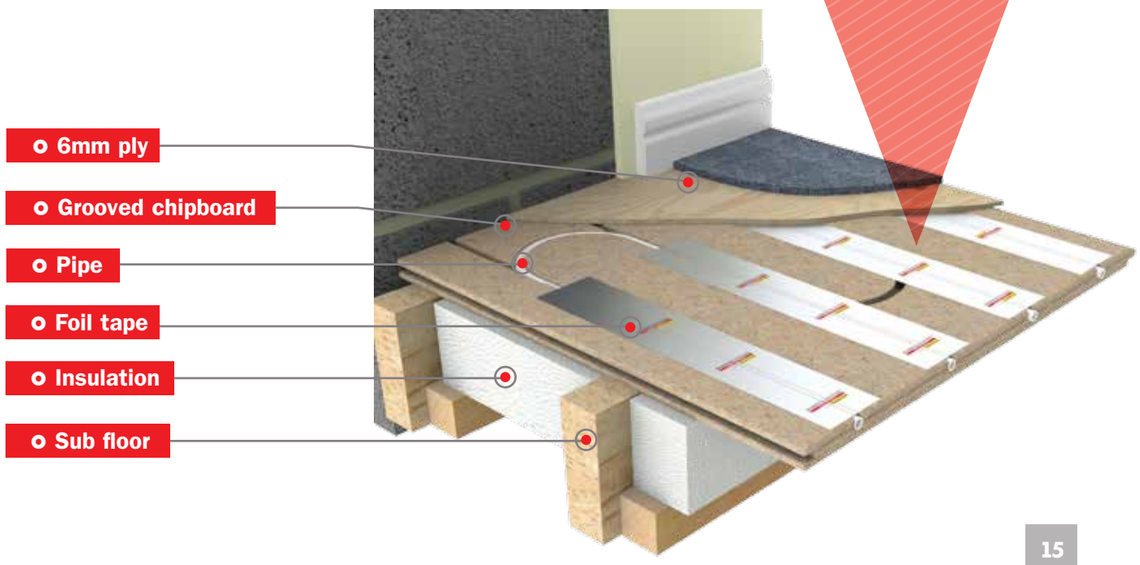
Installation:

When installing any Profi-Chip system the insulation should be installed first. In the case of a suspended floor it can be a rock wool or rigid insulation fitted between the joists. If the system is to be a floating floor then the insulation would laid down directly over the top of the existing floor.

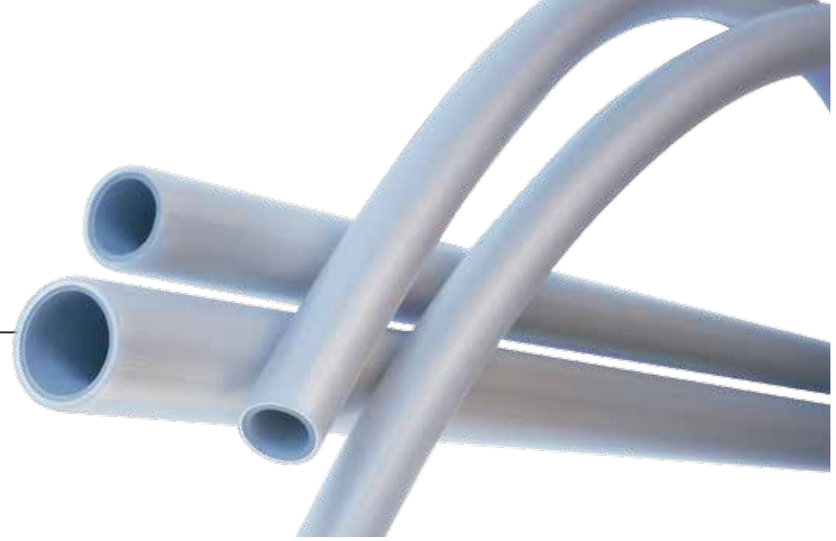
Once all the insulation is fitted the Profi-Chip Panels can be laid. On both a suspended or floating floor the tongue and groove must be glued along the joints. With a suspended floor the panels can be glued and screwed to the joists if required.

When the panels are installed the pipe can then be laid into the grooves in the board and conductive foil tape laid along the runs of pipe to help conduct the heat.

Finally a 6mm ply must be glued across the entire floor. This provides the final working floor deck for the final floor finish to be laid on to.



Pipes



Bending made easy

Profi-therm AL is FRÄNKISCHE's new, highly flexible multilayer composite pipe in the dimension 16x2mm. This multilayer composite pipe system, which was specifically optimized for radiant heating and cooling applications, contains an extremely thin aluminium layer that meets all requirements in terms of stability. This enables optimum bend radii (5 x dA), which can be easily achieved through manual bending without requiring any additional tooling. Whether used inside residential buildings, open-plan offices, car dealerships or hotels,the flexible profi therm AL multilayer composite pipe can be easily used in any radiant heating installation and guarantees reliable operation.

Reliable quality

The inside and outside layers of the pipe are made of polyethylene of raised temperature resistance (PERT) and the inner core layer is made of butt-welded aluminium (PE-RT/ AL/PE-RT). These three layers are permanently bonded together with a special adhesive – designed for the highest demands, excellent reliability and extreme durability. Profi-therm AL pipes are connected using alpex crimp connections, alpex compression couplings and compression fittings of dim. 16mm. The fittings are either made of high-quality PPSU (polyphenylsulfone) plastic or dezincification-resistant brass.

Profi-therm AL:

- Excellent sound absorption properties
- Superior flow properties
- Corrosion resistant
- Superior resistance to chemicals
- Continuous upper temperature resistance: 70 °C
- Max. operating pressure: 6 bar
- Oxygen-impermeable aluminium layer

ff-therm multi Difustop PE-Xa:

- Max. operating temperature 95°
- Max. operating pressure 6 bar
- DIN Certco registration no.: 3V233
- Application class: 4/5
- Oxygen-impermeable according to DIN 4726 < 0.1 g/m³xd

ff-Therm multi Difustop PE-Xa

Pure technical know how

The PE-Xa ff-therm multi Difustop pipe is extremely reliable. A high degree of cross-linking (more than 70%) is obtained with a special salt bath crosslinking according to the Pont a'Mousson (PAM) process. Thanks to a special plastics coating, the oxygen permeability is considerably lower than that prescribed in DIN 4726. Special anti-ageing agents and stabilisers keep the pipe permanently malleable and ensure high thermal stability. PE-Xa pipes have been used successfully in over 300,000 building projects. Whether for residential building construction, open-plan offices, car dealerships or hotels, ff-therm Difustop pipes provide reliability to plumbers/installers for the entire life of a building.

Manifolds

The highest quality components are used in the construction of our manifolds.

At the heart of every underfloor heating system is the manifold. All the pipework in the building is brought back to a central distribution point, which is called the manifold. The flow and return is taken from the manifold back to the heat source of the building. Many aspects of the project can influence the design of the manifold. These can include water temperature, number of loops and pressure drops.

Multizone Manifolds

These manifolds are our main manifolds. As the name implies they are set-up to provide automatic zoning of your building in conjunction with a thermostat in each room. They come supplied with or without water temperature blending units and have an electronic actuator on each loop designed to Integrate with the controls to allow multiple zone control.

Single Zone Manifolds

In the situation where a room needs to be heated and controlled by a single thermostat these manifolds are set up to do just that. They can be supplied with or without temperature blending units. In this configuration they are supplied with a simple hand wheel control on each loop and main control actuator.

Distribution Manifolds

With many modern high efficiency buildings, ground and air source heat pumps are often used. They cost very little to run when combined with a high efficiency underfloor heating system but they do run at a much lower water temperature than traditional boilers. When the water temperature is already supplied at a reduced temperature from the heat source, the maximum use of the available heat is required. This means normal manifold designs with blending units can lead to inefficient heating systems by lowering down an already reduced water temperature.

To prevent the reduction in an already low water temperature, the removal of the blending units is normally required. This where a distribution manifold comes in to play.

They are available in both multi-zone design for use with buffer tanks and thermal stores or can be provided in a single zone design for use directly connected to a heat pump.

Controls

The perfect combination of simple features and modern design aspects means the controls we use blend seamlessly into your project.

Over the years we have learnt from our customers that there are two main aspects that are very important when choosing the controls. These features are ease of control and aesthetic appearance.

Neo Controls

The neo range of controls are the epitome of ease of use and quality of control. They feature a fully programmable room thermostat which allows each individual room to have its own set of temperatures, and on and off times. They are packed full of useful modern features such as holiday mode and temperature hold.

To make these thermostats perfectly adaptable into the modern home they integrate into your home network. This makes them controllable by an available app on your iPhone, iPad, Android or Windows Device, whether you are in the house or out of it.

Classic Controls

When it comes to simplicity, the Robbens Classic controls are the perfect solution for making sure that your system is easy to use. These thermostats are simple devices to increase or decrease the temperature in the room, they have two buttons and are no more complicated than that. They are used in combination with a setback thermostat and timeclock.

Efficiency

All of our underfloor heating systems are backed up by a setback facility. This means that whenever the system is off and the temperature drops by more than a couple of degrees a built in override kicks in to reactivate the heating in the building. This setback helps increase response times for your system and optimises the efficiency of your system, creating the perfect balance of comfort and performance.

Get it on Google play

Download on the App Store

Download from Windows Phone Store

Underfloor Heating Kits

Designed to be cost effective and easy to specify for a full range of Single Zone projects.

Single Zone Packs

The Single Zone underfloor heating pack is ideally designed for extensions and conservatories. Although there are Single Zone kits available for all system types and size areas.

Each kit comes with the following components:

- Pipe
- Manifold
- Programmable room thermostat
- Junction box
- Fixings and accessories
- Installation manual

The underfloor heating system made by Robbens includes high-quality,cross-linked multilayer composite pipes, with a TIG welded and flexible aluminium core for a safe and easy installation.

All pipe bends needed for underfloor heating applications can be easily made by hand.

The multilayer composite pipes have a 10-year insurance backed guarantee.

How does it work?

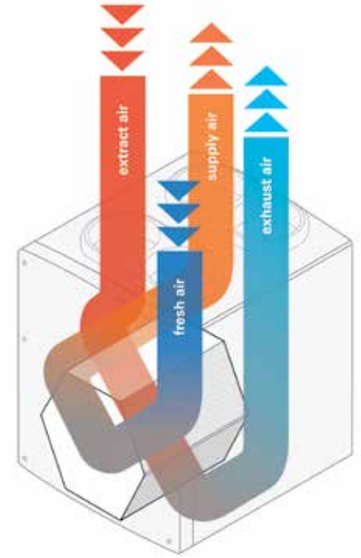
The kits provided include all materials to install underfloor heating into different floor types such as solid or suspended. The manifolds are supplied fully assembled and board mounted, ready for fitting and all installation instructions and a standard layout drawing are provided with the kit.

All the floor pipe loops are routed to the manifold, which in turn, is connected to the boiler. Water from the boiler is allowed into the floor loops in amounts sufficient to achieve the correct flow temperature and to warm the floor. Daytime and night temperatures are set using the programmable room thermostat, which is fitted at a convenient location in the room.

MVHR

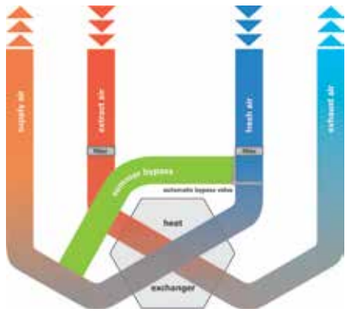
Profi-air is the state-of -the art mechanical ventilation and heat recovery system for controlled home ventilation.

The newly developed profi-air 250 touch and profi-air 400 touch ventilation units have been optimised for controlled home ventilation in detached and semi-detached houses. Thanks to high grade components, energy-efficient and whisper-quiet fans combined with innovative control and regulation technology, the ventilation units are the most sophisticated and advanced in the European market. Certification of the profi-air touch is guaranteed: In Germany, it has been tested and approved by the Deutsches Institute für Bautechnik (DIBt), the German centre of competence in civil engineering, but also satisfies the major test standards in the rest of Europe including SAP appendix Q. Profi-air is a complete system with an in-house produced air distribution system. The ventilation unit and comprehensive accessories still give HVAC technicians the freedom to choose. Because profi-air can be connected to all standard ventilation devices it gives house builders and companies performing the work the freedom to choose their preferred device types. Freedom of choice also exists at the other end of air distribution: profiair is not limited to one specific valve shape; the air outlets can be combined with all commercially available 125 mm valve attachments. Ventilation experts are also free to decide on the type of pipe they want to use. Depending on the situation at the construction site, they will opt for the profi-air classic round pipe, the flat version of profi-air tunnel or even combine both pipe types without any major effort.



Equipped for all temperatures

The integrated cross-flow heat exchanger features a high heat recovery efficiency of max. 91 % for profi-air 250 touch and max. 90 % for profiair 400 touch. The supply air nearly reaches room temperature even at very low outdoor temperatures and prevents draft phenomena. The new ventilation units are equipped for all temperatures: A thermostatic antifreeze protection reliably protects against frost damages in winter. But the system is well-prepared for hot days as well. Cool supply air is passed by the heat exchanger by the automatic summer bypass feature. The filtered outside air does not heat up and the fresh air thus cools the warmer rooms during summer.



At a glance

- The pipe system made in Germany can be combined with all customary ventilation systems and air outlet valves of 125 mm.
- Compliance with all standards and regulations guarantees legal security.
- profi-air manifold boxes provide supply air distribution and extract air collection.
- Air is supplied to and removed from the respective rooms in a star-shaped way through individual pipes from the manifold.
- Thanks to the two pipe designs profi-air classic (round pipe) and profi-air tunnel (tunnel pipe), which can be combined freely, the plumber/ installer is flexible to adapt to all construction site requirements.
- The two profi-air system designs classic and tunnel fit every installation situation with their low installation depths (only 52 mm for profi-air tunnel), be it in or on unfinished concrete, in the wall or in the ceiling.
- profi-air tunnel and round pipes contain antistatic and antibacterial additives, which guarantee hygienic safety.
- The individual fittings and pipes of the air distribution system are combined using innovative sealing and connection elements.
- A new and modern ventilation unit completed the profi-air system with comfortable options for the regulation by touchscreen, smartphone or tablet.
- profi-air is manufactured in-house by FRÄNKISCHE, your experienced and quality-conscious pipe expert for universal, practice-oriented and technically refined installation systems.

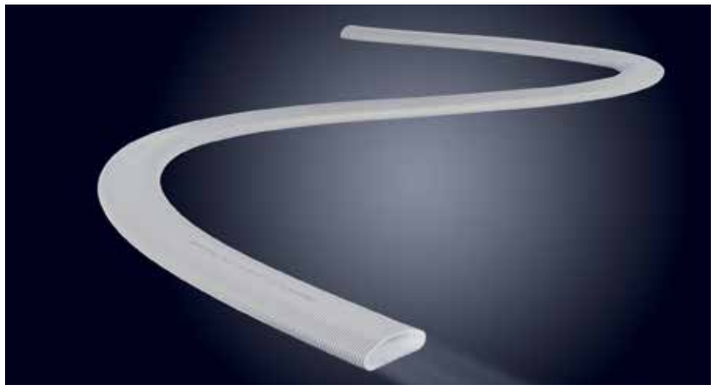
Advantages

- High flow rates up to 45 m³/h: thanks to its smooth inner surface and edgeless fittings, the profi-air system supplies the correct volumes of air and rates according to DIN 1946/6.
- Impact-resistant thanks to profi-air tunnel shape.
- Flexible installation of corrugated pipes using few fittings.
- Possible to connect two fittings without intermediate pipe section parts.
- No need to measure insertion depth when using profi-air tunnel.
- Handy mounting clamps facilitate securing tunnel pipes.
- Quick and easy to adjust using constant airflow regulators at the manifold.
- Star-shaped installation from the manifold without the need for cross talk attenuation to reduce noise transmission.
- profi-air touch: high heat recovery of max. 91%, use of the latest RadiCal fan technology, fully automatic summer bypass, tested and confirmed quality by various approvals

Guarantees

One of the benefits of being part of Frankische is that Robbens can offer a market leading guarantee on our products. All of the profi-air pipe ducts, fittings and manifold boxes come with a 10 year insurance backed guarantee to the value of £5,000,000.00. This means that if anything was to fail due to a manufacturing default, Robbens would cover not only the cost of the replacement part, but also the whole cost of all remedial works involved.

Our MVHR units come with a 3 year warranty and are incredibly easy to maintain. To protect the fans from clogging up there are two panel filters located in the unit which will need changing approximately every 12 months or so. The unit has a filter replacement alarm and will let you know when the filters are due to be changed. To avoid any dust or dirt getting into the duct work there are also sock filters.



Profi-air Classic Pipe

High tech engineering for simple technology

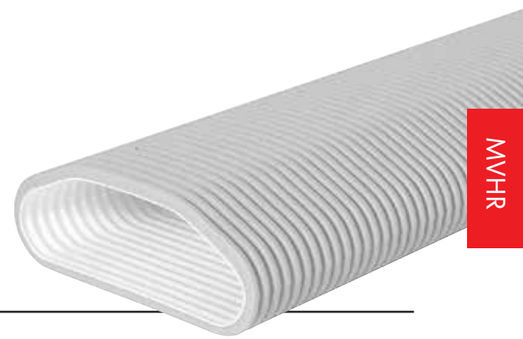
The Profi-air Classic pipe system is ideal for installation in concrete. The flexibility of the corrugated pipe allows very small bend radii without the need for additional fittings. Profi-air Classic uses an easy connecting method.

High volume flow rates

The smooth inner pipe surface of the classic version allows volume flow rates of up to 45 m³/h (NW 90) or 30 m³/h (NW 75). The smooth inner surface and the edgeless fittings of profi-air tunnel easily enable volume flow rates of up to 45 m³/h. The shape of the two pipes ensures optimised flow behaviour and guarantees low pressure loss and thus low energy consumption. No additional cross talk attenuation is required due to the sound insulation in the manifold boxes and the star-shaped installation of the pipes. The high-quality HRV pipes from FRÄNKISCHE are hygienically safe: They contain antistatic and antibacterial additives and can be cleaned easily from the manifold. The pipes are packed individually by the factory to protect them against external impact. profi-air is manufactured in-house by FRÄNKISCHE, your experienced and quality-conscious pipe specialists for universal, practical and technologically advanced installation systems.

- Range of connection options to all conventional ventilation units and valves
- Range of connection options to all conventional ventilation units and valves
- **Suitable for installation in any location:** profi-air is available as innovative tunnel pipe and classic round pipe
- **High flow rates of up to 45 m3/h.** Thanks to its smooth inner surface and edgeless fittings, the profi-air system supplies high volumes of air
- Quick and easy to adjust using constant airflow regulators at the manifold
- Hygienic manufacture and individual packaging: profi-air pipes are manufactured with an antistatic and antibacterial additive
- Star-shaped installation from the manifold without the need for cross talk attenuation to prevent noise transmission

Profi-air Tunnel Pipe



Antibacterial and antistatic.

Low Installation Height

The Profi-air Tunnel pipe system is distinguished by its universal and innovative qualities which make it refreshingly easy to install. Profi-air Tunnel has an extremely low installation height of just 52mm. This means that it can be easily installed on top of unfinished floors, in walls or in ceilings. The Profi-air Tunnel pipe is extremely crush resistant thanks to its tunnel shaped design.

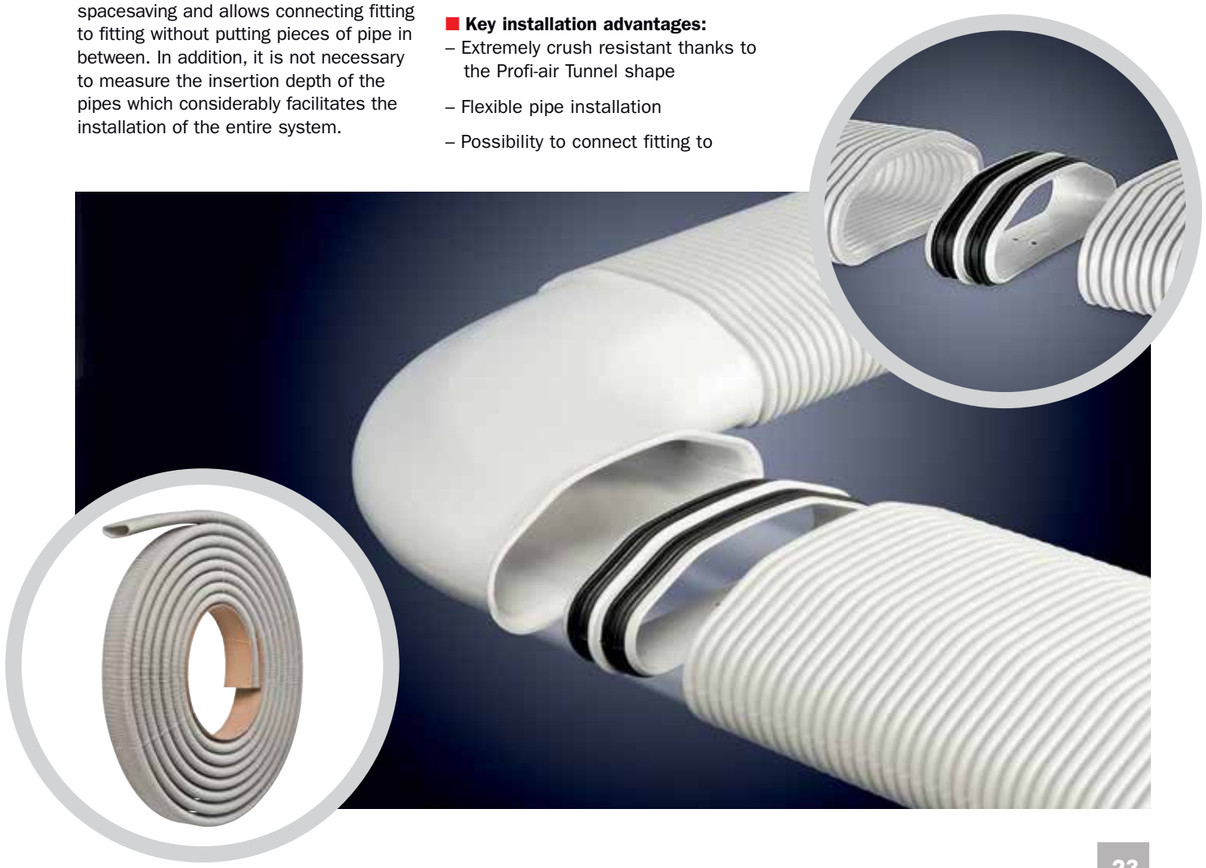
Innovative connection technology

Special sealing and connecting elements are used to connect the Profi-air fittings and pipes easily and reliably. This connection method is extremely spacesaving and allows connecting fitting to fitting without putting pieces of pipe in between. In addition, it is not necessary to measure the insertion depth of the pipes which considerably facilitates the installation of the entire system.

Functional Mounting

Optional mounting clamps help to fix the Profi-air Tunnel pipes to the floor, walls or ceiling. The inspection windows integrated into the mounting clamps can be used to check the insertion depth of the sealing and connecting elements.

- Range of connection options to all conventional ventilation units and valves
- **Suitable for installation in any location:**
  Profi-air is available as innovative Tunnel pipe and Classic round pipe
- **High flow rates of up to 45 m3/h.** Thanks to its smooth inner surface and edgeless fittings, the profi-air system supplies high volumes of air
- **Key installation advantages:**
  – Extremely crush resistant thanks to the Profi-air Tunnel shape
  – Flexible pipe installation
  – Possibility to connect fitting to fitting without putting pieces of pipe in between and no need to measure insertion depth when using profi-air tunnel
  – Handy mounting clamps make it easy to fix tunnel pipes
- Quick and easy to adjust using constant airflow regulators at the manifold
- **Hygienic manufacture and individual packaging:** Profi-air pipes are manufactured with an antistatic and antibacterial coat All profi-air pipes are individually packed
- Star-shaped installation from the manifold without the need for cross talk attenuation to prevent noise transmission



Profi-air unit

The newly developed Profi-air 250 Touch and Profi-air 400 Touch ventilation units have been designed for use in detached and semi-detached houses.

Easy to control

The new ventilation units are convenient to control. With just a touch, users have the control at their fingertips: The ventilation system can be controlled and regulated directly using a functional touch screen with a clearly laid out navigation menu. If the device is connected to a domestic WLAN router via LAN cable, it can be operated from any smart phone, laptop or PC within the home network.

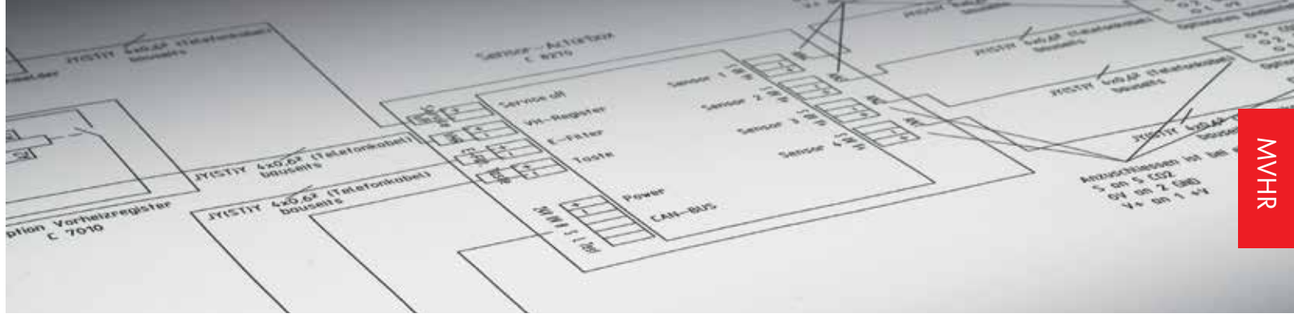
Powerful and energy efficient

Low noise development, high performance and energy efficiency are the characteristics of the two cutting edge EC-RadiCal fans that operate in the core of the ventilation device with an optimised flow design. F5 supply air filters and G4 extraction filters are factory standard. Allergy sufferers can optionally install a F7 supply air filter which provides even more reliable protection against pollen and other environmental impacts. The periodical filter replacement is indicated on the profi-air touch display in scheduled mode.

- **Profi-air 250 Touch for airflows up to 250m3/h**
- **Profi-air 400 Touch for airflows up to 400m3/h**

Advantages

- high heat recovery of max. 91% by cross-counterflow heat exchanger.
- use of the latest RadiCal fan technology very quiet, power and energy efficient.
- fully automatic summer bypass to avoid heating up of the cooler outdoor air.
- very simple filter exchange.
- suitable for allergy sufferers by optionally available filter of class „F7".
- simple touch screen control panel integrated in the unit for a higher operating comfort.
- comfortable regulation independent of location enabled by a connection with the ventilation unit via WLAN in the home network, e.g. by tablet computer.
- tested and confirmed quality by various approvals: DiBt; EN 13141-7; EN 308; SAP Europa.



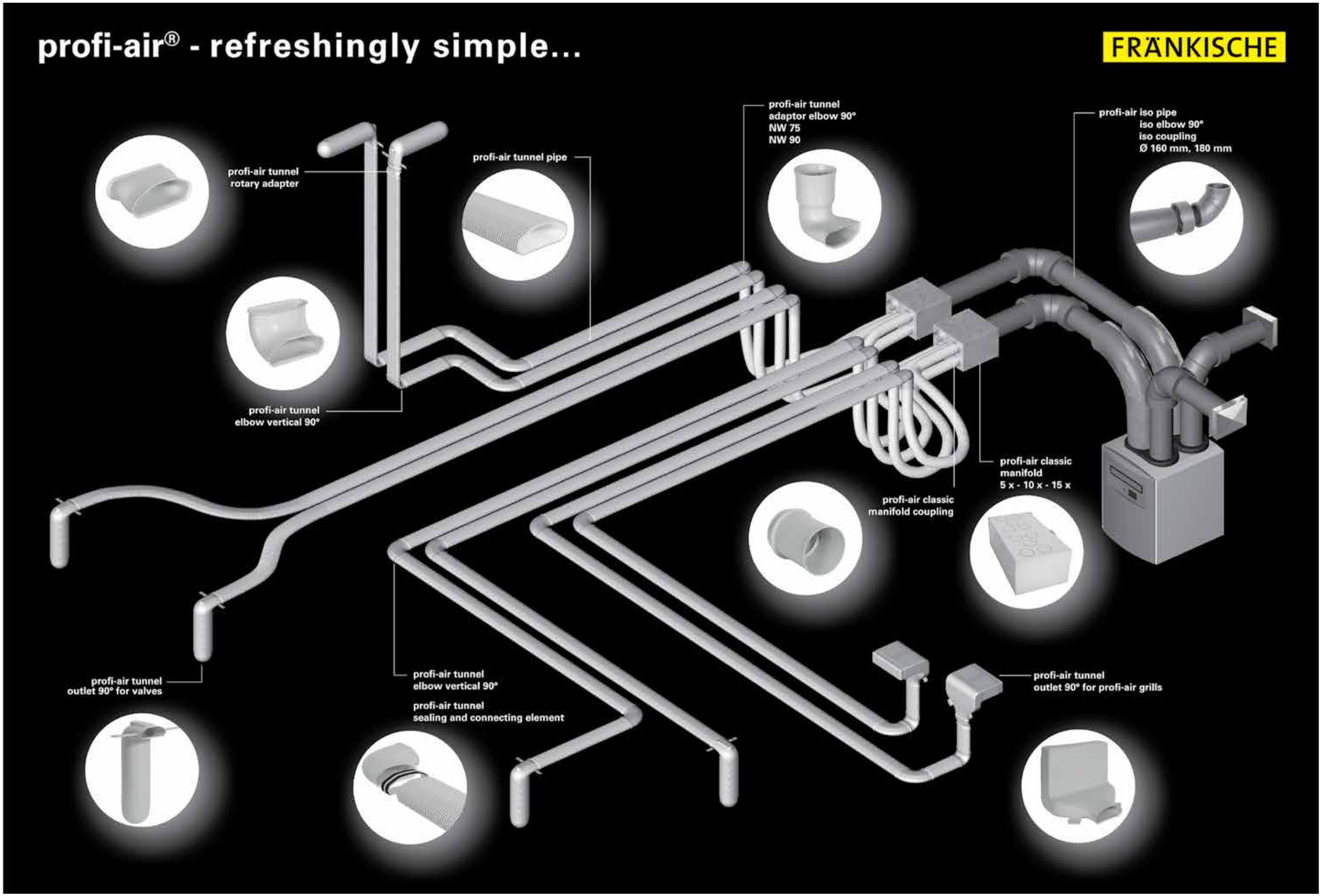
MVHR

Specifications

Unit type	Profi-air 250 Touch	Profi-air 400 Touch
Weight	approx. 35 kg	approx. 35 kg
Dimensions (WxDxH)	570 × 645 × 740 mm	570 × 645 × 740 mm
Heat exchanger		
Type	cross-flow plate heat exchanger, water-resistant, frost-proof	cross-flow plate heat exchanger, water-resistant, frost-proof
Material	plastic	plastic
Heat recovery efficiency	> 91%	> 90%
Fans		
Fan operation	2 EC RadiCal fans with 7 backwards curving blades	2 EC RadiCal fans with 7 backwards curving blades
Power supply	230V / ~50 Hz	230V / ~50 Hz
Performance		
Recommended application	70 bis 250 m3/h	100 bis 400 m3/h
Max. air volume with 100 Pa	340 m³/h	480 m³/h
Unit noise	250 m³/h / 100 Pa – 51,9 dB(A)	400 m³/h / 100 Pa – 60 dB(A)
Duct noise supply air	250 m³/h / 100 Pa – 70,2 dB(A)	400 m³/h / 100 Pa – 77,7 dB(A)
Duct noise extract air	250 m³/h / 100 Pa – 59,3 dB(A)	400 m³/h / 100 Pa – 67,5 dB(A)
Electric power consumption incl. control	60 m³/h / 30 Pa – 16 W	100 m³/h / 60 Pa – 30 W
	170 m³/h / 100 Pa – 57 W	200 m³/h / 100 Pa – 70 W
	250 m³/h / 100 Pa – 94 W	400 m³/h / 100 Pa – 211 W
Current	1,2 A	1,2 A
Fuse protection (on site)	16.0 A delay fuse (cable 3 × 1.5 mm²)	16.0 A delay fuse (cable 3 × 1.5 mm²)
Filter		
Air filter	supply extract	supply extract
Filter class	F5 G4	F5 G4
Connection		
Air connection size	Ø 160 mm	Ø 160 mm
Tests and approvals		
	- DIBt® (general building authority approval) - EN 13141-7 - SAP App. Q	- DIBt® (general building authority approval) - EN 13141-7 - EN 308 - SAP App. Q

profi-air® - refreshingly simple...

FRÄNKISCHE



MVHR

Radiator manifolds

Traditional heating systems, with modern control.

From time to time a project can't always have the benefits of a full underfloor heating system. In these rare situations when the best solution is to fit a radiator system, Robbens can provide the perfect compromise. Using the same high quality manifolds we use for our underfloor heating systems you can have a modern, easy to control radiator system.

By using a high quality plastic and aluminium pipe, similar to what is used for our underfloor heating systems you can make the installation very quick and easy to install. You run a single pipe from the manifold to the radiator and back again and have a room thermostat connected back to the manifold to give you perfect control.

These systems can feature the following benefits:

- Quick and easy to Install
- Individual Room Thermostats
- High Quality Pipe and Fittings
- The same high quality manifolds as our underfloor heating Systems
- Seamlessly integrates with the underfloor heating.

Hot & Cold Plumbing

Modern products and techniques to save time on site

Robbens Systems® supply a large range of manifolds, pipes and fittings for use with all aspects of modern plumbing. These materials are not only long lasting, clean and easy to work with but can save considerable amount of time on site.

With our WRAS approved range of pipes and fittings you can install taps, showers and baths with full peace of mind that your project will end up safe, clean and long lasting.

Central hot and cold manifolds are available in various different sizes and multiple fitting types are available for many different applications. So what ever the size or shape of your project we will have a solution to suit.

Features & benefits:

- German manufactured push fittings
- Multiple fittings available
- Fully isolatable hot and cold manifolds
- High quality WRAS approved pipework and fittings

WRAS APPROVED PRODUCT

Online Store

Browse our online shop today

Website
Browse the full range of our products and systems online at :
www.underfloorheating.co.uk

Not only do we sell all the components that are available as part of our main underfloor heating systems, but we also keep a huge range of alternative products and components available from different manufacturers. This means if you prefer to assemble your own systems from components you can do this easily using the online store.

Online Benefits
- Thousands of products available.
- Next day delivery for many of the products.
- The same high quality products as specified on all of our underfloor and MVHR systems.
- Easy to specify your own components for your own designs.

Quote Request

Underfloor Heating and Home Ventilation Systems

Free quote request
To receive a free quotation please send a copy of your floor plans and elevations by post to the following address:

Robbens Systems
84 Castleham Road
St Leonards-on-Sea
East Sussex
TN38 9NT

You can also email your plans and elevations to:
quotes@underfloorheating.co.uk

Alternatively you can use our free quotation form on our website:
www.underfloorheating.co.uk

Please send us the following information:
- Floor plans
- Elevation plans showing doors and window dimensions
- Insulation details and U-Values
- your contact details
- Systems required: eg Profi-Screed

If you need some help please contact us for free advice on **01424 851111,** or visit our website for more information.

At Robbens, we guarantee our designs and the room temperatures achievable as shown in your quotation. This is based on the information provided to us at quotation stage.

If only basic information is provided, our quote will be based on the outputs of the system. Our experts are always on hand to discuss your quotation, and will visit your project if required to review the specification.

Robbens Systems®

Robbens Systems® have been at the fore-front of low energy heating systems since 1992.

Underfloor Heating and Ventilation Systems are at the core of the Robbens business.

Robbens offer a personal service to clients, with free quotations, on-site visits and expert technical advice before, during and after purchase.

Robbens Systems® is part of FRÄNKISCHE, a leading European manufacturer of building and industrial pipes.

Contact Robbens Systems:
www.underfloorheating.co.uk
sales@underfloorheating.co.uk

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FAX: 01424 851135

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