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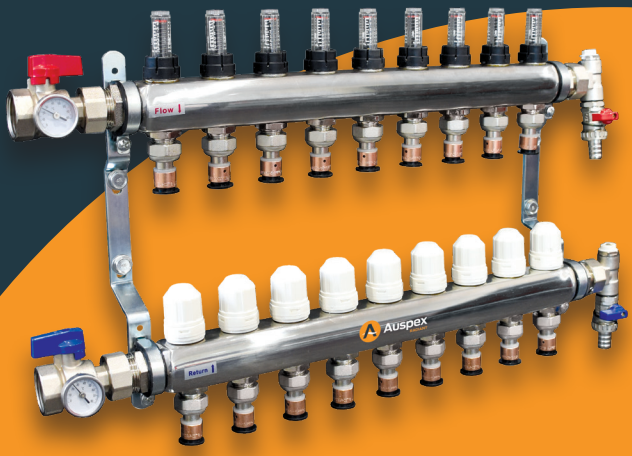
Auspex RADIANT

Auspex Radiant Underfloor Heating Manual



auspex.com.au

The Smarter Way To Heat A Home

Whether you are building a new home, renovating existing space or adding a new extension, Auspex Radiant Underfloor Heating has a range of solutions suitable for any project.

At Auspex Radiant we like to keep it simple. We have put together this guide to help you understand our solutions. Here you will find useful information, such as key system components, recommended pipe layouts, smart controls and how to request a free CAD drawing and place an order.

Incorporating Auspex Radiant Pipe and Auspex Crimp Fittings, our underfloor heating systems are the ideal choice if you are looking for an energy efficient, stylish and easy to install solution.

With a network of technical sales people throughout Australia to provide expert, on hand advice and support before, during and after installation you can be confident that your Auspex Radiant Underfloor heating system will provide years of comfort and warmth.

Contents

FOR THE HOME OWNER

Reasons to install Auspex Radiant Underfloor Heating

At Auspex Radiant we make underfloor heating simple. We offer high quality solutions underpinned by unrivalled technical support throughout the Reece network in Australia, backed by RWC. Not only does Auspex Radiant Underfloor Heating create a better use of space, it is also more efficient and kinder to the environment.

DID YOU KNOW?

Underfloor heating is cheaper to run than radiators as it uses less energy, saving money on energy bills.

More Comfort

Like the sun, underfloor heating uses radiant heat to warm objects and the fabric of the building to create a cosy, comfortable environment.

Greater Heating Control

Underfloor heating creates the perfect comfort zone with individual or multi-room temperature control – simple, standard and smart solutions.

More Living Space

By removing bulky and unsightly radiators or vents, you free up wall space and give freedom for interior design.

Healthy and Safe Living

Less moisture and lower air movement may help reduce dust allergens. Plus with no hot radiators and sharp edges, your home becomes a safer space.

Reduced Heating Bills

Designed to work with low water temperatures, Auspex Radiant Underfloor Heating can reduce energy consumption and heating costs by up to 20%.

Renewable Heat Source

Compatible with conventional and renewable heat sources that reduce environmental impact and cut fuel bills; including air and ground source heat pumps and solar panels.

Less Noise

Create a relaxing and tranquil ambience, underfloor heating is virtually silent to run.

Universal Control

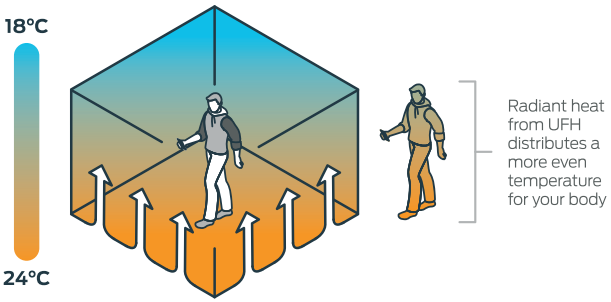
Single and multi-zone control options are avaliable through a slim-line room thermostat that can incorporate existing or new heating systems.

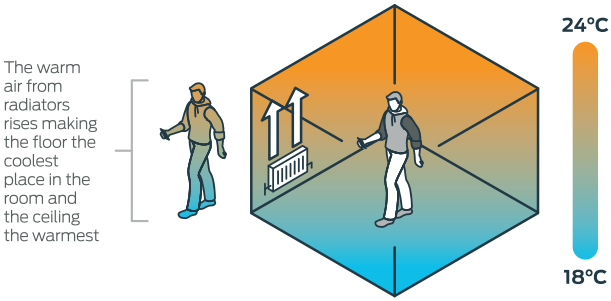
Underfloor Heating Explained

Auspex Radiant Underfloor Heating uses radiant heat, the most comfortable form of heating, giving an even distribution of warmth over the whole room.

By contrast, radiators transfer energy using convection, heating the air above and around the radiator at a much higher temperature, causing the warm air to rise. This results in the floor being the coolest place in the room, with the mass of warm air at ceiling level, much like an air-forced heating system where you are heating from the ceiling down.

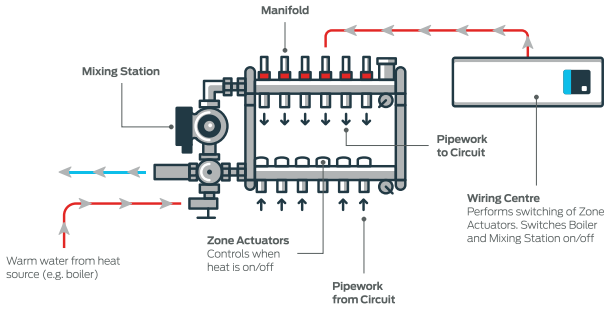
Underfloor heating resolves this issue by ensuring there are no more cold spots and that heat is distributed evenly where it is needed most. A conventional radiator can be as hot as 75ºC, whilst an underfloor heating system has a much lower and safer surface temperature between 25-28ºC.

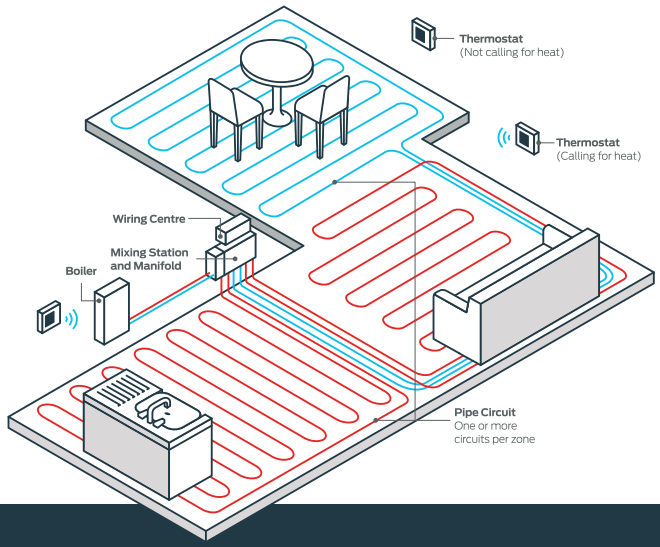




Underfloor heating systems can monitor individual room temperatures by using intelligent thermostats to send signals to the central wiring centre.

The wiring centre controls the manifold which turns the boiler on and sends heat to the room when required. The mixing station is able to blend water to the temperature needed for underfloor heating, which means any heat source can be used including conventional boilers or ground/air source heat pumps.





Mixing Station and Manifold
Warm water is pumped from the heat source to the mixing station and mixed to approximately 40ºC. The Mixing station is fitted to the manifold that connects to the pipe circuits.

Thermostats
Individual room thermostats control when heating is required in each room, as well as the temperature required in each room.

Wiring Centre
Performs central switching of zone actuators, mixing station and boiler as signalled by the thermostats.

Pipe Circuit
When heat is switched on the entire floor area is warmed to between 25ºC – 28ºC, providing even distribution of heat at slightly higher than room temperature.

Choosing the Right System

Different underfloor heating systems vary in performance, so it is important to choose the right system for your project. To decide which pipe fixing system is best, you need to consider how the floor has been constructed as well as the desired final finish.

In-Slab Underfloor Heating

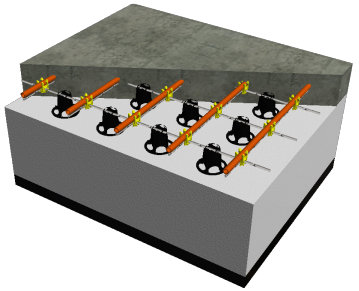
A series of pipe circuits are laid and fixed to the structural steel mesh reinforcement in a square and or continuous grid type pattern, with a cover of between 30-40mm of concrete on top of the pipe to ensure an even system output across the heated area. Pipe is typically laid at 200mm centres.

The increased thermal mass subject to this type of installation can serve as a storage bank of energy/heat, providing substantial benefits when in conjunction with a heat pump and or solar collect.

For optimum performance and efficiency of your underfloor heating system it is highly recommended to install a suitable insulating material under and around the perimeter of the concrete slab, particularly for installations going directly onto ground.

Waffle Pod slab designs are ideal for under floor heating systems as they provide an insulating barrier with limited mass beams/concrete.

All building and engineering requirements must take precedence when designing the piping system.



Screed Floor Underfloor Heating

Underfloor heating screed solutions provide a quicker reaction time and often prove to be more energy efficient. These are typically installed over a concrete slab or suitable flooring construction using the two below options.

The Staple System

A quick and simple system to install, the Staple System is easliy adaptable to irregular room shapes. Using an XPS insulation board or similar, typically 25mm or greater, the UFH pipe is stapled directly onto to the board. A mounting rail can also be used in conjunction with the staples. A perimeter insulation is used around the entire perimeter providing a thermal break and allowance for expansion of the screed. The screed can be a wet or dry mix ranging from 50-100mm. Typical control joints are often required.

The Floor Panel System

A more structured method, with the grid pattern set out in the board, the Floor Panel System allows for tight pipe bending radius and precise pipe layout. Extra insulation under this board may be required to meet the required ratings.

Screed systems are constructed over concrete or a suitable flooring base, with edge insulation fitted around the perimeter to allow for expansion and contraction, as well as the prevention of heat conduction from the floor to the wall.

Timber Floor Underfloor Heating

There are a few options of underfloor heating within timber floor projects, it is important to ensure you choose the right one to match your heating output requirements.

The Overfit Panel System

A low-profile, light-weight, grooved foil-faced insulating panel, the Overfit Panel is constructed to have a high-compression strength, allowing a timber floating floor to be laid directly over the top. For alternative floor finishes, an additional ply or sheet flooring may be required over the heating panel to allow for these applications.

The Spreader Plate System

The Spreader Plate System is installed under the flooring using an aluminium grooved plate that is designed to draw out the heat across the panel and through the flooring. It is critical that good insulation is installed under the spreader plate to ensure all the energy is forced up through the floor. This can be retro fitted to an existing floor or included within a new build.

A System For Most Floor Finishes

For most applications, underfloor heating systems have a surface temperature of approximately 25ºC. However, some situations – where building heat loss is high – will require a surface temperature of 29ºC. With a suitable covering, bathroom floors can go to 33ºC.

Some floor finishes offer better thermal conductivity than others and can therefore impact system performance.

Ensure the floor is designed not to exceed the temperature of the floor covering manufacturer's recommendations.

Ceramic and Stone

Most ceramic and stone floor finishes have a low thermal resistance. The hard surface quickly and effectively transfers heat making it an ideal partner for underfloor heating.

Timber

Due to good heat transfer properties timber floors work well with underfloor heating, especially engineered timber. Temperature should not exceed 27ºC and advice should be sought from your supplier.

Vinyl and Linoleum

Vinyl and linoleum flooring offers low resistance to heat due to its thin layer. Most types of vinyl and linoleum are suitable for use with underfloor heating but the temperature should not exceed 26ºC.

Carpet

Carpets provide the highest heat resistance. Make sure the underlay is suitable for use with underfloor heating and the combined carpet and underlay tog value is less than 2.5. The higher the combined tog value the lower heat output.

To prevent overheating, the Auspex thermostats can connect a floor probe to monitor and maintain the floor temperature, as well as the Auspex Mixing stations to ensure the correct water temperature input to the UFH manifold.

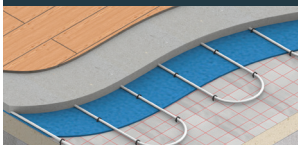
A Solution For Most Floor Projects

Our wide range of underfloor pipe fixing systems are designed to work with any type of floor construction.

Screed Floor Solutions

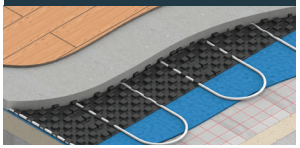
A range of cost-effective solutions for installing pipes under new or concrete/screed floors. Ideal for new builds and extensions, especially ground floor level.

Staple



- Staples secure pipe to insulation
- Quick and easy to install
- Cost effective solution
- High heat output and response
- Regular and irregular shaped rooms

Floor panel



- Simple grid system for precise layout
- Ensuring minimum pipe bending radius
- High heat output and response
- Good for larger regular shaped rooms

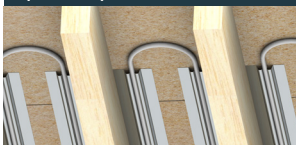
Timber Floor Solutions

A range of solutions for installing between existing battens or new joists. Ideal for new builds, extensions and renovations, especially first floor level.

Spreader plates from above

- Easy to install across timber joists or onto battens
- Medium heat output and response
- Low height build up
- Ideal for upper floor
- Good for rooms of all sizes
- Single or multi-room

Spreader plates from below

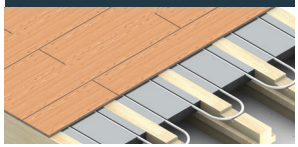


- For use with pre-engineered joists
- Easy to install across timber joists or onto battens
- Media heat output and response
- Low height build up
- Ideal for upper floor
- Good for rooms of all sizes
- Single or multi-room

Existing Floor Solutions

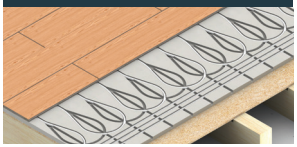
A range of retrofit solutions for existing floors that provide no height build up and are suitable for ground or first floor installation.

Underfit



- Easy to install grooved foil-faced panel
- Ideal for timber or suspended floors
- Medium to low heat output and response
- Low height build up
- Good for rooms of all sizes and shapes
- Single or multi-room

Overfit



- Easy to install grooved foil-faced panel
- Lay over existing subfloor
- Suitable for lightweight floor coverings only
- Medium to low heat output response
- Low height build up
- Good for rooms of all sizes and shapes
- Single or multi-room

Contact an Auspex Radiant installer for a full range of alternate floor solutions.

FOR THE INSTALLER

Working Together

With a strong brand reputation and a high quality range of underfloor heating solutions, underpinned by an extensive support network; Auspex Radiant is the perfect partner for your next project.

Whether you are a contractor, developer, architect or self-builder, you can be confident we have the expertise to design the most energy-efficient solution for any budget, floor construction or project.

Contractors

We know that a good reputation is crucial to your business. With Auspex Radiant your reputation is in safe hands, as all of our products are manufactured to the highest standards using the latest technologies. We will be available throughout your project to provide you all the technical back up you could need – onsite or over the phone.

Architects and Developers

Free up space for design and add a touch of elegance to your next development with Auspex Radiant. We understand detail is important, which is why our experts will work closely with you from discussing initial ideas, through to planning, design and installation.

Homeowners and Self-Builders

Add luxurious heat and style to your home with our affordable, energy-saving underfloor heating solutions. Using the latest technology, Auspex Radiant Underfloor Heating is fast and easy to install. When designing and installing your solution, our technical team will help you eliminate any guesswork and create the best solution for your home.

What Makes Us Different?

Auspex Radiant is committed to developing energy efficient heating solutions. Bringing together the best and latest technologies, we provide design-lead solutions underpinned with unrivalled technical support.

With You Every Step of the Way

We give you all the help and support you need, before, during and after installation. Whether your project is small, big or complex, we offer a free design, estimation, and technical support service. With our experience, you can be assured that our experts will design the most energy efficient solution. Once you have placed your order we will produce easy to follow CAD drawings.

Save Time and Money With Easy Fit Systems

By combining our Auspex UFH pipe and DuoPEX Water piping system technology, we can offer a comprehensive range of underfloor heating solutions that are quick and easy to install. The 16mm PEXa UFH pipe with EVOH barrier is available in a large coil option to help reduce time and wastage on your next hydronic project.

Programmable Room Thermostat

The Auspex Radiant system offers an easy to use programmable room thermostat, that offers the ability to have the system self-regulating to the desired temperature. The thermostat can be pre-set to reduce the temperature when the home is unoccupied or overnight, thereby reducing running costs.

Multi-Zone Control

The Auspex Radiant system is also adaptable for multiple zone control, where one room or a group of rooms can operate on separate temperature settings. Actuators, which are available as an accessory, can be added to the return manifold for zone control. These actuators are wired through to separate thermostats via a wiring station. Each thermostat then activates the boiler and circulating pump and opens the associated actuators to supply heat to that zone only.

Please refer to **www.auspex.com.au/auspex-radiant** for the latest in Auspex Radiant comfort and control technology.

Unrivalled Technical Support

Although we are now a global company, we operate like a family run business that understands the importance of serving local customers. Within the Australian plumbing and hydronic heating market, we boast one of the largest technical sales teams, providing onsite assistance for first time installers and help-desk support for more seasoned installers.

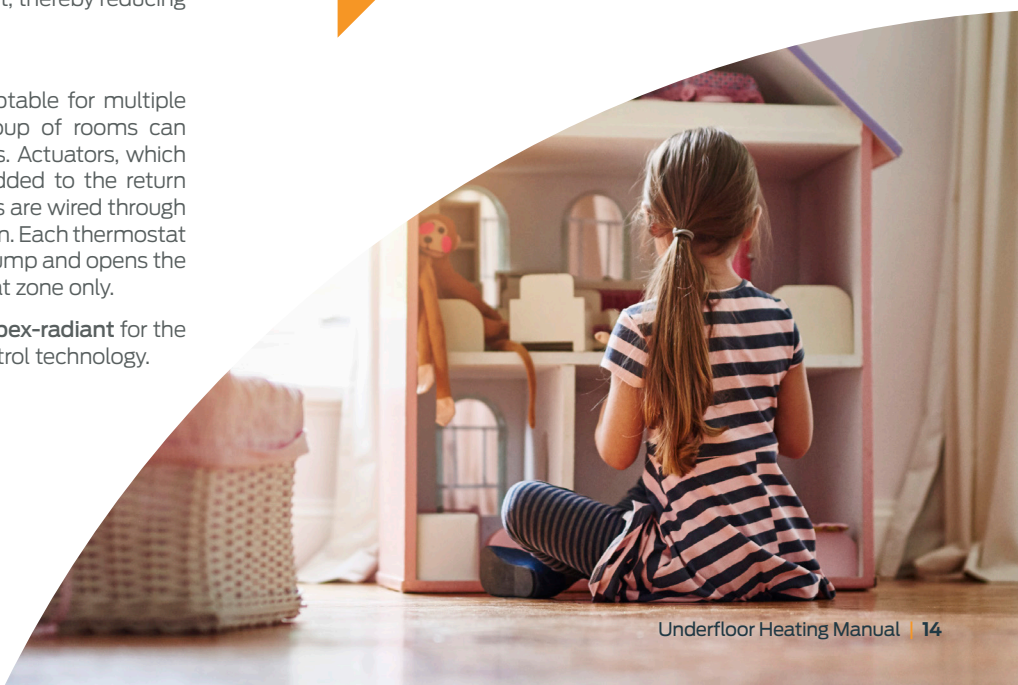
A Warranty You Can Rely On

Auspex Radiant is part of the RWC family of brands, a global market leader and manufacturer of water delivery, control and optimisation systems for modern built environments. Visit our website **www.auspex.com.au** for full warranty details.

DID YOU KNOW?

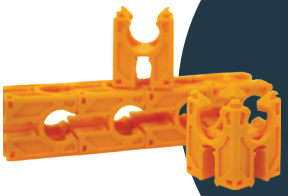
Distribution of the Auspex Radiant product range through the extensive Reece network ensures local availability and support.

Reece has dedicated HVAC-R branches located country-wide which are dedicated to heating, refrigeration, ventilation, air conditioning and contractors.



Key Components

All Auspex Radiant Underfloor Heating systems are supplied to specification and consist of high quality and dependable components.



SmartClips

SmartClips form part of the Auspex Radiant system to secure the pipe to the reinforcing mesh. The clips are attached to the mesh using the SmartClip tool which allows for installation in the upright position, reducing strain on the back. The key advantage to the SmartClip system is its speed – laying the pipe with SmartClips saves hours on an installation.

Manifold Actuator

Controlled by a thermostat or programmer, Actuator valves operate to open or close an individual circuit on the manifold.

Mixing Station

Used to mix and control water temperature, Auspex Radiant's lightweight Mixing Station is suitable for heating systems up to 14kW and connects directly to the manifold without the need of extra brackets or support. The nickel-plated control pack consists of a mixing valve, Grundfos A rated pump, return elbow, manifold adaptor and all necessary seals.

Heating Control

The easy-to-use programmable room thermostat gives you the ability to have your system self-regulating to the desired temperature on a pre-set schedule.

Pipe

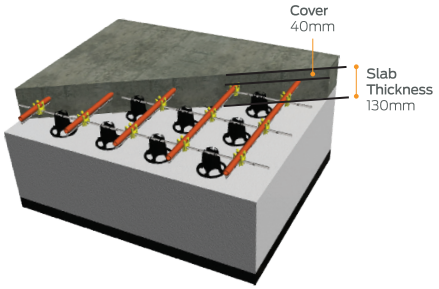
The Auspex Radiant Underfloor Heating pipe is a PEXa pipe, with EVOH oxygen barrier coating. Available in 100m, 200m and 400m coils.

Manifold

Manufactured to the highest standard, our manifolds are made from stainless steel and are available in a range of sizes from 3 to 12 ports. All manifolds come fitted with brackets and a vibration isolation mount. A unique feature is that pipe connections are all made with easy to use Auspex crimp fittings. Integrated within the manifold rail is a pre-assembled manual air vent, filling valve and flow rate indicators for adjusting flow and isolating the pipe circuit.

Slab Design

To ensure an even floor temperature, allowance needs to be made in the slab construction for 30mm – 40mm concrete cover from the top of the pipe and output. This can be achieved by increasing the slab thickness to e.g. 130mm.



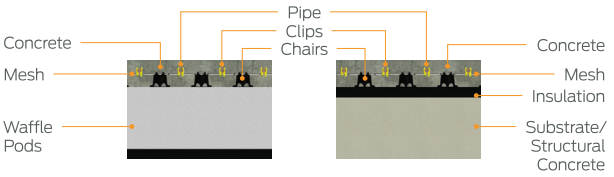
For a polished concrete floor finish it is recommended that the pipe is laid with a minimum cover of 50mm to allow for required heat conduction and ensure an even surface temperature.

The slab must conform to the requirements of AS 2870.

It is the responsibility of the builder to verify the slab design with a structural engineer to achieve the required coverage over the pipe.

For optimum performance of the underfloor heating system, it is highly recommended to install a sheet of suitable insulating material under the heated concrete, particularly for installations going directly onto sand. Waffle Pod slab designs are ideal for underfloor heating systems as they give a great foam insulating barrier and have no large concrete mass beams.

Any exposed external edge of slab is strongly advised to be insulated.



Reinforcing Mesh

- Needs to be laid level to ensure that the pipe has an even 40mm coverage from the top of the pipe to the finished floor level. This is to prevent uneven heating or hotspots in the floor.
- Needs to be laid in a square and continuous grid type pattern as the grids govern the way the underfloor heating pipe is installed. Particular attention to be paid where walls are designed on an angle.
- Where required a layer of mesh can be laid over the UFH pipe and supported accordingly.

Heat Output

The heat output of the system is controlled by three parameters:

Water Temperature

The higher the temperature of the water in the underfloor heating circuits, the higher the floor heat output. The water temperature is adjusted at the manifold mixing valve.

Water Flow

The higher the flow rate of the water in the underfloor heating circuits, the higher the floor heat output. The flow rate for each individual circuit is adjusted at the corresponding flow meter on the manifold.

Pipe Spacing

The smaller the distance between the pipes within the concrete, the higher the floor heat output. Most installations will have 200mm pipe centres which gives a good temperature distribution, although in some specific cases, where for some reason a lower heat output is required, 300mm centres may be used.

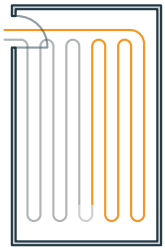
A system design needs to consider the type of flooring to be used, as this too impacts on the required heat output. Each type of flooring has a different thermal resistance, known as an R value (or alternatively TOG = 10 x R value). The higher the R value, the higher the required heat output. Any floor finish on top of an underfloor heating system must not exceed an R value of 0.15.

Thermal Resistance (R value)	Typical example of floor finish
0.00 m2K/W	2mm vinyl tile, 5mm ceramic tile, 3mm epoxy coating
0.05 m2K/W	25mm marble floor
0.10 m2K/W	9mm carpet floor tile, 13mm hardwood
0.15 m2K/W	Deep pile carpet, wood blocks, 22mm laminates

Pipe Layout

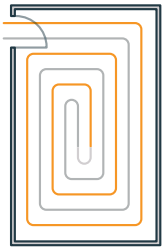
The manifold should be positioned in a central location to reduce the length of pipe runs required. There are several ways to lay pipe depending on pipe spacing, room layout and fixing method. If you have requested a CAD drawing, this will show the specific pipe routes and patterns for the job. However, these examples show the main options available, although there are many possible combinations and can be altered to better suit site conditions.

Serpentine Pipe Layout



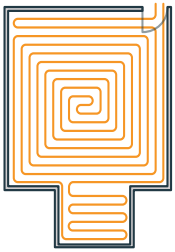
A simple up and down circuit pattern ideal for small areas or irregular shaped rooms such as kitchens and utility rooms.

Counterflow Layout



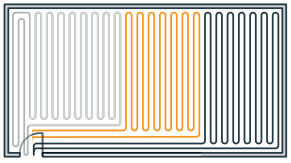
A spiral circuit pattern that achieves an even floor temperature with alternating flows and returns.

Combining Pipe Layout



Serpentine and Counterflow pipe circuits can be combined in irregular shaped rooms.

Multiple Pipe Layouts



Serpentine

Counterflow

For more complex installations in rooms requiring multiple circuits, you can use both Counterflow and Serpentine layouts.

Installation tips

- Each circuit should not exceed 110m in length
- Every 1m^2 of area when laying at 200mm pipe centres will require 5m of pipe regardless of the layout
- Where there is a heavy congestion of pipe it is recommended to use a sleeve over some of the flow pipes to reduce the heat output
- Where possible the UFH pipe can run under the mesh to the heated area to reduce congestion
- Connect the circuits to the manifold as you go to avoid cross connection
- Mark out circuits and tails before installation

Laying the Pipe

When laying the Auspex Radiant pipe, it is expected that all limitations and recommendations are adhered to as by HB 276-2004 or any relevant Australian Standard. Only licensed plumbers with the appropriate qualifications and training should install an Auspex Radiant Underfloor Heating system. It is recommended the Auspex Radiant Installation Manual is followed and a system design is acquired.

Considerations as follows:

Hotspots

Where a concentration of pipe work is experienced, it is recommended that a corrugated sleeve is run over the flow circuits to reduce excessive heat loading.

Expansion Joints

When crossing expansion joints, it is recommended that all pipework is kept to a minimum with careful attention given at design stage to reduce this. Where a circuit penetration is necessary a minimum 13mm wall foam insulation is required to span 150mm either side of the expansion joint to allow for potential future movement. Approval must be obtained from the relevant authority.

Kinks

It is important to avoid any kinks or damage to pipe work during installation. If any pipe work is damaged it must be replaced, as per good plumbing practice.

Layout

No circuits are to cross over. If this is required it is recommended that pipe work is run under the mesh to space pipes.

Exclusions

No pipe work is to be run under walls, fixtures and cupboards etc, or where there is any potential for future penetration of the pipe. In the event that this is unavoidable then the pipe will need to be installed at a depth to ensure no future damage is possible.

Zoning

If circuits are zoned it is recommended that all pipe work to and from the heated zone area is insulated reducing unnecessary heat loss, and or heating unrequired area. This can be done by running flow and return pipe work under the mesh with a corrugated sleeve/insulation.

Couplings In Slab

It is preferable not to have any fittings or couplings in slabs, however, in some cases where it is required, the following guidelines must be strictly adhered to:

- There are to be no more than 1 coupling per circuit permissible, excluding couplings that may be required for emergency repairs to pipe during concrete pour/or during construction
- Couplings must be completely protected with a corrugated sleeve (part No. UFH039) and completely wrapped with sealing tape
- Not in contact to any steel reinforcing
- Only use an Auspex straight coupling to complete a join (no elbows)
- Follow installation instructions as per Auspex Crimp manual, using an approved Auspex crimping tool
- Check crimp with gauge tool and for pipe penetration on every crimp
- All couplings must be clearly indicated on the installation drawing
- The complete hydronic system must be tested as per the filling and venting step-by-step procedure outlined in the Auspex Radiant installation manual

Heat Source Types

There are a range of heat source options available to the hydronic heating industry. It is essential that the best solution is adopted that complements the build type, available energy resource, and customer requirements. Any ability to supply the required hot water to the underfloor heating system will provide a solution.

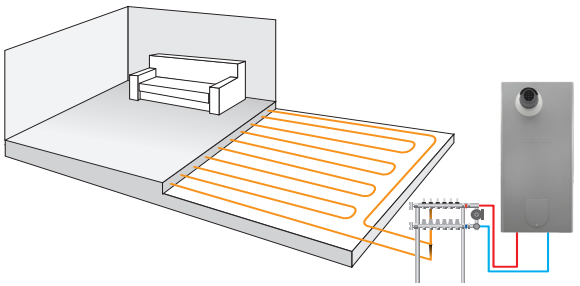
Gas boilers are among the most common type of domestic hot water supply. The main types of boilder are:

- Conventional
- Condensing
- Combi

Boilers can deliver heat through the home for underfloor heating, radiator panels or towel rails. The combi boiler also combines central heating and hot water in one appliance.

Other common heat source options are available:

- Solar hot water
- Air-sourced heat pumps
- Ground-sourced heat pumps
- Wood/pellet fired boilers
- Diesel boilers



Any hot water supplied to the system, regardless of its method of generation, must comply with the following requirements:

- The system is not designed as a potable water system, and as such must be isolated from the potable water being supplied to the building, either as a completely independent circuit, and/or with backflow protection as per AS 2845.1.
- Supply inlet water pressure must be regulated to a maximum 200kPa.
- Supply inlet water temperature must be regulated to a maximum 70ºC at the mixing station.
- It is recommended that the supply inlet water temperature is adjustable down to a maximum of 50ºC or below into the floor circuits.
- For effective function, the supply inlet water temperature should be set a minimum 5ºC above the mixing valve set temperature.
- Supply and return connections to the system must be insulated to guard against heat losses and/or freezing.
- The hot water source must be able to supply inlet water with adequate flow rates to achieve up to 3 litres/min per circuit installed.
- The hot water source must be capable of delivering the kW of energy required as determined by the heat loss calculation for the building.
- Inhibitor is required to prevent corrosion in any related ferrous materials and components. Auspex Radiant recommends Fernox F1, but other suitable corrosion inhibitors may be used.
- This system is designed to use water, with suitable additives, as the fluid medium and is not suitable for use with other fluids such as oil.
- For all information relating to heat source options please contact your Reece HVAC-r branch.

Technical Support and Design

With Auspex Radiant you can be confident you will get all the technical backup you could need – before, during and after install.

Project Estimate

Price jobs by simply providing Reece HVAC-r your basic requirements and a floor plan of your project.

Free Design With Detailed Estimate

With our vast experience and expertise, you can be assured that we will design the most energy efficient-solution for your project. Boasting one of the fastest turnaround times in the industry, our team will provide you with a detailed estimate and free CAD design package*.

To request an Auspex Radiant design, provide your Reece branch with all required information. The design can take up to a week to process and will provide all the information to materials required to proceed with your project.

*Note: Any redesign requirements will be subject to a design fee.

Auspex Radiant Home Owners' Manual

Every Auspex Radiant Underfloor Heating system comes with a Home Owners' Manual with full details on how to run the system in the most efficent way.

Need Help and Support

Got an enquiry or need help with an issue? Contact your Reece HVAC-r systems supplier or Auspex Radiant expert. Our team of area sales managers and technical sales engineers are on hand to help.

Visit www.auspex.com.au for more advice and technical information.

On-Site Support

Auspex Radiant is available to provide on-site training for any new installers.

Ready To Place An Order?

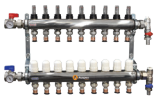
Auspex Radiant is sold exclusively at Reece.

Placing an order is simple:

- Take your Estimated Materials List to your Reece HVAR-r specialist of choice
- Place your order with your Reece HVAR-r specialist

For further information, visit
www.auspex.com.au

Stainless Steel Manifolds



Includes: flow and return manifolds on mounted bracket, isolating valves, fill/vent valves, Auspex pipe connectors, pipe bend supports, site sign and Home Owners' Manual.

3 Port	UFHA033
4 Port	UFHA043
5 Port	UFHA053
6 Port	UFHA063
7 Port	UFHA073
8 Port	UFHA083
9 Port	UFHA093
10 Port	UFHA103
11 Port	UFHA113
12 Port	UFHA123

Manifold Stand UFH029

Mixing Station UFH180

PEXa Pipe with EVOH Barrier

16mm x 200m	AP4016200HS
16mm x 400m	AP4016400HS
20mm x 100m	AP4120100HS
25mm x 100m	AP4225100HS

Corrugated Sleeve – 25mm x 25m UFH039

Pipe Decoiler UFH034

Smartclip Tools

Smartclip Pro Tool	SL82 base standard	UFH020
Smartclip Lite Tool	SL82 base standard	UFH047

Smartclip Tool Bases

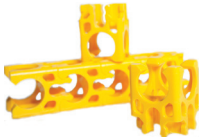
Burgundy – SL72	Suited to 7mm steel mesh	UFH025
Mustard – SL82	Suited to 8mm steel mesh	UFH048
Yellow – SL92	Suited to 9mm steel mesh	UFH049

All bases come with 200mm centres

Smartclip 600 Pieces Pack

Burgundy – SL72	Suited to 7mm steel mesh	UFH052
Mustard – SL82	Suited to 8mm steel mesh	UFH053
Yellow – SL92	Suited to 9mm steel mesh	UFH054

All bases come with 200mm centres



Screed Tools	
Staple Tool	UFH162
Staples	UFH163
Expansion Joint Profile	UFH161
Expansion Foam Roll	UFH160

System Controls	
White Touchscreen Thermostat – Programmable (240V)	UFH036W
Black Touchscreen Thermostat – Programmable (240V)	UFH036B
Manifold Actuator	UFH023
8 Zone Wiring Centre With LED Display (240V)	UFH200
Remote Thermostat Sensor	UFH167

Spare Parts	
Flow Meters Spare Part	UFH032
Circuit Isolating Valves	UFH033
Grundfos UPM3 25-70	UFH185
Mixing Valve	UFH186

Auspex Crimp Coupling	
16mm x 16mm	AP011616
20mm x 20mm	AP012020
25mm x 25mm	AP012525

Manifold Connectors	
16mm x 20mm	AP191620H
20mm x 20mm	AP192020H

Notes

DuoPEX WATER

The DuoPEX Water System is designed to be used in potable hot and cold water systems and is ideal for hydronic heating purposes e.g. flow and return pipe and fitting installation requirements.

Advantages of the DuoPEX Water System

1. Form stability during installation, for example in a curve
2. Low thermal conductivity level
3. Light weight during transport and installation
4. Thermal expansion is lower than that of other pipes
5. Lower pressure loss thanks to the smooth inner layer
6. Suitable for Hydronic Heating

DuoPEX Water Fittings

DuoPEX Water fittings are manufactured from dezincification resistance (DR) brass with a stainless steel crimp ring and joined to the pipe using a specific precision crimping tool.

DuoPEX Water fittings are available in a full range of couplings, elbows, tees and conversion fittings.

For the full range of DuoPEX Water Fittings, pickup a copy of the DuoPEX Water Manual in your closest Reece store or download a digital copy from www.auspex.com.au

Auspex
RADIANT

Customer Service

Telephone (03) 9770 3600
Facsimile (03) 9768 3415
Email salesauspex@rmc.com.au

auspex.com.au

For operating paramerters outside those stated in the manual, please contact Customer Service.

Contents of this brochure are subject to change, please visit our website for the most up-to-date product information.

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AN RWC BRAND

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