

Brochure & Myson Comfort Fit Radiant Product Overview
January 2016

Radiant Heating – Part of the Myson Comfort Fit System



More design. More flexibility.

Radiant heating and cooling is known the world over for providing the best in comfortable, healthy and efficient distribution. As a world leader in indoor comfort systems, Myson has been at the forefront of the world radiant market with a complete line of radiant heating and cooling products. In addition to our manufacturing expertise, we provide full planning, design and supply chain services that help ensure the highest quality results.



Heating through innovation.



The Concept of Radiant Heating
a better kind of heat



The Myson Comfort Fit System™ with PEXtrac™



Myson Design & Support Services
complete system assurance



Myson Solutions for Radiant Installations
Installation solutions for concrete, over-pour & wood floors



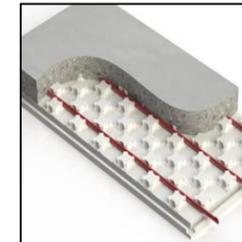
Comfort Fit Manifolds & Components
A complete system with many options



Myson PEX Pipes



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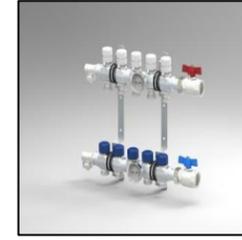


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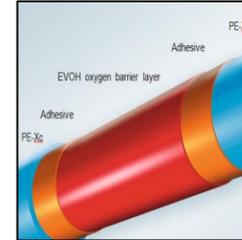
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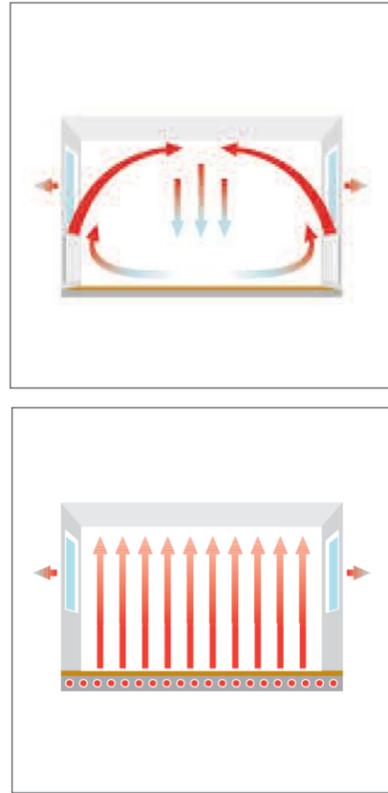
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A better kind of heat.

A radiant system works by circulating warm water through a series of continuous pipe loops fitted underneath your floor. The pipework creates a large radiant surface which creates a warm comfortable room. Radiant is different from traditional systems that rely mostly on air to keep occupants comfortable. Radiant provides you with a number of great benefits.



Naturally comfortable homes and workplaces

The main advantage of radiant heating is *efficient and comfortable performance*. Radiantly heated spaces concentrate warmth where you need it most - at the occupant level. So it's perfect for human comfort - you won't get cold feet and you will keep a cool head!

It's highly controllable heat too. You can make each room a separate zone, varying heat output according to the time of day and location. You'll enjoy uniform heat even in the largest rooms, with no cold spots and no drafts caused by air circulation. Radiant systems are quiet when operating and do not dry the air out like traditional systems!



More flexibility with **PEXtrac** Systems

Radiant heating is also extremely discrete. With nothing showing above floor level, it does not interfere with either your living space or your décor. This leaves you free to make the most of every square foot of your floor and wall space.

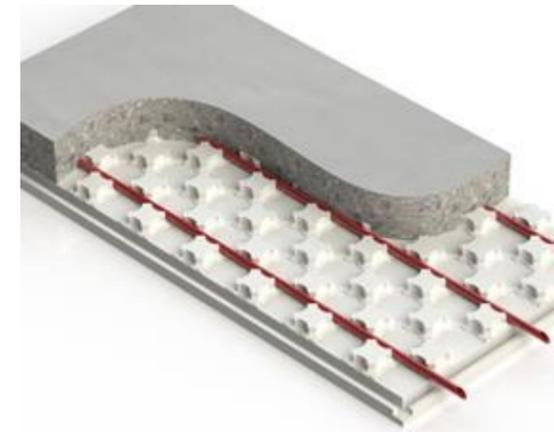
Myson's **PEXtrac** systems give you all the flexibility you need to install radiant in virtually any construction or under any floor covering. Get creative and let Myson help get the project done!

With **PEXtrac Staple-Up Plates**, joist space installations are a snap. Plus, we give you two versions (Lite gauge or Heavy gauge), so you can match the needs of the project.

PEXtrac Foam Panel makes every slab installation fast and economical. In some cases, you can even eliminate the need for a vapor barrier! Simply lay down PEXtrac Foam and literally walk the PEX into place. It's that easy.

PEXtrac Wood Panel Board is a great solution for any suspended floor construction. PEXtrac goes over the subfloor and provides a convenient track to support PEX while providing an additional $\frac{3}{4}$ " underlayment for floor coverings. Choose PEXtrac Board with the integrated aluminum heat transfer covering or plain boards.

PEXtrac systems provide more flexibility, more choices and more Myson Comfort Fit solutions.



PEXtrac Foam Panel System

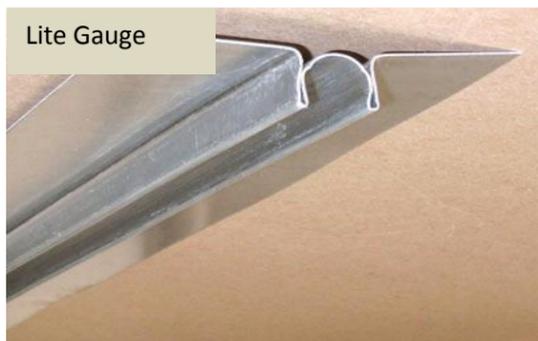


PEXtrac Wood Panel Board System

Radiant with Virtually any Floor Covering



PEXtrac Tack-Up Plate Systems



More service - More confidence.

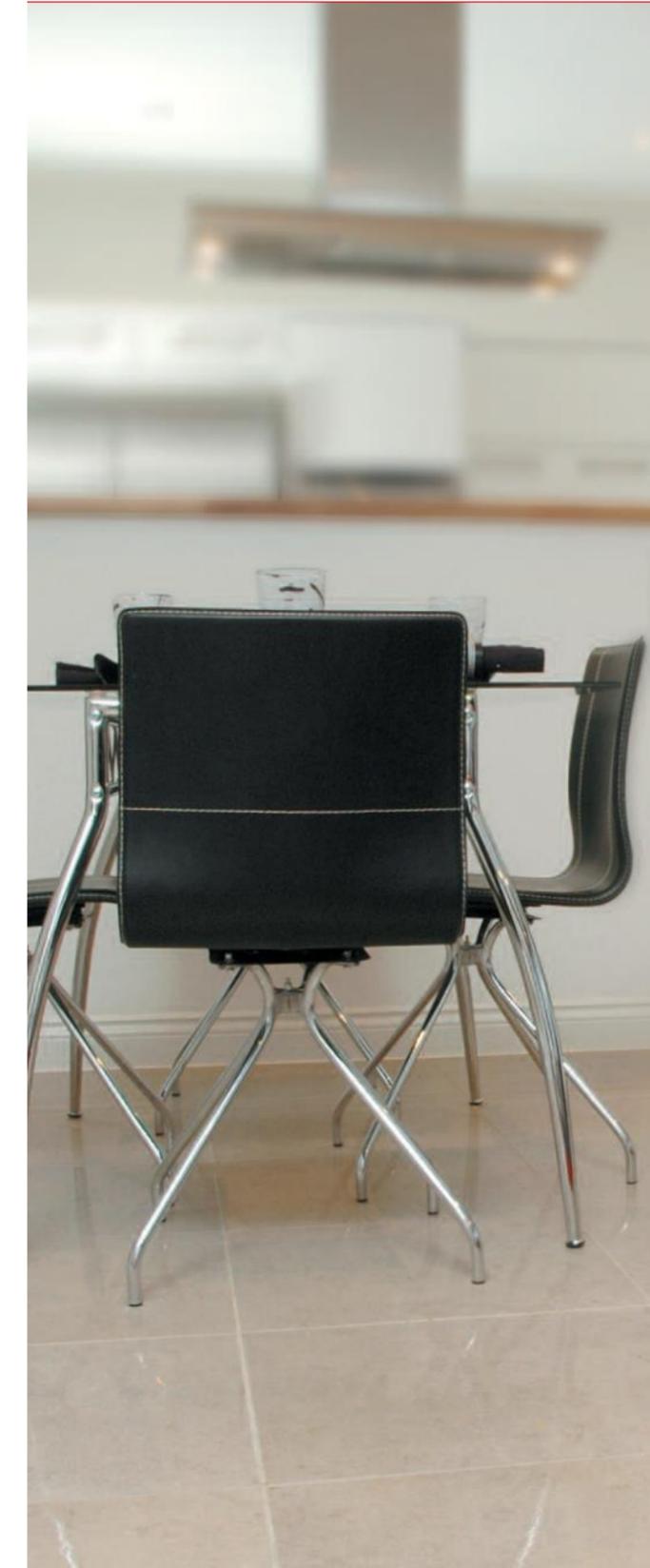
Myson can help with designing your next project. A complete system assurance program that helps ensure tried and tested component compatibility and correct system design. We are confident that when installed correctly, our systems will perform to the highest standards, eliminating unnecessary downtime and problems.

Just give us a call, we're here to help. Our phone number is; (800) 698-9690



If you decide to buy individual components from different manufacturers, there is no overall responsibility for your radiant heating system. Buy a complete system from Myson and Complete System Assurance means you will benefit from complete peace of mind.

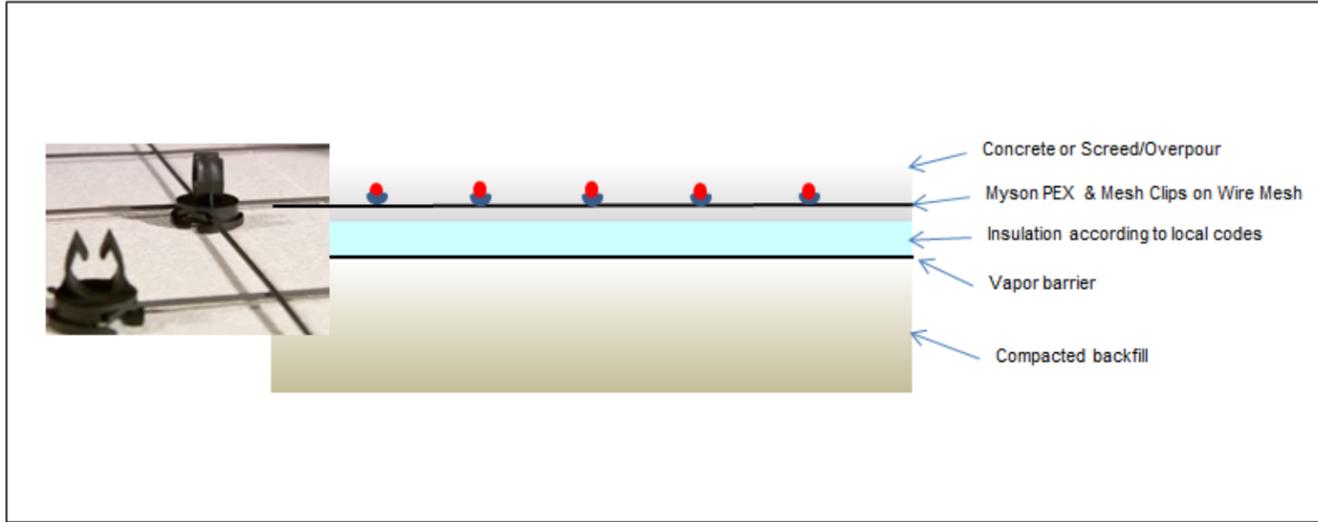
Once your system is installed, all you have to do is sit back and enjoy the performance, efficiency and design freedom that a Myson Comfort Fit System provides.



Concrete Installation using Myson Wire Mesh Clips

Wire Mesh Clips (Myson item MKR1420/5 shown) are designed to attach the radiant heating pipework to wire mesh that is supplied by others. **MYSON Comfort Fit Mesh Clips** are available to fit various sizes of mesh.

Consult the Myson Price Guide for available sizes.

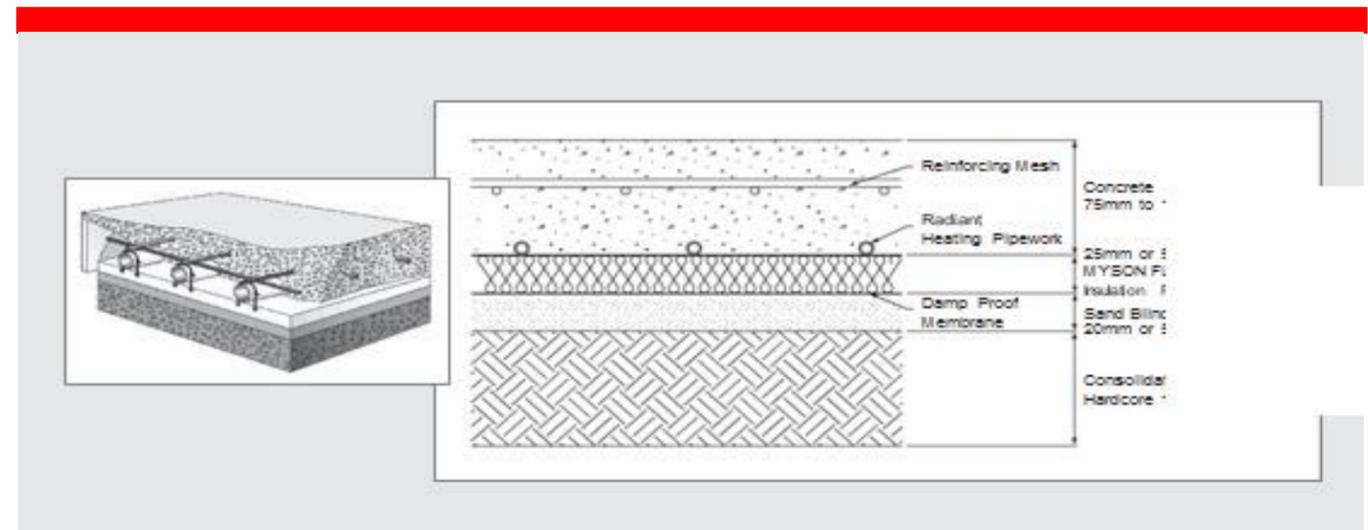
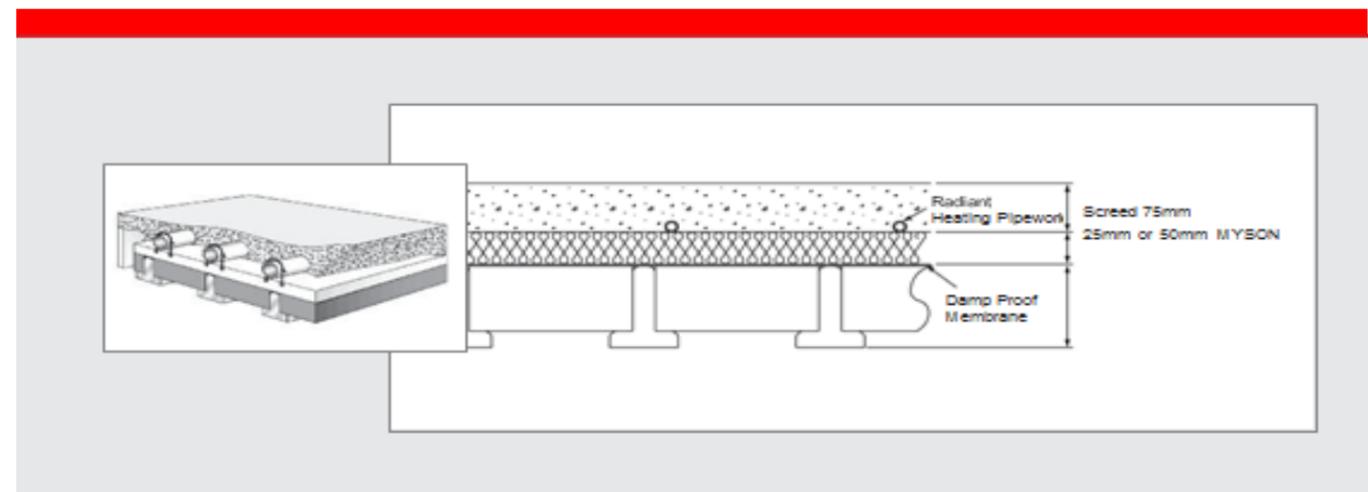
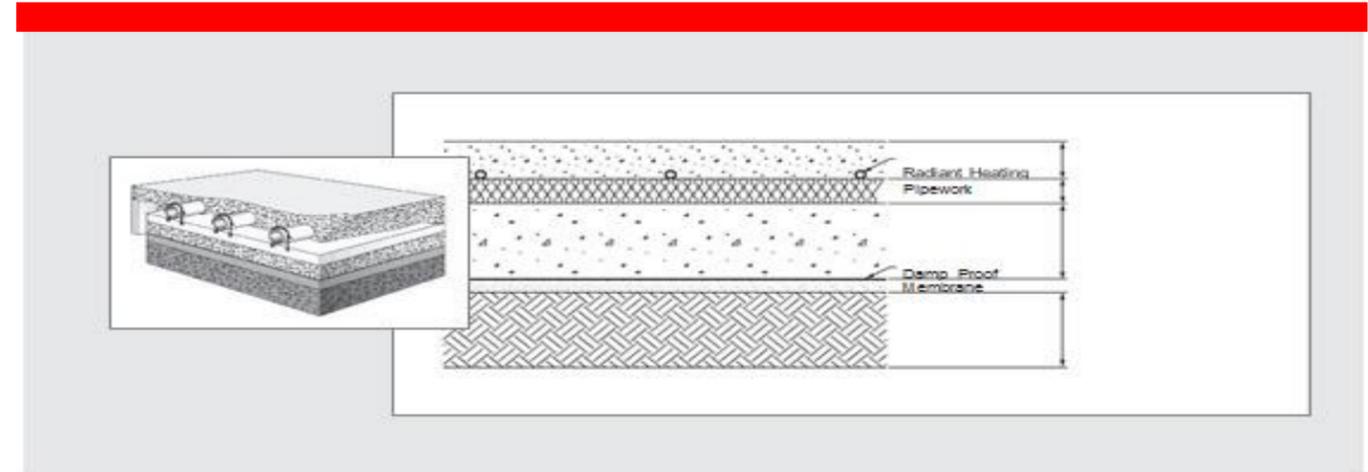
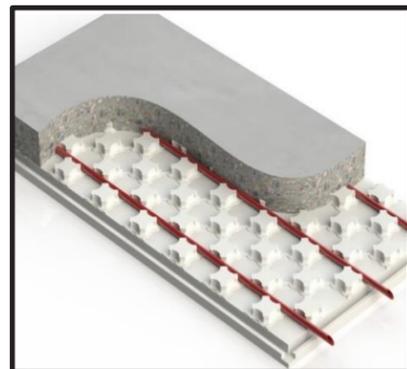
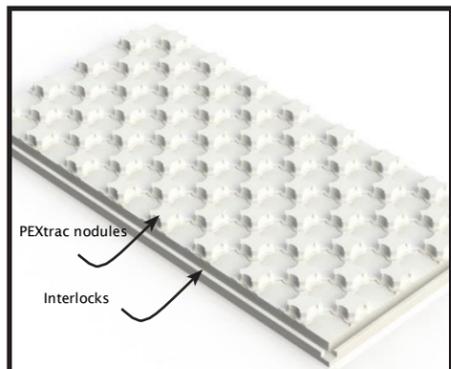


Please note: Myson has a Mesh Clip attachment tool (*item: MKR1420/3-6*) that will facilitate installation.

Concrete Installation using Myson PEXtrac Foam Panel System

MYSON PEXtrac Foam Panels are Expanded Polystyrene foam made in accordance with ASTM C578 and CAN/ULC S701. Each panel is 2 feet x 4 feet in dimension and has an integral interlock to hold adjacent panels together. Each panel is positioned in place and then the PEX pipe can be "walked" into place at the desired spacing. The PEXtrac nodules hold the pipe until the screed or concrete is laid.

Consult the Myson Price Guide for available sizes and EPS foam densities. (*Myson item CSHT30-R10* shown)



General Specification: Suspended Wood Floors using PEXtrac Systems

Description

The Myson Comfort Fit system features two variations for installing radiant systems into suspended wood frame floor structures. These systems are:

- **PEXtrac Tack—Up Plates** with two variations;
 - **Lite Gauge** - roll formed aluminum 0.018" thick by 5" wide (*item # MT-111*)
 - **Heavy Gauge** - extruded aluminum - 0.065" thick by 4" wide (*item # MC-12*)
- **PEXtrac Wood Panels** with several variations:
 - Plywood panel with aluminum heat transfer cover - solid aluminum covering the entire top surface of the panel.
 - Composite wood panel with aluminum heat transfer cover.
 - Plain plywood panel
 - Plain composite wood panel

System choice is based upon construction and project budget. Both PEXtrac Plates and Wood Panel systems are ideal for suspended wood frame construction, but can be adapted for use in other installations. These include radiant wall and ceiling systems for heating or cooling.

General Considerations

The following should be considered for these PEXtrac systems;

- Installation of floor coverings should be carefully coordinated. Ensure that any nailing or securing methods to not penetrate the PEX pipe installed with these systems.
- PEX should be pressurized during floor covering installation so that any damage to the pipe is readily noticed. If damage to the PEX occurs, this section of pipe must be removed. Repair couplings can be used to reconnect pipes. Re-pressurize after any repairs and keep the system pressurized until the floor covering installation is complete.

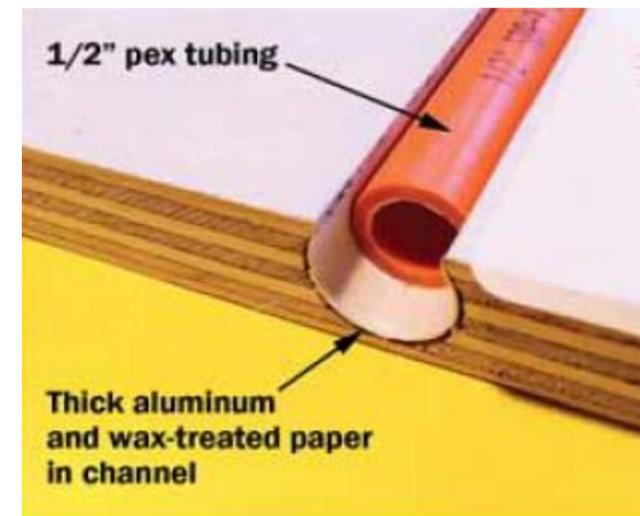
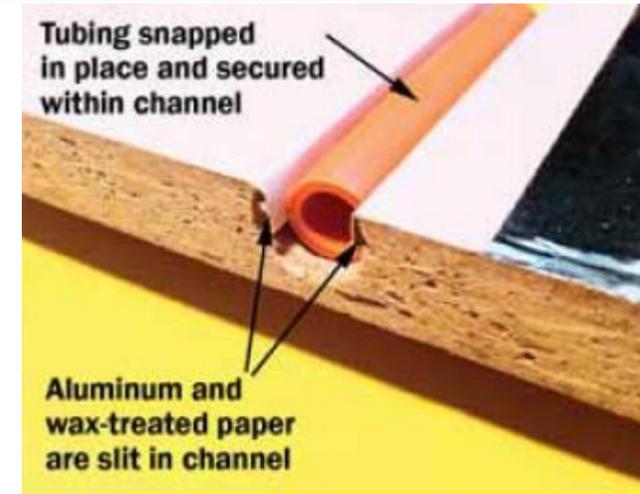
PEX should be sleeved or protected when passing through framing members or other construction. Myson has protection sleeving, insulator clamps and snap in hangers for this protection. *Check the Myson Price Guide for more information.*

PEXtrac Wood Panels

PEXtrac Wood Panels are designed to be placed on top of a properly designed suspended wood subfloor. Panels are ¾" thick and can accept most floor coverings.

Product Selection

- Premium quality - Myson PEXtrac (*item 2NSPLY*)
 - Made with ¾" furniture-grade plywood board, grooved to accept ½" PEX.
 - Entire surface is covered with a thick aluminum heat transfer layer (0.007") with integral wax-treated layer to reduce expansion and contraction noise.
 - Excellent heat transfer across the panel surface
- Builder quality - Myson PEXtrac (*item 4NSCOM*)
 - Made with ¾" composite/particle board, grooved to accept ½" PEX
 - Aluminum layer is 0.002" with a slit within the groove. Also has the wax-treated layer for noise reduction.
 - Very Good heat transfer and performance.
- Economy quality - Myson PEXtrac (*items 1NSPLY*) (plywood) and *2SCOM* (composite/particle board)
 - Plain board without covering, made with plywood (*1NSPLY*) or composite (*2SCOM*)
 - Good performance, higher supply water temperatures required.

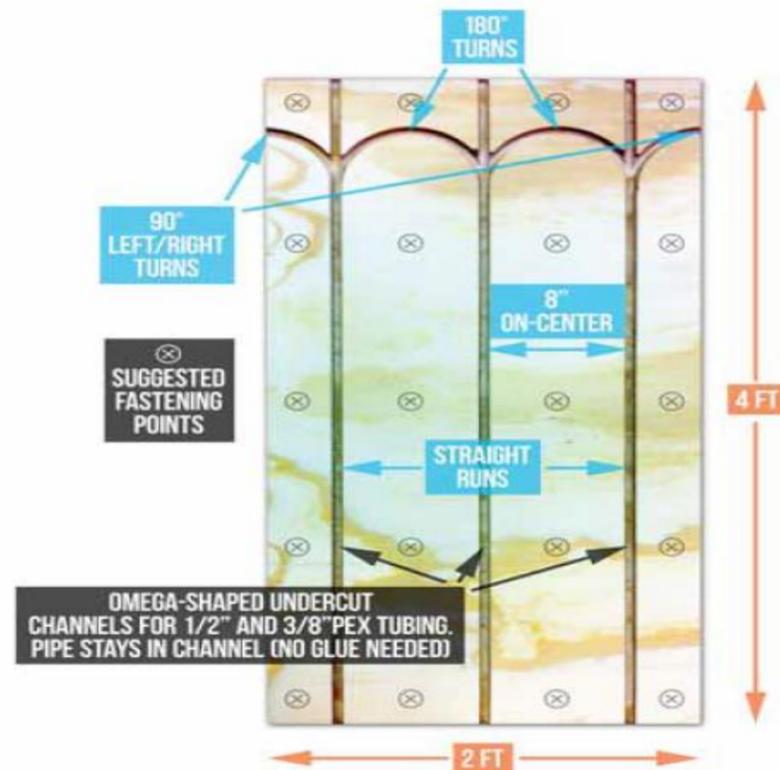
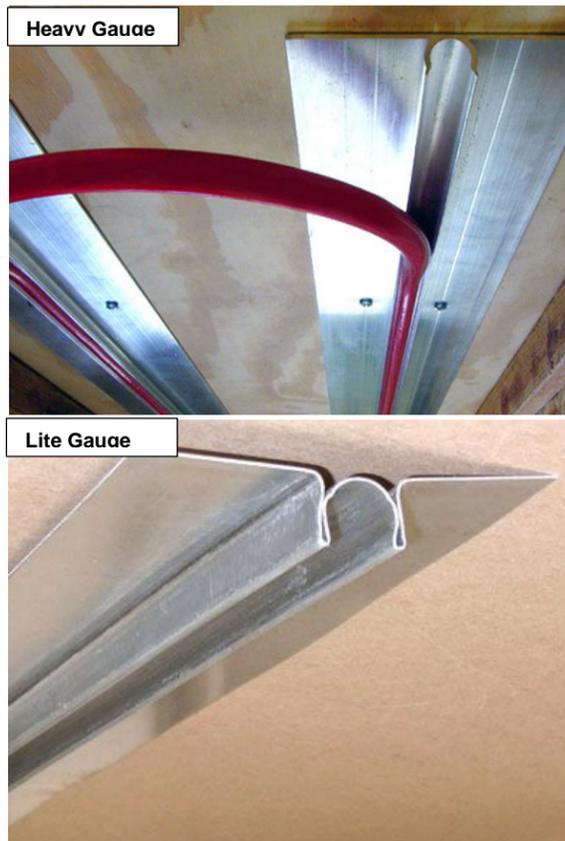


PEXtrac Tack-Up Plates

PEXtrac Tack-Up Plates are designed for use with Myson ½" PEX, both 3-layer and 5-layer. Both systems are designed to be installed in the joist cavity as shown in the diagrams. Myson's Installation Guide has full details regarding the installation and performance of these systems.

Product Selection

Lite gauge plates are an economy grade plate. The lower cost and lighter weight of this system may be better suited for some construction budgets. Each plate is thin enough to be installed with self-tapping 'speed' screws. Heavy gauge plates, while more expensive, are 4 feet long (versus 2 feet for lite) and have predrilled installation holes in the plates. This will reduce installation time. Heavy gauge plates can help reduce supply water temperatures due to material thickness and plate design.



Myson Comfort Fit Manifolds
General Description

Myson Comfort Fit manifolds provide solutions for hydronic systems designers. Whether the application is residential, commercial or even industrial, there is a Myson Comfort Fit manifold for virtually all applications.

More Choices, More flexibility

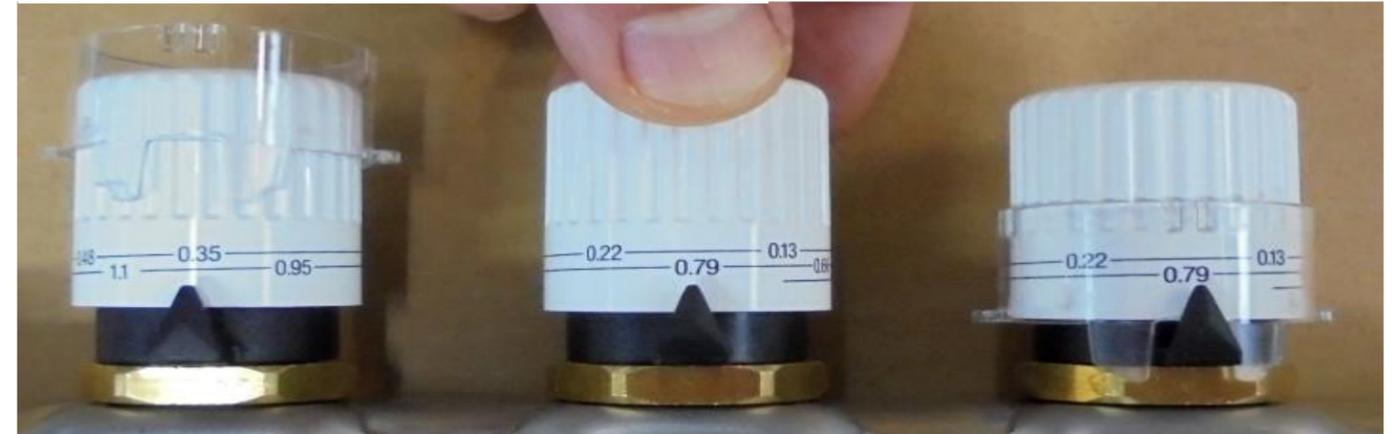
- **Comfort Fit with *Regolux*®**
 - 1" - Stainless steel headers
 - All supply outlets have *Regolux* visual flow meters - for a quick visual read on flow settings
 - Pre-mounted on brackets, ready for installation
 - 2 through 12 port manifolds available.

- **Comfort Fit with *Automatic Flow Control (AFC)***
 - 1" Stainless steel headers
 - All supply outlets have *Automatic Flow Control*. Simply dial in the required flow rate and you're done. No need for the system to be operational.
 - 2 through 12 port manifolds available.
- **Comfort Fit *Industrial***
 - 2" Stainless steel headers
 - 2 through 15 port manifolds available.
 - Sections can be easily connected, giving more flexibility and choices on the job.
 - Isolation ball valves on all circuit ports.
- **Comfort Fit Manifold Accessories**
 - 24 volt valve actuator with end-switch turns any port on *Regolux* and *AFC* manifolds into a controllable zone.
 - One-piece PEX connectors - available in $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " - nut, compression ring and insert are all one-piece - ready to install. (see page 10 for photo)

Comfort Fit with Automatic Flow Control (AFC)
Details

- 2 through 12 port manifolds available
- *AFC* valve setting from 0 - 1.32 gpm (0 - 5.0 l/min)
- Operating range - 14°F - 158°F (-10°C - 70°C)
- Max working pressure - 60 psi (4 bar)

For more information - consult the Installation Guide and Product Data Submittal


Comfort Fit with *Regolux*
Details

- 2 through 12 port manifolds available
- *Regolux* setting from 0 - 2 gpm (0 - 7.6 l/min)
- Operating range - 14°F - 158°F (-10°C - 70°C)
- Max working pressure - 60 psi (4 bar)

For more information - consult the Installation Guide and Product Data Submittal


Comfort Fit *Industrial*
Details

- 2 through 15 port manifolds available
- Flow rates from 0 - 4 gpm (0 - 15 l/min)
- Operating range - 14°F - 194°F (-10°C - 90°C)
- Max working pressure - 87 psi (6 bar)



Myson Comfort Fit Manifold Accessories

Myson Comfort Fit – 24 volt manifold valve actuator

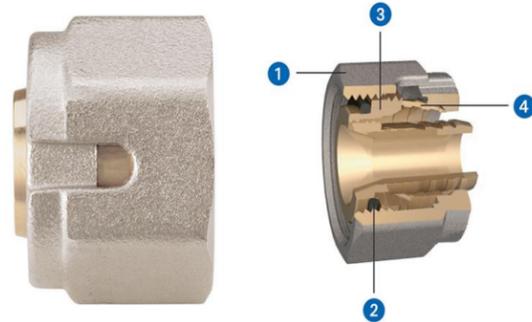
- 24 volt AC Thermoelectric valve drive
- Fits Regolux and AFC Manifolds (return header)
- 4-wire with end-switch
- 3 foot wire length
- Item MYACT-4



Myson Comfort Fit One-Piece Manifold Connectors!

Construction

- 1 Nut in nickel-plated brass - UNI EN 12165 CW617N
- 2 O-ring seals - EPDM
- 3 Brass Adapter - UNI EN 12164 CW614N
- 4 Serrated hose-clamp in brass - UNI EN 12164 CW614N



Available for Myson PEX – sizes $\frac{3}{8}$ " – $\frac{3}{4}$ " (item 12MANIFTC shown)

Myson Tools & Accessories

General Program Description

Producing the best results on any radiant installation requires the right tools & accessories. The Myson Comfort Fit system includes a full line of tools & accessories that help make every system complete;

- Bend Supports
- Fastening & Holding Devices
- Installation Tools



Myson Controls for Radiant & Snow Melting

General Program Description

Myson has a complete line of radiant and snow melting controls that can meet the most demanding hydronic needs. System components focus on;

- Circulators (item MVR1816 shown)
- Relays and zone valves
- Mixing devices (item MXPB shown)
- Thermostats (item MY855i shown)
- Controllers

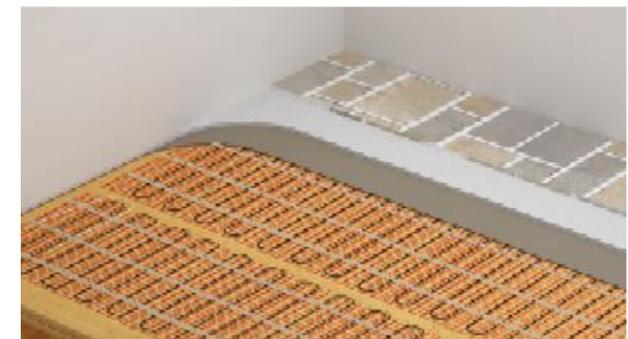


Myson Electric Radiant Systems

General Program Description

Myson's electric radiant mat system is a great solution when you're not planning for a hydronic system. Available in both 120v and 240v, each system can be rolled out on-site for an easy and fast installation. Provides up to 41 btu/ft² (130 W/m²). Kits include cable attached to mat and a temperature sensor (15 ft cable – 4.6 meter)

- 120 volt kits available in 10 through 80 ft² packages (10 ft² increments). (item MTOM0242 shown)
- 240 volt (1-phase) kits available in 60 through 100 ft² packages.



PEX Pipe
Description

Myson PEX is manufacturing according to the requirements of ASTM F876 and CSA B137.5. Our pipes are high density polyethylene which has been crosslinked using highly specialized electron beam technology (PEXc). Myson PEX is available in two versions, both with a dimensional ratio of SDR 9;

- **Myson Comfort Fit PEX 3-layer**
 - PEX pipe with EVOH oxygen diffusion layer
 - Sizes 3/8" - 1"
 - Lengths from 20 foot sticks to 1000 foot coils
- **PexCellent™ 5-layer**
 - PEX pipe with EVOH oxygen diffusion layer covered by an addition protective PEX layer
 - Sizes 3/8" - 1"
 - Lengths from 20 foot sticks to 1000 foot coils


Myson In-house PEX Production Facility

| Size | General Dimensions | | Minimum Burst Pressure | | | |
|------|--------------------|--------|------------------------|--------|-------------|--------------|
| | Outside Diameter | | Wall Thickness | | 73°F (23°C) | 180°F (82°C) |
| | inches | | inches | | psi | |
| 3/8" | 0.500 | ±0.003 | 0.070 | +0.010 | 620 | 275 |
| 1/2" | 0.625 | ±0.004 | 0.070 | +0.010 | 480 | 215 |
| 5/8" | 0.750 | ±0.004 | 0.083 | +0.010 | 475 | 210 |
| 3/4" | 0.875 | ±0.004 | 0.097 | +0.010 | 475 | 210 |
| 1" | 1.125 | ±0.005 | 0.125 | +0.010 | 475 | 210 |

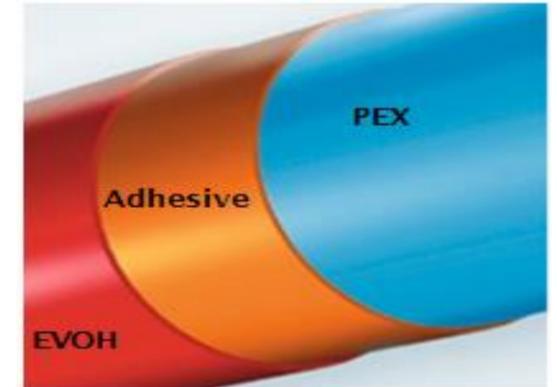
| Technical Data | | | | |
|--------------------------|---------------|------------------------|------------------------|--------------------|
| Parameter | Test Point | Value | Units | Reference Standard |
| Degree of crosslinking | | ≥65 | % | ASTM D2765 |
| Material density | 73.4°F | ≈0.94 | g/cm ³ | ASTM D792 |
| Impact strength | 73.4°F | No failure | psi | ASTM D638 |
| Tensile strength | 73.4°F | ≈3.9 | psi | ASTM D638 |
| Stress crack resistance | | No failure | | ASTM D1693 |
| Coef of linear expansion | 32 – 158°F | 1.5 x 10 ⁻⁴ | 1/°F | ASTM D696 |
| Thermal conductivity | | 2.3 | Btu/hr-ft-°F | ASTM D177 |
| Min. bend radius | | ≥5 x OD | mm | DIN 4726 |
| Oxygen tightness | 104°F / 176°F | ≤0.32 / ≤3.6 | Mg/m ² -day | DIN 4726 |

Myson Comfort Fit PEX (3-layer)
Product Selection

Myson Comfort Fit PEX is a good choice for most radiant applications. Comfort Fit PEX is easy to use and has excellent long-term strength.

Choose Comfort Fit PEX when;

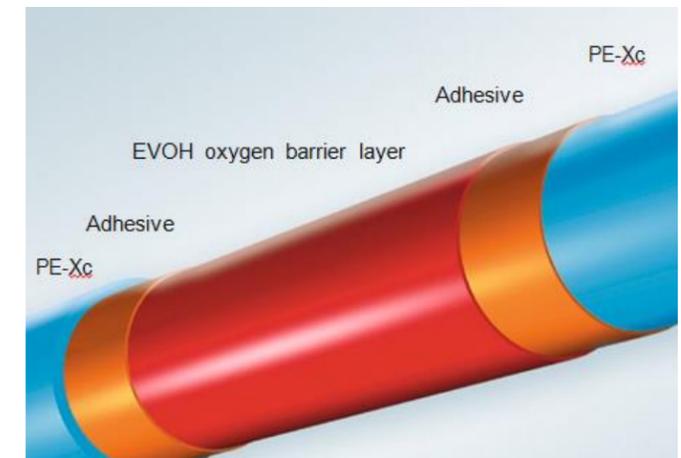
- You need a reliable, cost effective solution for radiant.
- Pipes will be encased in concrete or screeds/overpours.


Myson PexCellent PEX (5-layer)
Product Selection

Myson PexCellent pipe has an additional protection layer covering the EVOH oxygen barrier. This helps protect the barrier from damage and also reduces friction related noise during expansion and contraction.

Choose PexCellent when;

- You want the best PEX available for your application
- You want the assurance of a protected oxygen barrier – great for rugged commercial, industrial and snow melting applications.
- For all applications including when pipes will not be encased – such as when using PEXtrac Tack-Up Plates and Wood Panels.
- PexCellent is a great solution for piping of Myson convectors, radiators and fan coils!



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Visit us online at – www.MysonComfort.com

About us;

Myson is part of the Rettig ICC (Indoor Climate Comfort) family, which brings together the world's leading brands that include Myson, Vogel & Noot, Finimetal, Purmo, Radson, Hewing and Emmeti. Rettig's Indoor Climate Comfort products include;

- Panel radiators
- Convector for heating & cooling
- Towel warmers – electric & hydronic
- PEX pipe for heating & cooling including radiant systems
- Thermostatic and balancing valves
- Electronic controls

The Rettig families of products are manufactured in company facilities throughout the world in 15 plants located in 11 different countries.

Rettig USA, d.b.a. Myson, serves the US and Canada through an in-house sales, marketing, distribution and customer service team, located in Williston, Vermont a suburb of Burlington. Our team is supported by a network of independent representative companies and wholesalers.

Rettig ICC is a fully owned subsidiary of the Rettig Group Ltd, based in Helsinki, Finland. It is a family run company and now in the hands of the 8th generation of the von Rettig family. With more than 200 years of business tradition, the Rettig Group has over 4,500 employees.

Radiant Heating – Part of the Myson Comfort Fit System



heatingthroughinnovation.

heatingthroughinnovation.

