



Pexheat.com
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Project Specification Form

Pexheat.com makes radiant heat simple and easy to install. We can supply you with a radiant package tailored for your application. This Project Spec. Form is a computer file that can be filled out and emailed back to us at quotes@pexheat.com. You can also print this form and fax it to us at (631) 382-8225. We will calculate heat loss for this project and generate a materials estimate which will be returned to you as soon as possible.

Please also try to include a floor plan with this form. When you make your project purchase from, a tubing layout can be provided to assist your installation. A floor plan may be required to create a tubing layout.

Please call if you have any questions or to discuss your project.

PLEASE PRINT CLEARLY!

Name _____ Date _____

Phone _____ Fax _____ Email _____

Street _____ City _____ State _____ Zip _____

Project Name _____ Project Start Date _____ Project Zip _____

Ease of Installation (1 Easy - 5 Most Effort) _____

Performance Level (1 Basic - 5 Best) _____

Installer Level: Do-It-Yourself Contractor Plumber Trained Radiant Installer

Heat Source: Cast Iron Boiler Non-Cast Iron Boiler Water Heater

None, Please include a tankless unit for this radiant system

Other _____

Overall Structure Insulation:

Average Tightly Insulated, minimal heat loss Loosly Insulated, larger heat loss

Comments: _____

Make sure you fill out the Zone information on the following page.

Zone Information

Zone Name _____ Design Room Temp _____ Glycol: Yes / No

Tubing Type: PEX Onix Pex-Al-Pex Electric Mat

Type of Installation: Staple-up Subfloor Thickness: _____ in. Joist Spacing: _____ in.
 Concrete Slab Thin Slab Slab Thickness: _____ in.
 Above Floor Plywood Sleeper System
 Snow Melting

Area: _____ sqft Exterior Wall Length: _____ ft Avg. Ceiling Height: _____ ft

Exterior Window Area: _____ sqft Exterior Door Area: _____ sqft

Is the space above the zone heated? Yes / No Is the space below heated? Yes / No

Zone Name _____ Design Room Temp _____ Glycol: Yes / No

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Exterior Window Area: _____ sqft Exterior Door Area: _____ sqft

Is the space above the zone heated? Yes / No Is the space below heated? Yes / No

Attach additional pages as necessary

Additional Zone Information

Zone Name _____ Design Room Temp _____ Glycol: Yes / No

Tubing Type: PEX Onix Pex-Al-Pex Electric Mat

Type of Installation: Staple-up Subfloor Thickness: _____ in. Joist Spacing: _____ in.
 Concrete Slab Thin Slab Slab Thickness: _____ in.
 Above Floor Plywood Sleeper System
 Snow Melting

Area: _____ sqft Exterior Wall Length: _____ ft Avg. Ceiling Height: _____ ft

Exterior Window Area: _____ sqft Exterior Door Area: _____ sqft

Is the space above the zone heated? Yes / No Is the space below heated? Yes / No

Zone Name _____ Design Room Temp _____ Glycol: Yes / No

Tubing Type: PEX Onix Pex-Al-Pex Electric Mat

Type of Installation: Staple-up Subfloor Thickness: _____ in. Joist Spacing: _____ in.
 Concrete Slab Thin Slab Slab Thickness: _____ in.
 Above Floor Plywood Sleeper System
 Snow Melting

Area: _____ sqft Exterior Wall Length: _____ ft Avg. Ceiling Height: _____ ft

Exterior Window Area: _____ sqft Exterior Door Area: _____ sqft

Is the space above the zone heated? Yes / No Is the space below heated? Yes / No

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Tubing Type: PEX Onix Pex-Al-Pex Electric Mat

Type of Installation: Staple-up Subfloor Thickness: _____ in. Joist Spacing: _____ in.
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 Above Floor Plywood Sleeper System
 Snow Melting

Area: _____ sqft Exterior Wall Length: _____ ft Avg. Ceiling Height: _____ ft

Exterior Window Area: _____ sqft Exterior Door Area: _____ sqft

Is the space above the zone heated? Yes / No Is the space below heated? Yes / No

Attach additional pages as necessary

Glossary

Project Name

Please enter a name for the project. This name will be use to distinguish this project from others in our system.

Project Zip Code

Please enter a zip code for the project. This will help us determine the winter low temperatures of the area using national weather data.

Ease of Installation

This is a scale of 1 to 5 to give us an idea of how easy you want this system to go in.

1 is the easiest. A system designed with easier installation will have more pre-assembled components, tools and hardware to assist in installation, and take much less time. Easier installations will have higher cost. But if time or labor is costly to you, the easier installation can pay for itself.

5 is the hardest. It will be cheaper to install but will require more labor and time. Harder installations will require more knowledge of the components and their operation.

Level 1 installation systems will have as close to "Turn Key" systems as possible.

Performance

This is a scale of 1 to 5 to give us an idea of how well you want the system to perform.

1 is Basic. These systems have simple controls. They may take longer to get to temperature, and once it is heated the room may overshoot the setpoint temperature by a noticeable amount. Zone balancing may also be difficult if necessary. It will be cheaper to install but will require more labor and time to get it to perform as expected.

5 is the Best. These systems come as close to a "transparent" heating system as possible. They have excellent controls set to monitor and adjust system performance to the ever changing environment. They start up more quickly, maintain optimal temperatures and run far more efficiently for fuel savings. If efficiency and comfort are highest on your list choose the highest value for performance.

Project Start Date

Please enter a start date for the project. This is the date which you will need to have material on site for installation. We may use this date to determine material recommendations as well as prioritize responses.

Installer Level

There are many different products that can do the same job. Please let us know your ability and professional interest in your project. For example; a professional may appreciate a product that installs more quickly or has a more robust warranty.

* Select Do-It-Yourself if you are a home owner/installer with little to no experience in radiant floor installation and no professional interest or liability with the system.

* Select Contractor if you have little to no experience in radiant floor installation but this is being installed in someone else's home or business.

* Select Plumber if you have experience in heating system installation but have little to no experience in radiant floor systems, also you are installing this system in someone else's home or business.

* Select Trained Radiant Installer if you have experience installing radiant systems and you are installing this system in someone else's home or business.

Note: You can add comments when submitting your Estimate Request. So please give us any additional information that you think is important.

Heat Source

Material choices depend on the type of heat source you use for your system.

* Select None, please include a tankless heater for radiant system if this is a new system or you are interested in replacing your water heater or boiler with a high efficiency tankless water heater or boiler.

* Select Existing cast iron boiler if you have an existing boiler with a cast iron heat exchanger.

* Select Existing non-cast iron boiler if you have an existing boiler with a copper or stainless steel heat exchanger.

* Select Existing water heater if you have an existing gas fired or electric water heater being used as a closed loop hydronic heat source.

Note: Thinking of installing an Open System? (That is where you will use your domestic hot water to heat your radiant floor.) Please read the document on our website.

[Open Systems and Water Heaters \(270KB\)](#)

What you must know!!!

Overall Structure Insulation

Please select a rough description of the structures insulation and infiltration quality.

* Select Average if the structure is well insulated but no exceptional products or techniques have been used to insulate the building.

* Select Tightly insulated, minimal heat loss if exceptional products or techniques have been used to insulate the building.

* Select Loosely insulated, larger heat loss if the building has poor insulation and excessive drafty infiltration

Zone Name

Please enter a name for the zone. This name will be use to distinguish this zone from others in your project.

Design Room Temperature

This is the Air temperature (in degrees Fahrenheit) you would like to keep the zone at when the heating system is operating. This is usually around 68°F and 72°F for living areas and 65°F for work areas. You can choose lower temperatures like 50°F for garages and storage areas.

Glycol

Glycol or anti-freeze protects your heating system from freezing. We do not recommend glycol in most residential or commercial applications.

We do recommend glycol only in systems that will be left for extended periods of time such as; workshops or vacation homes. Glycol is

required for systems that will operate at below freezing temperatures like snowmelting applications.

We recommend buffered Propylene Glycol in a 30% to 50% mix for optimal system performance.

Select Yes for Glycol if you believe it is necessary for your project

Tubing Type

Tubing type is a significant consideration when designing a radiant zone. We carry various types of tubing as well as mats with electric cables for heating. Each tubing type has benefits and costs. Please see the individual help text for each tubing type.

Tubing type listed by increasing cost: (Cheapest to Highest Cost)

1. PEX Tubing
2. PEX-AL-PEX
3. Onix
4. Electric Mat

Tubing type by increasing installation effort: (Easy to Hardest)

1. Electric Mat
2. Onix
3. PEX-AL-PEX
4. PEX

Glossary Continued

Type of Installation

The type of radiant floor installation is usually determined by the construction of the zone. All types of radiant floor installation (except electric) typically have more than enough heating capacity for a zone. The differences in efficiency and response of the types are mostly insignificant. Your main concerns in choosing an installation type should be cost and effort of installation. See the help text for each installation type for details.

Installation type listed by increasing cost: (Cheapest to Highest Cost)

1. Concrete Slab
2. Staple Up
3. Sleeper
4. Thin Slab
5. Electric

Installation type listed by increasing effort: (Easiest to Hardest)

1. Electric
2. Concrete Slab
3. Staple Up
4. Thin Slab
5. Sleeper

View the manuals on our website for more information:

Watts Radiant Design/Installation Manual (4.5MB)

Onix Installation Manual (4.8MB)

Watts HeatWeave Above Floor Manual

Watts HeatWeave Under Floor Manual

Joist Spacing

Please enter the spacing of the joists supporting the floor under the Zone in inches on center.

Example: Most joists are 12, 16, or 24 inches on center.

Note: If there are various spacings under the zone, enter the most common measurement.

Subfloor Thickness

Please enter the thickness of the plywood installed on top of the joists for your flooring system. The subfloor is usually the first layer of flooring. However, you may have multiple layers of subfloor beneath the floor covering. Please enter the total thickness of wood below the floor covering.

The subfloor thickness helps us calculate water temperatures needed for the heat to penetrate the floor above.

Slab Thickness

Please enter the thickness of the slab in which the tubing will be installed. This information will help determine material and heat transfer rates.

Area

Area of a zone refers to the total square footage footprint of the zone. This data should be entered as (f²) square feet. A rectangular zone Area can be calculated as the length x width of the room. However, irregularly shaped zones (e.x. L shaped zones) need to have all the rectangles of the zone added together.

Area is used to determine:

1. Heat Gain of the Floor - This is the total space of the floor used to heat the zone.
2. Heat Loss of the Ceiling - This is the total space of the area above the zone which will figure into the heat loss of the zone.
3. Amount of material need to heat the room - We will use the area of the zone to estimate the amount of material the room will require; e.x.

Tubing, electric mats, insulation, fastening hardware, etc

Exterior Wall Length

Exterior Walls are the main source of heat loss in a zone. An exterior wall is any wall exposed to the environment or an unheated space. Make sure you add the lengths of all exterior walls for this measurement.

Do not include interior walls in this measurement.

Average Ceiling Height

Please enter the Average Ceiling Height of the Zone in feet. If the ceiling height is the same throughout the zone, just enter that measurement. Some zones have sloped ceilings. Then enter the average of the highest and lowest measurements of the height of the ceiling.

Average Ceiling Height is used to determine:

1. Heat Loss of the Ceiling
2. Heat Loss of Exterior Walls

Exterior Window Area

Exterior Windows have significantly more heat loss than walls. Walls usually have insulating values from R11 to R21 or more. Windows usually have insulating values from R2 to R3.

Make sure you add the areas in square feet of all exterior windows in this zone for this measurement.

Exterior Door Area

Doors have much lower insulating values than walls. They also allow a lot of cold air infiltration. Enter the square footage of all doors in this zone.

Include all entry doors, garage and overhead doors, patio sliders and french doors.

Heated Above

If the area above this zone being heated or there a second floor above this zone? Then select Yes for Heated Above.

If this is a first or second floor zone with no heated living space above, then select No for Heated Above.

Heated Below

If the area below this zone being heated or there a heated basement below this zone? Then select Yes for Heated Below.

If this is a first floor zone with no heated living space below, then select No for Heated Below.