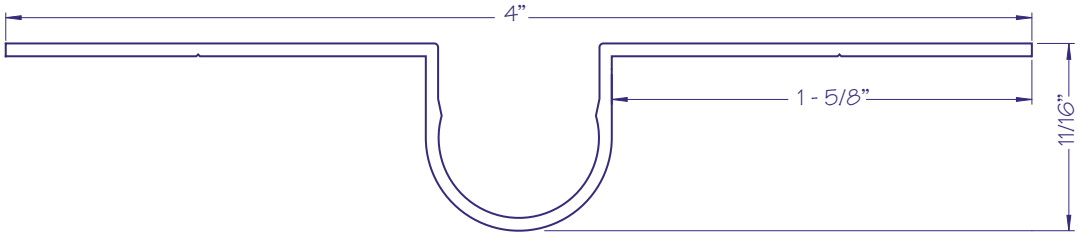
SPEC - DATA

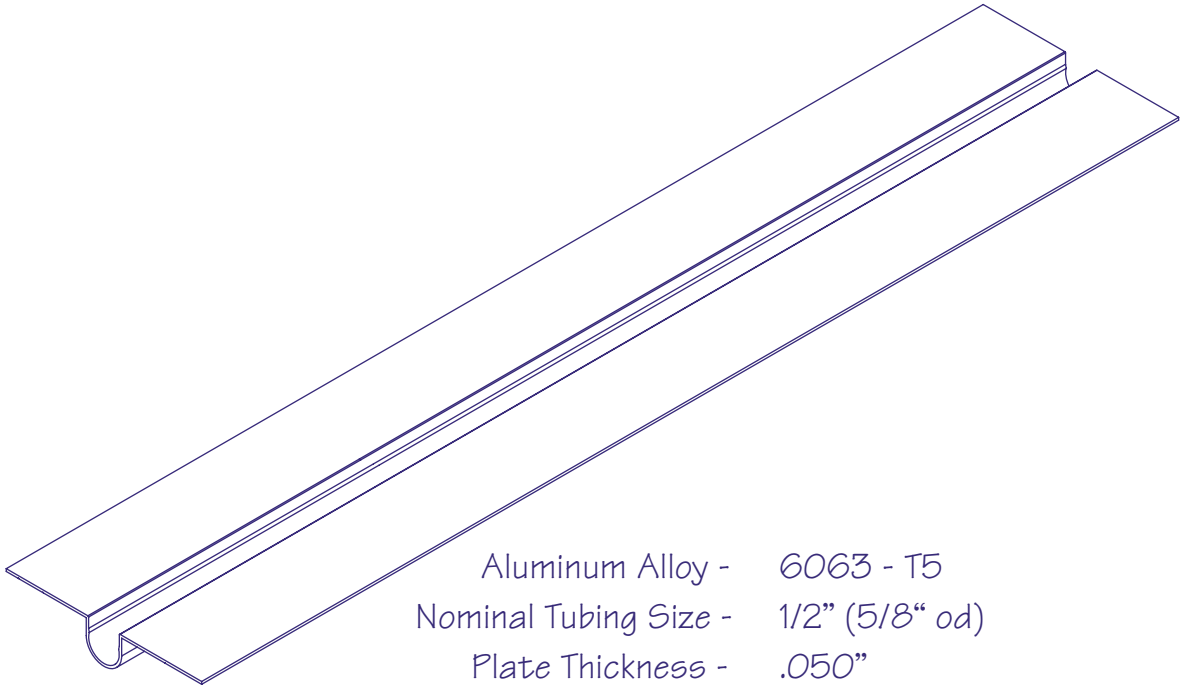
ThermoFin U

Canada Patent 2,158,302

U.S. Patent 5,454,428

ThermoFin U is an extruded aluminum heat transfer plate designed for use in hydronic radiant panels. The patented snap channel tightly grips PEX or Copper tubing for maximum heat transfer and the elimination of expansion noises.





Aluminum Alloy -	6063 - T5
Nominal Tubing Size -	1/2” (5/8“ od)
Plate Thickness -	.050”
Channel Height -	11/16”
Plate Width -	4”
Available Lengths -	4ft and 8ft
Weight Per Piece -	4ft - 1.176 lbs
	8ft - 2.352 lbs
Box Dimensions -	4ft - 7.75”w x 4”h x 52”
	8ft - 7.75”w x 4”h x 100”

Available in Boxes of 20 pieces

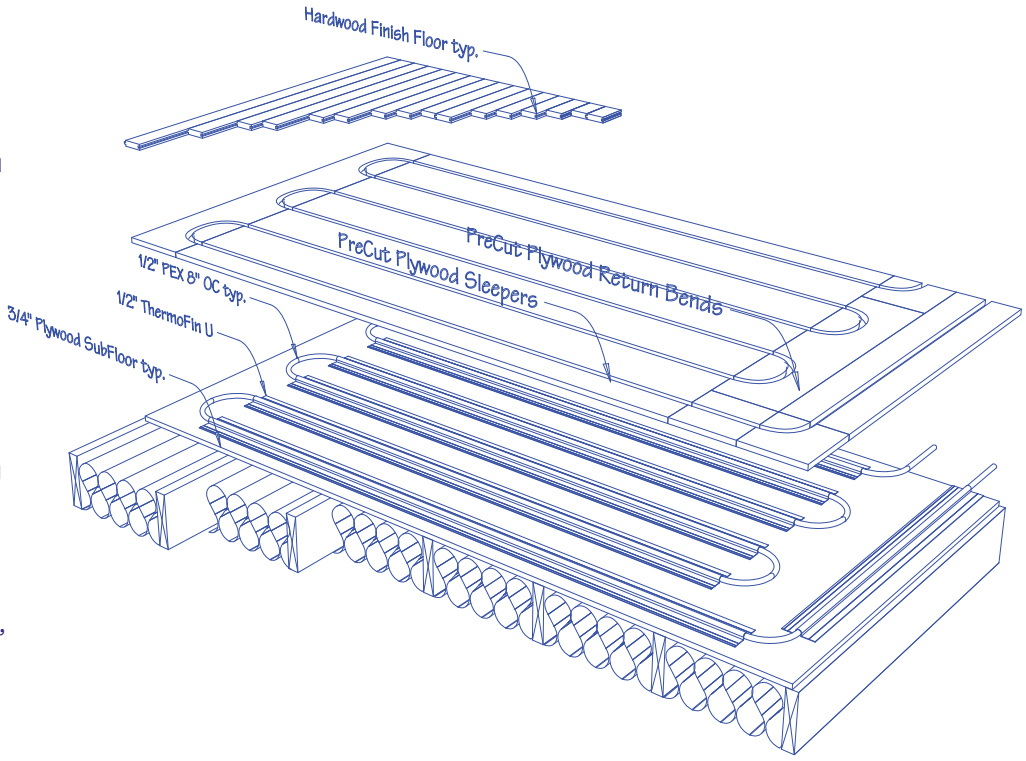
RADIANT
ENGINEERING
Designers • Suppliers • Manufacturers
Bozeman • Montana
www.radiantengineering.com

ThermoFin U Installation for Radiant Floors

ThermoFin U is versatile and can be used in a variety of applications. However, there are two basic ways to install ThermoFin U in radiant floors. In both methods, plywood sleepers and return bends fill the gaps between the plates and provide a nailing surface for finished flooring.

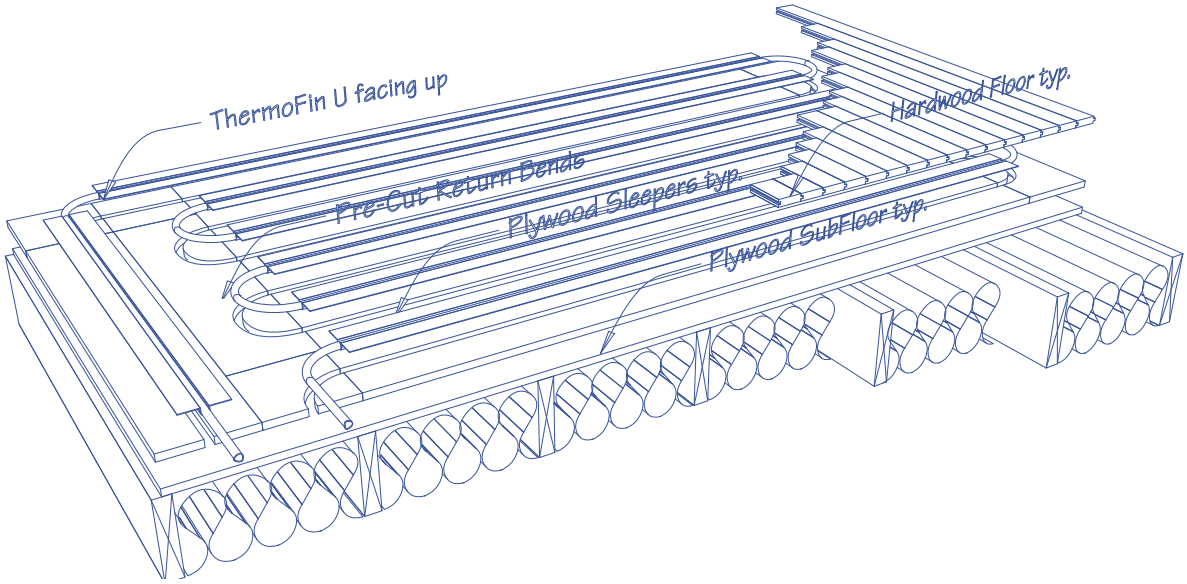
Method 1

In the most common method, the plates are below the sleepers, with snap channel facing down. First, precut plywood return bends (see page 4) are placed along the edges of the room, and the tubing is laid down using the return bends as a guide. The ThermoFin U is snapped over the tubing, and the sleepers are placed between the snap channels. The advantages of this method are that the tubing is protected by the ThermoFin, and the sleepers provide a wooden nailing surface acceptable to flooring installers.



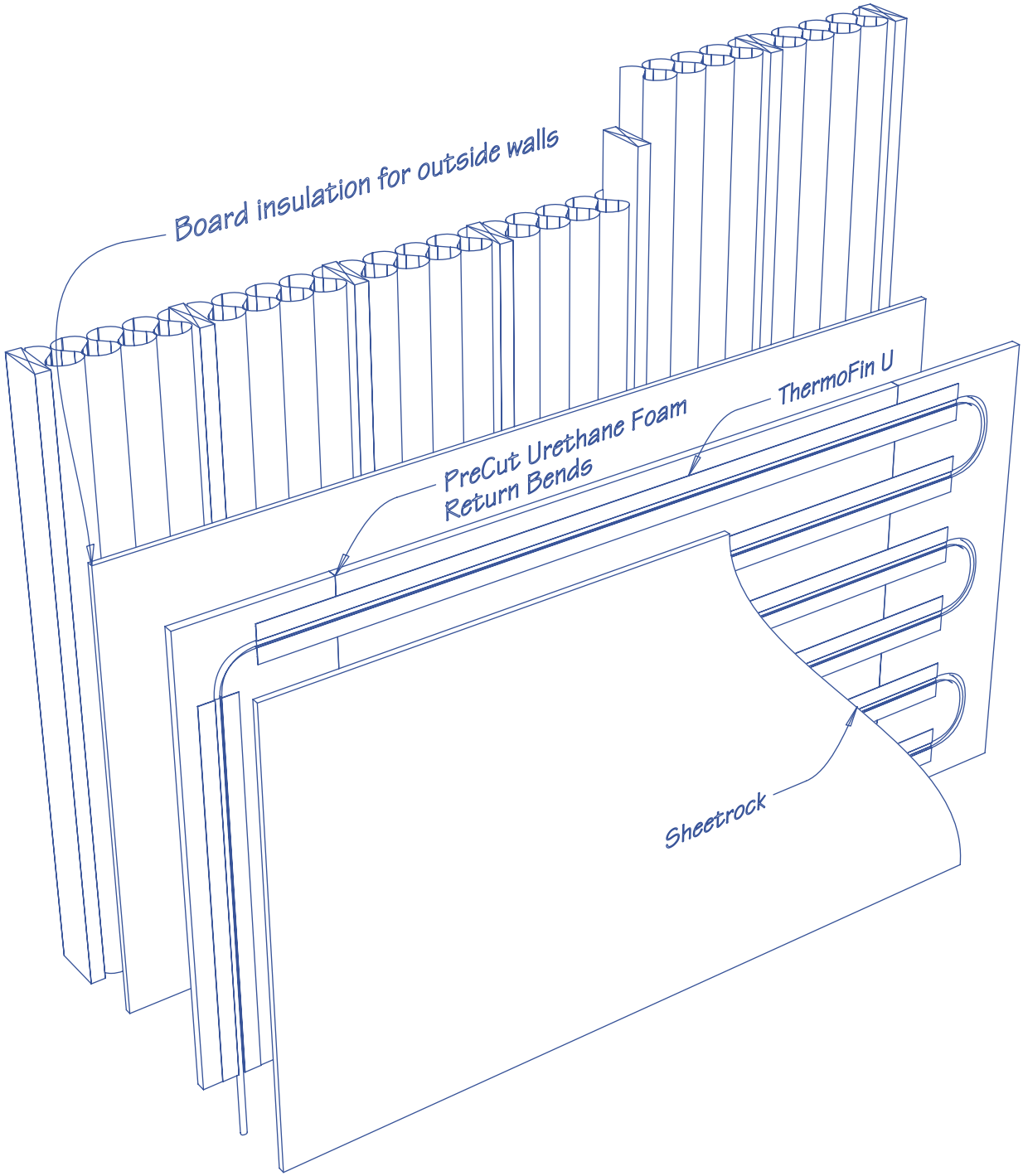
Method 2

An alternative method is to place the ThermoFin U above the sleepers with the snap channel facing up. The sleepers and return bends are laid out first, followed by the plates, and the tubing is snapped in as the last step. Because the plates are closer to the surface of the finished floor, this method can produce faster heat transfer. It is also easier in some cases to lay out the tubing when the plates are already in place. However, the ThermoFin plates on top of the sleepers is a more difficult nailing surface



ThermoFin U in Wall and Ceiling Installations

ThermoFin U can also be used in wall and ceiling radiant panels. In this application, it is preferable for the plates to face outward with the snap channel towards the room to be heated. Sheet insulation should first be placed over the wall or ceiling framing to prevent the heat from escaping through the framing. This is especially important for outside walls. Precut sleepers and return bends are then placed over the wall studs or ceiling joists. Sleepers and bends can be made of plywood or light weight urethane foam. Sheetrock, tile backer, or other finish building materials are installed directly over the plates, followed by typical wall or ceiling construction.



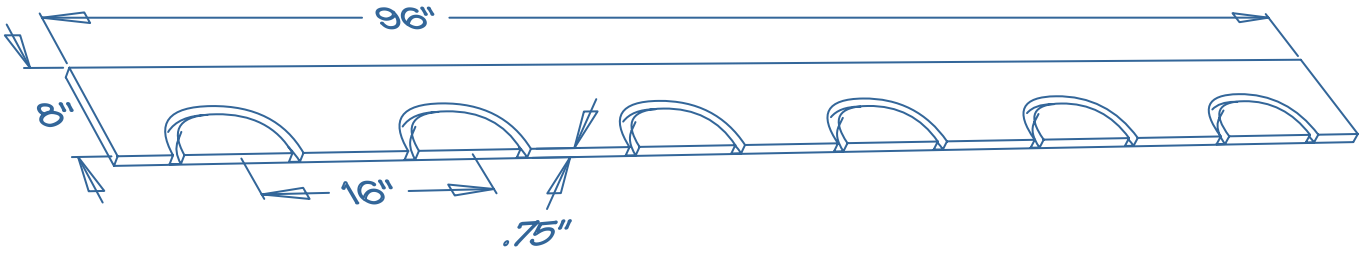
Return Bends and Sleepers

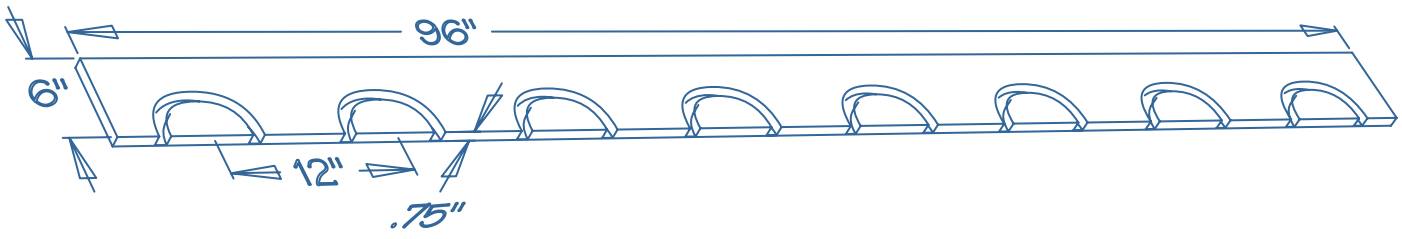
Precut return bends and sleepers are made using external MDO or AC Pine 3/4" plywood. These high quality grades to ensure a flat surface, which is especially important for hardwood flooring. For tile floors, a tile backer such as Georgia Pacific DensShield or DensGuard is placed between the sleepers/ThermoFin U layer and the tile grout layer.

Dimensions

8" on center spacing - 6 bends per 8 foot strip
- Individual Bend Dimensions: 3/4" x 8" x 16"
- Individual Bend Weight: 5/3 (1.67) lbs
- Straight Sleeper Width: 7.25"
- 8 ft Sleeper Weight: 10 lbs

6" on center spacing - 8 bends per 8 foot strip
- Individual Bend Dimensions: 3/4" x 6" x 12"
- Individual Bend Weight: 15/16 (0.9375) lbs
- Straight Sleeper Width: 5.25"
- 8 ft Sleeper Weight: 7.5 lbs





Tubing

We strongly recommend using an oxygen barrier PEX tubing to prevent air from diffusing into the system and causing corrosion of hydronic parts. Some manufacturers offer a slippery coating for snapping the tubing into the channel more easily. It is also important that the tubing keeps a circular cross section. If the cross-section becomes oval shaped over time, the heat transfer will degrade and expansion noises will occur. We recommend ViegaPEX Barrier tubing.

Please contact us for pricing, technical questions, or to request a sample.

RADIANT ENGINEERING INC 501 E. PEACH, BOZEMAN MONTANA 59715
406-587-3442 • FAX 406-587-1617
WWW.RADIANTENGINEERING.COM