

SNOW MELT INSTALLATION

- Insul-Tarp should be installed with the white side facing up. Overlap at the seams to assure insulation value throughout the area. Spot taping the joints will prevent movement. Insul-Tarp will act as a vapor barrier eliminating the need for plastic. A thermal break is required where the concrete slab meets exterior (foundation) wall(s). 1" rigid insulation works well for this application.
- Wire Mesh should be installed in a neat pattern, imitating graph paper, allowing a 6" overlap at the ends, and butted together along the sides. This will provide a grid when tubing, reducing the amount of measuring. Tie the mesh together at the corners to keep the sheets from moving during installation.
- The tube is 5/8" Kitec unless specified otherwise. Loops are a maximum of 250' in length. Loop spacing is calculated as 9" on center. The loops are spaced 6" away from the exterior perimeter.
- Be sure to cover ends of tube with tape to prevent debris from getting in.



Radiantmax is a division of Eagle Mountain Inc.

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- Locate and mount the remote manifold(s). If one or more of the remote manifolds will be located outdoors, it will be installed inside a Carson box. It is important to make accurate measurements when fixing the manifold's location since the supply and return piping we have calculated will be based on a specific distance, and the snowmelt tubing quantity can be effected by the location as well. We often have selected the locations to lower the waste factor.



- The Carson box should be mounted directly adjacent to the snowmelt area. The tubing that passes between the box and the snowmelt area should be kept below grade and can be protected by a small amount of concrete poured above it. This keeps the tubing from being damaged by an errant shovel or driveway marker being pushed into the soil next to the box. The box should be mounted so that the top is flush with the finished surface topsoil or mulch. The hole should be 6" deeper than the box and filled with clean pea gravel. If possible allow for drainage from below the box.
- All loops of tubing begin and end at the remote manifold and are installed one manifold at a time. The pipe ends should be organized according to the piping layout usually in supply/return order for every loop. Indicate supply and return side of each loop. This can be done with colored tape or a marker.



- When installing tube to the remote manifold, wet the “O” ring on the manifold prior to sliding the tube on. Be sure to bevel the inside edge of the tube before sliding it on the manifold. Roll out the coil of tubing like rolling a “tire” following the layout pattern. Tie the tube down to the wire mesh. Be sure to allow enough tube to return to the manifold. The tube should be tied to the wire mesh using twist wire ties or nylon pull ties and should be tied every 3’ - 4’ on straight runs, and two ties at the bend on each side.

- When all loops have been installed, prepare the manifold(s) for pressure testing. Install the pressure test gauge in the end of the supply manifold and capped end in the return manifold. Air test gauge should be filled to 50 psi. Use a soap bubble solution to check for leaks at the manifold connections. Leave the loops pressurized during



the concrete pour. Air pressure will vary due to outdoor air temperature so don't be alarmed if pressure in tubing has decreased the morning after installation. There should however still be air in tubing. If you feel you have a leak, check the manifold and test connections first.

- When pouring the concrete slab, lift the tubing and mesh approximately 1” from the bottom of the slab, as you pour the concrete. You can also use “chairs” which are clips or wire mesh pieces that hold the mesh up. If you plan on cutting the slab, you may want to pre-plan where and then set mesh on 1” blocks at those locations, prior to the pour. Small pieces of the 1” rigid insulation will work well for this.

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