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## (QCB 94-4)

## **Insulworks Installation Instructions**

- Order enough Insulworks for the job, without over-ordering, as there is usually very little waste. Whatever part of a sheet is cut off the last in a row can be used to start out the next.
- Install Insulworks over reasonably level ground. Properly installed tubing will connect individual sheets into one mat. However, large lumps and bumps under the insulation could result in one edge raising up when concrete is being placed. Concrete must never be allowed to run under a panel, as this would cause it to float upwards.
- A polyethylene barrier is not necessary either under or over Insulworks, as EPS is in itself a capillary break to moisture movement.
- Decide on the orientation of the tubing. Simple is easiest, but it is possible to change directions (North-South to East-West) throughout the job. Start at one corner, working to the end wall, and cut as required with ordinary hand saw. Begin the next row with the cut-off piece.
- Uncoil the tubing, "stepping" it into place. Tube spacing is usually 12" apart. However, tightening the tube spacing where more heat is desired (like next to a door in a walkout basement) can be a good thing to do.
- Some radiant tubing strongly resists uncoiling, and may want to "snap back" if not firmly attached to the Insulworks. A few tubing clips may be required where this occurs and also as the tube runs perpendicular to the fastening slots such as when returning to the manifold. We recommend having available 2 clips per 180 turn of the tube if and when required.
- Point loads on hydronic tube, such as from high chairs supporting heavy rebar should be avoided, as some tube manufacturers strongly warn against kinks and sharp bends.
- Wire mesh may be placed directly over the installed tube when required, as in some exterior driveway applications.
- Protect both the Insulworks and the tube from heavy loads (buggy or wheelbarrow wheels) with plywood runners.
- Filling the hydronic tubing with water will reduce buoyancy, helping to keep the tube in place at the bottom of the slab.
- Cover with concrete.

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