

Installation, Operation & Maintenance Instructions

Installation

This booklet will provide you with detailed instructions for the installation of Modular Radiant Panels. Not all the following steps will be necessary for all applications. However, this will give you an idea of the maximum amount of work required for a radiant panel installation.

Radiant heating panels are finished with electrostatic powder paint. However, the panel surface must not come in contact with bare skin. Perspiration or grease from an ungloved hand can potentially leave a mark on the panel.

CAUTION

Installation personnel must wear clean white gloves when handling radiant panels.

CAUTION

Use a heat pad between radiant panel and copper pipe when making solder connection. Excessive heat can damage the paint finish.

SUPPLIES

With every job, the following will be supplied:

- Radiant Panels supplied boxed and crated. See Fig. 1.
- Detailed shop drawings which follow the mechanical shop drawings (see Fig. 2).
- White gloves for installation
- Spray bomb for any touch-ups

Figure 1: Typical Crating

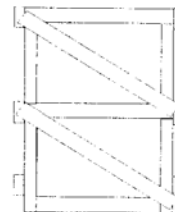
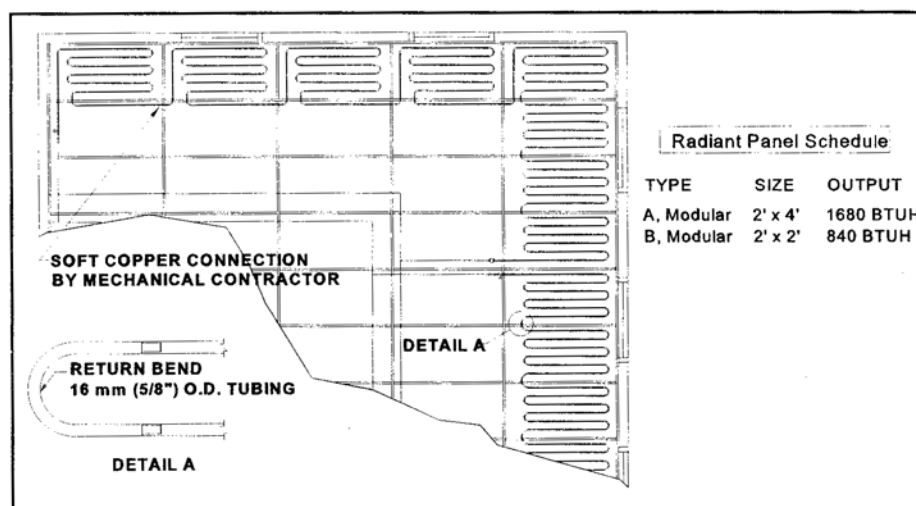


Figure 2: Shop Drawing Detail



INSTALLATION PROCEDURE

When installing radiant panels, you should have both the mechanical piping plan and the radiant panel schedule. Before starting with the installation, please familiarize yourself with the panels and their location by reviewing both documents.

Remember that when coming in contact with the panels you should always be wearing the white gloves provided for that purpose.

UNPACKING

The crates will be sent to the job site. Once on site, you will need to:

1. Open up the crates to gain access to radiant panels.
2. Follow the radiant panel schedule to bring the appropriate number of modular radiant panels to the designated rooms.

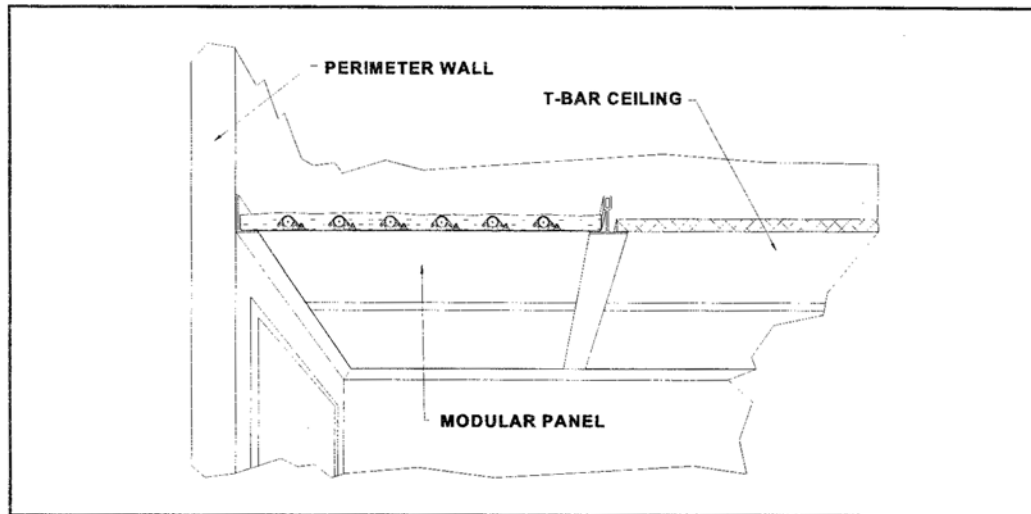
INSTALLING IN T-BAR CEILINGS

To install panels in a t-bar ceiling, you must:

1. Lift the panels into place making sure that 1/4" spacing is left at both ends for expansion.
2. Make all copper connections (supply and return or interconnectors). To solder the copper connections to the radiant panels, follow these steps:
 - Take off the clips holding the copper down using a nail slipped in the clip's loop.
 - Roll a discarded piece of copper under the panel's piping in order to raise it high enough for soldering.
 - Place a piece of heat sink material between the panel and the pipe to protect the panel.
 - Solder the copper connection to the piping.
 - Clip the piping back into place.
3. Perform an air pressure test by following the recommended procedure found in the specifications (if required).
4. Install the insulation with the foil side down. The insulation will need to be cut to length before being installed on the back of the panels.

Modular Radiant Panel

Figure 3: Installation of Modular Panel in T bar Ceiling

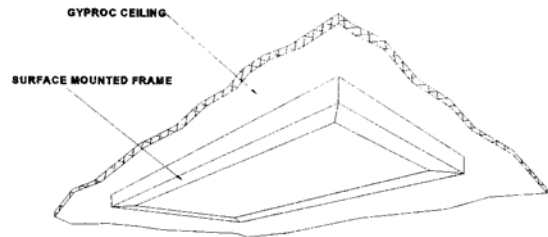
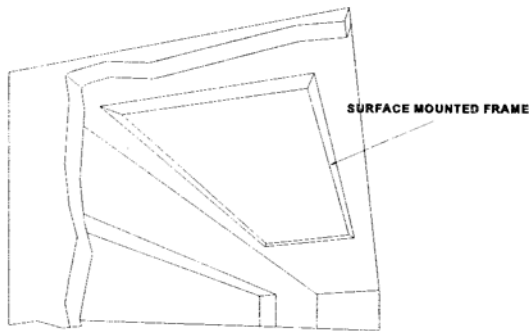


INSTALLING IN GYPROC CEILINGS

To install radiant panels in a gyproc ceiling, you must:

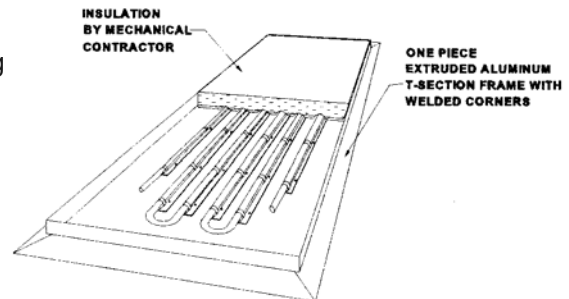
1. Install the supplied frame around the opening in the gyproc. See Fig. 4.

Figure 4: Frame Installations in Gyproc



2. Lift the panel into place see Fig 5.
3. Make all copper connections (supply and return or interconnectors) through the access opening. To solder the copper connections to the radiant panels, follow these steps:
 - Take off the clips holding the copper down using a nail slipped in the clip's loop.
 - Roll a discarded piece of copper under the panel's piping in order to raise it high enough for soldering.
 - Place a piece of heat sink material between the panel and the pipe to protect the panel.
 - Solder the copper connection to the piping.
 - Clip the piping back into place.

Figure 5: Modular Radiant Panel in Gyproc



4. Perform an air pressure test by following the recommended procedure found in the specifications (if required).
5. Install the insulation with the foil face down. The insulation will need to be cut to length before being installed on the back of the panel.

MISCELLANEOUS

Venting

Once the panels are installed, the piping system must be vented in order to avoid air locking.

Cleaning & Touch-up

In the event that a panel has been dirtied, the panel's face can be cleaned by using soapy water or an off the shelf mild household cleaner such as Fantastik or soapy water. Touch ups should be done only for modular panels that are not silk screened.

If panels have been scratched, use the supplied spray paint to touch up the panel's face. A few steps should be followed in order to touch up radiant panels:

1. Sand the affected area to remove any roughness
2. Wipe the area clean
3. If using a cleaner to clean the surface, let the area dry before applying paint
4. Holding the spray can 6 to 12 inches away from the panel's surface, apply the paint in light coats
5. Let the paint dry before handling (Approximately 20 minutes)
6. Repeat paint application until the scratch is covered

Repainting

Repainting a modular panel is applicable only for panels that are not silk screened. The type of powder coating used for radiant panels is an anti-graffiti paint and unless retouching a small area, paint will not adhere to the powder coated face of the panels. Therefore, for applications where an entire panel must be repainted either in white or in a different colour, please contact your nearest Vulcan representative.

