

LINEAR RADIANT CEILING PANELS

Installation, Operation & Maintenance

inear Radiant Ceiling Panels are a vital part of a building's heating/cooling system and therefore must be properly maintained to provide many years of trouble-free heating/cooling. As long as the following procedures are followed, the system will remain problem-free.

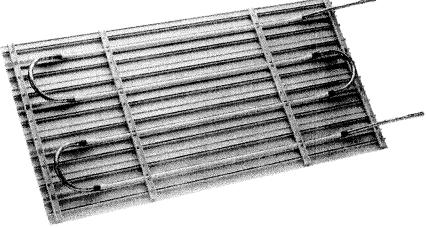
Installation:

All tubing used in the Rittling radiant ceiling panels is 1/2" nominal copper tube (0.625" OD). Standard size fittings work easily with the Rittling products. The panel tubing ends should be lifted up to approximately a 45 degree angle for attachment of U-bends or interconnecting flex connectors. The return bends, and if possible, the flexible interconnects should be installed at ground level. Be careful not to crimp tubing, as performance will be compromised. All copper tube connections require soldering or brazing to ensure a leak free system. Install copper connections first to tubing pass that is closest to perimeter wall. Circuiting of multiple panels should be done in a serpentine manner to ensure even flow over entire length of zone. Jividual serpentine panel coils connected in series is nacceptable for multiple panel zones.

All radiant panels shall run continuously from wall to wall. Field trim to length as required, allowing adequate room for expansion after installation. All radiant panels should be installed by workers wearing clean gloves to ensure a dirt-free surface. An insulation blanket, usually 1" thick 1 lb. density, should cover the entire back of the panel. Cut the blanket to pass around the interconnecting piping and suspension wires. Make sure that each insulation blanket butts up tightly with the adjoining blanket. Do not place insulation blanket over lighting fixtures. Interconnecting piping does not require insulation and is not recommended by Rittling to be insulated unless specifically required per specification.

Operation:

The main heating lines should be flushed to remove any debris prior to connection to the radiant ceiling panels. After installation, the entire hydronic system should be flushed again and then pressure tested dry to check for leaks. After fixing any leaks, air should be vented from the system by reintroducing water at 0.5 GPM or higher. The water temperature should be brought up gradually to the design temperature. The design water temperature drop will only be attained when building is under full load. It is recommended that balancing of system should be done during the winter when full flow will be realized.



Maintenance:

Maintenance is minimal for this type of heating system. Keeping strainers clean is the only real required maintenance concerning the piping system. Any descaling of the piping system should be performed as in any other hydronic heating system. The panels are designed to last and should be resistant to any damage. However, if there is noticeable damage to any of the panels, the piping should be inspected for leaks and the panels should be checked to make sure they are securely fastened.

Cleaning:

The surface of the panels is easily cleaned with an industrial vacuum to remove dirt and dust. If the panels can not be adequately cleaned in this manner, use a damp cloth or sponge and mild detergent. Avoid abrasive cleaners on the painted surface. Frequent hanging of the rinse water will help minimize streaking. All cleaning should be performed with thermostats in the off position and panels at room temperature. This will also help avoid streaking.

WARRANTY

Hydro-Air Components, Inc., manufacturer of the Rittling product line, guarantees this product to be free from defects in material and workmanship for a period of one year from date of shipment from our Buffalo, New York factory.

Should there be any defects in the good(s), the purchaser should promptly notify Hydro-Air Components, Inc. and upon receipt of written consent from Hydro-Air Components, Inc., the purchaser shall return the defective good(s) to the factory for inspection with freight prepaid. If inspection shows the goods to be defective, Hydro-Air Components, Inc. will at its discretion repair or replace the said item(s).

Defects arising from damage due to shipment, improper installation, negligence or misuse by others are not covered by this warranty.

This warranty is extended only to the original purchaser from Hydro-Air Components, Inc.

Hydro-Air Components Inc., in it's continuous product improvement program, reserves he right to change any and all information provided in this document without notice.



