TECHTiPS

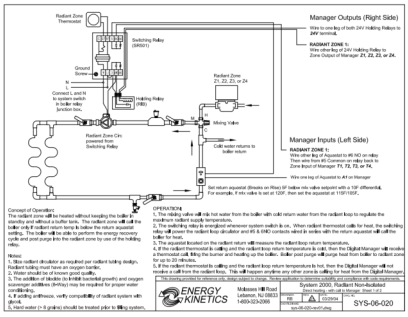
Radiant System with Energy Kinetics Boilers

When installing a radiant system with Energy Kinetics boilers, we recommend a buffer tank to improve efficiency and to deliver smoother operation.

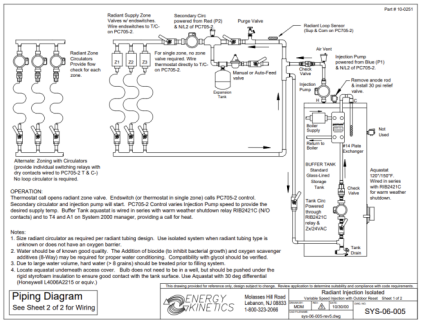
Radiant heating is typically designed for extended thermostat calls, resulting in gradual changes in both room and water temperatures. If the radiant system is connected with a mixing valve, the boiler remains hot throughout these long heating cycles, which is not efficient.

By integrating a buffer tank, the boiler will only operate to heat the tank and then cool down after purging, while the radiant system continues to draw heat from the buffer tank. This allows the tank and circulator to maintain heat distribution without keeping the boiler constantly hot. Please see the below diagrams for both isolated and standard buffer tank piping systems. We only recommend the isolated option if true non-oxygen barrier tubing is used.

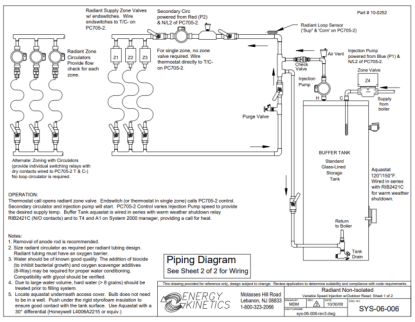
For smaller radiant zones (under 10,000 BTU/hr), we have included a diagram that allows operation with a mixing valve and a return aquastat without needing a buffer tank. Although this method is less efficient than using a buffer tank, it does help mitigate some efficiency losses by preventing the boiler from maintaining temperature in standby during long thermostat calls.



View Small Radiant Non-Isolated Direct Heating - with call to Manage



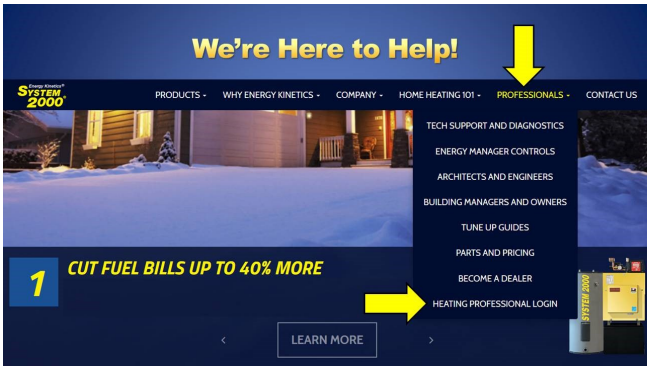
View Radiant Injection Isolated Variable Speed Injection with Outdoor Reset



View Radiant Non-Isolated Piping Diagram Buffer Tank

If you have been on the job for 20 minutes and you haven't solved the problem give us a call!
(908)735-2066

www.energykinetics.com



Need Drawings, Manuals, Instructions, Specs, Videos? Good Place to find this information is in our Heating Professional Page on our website.

https://energykinetics.com/dealers/
Username: ekdealer
Password: heatpro