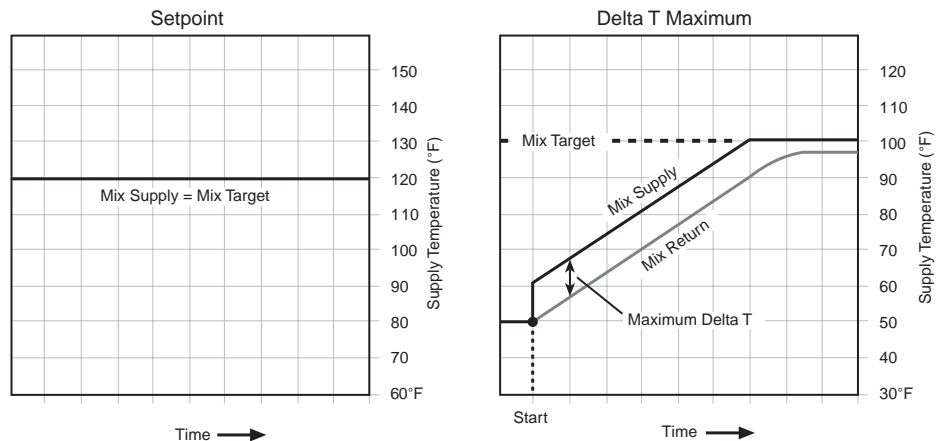


### OVERVIEW

Once a heat request is present, such as a thermostat calling, the 00-VS operates to provide a fixed differential temperature (Delta T) between the system return sensor and the system supply sensor. The Variable Speed Setpoint "00" Circulator (00-VS) can maintain a differential temperature of 5° - 50°F. In applications, such as snow melting, it is desirable to limit the rate of temperature increase in the system from the system's starting temperature to its operating setpoint. This is to prevent thermal shock of the system, causing cracks in the cement or buckling of floors, for example. Delta T operation can provide a "soft start" of a heating system when sensors are placed across the boiler. If utilizing a condensing boiler, a high Delta T can be maintained by placing sensors on the supply and return of the boiler. This increases the boiler's efficiencies by optimizing the BTU transfer in the system, no matter the load applied.

The Radiant Mixing Block, when in the Setpoint Mode, can be adjusted to maintain a maximum differential temperature of 10° - 70°F. If the Delta T Max setting is turned on, the variable speed injection pump is operated to maintain temperature at the mixing supply sensor at either the mixing return temperature plus the Delta T max setting or the mixing target temperature set by the installer, whichever is lower. The RMB can also provide boiler protection in this mode as well as controlling or enabling the boiler.



Controlling the temperature drop across a system, zone or piece of equipment means never over pumping a system, while always matching the boiler output to the load applied.

### Benefits:

- Maintains a specific temperature differential no matter the load
- Uses standard "00" circulators
- Provides soft start of system
- Simplified wiring
- LED status panel or LCD display
- Prevent thermal shock
- Increased boiler efficiencies
- Boiler protection (RMB)
- Solid state microprocessor designed

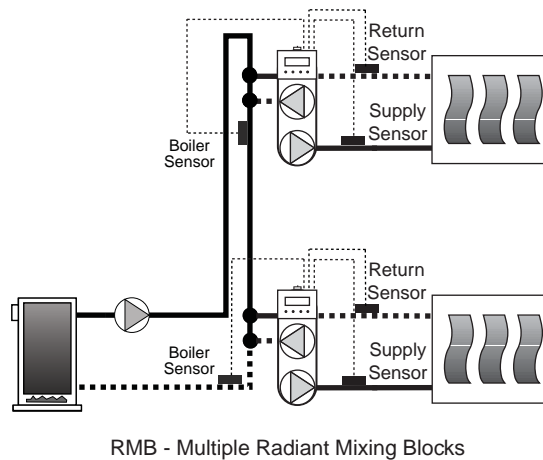
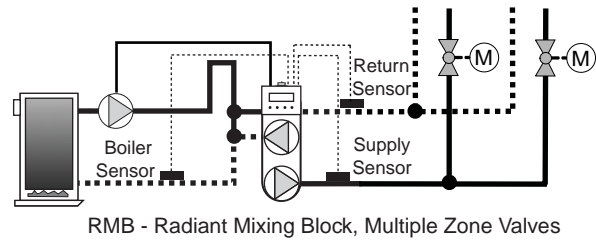
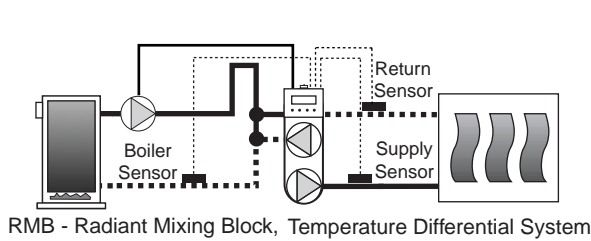
### Products:

- 00-VS - Variable Speed Setpoint "00" Circulator  
(available in all models 003-0014)
- RMB-1 - Radiant Mixing Block

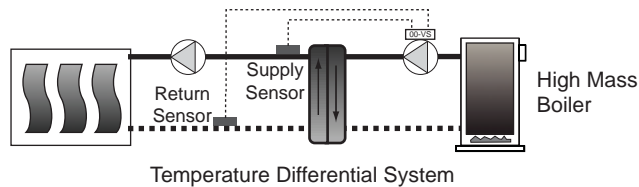
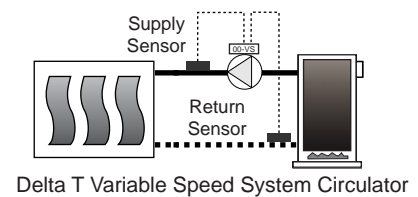
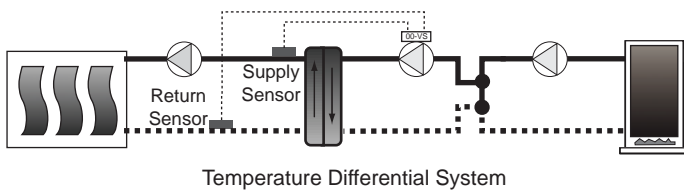
## INSTALLATION

For installations where boiler protection is **NOT** required, the boiler sensor does not need to be installed.

### Setpoint with Delta T Max. Operation Mode



### Temperature Differential ( $\Delta T$ ) Installations



## Radiant Made Easy™

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