

Radiant Mixing Block®

The Taco Radiant Mixing Block® represents a breakthrough in the design, control and installation of radiant systems. The patented design combines a variable speed injection mixing control, injection circulator, system circulator, and air elimination into a single unit. Extremely versatile, the Radiant Mixing Block can be set up as an outdoor reset control, a setpoint control or a Delta-T limiting control. All this with no special piping, no balancing valve, no closely spaced tees, no external controls, no complex wiring; just four pipe connections and your installation is complete. Welcome to the new age of Radiant!



U.S. Pat # 7,048,200



Submittal Data Information Radiant Mixing Block®

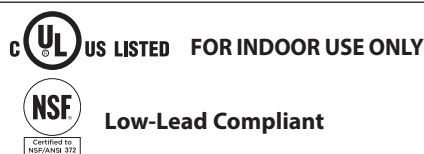
Features

- All-in-One Injection Piping, Pumping, Air Elimination, & Control Package
- Only 4 Pipe Connections Required
- Plug-in Low Voltage Connections
- Solid State Microprocessor Design
- Greatly Decreases Installation Time
- Substantial Space Savings
- Line Cord Included, Hard Wire Option
- Stainless Steel Casing for Open or Closed Systems
- Replaceable Cartridge Design
- Maintenance Free, Wet-Rotor Circulators
- 2 Operation Modes: Outdoor Reset and Setpoint with or without Delta-T Limiting
- Powered or Unpowered Demand Signal
- Integral Check Valve
- Main System Pump Contact
- 100% Pump Operation / Control Override Switch
- Automatic Pump Exercise
- Adjustable Reset Ratio
- Warm Weather Shutdown
- Boiler Control or Enable Setting
- Boiler Protection
- Large LCD Display
- C° or F°
- Outdoor and 2 Strap-on Sensors included

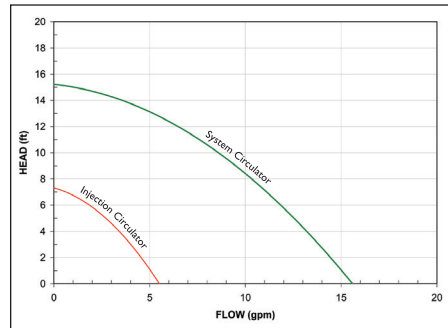
Performance Data

Max. Flow: 15.5 GPM
Max. Head: 15 Feet
Min. Fluid Temperature: 32°F (0°C)
Max. Fluid Temperature: 185°F (85°C)
Max. Working Pressure: 125 psi
Connection Sizes: 3/4" NPT

Certifications & Listings

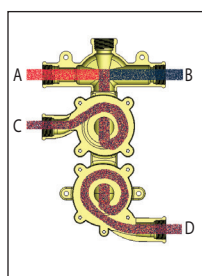
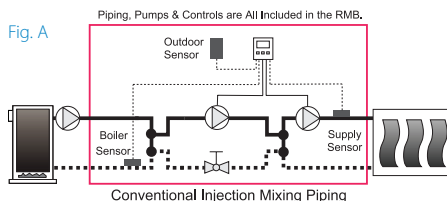


Performance Field



Application

The Taco Radiant Mixing Block® (RMB) is a complete injection mixing system. Integral to the unit is a variable speed injection circulator, constant speed system circulator, air elimination, and the electronics to drive it all. With only four piping connections needed, the RMB greatly reduces the time and space required for installation (see Fig. A). The RMB can be set up to operate as an outdoor reset control or a setpoint control with or without delta T limiting, creating flexibility never seen before in a single unit.

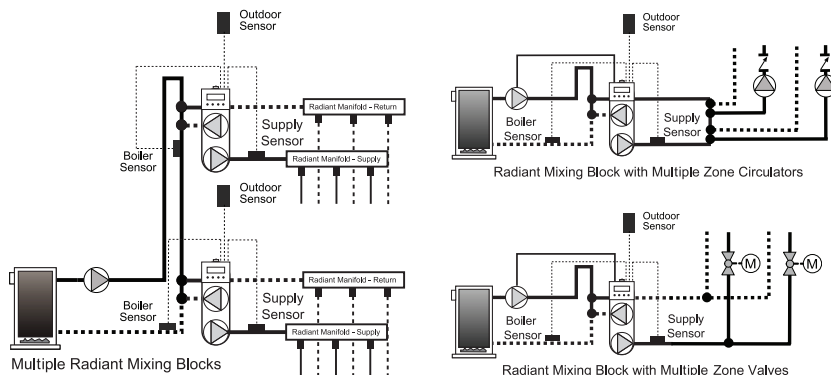


Operation

Hot water from the boiler loop enters the RMB at the Boiler Supply port (A). The cooler return water from the radiant loops enters at the System Return port (B). In the middle of these two ports, any air in the system is purged through the integral Taco Hy-Vent®. The injection circulator varies in speed to blend the two temperatures, injecting the excess required temperature back through the Boiler Return port (C). The constant speed system circulator delivers the required blended water temperature to the radiant loop through the Radiant Supply port (D).

Sizing and Piping

The Radiant Mixing Block can handle radiant load demands of up to 120,000 BTU's. Your current method of zoning the radiant loops (manifolds, zone valves, etc.) does not change with the installation of the RMB. Multiple Radiant Mixing Blocks can be used to separate the distinctive temperature requirements between manifolds. No special piping, just 4 connections and your installation is complete.



Electrical & Weight Data

Model	Volts	Hz	Ph	Amps	RPM	HP	Ship Wt.	
RMB-1	120	60	1	2	3250	1/40 & 1/25	lbs.	Kg
Motor Type	Permanent Split Capacitor Impedance Protected							

