X-Pump Block

Open system vs closed? Barrier vs non-barrier tubing? Boiler vs water heater?

The debate ends here. The patent pending X-Pump Block combines a variable speed mixing control, heat source circulator, system circulator, and heat exchanger into a single unit. This combination delivers complete isolation between the heat generation side of the system (boiler, water heater, etc.) and the heat delivery side of the system (radiant tubing, glycol based snowmelt, baseboard, etc.). Just four pipe connections and your installation is complete.

Taco radiant made easy™

Submittal Data Information
X-Pump Block

Features

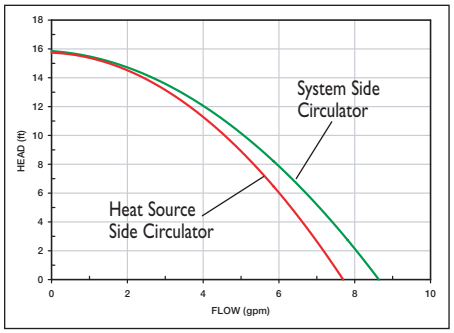
- All-in-One Heat Exchanger, Dual-sided Circulators and Mixing Control Package
- Brazed Plate Heat Exchanger
  - Provides Complete Isolation
  - Stainless Steel
  - Easily Removable
  - Double Wall Optional
- Only 4 Pipe Connections Required
- Plug-in Low Voltage Connections
- Solid State Microprocessor Design
- Greatly Decreases Installation Time
- Substantial Space Savings
- Line Cord Included, Hard Wire Option
- Bronze 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
- Main System Pump Contact
- 100% Pump Operation / Control Override Switch
- Automatic Pump Exercise
- Adjustable Reset Ratio
- Warm Weather Shutdown
- Large LCD Display
- Outdoor and 2 Strap-on Sensors included

Performance Data

Flow Range: 0 – 7.5 GPM
Head Range: 0 – 15.5 Feet
Minimum Fluid Temperature: 32°F (0°C)
Maximum Fluid Temperature: 185°F (85°C)
Maximum Working Pressure: 125 psi
Connection Sizes: 3/4" NPT

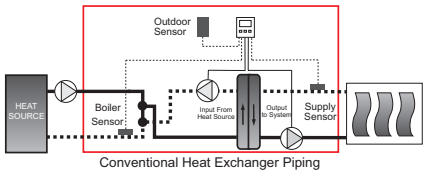
c UL us LISTED **FOR INDOOR USE ONLY**

Performance Field

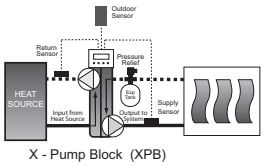


Application

The X-Pump Block (XPB) is a complete mixing system with an attached brazed plate, counterflow style heat exchanger for system isolation. Integral to the unit is a variable speed heat source circulator, constant speed system circulator and the electronics to drive it all. The XPB can be set up to operate as an outdoor reset control, a setpoint control or a delta T limiting control. This unparalleled flexibility within a single unit creates a pumping and control package that can be used in systems combining any style heat source (boiler, water heater, etc.) with any style heat delivery method or system condition (radiant tubing, glycol based snowmelt, open system, etc.). With just 4 piping connections needed, the XPB greatly reduces the time and space required for installation.



Conventional Heat Exchanger Piping

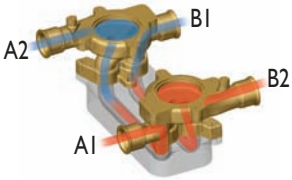


X - Pump Block (XPB)

The features of the X-Pump Block makes it easy and cost effective to include a hydronic based radiant floor warming system in any kitchen and bath remodel project, especially in homes which have an air based heating system. The XPB also makes the perfect companion for basement "radiant ready" packages, jobs where space is at a premium, and small snowmelt areas such as handicap accessible building entrances.

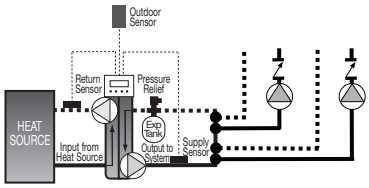
Operation

Hot water from the heat source, such as a boiler, enters the X-Pump Block's integral heat exchanger at port (A1) and exists at (A2). The variable speed circulator controls the speed of the water flowing through the A side of the heat exchanger to satisfy the heat transfer requirements between the A side of the heat exchanger and the B (system) side. The heat exchanger is a counterflow style, so system water enters at port (B1) and exits at port (B2). A constant speed circulator moves the water around the B (system) side. In certain applications, such as snowmelt, the system pump motor can be switched with the variable speed motor in order to protect the heat exchanger from freezing up by ensuring constant flow on the heat source side.

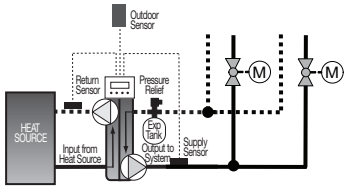


Sizing and Piping

The X-Pump Block can handle transfer loads of up to approximately 50,000 BTU. Your current method of piping virtually remains the same; yet complete system isolation is achieved. The only addition needs to be a separate expansion tank and relief valve on the system side. 1 outdoor sensor, 2 strap-on sensors and a line cord are included for fast plug n' play wiring.



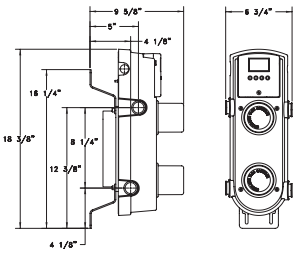
X - Pump Block (XPB), Multiple Zones - Circulators



X - Pump Block (XPB), Multiple Zones - Zone Valves

Electrical & Weight Data

Model	Volts	Hz	Ph	Amps	RPM	HP	Ship Wt.	
XPB-1	120	60	1	2	3250	2 @ 1/25	lbs.	Kg
Motor Type	Permanent Split Capacitor Impedance Protected						26.5	12.0



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