



**RRHP™ (R-Ready Hydronics Package)** turns a tank-less water heater into an energy-efficient space heating and domestic hot water system. It is ideal for replacing an existing boiler or supplying hot water to a new hydronic system when separation of the space heating and domestic hot water system is required.

Each package includes a stainless steel plate heat exchanger and bronze circulating pump. A domestic hot water tempering valve is provided to allow independent domestic hot water temperature selection.

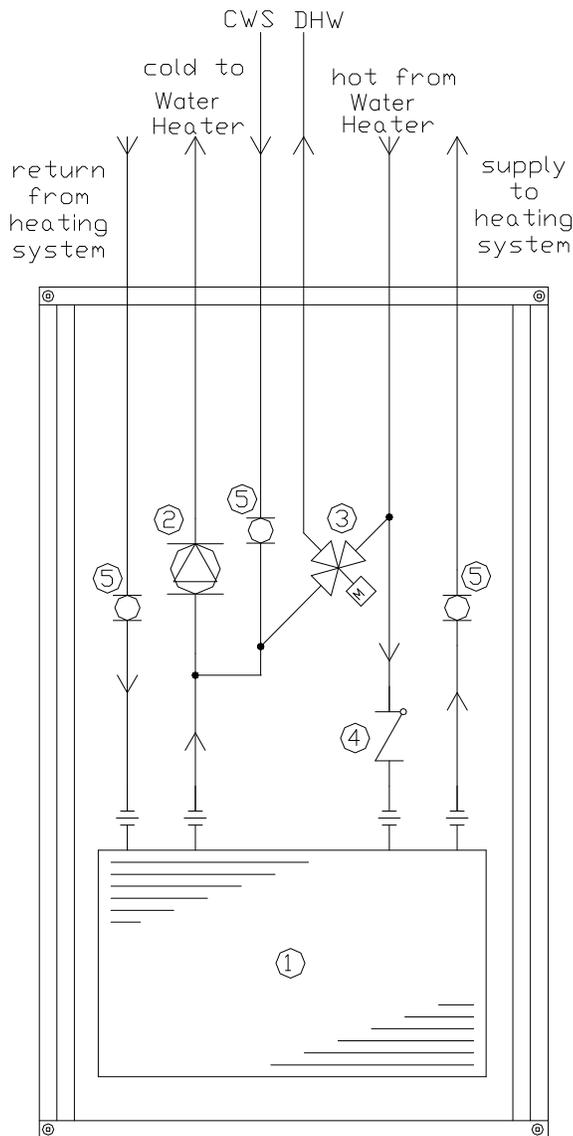
Each system is pre-assembled and mounted in an attractive cabinet.

Select the model that most closely matches heating system capacity or contact Ecologix for assistance.

## Physical Properties

Model	Heating Capacity (Btu/h)	Flowrate (usgpm)	Water Connections*		Cabinet dimensions			Shipping Weight
			Water Heater	Hydronic	height	width	depth	
RRHP060	60,000	6	3/4"	3/4"	24"	14 1/4"	8"	35 lb.
RRHP110	110,000	11	3/4"	1"	24"	14 1/4"	8"	50 lb.
RRHP220	220,000	22	1"	1 1/2"	24"	14 1/4"	8"	75 lb.

- Copper sweat is standard. Any alternate plumbing connection is available by special order: barb, compression, NPT.
- Capacity based on 20°F temperature rise at the boiler. A higher capacity is available with a higher temperature rise.



**Figure 1**

- 1) Heat Exchanger
- 2) Pump
- 3) Tempering Valve
- 4) Check Valve
- 5) Isolation Valves

## Mounting

The RRHP™ may be mounted in a mechanical room, on a basement wall or in a closet. It may be surface mounted or recessed into the wall. It can be mounted horizontally or vertically but the heat exchanger must not be installed with the connections pointing down or it may trap air.

For **surface mounting**, use anchors suitable for the wall surface (concrete, drywall or wood screws). The cabinet should be screwed through the top and bottom flanges.

For **recessed installations**, the cabinet may be screwed from the inside through the sides of the cabinet into the wall stud. The cabinet is designed to fit between wall studs that are 16 inches on centre. Additional wood blocking may be necessary to support both sides of the cabinet. It is recommended that the RRHP™ be recessed at least 3-1/2" in order to hide all plumbing connections.

Note: for recessed installations, all plumbing connections must be completed before the drywall is installed around the cabinet.

## Plumbing Connections

All connections to the RRHP™ are sweat copper and may be adapted to crimp PEX, compression PEX or NPT. Note: PEX with an oxygen barrier is required for closed loop systems with iron components. The oxygen barrier is not required for plumbing connections and connections to the water heater. The oxygen barrier is not required for iron-free hydronic systems such as copper fin-tube convectors or radiant floor heating.

Connect the heating system supply and return to the hydronic system. An Ecologix Closed Loop Package (CLP) or Glycol Fill Station (GFS) is required on the hydronic system to

provide the necessary expansion, air elimination and fill.

All remaining plumbing connections must be plumbing-grade materials (copper pipe, lead-free solder). Connect the RRHP™ to the hot and cold connections on the water heater. Connect the domestic hot water and cold-water connections.

## **Electrical**

A standard 115VAC, three-prong electrical outlet is required for the pump or it may be hard-wired.

It is recommended that the primary pump be interlocked to the heating equipment to provide hot water in the primary loop only when there is a call for heat.

## **Start Up**

Fill the domestic hot water side of the system and purge all air. Fill the hydronic system side using the auto-feed valve on the Closed Loop Package (CLP) or pump glycol into the Glycol Fill Station (GFS) according to the GFS

instructions. Open a hot water tap slightly to aid in the elimination of air on the potable side of the system. Start all pumps and purge all remaining air. Apply power and gas to the water heater and set it to the desired water temperature. Set the domestic hot water tempering valve (3) to the desired domestic hot water temperature.

## **Troubleshooting**

No heat -- check the following:

- water heater is on
- heat source supply and return are not reversed
- all required valves are open.
- power available
- pump is running (a screwdriver held to the pump can work like a stethoscope)

Noisy Pump

- repeat purge procedure

Overheating (Large Temperature Swings)

- Adjust room thermostat anticipator according to manufacturer's instructions. It should be set to provide 3-4 on cycles per hour during the heating season.