

HYDRO ROYAL GEOTHERMAL HEAT PUMPS



Desuperheater Connection and Plumbing Installation

- Run interconnecting tubing from the DHW OUT (unit or external desuperheater) to the adapter located on the tee at the bottom of the water heater (Step 7).
- Run interconnecting tubing from DHW IN (unit or external desuperheater) to cold IN water line tee installed in Step 10.
- Install a vent coupling at the highest point of the interconnecting lines to prevent air entrapment.
- Turn on water supply to water heater.
- Fill water heater.
- Flush, fill all interconnecting lines.
- Check carefully for leaks.
- Insulate all exposed surfaces of connecting water lines to 3/8" closed cell insulation.
- Reconnect power supply to water heater.

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Plumbing Installation

- **Notes: All Plumbing and piping connection must comply with local plumbing codes.**
- Disconnect electrical power supply to water heater.
- Turn off water supply going to water heater.
- Drain water heater (open pressure relief valve.)
- Inspect the dip tube in the water heater cold inlet for the check valve. If a check valve is present, it must be removed or damage to the desuperheater circulator will occur.
- Remove drain valve and fitting from the water heater.
- Thread the 3/4" NPT x 3 1/2" brass nipple onto the water heater drain port.
- Attach the center port of the 3/4" FPT tee to the opposite end of the brass nipple.
- Attach the 1/2" SWT x 3/4" MPT cooper adaptor to the side of the tee closet to the unit.
- Attach the drain valve on the tee opposite the adapter.
- Cut the cold water IN line going to the water heater.
- Insert the 3/4" x 3/4" x 1/2" reducing solder tee in line with the cold water line as shown in Figures 2 and 3.

Connection to Internal Mount Desuperheater

Figure 2: Typical Desuperheater Installation

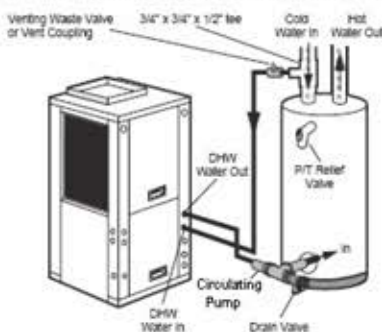
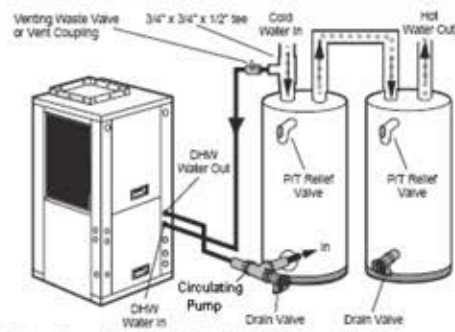


Figure 3: Desuperheater Installation In Preheat Tank



Note: Do not connect electrical to pre-heat tank.

- Install circulating Pump (3.0 – 4.0 gpm)
- If the water heater is being connected to the unit with an internal desuperheater:
- Attach the two 1/2" SWT x 1" MPT copper adapters to the DHW IN and DHW OUT to the swivel connectors on the unit. (If the unit does not include swivel connector for DHW connections, use appropriate size adapters-field supplied).