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HEAT PUMP WATER HEATERS

Before deciding to install a heat pump water heater, it's essential to understand how they work. Unlike traditional units that generate heat using gas or electricity, heat pump water heaters do not create heat directly. Instead, they extract heat from the surrounding air and deliver it to the storage tank. This concept is similar to how refrigerators work, albeit in reverse, as they absorb warmth from the surrounding air. This makes them particularly effective in warmer climates.

Heat pump water heaters offer a more energy-efficient and eco-friendly solution for your hot water needs. Understanding their operation and maintenance requirements will help you make the most of this innovative technology. Enjoy the benefits of cost savings, a longer equipment lifespan, and reduced environmental impact with a well-maintained heat pump water heater.

HEAT PUMP WATER HEATER BENEFITS:

- **Longer Lifespan**: While traditional water heaters typically last 8-12 years, well-maintained heat pump water heaters generally have a lifespan of 10-15 years.

- **Solar Compatibility**: Solar panels convert sunlight into electricity, which powers appliances like heat pump water heaters. An inverter changes this electricity from DC to AC, making it usable by the heat pump. Properly sizing the solar panel system to match heat pump and hot water needs maximizes energy use and reduces grid electricity reliance. Combining solar power with heat pump technology offers cost-effective and sustainable hot water solutions, reducing your carbon footprint for a greener future.

- **Energy Efficiency**: Heat pump water heaters use a fraction of the electricity required by traditional electric resistance water heaters, leading to significant annual electricity bill savings. They also have much higher efficiency than gas-fired water heaters.

- **Additional Benefits**: Many heat pump water heaters offer features such as Wi-Fi controls, automated leak detection, and integration for remote monitoring and control. They also contribute to dehumidification in their installation spaces and can be placed in locations suitable for conventional hot water tanks, with slight clearance and air circulation considerations.

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HEAT PUMP WATER HEATER SUPPLEMENTAL INFO

OPERATING YOUR HEAT PUMP WATER HEATER

- **Regular Maintenance:** Schedule annual professional servicing to maintain the longevity and performance of your heat pump water heater.
- **Patience with Recovery Times**: Heat pump water heaters will take longer to heat water compared to traditional systems. They may face recovery limitations during peak demand periods on cold mornings. Installation of a mixing valve (see below) can help alleviate this situation.
- **Sound Considerations**: Be mindful of the internal compressor's operation noise and select a suitable location for your heat pump water heater installation.
- **Vacation Mode**: Utilize the vacation mode feature to save on energy consumption, benefiting both your water heater and wallet. If your heater lacks this feature, manually lower the temperature when going on vacation.
- **Recirculation**: Heat pump water heaters do not work well with whole house recirculation pumps and are not recommended by most manufacturers because of the longer recovery times. This method is inefficient for larger homes as the pump circulates hot water throughout the whole home forcing the water heater to run longer. If you have an area in your home that takes a long time for the water to heat up, it is ideal to install an on-demand pump under the sink to the nearest shower or problem area.
- **Mixing Valve**: The safest delivery temperature for hot water to a home is 120 degrees. A mixing valve allows you to heat the water in your water heater to a higher temperature to increase capacity while still delivering it to the house at a safe temperature. Heating water to 130 or 140 degrees and mixing it down to 120 increases capacity significantly, effectively increases the tank size, and is a great option if you have space constraints. Let's consider an example of four people taking showers at the same time. With a 50-gallon water heater set to 120 degrees, you may run out of hot water. Increase the temperature to 130 or 140, and you will have the same effective capacity as a larger tank. The ability to turn up the heat is well worth the additional cost. In fact, Hassler will not install a heat pump water heater without a mixing valve, and they are also required to be installed by the various state rebate programs. Mixing valves are a simple and effective means to overcome capacity issues and is cheap insurance against scalding.