VAUGHN
a nudyne company

Heat Pump Ducting Kit Installation Booklet

Hydrastone® Hybrid Electric Heat Pump Water Heater

GENERAL INFORMATION

PLEASE READ INSTRUCTIONS COMPLETELY

BEFORE ANY MODIFICATION

IMPORTANT OWNER'S RESPONSIBILITY

Vaughn Thermal Corporation (herein called the Company) specifically does not expressly or impliedly warrant the merchantability or the fitness for any particular purpose or the performance of the heater within that system, nor does it assume liability for any consequential damage to general property or other components of the system.

The Vaughn Heat Pump Water Heater uses a small amount of electricity to transfer heat from the air to water. In comparison, traditional electric water heaters use resistive heating elements to directly heat the water. A benefit of the heat pump water heater is that it uses less than a third of the electricity of a traditional electric water heater to produce the same amount of hot water and therefore the Vaughn Heat Pump Water Heater is significantly more energy efficient compared to a conventional electric water heater.

In principle, a heat pump works like a refrigerator in reverse. A refrigerator moves heat from inside the refrigerator and transfers that heat energy to the surrounding room. A heat pump water heater on the other hand, pulls free heat from the surrounding air and transfers that heat to the water stored in the tank. The Vaughn Heat Pump Water Heater can pull heat out of air as cool as 40°F, and if it cannot provide enough heating capacity to meet demand, the water heater includes back-up resistive heating elements to ensure the unit provides sufficient hot water. In addition, the heat pump process of removing heat from the air and transferring it to the water results in the exhaust of cooler dryer air, with as much as 0.4 gallons per hour of "free" dehumidification provided, while the unit is heating water.

Generalized instructions and procedures cannot anticipate all situations. For this reason, only qualified installers should perform the installation. A qualified installer is a licensed person who has appropriate training and a working knowledge of the applicable codes, regulations, tools, equipment, and methods necessary for safe installation of the heat pump water heater.

If questions regarding installation arise, check with your local plumbing and electrical inspectors for proper procedures and codes. Local codes take precedence over instructions in this manual.

SAFETY INFORMATION

INSPECTING AND PREPARATIONS

Before any work whatsoever, turn off electricity to the tank. After the power is turned off inspect the tank for hot components. Use caution as components can maintain hot temperatures after power is removed. DO NOT operate on this system until all components have cooled down to non-dangerous temperatures.

SPECIFICATIONS

DUCTING

- The ducting kit is designed to work with 10-inch diameter ducting.
- To ensure maximum performance, keep the duct as short and as straight as possible. Additionally try to make all necessary bends as wide of an angle as possible.

PARTS INCLUDED

Ducting Adapter with Gasket Material:

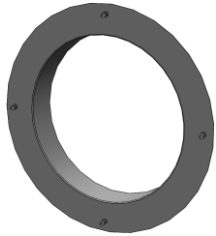
Front:

Back

Ducting Adapter with White Clips:

Front

Back

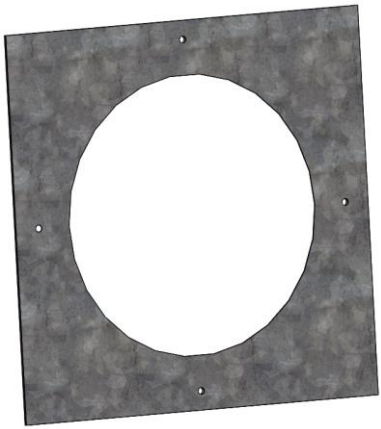


¾” Self-Tapping Screws (4x)

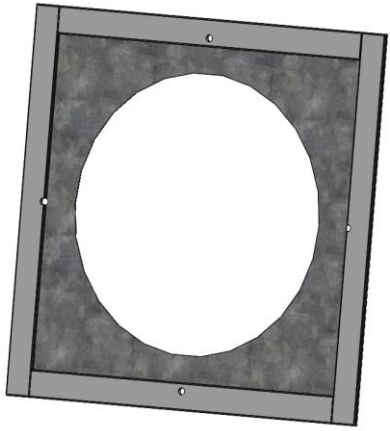
Not pictured

Intermediary plate with Protected Double-Sided Tape:

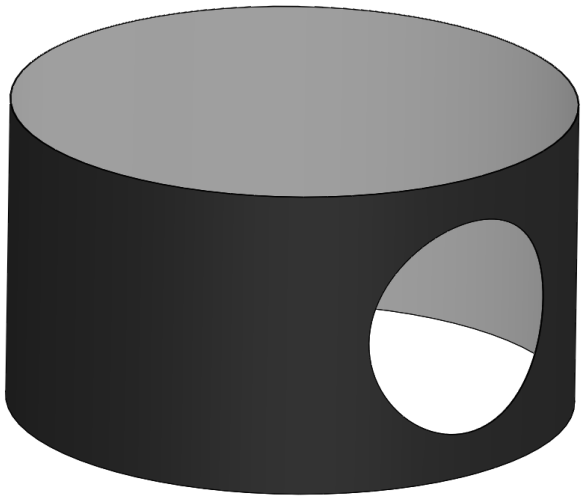
Front:



Back:



Top Jacket with Open Vent:



The actual jacket is only one color.

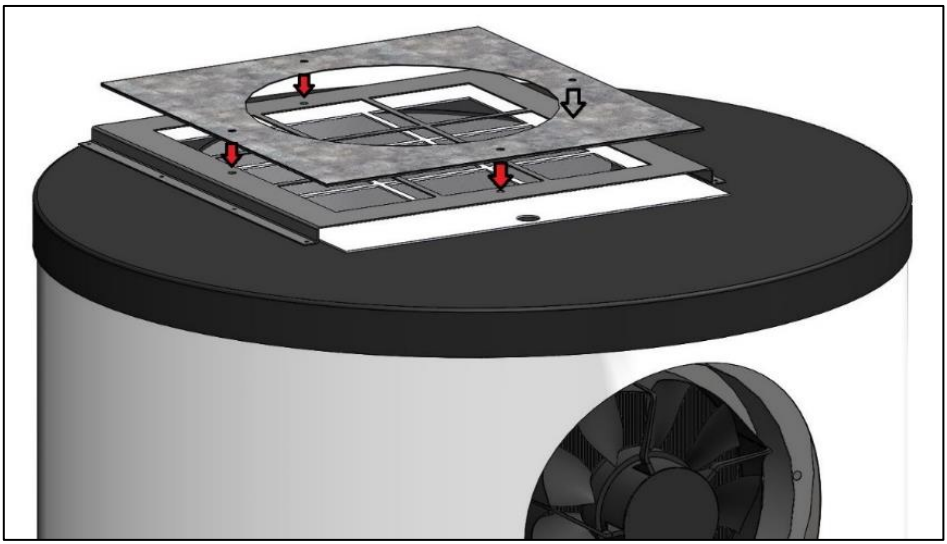
INSTALLATION, TOP ADAPTER

1. Remove the Top Pan from the unit by unscrewing the three screws along the circumference of the top pan. DO NOT dispose of these screws as they are required for reinstallation.

2. On the back side of the intermediary plate, remove the white paper from the double-sided tape.

   USE CAUTION TO ENSURE TAPE IS NOT RUINED

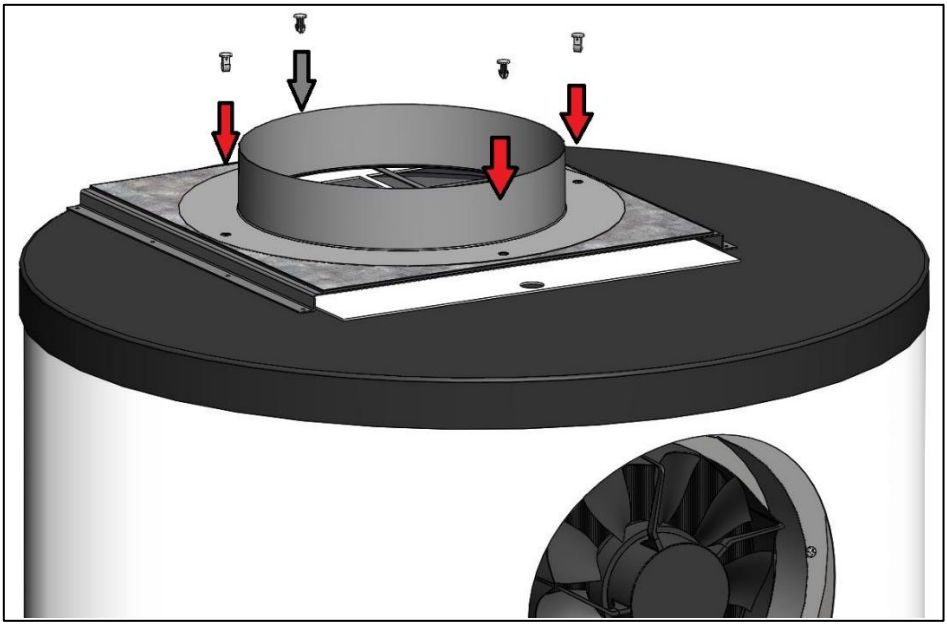
3. Without applying the tape, line up the intermediary plate such that the screw holes line up with the filter holder. This operation is shown below:



The gray arrow depicts that the hole cannot be seen in the image.

4. Once aligned secure the intermediary plate by pushing the double-sided tape onto the filter holder.

5. Place the ducting adapter on top lining up the four preinstalled clips with the holes. This is pictured below:



The gray arrow depicts that the hole cannot be seen in the image.

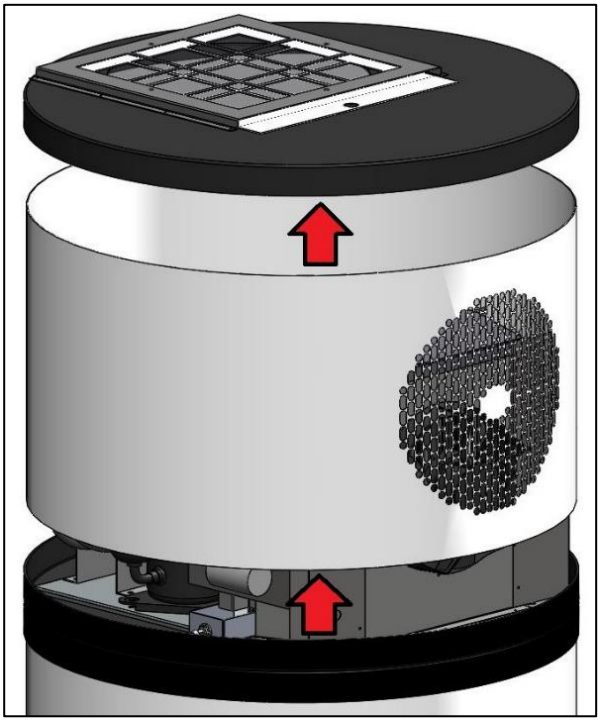
6. Push all four clips down until the rim of each is snug with the ducting adapter.

7. The top ducting adapter is now complete. It is recommended to leave the top pan off to ease modification of the front ducting adapter.

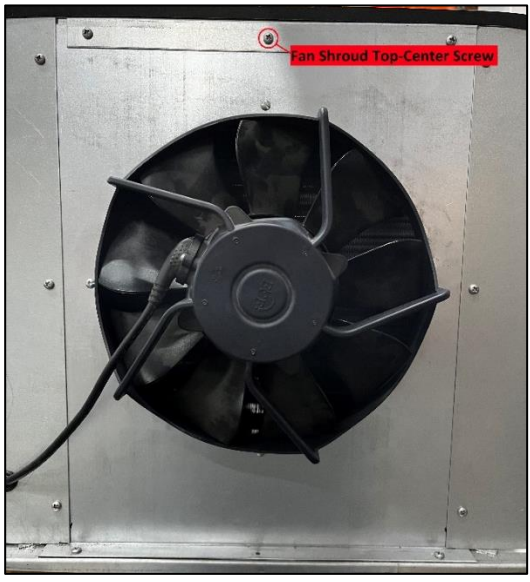
INSTALLATION, FRONT ADAPTER

1. **Skip step one if the top jacket has already been removed.** Remove the screws holding both the upper pan and louver jacket in place. These screws are found around the circumference of the two uppermost pans. DO NOT lose screws as they are required for reinstallation.

2. Remove the top pan and louver jacket. The louvered jacket can be set aside as it will not be used for further modification. However, it is recommended to reinstall the louvered jacket if the ducting kit is removed.

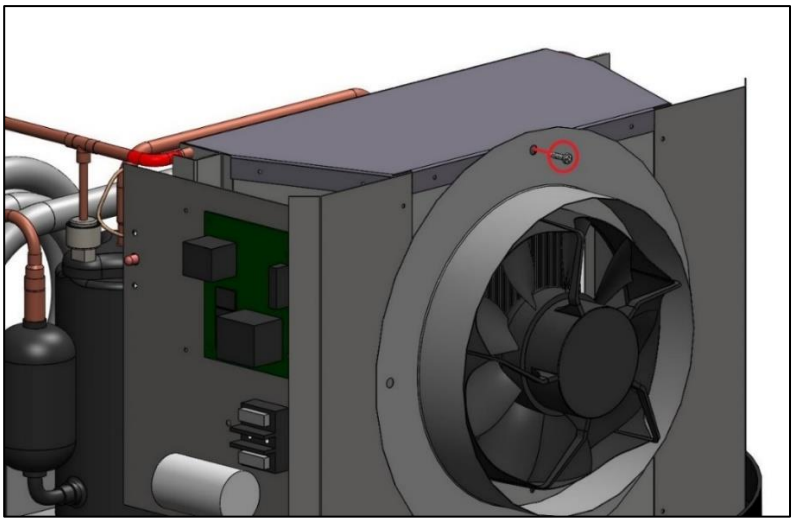


3. Take out the top-center screw on the fan shroud. This screw is shown below:

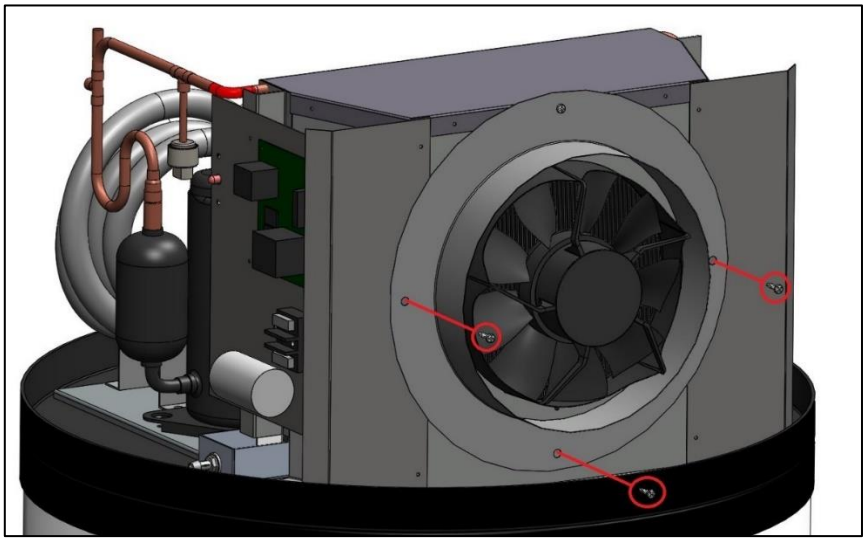


4. Center the ducting adapter around the fan, at the same time ensure the fan power cord is slotted into the cutout in the gasket material. The cutout is shown below:

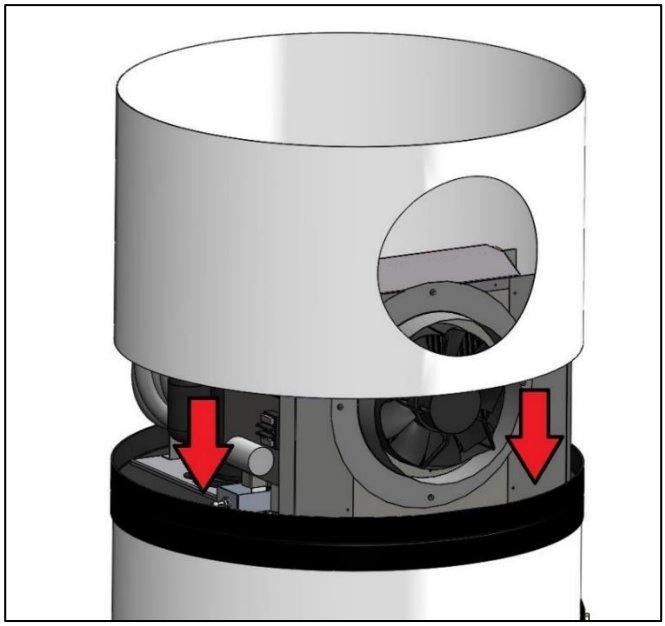
5. Fasten the ducting adapter by screwing in a ¾" self-tapping screw through the upper hole of the ducting adapter and then into the fan shroud top center hole. Make sure the fan's cord is fed through the gap in the gasket material. This is shown below:



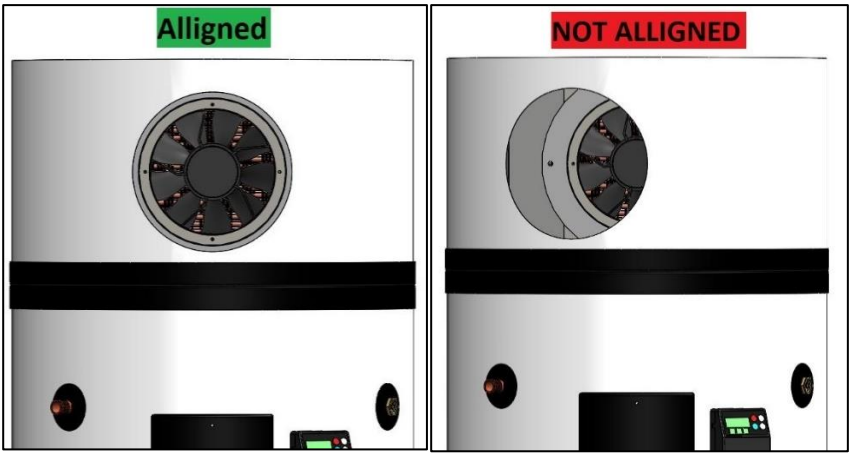
6. While making sure the adapter is centered around the fan, secure it by screwing in the three remaining ¾” self-tapping screws into the remaining holes in the ducting adapter.



7. Fit the hole of the new jacket around the ducting adapter then seat it into place.



8. Once placed ensure the hole in the jacket aligns with the fan. Once aligned secure the new jacket to the bottom pan by replacing the earlier removed screws.



9. Place the top pan onto the new jacket and secure by reinstalling the earlier removed screws.

10. This concludes the installation process for the front ducting adapter.