

## **What Is a Direct Vent Mobile/Manufactured Home Water Heater?**

Direct vent water heaters, listed and approved for mobile/manufactured homes, are a type of gas-powered storage tank water heater best suited for use when there is insufficient ventilation within the installation space in your home. All gas water heaters heat up the water by burning fuel. As the fuel burns, exhaust is produced and must be removed from the house. For a direct vent water heater, those gases are removed through a specially designed exhaust system, and combustion air must be provided from the outside of the dwelling via a combustion air assembly designed for the specific model to be installed. The cold-water connection is positioned towards the bottom right of the water heater, and the hot water being supplied off the top.

## **Benefits and Disadvantages of Direct Vent Gas Water Heaters.**

Direct Vent Water Heaters are specifically designed to solve the issue of limited space and ventilation in the layout of manufactured homes. Direct Vent Gas water Heaters produced for the Manufactured Housing Industry are flexible in terms of which energy source they can use: Natural Gas or Liquid Petroleum Gas (LPG). The units are pre-set for Natural Gas when they are manufactured, however, they are supplied with a prepackaged conversion kit that contains all the parts necessary to complete the conversion process to LP.

In some areas of the country Direct Vent Water Heaters are special order items. This is due to the specific design, standards, and regulations preset by the HUD/Manufactured Homes industry. Due to the wide range of versatility, and the specific design of the equipment, pricing may be slightly higher than Standard Atmospheric water heaters.

### **Warning.**

**Installing and operating the incorrect type of water heater in a mobile/manufactured home, especially standard models with an atmospheric type venting system, is extremely dangerous due to increased risks of fire and/or carbon monoxide hazards.**

## **What Is an Atmospheric Water Heater?**

An atmospheric water heater is a type of gas-powered storage-tank water heater. What sets an atmospheric water heater apart from a direct vent system is the way the appliance is vented. All gas water heaters heat up the water by burning fuel. As the fuel burns, exhaust is produced and must be removed from the house. In an atmospheric water heater, those gases are vented out of the home through a large metal draft pipe at the top of the tank. Since hot air rises, the gases rise up and out of your house. In the process, the air in the atmosphere is naturally drawn into the vent. Therefore, it is called an “atmospheric” water heater. The main difference from a direct vent system is the combustion air intake, which is not separate from the air inside the dwelling.

## **Benefits And Disadvantages of Atmospheric Gas Water Heaters**

As one of the most used gas water heaters through the United States, atmospheric water heaters are cheaper overall than most other water heaters, but they are not designed and approved for the use in mobile/ manufactured homes. Also, atmospheric type water heaters are not field convertible between natural gas and liquid petroleum, therefore, they must be ordered according to the fuel type used for.

### **What Is a Mobile Home Standard water Heater?**

Simply put, a Standard Mobile Home Water Heater is hybrid between a Direct Vent application and an Atmospheric Water Heater. This type of water heater shares some of the common characteristics of a Direct Vent when related to plumbing connections, means of exhausting the gases, and ease of convertibility from natural gas to LP. However, this appliance is limited by the fact that is not a direct vent therefor does not meet the requirements of a sealed combustion Manufactured/Mobile home water heater, so it can only be installed in older Manufactured Homes with a compartment that is separate from the rest of the dwelling. It also must only be accessible from the outside of the home. Standard MH water heaters cannot share any combustion air with the dwelling according to the Mechanical Code rulings and manufacturer specifications.

**Note\* Just because a water heater specifies that it is MOBILE HOME approved does not mean that can be installed inside the dwelling space that shares air with the occupants. As mentioned above the only means of accessing the appliance is through outside access.**