

Ventless Dryer Guide

A friendly guide designed to answer the most common questions about ventless dryers.



Ventless dryers have been used around the world for over 50 years, but remain somewhat of a mystery to many. This guide answers some common questions about ventless dryers, and shows they are a good decision for many settings. Ventless dryers are convenient and efficient for most residential developments.

Contact us at **1-800-884-8635** or **info@fjsdist.com** to discuss laundry options for your upcoming projects.



Ventless Laundry Basics

Ventless dryers have been extremely popular in Europe and Asia for over 50 years, and are becoming more common in the United States. Ventless dryers remove moisture from air by a form of condensation. Dry air is recycled back into the drum to gather moisture before it is condensed once again. This cycle repeats itself until the laundry is dry.

Two common types of ventless drying systems are Cold Water Condensation Drying and Air-to-Air Condensation Drying.

Power requirements: Available in 110V or 220V

Advantages:

- Ventless dryers offer the performance of traditional laundry without needing external vents or high-capacity plumbing
- Space and connectivity flexibility make design and construction projects more efficient and profitable
- With stackable and combo options, even small apartments can be outfitted with in-unit laundry, increasing rents by \$50-100 per month per unit
- Ventless dryers and front-loading washers are highly energy and water-efficient, aligning with green-minded communities. They are often eligible for Department of Energy rebates

Other considerations:

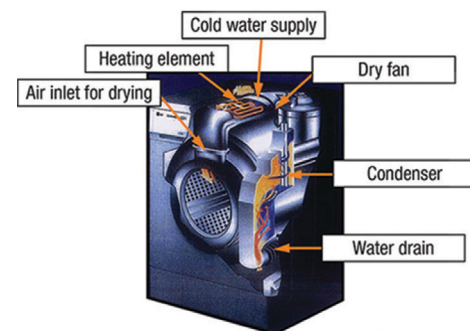
- Not available with a gas connection
- Drying times can be slightly increased compared to vented dryers
- The dryers need a little space around them to access room air – they can be installed in small areas like closets, but please note that closet doors need to be open while the dryer operates
- Environmental profile: Friendly – ventless dryers are highly efficient because unlike conventional dryers, they recycle the heat they create

Cold-Water Condensation Drying – All in One / Combo Washer-Dryer

How it works: These machines wash and dry in one machine using cold-water condensation drying. The air inside the machine is heated and circulated through the laundry. After the air is saturated with moisture from the laundry, it is sent through a condensing chamber.

The condensing chamber is kept cool by misting cold water during the dry cycle. Air leaves the chamber dry, and then travels back over the heating element to regain the heat it lost during the cooling process before being sent back into the drum.

This process is repeated until the laundry is dry. The condensed water is collected throughout the process and pumps down the drain using the same hose as the wash water.



Power requirements: 110V, 15AMP

Other considerations:

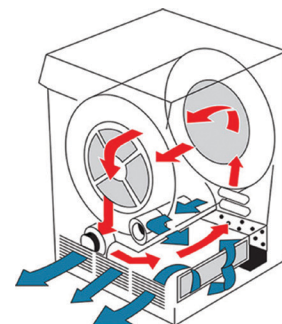
- This form of drying uses no room air whatsoever – it is 100% self-contained (it could be installed in a box with no make-up air and it would operate perfectly)
- Requires electricity, hot and cold water, and a drain

Air-to-Air Condensation Drying – Stackable / Stand-Alone Ventless Dryer

How it works: This type of dryer is very popular in stackable or side-by-side washer and ventless dryer applications. The machines use one air circulation system to heat air before sending it through the laundry, and another system to dry and cool the air that has been saturated by the laundry.

After the hot air is sent through the laundry, it cycles through the condenser. At the same time, the dryer cycles room temperature air through the condenser. These air masses do not mix; they simply contrast their temperature on each other through the heat exchanger. When the air cools, moisture condenses and pumps down the drain or into a reservoir, depending on the installation. The cooled air is reheated and sent back through the laundry.

The room temperature air exhausts back into the room slightly warmer than when it entered the dryer, but with no lint or moisture because it did not mix with the hot air. The two air circulation systems continue to cycle until the laundry is dry.



Power requirements: 220V, 15AMP

Other considerations:

- The dryer raises room temperature by 2-5 degrees in the area approximately four feet around the machine
- The dryer needs space to access room air. It can be installed in enclosed spaces, but the doors must be open during use

Choosing the Right Washer-Dryer Pair

- Washer sizes should be matched with dryer capacity – it's pointless to have a washer that washes 25 lbs of laundry if your dryer can only handle 16 lbs
- Ventless dryers should be paired with washers that reach spin speeds of 1000-1200+ RPM, because it is important to extract most of the water out of laundry before the drying cycle
- Different brands and dryer types have different electrical and plumbing requirements – take note!

Questions?

If you have any questions about how ventless dryers work or which appliances would work best for your needs, please contact one of our trusted appliance advisors at 1-800-884-8635.