How does a Dryer Dry Clothing?

How does my Whirlpool Dryer Work and get my Clothing Dry?

How Dryers Work

Dryers are designed to remove moisture from clothing, usually after washing in a washing machine. Although clothing will dry on its own, there are many benefits to drying clothes in a dryer. Drying clothing in a dryer gives a "softer" feel than drying naturally. It also helps to remove lint that may be produced by the friction of washing.

There are three (3) requirements in order to efficiently dry clothing in a dryer:

1. Heat
2. Tumbling
3. Air Flow

Heat:

Traditional dryers use a heat source to increase the air temperature and shorten the time for drying clothes. Dryers use either an electric heat element or a gas burner as the heat source. The dryer draws in room temperature air and heats it with the element or burner. Heat speeds up the drying process, allowing clothing to be dried much faster than air drying.

Tumbling (movement):

Tumbling is a result of a motor moving the drum of the dryer, allowing the clothing to move around. This allows the heated air to circulate among the clothing. There are "baffles" inside the dryer which allows for more movement. The baffles are the pieces that stick out inside the dryer drum (see picture below). It is important to not overload your dryer, as this will not allow the air to circulate between the clothing items, resulting in longer dry times.
Air Flow:

**WARNING**

Fire Hazard

*Use a heavy metal vent.*
*Do not use a plastic vent.*
*Do not use a metal foil vent.*

Failure to follow these instructions can result in death or fire.

Air flow may be the most important of the three requirements to dry clothing. As the wet clothing is tumbled in a dryer drum, the wet clothing and hot air produce moisture (steam). In order for the clothes to dry, this moisture has to have a passage out. Traditional dryers must be vented in some way to allow the moisture to leave. Venting must be run to the outside of the home. Venting needs to be metal, as opposed to plastic or aluminum foil type venting. Plastic and aluminum foil venting can trap lint, collapse easily, and can pose a fire hazard.

Venting also has length requirements and depending on where installed, may require turns in the vent pipes. The best venting is the shortest and straightest path to the outside. At the end of the vent on the outside of the home is an exhaust hood or roof cap, depending on where the vent exits. The venting material and the exhaust hood needs to be free and clear of lint and debris, such as tree limbs, bushes, bird nests, and rodent nests. See installation instructions for venting requirements.
Your washer's motion produces a lot of lint, which the drying technology helps remove. The air flow in the dryer is passed through a filter and then vented to the outside. This filter collects a large amount of the lint from the clothing. It is important that this lint screen is cleaned before and/or after every use of the dryer, as the lint buildup will block the air flow path to the outside. Lint buildup can also happen in the venting to the outside, so it is important to clean the vent from the back of the dryer about every 6 months to 1 year. If the full length of the vent is inaccessible to clean yourself, you may have to hire a professional vent cleaning service. Lint is combustible, and can be hazardous if not thoroughly cleared from the vent.

Cleaning the vents allows for full air flow, which in turn will allow your dryer to run more efficiently. Clothing will dry faster, saving you time and money on your energy bills.

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