

Dryer Vents

Introduction

5,600 fires.
15 deaths.
400 injuries.
\$99 million in direct property loss.

That was the average toll taken by fires caused by clothes dryers between 2002 and 2004, according to the U.S. Fire Administration (USFA).

Many homeowners consider their clothes dryer a necessity. However, improper installation or maintenance of this appliance can pose a serious fire risk to families. The leading factor contributing to dryer fires is failure to clean lint from traps, vents and areas surrounding the dryer.

This guide covers the proper selection, installation and maintenance of vents for clothes dryers.

Signs of a Blocked Dryer Vent

- Lengthy drying times
- Clothes are hotter than normal at the end of the dry cycle
- Dryer deactivation due to high temperatures
- Increased heat and humidity in the area of the dryer
- Flapper on vent hood does not open when dryer is on

What CAU Recommends:

- > Replace plastic and metal foil vents with 4" minimum diameter rigid metal vents.
- > Vent dryers directly to the outside in the shortest, straightest distance possible.
- > Insulate the dryer vent to protect it from lower outside temperatures.
- > Remind residents to clean the lint filter before or after drying every load and to read and follow the dryer manufacturer's operating guidelines and suggested maintenance practices.
- > Inspect the dryer vent termination point at least annually for blockages, bird nests or the presence of other wildlife.
- > Never turn on a dryer and then leave the house.
- > Purchase and install a portable fire extinguisher in an accessible area near the laundry room.

Need More Information?

Additional information on dryer fires and dryer vents is available through the USFA (www.usfa.dhs.gov/downloads/pdf/tfrs/v7i1.pdf) and Underwriters Laboratories (www.ul.com/consumers/dryers.html). A variety of product safety information as well as recent and past product recalls relating to dryers is available through the CPSC (www.cpsc.gov/).

Associations may request additional information on this topic by contacting CAU's Loss Control Department.

Why are Dryers Vented?

After the washer's spin cycle has finished, a typical 12-pound load of laundry weighs about 20 pounds. This means that the dryer will need to dispose of about a gallon of water with every load. A dryer vent removes this moisture as well as heat and lint produced by the clothes dryer to the exterior of a home.

As the dryer forces hot air through a rotating drum and the heat removes water from the clothes, lint forms. Lint is a highly flammable fiber that will ignite easily. While most moisture and heat vent to the outside, the removable lint filter traps most lint before it reaches the vent but some lint will always get by the filter. When trapped in the vent, lint will reduce the venting capacity and can eventually lead to a total blockage. It will also reduce the efficiency of the dryer and can result in a build up of excess heat, moisture and lint into your home. It is important to clean lint from the lint filter before or after every load.

Vent Materials

Several types of ducting material are available for venting a clothes dryer. The preferred material is either a rigid aluminum or galvanized steel duct. The use of flexible metal ducting may be an acceptable alternative to rigid metal duct.

The flexible thin foil and flexible plastic accordion style vents sold in home improvement stores are unacceptable materials for venting a dryer. These vents can sag and allow lint to accumulate and catch fire if exposed to sufficient heat.

Proper Venting

The best venting arrangement is to exhaust directly outdoors in the straightest, shortest distance possible. Unfortunately, trends in new construction now place the dryer in convenient but nontraditional areas of the home such as upstairs laundry rooms, hallways and bathrooms. These installations generally require longer vent lengths to reach the outside and involve sharp turns and bends to navigate the structure.

The International Building Code and Underwriters Laboratories limit the length of a dryer vent to a maximum of 25 feet. Every 45-degree bend in the vent reduces the total allowable length by 2½ feet and every 90-degree bend reduces the allowable length by 5 feet. However, some dryers may have rated lengths that exceed those established by this standard so it is best to check the manual for each dryer to determine the maximum allowable length of the dryer vent. There are also maximum allowable height requirements set by the manufacturers for each model.

The dryer vent must be independent of all other systems and terminate outdoors. Never vent the dryer into another vent or chimney, the attic, a wall or a crawl space. On the outside, install a vent hood that is equipped with a back draft damper.

Proper Dryer Maintenance

When completed regularly, a few simple, inexpensive measures can help detect a problem with a dryer vent before it becomes a fire hazard and may even reduce wear on the dryer and energy costs to operate the dryer.

1. Remove lint from the lint filter before or after each load. Inspect the filter for rips before placing it back in the dryer.
2. Wash the lint filter with soap and water every couple of months to reduce the waxy residue left behind by dryer sheets.
3. Inspect and clean outside wall dampers on a regular basis.
4. Disconnect, clean and inspect the dryer duct and venting at least every two years. In homes with higher use or long vent runs, this should occur every year. You can also hire a professional to complete this service.
5. Vacuum lint from behind and beneath your dryer on a regular basis.
6. Have your dryer professionally serviced and cleaned by a factory-authorized service representative every two to three years.