



Clothes Dryer Venting Facts

By Martin Grant, Noteworthy Property Inspections

Vent Length

The purpose of the dryer vent is to convey the moisture and lint laden air to the outside of the building. The code governing in California (Uniform Mechanical Code) limits the dryer vent length to 14 ft. including 2 x 90° bends (minus 2 ft. per additional 90° bend). The code allows an exception to the length limit if permitted by the manufacturer's instructions and approved by the Administrative Authority (typically the City permitting official or inspector). Based on a review of common manufacturer's literature, vent lengths of up to 44 feet may be used with a 4" rigid metal vent duct with up to 2 x 90° bends and a 4" vent hood (see Figure 1). This is significantly more than the code maximum and should allow for most dryers to be properly vented to the building exterior.

Vent Length Chart

Number of 90° turns or elbows	Type of vent	Box or Louvered hoods	Angled hoods
0	Rigid metal	64 ft (20 m)	58 ft (17.7 m)
	Flexible metal	36 ft (11 m)	28 ft (8.5 m)
1	Rigid metal	54 ft (16.5 m)	48 ft (14.6 m)
	Flexible metal	31 ft (9.4 m)	23 ft (7 m)
2	Rigid metal	44 ft (13.4 m)	38 ft (11.6 m)
	Flexible metal	27 ft (8.2 m)	19 ft (5.8 m)
3	Rigid metal	35 ft (10.7 m)	29 ft (8.8 m)
	Flexible metal	25 ft (7.6 m)	17 ft (5.2 m)
4	Rigid metal	27 ft (8.2 m)	21 ft (6.4 m)
	Flexible metal	23 ft (7 m)	15 ft (4.6 m)

Figure 1 Typical Dryer Manufacturers Venting Chart (courtesy of Whirlpool)

Venting Requirements

The vent duct is required to be 4" diameter, smooth walled rigid metal ducting, and must terminate at a location 3 ft. away from other building openings (doors, windows, etc.). The duct connections should be secured with tape, not screws, because lint built-up on the screw ends can restrict the free flow of air. A dryer vent hood should be installed at the exterior of the building to prevent back drafting and pest access. The vent hood should be of an approved design. Most venting is through a side wall (horizontal venting), although venting can be installed vertically (through the roof) as long as the appropriate vent hood is used (see Figure 2).

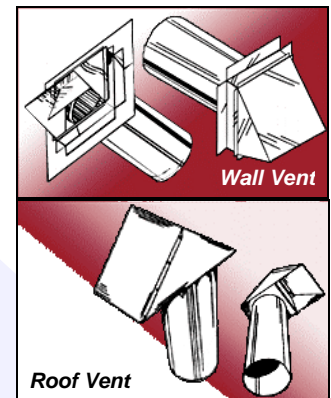


Figure 2 Typical Dryer Vent Hoods

Water filled "lint traps" (see Figure 3) are sold for indoor use with dryers, however these do not meet the current code requirements for outside venting, they allow moisture laden air to be exhausted into the building, and allow products of the combustion from gas dryers into the building.

Condensing (Ventless) Dryers

If there is absolutely no way an outside vent can be installed, there is still one option open to you. Popular for many years in Europe and Asia, condensing (ventless) electric dryers are now available in the US. Available in a variety of configurations including washer/dryer combo units, they include a built-in condensing unit that removes the moisture from the heated air. The moisture either collects in a reservoir (for emptying manually) or is pumped into the washing machine drain. Ventless dryers do not vent any air into the room as they recirculate the same air over the clothes throughout the drying cycle. As you may expect, these units are more expensive than conventional vented dryers,



Figure 3 Water Filled Indoor Dryer Vent Lint Trap (Not Recommended)

Maintenance/Inspection

Crushed and blocked clothes dryer ducting can result in a home fire. Without adequate release and dispersion to the exterior, lint trapped within the ducting may catch fire or at the very least cause longer drying cycles thereby raising the cost of energy to dry your clothes. Because many ducts pass through combustible wall framing and through the foundation crawl space it is imperative that during normal homeowner maintenance these duct be checked and cleaned as necessary.

In accordance with the standards of practice of the California Real Estate Inspection Association (CREIA), a professional home inspection will include a check of the dryer venting system to confirm that it is properly vented to the exterior with appropriate materials.

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This information is brought to you by Noteworthy Property Inspections, your local Professional Home Inspector.

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