



Ventilation Requirements for Condensing Clothes Dryers - Code Notes

Conventional dryers require ductwork to exhaust water vapor from the appliance during operation. Some dryers, relatively new products to the U.S. marketplace, do not require any ducted exhaust. That exhaust can contribute to negative pressure in the home depending on location.



A fully loaded conventional clothes dryer exhausts several pounds of water in its vapor form during a typical drying cycle. The code requires that this water vapor is exhausted to the outdoors.

By contrast, condensing dryers are designed to condense that water into liquid. These tend to be more energy efficient. Some appliances use small blowers to circulate air across a heat-exchanger inside the dryer. Some dryers draw in room air to cool the interior air and condense the water. Others use an internal water-cooling system to condense the water vapor. Whatever the particular design, the condensate is either pumped to a drain or is emptied from a holder by hand at the end of the drying cycle. Some condensing dryers are actually combo washer/dryer



appliances. Common in Europe for years, these appliances are becoming more widely used in the U.S.

Condensing dryers can be useful in situations where the laundry room is located a significant distance from an exterior wall to which it can vent. By eliminating long dryer vent runs, they eliminate possible moisture condensation problems in that run.

Plan Review

1. Verify that the building plans specify ductwork to exhaust water vapor from the dryer to the exterior (and are located close enough to the exterior to do so) or specify a condensing (ductless) dryer or ventless combo washer/dryer to be installed.
2. If a condensing dryer is specified, verify that the proper drainage or an adjacent sink has been shown on the plumbing plans to remove condensate from the dryer.

Field Inspection

1. If a condensing dryer is specified, verify that the proper drainage or an adjacent sink has been provided to remove the condensate.

Code Citations*

IRC 2003, Section M1501 Clothes Dryer Exhaust

M1501.1 General. Dryer exhaust systems shall be independent of all other systems, shall convey the moisture to the outdoors, and shall terminate on the outside of the building.

Exception: This section shall not apply to listed and labeled condensing (ductless) clothes dryers.

IRC 2003, Section P3001, General

The provisions of this chapter shall govern the materials, design, construction, and installation of sanitary draining systems. Plumbing materials shall conform to the requirements of this chapter. The drainage, waste, and vent (DWV) system shall consist of all piping for conveying wastes from plumbing fixtures, appliances, and appurtenances, including fixture traps, above-grade drainage piping, below-grade drains within the building (building drain), below-and above-grade venting systems, and piping to the public sewer or private septic system.

IMC 2003, Section 504 Clothes Dryer Exhaust, Section 504.1 Installation

Section 504.1 Installation. Clothes dryers shall be exhausted in accordance with the manufacturer's instructions. Exception: This section shall not apply to listed and labeled condensing (ductless) clothes dryers.

*Copyright, 2000, [International Code Council](#), Inc. Falls Church, Virginia. *2000 International Residential Code*; and Copyright, 2003, [International Code Council](#), Inc. Falls Church, Virginia. *2003 International Residential Code*. Reproduced with permission. All rights reserved.