

## Section 614 (IFGC) Clothes Dryer Exhaust

### [M] 614.1 Installation

Clothes dryers shall be exhausted in accordance with the manufacturer's instructions. Dryer exhaust systems shall be independent of all other systems, shall convey the moisture and any products of combustion to the outside of the building.

### [M] 614.2 Duct penetrations

Ducts that exhaust clothes dryers shall not penetrate or be located within any fireblocking, draftstopping or any wall, floor/ceiling or other assembly required by the *Florida Building Code, Building* to be fire-resistance rated, unless such duct is constructed of galvanized steel or aluminum of the thickness specified in Table 603.4 of the *Florida Building Code, Mechanical* and the fire-resistance rating is maintained in accordance with the *Florida Building Code, Building*. Fire dampers shall not be installed in clothes dryer exhaust duct systems.

### [M] 614.3 Cleaning access

Each vertical duct riser for dryers *listed* to ANSI Z21.5.2 shall be provided with a cleanout or other means for cleaning the interior of the duct.

### [M] 614.4 Exhaust installation

Exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

### [M] 614.5 Makeup air

Installations exhausting more than 200 cfm (0.09 m<sup>3</sup>/s) shall be provided with makeup air. Where a closet is designed for the installation of a clothes dryer, an opening having an area of not less than 100 square inches (645 mm<sup>2</sup>) for makeup air shall be provided in the closet enclosure, or makeup air shall be provided by other *approved* means.

### [M] 614.6 Domestic clothes dryer exhaust ducts

Exhaust ducts for domestic clothes dryers shall conform to the requirements of Sections 614.6.1 through 614.6.7.

#### [M] 614.6.1 Material and size

Exhaust ducts shall have a smooth interior finish and shall be constructed of metal a minimum 0.016 inch (0.4 mm) thick. The exhaust duct size shall be 4 inches (102 mm) nominal in diameter.

#### [M] 614.6.2 Duct installation

Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

#### [M] 614.6.3 Protection required

Protective shield plates shall be placed where nails or screws from finish or other work are likely to penetrate the clothes dryer exhaust duct. Shield plates shall be placed on the finished face of all framing members where there is less than 1<sup>1</sup>/<sub>4</sub> inches (32 mm) between the duct and the finished face of the framing member. Protective shield plates shall be constructed of steel, shall have a minimum thickness of 0.062 inch (1.6 mm) and shall extend a minimum of 2 inches (51 mm) above sole plates and below top plates.

#### [M] 614.6.4 Transition ducts

Transition ducts used to connect the dryer to the exhaust duct system shall be a single length that is *listed* and *labeled* in accordance with UL 2158A. Transition ducts shall be a maximum of 8 feet (2438 mm) in length, and shall not be concealed within construction.

#### [M] 614.6.5 Duct

##### length

The maximum allowable exhaust duct length shall be determined by one of the methods specified in Section 614.6.5.1 or 614.6.5.2.

##### [M] 614.6.5.1 Specified

##### length

The maximum length of the exhaust duct shall be 35 feet (10 668 mm) from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are utilized, the maximum length of the exhaust duct shall be reduced in accordance with Table 614.6.5.1.

[M] TABLE 614.6.5.1  
DRYER EXHAUST DUCT FITTING EQUIVALENT LENGTH

DRYER EXHAUST DUCT FITTING TYPE	EQUIVALENT LENGTH
4 inch radius mitered 45-degree elbow	2 feet, 6 inches
4 inch radius mitered 90-degree elbow	5 feet
6 inch radius smooth 45-degree elbow	1 foot
6 inch radius smooth 90-degree elbow	1 foot, 9 inches
8 inch radius smooth 45-degree elbow	1 foot
8 inch radius smooth 90-degree elbow	1 foot, 7 inches
10 inch radius smooth 45-degree elbow	9 inches
10 inch radius smooth 90-degree elbow	1 foot, 6 inches

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.01745 rad.

#### [M] 614.6.5.2 Manufacturer's instructions

The maximum length of the exhaust duct shall be determined by the dryer manufacturer's installation instructions. The code official shall be provided with a copy of the installation instructions for the make and model of the dryer. Where the exhaust duct is to be concealed, the installation instructions shall be provided to the code official prior to the concealment inspection. In the absence of fitting equivalent length calculations from the clothes dryer manufacturer, Table 614.6.5.1 shall be utilized.

#### [M] 614.6.6 Length identification

Where the exhaust duct is concealed within the building construction, the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located within 6 feet (1829 mm) of the exhaust duct connection.

#### [M] 614.6.7 Exhaust duct required

Where space for a clothes dryer is provided, an exhaust duct system shall be installed.

Where the clothes dryer is not installed at the time of occupancy, the exhaust duct shall be capped at the location of the future dryer.

**Exception:** Where a *listed* condensing clothes dryer is installed prior to occupancy of the structure.

#### [M] 614.7 Commercial clothes dryers

The installation of dryer exhaust ducts serving Type 2 clothes dryers shall comply with the *appliance* manufacturer's installation instructions. Exhaust fan motors installed in exhaust systems shall be located outside of the airstream. In multiple installations, the fan shall operate continuously or be interlocked to operate when any individual unit is operating. Ducts shall have a minimum *clearance* of 6 inches (152 mm) to *combustible materials*.

#### [M] 614.8 Common exhaust systems for clothes dryers located in multistory structures

Where a common multistory duct system is designed and installed to convey exhaust from multiple clothes dryers, the construction of such system shall be in accordance with all of the following:

1. The shaft in which the duct is installed shall be constructed and fire-resistant rated as required by the *Florida Building Code, Building*.
2. Dampers shall be prohibited in the exhaust duct. Penetrations of the shaft and ductwork shall be protected in accordance with Section 607.5.5, Exception 2, of the *Florida Building Code, Mechanical*.
3. Rigid metal ductwork shall be installed within the shaft to convey the exhaust. The ductwork shall be constructed of sheet steel having a minimum thickness of 0.0187 inch (0.471 mm) (No. 26 gage) and in accordance with SMACNA *Duct Construction Standards*.
4. The ductwork within the shaft shall be designed and installed without offsets.
5. The exhaust fan motor design shall be in accordance with Section 503.2 of the *Florida Building Code, Mechanical*.
6. The exhaust fan motor shall be located outside of the airstream.
7. The exhaust fan shall run continuously, and shall be connected to a standby power source.
8. The exhaust fan operation shall be monitored in an *approved* location and shall initiate an audible or visual signal when the fan is not in operation.
9. Makeup air shall be provided for the exhaust system.
10. A cleanout opening shall be located at the base of the shaft to provide *access* to the duct to allow for cleaning and inspection. The finished opening shall be not less than 12 inches by 12 inches (305 mm by 305 mm).
11. Screens shall not be installed at the termination.