



Building Guide

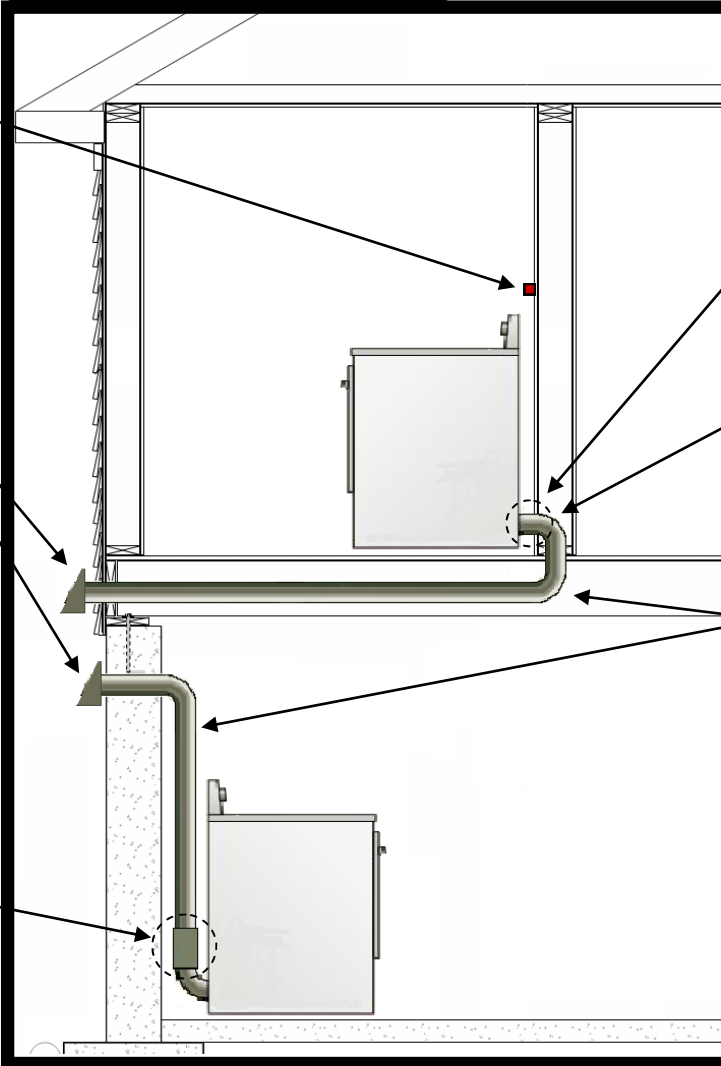
ILLOWA Chapter of ICC



Single Family Residential Clothes Dryer Exhaust

Label (IMC 504.6.5)
When a portion of duct is conceal within the building construction identifying duct length.

Typical Installation



Exhaust discharge to outside of building with backdraft damper.

Cleanout required (IMC 504.3)

Improperly installed clothes dryers are known to be a significant fire hazard, as 17,300 house fires were started by clothes dryers between 1999 and 2002 here in the United States, according to the January 2008 website of the NFPA.

Exhaust Penetrations. (IMC 504.2) Where a clothes dryer exhaust system duct penetrates a wall or ceiling membrane, the annular space shall be sealed with noncombustible material, approve fire caulking or a non combustible dryer exhaust duct wall receptacle.

Transition Duct (IMC 504.6.3) This is a metallic flexible connector used as a transition between the dryer outlet and the exhaust duct system. Max length of 8 feet. Cannot be concealed within building construction. These are necessary because of appliance movement, vibration and outlet location. This duct shall not be included in duct length calculation.

Exhaust duct (IMC 504.6.4) 35 LF maximum length. Use Table 1 below to calculate length. You can use a manufacture's specification (IMC 504.6.4.2) if documentation is submitted with building permit application. This overall length does not include transition duct.

Table 1

TABLE 504.6.4.1 DRYER EXHAUST DUCT FITTING EQUIVALENT LENGTH	
Dryer Exhaust Duct Fitting Type	Equivalent Length
4" radius mitered 45° elbow	2 feet 6 inches
4" radius mitered 90° elbow	5 feet
6" radius mitered 45° elbow	1 foot
6" radius mitered 90° elbow	1 foot 9 inches

NOTES:

- **Exhaust installation.** (IMC 504.4) "Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a backdraft damper. Attics, basements and crawlspaces are not considered to be outdoors. Screen shall not be installed at the duct termination. Ducts shall not be installed or connected with sheet metal screws or other fasteners that will obstruct the exhaust 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
- **Make-up air.** (IMC 504.5) "Installations exhausting more than 200 cfm shall be provided with make-up air. Where a closet is designed for the installation of a clothes dryer, when make-up air is needed, an opening having an area not less than 100 square inches shall be provided in the closet enclosure or makeup air shall be provided by other approved means. Clothes dryers in closets should be listed for that application.
- **Joints and seams.** (IRC 1601.4.1) Joints of duct systems shall be made substantially airtight by means of tapes, mastics, gaskets or other approved closure systems. Ordinary cloth type webbed duct tape is not approved.
- **Exhaust duct required.** (IMC 504.6.6) Where space for a clothes dryer is provided, an exhaust system must be provided.
- **Protection required.** (IMC 504.6.7) Nail plates shall be provided where nails or screws from finish or other work are likely to penetrate.

DISCLAIMER: ILLOWA Chapter of the ICC has created this handout to assist with plans submittal under the 2009 International Mechanical Code, and it is not intended to cover all circumstances. Please check with the Department of Building Safety for additional requirements.