

Basics of Wood Burning Appliances

Types of Wood burners

- Circulating and radiant
- Wood burning furnaces
- Pellet burning stoves
- Fireplace inserts or hearth stoves

Safety requirements will vary by the type of unit you choose. Generally, factory-built wood burners that are tested by a nationally recognized testing laboratory are superior to homemade units because of better construction, design, materials and testing.

One of the more popular types is a pellet-burning stove. The fuel (the pellets) is made from compressed waste material such as sawdust. These units have the same concerns as wood burning appliances and the same precautions should be taken.

Before you buy

Before buying, take time to do some planning. Contact your local fire department and/or building code officials to inquire about local ordinances on wood burning and other solid fuel burning appliances. Also, determine if a permit is necessary before you install such a unit.

When looking for appliances, look for one that shows quality craftsmanship, have tight-fitting doors and a detailed operating manual.

Also check to see if your unit is **listed** by a nationally recognized testing laboratory. There is a difference between being tested and being listed. Testing simply means the unit was tested, listed means the unit was tested and passed using the appropriate national standards from Underwriters Laboratories (UL).

Examples of nationally recognized testing laboratories that test and list solid fuel burning appliances include:

- Applied Research Labs (arl-test.com)
- Canadian Standards Association (csa-international.org)
- Omni Environmental Services (omni-test.com)
- Underwriters Laboratories Inc. (ul.com)
- Underwriters Laboratories of Canada (ulc.ca)
- Intertek ETL SEMKO (intertek-etlsemko.com)

Appliances made after October 1983 must have a label providing safety-related information. This label is required by the Consumer Product Safety Commission (CPSC) and provides information about the placement and use of the unit.

Placement of the Wood burner

The proper placement of a wood burner is critical. Have a qualified heating contractor experienced with wood burners and solid fuel burning appliances install your unit.

If your community does not have an ordinance covering these types of units, make sure your unit is installed to meet the National Fire Protection Association (NFPA) Standard #211. NFPA #211 is the nationally recognized standard for chimneys, fireplaces, vents and solid fuel burning appliances.

Be especially careful to follow clearance requirements. Improper clearances are often cited as a cause of appliance-related fires. A few NFPA requirements are:

- A minimum 36-inch clearance to combustible materials, including walls, on all sides of a freestanding wood burner with no label or other manufacturer instructions. Clearance requirements are different for other types of appliances, such as furnaces and pellet burning appliances.

- Even when approved and UL listed wall protection is used, clearances to a combustible wall should never be less than 12 inches.
- Floors with wood, carpet, linoleum and other combustible coverings must have a floor protector underneath, in front of, to the sides and to the rear of the heat-producing appliance.
- Floor protectors should meet the heating appliance manufacturer's requirements, be listed by a recognized testing laboratory and extend at least 18 inches on all sides of the heater, unless the manufacturer states otherwise.
- Clearances between the stovepipe and combustible materials should be at least 18 inches.