



## What is the difference between a stove, fireplace or insert?

- A stove is a free-standing unit. It is vented using black smoke pipe into a wall or ceiling, with the addition of wood chimney (stainless steel or masonry).
- An insert is a 'fireplace' that is installed inside a masonry cavity to make it more efficient. A wood insert is vented using a stainless steel liner inside the masonry chimney.
- A fireplace (also called a zero-clearance or factory built fireplace) is an insulated box that will burn wood. It is vented using stainless steel chimney which can be chassed in to resemble masonry.

## We just had a WETT inspection and/or we saw a used stove for sale. What are the disadvantages of uncertified wood appliances?

- Less efficient (require more wood for same heating power)
- Require higher clearances (often 48")
- Lack convenience features of new stoves such as ash systems & blowers
- Fire hazards
- May not be insurable

CSA Code governing non-certified Wood Stoves: CSA B36

## Should we have an outside air hook-up to our stove or fireplace?

An outside air source brings combustion air from the outside in order to help a wood burning fire (instead of using room air). The Ontario Building Code stipulates that an outside air kit is mandatory for most wood-burning fireplaces. In addition, some manufacturers require an outside air feed for their venting systems. As for a wood-burning stove, this would need to be decided on a case by case basis as there are pro's and con's to both.

For example, if you have an R2000 or equivalent air-tight home, an outside air source may be helpful even mandatory. However, there are some risks with installing an outside air kit, such as:

- Constant cold air coming into the home (ie – frost accumulation on the stove)
- If the wind is blowing on the same side of the home it would 'super-charge' the stove
- If the wind is blowing away from that side of the home, the outside air kit could behave as a chimney system.

As a general rule, most wood fireplaces require outside air whereas most wood stoves do not.

## Is there a chance that my stove or fireplace will experience backdrafting?

Yes! For more information, see our Wood Burning Handbook in the our HELP section.

## What does it cost to heat with wood?

Typically a cord of wood is anywhere from \$220 - \$325. At \$325, the supplier will usually call it 'seasoned' wood. To ensure it is properly seasoned, purchase a wood moisture meter and test it. This is the only way to know for certain that it is dry wood.

## What is a face cord?

A face cord is the equivalent of 1/3 of a full cord.

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## What are the different types of wood stoves available?

The main types of materials used for wood stoves are: Cast Iron, steel and soapstone.

- **Steel stoves** are typically more economical and heat-up the quickest.
- **Cast iron stoves** will take longer to heat up yet keep heat longer than steel and radiates heat.
- **Soapstone** requires the longest to heat up and will not achieve the same peak heat as steel or cast iron, yet releases even heat the longest.

Most stoves can have enamel baked on (cast iron) or have enamel panels (steel). The main advantages of having an enamel stove include:

- Stove will look new forever
- Many colours available
- Help prevent or reduce possible rusting
- Easy to clean

## Do you recommend single wall or double wall smoke pipe?

We typically recommend double wall smoke pipe because:

- It is much safer to use and operate
- It keeps the chimney warm, improving the operating efficiency of the unit (especially important on newer units)
- It has closer clearances

## What are the clearances required on the smoke pipe?

Clearances will differ depending on the type and brand of smoke pipe that you use.

For example:

- Single Wall Smoke Pipe: 18" clearance to combustibles
- ICC Double Wall Smoke Pipe: 6" clearance to combustibles

## I am venting my wood stove into a masonry chimney. Do I require a stainless steel liner in it?

The Ontario Building Code stipulates that a wood stove can be vented into a code-compliant masonry chimney without a stainless steel liner. A stainless steel liner is typically recommended (or mandatory) when:

- The customer is looking to improve the draft
- The tiles in the masonry chimney are cracked

## How high does my wood chimney system need to be?

Chimney must clear the roof by at least 3 feet, and at least 2 feet higher than any roof line or obstacle within a horizontal distance of 10 feet (3 metres).

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## I would like to make my masonry wood-burning fireplace more efficient. What are my options?

Most masonry wood burning fireplaces are not efficient heaters. Although radiant heat is generated from the flames and the masonry that gets heated, much of your home's heat is actually escaping through the open flue while it is on.

The most common recommendation is to get a wood, pellet or gas/propane insert installed. Modern fireplace inserts (heater rated) have air-tight doors that enable you to heat your home efficiently instead of incurring constant heat loss.

Other options to help increase efficiency of your masonry wood burning fireplace include:

- Have a factory-built fireplace installed in front of your fireplace venting into your existing masonry chimney.
- Have an air-tight stove installed in front of your fireplace and vent the stove through the opening.
- Install custom masonry doors. These will help in the overall aesthetics of your room and help to reduce the air loss that goes up your flue.
- Install a lock-top damper. A lock top damper (or energy top damper) helps seal the top of your chimney system preventing heat loss from your home (these are operated via a cable).

## What are the main clearances for wood stoves?

Typically:

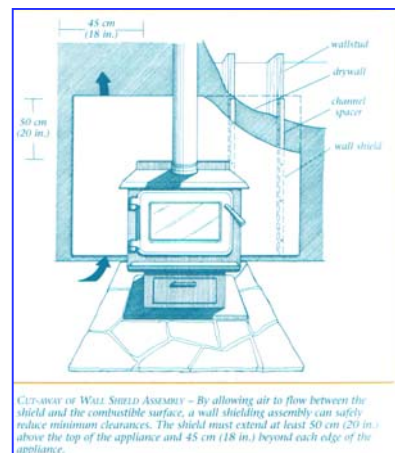
- Loading doors: 18 inches of non-combustible flooring
- Sides: ~ 8 inches
- Corner or Rear: Anywhere from 4" to 48" (depends on the stove)

## What constitutes as non-combustible flooring?

- Flooring such as sheet metal, grouted ceramic tile or mortared brick

## Rules for Non-Combustible Shielding (to reduce clearances):

- Minimum space between shield & combustible: 21mm (7/8")
- Minimum clearances along bottom of shields: 25mm (1")
- Maximum clearance along bottom of shield: 75mm (3")
- Minimum clearance along top of shield at ceiling: 75mm (3")
- Shield extension beyond each side of appliance: 45 cm (18")
- Shield extension above appliance: 50 cm (20 in)
- Edge clearance for ceiling shields: 75 mm (3")
- Glues used in shield construction must not ignite or lose adhesive qualities at high temperatures
- Mounting hardware must allow full vertical ventilation
- Mounting hardware must not be located closer than 200 mm (8") from the vertical centre line of the appliance
- Mounting hardware that extends from the shield surface into combustibles may only be used at the lateral extremities of the shield





## Reducing Clearances with Shielding

Type of Shield	Side / Rear % Clearance Reduction	Top % Clearance Reduction
Sheet metal (min. 29 gauge thickness).*	67	50
Ceramic tiles or equivalent non-combustible material*	50	33
Ceramic tiles or equivalent with 29 gauge sheet metal*	67	50
Brick*	50	n/a

\*spaced out at least 21 mm (7/8") by non-combustible spacers

Commercial heat shields are also available (clearance reductions vary depending on the manufacturer).

### For more information

Visit a specialty hearth retailer and/or check out [www.woodheat.org](http://www.woodheat.org).

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