

EPA-CERTIFIED WOODBURNING

the environment. The appliance is tested and approved by independent laboratories to meet the EPA criteria, hence the label "EPA-certified."

Upgrading an Existing Wood Burning Fireplace

To upgrade an open fireplace, install a certified fireplace insert.

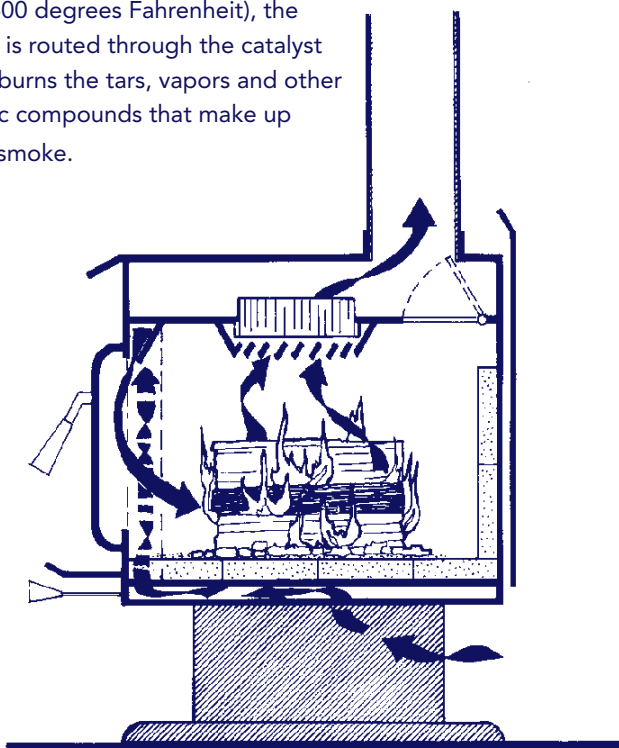
MORE COMPLETE COMBUSTION

The key to EPA-certified wood burning appliances is more complete combustion. Uncertified stoves starve the fire of oxygen which burns wood incompletely, and creates excessive levels of smoke. In contrast, certified appliances create the right conditions for complete combustion – high temperature, enough oxygen, or air, and sufficient time for the combustion gases to burn before being cooled.

TYPES OF CERTIFIED APPLIANCES

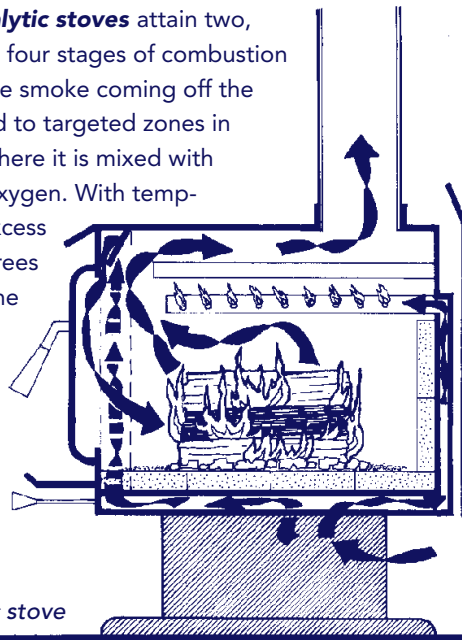
There are two types of certified wood stoves and fireplace inserts – non-catalytic and catalytic. Currently, the most common stoves on the market are non-catalytic, but there are benefits to both.

► **Catalytic stoves** employ a catalytic converter which works as an afterburner to reduce wood smoke. The converter is a cast ceramic honeycomb coated with either platinum or palladium. Once the converter is pre-heated to light-off temperature (500–600 degrees Fahrenheit), the smoke is routed through the catalyst which burns the tars, vapors and other organic compounds that make up wood smoke.



Catalytic stove

► **Non-catalytic stoves** attain two, three or even four stages of combustion by guiding the smoke coming off the burning wood to targeted zones in the firebox where it is mixed with pre-heated oxygen. With temperatures in excess of 1,000 degrees Fahrenheit, the stove burns the wood smoke.



Non-catalytic stove

Safer and More Economical Fires with Certified Stoves

Certified burning is safer because the fire produces less creosote due to more complete combustion. Certified wood burning appliances also reduce the amount of wood required for an average fire.

EXEMPT WOOD BURNING DEVICES

(traditional open fireplaces are not eligible for certification) Masonry heaters and many pellet stoves are excellent options for burning wood and may be exempt from wood burning regulations in many communities. Pellet stoves look like wood stoves, but are designed to burn palletized sawdust and other biomass materials, such as corn.

RETIRING UNCERTIFIED STOVES

Air quality regulators encourage people with conventional, uncertified wood stoves to upgrade to a certified unit. The costs associated with changing out include the wood stove or fireplace insert, chimney, installation, delivery, annual fuel costs and maintenance. But, because certified wood stoves are more efficient and burn less wood, the initial cash outlay of upgrading pays for itself over time.

RESOURCES

For information on wood burning in a particular community, or to learn more about EPA-certified wood burning, contact the Hearth, Patio & Barbecue Association at www.hpba.org or visit an HPBA member retailer.