

# MAXIM<sup>®</sup>

Outdoor Wood Pellet Furnace



*Eliminate high heating bills*



*Heat your entire home and water. Can be installed safely outdoors next to your home.*

**HIGH EFFICIENCY**



[MaximHeat.com](http://MaximHeat.com)



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### Testimonial:

"Installing my Maxim last winter was the best thing I have ever done. Even with the high prices of [fuel] I was able to cut my heating bill by 60%. Plus I was able to heat my home and garage with the same unit and keep the furnace outside. I am so impressed with how clean the unit burns and how great my dealer was to work with."

Melvin F., MN

## Welcome to Central Boiler

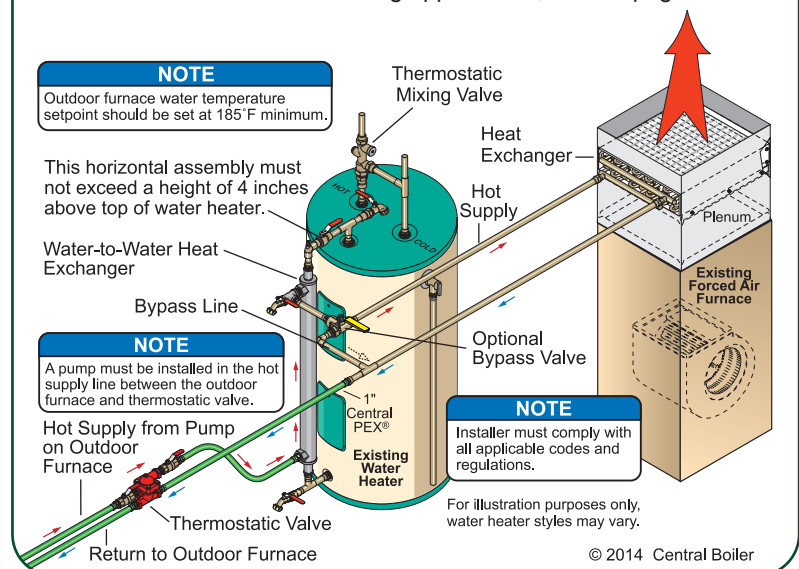
We have been in business since 1984 and are North America's largest manufacturer of outdoor furnaces. Our products are continually improved and refined. We make it our goal to provide our customers with the finest outdoor wood pellet furnaces available anywhere. For you as a consumer the Maxim offers many advantages. Pellets are renewable and inexpensive. Conventional sources of heat such as propane, natural gas, fuel oil and electricity deplete our irreplaceable fossil fuels. They are also subject to constant price fluctuations. Our Maxim outdoor furnace takes the combustion outside. By keeping the fire outside the home, it eliminates the dangers and mess associated with traditional indoor wood stoves. Our innovative, industry-leading design maximizes efficiency. Our Maxim offers you an alternative that will save you money. This brochure will provide answers to questions you may have about our clean, efficient approach to hydronic heat. Please browse through this brochure to learn how you can benefit from a Maxim wood pellet furnace for your home or business.

### The Maxim Outdoor Furnace Can Work for You

The Maxim outdoor wood pellet furnace is installed outside, next to your home like a central air conditioning unit or up to 500 feet away, and works with any existing heating system. A water jacket surrounds the furnace firebox and heated water is circulated to the home or building through insulated underground tubes. Water-to-air or water-to-water heat exchangers or direct circulation conveys the heat into the structure's forced-air furnace, boiler or radiant floor heating system. This allows for normal thermostatic control of temperature for safe, even and comfortable heat. The ability to heat multiple buildings and domestic water can reduce your heating bills. Outside burning removes the threat of devastating chimney fires and the dangerous carbon monoxide buildup from inside your home or oxygen depletion which affects your indoor air quality. It also eliminates the smoke, ashes, odors and soot buildup on walls and ceilings inside your home that indoor burning creates.

### Forced Air System with Water Heater

For a closer look at other heating applications, refer to pages 10-11.



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ThermoPEX® insulated pipe can also be used above ground for quick, temporary winter installs.

**Testimonial:**

"My wife loves that the Maxim keeps the mess outside. No more dirty walls from an indoor stove! I like the nice, even heat throughout the whole house and the fact that I don't have to add corn to the furnace every day."

John S., IA

**THE**

**OUTDOOR ADVANTAGE™**

- Can heat for up to a week on a single fuel load, or longer with an optional hopper.
- Saves up to three-fourths of current heating costs.
- Located outdoors like a central air conditioning unit, it won't take up valuable indoor living space.
- Located safely outside, so there is no possibility of carbon-monoxide poisoning or mess inside your home.
- Can be used with any existing heating system.
- Can heat an entire home and domestic hot water.\*

\*Heat load must be identified if Maxim is intended to heat 100% of home and water. Outdoor furnace and system must be properly sized and installed.

**Factors that affect your fuel burn rate**

**Higher Fuel Consumption**

- Increased heat loss**
- Poorly insulated building(s)
  - Cold air infiltration
  - Colder temperature

**Decreased heat loss**

- Well insulated building(s)
- Minimal cold air infiltration
- Warmer temperature

**Lower Fuel Consumption**



**6" Insulated Chimney -**  
Two stainless steel chimney sections standard.  
Extensions are easy to add.

**Large Top Loading Hopper Door -**  
Allows easy access to the hopper for filling and is lockable.

**Durable, Weatherproof, Powder-coated Finish -**

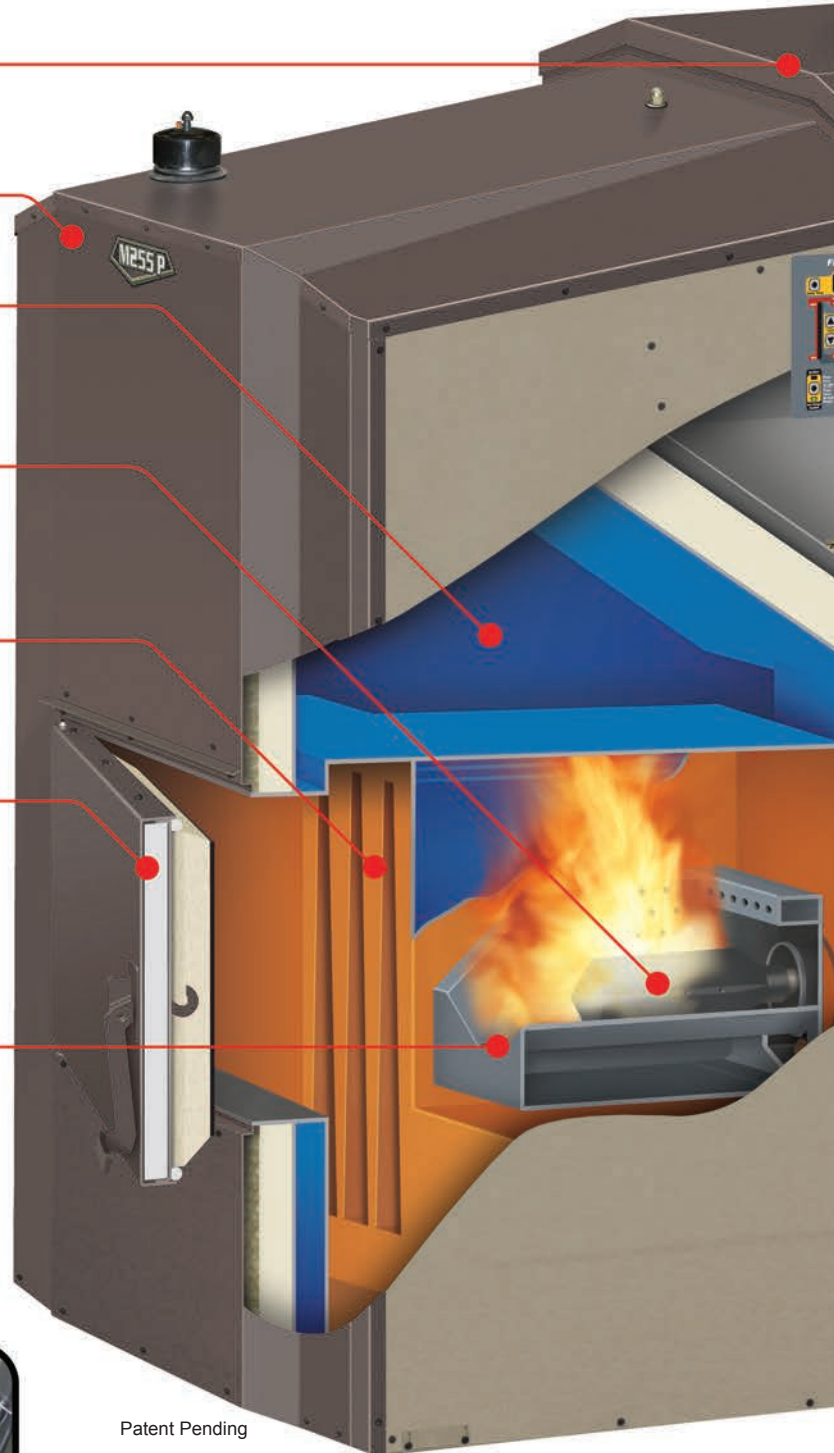
**Water Jacket -**  
Provides a proven balance between firebox volume and water capacity for optimum performance and safety.

**Rotating Aerator - (Patent Pending)**  
Located in the center of the burn chamber, the aerator is submerged in the fuel bed and supplies oxygen to the fuel for the most complete combustion.

**High Efficiency Heat Exchange System -**  
The engineered design requires less maintenance and provides maximum heat conversion. Cleaning brush is included with furnace.

**Triple Insulated, Lockable Access Door -**  
The door is triple insulated to hold the heat in the furnace for maximum efficiency.

**Burn Chamber -**  
Preheats air for higher combustion efficiency.



Patent Pending



View inside the firebox



Interior view of rear access area shown with two pumps (sold separately)

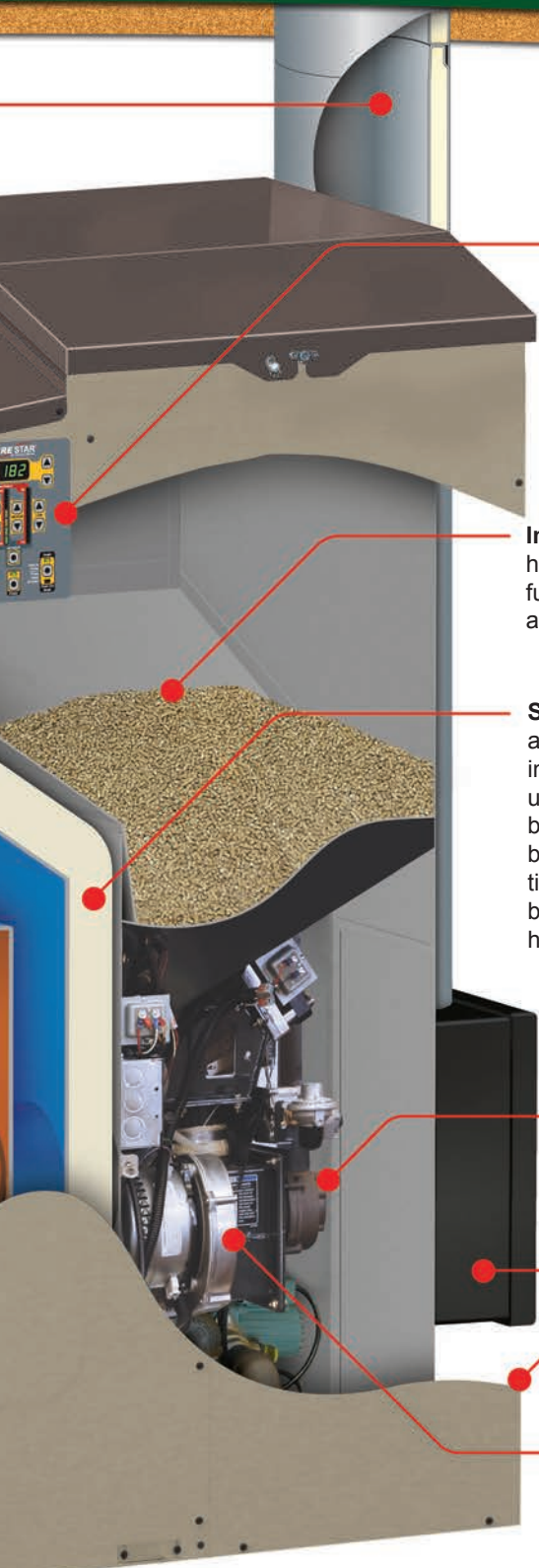


**Fill Once a Week**

Interior view of hopper shown with door open

Safety tested and listed





**FireStar™ Electronic Controller** - Provides you with easy operation of your Maxim outdoor wood pellet furnace with just the touch of a button. The **Automatic Power Ignition** and the **Auto Relight** feature, use propane to reliably start the fire as needed, eliminating the need for hand starting or use of starting gels. The water temperature, heat output and air settings are adjustable so you can customize the settings for your personal heating requirements. The heat output is self-modulating and automatically adjusts between low, medium and high settings as your heat demand changes. The LED display informs you of the current system water temperature as well as operational status messages.

**Integrated 600 lb Hopper** - The large self-contained hopper holds up to 15 bags of pellets and means filling the furnace less often, allowing the furnace to heat for days on a single fuel load.

**Sprayed-on Urethane Foam Insulation** - 100% airtight and waterproof. There is no match for the urethane insulation we use on our furnaces. The sprayed-on urethane foam insulation provides a waterproof, airtight barrier that does not degrade or compress like fiberglass batt insulation does. The urethane foam provides 2-3 times the effective "R" value of conventional fiberglass batt insulation. Consider that the most efficient water heaters use urethane foam.

**Sealed and Permanently Lubricated Gear Drive with High Torque Motors** - No chains, no sprockets, no hassles.



**Rear Exhaust Outlet with Convenient Access**

**Easy Access Panel** - Provides convenient access and housing for up to two pumps.

**Variable Speed Fan** - For more effective air to fuel ratio, higher efficiency and better combustion.



**Optional 2,440 lb Hopper** - Allows user to access fuel supply with optional transfer auger.

**Safety and Less Mess** - The outdoor furnace is non-pressurized and removes the mess and combustion associated with traditional indoor wood stoves from inside the home.

**Thermal Output** - Self modulating and adjusts between low, medium and high settings as the heat demand changes. The M255 was tested at 165,215 Btu output.\*

Must be installed and operated in accordance with all applicable codes and regulations.

\*Actual Btu output and efficiency will be affected by the quality and type of fuel and other factors.

### Let's Compare Insulation...

	Urethane	Fiberglass Batt
<b>Waterproof</b>	✓	
<b>Airtight</b>	✓	
<b>Effectively Covers All Surfaces</b>	✓	
<b>Maintains "R" Value</b>	✓	
<b>Higher "R" Value</b>	✓	

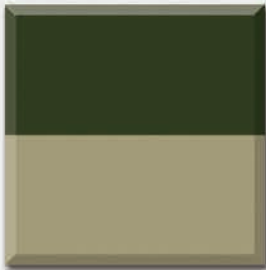


### Maxim M255

Door . . . . . 15.5" x 13.5"  
 Weight . . . . . 1,310 lbs.  
 Water Capacity . . . . . 90 Gallons

### Two Color Combinations to Choose From

Select the color combination that best coordinates with your landscape.



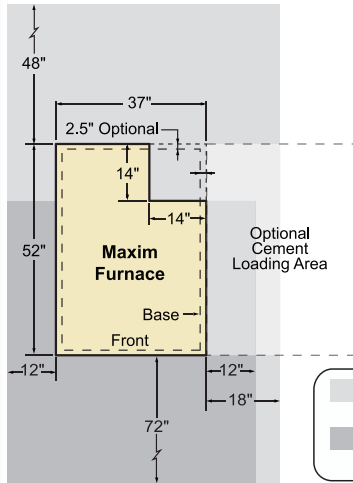
Green and Olive Gray



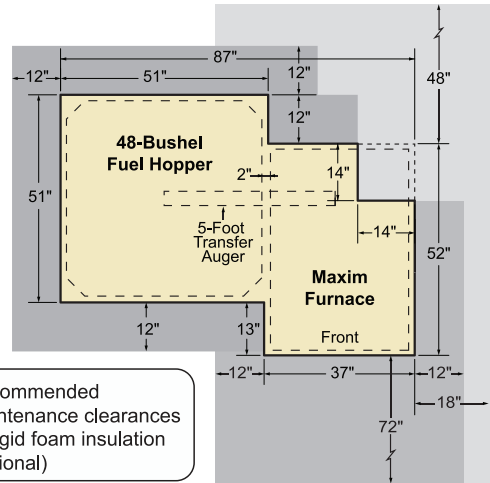
Terra Brown and Taupe  
(textured finish)

Color selections are close representations but are limited due to print variations.

### Optional Foundation



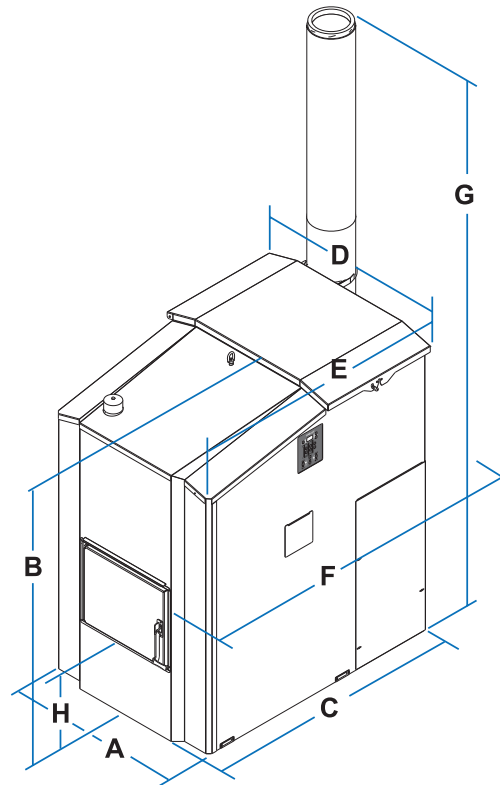
### Optional Hopper Base with Foundation



Foundations dimensions are 1-1/2 in. beyond the outside perimeter of the base.

#### NOTE

Furnace must be installed on a noncombustible surface or foundation that incorporates an enclosure that will prevent supply and return lines from any possible exposure to sunlight, fire, or physical damage that may be caused by an occurrence outside the furnace enclosure.



### Maxim Measurements

	A	B	C	D	E	F	G	H
in.	34	57	49.5	36	48	59.5*	117.5**	14.5

\* Measurement (F) is from firebox door to chimney inspection cover.

\*\* Measurement (G) includes two 4 ft. chimney sections.



## Central Boiler's Test Laboratory

Within Central Boiler's Research and Development Department lies the most complete testing laboratory in the industry. Over the years, Central Boiler has developed many industry firsts. Since 1984, our R&D Department has been developing and testing products before the changes reach the assembly line. This

facility has the ability to collect and analyze a wide range of data, including emissions and efficiency. This state-of-the-art Test Laboratory allows our highly skilled engineers to develop the best. At Central Boiler, research, development, testing and refining are part of the everyday process - not a one time event.

## Conversion Factors

### Heat Content of Common Fuels

- Fuel Oil = 140,000 Btu/gallon
- Propane = 92,000 Btu/gallon
- Natural Gas = 100,000 Btu/therm
- Electricity = 3,413 Btu/kWh
- Wood Pellets = 320,000 Btu/40 lb bag  
or 16,000,000 Btu/ton

Source: University of Minnesota Extension Service

### One 40 lb Bag of Wood Pellets

- = 2.3 gallons Fuel Oil
- = 3.5 gallons Propane
- = 3.2 therms Natural Gas
- = 94 kWh Electricity

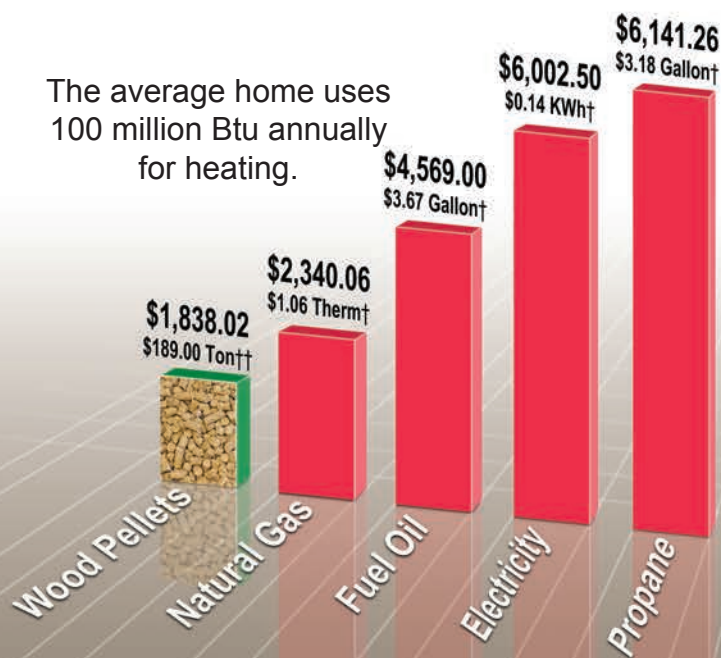
Comparisons with 80% efficiencies. Conversion factors were determined by dividing the Btu content of wood pellets by the Btu content of another fuel.

Fuel Btu contents, heating appliance efficiencies and pricing will determine overall heating costs and comparisons.

## Fuel Cost Comparison

Heat and Hot Water Annual Fuel cost

The average home uses 100 million Btu annually for heating.



†New Hampshire Office of Energy and Planning as of January 30, 2012.  
††Prices are approximate and will vary based on location. Appliance efficiency will affect annual fuel cost.



### Sample Parts List For Forced Air Heating System

Qty	p/n	Description
1	107	125,000 Btu Heat Exchanger Coil
1	2053	Domestic Water Heater Fittings Kit
1	591	Domestic Water Heat Exchanger
1	171	Circulation Pump
1	224	Isolation Flange Kit, 3/4"
1	588	24V Thermostat
1	118	3/4" Close Nipple
1	198	3/4" Ball Valve
6	1330	3/4" MPT x 1" PEX Adapter
6	5978	1" Stainless Steel Clamp
*		ThermoPEX® Insulated Pipe
1	777	6" Spark Arrestor (Optional)
1	296	Check Valve
2	333	1-1/4" Round Pipe Cap
2	274	3/4" 90° Street Elbow
1	5367	3/4" Brass Coupling
1	199	3/4" Brass Hose Bib
	1650	1650XL Inhibitor Plus
1	6593	Ground Rod Kit

Illustration for forced air heating system is located on page 2.  
\* Installation distance to the furnace will determine the quantities. Consult dealer on insulation options available.

### A complete line of parts and accessories

For the maximum performance and life of your furnace, always insist on using Central Boiler authorized system parts and accessories.

There is no need to chase from here to there for your parts, accessories and maintenance tools. Central Boiler has them all. Central Boiler has thousands of square feet of space dedicated to

inventory which our dealer network may access. Overnight, second day, three day, and ground delivery are available to our dealers five days a week.

To locate your nearest Maxim dealer, either visit our website at [MaximHeat.com](http://MaximHeat.com) and use the dealer locator or call 1-800-248-4681.

### Push-fit Fittings - A Connection System for Copper or PEX Pipe

These top-quality, brass Push-fit Fittings reduce outdoor furnace system installation time and are easy to use. There's no faster way to plumb a job or make a repair - wet or dry. Just insert the pipe and

the stainless steel teeth bite down and grip tight, while a specially formulated O-ring compresses to create a perfect seal. Using the simple disconnect tool, fittings can be easily changed and reused.



- Instant push-fit connection for increased ease-of-use: No soldering, clamps, unions, or glue required.
- Fits copper tubing and PEX: Connects both types in any combination.
- Integral tube liner for PEX installations: Integrated design means no loose components and ensures secure, reliable connection.
- Designed for hydronic heating as well as potable water distribution.

See Heating Accessories catalog for complete listing.



## ThermoPEX® Insulated Piping System

ThermoPEX is a flexible pre-insulated piping system that saves energy and maximizes system efficiency. ThermoPEX consists of two 1-inch oxygen barrier Central PEX® pipes or two 1-1/4 inch oxygen barrier PEX pipes (supply and return) that are insulated with high-density urethane insulation and a thick, durable, waterproof, UV-protected polyethylene outer jacket. The corrugated design allows flexing for easier installation. ThermoPEX is the best insulated piping system available for your outdoor wood furnace.

Oxygen barrier Central PEX is a high-density, cross-link pipe, rated for 180 degrees F at 100 psi. It is compatible with standard PEX insert fittings which cost much less than competitors' compression fittings. PEX pipes are marked to easily identify supply and return lines.

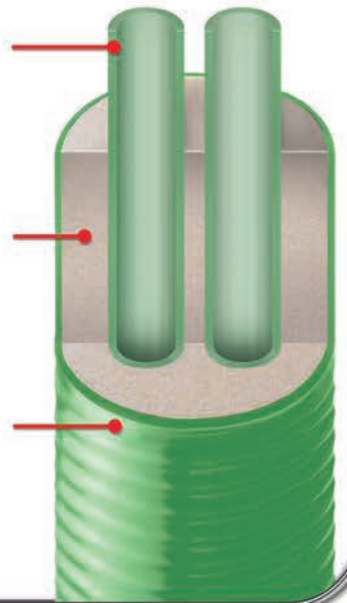
The high-density urethane insulation provides the ultimate control against heat loss. The high thermal efficiency of the urethane allows for a smaller overall size than some competitors, and provides lower heat losses per foot. The special proprietary formulation of the high density urethane insulation used in ThermoPEX provides ultimate control against heat loss.

The ThermoPEX high-density polyethylene outer jacket is thick, durable and seamless. It provides the necessary protection and is waterproof. It is corrugated for flexibility and can be easily routed around obstacles. It is also UV protected and can be installed above ground. It eliminates concerns with ground moisture or water affecting insulating properties of the urethane insulation.

**Pipe**

**Insulation**

**Outer Jacket**



## Select Steel Panel Radiators

Will keep most any room comfortable and in style.



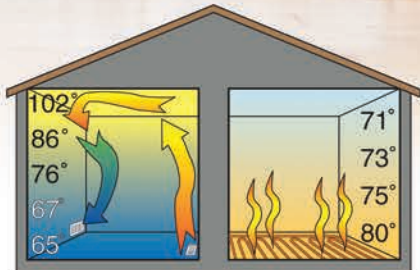
## Fan Convector Heaters

All-around comfort that's quick and easy to control.

## Kickspace Heaters

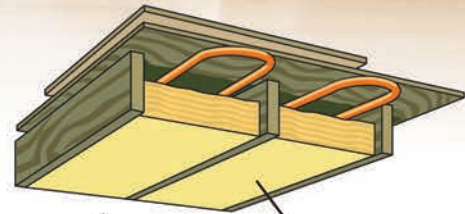
Designed to fit under cabinets or in other spaces.

A perfect solution to warm up those cold spots in your home. Whether it is your entry, kitchen or patio door area these radiators and fan forced hydronic heaters will provide comfort that's efficient, quick and easy to control. They are quiet, elegant, stylish, and designed to blend in, making the best possible use of space.



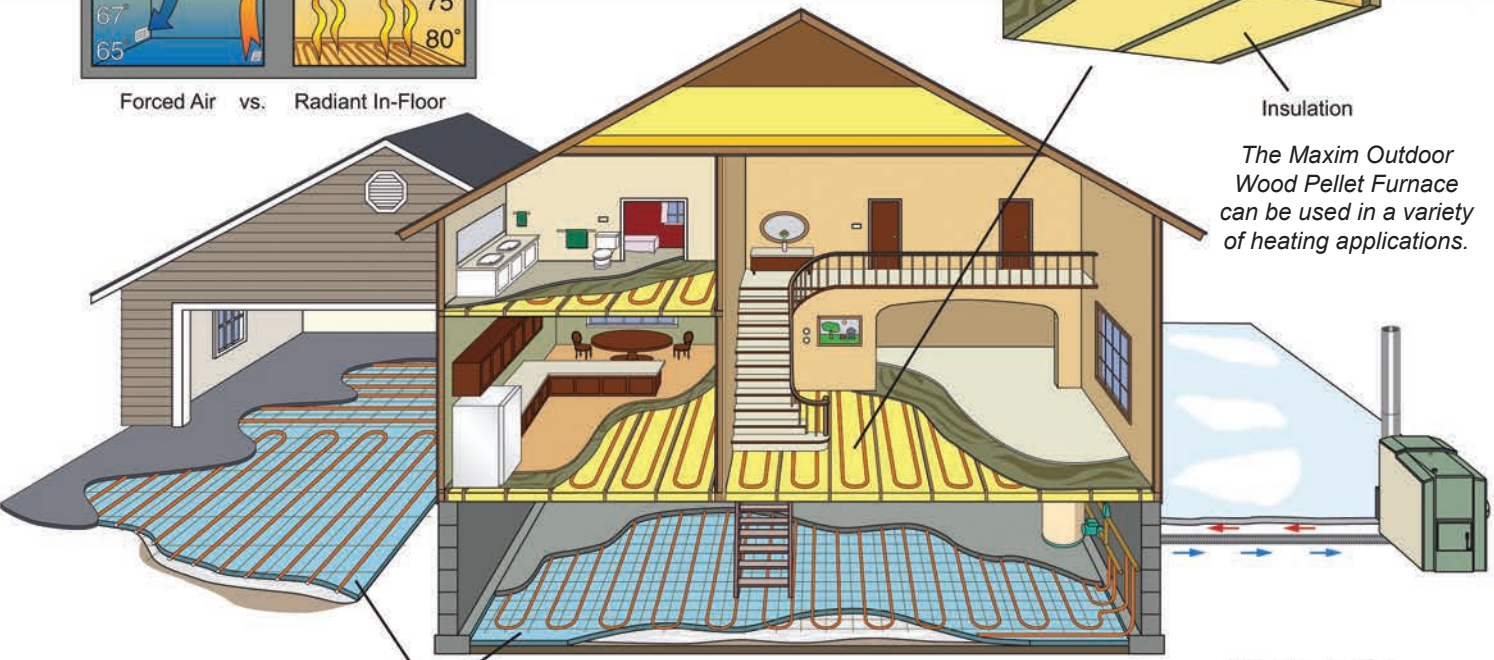
Forced Air vs. Radiant In-Floor

### Multi Zone In-floor



Insulation

The Maxim Outdoor Wood Pellet Furnace can be used in a variety of heating applications.

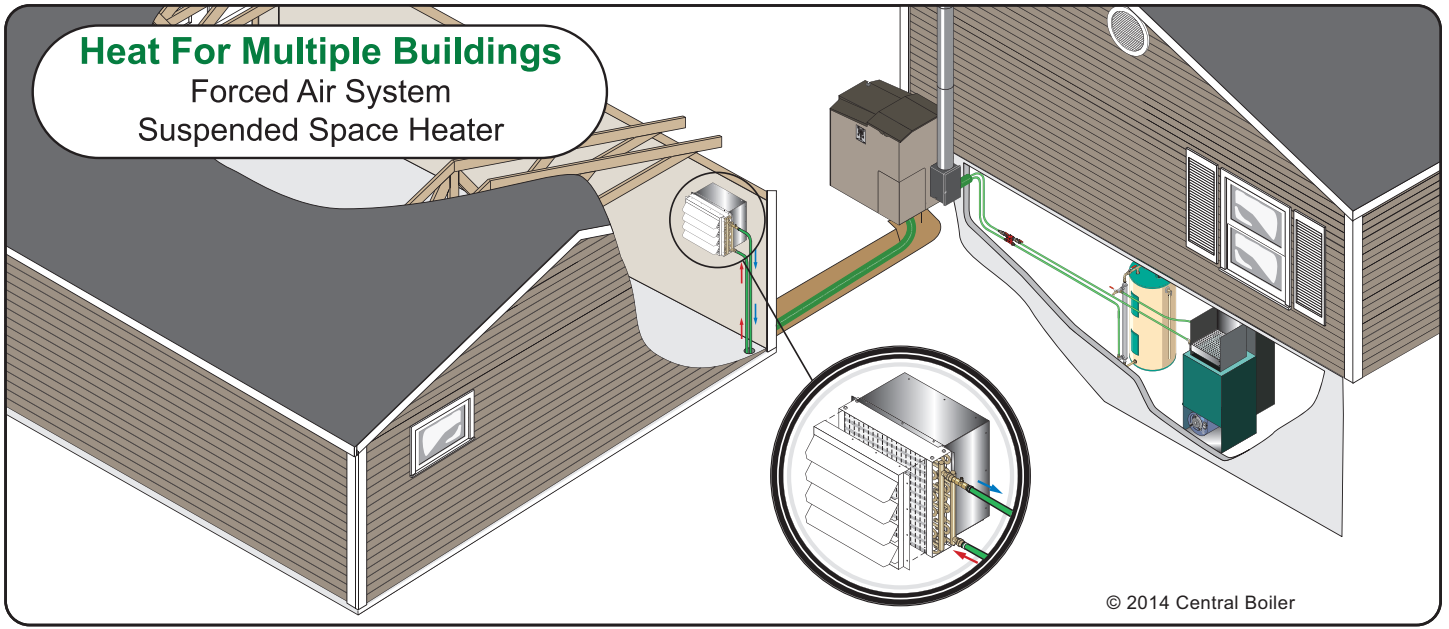


Closed-cell Polystyrene Thermal Insulation

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## Heat For Multiple Buildings

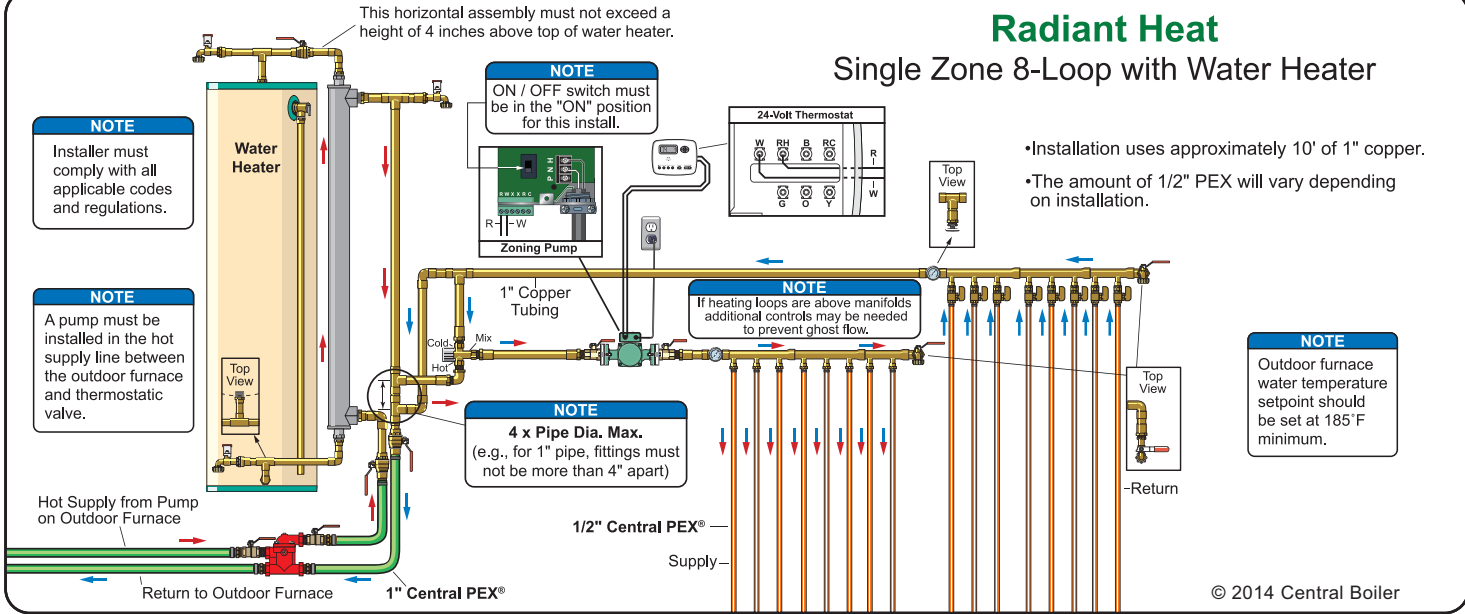
Forced Air System  
Suspended Space Heater



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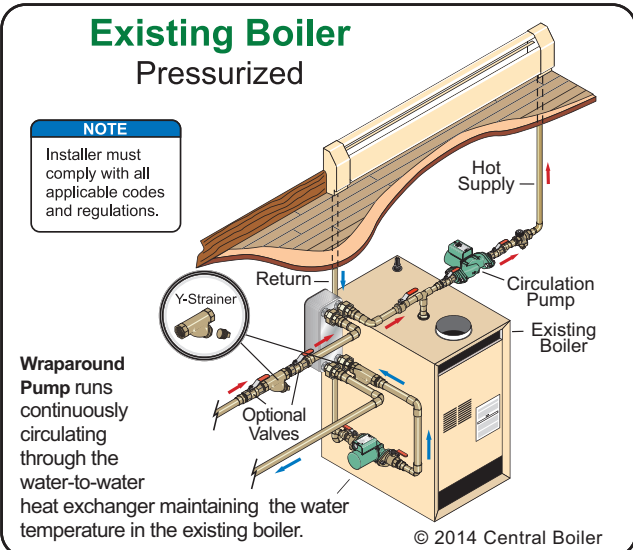
## Radiant Heat

Single Zone 8-Loop with Water Heater



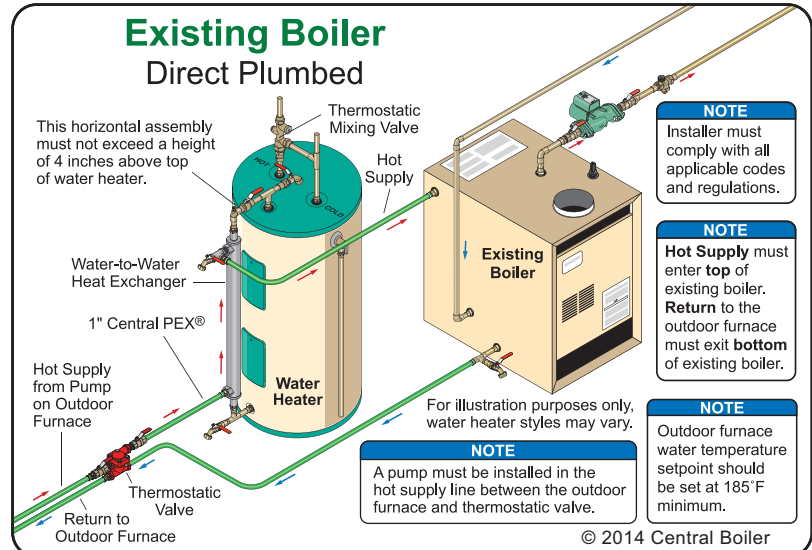
## Existing Boiler

Pressurized



## Existing Boiler

Direct Plumbed





## Qualified Individuals Working Together for a Common Purpose: A High Quality Finished Product

Central Boiler is located in Greenbush, Minnesota and was established in 1984 and is North America's largest manufacturer of quality outdoor furnaces. Based upon a desire to create safer and more efficient heating products, the company's innovations and patents have established Central Boiler as a leader in product quality. The uncompromising attitude to manufacture the best and always strive to make it better is at the core of the company's growth. Central Boiler has a dealer network that has now established itself throughout the United States and Canada.

## Why You Should Choose the Maxim® Outdoor Wood Pellet Furnace by Central Boiler

It's a choice that can improve your family's living environment and standard of living while eliminating the fire hazards and time-consuming chore of tending a traditional indoor wood stove.

The Maxim outdoor wood pellet furnace can heat 100% of your home and water.† By virtually eliminating your heating costs, the Maxim can often pay for itself in the first two years of use.†† Over a ten year period, a homeowner or business may save \$15,000 to \$75,000 or more in heating costs.

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For the maximum performance and life of your furnace, always insist on using Central Boiler authorized system parts and accessories.

See Owner's Manual for proper chimney height and installation.

Minimum chimney height is determined by proximity to other buildings. Consider location and direction smoke may travel with prevailing winds before installing your furnace.

Content of this publication is information in possession of Central Boiler at the time of the design and may not represent what was previously manufactured. Product specifications and appearance subject to change.

Must be installed and operated in accordance with all applicable codes and regulations.

†Heat load must be identified if Maxim is intended to heat 100% of home and water. Outdoor furnace and system must be properly sized and installed.

††Savings based on cost of wood pellets and heat load.

## Environmental Benefits

The Maxim is beneficial for the environment because burning wood pellets is natural. Both are totally renewable resources and, when burned, result in no net increases in carbon dioxide. On the other hand, fossil fuels when burned release carbon dioxide which would otherwise be trapped in the earth. The burning of fossil fuels causes a net increase in carbon dioxide which is believed to be responsible for the heat-trapping greenhouse effect.

Wood pellets are environmentally friendly not only because of their clean-burning characteristics, but also because they are typically made from materials generated in saw mills or furniture manufacturing factories that were once discarded in landfills or left to rot on the forest floor.

## Limited Warranty

An optional five-year limited warranty is available on Maxim outdoor furnaces that are registered at the time of purchase. Central Boiler leads the industry with its commitment to stand behind its outdoor furnaces.

See Warranty Registration form for details.

## Authorized Maxim Dealers located across the U.S. and Canada

When you're looking for a wood pellet heating system for any need, your Maxim dealer is there to serve you. Your Maxim dealer can answer your questions, provide you with literature about the Maxim outdoor wood pellet furnace and help you choose the model right for your heating needs. To locate a Maxim dealer in your area, reference the dealer locator on the internet at [MaximHeat.com](http://MaximHeat.com).