

PRO-FAB
INDUSTRIES INC.

Elite
EMPYRE

High Efficiency Indoor Wood Boilers



www.vestaawards.com



EPA WHITE TAG
QUALIFIED

PATENT
PENDING

- 2 MODELS AVAILABLE
- WOOD-ELECTRIC HYBRID
- 90% CLEANER BURNING
- 89% EFFICIENCY
- LONG BURN TIMES

- REFIRES AUTOMATICALLY FROM STANDBY
- INDOOR INSTALLATION
- GASIFICATION TECHNOLOGY
- SMOKE FREE COMBUSTION





Empyre Elite 100 and 200 indoor wood boilers deliver all the comfort and convenience of conventional furnaces while protecting the environment for the next generation to enjoy. **EPA White Tag qualified** *Empyre Elite* boilers combine high efficiency heating technology and low emission **smoke free combustion** with a readily accessible and renewable fuel to make wood the heating choice of the future.

Splitting wood is obsolete with a large firebox operating best with large diameter logs a few inches shorter than the length of the firebox. The wide firebox door makes loading quick and simple. With new clean burning technology, the *Empyre Elite* does most of the work - combustion and cleaning. When necessary, ash is easily swept from the lower burn chamber into the furnace-wide ash pan.

The *Empyre Elite's* **Easy Flue design** and the flue cleaning rod (included) makes sweeping out the flues a quick and simple process. The *Empyre Elite* is **easy to integrate** into practically any home's existing heating system. It can be installed into a 6" chimney liner and connected to floor heat or existing duct work with a water-to-air heat exchanger.



PATENT PENDING

VESTA AWARD WINNER

The Vesta Awards recognize and honor new alternative heating and hearth products that are leading the industry in design and innovation. The Vesta Awards are presented annually at the Hearth, Patio & Barbecue Expo (HPBExpo) by Hearth & Home Magazine.



TWO YEARS IN A ROW

Due to the unique Wood-Electric HYBRID feature, gasification technology, low cost and simplicity of use, the Vesta judges have awarded the *Empyre Elite* product line for making wood heat accessible to more homeowners than ever.

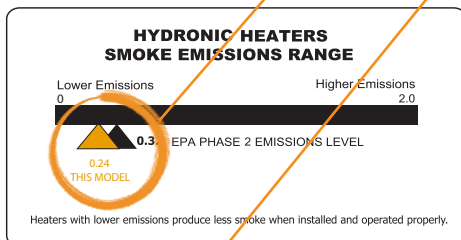
EPA White Tag Qualified

PHASE 2 QUALIFIED

U.S. Environmental Protection Agency Hydronic Heater Program

Phase 2 Qualified models are cleaner and pollute less than those models that have not met this emission level. Exposure to smoke has been associated with respiratory illness and other health problems. Models that have lower smoke emissions may reduce your risk.

For more information go to www.epa.gov/burnwise



MANUFACTURER:
MODEL NUMBER:
8-HOUR OUTPUT RATING:
8-HOUR AVERAGE EFFICIENCY:

PARTICLE EMISSIONS:

Pro-Fab Industries
Elite 100
48,721 BTU/HR **
78% (using higher heating value)
89% (using lower heating value)
3.5 GRAMS/HR (average)
3.8 GRAMS/HR (maximum test run)
0.14 LBS/MILLION BTU INPUT
0.24 LBS/MILLION BTU OUTPUT
0.08 GRAMS/HR/10,000 BTU OUTPUT

EPA has determined, based on testing by an accredited independent laboratory, that this model qualifies at the Phase 2 emissions level for U.S. EPA's Voluntary Program.

90% CLEANER BURNING!

Phase 2 qualified hydronic boilers reduce emissions by more than 90% over conventional wood furnaces. *Empyre Elite* emission levels are well below EPA standards, protecting the environment for a greener future!

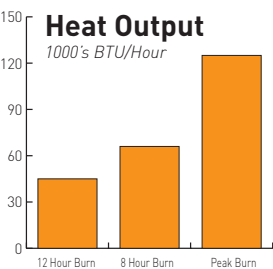
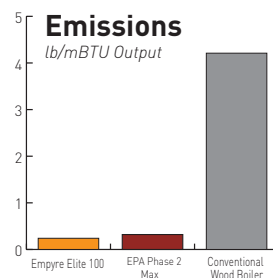
UP TO 125,000 BTU/HR HEAT OUTPUT WITH MODEL 100!

Heat your home, garage and domestic hot water with an *Empyre Elite* wood gasifier. Producing 66,000 BTU/hr on an 8 hour burn* and offering an electric element option, the *Empyre Elite 100* makes wood heat a convenient, cost effective alternative heating solution.

89% EFFICIENCY!

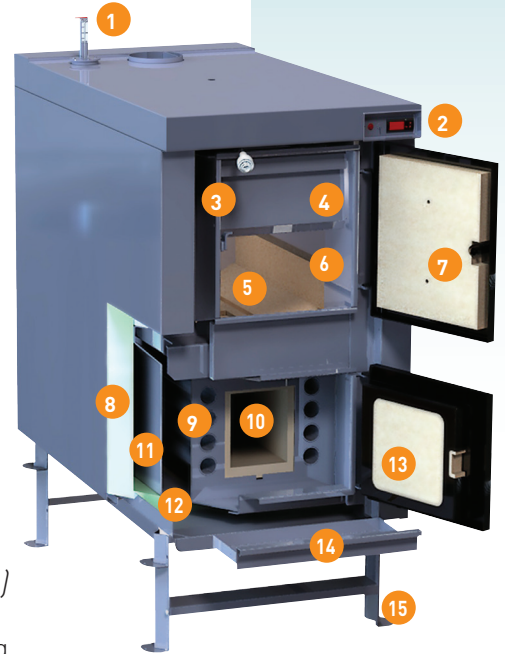
Cut your fuel requirements and loading time in half with an *Empyre Elite* by burning both the wood and the gases released from the wood, the *Empyre Elite* can produce twice the heat from the same quantity of wood.

*Heat output and efficiency may vary based on wood type, quality and moisture. EPA 8 hour output rating test based on 10 lbs of wood/cubic foot of firebox, which means that this rating is based on a furnace that is only partially full.



The Empyre Elite Up Close

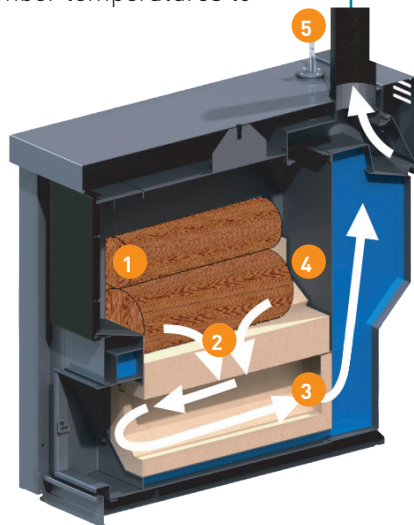
- 1 Water Level Indicator** Monitor furnace water levels at a glance.
- 2 Temperature Control** Set the furnace to maintain water temperature at your desired level with the user friendly control panel.
- 3 Smoke Free Loading** Exhaust exit lever activates the revolutionary air curtain and rear exhaust exit to direct exhaust and gases out the chimney when the loading door is open.
- 4 Exhaust Curtain** Keep exhaust out of the room when loading; the exhaust curtain swings inward for loading simplicity.
- 5 Fire Brick Refractory** Stores heat in the firebox for hours, reigniting the wood quickly on a demand for heat.
- 6 Primary Burn Chamber** Wood in the sealed firebox burns whenever air is introduced and does not smolder between cycles.
- 7 Loading Door** Extra large size for ease of loading and heavy duty construction for long life.
- 8 Premium Bat Insulation** Will not oxidize or shrink; keeps heat inside the furnace and the outside safe to touch.
- 9 Seamless Flues** Transfer heat to the water jacket quickly and efficiently; simple to clean from rear clean out port.
- 10 Secondary Burn Chamber** Exhaust gases from the firebox are injected with air and burn at up to 2,000°F (1093°C) to achieve nearly 100% fuel combustion.
- 11 Durable Construction** Solid steel workmanship with removable components for simple installation.
- 12 Built-in Water Reservoir** Stores heated water to heat your home by a forced air or radiant heating system.
- 13 Ash Door** Wide insulated door makes ash cleanup from the gasification chamber and flues simple.
- 14 Ash Tray** Easily dispose of ash with this removable slide out ash tray.
- 15 Extension Legs (optional)** Set the furnace at the most comfortable height for loading.



How it Works

The *Empyre Elite* uses a process called wood gasification to produce highly efficient combustion in the furnace's dual burn chambers.

- 1 Firebox** Wood burns drying the top layer; the fire brick lining absorbs heat and maintains burn chamber temperatures to reignite quickly on demand.
- 2 Exhaust** Pushed down into the lower burn chamber.
- 3 Secondary Burn Chamber** Exhaust burns at up to 2,000°F (1093°C) eliminating virtually all smoke and gases.*
- 4 Flues** Exhaust air exits through multiple heat exchange flues passing through the water jacket, transferring heat immediately and efficiently.
- 5 Chimney** Exhaust cools through the exclusive *Empyre Elite* heat exchanger to 350°F (177°C)* by the time it exits the chimney.



*May vary based on fuel type, burn rate and other conditions.

Features

COMFORT

- Self-regulating combustion controls
- Maintains constant water temperatures
- Heat available on demand
- Consistent heat output
- Refractory fire brick lining maximizes heat retention
- Install in home, shop or garage

EFFICIENCY

- Dual combustion downdraft system
- EPA White Tag qualified
- Reduces emissions by 90%
- Rated at 89% efficiency*
- Gasification technology
- Wood-Electric Hybrid

SECURITY

- Meets CSA/UL safety standards
- Air Curtain prevents gases from exiting
- Safety dual lock door system
- Well insulated exterior
- Smokeless loading

B415.1 EMISSION STANDARD

The stringent and highly recognized B415.1 emission standard is required by CSA for many wood stove products. With a commitment to deliver the best products into the marketplace, Pro-Fab Industries works with several leading accredited testing laboratories, which is a testament to the commitment made for these testing protocols. The *Empyre Elite 200* is EPA White Tag Qualified, and in addition to EPA requirements, this highly efficient wood gasification boiler has also been B415.1 tested. The *Empyre Elite 200* has surpassed the B415.1 emission standard that represents true to life usage by burning cord wood versus crib wood. The *Empyre Elite 200* burns wood over 5 times cleaner than is required and is rated at 0.071 g/MJ.

(g/MJ = Grams Per Megajoule)

WOOD-ELECTRIC HYBRID

The *Empyre Elite Electric Element Unit* makes wood heat a practical option for busy lifestyles and makes the *Empyre Elite* a versatile, convenient and cost effective alternative to fossil fuels.

Features

- Separate programmable control panel
- Switch easily between electric and wood
- Set electric as backup to wood furnace when you are away
- Use electric elements to heat domestic water during the summer
- Factory installed or add-on package
- Meets UL/CSA (ETL)



TESTIMONIAL

Empyre Elite 100 Saves \$3,500⁰⁰/yr 4000 FT² HOME & 2^{1/2} CAR GARAGE IN MIDDLETON, NEW YORK

Vivian J. purchased an *Empyre Elite 100* in the fall of 2010. She had heated with oil in the past and paid up to \$4,000⁰⁰ annually on heating costs. With the *Empyre Elite 100* she has cut her fuel cost down to \$700⁰⁰/yr and saves \$200⁰⁰/yr on electricity by heating her hot water with the unit as well. "Our town is starting to give wood away for free so there might not be any fuel cost next season," she says.



Specifications

| | Model 100 | | Model 200 | |
|------------------------------|---------------------|-----------------|---------------------|-----------------|
| Heat Output (Peak)* | 125,000 BTU/hr | 37.0 kWh | 220,000 BTU/hr | 64.4 kWh |
| Heat Output (8 hr)* | 66,000 BTU/hr | 19.3 kWh | 110,000 BTU/hr | 32.2 kWh |
| Heat Output (12 hr)* | 45,000 BTU/hr | 13.2 kWh | 72,000 BTU/hr | 21.1 kWh |
| Log Length | 24" | 61 cm | 25" | 64 cm |
| Log Diameter | 6" | 15 cm | 6" | 15 cm |
| Furnace Width | 28" | 71 cm | 31.5" | 80 cm |
| Furnace Length | 52" | 132 cm | 61" | 155 cm |
| Furnace Height | 48" | 122 cm | 57" | 145 cm |
| Loading Door Opening | 16" x 14" | 41 x 36 cm | 18.5" x 16.5" | 47 x 42 cm |
| Firebox Volume | 6.1 ft ³ | 173 L | 10 ft ³ | 283 L |
| Firebox Dimensions W x H x L | 19" x 21" x 28" | 48 x 53 x 71 cm | 22.5" x 26" x 31.5" | 57 x 66 x 80 cm |
| Water Capacity | 60 US Gal. | 227 L | 112 US Gal. | 424 L |
| Furnace Weight | 945 lb | 429 kg | 1,400 lb | 635 kg |
| Flue Collar Diameter | 6" | 15 cm | 6" | 15 cm |
| Limited Warranty | 10 Year | | 10 Year | |

Features

| | | |
|-----------------------------------|----------|----------|
| 1 to 4 - 4.5 KW Electric Elements | Optional | Optional |
| Flue Cleaning Brush | Included | Included |
| Ash Rake | Included | Included |
| Extension Legs (7"/18 cm) | Optional | N/A |

Minimum Clearance to Combustibles

| | | | | |
|----------------------------|-----|--------|-----|--------|
| Flue Pipe/Side & Back Wall | 12" | 31 cm | 12" | 31 cm |
| Front | 48" | 122 cm | 48" | 122 cm |
| Ceiling | 24" | 61 cm | 24" | 61 cm |

* Results may vary based on fuel type, moisture and quality.
Product specifications and appearance subject to change.

Pro-Fab Industries Inc., founded in 1989, is North America's premier designer of alternative heating products. With five manufacturing facilities across three countries, *Pro-Fab Industries* has the widest range of EPA qualified clean burning units on the market.



Manufactured by:
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