

KEEPING FAMILIES COMFORTABLE FOR OVER 30 YEARS

biomass multi-fuel
FURNACE



napoleonheatingandair.com





Napoleon's Multi-Fuel Hot Air Furnace

RUGGED AND DEPENDABLE



NCPF110

Bio-energy is the oldest energy resource and is produced by the release of stored chemical energy contained in fuels made from biomass products (ie: corn, pellets or wheat). Biomass is a clean burning renewable fuel to heat your home economically. Napoleon's clean-burning, multi fuel (corn, pellet, wheat or a mixture of all) high efficiency furnace is designed and built to heat residential or commercial buildings through a forced air duct system. It can replace any forced air furnace system or be used in new construction. An optional wall thermostat controls the fuel feed system to provide a constant temperature. The large ten cubic foot hopper provides continuous heat for up to 5-8 days** on a single loading. When the fuel is low, the controller flashes and a low fuel buzzer indicates the need to refuel.

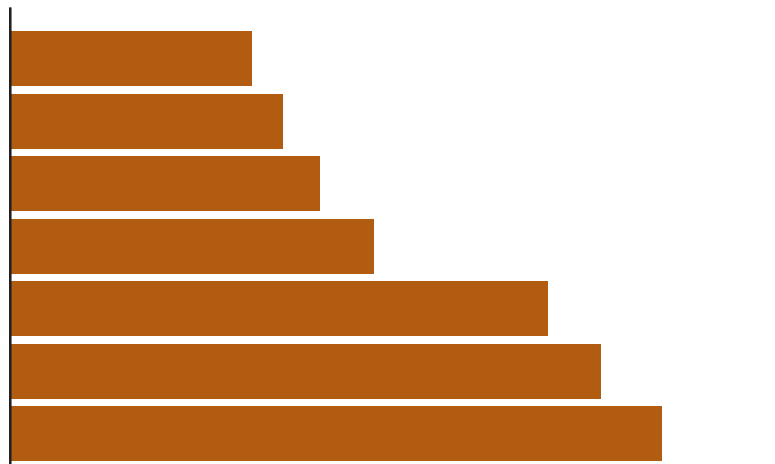
HOW DOES BIOMASS ENERGY COMPARE WITH OTHER FUEL COSTS?



- 80% efficiency
- Uses renewable and sustainable energy resources
- Greenhouse gas neutral
- Economical

Fuel

Corn
Wheat
Pellet
Natural Gas
Oil
Propane
Electric



Cost (Based on averages and region)



Fuel Consumption
2-15 lbs/hr



** Figures may vary with individual conditions such as floor plan layout, insulation value/heat loss of the home, geographical location and the fuel used.

HIGH EFFICIENCY

- Horizontal, high performance heat exchanger system designed for maximum heat transfer. Provides 18.4 sq. ft. of heating surface
- Natural venting system, as opposed to mechanical power venting results in a slower exhaust process increasing overall efficiency
- Combustion blower ensures the exact amount of air is supplied to the burner for complete combustion through the system to maximize heat transfer
- Top loading fuel feed system separates burn pot and fuel storage eliminating risk of burn back
- Rugged, commercial grade auger feeds the precise amount of biomass fuel from the hopper into the burn pot and provides varying levels of heat

CONVENIENCE/VERSATILITY

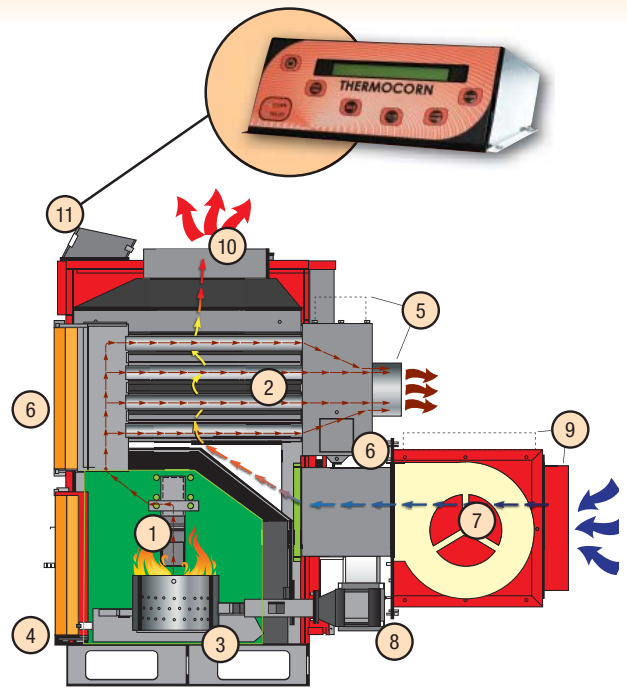
- Automatic fuel feed for convenience and peace of mind
- Versatile, rear or top mount capability for exhaust flue and return air plenum designed to fit a variety of installation applications
- Large bottom front door provides easy access for servicing of burn pot or ash reservoir
- Optional stand-by burn pot is available to eliminate down time when burn pot is removed for cleaning, simply clean and exchange at your leisure
- Corn must be sifted prior to placing in the hopper to alleviate naturally occurring dust particles

THREE STAGE CONTROL SYSTEM FOR OPTIMUM PERFORMANCE

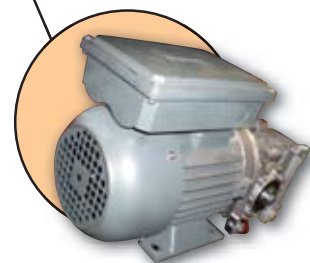
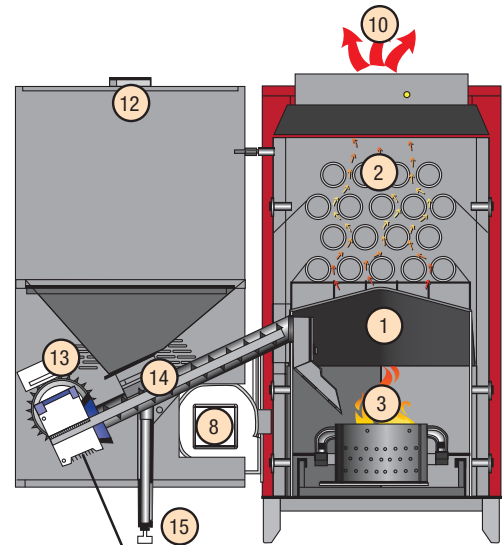
- First mode starts the fire
- Idle mode trickle feeds the burn pot to maintain a small core fire in anticipation of the thermostat calling for heat
- Once the thermostat is satisfied and desired room temperature is reached, the system automatically returns to idle mode
- High temperature shut off protection

ONE TOUCH SET-UP/SERVICE CONTROL

- Digitally controlled furnace
- Choose from corn, pellet, wheat or mixture of all three for fuel selection
- LCD display and touch button control system for fully automatic control
- Choice of Celsius or Fahrenheit temperature indicator



- | | |
|--|---|
| 1. Fuel feed | 9. Top or rear cold air return plenum |
| 2. Heat exchanger tubes | 10. Hot air plenum |
| 3. Stainless steel burn pot | 11. Electronic set-up/service control panel |
| 4. Firebox/burner pot access door | 12. Fuel hopper |
| 5. Exhaust housing / flue collar | 13. Auger motor |
| 6. Heat exchanger clean out access doors | 14. Auger |
| 7. Hot air blower | 15. Adjustable supporting leg |
| 8. Combustion blower | |



Industrial 3/4 hp auger feed motor

SPECIFICATIONS

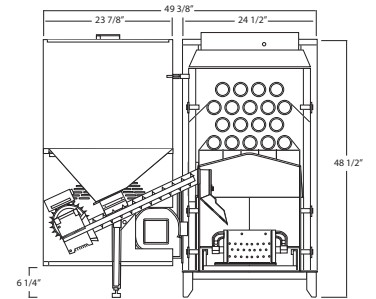
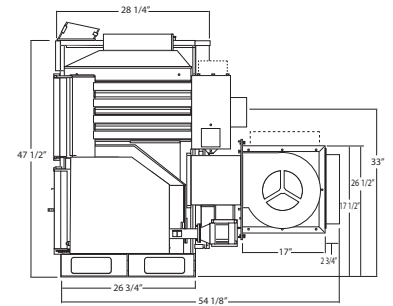
Heating capacity (BTU's)	Up to 118,000 BTU's (up to 3600 sq.ft.)**
Furnace efficiency	80%
Hopper capacity - 8 bushels (10 cu.ft.)	8 bags of corn (448 lbs), 10 bags of pellets (400 lbs)*, 8 bags of wheat (444 lbs)
Fuel rate	2 - 15 lbs / hr*
Working voltage	220 Volt, 15 Amp
Flue pipe	6" diameter (15 cm)
Venting options	Class "A", "L" vent or masonry chimney with stainless steel liner
Flue gas temp @ 20" above furnace outlet	266 - 392F, (130 - 200C) depending on the run mode
Running modes	First fire: Starting the burn pot
	Low mode: Low heat (Spring & Fall)
	High mode: High heat (Winter)
	Idle mode: Keep core fire burning for automatic thermostatic control
Combustion air blower	150 cfm (255 m ³ / hr)
Plenum opening for hot air outlet	18" x 14" (457 x 356 mm)
Return air opening	18" x 14" (457 x 356 mm) Designed to accept standard furnace filter block
Burn pot	310 Stainless steel (9 GA), double walled with dual combustion air induction inlets
Heat exchanger	Steel boiler plate, heavy duty tubes
Auger motor	High torque, fan cooled (3/4 hp)
Forced air blower	1800 cfm (3060 m ³ / hr)
Dimension - installed (h x w x d)	51" height x 52" width x 57" depth
	1450 mm depth x 1320 mm width x 1290 mm height
Weight (furnace and hopper)	770 lbs approx (350 kg)
Weight (furnace only)	560 lbs (255 kg)
Shovel	Adds fuel to the burn pot for initial start up
Scraper	Exhaust housing scraper
Wire brush	Heat exchanger brush
OPTIONAL ACCESSORIES	
Wall thermostat	Sets desired level of comfort and regulates furnace
Stand-by burn pot	Allows for continuous furnace use while cleaning main burn pot

* Depending on quality and moisture content of fuel used.

** Figures may vary with individual conditions such as floor plan layout, insulation value/heat loss of the home, geographical location and the fuel used.

Safety Information

All photographs are for illustrative purposes only and are not meant to be a guide for actual installation. For complete installation guidelines, please refer to the Installation & Operations Manual. All safety regulations with respect to combustible materials and surfaces must be followed. Dimensions and specifications are subject to change without notice. Contact local building or fire official about restrictions and installation inspection requirements.



3 Years Combustion Chamber & Heat Exchanger
1 Year Parts & Labour

All other wearable parts and electrical components such as blowers, thermal switches and burner pot are covered. Napoleon will provide replacement parts free of charge during the first year of the limited warranty.

Other Napoleon® Products



Waterfalls



Patio Heaters



Patioflame®



Outdoor Gas Fireplace



HVAC



Modern Collection



Wood Stoves



Pellet Stoves



Gourmet Grills

Tested to CAN/CSA B366.i10-M91, UL391, ASTE 1509-95. This heater is EPA exempt from phase II requirements, but has been tested for emissions using EPA test methods by Warnock Hersey. Consult your owner's manual for complete installation instructions and check all local and national building codes. All specifications and designs are subject to change without notice to allow for on-going product improvement. Images may not be exactly as shown. Patent U.S. 5,307,801, 5,303,693, 75054, 417497 - Can. 2,073,411, 2,082,915, 74589 © Wolf Steel Ltd. Napoleon® is a registered trademark of Wolf Steel Ltd.



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Printed in Canada
ADBRWP 11/2009