

ENERGY SOLUTIONS



F.W. WEBB COMPANY

SOLAR ENERGY SYSTEMS



SOLAR PRODUCTS

EOS solar products are used to heat domestic hot water, radiant floor space heating, and pools or spas.

Features:

- Can reduce annual hot water production costs by as much as 80-100%.
- Provides independence from fossil fuels for a significant part of the year.
- Generates zero greenhouse gas CO₂ emissions. In fact... it will decrease your overall household CO₂ output by up to 30%.
- Designed for high performance in any climate (effective operation down to -22°F).
- Smaller footprint required than traditional flat plate collectors.
- Twin Glass Evacuated tubers retain heat and continue to produce hot water for up to 30 minutes after sunset.
- Comprehensive 15 year limited warranty.

- Fully expandable and upgradable as your needs increase.
- Effortless integration with electric, heat pump, gas, or oil fired hot water systems.
- Eco-Friendly. . . EOS Collectors are built using recycled materials.



Buderus SOLAR HEATING SYSTEMS

Intelligent Solar Technology

The life-giving sun provides us with the fuel of the future – solar energy. The sun beams down on us every day and gives us heat, light and energy. Energy, which you can now utilize easily and conveniently with a Buderus solar heating system, whether to enjoy a warm shower or to boost your central heating. Affording a benefit to you and the environment.

Buderus solar thermal heating systems are comprised of some key components that effectively convert the sun's free energy into practical heat for domestic hot water and space heating applications. These indirect solar heating systems include the following components:

- **Flat Plate Solar Collectors** – collecting and transferring solar thermal energy into usable heat.
- **Solar Storage Tank** – storage tank for accumulating the collected solar thermal energy.
- **Solar Pump Station** – circulation system for moving the heat transfer fluid from the collectors to the storage tank.
- **Solar Controller** – automatically decides when to run the pump to bring the solar heat from the collectors to the storage tank.

- **Expansion Tank** – a safety device that captures the expansion and condensation of the solar heat transfer fluid during changing climatic conditions.
- Flexible mounting solutions for all roof-types.
- 25 years solar heating experience from Buderus.
- Fully integrated solar solutions.

Buderus SKN 3.0 Solar Flat Plate Collectors:

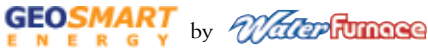
An ideal entry-level model that quickly pays for itself thanks to its excellent price/performance ratio.

Buderus SKS 4.0 Solar Flat Plate Collectors:

A high performance collector that is hermetically sealed and filled with an inert gas reducing heat loss. The double meander absorber optimizes heat transfer and allows 10 collectors to be connected in a single row.



GEOHERMAL SYSTEMS



A GeoSmart Energy System uses the Earth's thermal properties in conjunction with electricity to provide whole home space conditioning and unprecedented efficiency. For every unit of electricity the system uses, it provides four units of heating energy, giving a geothermal system a 400% efficiency rating, on average. The secret of a GeoSmart Energy System's clean, efficient operation is the earth's ability to store heat. In fact, almost 50% of the sun's energy that reaches our planet is absorbed into the earth.

Physically, the GeoSmart Energy System resembles a conventional forced-air furnace located conveniently in a mechanical room. Geothermal systems

GEOHERMAL COMFORT SYSTEMS

extract heat from a series of closed loop pipes buried outside of the home and transfer it into the mechanical room directly to the GeoSmart Energy unit. From there the system superheats the free energy and distributes it through the home by way of forced-air or in-floor heating. In summer, the system simply reverses and extracts heat from your home for cooling and moves the heat to either your domestic hot water tank or into your closed loop pipes outside.



SOLID FUEL/COMBINATION



NEWMAC

Alternative Fuels, High Efficiency Heating Furnaces

- ▶ Wood/Wood-Coal
- ▶ Wood & Oil/Gas Combination
- ▶ Wood and Wood/Coal Add-Ons
- ▶ Wood/Coal and Oil/Gas Combination Boiler

Wood/Wood Coal features include:

- 10 year prorated warranty on heat exchanger.
- Scandinavian baffle causes the flame to pass through itself, mixing with secondary air to burn creosote-causing gases.
- Preheated combustion air is introduced by a thermostatically controlled draft system, promoting high efficiency and reducing creosote.
- Large fire door for easy loading.

Wood and Oil/Gas Combination features include:

- Separate combustion chamber for oil/gas.
- All welded steel heat exchanger with a 10 year limited prorated warranty.
- Secondary heat exchanger maximizes heat transfer.
- Preheated combustion air is introduced by a thermostatically controlled draft system, promoting high efficiency and reducing creosote.
- Extra large firebox door for easy loading.

WAO-Wood and the GAO/Coal Solid Fuel Add-On furnaces are designed for operation with existing residential oil furnaces.

Both furnaces provide increased heating efficiency without the expense of a new retrofit installation. The Newmac WAO-Wood and GAO Coal furnaces have a performance range of 80,000-100,000 BTUs. They are listed as an add-on for use with an oil-fired system which has a firing rate of .75 gph to 1.10 gph.

Wood/Coal and Oil/Gas Combination Boiler

Standard Features:

- Horizontal tube construction for maximum heat transfer and easy cleaning .
- Extra large doors for easy loading and cleaning.
- Wet leg and wet back design for optimum heat transfer surface area.
- Extra large 24" firebox.
- Large 65 gallon water volume insures maximum storage capacity.
- 3 gpm domestic hot water coil.
- Optional Cast iron shaker grates for coal burning.
- Oil burner firing from 99,000 to 170,000 btu/h.



SOLID FUEL/COMBINATION



SOLID FUEL BURNING FURNACE

The Logwood line includes wood, coal and combination furnaces and boilers with models ranging from 50,000–175,000 BTUs on 8-12 hour firings.

Boiler features include:

- Closed pressurized system.
- Large fuel capacity.
- Large fire door for easy loading.
- Add-on or combination.
- Automatic water temperature controls.
- ASME pressure relief valve.
- Tankless coil available on some models.
- 1/4" Steel plate construction.
- Wood units with heavy cast iron tubular grates.
- American made.

Furnace features include:

- Solid fuel and oil thermostatically controlled.
- Automatic switch-over from solid fuel to oil.
- Secondary heat exchanger.
- Large fire door for easy loading.
- Positive draft control for greater efficiency.
- 11 and 12 ga. Steel construction.



WC FUELSAVER

WC Series Fuelsaver is an excellent add-on to an existing boiler or addition to a new boiler. It operates on wood or coal and is designed to provide both hydronic heat and domestic hot water. The high mass wet leg design of the heat exchanger and optional integral domestic hot water coil provides efficient operation.

- Available in two sizes.
- Heating capacities from 90 to 130 MBH.



PELLET STOVE AND INSERT

Napoleon pellet stove or insert is the perfect solution to heat your home. The freestanding stove conveniently provides zone heating furnace performance while the insert easily converts your existing, drafty, masonry fireplace into an efficient, reliable heating source.

Features include:

- Full BTU range from 8,000 to 43,000 (may vary depending on pellet quality).
- Convenient top, front pellet loading for easy fueling.
- Automatic ignitor.
- Stove hopper pellet capacity is 55 lbs; insert hopper pellet capacity is 45 lbs.

- Variable speed auger and variable speed blower provide maximum comfort and control.
- Four stage FAILSAFE system for your peace of mind, feature an automatic blower over-ride switch, high temperature limit switch, low air pressure switch and power failure safety shut down.



HIGH EFFICIENCY BOILERS



OIL/GAS BOILER

The TRIO boiler by PurePro combines high efficiencies, convenient serviceability, and Low Mass European 3-Pass Technology.

The TRIO has state-of-the-art design and Recirculating Flue Gas Technology which reduces emissions.

Features:

- 3-pass wet base Euro design.
- Energy Star rated for high efficiency to 87%.
- Optional Energy Manager and Energy Manager Plus control package.
- Low mass, low water content.
- Direct vent capability, no chimney needed.
- GC20 cast iron for thermal shock protection.
- Recirculating flue gas technology.
- Oil fired or gas burner available.
- Limited Lifetime Warranty.



Trio Energy Manager[™] (optional).

Guaranteed to reduce fuel consumption 10-20%.
Reduces boiler on/off cycles up to 30%.
No programming needed.

Buderus G125BE OIL BOILER

The strength of the G125BE is the state-of-the-art Low-NOx Buderus BE Burner. The Buderus BE burner is designed to burn at lower temperatures than conventional burners and to re-circulate the combustion gases resulting in complete combustion and inhibiting the formation of NOx. The complete carbon combustion produces virtually no soot residue, higher fuel utilization and a cleaner, more efficient boiler.



- Trouble free operation with oil pre-heater, Tigerloop[™], plug and play connections and proven technology.
- Flue gas recirculation for complete gasification of oil droplets, clean combustion and higher efficiencies.
- AFUES above 89%.
- Approved for B5 Fuel Oil.
- The system includes:
 - Buderus GL-180, Cast Iron Boiler
 - BE Low-NOx Burner
 - Logamatic Control
 - Tigerloop[™] oil de-aerator and high efficiency oil filter



PINNACLE HIGH EFFICIENCY, OIL-FIRED CONDENSING BOILER

The Peerless Pinnacle high efficiency, Oil-fired condensing boiler offers 93%+ efficiency and is ENERGY STAR[®] compliant. Two firing rates are available – .5 GPH and .6 GPH – with input range from 70,000 BTU/Hr. to 84,000 BTU/Hr. respectively. The heat exchanger is constructed of high alloy stainless steel that assures the boiler's durability and protects from erosion. The boiler is certified for a zero clearance to combustibles and has a low vent outlet; both aid in ease of installation.

Features:

- 93%+ Efficient (for low temperature applications), ENERGY STAR[®] Compliant.
- Condensing, Oil-Fired Boiler.
- Direct Vent, Sealed Combustion.



HIGH EFFICIENCY BOILERS



Buderus

GB142 WALL HUNG GAS BOILER

The GB142, with cast aluminum heat exchanger and integrated controls, is a rare combination of outstanding quality paired with exceptional value. Utilizing advanced condensing technology, the Buderus GB142 Wall-Hung Boiler maximizes the heating value of every cubic foot of natural gas or propane.

Features:

- State-of-the-art design.
- Utilizes advanced condensing technology.
- Minimal clearance requirements for tremendous installation flexibility.



WEIL-McLAIN

ULTRA GAS BOILER

Features:

- Gas fired water boiler with cast aluminum heat exchanger.
- Venturi mixing body mixes air and gas providing higher efficiency.
- Designed to operate in low temperature condensing applications.
- Outdoor reset and domestic hot water priority standard.
- Electronic control module automatically adjusts blower speed and gas flow rate in response to environment.
- Variable speed motor matches combustion output to heating needs. Modulates with 5 to 1 turn-down ratio.
- High grade stainless steel burner features quiet operation, high efficiency, and cleaner combustion for low NOx applications.



MUNCHKIN GAS BOILER

The Munchkin boiler is one of the most compact and efficient residential boiler available on the market today. Each Munchkin Boiler will modulate its firing rate to match the energy needs of the living space.

With a call for heat, the Munchkin boiler control board will start the pump and start to monitor the return water temperature of the system before the heater will begin to heat the water. Once the controller has sensed a drop the return water temperature below the temperature set point minus the differential set point, the Munchkin boiler will start to heat the water.

Features:

- Fully modulating for ultra high efficiency 92%
- Consists of stainless steel construction 316L.
- Direct vent with standard schedule 40 PVC plastic pipe.
- Sealed combustion.
- Environmentally friendly.
- 12 year limited warranty.
- Operates at low supply temperature.



Burnham FREEDOM CM

Burnham's Freedom CM boilers are high efficiency condensing boilers with AFUEs up to 95+%. These boilers are designed for use with polypropylene concentric venting that is included with every boiler. The Freedom CM comes in three sizes and operates with a fully modulating digital control system. The control system continuously monitors and optimizes boiler operation for maximum efficiency and comfort. The Freedom CM boiler also comes with a standard indoor/outdoor reset.

- Up to 95% AFUE - ENERGY STAR® certified.
- Easily installed Polypropylene Concentric venting (included with boiler).
- Three sizes 70, 90 & 120 MBH.
- Natural gas or Propane.
- Space saving wall-hung mounting config.
- Fully modulating operating control with outdoor reset.
- Optional base is available to convert the Freedom to a floor-standing config.



HIGH EFFICIENCY GAS FURNACES



HIGH EFFICIENCY GAS FURNACES

Features:

- 33" height and standard widths (will fit in low basements and tight spaces).
- Multiposition (four-way configuration).
- Exclusive condensate management system—no need for external traps! It's patented!
- Self-diagnostic control board.
- Efficiency: Full 95% AFUE for condensing models.

- Quieter operation than current models—65 dB for 97% models.
- LoNox models available.
- Hybrid Comfort System® compatible.
- Fully modulating models: 95% (35% – 100%).



WATER HEATING



Rinnai® TANKLESS WATER HEATER

The Rinnai tankless water heater is a more efficient way to heat water. It heats water quickly and delivers an endless supply of hot water for as long as you need it. With the Rinnai tankless water heater, you only pay to heat water when you need it and for as long as you want it. With a standard water heater, you heat and reheat the same water even when you're sleeping.

Rinnai tankless water heaters:

- Supply endless streams of hot water to multiple outlets without any fluctuation in temperature.

- Are up to 30 percent more energy efficient than a traditional natural gas water heater and up to 50% more efficient than an electric water heater.
- Shut-off automatically when water supply is closed, providing users with significant energy savings.
- Are compact wall mounted units with a life expectancy of twenty years, whereas hot water tanks usually last around ten years.



SPACE HEATING



MANTIS *The Super-Efficient, Ecologically Sensible Fireplace*

Empire Mantis is the most efficient direct-vent gas fireplace product you can buy—so efficient, it uses PVC pipe for venting.

The first and only condensing vented gas fireplace system certified for the U.S.

The only vented fireplace system that also humidifies as it heats.

Super-Efficient Design Exceeds 90% AFUE

The Mantis stands alone as the most efficient fireplace you can buy. The concealed three-stage heat exchanger captures more than 90% of the heat energy from the burner and directs this warm

air into your home—not up the flue. With so much of its heat extracted, the exhaust can be vented outdoors in conventional PVC piping—saving money, labor, and space on installation compared to traditional direct-vent systems.



RETROFIT SOLUTIONS



EZ-GAS™ POWER GAS BURNER

50,000 to 275,000 BTUH

The EZ-Gas burner converts from propane to natural gas with just an orifice change—no conversion kit needed. Factory packed with combustion control and gas fuel train. Does not require a refractory liner—fires with or without a combustion chamber.



G3B™ POWER GAS BURNER

60,000 to 180,000 BTUH

The G3B is a power gas burner for natural or propane gas—completely assembled, using premix combustion and hot surface ignition with flame rectification flame sensing. Converts from propane to natural gas with just an orifice change—no conversion kit needed.



The newest technology in boiler controls for saving fuel and money with residential hot water heating systems.

The HeatManager™ fuel economizer is the newest advance in boiler controls for residential boilers. It improves hot water home heating systems, and, it's guaranteed to reduce heating fuel consumption by at least 10–20%!



HeatManager™ boiler controls improve the efficiency of most oil and gas fired residential hot water heating systems, resulting in fuel and energy savings. It automatically adjusts the burner run pattern to match the system's heat load, substantially improving efficiency. When installed on a new or existing boiler heating system, HeatManager™ boiler controls reduce fuel consumption, wear on parts, flue emissions, and electrical usage.



For more information, please contact your local F.W. Webb branch or visit: www.fwwebb.com



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