Season after season, whatever the weather, cut up to 40% off heating fuel costs!
Your heat and hot water system is a lifetime investment. So take a minute to learn why System 2000, the hybrid heating system, is right for you!

TWO WAYS HOMEOWNERS SAVED MONEY BY INSTALLING SYSTEM 2000:

1. NEW CONSTRUCTION: HEAD TO HEAD COMPARISONS SHOW HOW SYSTEM 2000 SAVED FUEL

System 2000 was tested against modern, conventional boilers in three sets of brand new, identical homes. The homes were all built by the same contractor, in similar geography, and are identical in every important specification: same size, same materials, same insulation. Only the heating systems were different. And, of course, the fuel consumption.

Your home is no doubt your primary investment. Installing or replacing its heating system is an opportunity to improve your investment. Take a few minutes here to learn why System 2000 is the right choice no matter what style of home you own.

2. UPGRADED: SHOWN BELOW ARE FOUR EXAMPLES WHERE HOMEOWNERS UPGRADED TO SYSTEM 2000. AVERAGE FUEL COST SAVINGS FOR THESE FOUR HOMES WAS $1000 (= EXTRA MONEY THEY PUT IN THEIR POCKET).

Look how much you’ll save just on hot water! This chart shows typical annual costs for heating domestic hot water.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Gas water heater</td>
<td>$401 – 992 per year</td>
<td>$265 – 399 per year</td>
</tr>
<tr>
<td>Conventional boiler</td>
<td>$498 – 656 per year</td>
<td>$265 – 399 per year</td>
</tr>
<tr>
<td>Electric</td>
<td>$765 – 936 per year</td>
<td>$265 – 399 per year</td>
</tr>
</tbody>
</table>

That means System 2000 does not have a separate water heater. Using Hybrid Energy Recovery technology, it produces all the heat needed to warm your living spaces, plus it simultaneously provides for all your hot water requirements. That’s efficiency!
A consumer’s guide to understanding yellow AFUE (energy guide) ratings

Don’t be misled by yellow AFUE government “efficiency” stickers. They don’t accurately indicate how in-efficient a boiler really is.

Most conventional boilers claim to be “high efficiency” because their AFUE (government) efficiency ratings, shown on yellow labels, are based only on limited testing. However, AFUE measures only energy wasted from boiler heat that’s lost up the chimney. With short heat transfer passages (some only 16” long, or less) conventional boilers can’t absorb all the heat they create before it literally blows up your chimney. AFUE does record this loss. However there are other more costly inefficiencies that AFUE simply ignores completely. See the next column.

Old fashioned draft regulators and draft hoods lose a terrible amount of energy, but yellow AFUE labels don’t measure that loss. System 2000 does not use a draft regulator.

Here are the severe energy losses that AFUE doesn’t measure:

Jacket loss
Poor insulation on the boiler, usually only 3/4” of fiberglass (and that’s only on the boiler jacket) allows heat to escape constantly. This loses a great amount of heat to your garage or basement. AFUE doesn’t measure it.

Idle loss
Conventional boilers are hot at the end of a heat call, and some even continue to run day and night to keep hot water available, even when no one is using hot water. This is “Idle loss,” a terrible waste of energy. On a typical hi-mass boiler, idle losses are the inevitable result of the need to heat the equivalent of over 1000 pounds of iron, every time the system turns on. AFUE doesn’t measure this terrible waste of energy.

Draft regulators, draft hoods and room air loss
Draft regulators suck warm air out of the room. Draft regulators shut down early, saving no energy but AFUE ratings are based on the boiler’s late efficiency. System 2000 includes a unique counterflow design that incorporates outside air for combustion and does not have a draft regulator.

In addition: AFUE doesn’t measure In any way how efficiently your boiler makes hot water for bath, laundry and faucets, which typically equals 20-30% of your heating costs.16 Adding up all these common energy losses (listed at left), plus the demands of making hot water, reveals the real efficiency rate of typical boilers. These actual unbiased rates are shown in the blue boxes and the chart that you can find on these pages.

The logical conclusion is:
Don’t choose a home heating system based on its AFUE rating. Instead, ask about a boiler’s real efficiency rating, as shown in the blue boxes below and in the chart at right.

ABOUT “DEMAND FIRED” OR SO-CALLED GOLD START BOILERS
While boilers with heavily insulated tanks may store plenty of hot water, they also waste significant energy. Here’s why:

A tremendous amount of energy is still needed to heat up the 6-10 gallons of water and massive amounts of cast iron in conventional boilers. Then, once your hot water needs are met and the boiler shuts off, this heat is wasted. Typically, this chart will account for about 15-20% of your annual fuel bill. Chart at right shows the inefficiency of this process.

16 There are no historically preserved testing and rating standards for combined apparatus. (i.e. apparatus that makes both heat and hot water). From: U.S. Government AFUE, ANSI/ASHRAE 124-1991

Under contract with the United States Department of Energy, Brookhaven National Labs confirms: U.S. energy guide (AFUE) ratings miss significant areas of energy loss.

AFUE rating =80%
Real rating =83%

AFUE rating =86%
Real rating =56%

THE ELECTRIC HOT WATER ENERGY PIT:

With conventional gas and oil systems, it’s possible to make general comparisons on efficiency. However, estimating the efficiency of electric hot water is more complicated because electric power is drastically more expensive than either gas or oil.

For example, a typical electric water heater can legally display an energy guide sticker that states its efficiency rating is 93%. On the surface, this sounds impressive. However, that rating means only that once electricity is connected to the heater, 93% of the electricity is converted to heat. What is not represented in this energy guide rating is this staggering fact: electricity itself is 3 to 5 times more expensive than either oil or gas. That means electric hot water costs 3 to 5 times more than System 2000 hot water!

Real rating =87%

Low chimney loss
System 2000 minimizes chimney loss with a unique counterflow design that incorporates over ten feet of heat transfer passage.

Almost no jacket loss
System 2000 has 2-4” of insulation all around, and is raised 18” off the cold floor.

Near zero idle loss
System 2000 had the lowest idle loss of all systems tested in the important, independent Brookhaven National Labs study. Plus, the System 2000 patented spiral boiler holds only 2.5 gallons of water, and heats up six times faster than the competition. Combined with our high performance hot water system, System 2000’s Hybrid Energy RecoveryTM captures heat that other boilers simply waste, and virtually eliminates idle loss while meeting all your heat and hot water needs.

For the best energy cost savings, choose the hybrid heating system, System 2000!

No draft regulator or draft hood loss
System 2000’s advanced design does not require draft regulation and uses outside air for combustion.

For System 2000 to realize this efficiency, it needs to be maintained properly. For example, routine cleaning of the boiler jacket is required. Then, the System 2000 AFUE rating is a true "real" efficiency rating. See the chart on these pages.

Real rating =93%

The real efficiency of making hot water with electricity — is an embarrassing 28%.


For System 2000 to realize this efficiency, it needs to be maintained properly. For example, routine cleaning of the boiler jacket is required. Then, the System 2000 AFUE rating is a true "real" efficiency rating. See the chart on these pages.

Real rating =28%

SYSTEM 2000
Therm 2000 and Our Mix! Matte Oil and Gas High real efficiencies of oil and Combustion! System 2000 is the most efficient, reliable, and energy-effective system based on its AFUE rating. Instead, ask about a boiler’s real efficiency rating, as shown in the blue boxes below and in the chart at right.

Real rating =85%

The REAL efficiency rating for System 2000 is 85%! Compare this to the other real ratings for conventional boilers, shown in the blue boxes and chart on these pages!
1. **Digital Energy Manager**
   - Automatic operation – no need to set or adjust complicated programs
   - Better efficiency and performance than “temperature reset” systems
   - Monitors and controls System 2000 for peak heat and hot water efficiency
   - Matches energy usage to the exact requirements of your home
   - State of the art digital intelligence allows priority for hot water
   - Hybrid Energy Recovery® makes sure no heat is left wasted in the boiler and saves fuel dollars. This cycle, combined with the low mass spiral boiler design, means idle losses are virtually eliminated.
   - Hot water plus 4 zones standard (10 and 15 zone options available)

2. **High Performance Domestic Hot Water System**
   - Heavily insulated storage tank provides a ready supply of hot water
   - Advanced technology stainless steel heat exchanger captures full boiler output for domestic hot water – recognized worldwide for most effective and efficient heat transfer.
   - Integrated design works seamlessly with the Digital Energy Manager to provide energy recovery and maximum efficiency
   - Unique stratified storage for improved water quality
   - High output provides 210 gallons per hour*
   - Optional tanks for unique water requirements

3. **Unique, Patented Spiral Boiler Design**
   - 10 feet of energy absorbing flue passages
   - Ultra low mass design contains only 2.5 gallons of water
   - 1/3 the mass of typical systems for highest efficiency
   - No pins or baffles to foul up and reduce efficiency
   - Specially formulated steel boiler is a gasketless one-piece construction designed to last the life of your home
   - 20 to 50 times the insulation used on conventional boilers
   - Special silent burner enclosure makes System 2000 more quiet than a microwave oven - recognized as the quietest oilheat system; also available in ultra quiet gas heat
   - Outside combustion air connection - doesn’t steal heated air from your home and eliminates drafts
   - Durable combustion chamber provides near perfect combustion

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*Domestic hot water rating based on EK-1 first hour draw with 70°F rise and 40 gallon storage tank. EK-2 model provides up to 350 gallons per hour.

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**The science behind quiet efficiency!**

Three reasons System 2000 was ranked the #1 top-rated system by Brookhaven National Laboratory in a study under contract with the U.S. Department of Energy.¹

With Hybrid Energy Recovery®, System 2000 produces your home’s heat plus almost endless hot water! And it runs so efficient and quiet!
With System 2000’s Hybrid Energy Recovery® cycle, no heat energy is left wasted in the boiler.

HERE’S WHAT HAPPENS WHEN YOU NEED HOT WATER:

As hot water is used, the tank thermostat signals the Digital Manager and the Digital Manager turns on the burner.

Within 90 seconds the domestic circulator is passing water from the storage tank through the stainless steel heat exchanger. This charges the top of the tank with hot water. Combined with the boiler, it can provide 210 gallons of hot water per hour.

When the tank is re-heated, the thermostat signals the aquastat which turns off the burner.

The Digital Manager directs the domestic circulator to continue sending cooler water at the bottom of the tank through the heat exchanger. This unique process recovers the heat left in the boiler.

This heat is then stored back in the hot water tank, adding to your existing hot water supply. As a result, it’s longer before the tank calls on the boiler for additional hot water - and that conserves your fuel dollars.

The result: no heat is left wasted in the boiler.

HERE’S WHAT HAPPENS WHEN YOU NEED HEAT:

The Digital Manager senses your thermostat(s) requirements, and turns on the burner.

Within 90 seconds the boiler sends heat through each zone valve, into your home.

When your thermostat is satisfied, the Digital Manager turns off the burner.

The Digital Manager then starts the unique Hybrid Energy Recovery® which pumps any heat that is remaining in the boiler back into your home. This transfer takes about 20 minutes and guarantees that it will be longer before your thermostat needs to call for more heat.

When the Digital Manager senses another call, the sequence begins again.

The result: no heat is left wasted in the boiler.
Our systems offer sophisticated zoned comfort for year-round enjoyment of every room in your home.

Our Digital Managers control multiple zones and provide near endless hot water. This flexibility means you can control the energy used to heat unoccupied rooms while living areas stay cozy and comfortable. Zones also can be expanded in the future to accommodate changing life styles or home renovations.

**BONUS MONEY SAVER!**

Energy Kinetics systems can be installed with or without a chimney.

Many homeowners, planning to save money by upgrading or converting to another fuel, sometimes find themselves up against a brick wall: the high cost of re-lining or repairing an aging chimney!

But Energy Kinetics’ revolutionary designs run clean and relatively cool. This allows for safe venting directly through the wall, much like your clothes dryer venting system. This can save thousands of dollars on costly chimney upgrades.

You can also vent our 90° Resolve™ boiler up through any existing chimney with a cost effective polypropylene chimney lining system - there’s no need for an expensive stainless steel liner! (See page 11).

Energy Kinetics’ attention to detail:

Energy Kinetics manufactures systems that are perfect for homes fueled by oil, natural gas or propane. There are models specifically designed for the smallest condominium to the largest estate.

In addition, ask your heating representative for details about stackable configurations for closets and tight spaces, plus swimming pool and spa heaters.

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Rest assured – with service by only the best heating professionals

Energy Kinetics is represented by only the best heating professionals in your area. Our factory direct Pro-Train® programs for installers and technicians mean you’ll benefit from the industry’s leading technology. Tech support includes both telephone service and website assistance and backup at: www.EnergyKinetics.com.
Energy Kinetics delivers the heat!
Our systems run on oilheat, natural gas and propane, and are compatible with all heating applications, including:

- Radiant
- Radiator
- Pools and spas
- Baseboard
- Toe kick
- Hydro-air and heat pump backup
- Unit heater
- Forced air

Energy Kinetics is committed to quality with the finest warranty in the industry:
- Residential lifetime limited warranty on pressure vessels
- Residential lifetime limited warranty on Digital Energy Managers
- 12-Year warranty on standard tanks
- Built with industry standard and factory direct parts

Authorized Energy Kinetics Dealer:

Better heating. Bigger savings.