

Accel CS™

Simply the smartest
heating design ever developed
for home or business.

Study: Save up to **40%** off fuel bills
with heat and hot water boiler upgrades!

(See chart on page 2.)



Exceptional Features:

- Quietest operation of all boilers!
- Why settle for yesterday's reset controls that can leave you out in the cold?
 - **LONGER hot showers!**
- **BEST Lifetime Limited Warranty**
 - Natural Gas or Propane!



UP TO

96.8 AFUE

Accel CS is an integrated system, which means it produces both heat and hot water!

Heat and hot water are the largest energy consumers in cold climate homes. Accel CS is a single high efficiency appliance that delivers the best of *both*. The result is comfortable warmth for living spaces, plus abundant kitchen, bath, and laundry hot water including nearly endless hot showers.

What is the primary advantage of Accel CS?

Condensing technology is already established as a high efficiency heating method. Accel CS takes it further, first with better construction and then by incorporating condensing technology in a *combined system*, a common sense marriage of processes that is simply smarter than any other heating system. Among many benefits, Accel CS runs more intelligently and adapts more swiftly to changing demands. As a result, it delivers bigger fuel savings (greater efficiency) in every area of heat and hot water production.

Accel CS™

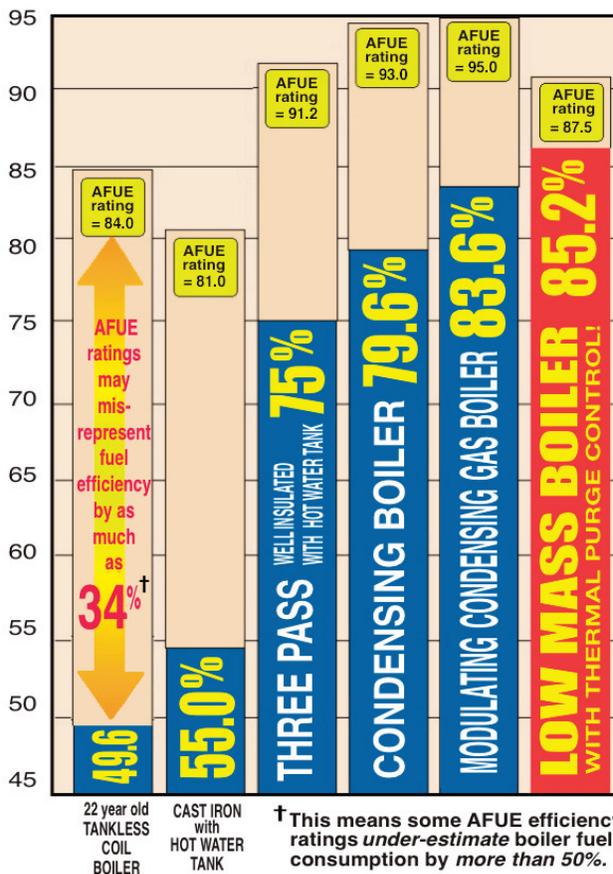
Simply the smartest heating design ever developed for home or business!



Your trusted alternative to AFUE industry listings.



THE CHART BELOW SHOWS HOW **LOW MASS / THERMAL PURGE BOILERS HAD THE BEST REAL EFFICIENCIES OF ALL SYSTEMS TESTED.** (REAL EFFICIENCY DIFFERS FROM AFUE.) OFFICIAL GOVERNMENT AFUE RATINGS ARE SHOWN IN THE SMALL YELLOW BOXES. THE LARGE YELLOW NUMBERS INDICATE REAL EFFICIENCIES.*



Energy Kinetics designs had the best real efficiency of all systems tested!

Savings with Low Mass/Thermal Purge are much greater than with comparably rated heat and hot water systems. The top performing design features incorporated in System 2000, Accel CS, and Resolute heat and hot water boilers had the highest annual efficiency in the study. These results mean that Accel CS can perform much closer to its AFUE rating than other condensing boilers.

*Data and conclusions are drawn from the report "Performance of Integrated Hydronic Heating Systems." Paper and presentation by Brookhaven National Laboratory, Upton, NY, under contract No. DE-ACO298CH10886 with the United States Department of Energy by Dr. T. Butcher; and "Chimney Related Energy Losses in Residential Oil-Fired Heating Systems."

† This means some AFUE efficiency ratings under-estimate boiler fuel consumption by more than 50%.



Exceptional residential lifetime limited warranty on pressure vessel and condensing energy manager!

See actual warranty for details.

Our plate heat exchanger vastly outperforms old fashioned coil in tank systems.



Old fashioned tank with coil

This design is inefficient because the tank heats slowly all over, even when you need only a small amount of heat or hot water.

In addition, the temperature of the system's boiler is allowed to rise *above* the tank's temperature, meaning there is an automatic loss of heat energy every time the boiler heat has nowhere to go, which wastes energy.



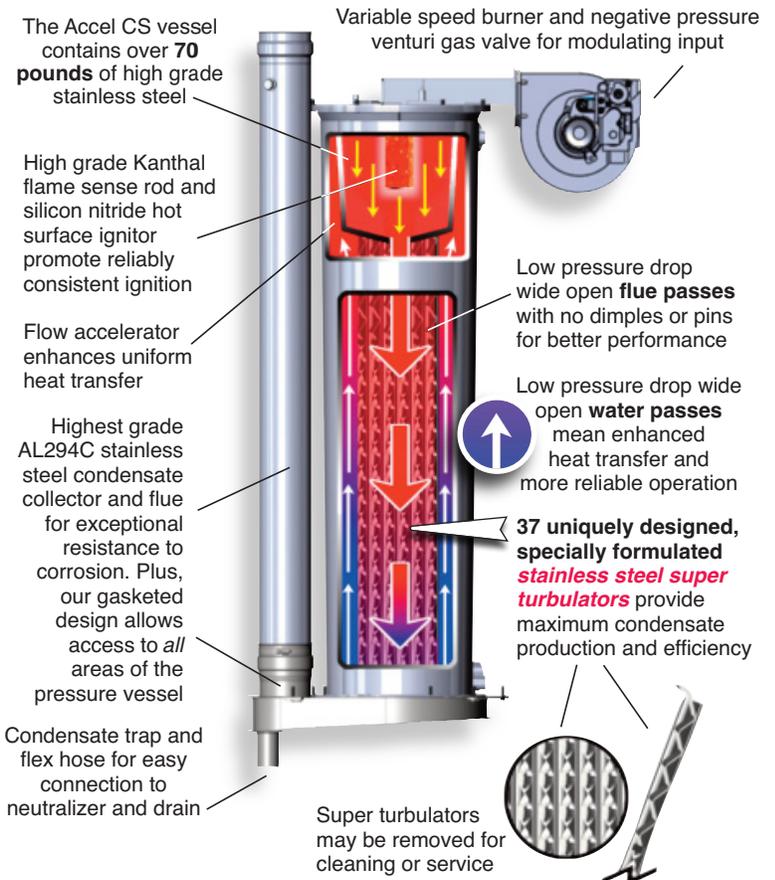
Plate Heat Exchanger

By comparison, our plate heat exchanger draws cold water from the *bottom* of the tank and feeds hot water from the *top down*. This delivers the highest efficiency through the entire hot water cycle.

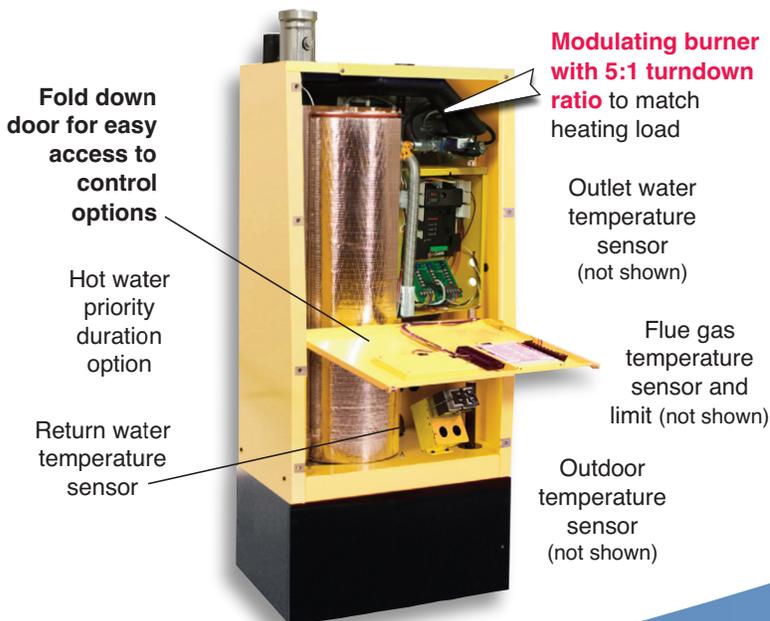
Our hot water plate heat exchanger maximizes condensing – during every hot water cycle.

Accel CS features an internal pressure vessel of American made 316L domestic stainless steel

... plus the highest grade AL294C stainless steel for its condensate collector and flue (a rugged material originally developed for the nuclear power generating industry).



Accel CS features removable panels for very easy service if the need arises.



Accel CS means better heating and bigger savings, plus peace of mind for you and your family.

Hybrid Energy Recovery[®] – the easy-set controls behind Accel CS efficiency!

Zone Control – The primary/secondary loop option controls up to 4 separate thermostats and zones, and includes a relay for the primary loop circulator, with fast and easy setup.

SmartBoost™ Comfort – *Outdoor temperature reset can leave your home cold* when recovering from overnight setback or whenever you turn up your thermostat. But our *Smart Boost* technology automatically adjusts to make your home warm and comfortable faster.

Accel CS's rapid hot water recovery squeezes more out of your fuel dollars. Unlike systems where the boiler heats up along with the tank (which can virtually *stop* the condensing operation) our advanced plate heat exchanger can run at full output while maintaining *peak condensing!*

Auto Express temperature settings allow quick selection for baseboard, radiators, air handlers and other systems. Optional custom outdoor reset boiler supply temperatures can be enabled with the flick of a switch.

The Accel CS Condensing Hybrid Energy Recovery Control integrates thermal purge with temperature reset for the best year-round performance and hot water efficiency.

Friendly lighted indicators show thermostats calling, zone operation, heat and hot water demand, primary loop circulator operation and boiler supply water temperature.

Large easy-read display



Hot water plus 4 zones (standard) Expandable to 12 zones

Accel CS control panel

| Product Name | Model | Input (GPH or MBH) | AFUE | DOE Heating Capacity (MBH) | Domestic Hot Water* |
|---------------|----------|--------------------|------|----------------------------|---------------------|
| Accel CS EK1C | EK1C-90 | 90 | 96.6 | 84 | 155 |
| Accel CS EK1C | EK1C-120 | 120 | 96.4 | 111 | 195 |
| Accel CS EK2C | EK2C-150 | 150 | 96.8 | 141 | 245 |
| Accel CS EK2C | EK2C-200 | 200 | 96.7 | 185 | 320 |

*Domestic hot water rating based on first hour draw with 67°F rise and a 3 gpm draw on a 40 gallon tank; first hour draws over 195 gallons are calculated based on continuous draw with 67°F rise at maximum flow rate.

| ACCEL CS SPECIFICATIONS | EK1C | EK2C |
|--|---|---|
| Maximum Supply Temperature | Water 210°F | Water 210°F |
| Maximum Pressure | 75 PSI | 75 PSI |
| Weight, Pressure Vessel, dry | 70 lbs | 90 lbs |
| Weight, dry w/o stand | 200 lbs | 275 lbs |
| Weight, w/water and w/ stand | 270 lbs | 375 lbs |
| Water content | 5 gallons | 6-1/2 gallons |
| Supply & Return Piping Size | 1" | 1-1/4" |
| Gas Supply Connection | 3/4" | 3/4" |
| Size with Stand | 15"D x 25-7/8" W x 62-7/16" H | 17-1/2"D x 28-1/8"W x 69-7/16"H |
| Size without Stand | 15"D x 25-7/8" W x 50-7/16"H | 17-1/2"D x 28-1/8"W x 57-7/16"H |
| Maximum Venting and Air intake Lengths | 100 ft equiv 3" polypropylene 50 ft equiv 2" polypropylene (intake may be pvc) | 100 ft equiv 4" polypropylene 50 ft equiv 3" polypropylene (intake may be pvc) |
| Power requirements | 120 VAC, minimum of 12 amps | 120 VAC, minimum of 12 amps |

INSTALLATION FLEXIBILITY

WITH MULTIPLE VENTING OPTIONS



Sidewall direct venting



Through the roof



Chimney



Scan code to visit our website

EnergyKinetics.com

Accel CS™

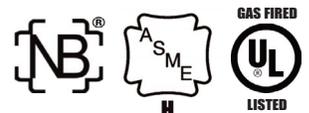
Simply the smartest heating design ever developed for home or business, with the industry's proven top efficiency!



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EnergyKinetics.com



As an ENERGY STAR® Partner, Energy Kinetics has determined model EK1C-90 and EK1C-120 meet ENERGY STAR guidelines for energy efficiency. © The color yellow for heating boilers is a registered trademark of Energy Kinetics.