# Slant Fin.

High efficiency, cast-iron gas boiler



RELIABLE, ECONOMICAL HOME HEATING.



## The smarter choice for informed homeowners.

Enjoy home heating comfort with the extra confidence that an advanced design Sentinel boiler provides. The Sentinel boiler combines the reliability of natural draft and cast-iron construction with the high efficiency performance provided by the Slant/Fin S-Series heat exchanger. A new Sentinel boiler

can save 30% or more on fuel bills compared to a typical old boiler operating at 60% efficiency.

#### Reliable natural draft design

When the Sentinel boiler is operating, combustion air enters the boiler and exhaust is expelled up the chimney by natural draft. No mechanical combustion aids are required for the boiler to attain its high efficiency. Nor does it require the copper fin tubes, water bypass valves or condensing technologies utilized by some other high-efficiency boilers. With fewer components, there's less chance of losing your heat because of part failure.

#### **High performance heating**

The Sentinel boiler's S-Series heat exchanger has for years been a "workhorse" of the heating industry, in boilers chosen by heating contractors for performance and reliability. It's made of quality cast-iron and assembled with durable metal push nipples. Specially shaped thermal pins promote efficient heat transfer. The boiler heats quickly, sending warmth to radiators throughout your home within moments of your thermostat's call for heat. The Sentinel boiler is so reliable it comes with a lifetime limited warranty.

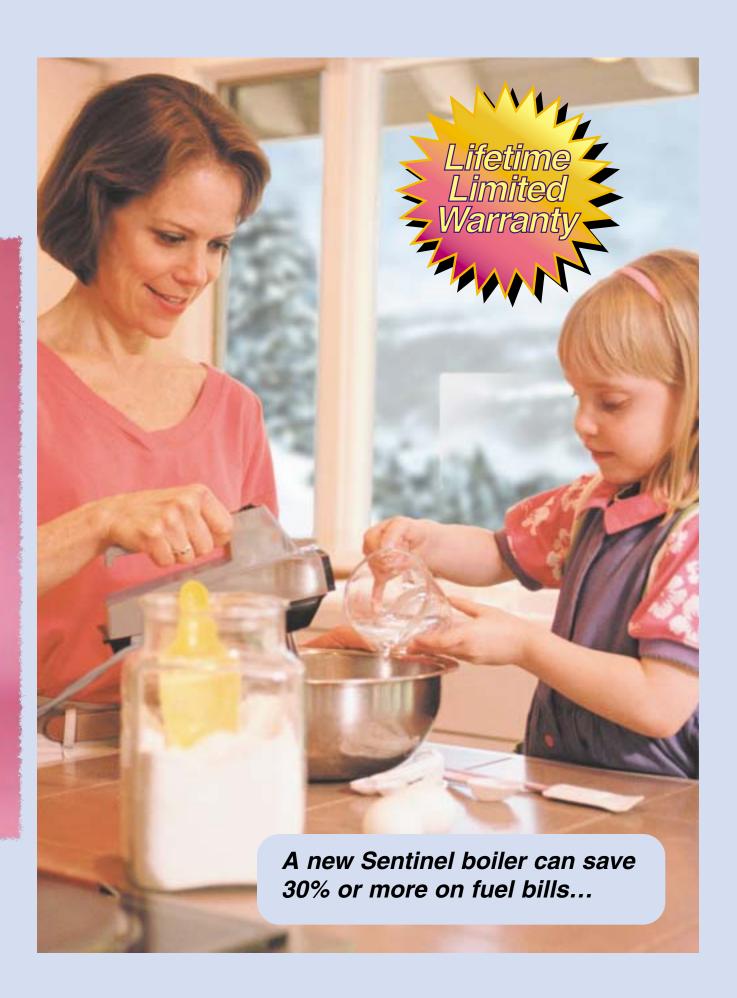
# Intermittent ignition or standing pilot models

Enjoy the easy installation and reliable operation that natural draft design provides, plus high efficiency too. With a choice of intermittent pilot ignition or standing pilot, Sentinel's AFUE's range from 81.5% to 82.3%.

- AGA input: 70,000 to 245,000 Btu/hr
- Standing pilot or intermittent ignition
- Saves energy. A.F.U.E. to 82.3%



A new advanced design Sentinel boiler will provide years of reliable, economical home heating comfort.



# Computer-aided design. Highest quality manufacturing. Superior components.

## Advanced design S-Series heat exchanger provides superior performance, longer life.

Computer-aided design of the SE boiler's heat exchanger maximizes transfer of heat from the gas flame to the boiler water which then flows into your heating system. Superior heat transfer properties permit use of smaller, compact cast-iron heat exchanger sections. The flue passage design, thermal pin pattern and consistent wall thickness ensure uniform heat transfer with less thermal strain and metal fatigue.



#### Metal push nipples avoid leaks.

Slant/Fin uses only metal push nipples that expand and contract with the individual boiler sections that they connect. In many ordinary boilers, flimsy rubber or plastic gaskets are substituted for metal push nipples and are subject to deterioration and leaks.



#### Reliable heavy-duty vent damper saves energy.

The motorized Slant/Fin vent damper increases efficiency of the boiler by reducing standby losses. Motor closes the chimney vent when the burner is off, fully opens it in anticipation of combustion. May be installed horizontally or vertically to accommodate varying vent pipe requirements. Support collar maintains dimensional stability for smooth operation.



#### Insulated base

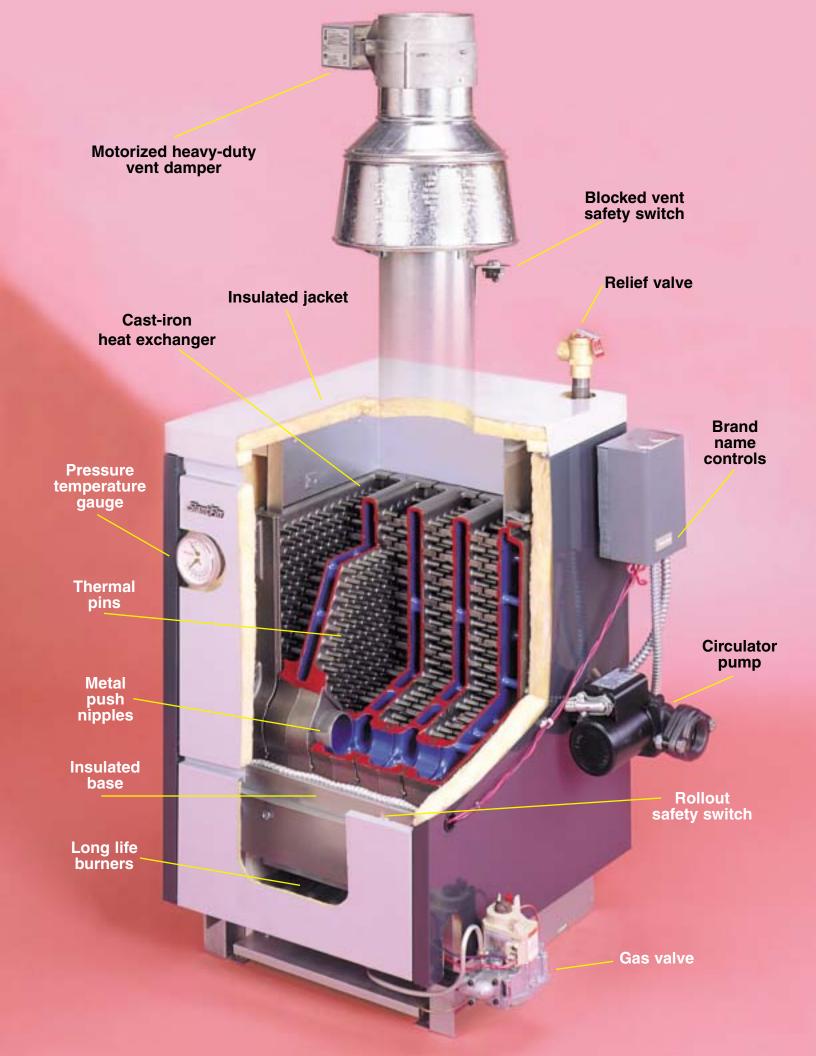
Base is constructed of heavy gauge aluminized steel. Thick refractory insulation surrounds combustion chamber, minimizing standby losses and increasing efficiency.



#### Long-life burners

Quiet, light and easy to install or remove. Same stainless steel burners serve natural or propane gas. Special port construction will not permit flame to "lift" or flash back. Burners last longer too, because of low operating temperature. Input per burner is 17,500 Btu/hr.

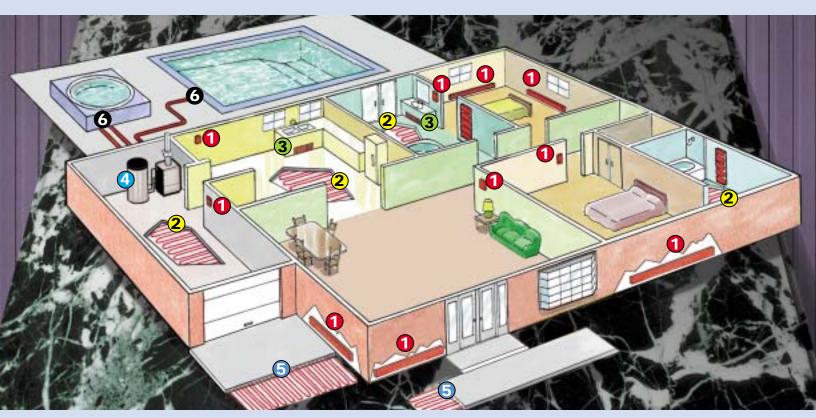




#### Make your house a more comfortable home

With a Sentinel boiler at the heart of your heating system, you can enjoy deluxe heating comfort all around your home. A Sentinel boiler can be installed to provide heating energy for any or all these hydronic heating systems:

- 1 Zone heating with Slant/Fin hot water baseboard and individual room temperature controls.
- 2 Warm floors with Terra Therma radiant heating by Slant/Fin.
- 3 Slant/Fin hot water fan-convection heaters under cabinets or stairs.
- 4 Hot water with a high volume Slant/Fin indirect-fired water heater.
- Snow melting for driveway and sidewalks with Terra Therma radiant tubing.
- 6 Pool or spa water heating with a Slant/Fin boiler and external heat exchanger.



Zone your heating system for even greater fuel savings. By dividing your home into separate heating zones, you can save energy by heating only those areas you're using. Depending on your existing piping arrangement, it may be quite simple to zone your system.

## More hot water for your kitchen, bath and laundry

For a large reserve of hot water for your family all year long, your installer can provide a Slant/Fin Model WH indirect-fired water heater. It's connected just like a heating zone to the Sentinel boiler and will store between 30 and 80 gallons of hot water. Tapping the boiler's heating capacity, the Slant/Fin water heater offers far better efficiency, faster recovery and longer life than an ordinary direct-fired water heater. The 40 gallon model, for instance, delivers 195 gallons of hot water per hour!



#### Easier to install. One of America's most versatile gas boilers

With six models ranging in size from 70,000 to 245,000 Btuh, Sentinel boilers meet a wide range of residential and light commercial heating requirements. All models are available for use with natural gas or L.P. gas.

Sentinel boilers are "installer-friendly", with features to make the contractor's installation and set up quicker and easier. All Slant/Fin boilers, for instance, are packaged in quick release shipping crates to speed unpacking. Boilers are factory-wired with quick connect harnesses for the vent damper and blocked vent safety switch. Controls are all mounted on the outside of the boiler for easy access and guick wiring. The boiler height, including draft diverter, is up to a foot and a half lower than many natural draft boilers. (For lower profile boilers with integral draft hoods, refer to the Slant/Fin Sentry models).

The computer-aided design of Sentinel's venting system enables the boiler to perform effectively under a wide range of draft conditions, especially important on replacement jobs. The Slant/Fin Sentinel boiler is one of the industry's most versatile and durable high efficiency boilers.

### Slant/Fin.

#### RATINGS FOR SENTINEL BOILERS--NATURAL AND L.P. GAS

			NET I=B=R		EFFICIENCY (A.F.U.E.)		DIMENSIONS			
MODEL NUMBER †	A.G.A. INPUT (Btuh)	D.O.E. CAPACITY (Btuh)	RATING WATER (Btuh) *	WATER (Sq.Ft.)	STANDING PILOT	INTERMITTENT IGNITION	Α	В	С	D
SE-70	70,000	58,000	50,000	333	81.5	82.0	11%"	17%"	4"	45½"
SE-105	105,000	87,000	76,000	507	81.6	82.1	14%"	20%"	5"	46¾6"
SE-140	140,000	116,000	101,000	673	81.7	82.2	17%"	23%"	5"	46¾6"
SE-175	175,000	145,000	126,000	840	81.7	82.2	20%"	26%"	6"	47"
SE-210	210,000	173,000	150,000	1000	81.8	82.3	23%"	29%"	7"	48¾6"
SE-245	245,000	202,000	176,000	1173	81.8	82.3	26%"	32%"	7"	48¾6"



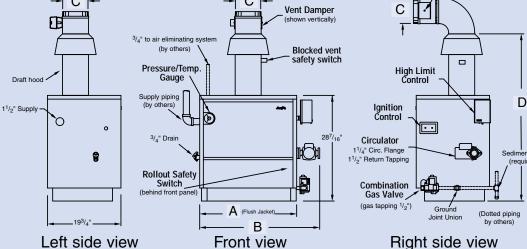




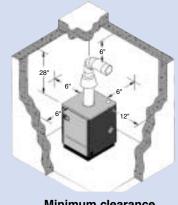
Vent Damper

Note: All Sentinel boilers are tested and rated for capacity under the U.S. Dept. of Energy (D.O.E.) Test Procedure for boilers.

#### С С Vent Damper



**Dimensions MODELS SE-70 to SE-245** 



Minimum clearance dimensions

<sup>\*</sup> Net ratings are based on a piping and pick-up allowance of 1.15. Slant/Fin should be consulted before selecting a boiler for installation having unusual piping and pick-up requirements. Ratings must be reduced by 4% at 2,000 feet elevation and an additional 4% for every additional 1,000 feet elevation over 2,000 feet.

<sup>†</sup>Type of gas: after model number, specify gas by name "Natural" or "Propane".

<sup>\*</sup> Vent damper may be installed horizontally on all models with use of a common vent elbow.

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Millions of homes are equipped with Slant/Fin hydronic heating.



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