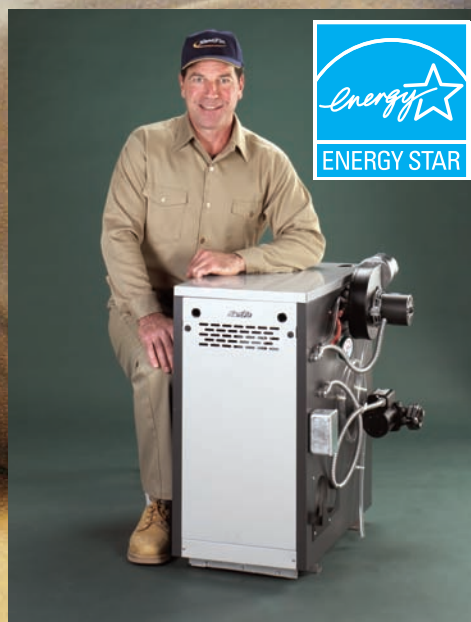


*Slant/Fin*<sup>®</sup>

# VICTORY<sup>™</sup> VSPH

Cast-iron sealed combustion, direct vent gas boiler



**THE PERFECT CHOICE FOR  
NEW RESIDENTIAL CONSTRUCTION,  
RELIABILITY AND ECONOMY.**



*Slant/Fin*  
**VICTORY VSPH**  
SEALED COMBUSTION, DIRECT VENT GAS BOILER

## Modern home heating

*with the safety, comfort and versatility of sealed combustion.*

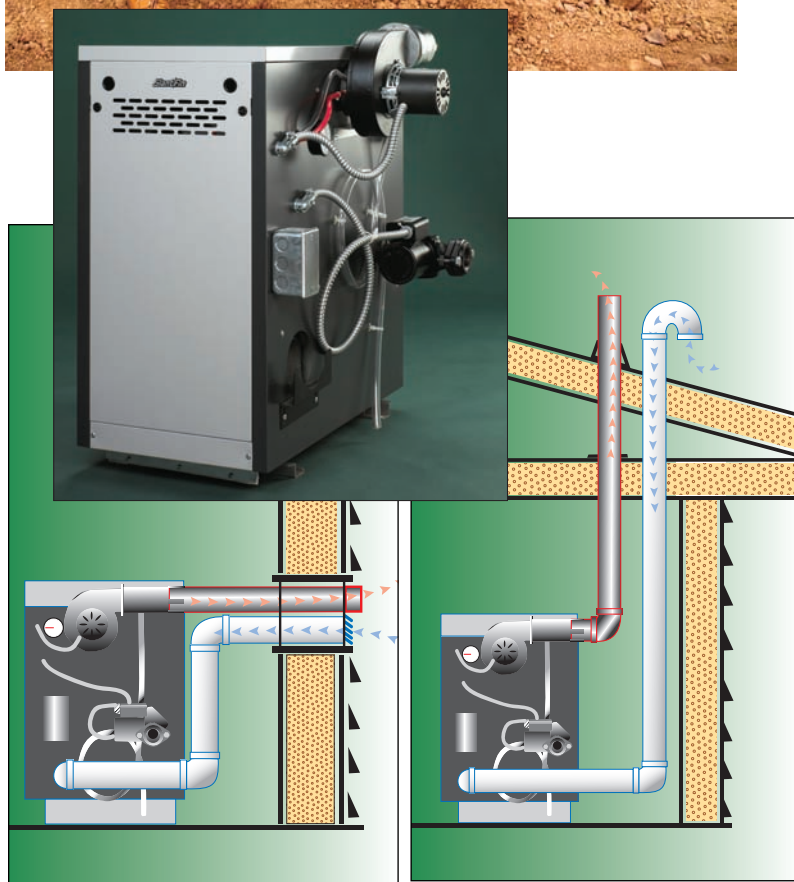
- Economically priced
- No chimney required
- Operates in total isolation from household air. Outdoor air used for combustion.
- Reliable, advanced design, high efficiency cast-iron heat exchanger
- AFUE to 86.1%—saves energy
- Energy Star qualified
- Near zero CO emissions
- Five sizes—60,000 to 180,000 Btuh AGA input

## A smart choice for homebuilders

### Venting versatility—no chimney required

The sealed combustion Victory VSPH boiler does not require a chimney. It fits easily in a closet size space and may be vented directly through a wall. Since it draws combustion air directly from the outdoors, its fresh air requirements will not interfere with interior design. It's ideal for homes, apartments, condos and any application where a chimney may not be practical or where an old chimney has deteriorated. It saves construction costs and allows more living space. A wide variety of options permit you to select the most practical and economical venting method. Consult installation instructions for complete details.

*The Victory VSPH boiler operates in total isolation from household air. The combustion process is "sealed" inside the boiler, with intake air and exhaust pipes connected directly to the outdoors. Venting may be through the wall or through the roof (far right).*



## Comfort and peace of mind for your family

Heat your home with confidence with a modern new Victory VSPH boiler from Slant/Fin. High efficiency operation keeps fuel costs low. And its sealed combustion design gives you remarkable comfort, safety and peace of mind. The Victory VSPH runs so quietly, you will hardly know it's on, even if it is located near your living area. When installed with an optional Slant/Fin indirect water heater, you can also enjoy abundant hot water for your kitchen, bath and laundry.

### Sealed combustion makes your home more comfortable

Your home will be more comfortable with a Victory VSPH boiler because it does not use household air for combustion. Two 3-inch pipes connect the boiler through an exterior wall to the outdoors. One pipe draws in fresh outside air for combustion while the other expels exhaust directly to the outdoors, without ever disrupting the comfort of your living area. An ordinary natural draft boiler typically draws 20 to 60 cubic feet of warm household air per minute from your living areas. This air is replaced by cold outside air that is literally sucked in through tiny cracks and openings around doors, windows and elsewhere. This makes you chilly and causes your boiler to run longer, resulting in higher fuel bills.

The Victory VSPH boiler's combustion process is totally isolated from the air in your home. A properly installed system has no open flame and no vent system component that permits exhaust or flame to "back up" into the house. When the alternative non-direct venting method is chosen, inside air is used for combustion.

### Cast-iron design for proven long life and reliability

The Victory VSPH is America's best built sealed combustion gas boiler -- backed by a lifetime limited warranty. Cast-iron is recognized by heating professionals everywhere as the longest lasting, most durable heat exchanger material. Boilers made with stainless steel, aluminum or copper are typically more prone to service problems and, reflecting their relatively short life expectancy, generally carry a much shorter warranty.

### High efficiency keeps fuel costs low

All Victory VSPH models have been awarded Energy Star certification by the US government for their fuel saving performance. With AFUE to 86.1%, Victory VSPH provides high efficiency heating that will keep fuel costs low. A new Victory VSPH boiler can save 30% or more compared to a typical old boiler operating at 60% efficiency.



*Ordinary boilers consume warm household air which causes infiltration of chilly outdoor air to replace it.*





# Victory VSPH

**Built for performance and reliability**

## **Advanced design cast-iron heat exchanger extends boiler life**

The cast-iron boiler sections are produced on state-of-the-art computerized machining centers to extremely critical tolerances. Superior heat transfer properties permit use of smaller, more compact 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.

## **Avoid leaks with durable metal push nipples**

Only metal push nipples are used to join the cast-iron sections. These push nipples expand and contract uniformly with the cast-iron sections for superior, leak-free performance and longer life. In many ordinary boilers, cheaper rubber or plastic gaskets are substituted for metal push nipples and could deteriorate and leak.

## **Speedy, self-sealing vent connection**

Flue connector has an integral seal that is compatible with Saf-T Vent EZ Seal® vent components. Integral seals speed vent installation. With EZ Seal components, no RTV sealant and no curing time are required, so the boiler may be started immediately. EZ Seal vent components won't seat incorrectly, so you reduce the risk of accidental flue gas or condensate leakage. For use of other vent component brands, see installation instructions. Air intake utilizes PVC or galvanized pipe.

## **Unitized air intake-vent terminal**

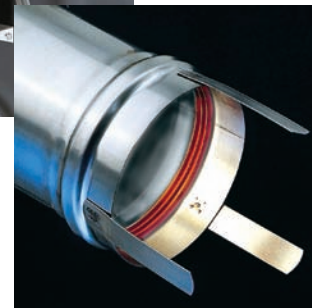
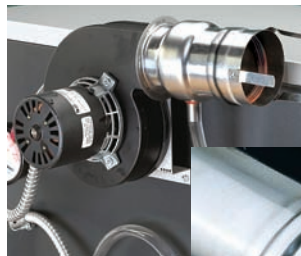
Designed specifically for use with the Victory VSPH boiler, the combination air intake-vent terminal is versatile and attractive. It fits walls from 3½" to 12" thick. Included with every boiler.

## **Integrated boiler control optimizes boiler performance**

The electronic control was designed specifically to optimize the operation of the Victory VSPH boiler. It monitors the status of boiler components and controls the sequence of operation, including pre- and post-purge periods, trial for ignition and lock-out. Five indicator lights verify normal operation and provide diagnostic information when flashing.

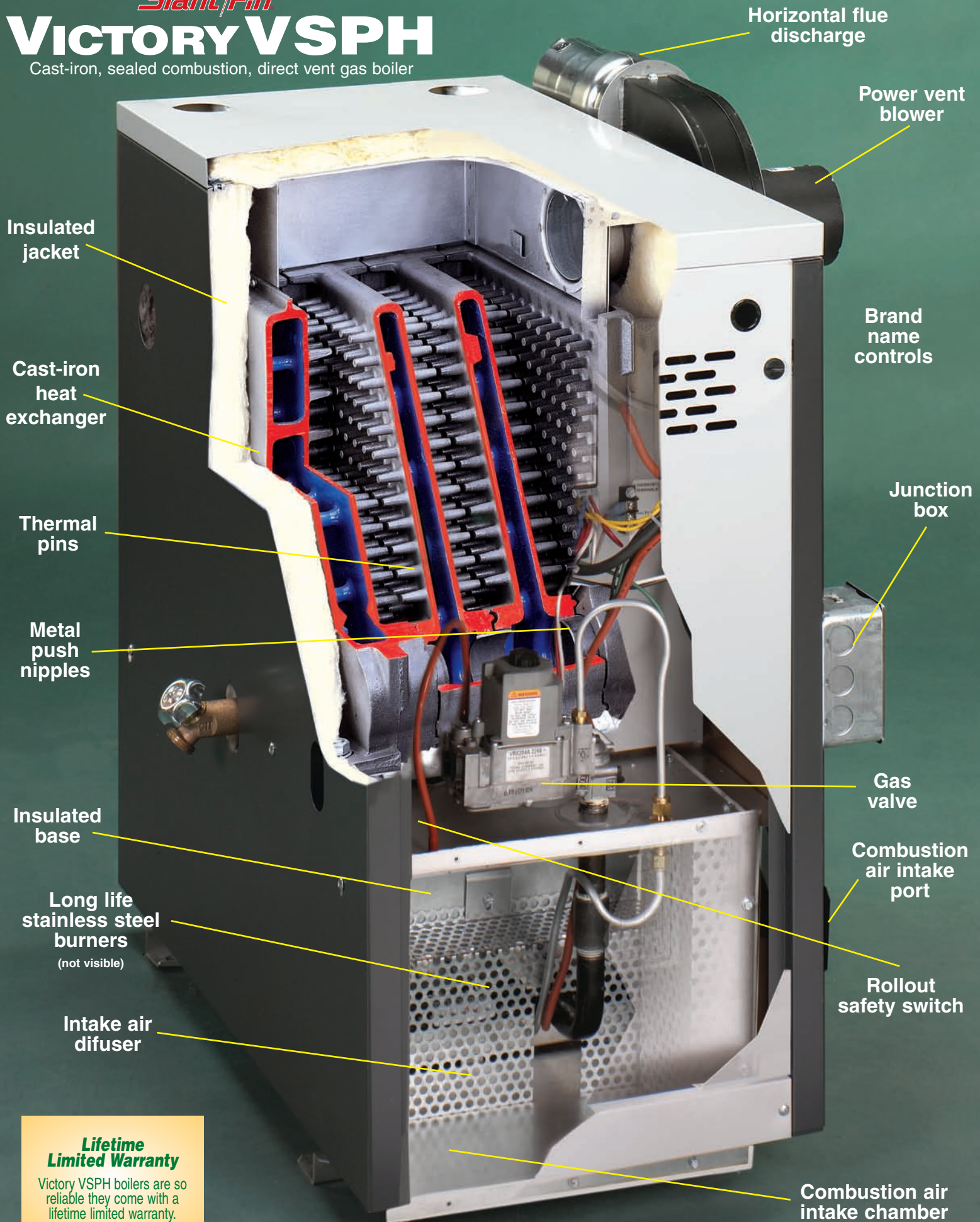
## **Increased efficiency with insulated base assembly**

The Victory VSPH base assembly is constructed of heavy gauge aluminized steel. Thick refractory insulation surrounds the combustion chamber, increasing efficiency. One piece stainless steel burners with special port construction resist flame lift and flashback.



# *Slant/Fin* **VICTORY VSPH**

Cast-iron, sealed combustion, direct vent gas boiler



## **Lifetime Limited Warranty**

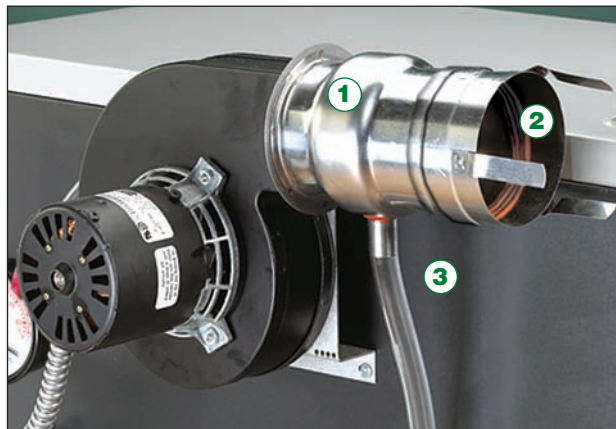
Victory VSPH boilers are so reliable they come with a lifetime limited warranty.



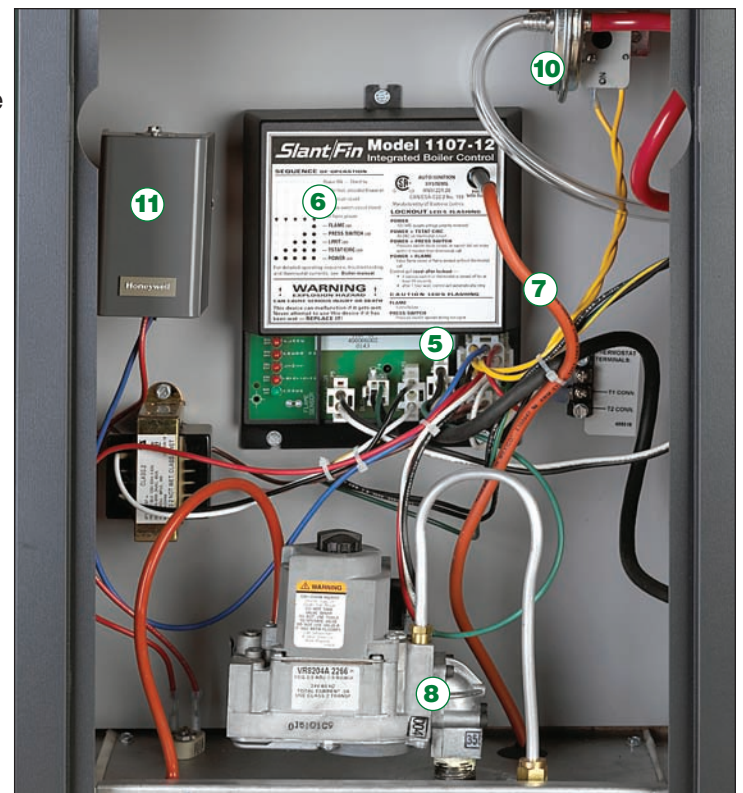
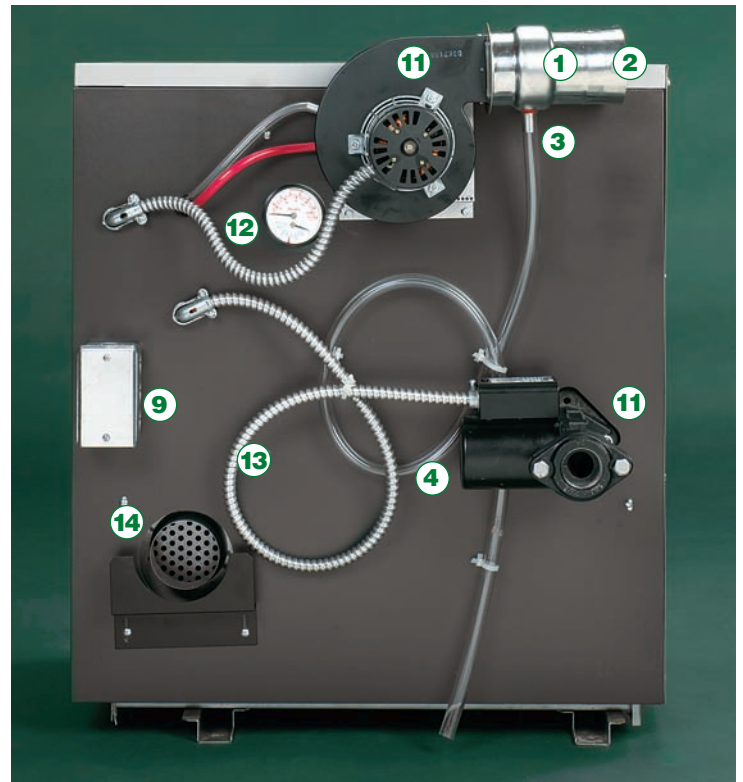
# Installer-friendly features speed installation and service

The Victory VSPH boiler installs anyplace with access to an outside wall or roof for venting -- basement, utility closet or even a garage. Since it does not require a chimney, it's ideal for replacements when an old chimney is inadequate or in need of repair. It's engineered with installer friendly features to speed installation and service:

- ① **Horizontal flue discharge components** are factory installed to save field assembly.
- ② **3-inch flue connector** with integral adapter for easy connection to stainless steel venting. Integral self-seal when used with EZ Seal components.
- ③ **Condensate drain** is built into the flue discharge assembly.
- ④ **Drain tube** for condensate is factory installed and pre-configured with water trap.
- ⑤ **Quick connect wiring** speeds service, prevents miswiring.
- ⑥ **Integrated boiler control with built-in diagnostics** engineered by Slant/Fin to optimize VSPH boiler operation. Diagnostic indicator lights speed troubleshooting.
- ⑦ **Intermittent pilot spark ignition** saves energy.
- ⑧ **Field convertible gas valve** for natural-to-propane gas.
- ⑨ **Junction box** for line voltage facilitates wiring of shut-off switch.
- ⑩ **Pressure switch** functions at all altitudes.
- ⑪ **Controls, circulator pump, inducer** and other "trim" are top quality brand names that are widely available to heating professionals and easy to service.
- ⑫ **Pressure-temperature gauge** located for easy viewing.
- ⑬ **Circulator harness** is long enough for supply or return mounting.
- ⑭ **3-inch combustion air intake connector** for PVC or galvanized pipe.



*Condensate drain is built into flue discharge assembly.*



*Easy to access up-front controls.  
Lift-off front cover.*

# Slant/Fin VICTORY VSPH™

SEALED COMBUSTION GAS BOILER

## Ratings

### RATINGS FOR NATURAL AND L.P. GAS

MODEL No.	RATINGS FOR WATER		NET I=B=R WATER (Btuh)†	NET WATER (Sq. ft)‡	EFFICIENCY (A.F.U.E.)
	A.G.A. INPUT (Btuh)	D.O.E. CAPACITY (Btuh)			
VSPH-60	60,000	52,000	45,000	300	86.1%
VSPH-90	90,000	78,000	68,000	453	85.7%
VSPH-120	120,000	103,000	90,000	600	85.5%
VSPH-150	150,000	128,000	111,000	740	85.2%
VSPH-180	180,000	154,000	134,000	893	85.1%



### MAXIMUM EQUIVALENT FLUE LENGTH

VSPH-60, 90 & 120: 40 ft.  
VSPH-150: 35 ft.  
VSPH-180: 33 ft.

May differ for certain vent system manufacturers and altitudes. Vent terminal does not effect calculation of total equivalent length.  
See installation instructions, Pub. VSPH-40.

† 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. Net ratings shown include allowance from normal piping loss and pick-up load. For installations having unusual piping and pick-up requirements, additional allowances should be made before selecting the size of boiler required. Ratings are based on a piping and pick-up factor 1.15.

‡ Based on heat emission rate of 150 Btu per square foot.

Note: All VSPH boilers are tested and rated for capacity under the U.S. Dept. of Energy (D.O.E.) Test Procedure for Boilers  
Maximum ASME working pressure: 50 psi..

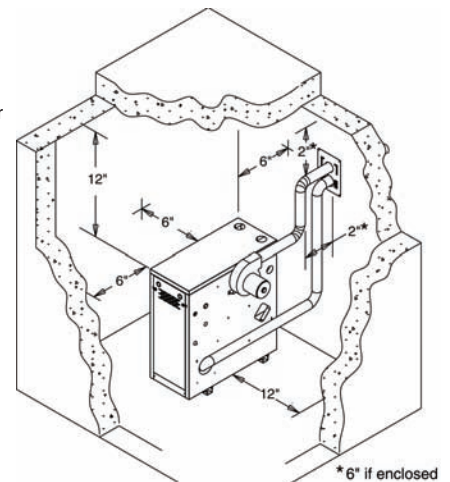
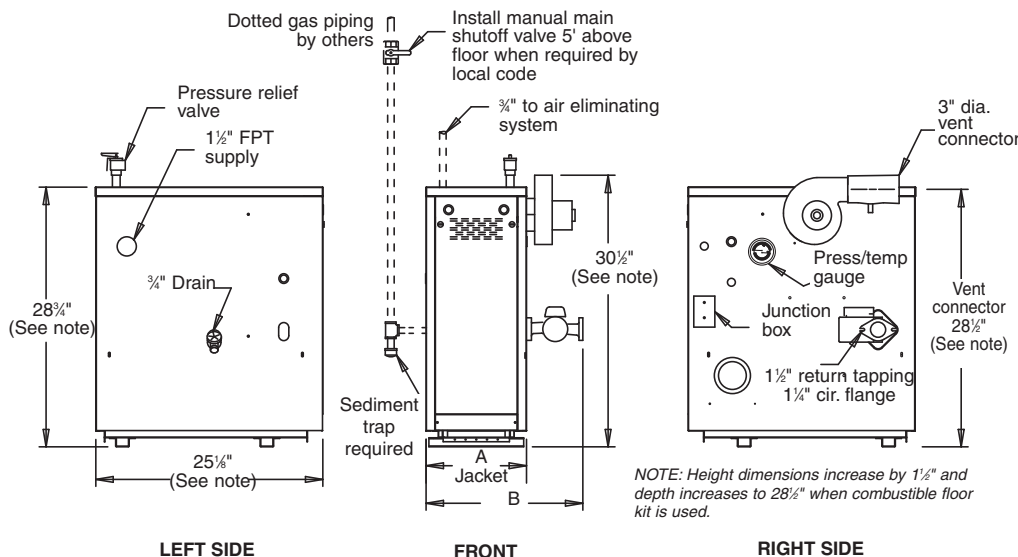
## Equipment

**PACKAGED WATER BOILER** includes pre-assembled cast-iron heat exchanger with built-in air eliminator, base, pre-assembled insulated flush jacket, gas burners, gas orifices and manifold assembly, combination gas valve, including manual shut-off, pressure regulator and pilot adjustment, integrated boiler control with built-in diagnostics, electronic intermittent pilot ignition system, pressure and temperature gauge, pressure relief valve (ASME), circulator 1-1/4", drain cock, inducer assembly, air flow proving

switch, built-in condensate drain, trap and stainless steel vent pipe adapter, unitized vent/air intake terminal, rollout safety switch. For propane, specify when ordering.

**OPTIONAL EQUIPMENT:** 24 volt thermostat. Air package consisting of diaphragm expansion tank, fill and pressure reducing valve, and automatic air vent. Combustible floor kit. AL 29-4C<sup>▲</sup> stainless steel venting material.

## Dimensions



### Victory VSPH boiler minimum clearances for combustible construction

(See installation instructions for further details.)

Supply water tapping	1 1/2"	Dimensions	VSPH-60	VSPH-90	VSPH-120	VSPH-150	VSPH-180
Circulator return flange*	1 1/4"	"A"	11 1/8"	14 1/8"	17 1/8"	20 1/8"	23 1/8"
Gas tapping, natural or propane	1/2"	"B"	17 3/8"	20 3/8"	23 3/8"	26 3/8"	29 3/8"

<sup>▲</sup> AL 29-4C is a registered trademark of Allegheny Ludlum Corp.

\*When not equipped with circulator, boiler 1 1/2" return tapping.

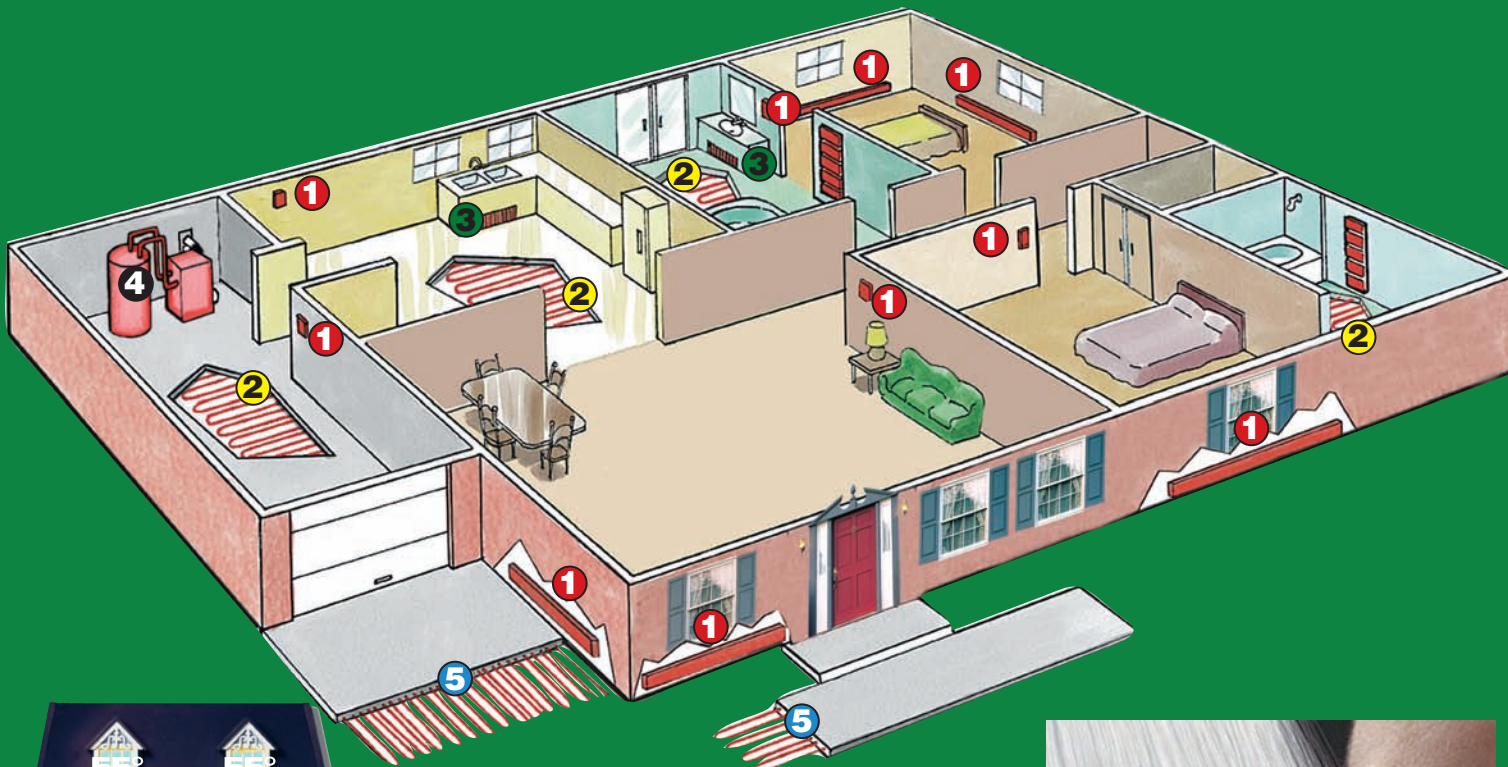
Before purchasing this appliance read important energy costs and efficiency information available from your contractor.



# Make your house a more comfortable home

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

- ❶ Zoned heating with Slant/Fin hot water baseboard and individual room temperature controls.
- ❷ Warm floors with Terra Therma radiant heating by Slant/Fin.
- ❸ Slant/Fin hot water fan-convection heaters under cabinets or stairs.
- ❹ Hot water with a high volume Slant/Fin indirect-fired water heater.
- ❺ Snow melting for driveway and sidewalks with Terra Therma radiant tubing.



## 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 Victory VSPH 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!



# Slant/Fin®

SLANT/FIN CORPORATION, Greenvale, N.Y. 11548 • Phone: (516) 484-2600  
FAX: (516) 484-5921 • In Canada: Slant/Fin LTD/LTEE, Mississauga, Ontario  
[www.slantfin.com](http://www.slantfin.com)

©Slant/Fin Corp. 2003. Printed in the U.S.A. 603. Publication No. VSPH-10.