

Slant/Fin

VICTORY VSPH

Cast-iron sealed combustion, direct vent gas boiler

and **VSPH-NDV** power vent boiler



USGBC focuses on practices that increase a building's efficiency to harvest and use water, energy and materials.

Modern home heating
with the safety, comfort and versatility of sealed combustion.

Venting versatility—no chimney required

It fits easily in a closet size space and may be vented directly through a wall. It saves construction costs and allows more living space. When replacing a boiler, some old chimneys may not be adequate. Re-lining your chimney could be expensive.

The VSPH is an ideal alternative.

- **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 input**



High efficiency keeps fuel costs low

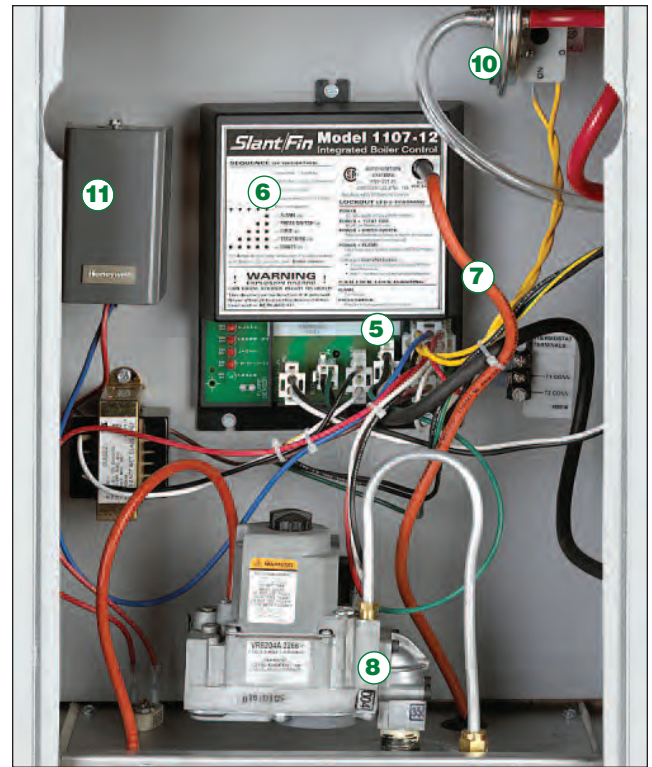
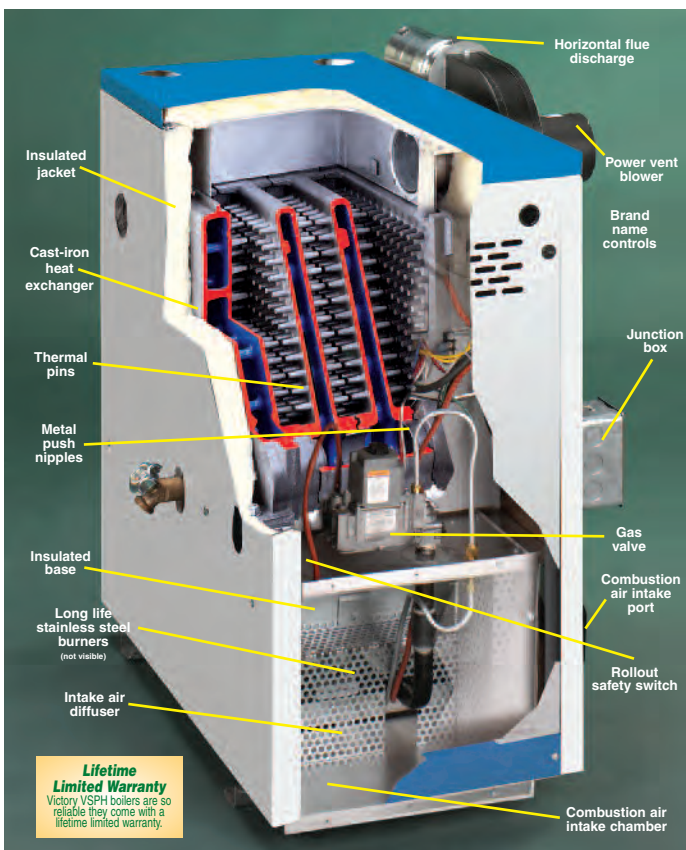
All Victory VSPH models are Energy Star certified by the US government for their fuel saving performance. Save 30% or more compared to a typical old boiler operating at 60% efficiency.

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

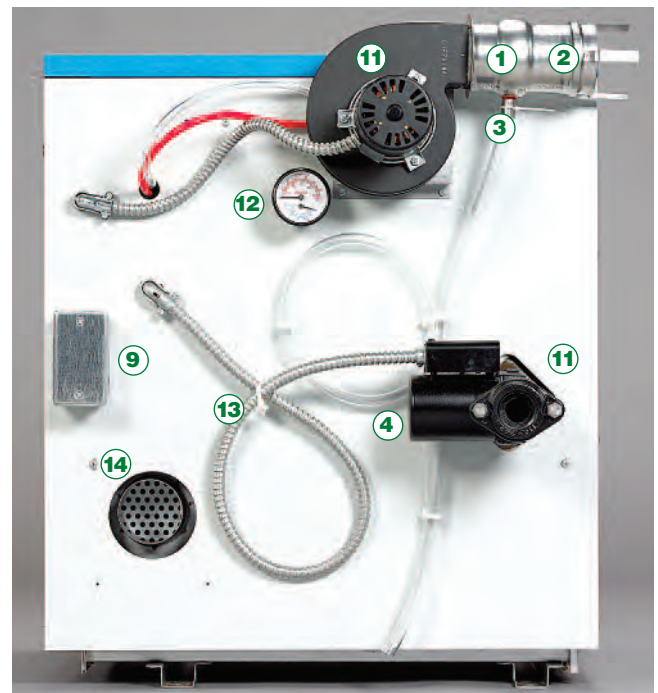
Installer-friendly features

The Victory VSPH boiler installs anywhere 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** and drain tee 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 mis-wiring.
- ⑥ **Integrated boiler control with built-in diagnostics** engineered by Slant/Fin to optimize VSPH boiler operation. Diagnostic indicator lights speed trouble- shooting.
- 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.
- ⑮ **Air intake louvers** on NDV model for combustion air supply

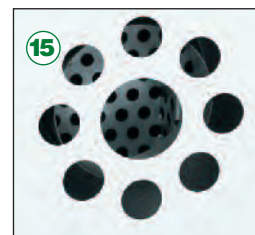


Easy to access up-front controls. Lift-off front cover.



The new VSPH-NDV power vent boiler

- Efficiency up to 86%
- Horizontal flue outlet with 3 inch connector, built-in stainless steel drain tee and other features for faster installation and easier service.
- Near zero carbon monoxide emissions
- Louvered side opening air inlet
- Uses air from inside room



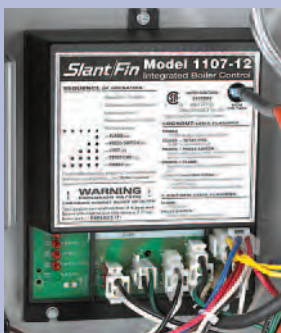
Comfort and peace of mind.



Advanced design cast-iron heat exchanger extends boiler life. 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. In many ordinary boilers, cheaper rubber or plastic gaskets are substituted for metal push nipples and could deteriorate and leak.



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 lockout. Five indicator lights verify normal operation and provide diagnostic information when flashing.

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. 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. 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.

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. Drain tee on vent outlet is included at no extra charge.

Unitized vent/air intake terminal

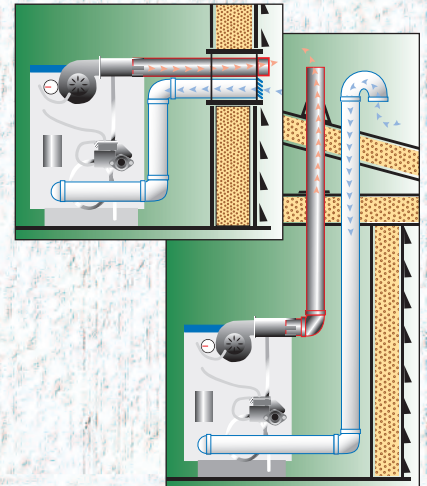
Designed specifically for use with the Victory VSPH boiler.

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.



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



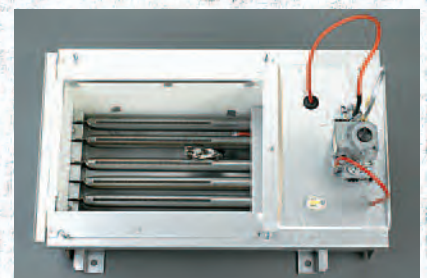
The Victory VSPH boiler operates in total isolation from household air. The combustion process is “sealed” inside the boiler, with intake air and exhaust pipes connected directly to the outdoors. Venting may be through the wall or through the roof (far right).



Self-sealing vent connection



Unitized vent/air intake terminal



Insulated Base assembly

Ratings

Slant/Fin

VICTORY VSPH

SEALED COMBUSTION GAS BOILER

and VSPH-NDV POWER VENT BOILER



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.)
	CSA INPUT (Btuh)	D.O.E. CAPACITY (Btuh)			
VSPH-60 VSPH-NDV60	60,000	52,000	45,000	300	86.1%
VSPH-90 VSPH-NDV90	90,000	78,000	68,000	453	85.7%
VSPH-120 VSPH-NDV120	120,000	103,000	90,000	600	85.5%
VSPH-150 VSPH-NDV150	150,000	128,000	111,000	740	85.2%
VSPH-180 VSPH-NDV180	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.
 VSPH-NDV 60, 90 & 120: 40 ft.
 VSPH-NDV 150: 35 ft.
 VSPH-NDV 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.

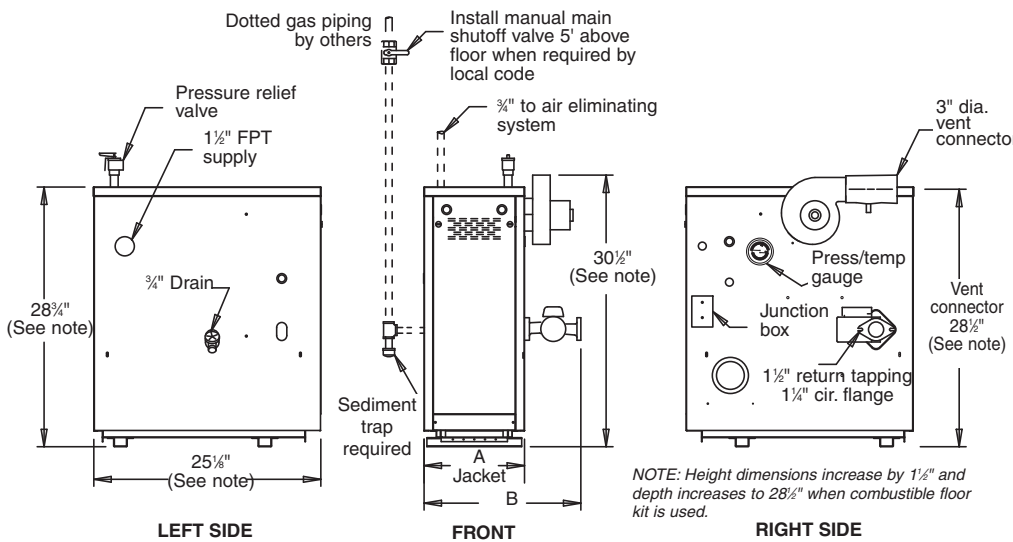
Equipment

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.

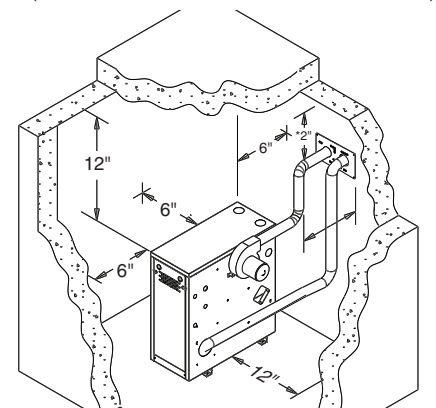
OPTIONAL EQUIPMENT: Air package consisting of diaphragm expansion tank, fill and pressure reducing valve, and automatic air vent. Combustible floor kit. AL 29-4C* stainless steel venting material.

Dimensions



Victory VSPH boiler minimum clearances for combustible construction

(See installation instructions for further details.)



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

* 6" for enclosed

Supply water tapping	1 1/2"
Circulator return flange*	1 1/4"
Gas tapping, natural or propane	1/2"

Dimensions	VSPH-60	VSPH-90	VSPH-120	VSPH-150	VSPH-180
"A"	11 1/8"	14 1/8"	17 1/8"	20 1/8"	23 1/8"
"B"	17 3/8"	20 3/8"	23 3/8"	26 3/8"	29 3/8"

(A and B dimensions are the same for VSPH-NDV models)

www.slantfin.com



* AL 29-4C is a registered trademark of Allegheny Ludlum Corp. *When not equipped with circulator, boiler 1 1/2" return tapping.



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