

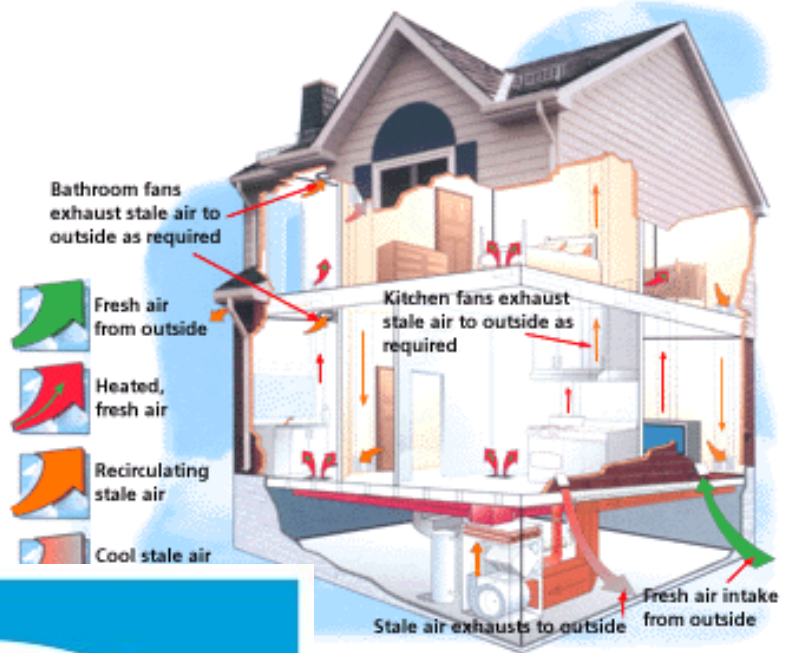


800-492-9276

www.trendsetterindustries.com

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LIFEBREATH



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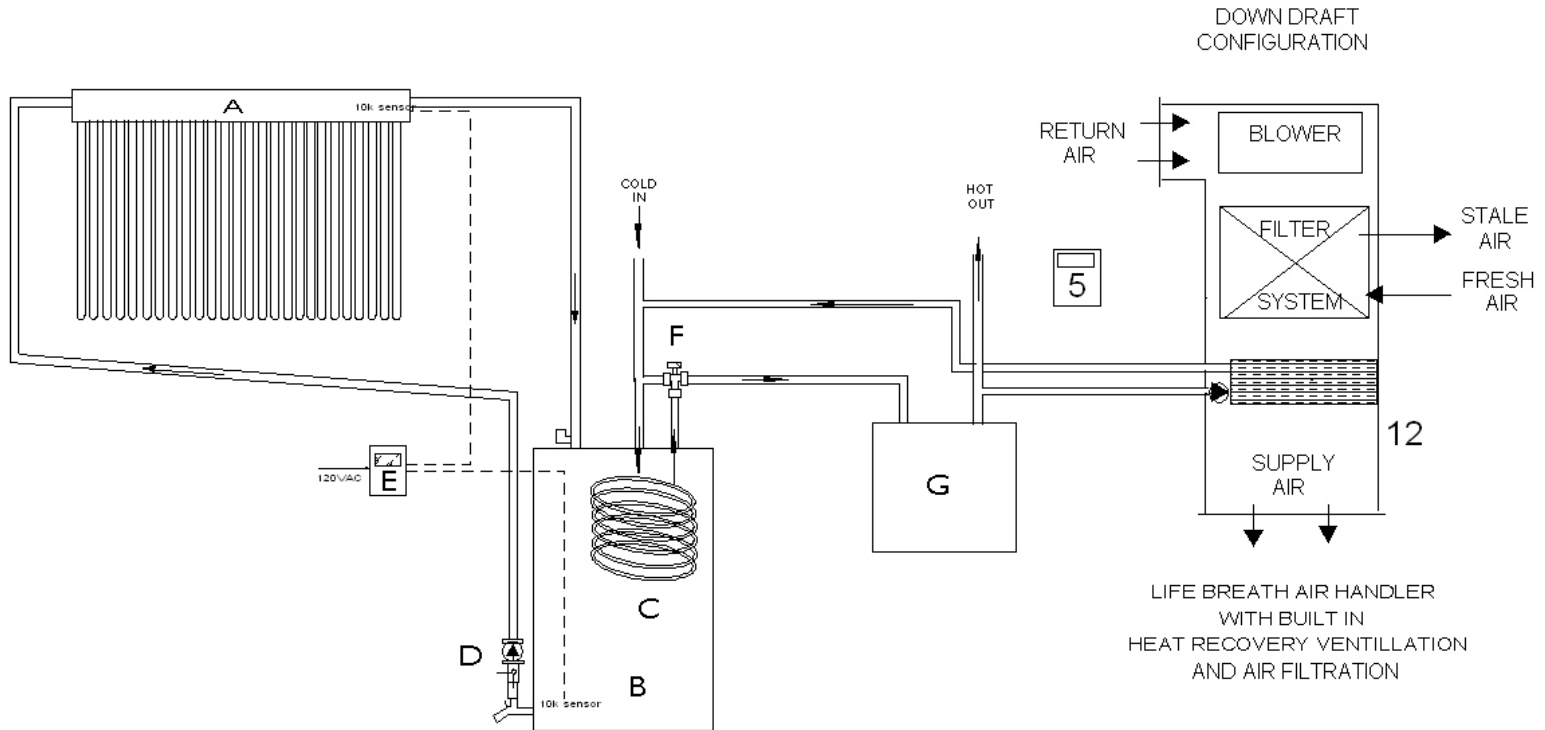
If You Are Thinking Energy Efficiency And
Are Planning To Use A High Efficiency Forced
Air Heater **THINK AGAIN**

**New homes, manufactured homes and
retro fit for older homes**

For about the same money you can have

1. a Trendsetter[®] solar water heating
2. a 93% efficient tank-less water heater
3. a Lifebreath[®] hydronic forced air system *with*
 - a. heat recovery ventilation (HRV) *and*
 - b. super air filtration *and*
 - c. humidity control
4. tax credits and utility rebates
5. computer generated energy reports
6. Energy Star registration and recognition for
new home construction and in the near future
for retrofit applications.

THIS IS HOW WE DO IT.....



There are *nine* parts to the Trendsetter solar water heating system.

- A - Solar collectors*- Apricus® Evacuated tubes
- B - Solar Storage tank*- Non-pressurized insulated water storage tank
- C - Heat exchanger*- 24 sq ft of copper finned tubing ¾" inside diameter
- D - Solar pump* - Pumps water through solar panels
- E - Solar controller* – Turns solar pump on and off automatically
- F - Tempering valve*- A safety device to cool down the solar hot water if necessary
- G - Water heater*-Use existing water heater or replace with tank-less water heater

plus

#5 Thermostat

#12 LIFE BREATH – This is a self contained forced air heater combined with a heat recovery ventilator and filters. It installs the same as a forced air unit however the heat source is hot water passing through a heat exchanger. It has its own small internal circulating pump

Air conditioning is the same AC coil and compressor that is normally installed in a standard forced air heater

The *solar storage tank (B)* contains tap water. One sensor is mounted at the *solar collector (A)* and one sensor is installed in a “dry dip tube” inside of the *storage tank*. When the *solar collector* is hotter than the water in the *storage tank*, the *solar controller (E)* powers the *solar pump (D)*. The water is slowly circulated through the *solar collector* on the roof. The water in the *storage tank* will gradually rise in temperature. The water will rise 5°F-10°F in temperature between the time the water enters the *solar collector* and the time it leaves the *solar collector*.

When hot water is used in the house, the cold water is pre-heated as it courses through the *heat exchanger (C)* immersed in the solar heated water stored in the insulated *storage tank*. If the existing water heater is used as a back-up, the pre-heated water will reduce the energy normally needed to raise the water temperature entering the water heater. For example, if the cold water entering the water heater is 60°F, the water heater will require fuel to raise the incoming water from 60°F - 120°F (8,617 BTU per 100 gallons). If the entering water temperature were raised to 100°F the fuel consumption would be reduced by 2/3rds. The same 100 gallons of hot water would consume only 2,878 BTU's

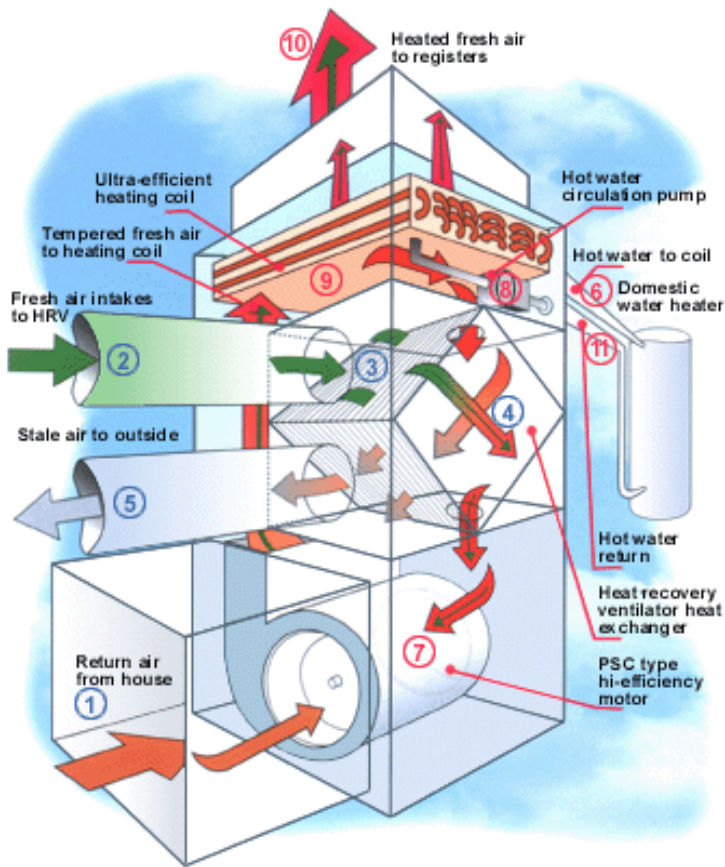
If a *tank-less water heater* replaces the conventional tank type water heater, the tank-less heater will flash on to raise the water temperature. For example if the water temperature pre-heated by the solar, is 100 °F the *tank-less* unit will provide just enough energy to boost the pre-heated water an additional 20°.

If the solar water in the tank reaches very hot or even scalding hot temperatures, incoming water will be drawn through the *heat exchanger* in the *solar storage tank* and through the *tempering valve (F)*. The scalding hot solar water will be automatically mixed with cold water at the *tempering valve* to supply the desired 120°F (adjustable to 140°F) water temperature to the water heater.

The *LifeBreath* system (12) installs just like a forced air system with two exceptions. The Life Breath pumps hot water through coils (similar to a car radiator) in place of a gas burner. *LifeBreath* has its own pump built into the unit. The Life Breath is also a heat recovery ventilator with a secondary high performance filtration chamber. This requires installing a 4” (aluminum dryer exhaust hose) fresh air supply and stale air return.

A standard air conditioning coil can be installed as with any forced air unit.

More about



This combination heating system provides constant ventilation and a steady stream of warm air for the healthiest, most comfortable home environment possible. This occurs with a system efficiency of up to 90%.

1. Warm, stale air from the home is returned to the Lifebreath Clean Air Furnace.
2. Outdoor air travels through the fresh air intake and is brought into the integral HRV.
3. Hot water is sent from the water heater to the furnace heating coil.
4. A PSC type high-efficiency fan blows the tempered fresh air from the HRV into the coil.
5. The circulation pump distributes hot water through the coil.
6. The circulating hot water heats the air to the desired temperature.
7. Warm, fresh air is distributed to registers throughout the house.
8. The fresh and stale air pass through opposite sides of the HRV's aluminum heat exchange core.
9. Heat from the stale air is transferred to the fresh air.
10. Stale air is exhausted outside.

The hot water travels through the coil and returns to the water heater for domestic use.



Quiet, Clean, Hydronic Heat

The Lifebreath Clean Air Furnace doesn't require a flue. Instead, it uses your domestic water heater to warm the air before distributing it throughout the home. This efficient system provides a steady stream of uniform, temperate air that is more comfortable than conventionally heated air. The heating coil is sized to meet warm air demand in the coldest weather, and the fully insulated cabinet minimizes noise while improving energy efficiency.



Efficiency brings Economy

The Lifebreath water heater/air handler concept is designed to minimize fuel consumption, thereby lowering the cost of heating your home. In conjunction with a high efficiency water heater, the Clean Air Furnace achieves a 90% Combined Annual Efficiency rating making it among the most efficient systems available. You'll reap benefits every month with lower utility bills.



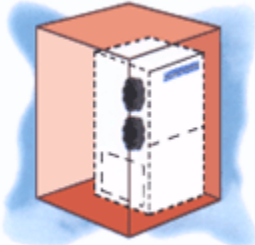
Fresh Air Ventilation - Free!

The Lifebreath Clean Air Furnace costs about the same amount as high-efficiency furnaces that don't provide whole-house ventilation. The fresh air benefits of the built-in HRV are absolutely free! In southern climates, an [Energy Recovery Ventilator](#) is substituted for the HRV to replace humidity with cool, dry air. Keep a fresh, healthy home in every season, in any climate.



Safer than Ever

The Clean Air Furnace - by eliminating the need for gas or oil flames, fumes or flue gases - ensures that safety is never an issue. Your domestic water heater is the sole heat source for the Clean Air Furnace.



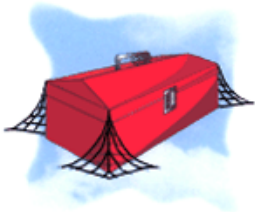
No Shoehorn Required

The compact dimensions and flexible duct connections of the Clean Air Furnace make it as easy to install as most high-efficiency furnaces. Since it's generally smaller than the equipment it is replacing, Lifebreath is perfect for clean, efficient replacement of old furnaces. The Clean Air Furnace is also ideal for condos and major renovations and additions that require extra heat.



Long-term Reliability

The relative simplicity of the water heater/air handler concept results in efficient operation and a long life. A premium quality circulator pump, high-capacity heating coil and single 4-speed fan motor for all air handling functions make for a quiet, reliable and easily serviced installation. Lifebreath stands behind its furnace with a lifetime warranty on the heat recovery core and a one-year replacement parts warranty on all other components.



Easy Maintenance

The Lifebreath Clean Air Furnace is designed as a low maintenance, easily serviced system. Routine maintenance can be performed simply and quickly. The pleated furnace filter should be checked regularly and replaced as needed. The HRV core should be washed twice a year.



Environmental Control

With the Lifebreath Clean Air Furnace, you have complete, year-round climate control at your fingertips. All functions - heating, cooling, and ventilation - can be controlled from your thermostat.

More about



1. Energy Star® is the only code compliant documentation and verification system that guarantees a house was built and inspected to strict energy standards that exceed mandatory minimum energy standards by a 15% margin.
2. Solar water heating is the best way to reach the energy level needed to win an Energy Star® accreditation.
3. The combination Trendsetter solar with either radiant floor or lifebreath heating add-ons add another level of energy efficiency over homes with separate water heating and space heating systems.
4. A certified HERS rater and a certified energy plan checker, each with 30 years of contracting experience and a mechanical engineer on staff will help you with the construction details and equipment specifications.
Toll free phone assistance with your project is always available.

Get started by E-mailing your plans to norm@trendsetterindustries.com to discuss your project then

Call us at (800) 492-9276...*it's worth the energy!*