



# CLEAN AIR FURNACE



The Lifebreath Clean Air Furnace combines the benefits of an air exchanger with a heating system.

Breathe new life into your home!



Setting a new standard for energy efficient, clean air homes



Visit us at [www.lifebreath.com](http://www.lifebreath.com)

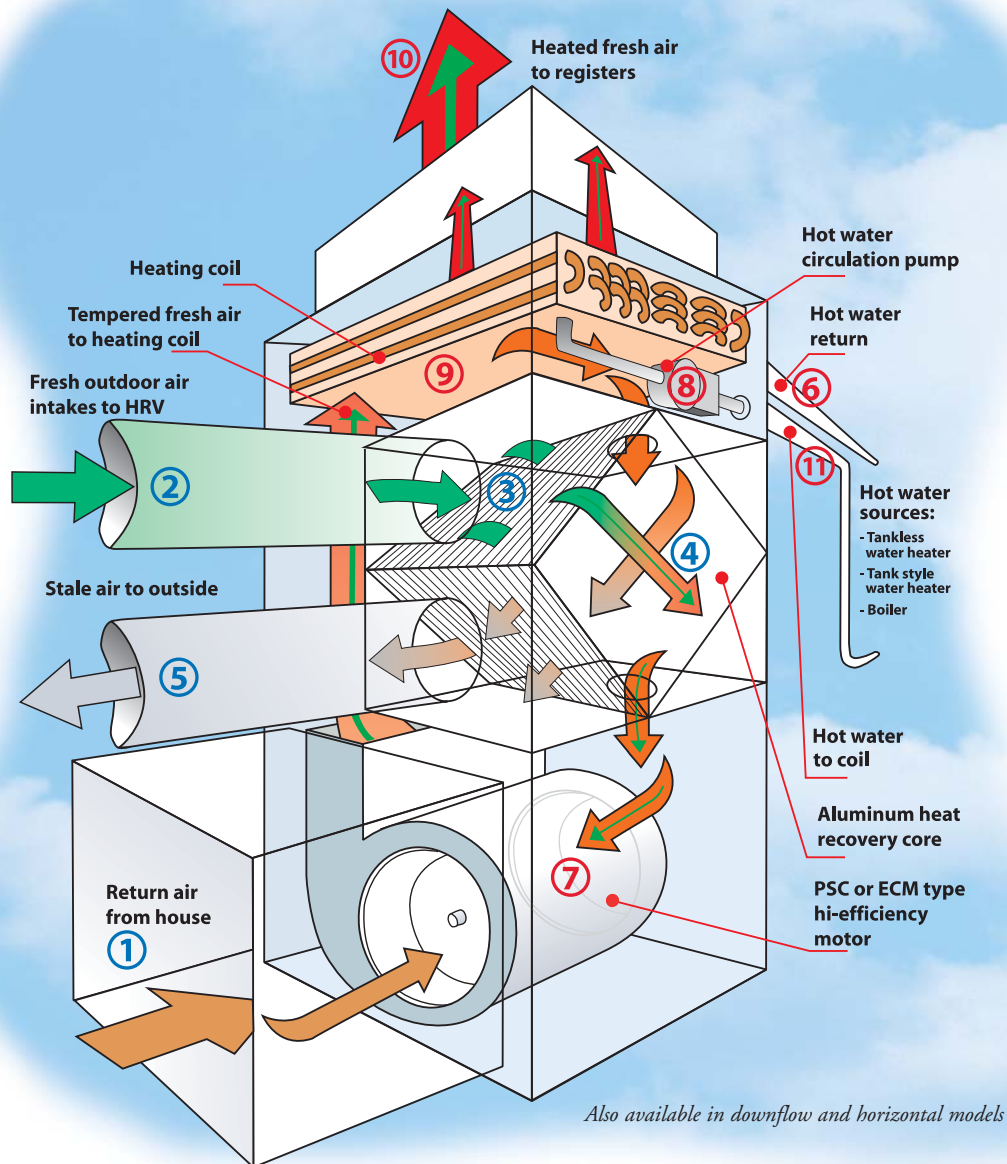
Manufacturer reserves the right to change specifications without notice.

# Lifebreath delivers a complete indoor climate control package

## Indoor comfort in a small package

The patented Lifebreath Clean Air Furnace combines the fresh air benefits of the Heat Recovery Ventilator (HRV) with the comfort and efficiency of the water heater and air handler. 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%.



*Also available in downflow and horizontal models*

### Fresh air for your home:

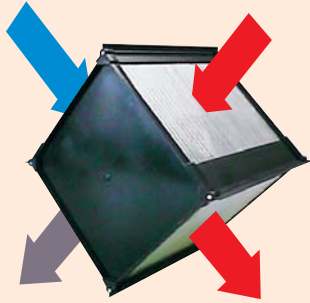
1. Warm, stale air from the home is returned to the Lifebreath Clean Air Furnace.
2. Outdoor air travels through the fresh air intake and is brought into the aluminum heat recovery core.
3. The fresh and stale air pass through opposite sides of the HRV's aluminum heat exchange core.
4. Heat from the stale air is transferred to the fresh air.
5. Stale indoor air is exhausted outside.

### Meanwhile, in Lifebreath's ultra-efficient heating coil:

6. Hot water is sent from the water heater or boiler to the furnace heating coil.

7. A PSC type high-efficiency fan motor blows the tempered fresh air from the HRV into the coil. \*ECM upgrade recommended for maximum energy savings.
8. The circulation pump distributes hot water through the coil.
9. The circulating hot water heats the air to the desired temperature.
10. Warm, fresh air is distributed to registers throughout the house.
11. The hot water travels through the coil and returns to the water heater or boiler.

The heat recovery core works year-round to ensure that your home is always fresh, while the heating function operates only when required. Enjoy the comfort, convenience, and economy of a Lifebreath Clean Air Furnace. Hot water remains potable for domestic use when connecting to the water heater.



### Aluminum heat exchange core

Lifebreath's patented aluminum heat exchange core delivers an excellent heat transfer rate to minimize heat loss to the outdoors. Aluminum is durable and effective, allowing Lifebreath's Clean Air Furnace to offer impressive heat recovery rates with a *lifetime guarantee* on the aluminum heat exchange core.

### A solution for southern humidity

The Lifebreath Clean Air Furnace can be equipped with an energy recovery core (ERV) which is ideal for southern areas of the USA with high summertime humidity levels and where air conditioners run most of the year.

This model of the CAF contains an enthalpic (ERV) core that uses vapor transmission technology to recover coolness and dryness from outgoing air. Heat and humidity from incoming fresh air is transferred to the exhaust airstream. This eases the strain on air conditioners, lowering utility bills and maintenance costs.

### Year round climate control

The Clean Air Furnace allows for the addition of a plenum mounted air conditioner. As long as the furnace is controlled by a thermostat with a fan auto/on switch, users can select heating or cooling with ventilation to meet your climate control needs in every season.

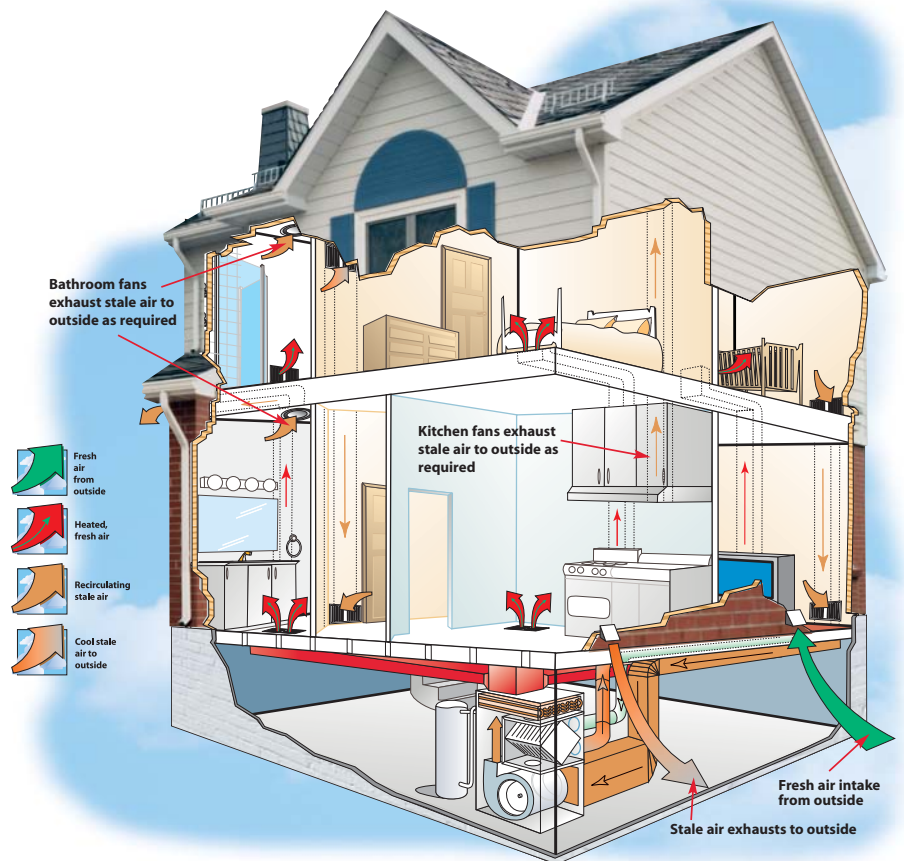
All functions – heating, cooling and ventilation – can be controlled from your thermostat.

### The option of adding a whole - house air cleaner

Add a Lifebreath TFP Air Cleaner to your heating and ventilation system for complete climate and air quality control. The TFP removes airborne particles continuously, and unlike electronic filters, generates absolutely no ozone. This is the first air cleaner capable of giving your family what they deserve – clean, healthy air in every room of your home.



### Bathroom Exhaust Kit (optional)





# Your Questions Answered

## **Q. Can I use my existing hot water tank?**

A. The Lifebreath Clean Air Furnace requires a water heater to operate. Since the water heater will be the source of heat for the home, it must be capable of fulfilling both the furnace requirements and household water demand. This is a very efficient system, and high efficiency domestic water heaters will provide ample hot water. Confirm the adequacy of your heater with your dealer.

## **Q. Will I always have enough hot water?**

A. As long as your water heater is accurately sized, there will always be plenty of hot water for normal usage. Water that circulates through the furnace is returned to the water heater and re-heated. Instead of consuming water, the furnace merely diverts it temporarily.

## **Q. How much will I save on my heating bill?**

A. This depends, naturally, on the size of your home and the heating system you are replacing. With a Lifebreath Clean Air Furnace and a high efficiency water heater, you could save as much as 50% off your fuel bill. By recovering heat from outgoing air, the HRV achieves significant energy savings, as seen in the chart on the first page.

## **Q. Do building code officials approve of Lifebreath?**

A. Canadian and U.S. model codes approve the installation of combined heating systems. Although building code officials are not as familiar with these furnaces as older furnaces, a major educational effort is underway. The Lifebreath Clean Air Furnace is designed, built and certified according to rigorous industry standards and has been certified for use with household water.

## **Q. Does scale form in the heating coil?**

A. Combination heating systems do not result in scale forming on the heating coil. Scale formation only occurs when water is heated, because water is less able to hold dissolved minerals as its temperature rises. With the Lifebreath furnace, the water in the heating coil is losing heat, increasing its ability to hold minerals. While all domestic water heaters may suffer from scale and sediment deposits the heating coil in the furnace will not.

## **Q. Does Lifebreath affect my water heater warranty?**

A. Water heater manufacturers honour their warranty with the installation of combination heating systems. Because the operation of a Lifebreath Clean Air Furnace increases circulation in the water heater, it actually tends to reduce sediment deposits.

## **Q. Does the water heater have to be run at higher temperatures?**

A. The water heater should be run around 130°F, a common temperature for domestic water heaters. Running the heater at a higher temperature is possible using an anti-scald valve.

## **Q. Will Lifebreath always keep my house warm?**

A. The high-capacity heating coil in the Lifebreath Clean Air Furnace is sized to meet warm air demand in the coldest weather. Proper sizing of the water heater will ensure your comfort.

## **Q. Can the Lifebreath CAF be used with a hot water source other than a domestic water heater?**

A. Yes – consult your dealer for information on boiler or combo radiant floor/forced air options.

## **Q. Can air conditioning be added?**

A. Yes – central air conditioning can be added to a CAF system in the same way as it can be added to any forced air system. It will also work, without any changes, with your existing air conditioner.





# A fresh new heating concept

## Benefits for your health and your pocketbook

The Lifebreath Clean Air Furnace creates a healthier, more comfortable home environment while lowering energy bills. In conjunction with a high-efficiency water heater, this combination system can achieve 90%+ Combined Annual Efficiency (CAE) ratings.

Lifebreath operates safely and quietly. Instead of the periodic bursts of hot air distributed by conventional furnaces, a steady stream of warm air is released throughout the house - reducing drafts and creating a more even temperature distribution. With a Clean Air Furnace, the atmosphere in your home will be noticeably improved.

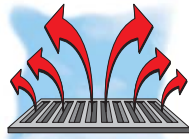
### Combat asthma and other respiratory problems

Today's homes are built to promote energy efficiency. This "air-tight" construction lowers heating bills, but it also restricts the flow of fresh air into the house. The Environmental Protection Agency estimates the number of pollutants found in indoor air to be as much as 70 times greater than outdoors, even in urban areas. An increase in the levels of pollen, dust, insect dander, tobacco smoke and other pollutants in indoor air has been blamed for a doubling of the incidence of asthma and allergies in children and adults over the past 15 years.

No longer do you need to sacrifice your health for low energy costs. Lifebreath offers a solution to protect your family from the pollutants in your home while reducing heating and air conditioning costs. The high-efficiency Clean Air Furnace has a built-in heat recovery ventilator (HRV) that replaces stale air with fresh.

The HRV removes stale, contaminated air from inside the house to the outdoors. At the same time, it draws fresh, oxygen-laden air from outside and distributes it throughout the house.

As the two air streams pass through the HRV, heat from the warm, stale air is transferred to the fresh air before being distributed throughout your home. In a typical 1,600 sq.ft. home, the air is completely changed every 3-4 hours, so you are always breathing healthy, fresh air.



### Quiet, Clean, Hydronic Heat

The Lifebreath CAF distributes a steady stream of uniform, temperate air throughout the home. This provides a more comfortable environment than conventional furnaces, which emit periodic bursts of very hot air. The CAF heating coil is sized to meet warm air demand in the coldest months.



### Efficiency brings Economy

The Lifebreath water heater/air handler concept minimizes fuel consumption. In conjunction with a high-efficiency water heater, the CAF can achieve 90%+ CAE ratings, making it among the most efficient systems available. You'll reap benefits every month with lower utility bills.



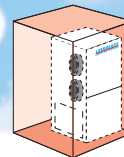
### Fresh Air Ventilation for Monthly Savings

The Lifebreath CAF costs about the same as high-efficiency furnaces that don't provide whole house ventilation, while the HRV achieves significant energy savings.



### Safer than Ever

By eliminating the need for gas or oil flames, fumes, or flue gases, the Lifebreath CAF ensures that safety is never an issue. Because it doesn't require a flue, installation costs can be lowered by up to \$500.



### No Shoehorn Required

The compact dimensions and flexible duct connections of the Lifebreath CAF make it easy-to-install in new or existing homes, as well as condominiums.



### Long-term Reliability

The clean operation of the Lifebreath CAF ensures a long life. Lifebreath provides a lifetime warranty on the aluminum heat recovery core and a five-year replacement parts warranty on all other components.



### Easy Maintenance

The Lifebreath CAF 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/ERV core should be cleaned twice a year.



## Making your home healthier

Airia Brands Inc., developer of the Lifebreath line of climate and air quality control products, is a world leader in the increasingly important field of Indoor Air Quality Management. Airia's mission is to improve the quality of the indoor air we breathe.

In addition to the Clean Air Furnace, Lifebreath offers the TFP Air Cleaner and a full lineup of Heat Recovery Ventilators with over 300,000 installations across North America.

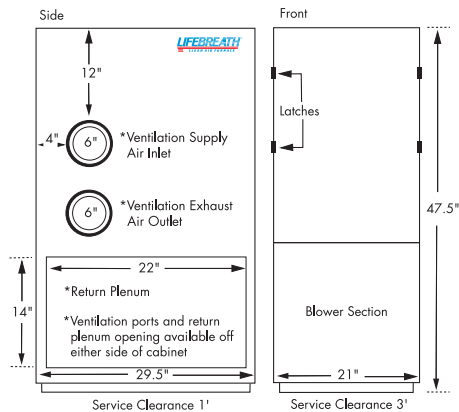
Visit [www.lifebreath.com](http://www.lifebreath.com) to locate your nearest dealer and learn how we can make your home healthier.

Specifications	CAF-U-S4A-24-P16	CAF-U-L4A-36-P16
Voltage	115 VAC 60 Hz	115 VAC 60 Hz
HP	1/3	1/2
Amps	7.0	8.8
Water Connections	1/2" Copper Soldered Connection	3/4" Copper Soldered Connection
Ventilation Duct Size	6"	6"
Airflow	1030 CFM @ .25 ESP 890 CFM @ .5 ESP	1350 CFM @ .25 ESP 1180 CFM @ .5 ESP
Heat Delivery Capacity	36,000 - 94,000 BTUH	38,000 - 120,000 BTUH
Ventilation Airflow	up to 140 CFM	up to 140 CFM
Combined System Efficiency	up to 90%	up to 90%

*ECM motor available for all models*

*Note: These specifications are only for CAF-U-S4A-24-P16 and CAF-U-L4A-36-P16 versions of the CAF. For information on other models of the CAF, contact Airia or visit [www.lifebreath.com](http://www.lifebreath.com).*

## Dimensions & Clearances



*Note: Contact Airia for the dimensions and clearances of the downflow and horizontal versions of the CAF.*



The Lifebreath Clean Air Furnace conforms to UL requirements.

\* CAF Patent #5,855,320 \*\* Aluminum Core Patent #5,785,117

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