

FAQ – installation

Do I need to ‘balance’ the air flow after RecoupAerator is installed?

No. The new RecoupAerator 200DX is equipped with two variable speed fan motors programmed to deliver equal amounts of air into and out of the home, eliminating the need for balancing the unit. If filters get dirty or the intake opening becomes partially obstructed, RecoupAerator automatically adjusts fan speed to ensure a consistent volume of air flow until you perform routine maintenance.

Can I install the RecoupAerator in an attic or crawlspace?

All RecoupAerator models are fully insulated and can be installed in uninsulated spaces. It is advisable, however, to install the unit in a space that makes access easy to clean and periodically maintain the unit.

What is the difference between baseboard electric and electric forced air heat? Can the unit be installed into existing electric forced air ductwork?

Electric baseboard heaters are individual room heaters. They are available in varying lengths and are fastened to the wall near the floor. Each room has its own thermostat that can be wall mounted or unit mounted. The unit operates on a 240-volt current and is hard-wired (i.e., not plugged into and an outlet). Because there is no ductwork in electric baseboard systems, you can install a simplified duct system in your home to ventilate individual rooms or to areas such as family or living rooms that may require greater ventilation.

An electric forced air furnace uses a blower unit, called an air handler. It blows air over a series of electrically heated coils, and then distributes the air throughout the home using a ducted system. Electric forced air systems can be coupled with air-to-air heat pumps or central air conditioners to provide year-round comfort. You can install a RecoupAerator 200DX into the existing ductwork of heat pump and electric resistance air handlers.

Can a high-capacity HEPA filter be linked to the RecoupAerator? Would supplemental air pressure be needed?

Yes, you can attach a HEPA filter to the RecoupAerator - in fact, we offer a HEPA model. You may or may not need to provide supplemental pressure - the fan curves on our model can support an additional .2 to .3 in. w.g. Pressure drops greater than that require additional blowers.

What type of installation equipment comes standard?

The RecoupAerator is shipped with four starter collars for 6” ductwork. Two of these get ducted to the outside, and the other two are ducted to the inside (either to the existing HVAC duct system, or independently).

What size ductwork do you recommend?

If the supply (or return) ductwork system remains under thirty feet (an example would be 15’ of ductwork on either side of the RecoupAerator), 6” ductwork should be adequate. When the ductwork will exceed 30’, it is recommended that size increases (6” to 7” for example) be installed directly on to the starter collar of the lines that will exceed this recommendation. Keep in mind, these are only general recommendations.

Duct systems should be designed by a licensed professional, using ACCA manuals D and J (Residential Duct Systems and Residential Load Calculations), for the optimum supply and return air delivery system

for your specific application. The supply, as well as the return, should be sized to have a maximum of 0.6 in. w.g. external static pressure load (when using manual D). Depending on the climate, the ducts that are either bringing in air or taking it out should be insulated between R-3 and R-7 values. The RecoupAerator can be ducted separately or in tandem with the heating and central air.

What type of ductwork do you recommend?

There are two types of ductwork commonly used to install ventilation. Hard, galvanized metal ductwork, and insulated flexible ductwork. Both of these have advantages and disadvantages. Both are acceptable for installing the RecoupAerator.

Hard metal ductwork is typically more difficult to install, but an overall better choice. When installing this type of duct, all joints should be sealed and taped to ensure a tight system. To insulate this system, the common practice is to buy a “duct wrap” and tightly wrap all ductwork (R-4.2 or greater). Secure all loose seams with the appropriate tape for the duct wrap used. Sealing of both the duct and the duct wrap (creating a vapor barrier) is very important to ensure no duct losses, such as air leakage and condensation.

Insulated flexible ducting (flex-duct) is typically less difficult to install. Flex-duct, however, has twice the airflow restriction (external static pressure) than does the hard metal duct, and is easy to install incorrectly. Flex-duct should only be used on straight runs, and must be stretched out tight. Hard duct elbows are recommended for corners. Although the run of flex-duct is sealed and insulated very well, extreme care must be taken at joints and ends to ensure that the vapor barrier and insulating value is maintained. Different flex-duct manufacturers recommend different tapes and adhesives for their product. Be sure to adhere to their guidelines for both installation and use.

Do I need to insulate the ductwork?

Yes, the RecoupAerator exchanges air inside the residence for fresh air from outside the residence. Ambient air from outside could be very different from conditioned air in the home (large temperature and humidity differences). Ductwork that carries air different from its surrounding environment must be insulated to prevent condensation, frost, and heat loss. Hence, it is necessary that both the duct lines from the RecoupAerator to the outside (fresh air in, and stale air out) be insulated. An industry standard R-4.2 or greater is recommended. Given your particular installation, the duct lines from the RecoupAerator to the inside may or may not need to be insulated.

Should I use the RecoupAerator to ventilate my bathroom or kitchen?

The RecoupAerator is a balanced forced air mechanical ventilation system. It is programmed from the factory to bring in the same amount of air that it takes out. Appliances such as bathroom exhaust fans, kitchen exhaust fans, and dryers only remove air from the home, having little to no effect on the airflow or performance of the RecoupAerator. In some instances, mechanical ventilators have been used to replace kitchen and/or bathroom fans. The drawback to this is that restricting the ducting design, which is necessary to remove stale air from bathrooms and kitchens specifically, will decrease the overall ventilation performance. The RecoupAerator’s main purpose is continuous ventilation for the benefit of the occupants and to maintain indoor conditions that increase the life of the home structure. By designing around the bathroom and kitchen, the overall movement of air throughout the home could be compromised. Replacing kitchen and bath fans with the RecoupAerator is not recommended, but has been done.

Should the RecoupAerator be ducted separately from my HVAC or can I use existing ductwork?

The RecoupAerator can be ducted into your existing HVAC system (called shared ductwork) or it can be ducted separately (called dedicated ductwork). There are a number of options for both types of installation, and it's important to note that you should always contact a professional when installing your new ventilation system. Dedicated ductwork is the most complete installation option and is ideal for new construction. It should be used when the customer has a specific problem associated with indoor air quality.

Can the RecoupAerator be used in a house with radiant floor heating?

Yes, the RecoupAerator can be used in a house with radiant floor heating. If you are installing the RecoupAerator in a house that does not have existing ductwork for the HVAC system, you should use dedicated ductwork.