

Last month we wrote about energy efficiency concepts that help keep heat in the house. This month we focus on maintaining the heating and cooling system. Next month we will discuss good choices for a high efficiency replacement system.

System maintenance is a key for efficient operation. Frequent changing of air filters is the main point, but your filter choice is also important. Use of costly Filtrete one inch filters is generally NOT recommended since they have the potential to reduce air flow through the blower. If your furnace has the potential to hold a 2" filter, or better yet a 4" filter, a heating contractor can easily change the filter rack to hold these thicker filters. Otherwise a low cost (about \$4) one inch pleated paper filter, changed monthly, is good maintenance.

When installing a new filter be sure to have the air flow arrow pointing toward the furnace. We also suggest marking the date on the visible side of the filter, and taping a paper on the return air duct to serve as a filter change log. Pick a day of the month, or if using a thicker filter, a day of the year that you will remember. If you are using a thick filter, it is still necessary to LOOK at your furnace at least monthly to check for any visible concerns such as soot, water leaks, corrosion, etc.

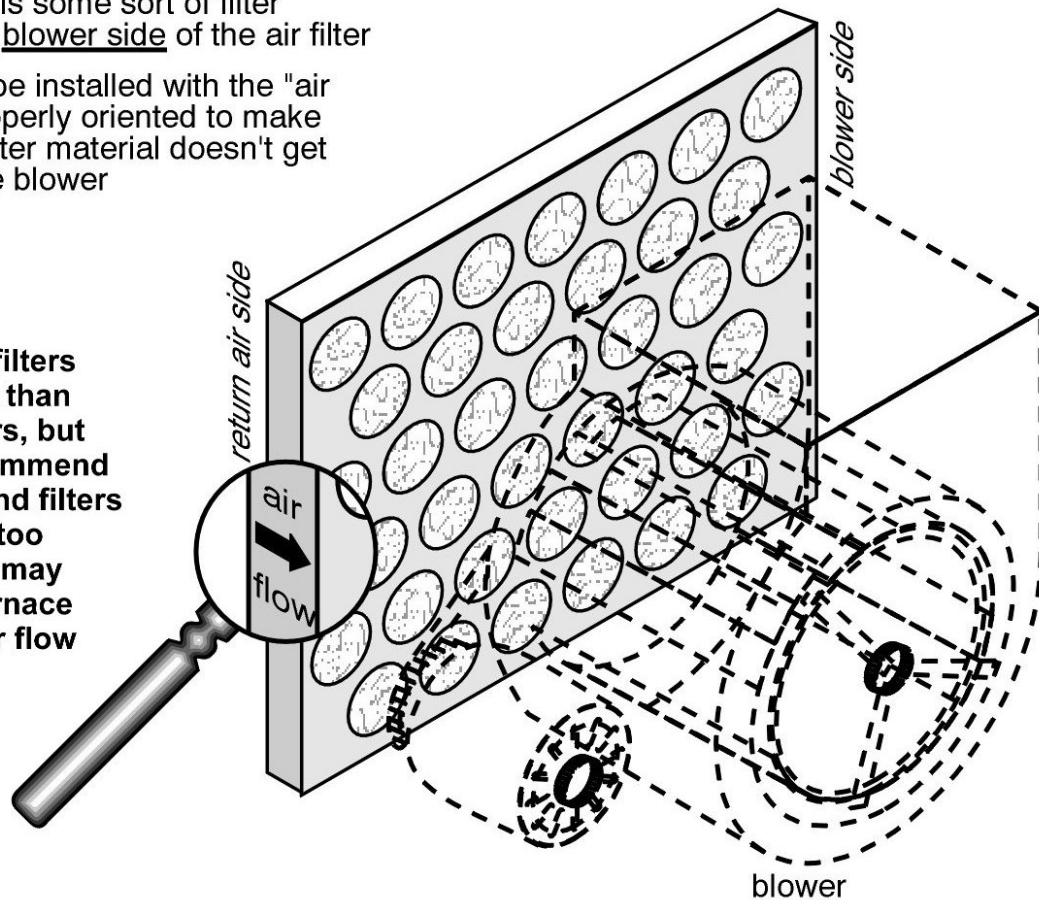
Be sure that the filter opening is tightly covered. If there is no cover for the filter, contact a qualified heating contractor to install a tight fitting cover. When changing the filter, if the old filter is bent or no longer completely covering the air stream, have a heating contractor repair the filter rack or support so that the entire air stream passes through the filter.

Air filter orientation

typically, there is some sort of filter support on the blower side of the air filter

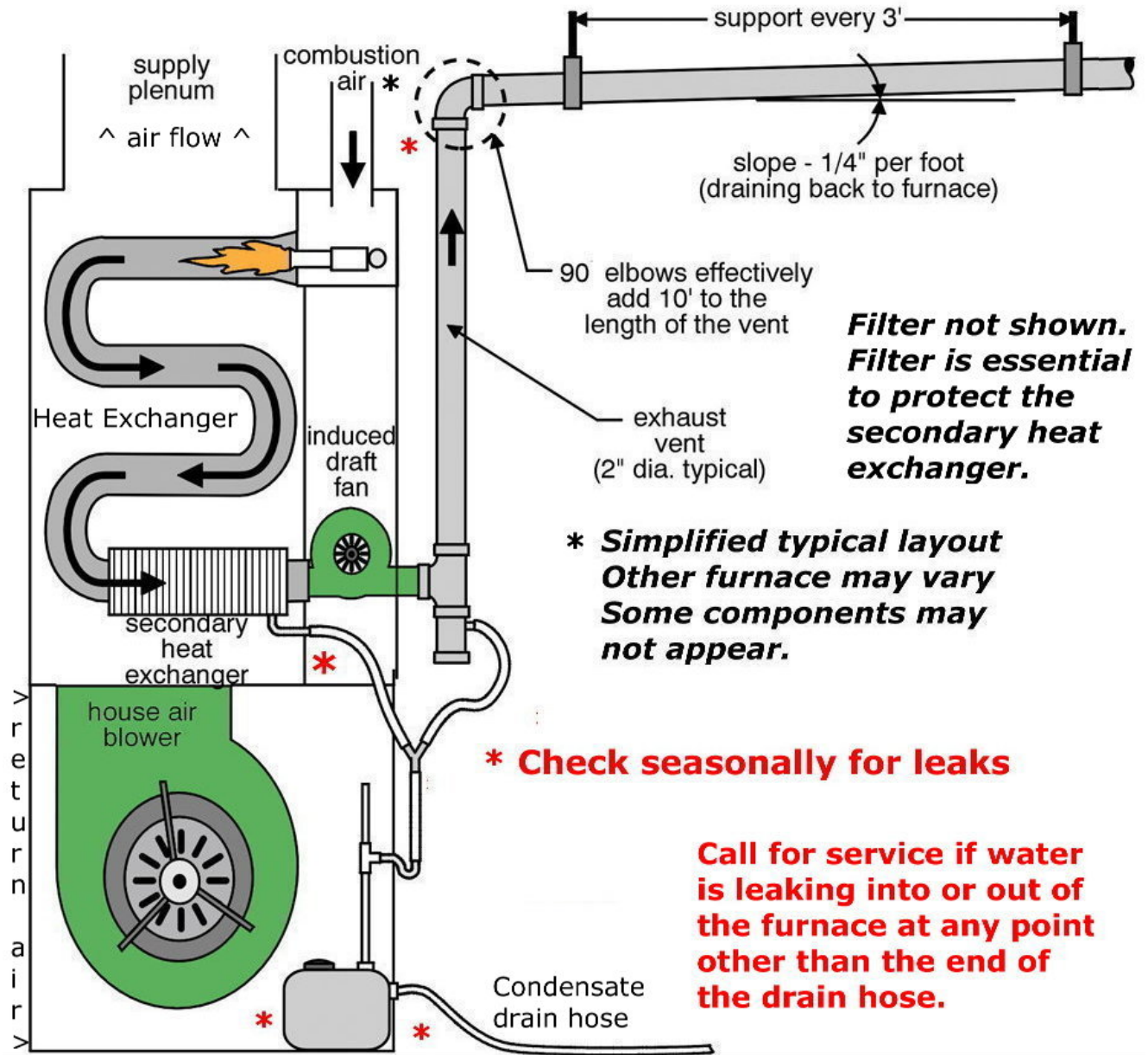
the filter must be installed with the "air flow" arrow properly oriented to make sure that the filter material doesn't get sucked into the blower

Pleated paper filters trap more dust than fiberglass filters, but we do not recommend 3M Filtrete brand filters since they are too restrictive and may damage the furnace (not enough air flow)



If you find a collapsed filter and your system is either a high efficiency condensing type furnace or a system with a central air conditioner, there is a high potential that the secondary heat exchanger coil for the high efficiency furnace and/or the cooling coil (A coil) for the furnace has become coated with dust. These coils are heat transfer surfaces and need to be clean.

Venting for high efficiency furnaces

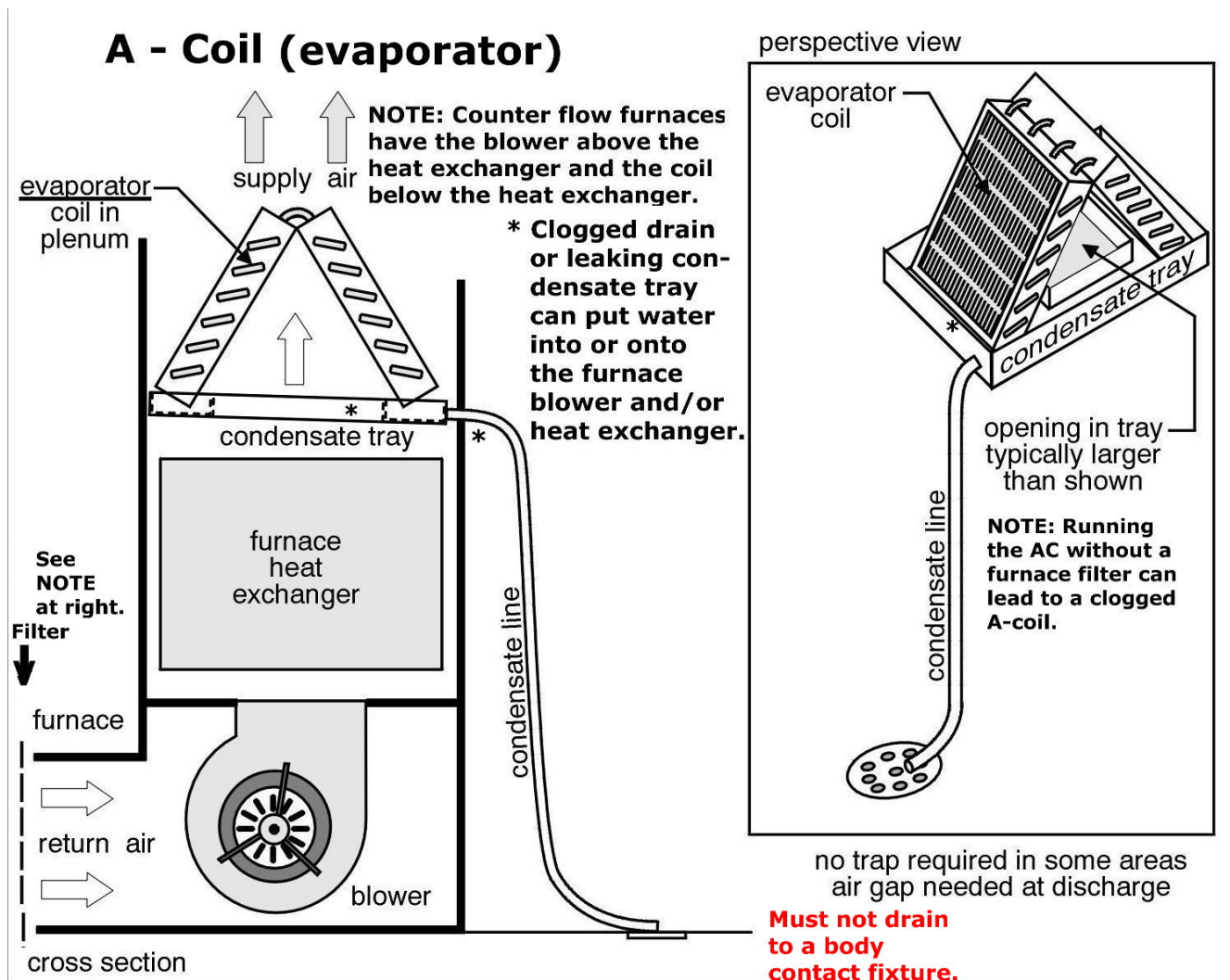


Drawing from "Illustrated Home" by Carson-Dunlop

Shown above is a high efficiency furnace. Note that the secondary heat exchanger is directly above the blower and can receive dirty air from the blower if the air is not effectively filtered.

Shown on the next page is the coiling coil which is typically located directly above the main heat exchanger. This coil also becomes damp during normal operation as it condenses

moisture from the air. Excessive dirt on this coil can also lead to mold growth on the coil or in the condensate drain pan.



Drawing from "Illustrated Home" by Carson-Dunlop

If the filter has collapsed, a complete professional cleaning of the system including ducts, blower, and all coils is recommended. We can provide referrals upon request.

Many newer furnaces have a diagnostic LED visible on the front panel of the blower cabinet. In the event of a heating or cooling malfunction, look at the LED before calling for service. The LED may be blinking. If so, there typically will be a large label on the blower door (exterior or interior) with the LED blink code. Write down the sequence of the LED blinks and compare it to the chart on the label.

See the photo below. The diagnosis of the problem will often be included on the chart. Give this information to the heating firm when you call for service. Having this information will frequently enable the contractor to make the repair more quickly, often on the first trip.



Best wishes. Your feedback is welcome. rhankey@hankeyandbrown.com

952 829-0044 Feel free to forward to other home owners.

To subscribe to this newsletter go to <http://www.hankeyandbrown.com/GoodNewsatHome>