

the Messenger

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They need changing regularly, but not all air filters are equal

Forced air heating, ventilating and air conditioning systems require effective air filtration for optimum energy efficiency, maintaining clean(ish) ductwork and good indoor air quality.

Air filters should be changed regularly. How often they need changing depends upon a number of factors including, but not limited to:

- Presence of pets that shed
- Amount of carpeted floors
- Amounts of dust, pollen, etc.
- Presence of cigarette smoke
- Use of wood-burning supplemental heat sources

The air inside our homes is full of particles originating from inside and outside sources. As the name “forced air” implies, conditioned air is blown into the house through ductwork. To operate efficiently, the air supplied is returned to the system for reconditioning, taking with it all the particles in the air and the occasional “tumbleweed” of pet hair that many of us are familiar with.

This junk-laden air flows through a filter before encountering the HVAC equipment. For cooling, there is usually an A-frame arrangement of what look like car radiators. For heating, it is generally a combustion chamber. Without a filter, the cooling coils would get clogged and the heating side would burn off whatever was in the air.

Air filters trap a lot of debris that otherwise would end up back in the house, stuck in ductwork, clogging HVAC equipment – or in our lungs. But enough with the HVAC and air quality primer. Let’s tackle types of air filters.

Filters have more choices than you can shake a stick at. Fortunately, they can be broken down into two nicely defined categories, making the selection process manageable. The two are permanent or disposable and flat or pleated media (with a handy MERV rating).

Disposable are the most prevalent. Some in the flat media group look like they will stop only particles larger than a golf ball. They have flimsy cardboard frames and a thin, flat mesh you can see through. While they are cheap, don’t waste your money. Your HVAC system and lungs deserve better.

Pleated filters perform better using media you cannot see through. Although



Pleated air filters perform better than flat ones.

Look up, look out when using large equipment

NAEC encourages large equipment operators to look up, look out and follow all safety procedures to stay safe around overhead power lines.

Most large equipment requires a 10-foot clearance from overhead power lines, but cranes and derricks require an even greater distance for safe operation. In such situations, OSHA requires that individuals, their tools and their equipment must stay a minimum 20-foot distance away from power lines.

Whenever working with large equipment, it is important to follow all OSHA regulations. Conduct a site survey to identify the location of overhead power lines, and take measures to prevent incidents with lines. Make sure that you know the maximum height of your machinery’s extensions. Keep in mind that direct contact with a line does not have to be made for an incident to occur. Electrical arcing can occur when in close proximity to power lines.

Always lower extensions while moving large equipment. When possible, use a spotter when near power lines.

If your equipment makes contact with an overhead power line, the safest option is almost always to stay in the cab. Immediately call 911, warn others to stay away and wait for utility crews to de-energize the line.



Always look up for power lines when operating large equipment and use a spotter if possible.

Efficiency Tip of the Month



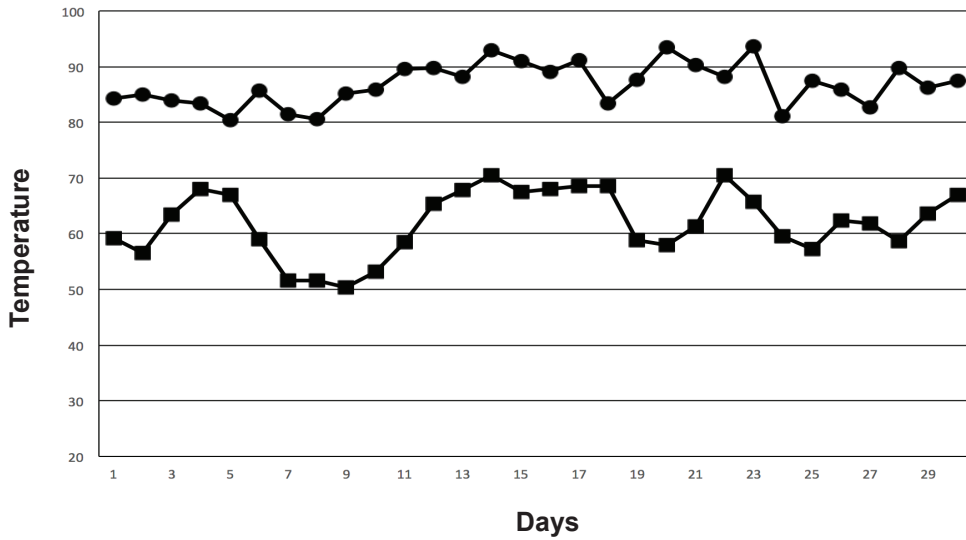
Setting your thermostat to a colder setting than normal when you turn on your air conditioner will not cool your home any faster and could result in excessive cooling and unnecessary expense.

The Department of Energy recommends setting the thermostat at 78 degrees in the summer for the most energy savings, but most people are comfortable between 72 and 75 degrees.

Right-of-Way

West Tree Trim Crews:
Lakeview and Midway areas

Daily Highs & Lows — June 2017



Average Daily High:
86.8 compared to 90.6 in 2016

Average Daily Low:
62 compared to 66.6 in 2016

Total Rainfall Amount:
5.3" compared to 6.08" in 2016

Warmest Day:
June 23, 93.6 degrees at 2 p.m.

Coollest Day:
June 9, 50.3 degrees at 6:30 a.m.

HAPPY LABOR DAY!

Co-op offices will be closed Monday, Sept. 4, for Labor Day. Crews will be on hand in the event of an outage. Please report an outage by calling 870-895-3221, 870-425-2141 or 870-994-2191.

Items for Bid

North Arkansas Electric Cooperative has for sale to the highest bidder the following items. These items may be viewed at the Salem office during regular office hours.

Use the bid form below and send in an envelope marked "Bid" to NAEC, P.O. Box 1000; Salem, AR 72576. All bids must be received by 1 p.m., Friday, Aug. 18, 2017. NAEC reserves the right to refuse any or all bids.

Unit #	Description	Mileage	Bid Amount
8987	2008 Chevrolet Silverado, ½ ton, extended cab, white, V8, auto, 4x4 VIN: 1GCEK19JX8E191989	138,926	
3919	2008 Chevrolet Silverado, ½ ton, extended cab, white, V8, auto, 4x4 VIN: 1GCEK19J58E191866	132,322	
3936	2011 Chevrolet Silverado, ¾ ton, extended cab, white, V8 gas, auto, 4x4 VIN: 1GC2KVCG8BZ335711	155,947	

Name _____

Address _____

City _____ State _____ ZIP Code _____

Phone _____

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they look impervious, air can move through under pressure leaving its airborne cargo trapped.

Remember MERV? That is a rating system that tells you how effective a filter is at trapping particles. Standing for Minimum Efficiency Reporting Value, it's a measure of efficiency. The scale runs from one to 16 (higher is better) and is based on trapping particles 3-10 microns in diameter.

Research shows that residential filters with a MERV rating between seven and 13 are likely to be as effective as true HEPA (high-efficiency particulate arrestance) filters. This class of filter is used in clean room manufacturing and at the extreme end can trap particles much smaller than the diameter of a human hair, as small as 1 micron.

So, should you jump in and grab a supply of high MERV filters? Not without some research. All filters increase resistance to air flow. HVAC systems are designed to operate at a particular pressure and should support MERV ratings of one to four.

A higher MERV value increases resistance, making the HVAC system work harder. It loses efficiency and increases wear on operating components.

So, how do you decide which level of filter to use? If you have your system's operating manual or can grab it online, check for recommendations. Otherwise, our advice is to go with a decent (MERV three to five) pleated filter and check it once a month to see how it is performing. Also check to see if the dust inside abates.

Spend a little more and breathe a lot easier with a regular schedule of air filter replacement. A simple change that pays big dividends.

— Tom Tate/NRECA