CAPITAL
HEATING • COOLING
INDOOR AIR QUALITY

AIR CONDITIONING BUYING GUIDE

7 THINGS TO KNOW BEFORE YOU BUY

LET'S GET STARTED

If you've determined it's time for a new air conditioning system or your equipment is showing signs of failure, there's no better time to buy an air conditioning system, then when you have air conditioning. Waiting for a complete AC failure will leave you stressed out, under the gun to make a decision, and worst of all - out of time to research.

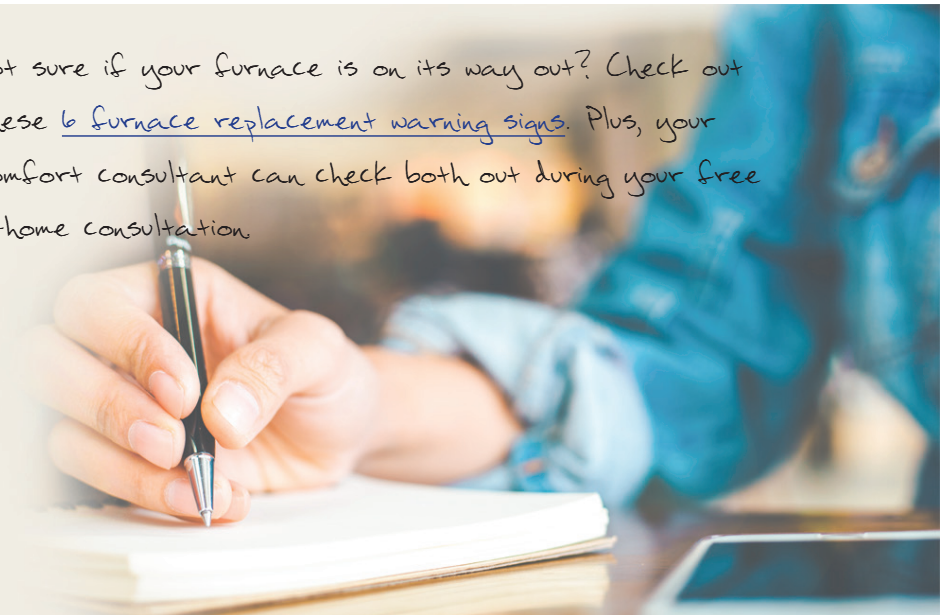
That's why we've designed this super-helpful AC buying guide; to tell you all the important things you should consider before buying a new air conditioning system:

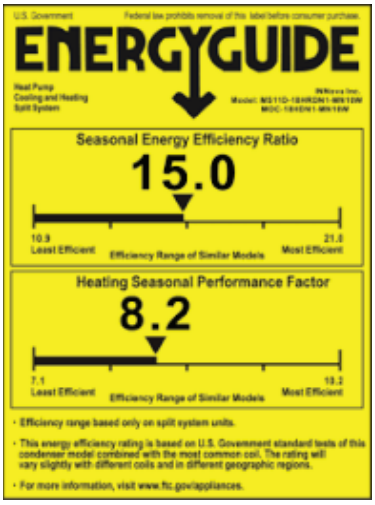
1. REPLACE YOUR FURNACE

Now, don't get your undies in a bundle, this may not be necessary, let us explain. A forced air cooling system consists of three basic parts: an outdoor condenser unit, duct work, and a furnace.

When you replace both the furnace and outdoor condenser unit at the same time, you'll likely get better pricing compared to replacing one now and the other one later. Plus, when the outdoor condenser unit and furnace match, the system operates more efficiently. So, if your furnace is on its way out too, you may consider replacing them together to save time and money.

Not sure if your furnace is on its way out? Check out these 6 furnace replacement warning signs. Plus, your comfort consultant can check both out during your free in-home consultation.





2. CHECK SEER RATINGS

If price and efficiency are top concerns, you'll want to consider SEER ratings. (SEER) Seasonal Energy Efficiency Ratio is basically a rating system that tells you how efficient the air conditioner can operate; the more efficient, the less money it costs to run. The minimum standard SEER ratings range from 14 to 26, with the most common being in the 17 to 20 range for homes in the Midwest.

↑High Efficient

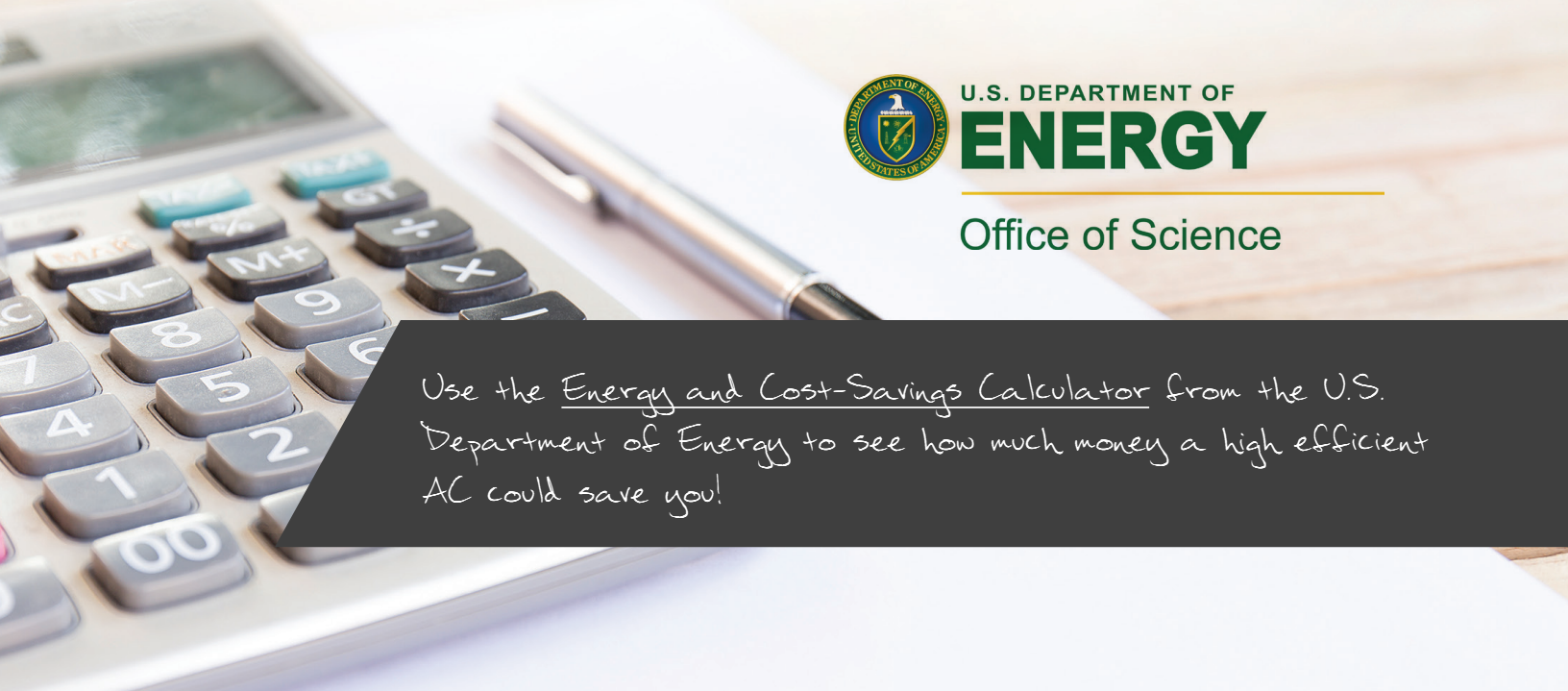
The higher the SEER rating, the more efficient the air conditioning system; the more efficient, the less money it costs to run. Now, high efficient air conditioning systems typically cost more upfront, but quickly pay for themselves with the money you save on monthly energy bills. Try the Energy and Cost-Savings Calculator from the U.S. Department of Energy to see how much money you could save by upgrading to a high efficient cooling system.

Tax credits and manufacturer rebates can also help you save money on a high efficient air conditioning system. Plus, you can feel good about using fewer fossil fuels, which means fewer greenhouse gas emissions!

↓Low Efficient

On the contrary, the lower the SEER rating, the less efficient it will operate. The less efficient it is, the more money it costs to run. Now, air conditioners with a low SEER rating will cost less upfront, but again can quickly drive you bankrupt with high monthly energy bills for the next 12-15 years. Why is this? It's because these units are usually single-stage air conditioners and only run on one speed, which means they're either constantly running or completely off. This on and off cycle means more wear and tear on the equipment, more energy is used, and importantly maintaining a consistent state of comfort is nearly impossible. If you've ever experienced uneven cooling, hot and cold spots, or feeling cold and clammy when the AC is on - it's likely because of a single-stage air conditioner.

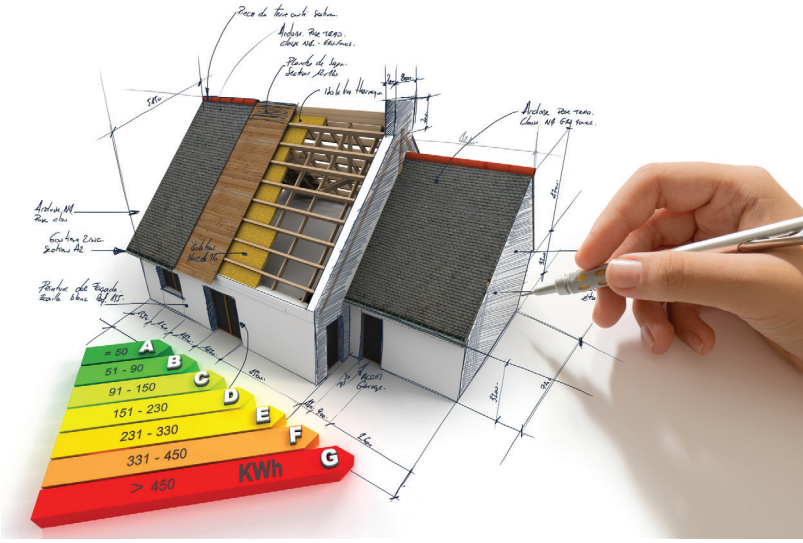
So what's the answer? There's no magic SEER number. Anything over 16 is great. Because if you have an old 8 SEER air conditioning system and replace it with a 16 SEER unit, you could greatly reduce the cost of cooling your home. Here at Capital Heating & Cooling, we use the Energy and Cost-Savings Calculator from the U.S. Department of Energy to help homeowners decide which SEER rating would be ideal for their home and wallet.



U.S. DEPARTMENT OF ENERGY
Office of Science

Use the Energy and Cost-Savings Calculator from the U.S. Department of Energy to see how much money a high efficient AC could save you!

3. SIZE MATTERS



ACCA (Air Conditioning Contractors of America,) Consumer Reports, ANSI (American National Standards Institute,) and Capital Heating & Cooling all agree that the size of your air conditioner impacts both your comfort and your wallet. Air conditioners range in size from 1.5-2 tons; so how do you know what size air conditioner your home needs?

Well, let's start with what NOT to do:

- ⦸ Don't assume the air conditioner you have now is the right size.
- ⦸ Don't allow an HVAC company to recommend a size based on the square footage of your home alone.

All too often, contractors will take a short cut on this because doing it the right way with a Manual J load calculation takes more time.

A Manual J load calculation is necessary:

To be sure of correct sizing and a proper installation, your sales person (or comfort technician as we say) should perform what's known as a "Manual J load calculation" during your in-home consultation. A Manual J load calculation is the national ACCA and ANSI recognized standard used to accurately determine the heating and cooling loads of a home or building, and the recommended capacity of HVAC equipment needed. In other words, the right size air conditioning system for your home.

How a Manual J load calculation works: through a complex series of calculations, the comfort technician is able to analyze all aspects of the thermal characteristics of the walls, floors, ceilings, doors, and windows in your home. In addition, a properly done HVAC load calculation takes into account other factors such as climate, orientation to the sun, envelope tightness, duct leakage, lights, and appliances. ACCA's Manual J load even calculates the amount of heat and humidity that each occupant of the house will add to the interior of the home.

An air conditioner that's too small will...

- ☒ not be able to keep up.
- ☒ not keep you comfortable (because it can't keep up.)
- ☒ constantly run (because it's trying to keep up.)
- ☒ cost you more money to operate (because it's running constantly.)

DOES NOT FIT ALL

An air conditioner that's too big will...

- ☒ cost more to buy.
- ☒ cycle on and off because it cools the home too quickly then shuts off because it thinks its job is done. Then it will turn back on when the temperature drops and the cycle will repeat itself indefinitely.
- ☒ cost more to operate (because it's cycling on and off.)
- ☒ cause unnecessary wear and tear on your entire HVAC system (so you'll likely need to replace your heating and cooling system prematurely.)

In summary

It's imperative to work with a reputable HVAC contractor who takes the time to perform a Manual J load calculation. Be leery of buying from someone who skips this step, provides an estimate over the phone, or provides a proposal based on the size of your existing air conditioner or the square footage of your home alone.

4. RELIABILITY RATINGS

Installing or replacing a central air conditioning system is one of a homeowner's biggest expenses, so you'll want to get it right the first time. A recent survey by Consumer Reports asked nearly 15,000 homeowners how satisfied they are with the central air system they purchased, the cost of repairs, and which parts broke.

Keep in mind, we recommend taking this information with a grain of salt due to the number of variables that could skew this data.

Most & Least Reliable. The survey showed that no brand stood out as being the most reliable, but on the other end of the scale, York and Rheem are among the less reliable makers. Notably, while some brands have consistently topped the unreliable list, Rheem's reliability rating has been in the top tier since 1997 and their warranty claims have always been believed to be among the lowest in the industry. A representative from Design Air, a top Rheem and York distributor located in West Allis, WI commented that "The issue in regards to consumer surveys is that homeowners only know they had a problem, and only know they have a specific brand of air conditioner condensing unit." So, when it comes to ratings it's important to keep in mind that the information can be misleading if not accurately communicated or interpreted. For example, Rheem's reliability rating last year is believed to be primarily due to the failure of the evaporator coil. However, these coils didn't come with the air conditioner - they were a 3rd party part being installed by some contractors in an attempt to save money. But since there is typically no brand name on them and because they're installed on top of the furnace or in the plenum, homeowners don't know or realize the evaporator coil maybe ADP, Benchmark, Summit, Aspen, or some other 3rd party coil.

The issue in this particular case was the formicary corrosion that has been a significant issue in past years and caused the copper in evaporator coils to fail prematurely. While this has not been a big problem in Wisconsin it has been significant in the south and coastal states. Recognizing this, Rheem began phasing out copper coils and began manufacturing aluminum evaporator coils in September of 2013. Aluminum does not react to formicary corrosion like copper does.

Parts that break. By the fifth year of ownership, the evaporator coil is the part most likely to break, with Ruud, Rheem, and York being the brands most susceptible to this problem. Now, keep in mind the coil the contractor chose to install with these air conditioning systems is unknown.

Repair costs. Regardless of brand, when a repair is needed, most of the homeowners polled said they pay out of pocket, meaning they don't have a service contract. Rheem owners paid a median repair cost of $252. Lennox wasn't too far behind, at $236. Somewhat less expensive to repair out of pocket was Carrier, $200, followed by Goodman, $204, and Trane, $219.

BRAND	ESTIMATED BREAKAGE RATE BY THE 5TH YEAR OF OWNERSHIP
Central air conditioners	0% 5% 10% 15% 25%
American Standard	15%
Trane	16%
Bryant	16%
Lennox	17%
Carrier	18%
Amana	18%
Ruud	21%
Goodman	22%
Rheem	24%
York	25%

Source: Consumer Reports National Research Center 2016 Fall Reliability Survey.

5. FORGET THE BRAND NAME

Wait what? I thought we just talked about brand reliability? Well yes, but it's important for homeowners to understand that multiple brand names of air conditioners are made by the exact same manufacturer. That means in many cases there's little to no difference in the actual equipment. In fact, in some cases the differences are so minor that the color or hood ornament is the only difference.

Plus, keep in mind there are some HVAC companies that get kickbacks or just aren't authorized to install certain brands, so they lead the homeowner to the brand that benefits their company the most.

Staying true to the features you want, and not focusing on brand name is the best way to get the air conditioning system that you really need.

6. COST

The cost to have a new air conditioner installed depends on multiple factors including size, efficiency, the number of units, existing duct work, and the caliber of heating and air conditioning installation company. But choosing the wrong installation company can be by far the most expensive part of your new air conditioning system. Why? Because, even the very best cooling system will fail if it's not properly measured and installed - leaving you with the bag of problems to deal with. A proper load calculation and a professional installation requires skilled and certified technicians and sales people.

Another thing to keep in mind when it comes to the cost of your new air conditioning system is anyone can make something cheaper by cutting corners. So, when you get your proposal it's important to understand what's all included with the price and ask if there are any additional charges you should be aware of.

Lastly, a little bargain hunting never hurts, so ask your comfort technician if promotional financing, manufacturer incentives, or utility rebates are available that could save you a few bucks!

Buyer Beware! What to watch out for.

Anyone can make something cheaper by cutting corners, so be sure that the final cost of your new air conditioning system includes everything such as warranties, permits, any duct work modifications, thermostat installation, and removal of your old system. The proposal your comfort technician provides should outline exactly what is included and details any additional fees. View sample proposal.

7. CHOOSING AN AC INSTALLATION COMPANY

Choosing the right HVAC company is critical to your new investment. Here's 5 things to consider when choosing an HVAC company:

1. Licensed & Insured. Ask to see their license and proof of insurance. Without proper insurance and licenses, you're pretty much on your own if there's an accident or failure.

2. Reviews. Learn from others' experiences by reading online reviews on sites like Google, Yelp, and Better Business Bureau. These sites don't allow companies to filter bad reviews - so what you see is likely what you'll get!

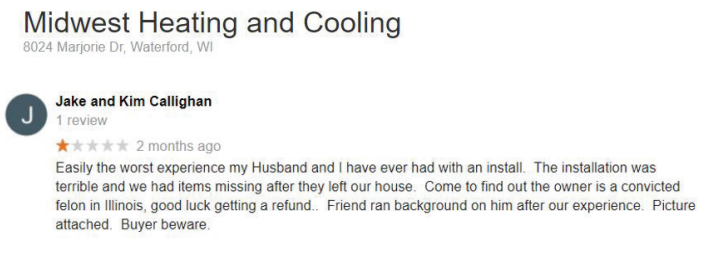
3. Guarantees. After they collect your check, will they stand behind their work in the event of an issue? How do you know? Is it in writing?

4. Warranties. Your air conditioner most likely comes with a manufacturer warranty. But who registers your new equipment to ensure it's covered if you have an issue? Many contractors skip this step, leaving you responsible for registering your own warranty. Choose an HVAC company that takes care of this for you.

5. Research the company. Sadly, in today's world it pays to do a little digging on who you're inviting into your home. How long have they been in business? Do they operate out a garage? Have the technicians been background checked? Drug screened? Are they certified? How do you know for sure?

WHAT'S THEIR REPUTATION?

Ever hear the saying "If I knew then, what I know now?" Well, luckily for us that in today's day and age, a company's reputation is just a few clicks away. With the help of the internet, you can read what real people have to say about a company you may be considering. Now, not everything you read on the internet is always true but, with a little research you should get a feel for what type of company they are.

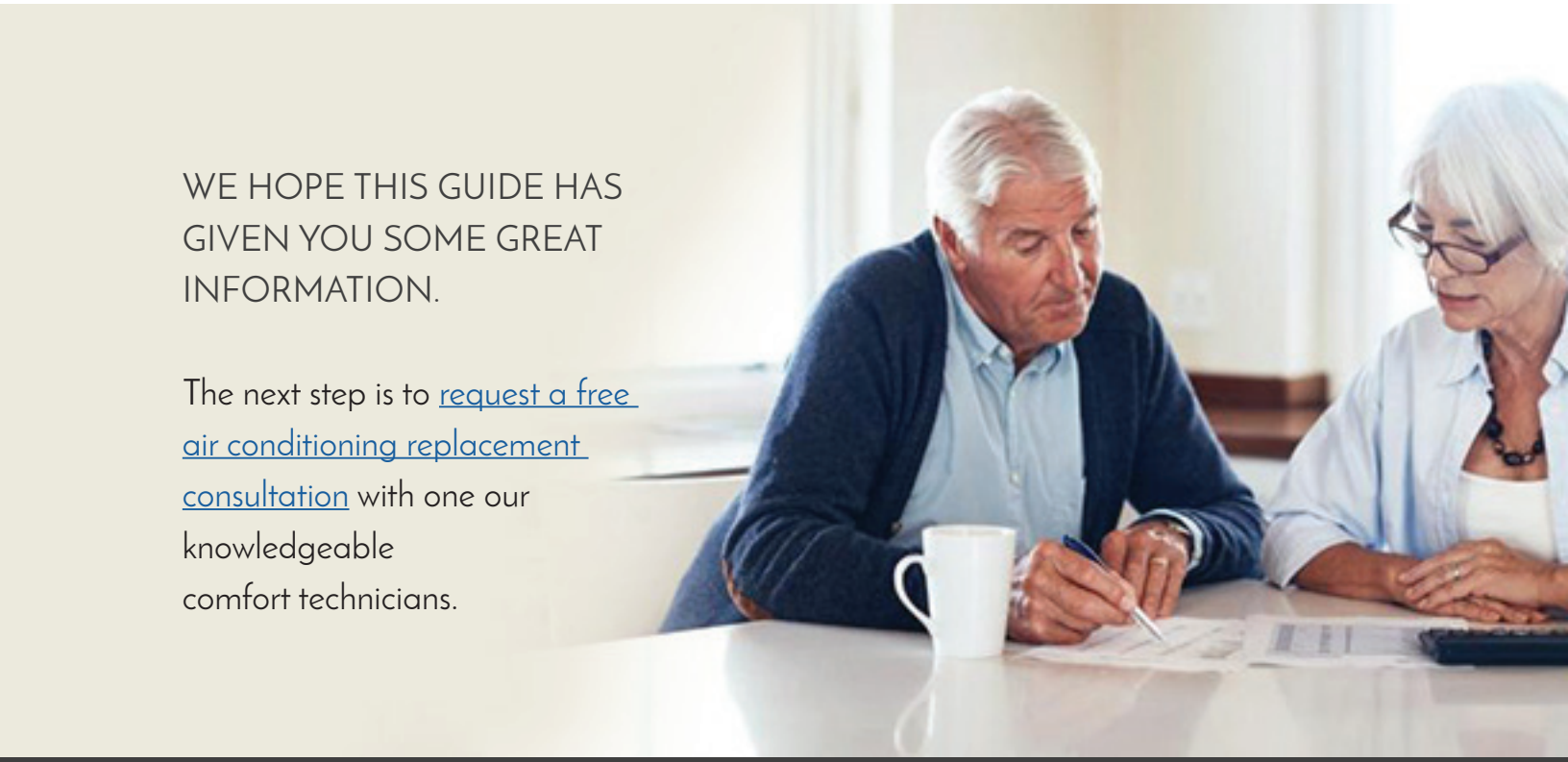


Time to look at reviews from different sources. You can even use community sites like NextDoor to ask your neighbors for suggestions.

NOTES

WE HOPE THIS GUIDE HAS GIVEN YOU SOME GREAT INFORMATION.

The next step is to request a free air conditioning replacement consultation with one our knowledgeable comfort technicians.



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