



TOP

QUESTIONS

— TO ASK YOUR —

HVAC

CONTRACTOR

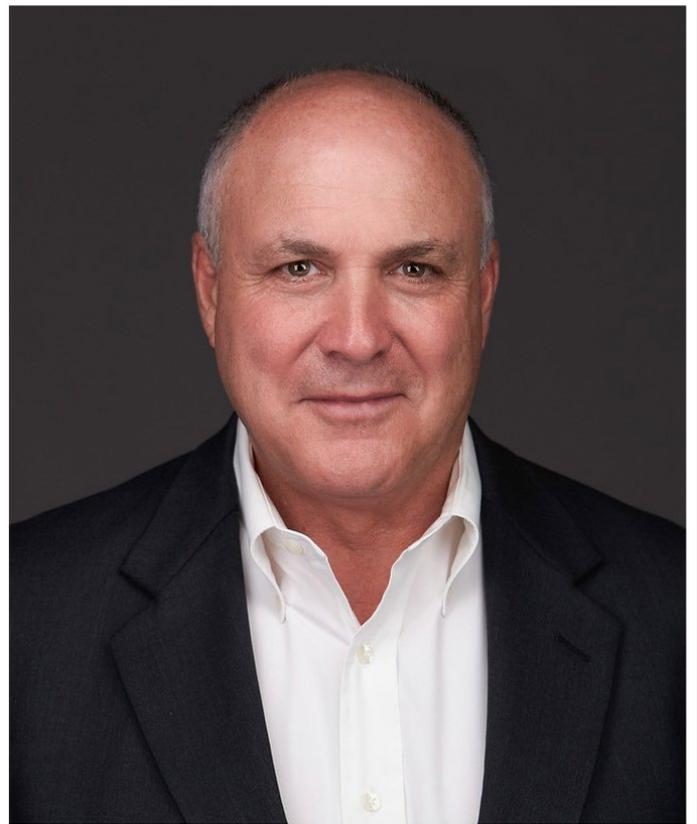
MIKE CAPPuccio

From the Desk of Michael Cappuccio

Good HVAC takes time, effort, and dedication. At N.E.T.R., Inc., my team and I are focused on providing the highest-quality products and service possible. We care about our customers and work hard every day to ensure they have access to affordable heating and cooling options are right for them.

I created this eBook because I've seen first-hand how difficult it can be to get an HVAC job done right. I want to share with you actionable advice and tips on how to find good HVAC contractors, how to compare apples to apples when it comes to products and services, and how to get more for your money.

Keep reading to learn how to make sure your next HVAC job is a successful one.



Sincerely,

Michael Cappuccio

Michael Cappuccio

Founder and President of N.E.T.R., Inc.

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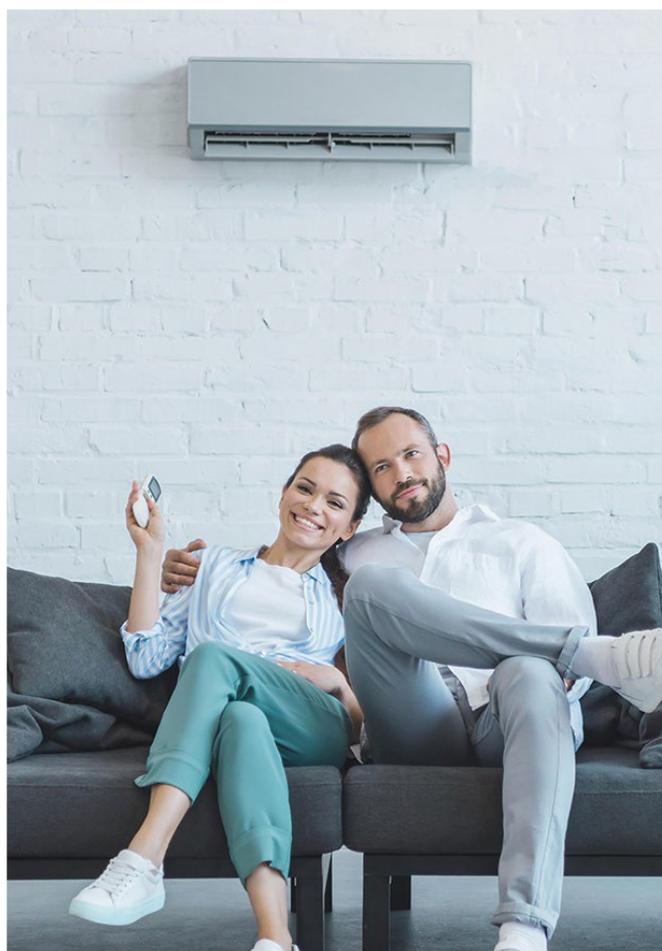
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Introduction

The success of an HVAC project depends on a multitude of factors, most of which boil down to the contractor you choose to work with. Other factors include what equipment you select and if it's the right fit for your needs, maintaining good communication with your contractor during the project, and asking the right questions.

Purchasing low-quality equipment or hiring a contractor that doesn't understand how to properly do the work can result in hundreds or thousands of dollars wasted and potentially even permanent damage to your home or other property. It's critical that you take steps to create a smooth transaction before you sign the dotted line.

This guide will cover everything you need to know to ensure the success of your next HVAC project, including how to vet and choose the right contractor and how to get the maximum value for your money.

Chapter 1: How to Find the Right HVAC Products



The first part of the journey as a homeowner or a business owner is to find the right HVAC products for your property.

Questions to ask include:

- What fits your home?
- How do you use your home?
- How do you use your business?
- How many people live in your home?
- How old is your home?

- Do you plan on staying in your home for a long period of time?
Where are the hot spots in your home?
- Where are the cold spots in your home?
- What types of fuel do you have in your home that you can use to heat or cool your home?
- Do you have solar in your home?
- Do you have oil, gas, electric, propane, wood stoves?
- What type of temperature control do you want?
- Do you want to be able to control your system from remote locations?



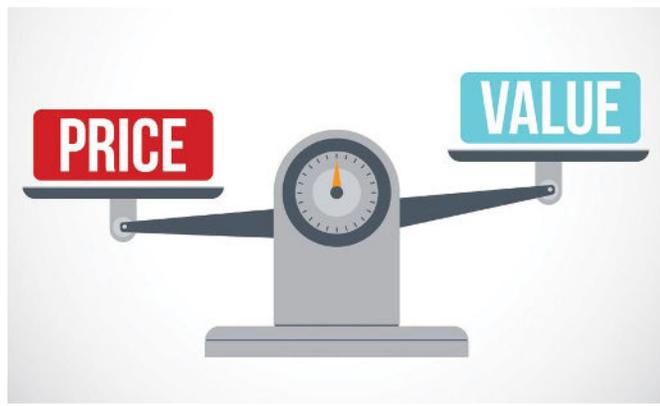
The features of your property and how you use it is often what will tell you what fits the property and what will work best.

Then, take that and break it down into a list of what products might work for the property for what you're trying to accomplish. For example, you may use a fully ducted system if you currently have duct work. Or if you don't have duct work, you may put in new duct work. If you have hot water heat with radiators or baseboard heat and want to add air conditioning, you may want to opt for a ductless system that doesn't require ducts.

Ultimately, it depends on what you're trying to accomplish in your home or business. That's how you and your HVAC professional will work together to determine what products fit your property.



Chapter 2: How to Find the Right HVAC Contractor



HVAC isn't a do-it-yourself project. When you start to consider that, it's important to find a quality contractor who can do the work for you.

A lot of people ask how to go about finding a good contractor, but they're often looking for the best price and not necessarily the best company for the job. There is much more to consider than price when looking for a good contractor.

The average DIY'er doesn't have a good understanding of complex HVAC equipment and may make critical mistakes when attempting to install equipment they purchased themselves. Another issue to keep in mind with DIY is that if there are any issues after setup or you need help learning how to use your system, there's no one to call.



Vetting Your Contractor

Quick Reference Checklist

- Review the contractor's website in detail
- Check online reviews from credible sources like Yelp, Google, and the Better Business Bureau (BBB)
- Ask for references
- Look at how the company presents their business
- Check that they have appropriate insurance coverage
- Ask about equipment and service warranties
- Identify potential specialties
- Ask how employees are trained
- Review industry affiliations
- Ask how they'll protect your home from damage
- Check their resources
- Identify mistake prevention strategies
- Notice how the company treats you when you're asking questions
- Ask how your financial transaction will be protected
- Check if they are a licensed contractor

Choosing the right contractor can be a very frustrating experience sometimes, but it's a lot easier to follow if you have a checklist that you can look at when obtaining different quotes. You need to know what you're looking for, and many people have customized lists based on what they want.

However, if you're just looking for the lowest price and you don't see any value in any of the other things that contractors are showing you, then your checklist may be lacking. If it's just the cheapest price that you're looking for, you're not treating yourself properly at that point.

When you start looking at contractors who you think may be good contractors, do some homework. Here are several things to include in your checklist to vet the authenticity of your contractor, the quality of their work, and their ability to do the job you need them to do.

Review Their Website

First, ask the if the contractor you're considering has website. Most HVAC contractors will have a website and if they don't, that's an immediate red flag. Check that their physical address is listed on the website -- if the contractor has a P.O. box, that's another red flag.

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Ask some questions like:

- What does the contractor's website look like? Sometimes a contractor will say they do things that aren't on their website. If they're good at what they claim to do, this should be featured prominently on the site.
- Do they have photos of their work on their website? Is there a gallery? The website should feature high-quality photos of real work they have done for customers.
- Are there any case studies on their website? You'll want to know about the jobs they've recently completed and have completed in the past.
- When was the last time a blog was updated? What do they blog about? A blog is a great way for an HVAC company to provide valuable education to their customers and if it's something a contractor lacks, it could be a sign that they're not invested in educating the community.
- Do you see anything that they're doing with their employees and how they treat their employees? Look for a rich About Us page, staff awards, or other indicators that the company values their team members.
- Do they give back to the community? Look for a contractor that has a strong mission statement about what they believe in and what they do to give back to the community.

While the above is certainly not a comprehensive list, it's a good start when reviewing a contractor's website. If information is missing or inconsistent, be wary. However, if their website includes an abundance of information and media, that's usually a good indication that you're working with a good contractor.

Check Online Reviews & BBB Ratings

Another way to vet potential contractors is to check their online reviews and Better Business Bureau ratings.

Better Business Bureau



The BBB, or the Better Business Bureau, is a very credible source that checks if various businesses are accredited. They also work as a liaison between the contractor and the consumer to help resolve any issues that arise. All of that is visible online, so buyers and clients can see how contractors rectified a problem.

Make sure the contractor you choose is accredited with the Better Business Bureau -- this tells you that the contractor pays a monthly fee to remain highly rated by the BBB. If a contractor has been accredited by the Better Business Bureau, this means the BBB has determined that they meet certain accreditation standards. This includes adhering to the BBB Code of Business Practices and a commitment to work towards resolving customer complaints in good faith.

If you check an HVAC contractor's BBB listing and see that they didn't rectify customer complaints or didn't even respond to the problem, this might indicate a potential problem.

If a contractor does have some complaints but addressed them in a timely manner and worked hard to resolve the matter to the customer's satisfaction, this can be an indicator that a company is genuine. Not every contractor is perfect and it's unrealistic to expect them to be. However, how they handle complaints can indicate credibility.



Online Reviews

There are multiple ways to get online reviews for choosing a good contractor. You can look at Facebook, Yelp, and Google reviews. Here, you'll also want to consider negative reviews and look at how the company responded to that review. If there's no response to a negative review, it's a red flag you want to be aware of.

Be wary of companies that have one-star ratings across multiple review platforms -- that's a pretty big red flag that something isn't right. You should look for a company that has at least 15 to 20 reviews, if not more, with each different review site. If you're looking at a company that has one or two reviews on each site, that may be an indicator that they haven't done a lot of work, that they don't ask their customers for reviews, or they only do "weekend work."

When you're looking at the reviews, another potential issue to check is whether some of those negative reviews are like each other or are pointing out one specific problem. So, if you have 10 negative reviews and every one of them says that work was very messy, you could consider that a trustworthy negative recommendation.

If it's one issue all the time, that may also indicate that there could be a lack of training there, because they're not be trained properly, and the same problem continues to happen. If some negative reviews feature small complaints here and there that are different from one another, this is likely to mean that these are just one-off issues that are unlikely to be indicative of the entire company.

To get a true idea of what may really be going on with an HVAC company, be sure to read as many reviews as possible across multiple platforms. Keep in mind as you're looking for a contractor when the last review was published. Are the reviews current or are they from months or even over a year ago? Read several reviews to identify any red flags brought up by multiple reviewers.

Ask for References

It's also important to check the references of contractors to see what kind of work they've done for other customers. Ask for a good reference, as well as a reference from a customer they've had a problem with and how that problem was rectified with the customer.

Sometimes, a reference that where the company has worked through an issue or worked through a problem with the customer ends up being a good reference because now, it lets the potential customer know how the company resolves issues.

Companies with good reputation will have good jobs every single day. When HVAC companies are fair with people and give them what they want, that's really all they're looking for. Use a contractor's references to help determine what type of reputation the company has within your community and if they're delivering on their promises. Ask if you can go see a completed job -- most good contractors have relationships with their clients and this can usually be done fairly easily.

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TO: _____

Dear _____ Date _____

If we can be of help in the future, please call us! We're always available to discuss your needs. Would you help us by taking a minute to answer the following questions? Your comments are valuable and will help us serve you better in the future Thank You.

WERE WE RESPONSIVE TO YOUR NEEDS?

Before the job	<input type="checkbox"/> Yes	<input type="checkbox"/> No
During the job	<input type="checkbox"/> Yes	<input type="checkbox"/> No
After the job	<input type="checkbox"/> Yes	<input type="checkbox"/> No

WERE WE DO EVERYTHING WE AGREED TO DO?

Yes No

WERE YOU SATISFIED WITH THE PRICE AND VALUE OF THE JOB WE DID?

Yes No

WERE YOU PLEASED WITH THE QUALITY OF OUR WORK?

Yes No

WAS THE JOB...

started on time?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
completed on time?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Evaluate How the Company Presents Itself

Another important part of vetting potential HVAC contractors is evaluating how each company presents itself to their customers. Look at their vehicles and office to help determine which contractors are legit and which might not be.

Their Vehicles

The vehicle that they pull up to your house in tells you a lot. It tells you a lot about the business and the employee operating the vehicle.

For example, if someone pulls up to your house in a new truck that looks clean and neat, that may indicate that the company cares about their fleet of trucks and how they present themselves to the community.

On the other hand, if someone pulls up in an old beat up truck and there are no logos, it hasn't been washed, and the fenders or bumpers are falling off, that can indicate that it may not be the contractor you want to hire for your project. They might be the cheapest, but now you're seeing why they are able to offer such a low price.



Their Offices

You should also scope out the contractor's office or place of business. Does the contractor have a brick and mortar office where they work? Or do they just work out of their house? Do they work out of their garage? This is often the case for "weekend warriors" who work HVAC on the side. These types of contractors often pay to be listed online in lead generator sites.

An HVAC company without an actual office, or even a segment of their home converted into an office, may be an indicator that they aren't professional enough to get the job done.

Sometimes contractors are exceptionally good contractors, but they can be poor businesspeople. Many of them are not good with paperwork, so be sure to check if the company you're considering has office staff that handle paperwork, billing, and other red tape. Most small companies have great technicians but are poor business people. When the accuracy of your warranty and rebates matters, this can become an issue.

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INSURER(S) AFFORDING COVERAGE			
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Review Insurance Coverage

Good contractors have good insurance policies. What should you expect from a contractor?

Does the contractor have the right types of insurance?

The first type of insurance an HVAC contractor should have is liability insurance. If they don't and they damage your home in some way, you will have to absorb the cost of those damages if they don't have insurance.

Does the contractor have enough coverage?

You'll also want to make that the contractor you select has enough insurance coverage. For example, some contractors have a million dollars' worth of liability insurance.

However, many homes are worth more than a million dollars today, so it's important to make sure the contractor you choose has more liability insurance than that if your home is worth more.

For example, say an HVAC contractor burns down a \$2 or \$3 million home but only has \$1 million worth of liability insurance. Where's the other \$2 million coming from? Usually, that comes out of the homeowner's insurance policy. Then, when you pay out a \$2 million loss on your policy, you typically have to buy homeowners insurance again. This is often expensive when you've had a loss that big.



Is the insurance policy active?

Most contractors can produce a certificate of a liability insurance very easily. That's a piece of paper that anyone could type up and quickly provide to you, showing that the company has \$5 million worth of liability insurance. However, if the policy isn't paid for and it's not active, they don't have the coverage. Although this is unethical, it tends to be common practice for illegitimate HVAC contractors.

It's important to call the insurance company to confirm the policy is active, paid, and up to date. For example, if it's May 1st, you'll want to make sure that the insurance has been paid through May 30th. If the contractor has paid it through May 30th in that case, then you're covered.

However, if the insurance is only paid through May 15th and your project extends through the end of May, you may not be covered for the last two weeks of work. Take the time to contact the insurance company and ensure the dates of insurance coverage coincide with when the work will be done.



Does the contractor have workers' compensation insurance?

It's critical for HVAC contractors to have workers' comp coverage. This type of insurance covers the injuries of employees that come onto your property who get hurt working on the job. If a contractor doesn't have workers' comp and is injured during your project, your homeowner's policy could be picking up the bill.

Sole proprietors or very small HVAC contractors do not have workers' compensation because it's not required for businesses that are so small. If you work with a sole proprietor or small company and a contractor becomes injured in your home, you could be sued for medical expenses, lost wages, and other damages.

Do subcontractors have insurance?

You should also make sure if the company you hire is working with subcontractors that you also have the certificates of insurance for them. Even if the contractor has adequate insurance coverage, the subcontractors may not be covered under that insurance. It's important to make sure they're covered under their own insurance. Make sure the contractor's main policy covers their subcontractors if they get hurt at your home and that they have subrogation insurance.

Ask About Warranties

Another thing to consider is how long a contractor warranties the work they do. The warranty part of the contract can be difficult because this is where the contractor holds some of the liability of the workmanship that they do, and some of that is on the equipment that they buy.

Right out of the gate, a contractor should have a one-year labor warranty and a one-year parts warranty. From there, warranties can extend to five years on material, ten years, etc.

More expensive pieces of equipment with high SEER ratings often have better parts warranties. For example, some equipment has a 12-year parts and comprehensive warranty.

Less expensive pieces of equipment with lower ratings might come with a one-year labor warranty from the manufacturer, leaving you without coverage after a year, even if something does go wrong.

Most good contractors also offer extended labor warranties. For example, you can purchase additional labor warranties up to 12 years to match the 12-year parts warranty, allowing you to have everything covered for 12 years. If anything breaks over the 12-year period, it's covered under the extended warranty.



Questions to Ask About Warranties

- What will the contract outline as far as the warranty goes?
- What is the labor warranty?
- What is the workmanship warranty?
- What happens if in the event of a storm or other unexpected act of God?
- Does the contractor register my warranties for me with the manufacturer?



This is where a lot of warranties get very sticky. It's critical that what is and isn't

covered under the warranty is spelled out precisely. It's also important to make sure everything gets registered, even if your contractor doesn't do it for you.

If you don't register your equipment with the manufacturers, you may not be able to get those parts covered under the warranty should something happen. However, ideally your contractor will take care of the warranty cards for you and provide you with the final confirmation paperwork.

You should also discuss how your HVAC contractor will track the warranty and where the records will be kept. Make sure that you can still have your warranty honored if the company goes out of business. Typically, manufacturers will honor a warranty if the equipment has been registered, even if the original contractor is no longer available.

Check How Employees Are Trained

Before deciding to hire an HVAC contractor, you should look at their training programs. Most good contractors that specialize in certain areas have robust training programs and certain work processes.

Questions to Ask About Training

- What does your training program look like? May I get a copy of it?
- How do you train new employees?
- Do existing employees get refresher courses?
- What type of ongoing training do you offer employees?
- When do employees attend training?
- How often do employees attend training?
- Can you show me certificates of training completion?

Make sure the contractor you choose makes the effort to provide new and existing employees with comprehensive training to ensure they have the ability to do the work properly and reduce the occurrence of mistakes, injuries, broken equipment, etc.



Identify Their Specialties

If you're hiring a contractor for a specific job, it's important to verify that they really have expertise in the specific area you're hiring them for, and that they're not just sort of a general contractor.

There are many contractors that do plumbing, carpentry, HVAC, electrical, garbage disposal cleaning, and more. Sometimes, it's possible to hire one contractor and one contractor can do it all. Some contractors have teams that work in different areas, and each team has a specific role.

When you're considering working with a specialty contractor, take another look at their work, look at the website, and go back and look at the reviews again. Ideally, their website will feature images of work or certain types of equipment that they specialize in.



If it's a plumber that does carpentry, HVAC and electrical, and all you're seeing is plumbing reviews, that may indicate that they really don't do a lot of the work they're claiming to be able to do.

Specialty contractors often have a third-party verification process, too, where they might have a manufacturer that certifies the work they do with certain equipment.

Most contractors that specialize in certain types of work are licensed in those trades. Example, HVAC contractors will have an HVAC license. Plumbers will have a plumbing license. If an HVAC contractor is doing plumbing without a plumbing license or gas without a gas license, that could be a problem. Ask to see any certifications that a contractor claims to have to verify their validity.

Be aware that some contractors will use subcontractors that do specialize in certain areas that the contractor does not. For example, electric work is a specialty. Good HVAC contractors usually bring an electrician with them. However, some HVAC contractors will do their own electrical work without pulling a permit without meeting other necessary requirements that could be dangerous for your home. Furthermore, if you are looking to sell your home, not having pulled the permits originally may interfere with the sale.

Make sure if you're hiring a specialty contractor to do a certain type of work that the contractor can prove that they do, in fact, specialize in the work.

Review Affiliations

You'll also want to review any affiliations they may have with associations, such as building departments, building trades, building companies, etc. For example, a quality HVAC contractor might be affiliated with the Air Conditioning Contractors of America or local HVAC associations. Most affiliated associations keep HVAC contractors up-to-date on market trends and new training techniques. Be wary of contractors who do not appear to be affiliated with any reputable or well-known associations.

Be wary of contractors who sign up for HomeAdvisor, an online service where homeowners simply enter their zip code and the type of work they're looking to have done. Then, contractors race to be the first to call the homeowner back. Often, these contractors aren't reputable or able to do quality work. They're "weekend

warriors" who tend to work out of their garages and only do HVAC work on the side for extra money. A good contractor doesn't need to use these types of online services.

They have a good word-of-mouth reputation and smart marketing strategies.

Ask How They'll Protect Your Home

Another critical issue to address is how a contractor will protect your property while working on your project. Ask how the contractor will treat your property, if they'll move your furniture, cover your floors, and if they'll clean up after themselves.

Get an idea of what an average day might look like during your project. Will the same employees be coming to your property? You should also ask about how the contractor will seal holes made in your walls to protect from water damage, rodents, and insects.



Ask About Permits

Having the appropriate permits needed for the job is critical to its success. Ask contractors you're interviewing if they pull the necessary permits. Some towns and cities that have close proximities from home to home are strict about variances and property lines.

Do they check with city hall on noise ordinances or will you need a plot plan? Are they within your property lines with their equipment? Is the work they'll be doing within code? Will it create sound issues for the neighbor next door?

Typically, a contractor should pull permits on their customers' behalf. If a contractor asks you to go get the permits, that's an indication that they may not be a reputable company.

Check Contractor Resources

Your contractor should be a good source of information if you have questions about your project.

Ask your contractor for copies of things like their installation or training manuals, or websites they recommend like the Air Conditioning Contractors of America website. Be aware that while doing your own research is key, there are many resources that offer conflicting information and purport HVAC myths that simply aren't true, like closing vents in one room will help you save energy.

Your best resource is a good contractor that you can work with. If the HVAC company you're considering hiring does not have a wide variety of resources that you can explore to get a better idea of their work, this can be a significant red flag. Be sure to work with a contractor who can happily answer your questions or point you to additional resources without trouble.

That said, keep in mind that good HVAC contractors tend to be quite busy throughout the day. Ask the contractor what you can expect in regard to response times to your emails or phone calls. Ask who else may be available or if there are other team members or managers you can speak with if your contractor is not able to respond to an urgent question or request. Good communication will help your HVAC project to go as smoothly as possible.

Identify Potential Mistakes and Look for Prevention Tactics

When it comes to HVAC, the most common mistake made by inexperienced contractors is the sizing and placement of a system that is either too big or too small. Most people think that the more heat or air conditioning they have, the better off they are, because it will cool or heat their property faster and keep it that way longer.

However, systems that are too large can cause problems. It will often run and shut off without removing humidity from the home. A system that is too small will continue running without heating or cooling your property adequately, driving your utility bills up exponentially.

Here are some other common HVAC mistakes that low-quality contractors make:

Using Too Much Flex Ductwork

Often, contractors will use flex ducts instead of metal ductwork in the home because flex duct is quick and easy to install, and it's cheap. Metal duct work is more expensive and takes longer to install, but air flows through metal better -- it doesn't have to go around bends and things that are hard to push through. Flex ducts are fine to use in difficult areas, but ideally should be limited to a 6 ft run.

Leaky Ductwork

Ductwork that has not been installed or put sealed properly when put together can be leaky, causing air

to flow out cracks or crevices in the ducts, wasting money. Many contractors will cut costs by using flex ducts. Ask your contractor how much flex duct will be used for your project and make sure the length of flex to be used on the job is indicated in your contract.

Improperly Sized Return Ductwork

When return ductwork is too small, it won't run properly. If anything, it's better for return ductwork to be too large than too small. Ask the contractor what size system they recommend and how they calculate the size of the system you need. Make sure you and the contractor decide on a good duct design prior to starting the project.



A Poor Understanding of Combustion Safety

Poor quality contractors often don't understand combustion safety when putting furnaces in with heating and air conditioning, or how to filter residual gases out of the house. They may not understand the proper codes associated with installing new furnaces for proper vent clearance, etc.



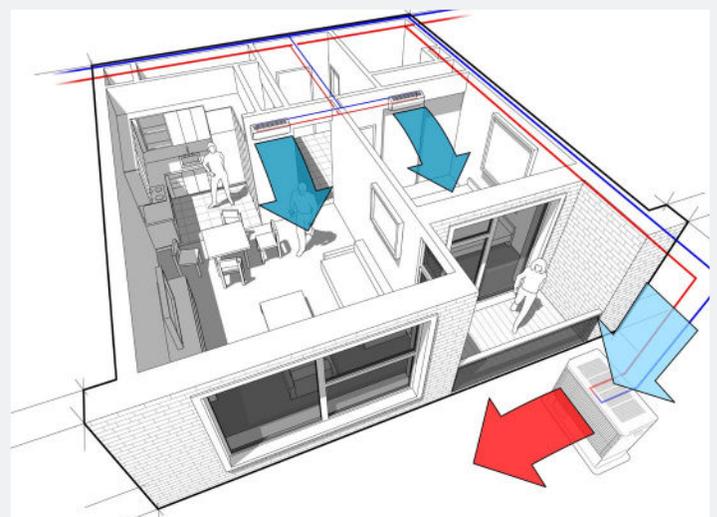
A Lack of Focus on Total Home Airflow

Many contractors will focus on the piece of equipment they're installing – say the furnace or air conditioner. They don't focus on how the air is going to get moved through the equipment into the home. This can result in poor ventilation and lower indoor air quality. Often, this is where improper performance comes in because they ignore other key details of what needs to be done.



They forget the V in the HVAC, which is the ventilation. They often don't vent the home properly; they don't get the gases out or bring fresh air in. A lot of times this happens because they skip the math or don't look at it. Good HVAC requires a lot of math, such as manual J load calculations, manual D calculations for duct design, calculations for wire length, where the most efficient placement of the unit should be, etc.

For example, say a contractor places an outdoor unit 300 feet away from an indoor unit, with all the pipe buried underground. The system is not designed to be run in that manner. In cases like these, property owners struggle with inconsistent temperatures and soaring utility bills.

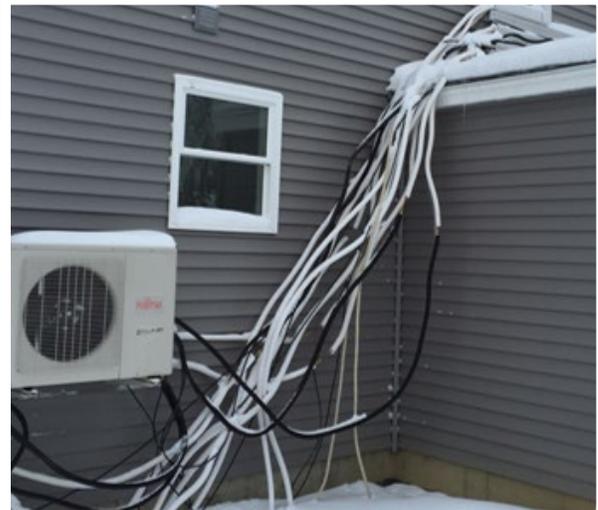


A good contractor is really going to look at your duct work closely and let you know if your duct work is improperly sized or inefficient and costing you more to run than it should. For example, if you want to add air conditioning to your furnace, the ducts are sized for heating and are unlikely to work properly. They are too small, poorly insulated, and tend to drip and sweat in humid conditions.

Examples of Low-Quality HVAC Work

Review photographs of each company's completed work. Look for messy wires, exposed connections, and other indicators of shoddy craftsmanship.

Here are some examples of poor installation techniques:



And for comparison, some images of good-quality, tight installations that look good on the outside and function more efficiently on the inside:

Pay Attention to How the Company Treats You as an Inquiring Potential Customer

Quality HVAC work can be costly. Even the cheaper bids are usually not considered pocket change, so you want to make sure you're giving your money to a contractor or company that is willing to answer your questions and get you the information needed to make a decision.



Here are some things to think about when speaking with potential contractors:

- How do they respond to your questions? Do they seem eager to answer them or inconvenienced?
- If you called the contractor, did they call you back the same day or in the same timeframe?
- If you emailed the contractor, how long did it take to get back to you?
- How much time are they willing to spend answering your questions?
- Are they willing to sit down with you in person and go over details?

Set some expectations from the get-go about how each contractor handles inquiries, support tickets, and other forms of communication. Ask what you should expect as a general response time and when to be looking for an update from your contractor.

For example, if a contractor is working throughout the day, they may not be able to answer texts or emails until later that evening. Know in advance what to expect from your communication with your contractor and ensure that it's framework you're comfortable with.

A big red flag is a contractor that doesn't get back to you via phone, text, or email in several days or a week. This tells you that the contractor may not be legitimate, or they may be too busy to take on your project.

Trust is a significant factor when working with a quality HVAC contractor. Make sure you select a contractor or company that you like and feel good about trusting with your money and your home. That type of relationship takes time to build, and your contractor should be willing to take the time to look at the project, understand the project, and understand your needs before making a single recommendation.

How to Protect Your Financial Transaction

It's also important to look at how you can protect your financial transaction. If a contractor is asking for 50% payment upfront before they start the job, and they only take cash, that is a significant sign that something may not be right with that contractor or company.

Ask your contractor if they accept debit or credit cards. Even with an upfront deposit, this gives you some protection with your credit card company too. For example, if the contractor doesn't show or does shoddy work, you can potentially do a chargeback with your credit card company.

If a contractor asks for an unreasonable upfront deposit, such as 75% or even 100%, that's one of the biggest red flags you'll encounter in the industry and that's not a contractor you want to work with for your project. You should also be wary of contractors who ask for the project to be paid in full prior to completion.



Chapter 3: Common HVAC Myths

Before getting started with an HVAC project, it's important to understand and dispel the most common myths in the industry about hiring a contractor.

Myth #1: The Labor Markup Is Always a Rip-Off

Many people feel like the construction industry is into marking up labor exponentially to make more money. Sometimes consumers know what the material costs, and they think, "Wow, the material costs \$300 and they're charging \$1,000 to put it in, so this is a rip-off."

Contractors do, unfortunately, take advantage of people. That happens every day and gives good contractors a bad name. But if a consumer understands the cost of something, then they should also understand the cost of what it costs to run a business along with that.

Most homeowners don't understand the cost of running an HVAC company. There are many overhead expenses that go into a calculation of labor costs, such as insurance, employee pay, building utilities, training, etc. Ask your contractor for a detailed breakdown of your contract and to explain their overhead and construction management fees and how those fit into the contract.

If a contractor has inflated labor costs and can't produce that breakdown, you could consider that a red flag. However, if a contractor can itemize exactly what is going into that quote, you can have a better understanding that it's not all profit and many of the costs are associated with materials for the job and overhead costs.





Myth #2: You Can Save More Money If You DIY

Another big myth in the HVAC industry is that you can save more money by doing it yourself.

While this may work for some projects, DIY HVAC often ends up resulting in more problems, either with equipment breakage, inefficient heating and cooling, home damage, and even injury or death.

Most consumers who attempt the DIY route first usually figure out right away that they've gotten themselves into more than they could tackle. HVAC projects typically require a lot of special tools and training that homeowners don't have, and a heating and air conditioning system is something to have a professional install.

Myth #3: Anyone Can Get an HVAC Job

Another myth is that anyone can get a job in the HVAC industry. People assume that individuals who work in construction do so because they can't work anywhere else. However, there are many successful contractors that do well for themselves and could work in any industry they wanted to, but they are passionate about the work they do now.

A lot of what is required of an HVAC contractor is incredibly talented work and superior craftsmanship. When you see a good contractor do good work, it's like a picture painted by an artist. Art sells for a lot of money because they're beautiful. You can consider good contracting work like a piece of art, too, and when you watch a good contractor work, you'll see that they truly care about what they're doing.



Chapter 4: Questions to Ask Your HVAC Contractor

What should you ask when you first meet with your contractor? Here's a quick guide:

- How long have you been working in the HVAC industry?
- How long have you been working for this specific company?
- Do you handle the paperwork for my project or does someone else?
- Who will complete my warranty cards and send them to the manufacturers?
- Have you been background checked? When was the background check done? May I see the report?
- When will you start working on my project?
- How many employees will be coming to my house?
- What days of the week do you work?
- What hours do you typically work? What times will you be at my property doing work?
- Do you have enough flexibility in your work schedule to complete construction when it is convenient for me, such as on a weekend?
- Do you have any other jobs that you are currently doing right now? Do you expect they will interfere with my project at any point?
- Do you provide the necessary calculations for the job you'll be doing in on my property?
- How do I know the system I'm purchasing is sized accurately for my property?
- What equipment brands do you sell? Can you provide me any information about the manufacturers of the equipment?
- What types of warranties do you offer?
- How do you ensure that the job is being done to code? Can you show me how that's done?
- How will you protect my home during the project? Will you be moving my furniture, or should I move it before you arrive?

- Do you have a safety manual your employees adhere to? May I see it?
- What safety precautions will you take while working on my property?
- What should I expect after the completion of my job? What does the close-out process look like?
- How do you ensure all equipment has been installed to the manufacturer's specifications?
- Is third-party verification an option? What does that process look like?
- How do you handle manufacturer rebates?
- How do you handle utility rebates?
- Do you offer financing options?
- How do you ensure Energy Star certifications?
- Will there be a manager assigned to my project?
- How long do projects usually take?
- How will you seal any holes made in my home after the project is completed?
- How do you ensure condensation drain safety?
- What should I expect from my warranty?
- Do you have a COVID-19 plan in place and if so, what is it?
- Do you have Personal Protective Equipment (PPE) like masks and gloves?
- Do you have a safety preparedness plan for if someone on the job site contracts the Coronavirus?
- What is your decontamination process for equipment, tools, and individuals coming into my home?



Chapter 5: Price Comparison

When you're considering choosing between a few different contractors, the price quotes for each are a significant deciding factor. But should you just be looking for the lowest price quote or maybe the highest price quote if you want top quality, or should price not even enter into it in terms of how you choose a contractor?

A great way to start is to get three quotes from three different contractors. Think about what you're looking for in those three quotes. If you're looking for just the lowest price, you're doing yourself a dissatisfaction right out of the gate. Any contractor can offer the cheapest price, that's easy to do by simply taking things out of the job and cutting corners. However, most people want things done properly and sometimes that doesn't always doesn't come with the cheapest price. Sometimes, it doesn't come with the highest price either. Here's what to keep in mind when comparing prices between contractors.

Compare Apples to Apples

It's easy to look at a \$5,000 quote and a \$4,000 quote and immediately think of choosing the lower-priced option. It's important to do your homework and understand what you're paying for or what you're getting with that.

A simple way to do this is to create a three-column grid to compare three different contractors. Include as many rows as you have questions, and in the boxes under each contractor, you can check "yes," or "no," or put notes like "very good" or "very bad."



This allows you to make sure that you're comparing apples to apples when it comes to looking at different prices – often, a higher price includes better warranties and more professional service. The cheapest job usually comes with the cheapest equipment with the lowest energy efficiency ratios that cost more to operate in your home. Typically, higher efficiency equipment pays for itself over time. Ask your contractor to go over with you possible operating costs and how long after ownership can you expect to begin saving money. Most AHRI certificates show seasonal costs.

For example, with air conditioning systems, there's what's called a SEER rating, or the Season Energy Efficiency Ratio. Essentially, this is how much energy the air conditioning system is going to use. If a contractor puts in the cheapest air conditioning system with the lowest SEER rating, and you saved \$500 on installation but end up spending \$500 more on your air conditioning bill this summer, did you really save any money?

Another issue to consider is that the cheapest prices usually come with the lowest warranties. Say you purchase a system with a one-year warranty parts and labor warranty, and it's the lowest SEER rating with the cheapest price. If you're only going to live in your house for a year, that might be okay. But if you're going to live in your house for five or ten years and you've got the one-year warranty, this could cause problems later down the line.

A good calculator to use is <https://www.seerenergysavings.com/>.



Ask About Rebates

You want to make sure that the contractor does rebates. Make sure they're active in the rebate programs and can offer those rebates. Some contractors can take a utility rebate and can deduct the price of the rebate from the cost of your project. Then, they fill out the rebate paperwork and get the money from the rebate company.

Most good contractors will do all your rebate paperwork for you, mail it in for you, or at least give it to you 100% filled out with a stamped envelope. You just need to sign and send it.

Another big question to ask is what types of rebates you're going to get with your project. You could have the lowest price equipment, with the lowest SEER, and the lowest energy efficiency ratio, with the worst warranty, with no rebates. Or, you could be buying a higher efficiency piece of equipment, and the rebates sometimes offset the cost of that piece of equipment.

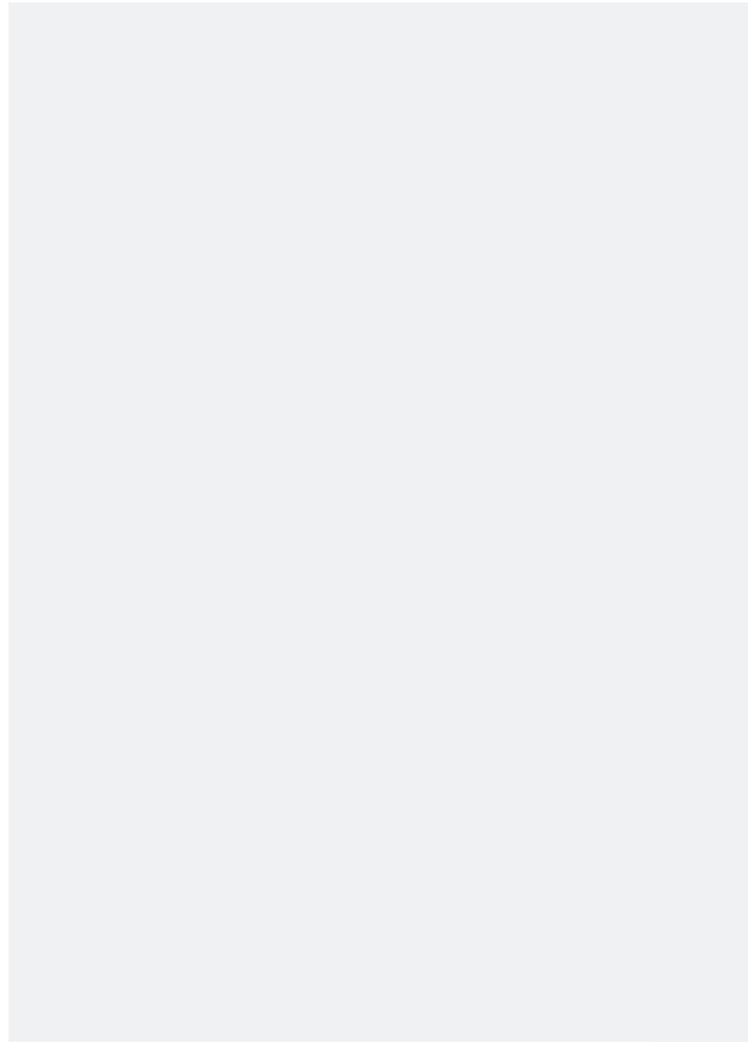
Your contractor should walk you through the comparison of different types of equipment with and without rebates so you can get the most for your money. Ask about special energy programs offered by the state or rebates offered by local municipalities.

Review the Pricing Structure

Before signing on the dotted line, you should review the pricing structure and how you will make a deposit and pay for your work upon completion. A good contractor will ask for something like 25% down upon signing the contract and the remaining 75% paid upon completion.

If it's a monthly job, the pricing structure may differ some. After the first month, maybe another 20% is due, after the second month, 20% is due, at the third month, 20% is due. Now you've got 85% has been paid and the remaining 15% upon completion of the job.

Each state has their own laws on how much of a deposit can be taken from an HVAC contractor – usually a maximum of 25%. Check with your local and state government for the exact figures in your area.





Can You Negotiate with Your Contractor?

An important aspect of any HVAC job is negotiating with your contractor. A lot of times people think that means they're going to negotiate the price.

However, when you start negotiating price, you also start negotiating material, labor, and everything else that has an associated cost.

You may want to focus on negotiating the contract versus negotiating the price.

For example, you could negotiate the time frame and how long the job is going to take. If the contractor is planning on taking a week to complete the project with two employees, you could negotiate having four employees and getting the job done in two days so you don't have to take as much time off work.

Look at the contract and make sure it's mostly in your favor and not the favor of the contractor. Read the contract and edit as needed if possible to negotiate more than just price. Perhaps you could negotiate a longer warranty or maintenance within the first year, or an off-season discount. Off-season is a great time to look at negotiating prices. Most good contractors want to complete your project before the start of the season so they can also offer good value on maintenance programs.

You may also be able to negotiate payment terms. Say the contractor is asking for 50% up front before starting the job, and you want to pay 25% or perhaps even wait to pay the deposit until the day of the job when the contractor arrives at your property.

Most good contractors have credit with their suppliers to get what they need without a significant down payment, so they should be able to negotiate your upfront costs within reason. If they are unwilling to be flexible, this is a red flag you should consider before signing the contract.

Chapter 6: Review the Contract

When meeting with a contractor, you want to be able to review the contract, the payment terms, and anything else you need to know prior to signing.

Ask About Subcontractors

Some companies use subcontractors after they sell the job. They present themselves very well and you think that that's the company doing the work. Then, the day comes, and a different truck pulls up in front of your property with no logo on it, and it's a subcontractor doing the work.

A lot of good companies have good subcontractors that do the work for them, but it's something you want to know upfront. This is a very important question that should be asked at the time of negotiation or sale. You want to be able to verify that the subcontractors that are being used have the proper insurance certificates for workers' compensation, liability insurance, etc.

If subcontractors will be doing most of the work, ask how warranty work will be performed should you need it. Make sure you know who to contact if something goes wrong and that someone will be available to come back to your property and do that work.

If Subcontractors Are Used, Get a Lien Waiver

If the company you hire does use subcontractors, you want to look into getting lien waivers in case the company doesn't pay their subcontractors. This protects you from being financially impacted if that ends up being the case.

Without a lien waiver, if the subcontractor comes and does the work in your house and then they don't get paid, they can then put a lien on your house, making you responsible for that payment. You can have a lien waiver drawn up as part of the project contract.

Check Collection Costs

Another thing that goes into a project contract is the cost of collections. If the customer doesn't pay at the end of the contract, how will collections work? Make sure you understand all payment terms relating to the contract.

Confirm Your Right to Cancel

There should be language included in your contract that discusses the customer's right to cancel. There are some laws around the attorney general in many states, where the customer can cancel the project within three days from the time of putting the deposit down on the job. However, this differs from location to location. Check with your state or local government to ensure you are clear on when and how you can cancel your project if necessary.

Evaluate Restocking Fees

If you do cancel your contract, look for restocking fees or other related costs. Make sure you understand if there will be a restocking fee for a canceled job, and if so, what that fee is. Restocking fees are also regulated by your local government, so be sure to ask about restocking when you're getting clarity on your right to cancel.

Look at Sales Tax and Permits

You should also look at how a contractor calculates and charges sales tax. Check with your state and local government to get a clear understanding of what sales taxes and permits for HVAC work look like in your area.

Review Permits

Ask your contractor how the appropriate permits are obtained and paid for. Ask how the permits work and be sure you have a full understanding of what cost this adds to your project. All permits and costs associated with performing the work that they're doing should be included in the cost of the job prior to starting on the project.

Check Into a Waiver of Responsibility

Your contract should also include information about who is responsible for damage done to the property during the project. In some cases, a contractor doesn't have control over how old materials like plaster react when drilling holes for HVAC lines. There are always things that are going to come up where the contractor has no control over damage due to the age or condition of the home.

Look for where the contract spells out who is responsible for damage done to the property under what conditions, particularly if you own an older home.

For example, there may be a waiver of responsibility that cracking or other damage can occur when working with old construction materials. If so, what will the contractor do to help? Can or will they patch a crack?

Ask About Temperature Guarantees

Even temperature throughout the home usually goes into a contract. There may be a disclaimer that one room could have a one to two-degree difference in temperature than another room depending on where the thermostat might be. Most HVAC contractors will say there's going to be a variance of temperature within two to three degrees from room to room, and this is normal.



Request Your Equipment Information

It's also critical to ensure that your contract details the equipment that will be used, their model numbers, the SEER ratings, etc. This allows you to go back and check the model numbers of the equipment that was installed to make sure you got what was outlined in the contract and what was paid for. Sometimes contractors will cut corners here and use cheaper, off-brand equipment than what is promised in the contract. This can create problems with warranties down the line, so it's important to verify that the equipment installed was what was outlined in your contract. Ask for the AHRI certifications up front showing that your equipment was produced by the Air Conditioning Heating & Refrigeration Institute.

A scan of an AHRI Certified Certificate of Product Ratings. The certificate is for a Mitsubishi Electric heat pump. It includes the AHRI Certified logo, the AHRI Certified Reference Number (201754911), the date (07/29/2020), and the model status (Active). The certificate lists the AHRI Type (HMSV-A-CB-D Multi-Split Heat Pump, Free Delivery), Series Name (M-Series), Outdoor Unit Brand Name (Mitsubishi Electric), Outdoor Unit Model Number (MXZ-4C36NAHZ), and Indoor Type (Non-Ducted Indoor Units). It also provides performance ratings: BEER (95F) 14.00, SEER 19.10, High Heat (47F) 45000, Low Heat (17F) 34000, HSPF 11.30, and Sols in? USA. The certificate includes a disclaimer, terms and conditions, and a verification link. The AHRI logo and name are also present at the bottom right of the certificate.

This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between 1/1/2015 and 12/31/2020.

AHRI CERTIFIED
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Certificate of Product Ratings

AHRI Certified Reference Number: 201754911 Date: 07/29/2020 Model Status: Active

AHRI Type: HMSV-A-CB-D (Multi-Split Heat Pump, Free Delivery)

Series Name: M-Series

Outdoor Unit Brand Name: Mitsubishi Electric

Outdoor Unit Model Number: MXZ-4C36NAHZ

Indoor Type: Non-Ducted Indoor Units

Rated as follows in accordance with the latest edition of AHRI 210G40 with Addendum 1, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment and subject to rating accuracy by AHRI sponsored, independent, third party testing:

Cooling Capacity (95F): 36000

BEER (95F): 14.00

SEER: 19.10

High Heat (47F): 45000

Low Heat (17F): 34000

HSPF: 11.30

Sols in? USA

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Active Model Status are those that an AHRI Certification Program Participant is currently producing, AHCI selling or offering for sale. Off new models that are being marketed but are not yet being produced. *Production Stopped* Model Status are those that an AHRI Certification Program Participant is no longer producing BUT is still selling or offering for sale.
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CERTIFICATE NO.: 12245513601048079

Chapter 7: Managing the Project

Once you've signed the contract and the project is underway, you'll need to do a few things to oversee the project through to completion.

Protecting Your Property

Protect your property by removing any valuables in the areas where your contractor is going to be working. For example, if you have a statue or a glass vase on top of a table nearby, move it out of the way.

You should also protect your valuables before your contractor arrives. Don't leave money or jewelry around, or anything like that. Protect your furniture by moving it out of the way or to another room that workers won't be using.

Document the Project

It's important to take detailed notes and document each stage of the project. You should be there each day that the project is going on, whether it's morning, lunchtime, or afternoon. Look at the work that's being done and take photographs or videos. Keep a daily journal of what's happening and work with your contractor to plan for what will happen each day.

Schedule daily meetings with the contractor as well as with the team that's on site to discuss progress and keep communication consistent. If a contractor is unwilling to communicate well with you or doesn't have a good line of communication, this is usually a red flag. Ask if there will be a lead person or installation manager on site that you will be communicating with during your project, as communication is truly key to a successful project.

Do a Completion Walkthrough

On the last day of the job, you're going to need to be there when the startup occurs. Have a list of questions ready for your contractor, such as how you program your thermostat or how to use the equipment that was installed. Make sure information about the final walkthrough is included in your contract before you sign. Ask who will be doing the walkthrough with you and how final payment will be made.

You should expect your contractor to walk you through the entire completed job to look at everything and make sure you are satisfied with the job. Have the contractor point out different pieces of equipment to you and where they are listed in the contract and ask questions about how the equipment works.

During the final walkthrough, your contractor should provide you with all the paperwork related to the job, information about warranties, and any forms they use to check their own work during the job or at its completion. You want to be sure that the work can be verified as done properly, either by the contractor or a third party.

Chapter 8: Handling Any Issues That Arise

Even when you select the best possible contractor for your HVAC job, sometimes issues will arise. Know how to handle those before you get started.

Communication is key when there's a problem. Before you sign the contract, make sure you know who to call if there is an issue – should you call the subcontractor, the manager, or the main office? Both sides should be involved in working on a resolution to any problems that come up. The last place you want to end up is in a courtroom negotiating over a bad job.

Most good contractors understand that usually, the customer is right. They want to talk it through face to face and understand how they can best resolve the issue so both parties are satisfied.

Before hiring a contractor, ask how they handle issues that come up and what to do if there's a conflict. Make sure you feel good about how the contractor approaches potential problems.



Conclusion

As you can see, there are a multitude of things that go into a successful HVAC project, both on the contractor's side and the property owner's side.

Before you get started with an HVAC project, make sure you interview contractors and compare apples to apples to ensure you're getting the most for your money. Work with contractors who are excited for your business, who treat you well, and who are happy to answer your questions.

Ultimately, you should work with a contractor who cares about your comfort, your budget, and the quality of their own craftsmanship. Remember that you're not only paying for equipment and labor, but you're also paying for training, expertise, and quality materials.

At N.E.T.R., Inc. we take pride in being a top Massachusetts HVAC company and an American Standard and Mitsubishi Diamond Elite contractor. We value our customers and believe that no matter which contractor you use, you should get exemplary service and long-lasting equipment.

About

N.E.T.R., Inc. is here to help home and business owners install the best heating and air conditioning systems that fits their needs. Since 1989, we've installed heating and air conditioning systems in Boston and its surrounding areas, tackling tough problems that our clients face. Our goal is to ensure our clients have energy efficient, quiet, reliable systems so they can live their lives to the fullest both at home and at work.

Our dedication to our customers' needs is what drives us each and every day. Our approach to temperature control and comfort has helped us become one of the most respected names in heating, cooling, and refrigeration in New England.



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