

energy efficiency & system longevity

installation is the KEY

Met Bob and Debbi. In heating their home, they found that they were burning through several hundreds of dollars of propane every month AND they were experiencing a 20-30 degree swing in temperature from one hot spot to one cold spot in their home! They had a gas furnace with AC in the attic with ducts coming out at the ceiling. All the duct work was also in the attic, but not properly sealed. Bob and Debbi had problems!

They contacted an HVAC company, Vertex Mechanical Inc, experienced in proper design and installation. Knowing that a complete change out of ductwork and equipment would be very expensive, their contractor decided to approach the job in phases. Phase One would be ductwork redesign, and repositioning of their existing equipment. All of the existing ductwork was removed and replaced with new ductwork incorporating a zoning design. They also repositioned the existing equipment to a more centralized location. Phase 2 would be to replace the equipment also in a year or two.

With just a duct system and equipment placement redesign, Bob and Debbi saw their home brought into just a 1 degree temperature swing and their fuel consumption reduced by about 50%!

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www.vertex-mechanical.com
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Vertex Mechanical Inc. began in 2002 with the merger of two companies, Ray Youndt & Son Heating and Cooling and Robert E. Martin Electrical Contracting, combining over two decades of mechanical experience and excellence. Company President, Vincent Youndt leads a hands-on management team and expert technical crew, providing the best in mechanical design, installation and service.

Vertex specializes in geothermal heating and cooling, custom solutions for homes without existing ductwork, heat pump replacements and furnace upgrades. We will work with the homeowner to ensure that the system we offer will be energy and cost efficient while providing optimum comfort for their family.



An example of properly sized insulated ductwork.

HVAC system, the customer would do well to consider more than just the “low bid”. In comparing quotes from several HVAC companies, even for the same piece of equipment, it is important to keep in mind how the system is going to be installed.

Most HVAC equipment, if installed correctly, can last a very long time. It is not uncommon to find huge discrepancies in the life span of a same name brand of equipment, one that lasted only 6 years and another 20 years. Same piece of equipment—quite a difference in life span. This usually comes down to how it was installed. On systems that fail in the 5-10 year range, it is most often an airflow problem that killed the compressor. This is generally a result of a poorly designed duct system, oversized equipment, or possible lack of filter changes. Improper installation and maintenance can bring down even the best brands of equipment.

Unfortunately, some salesmen in this field have little to no experience in the installation or design aspect of the job. Therefore, they do not recognize the deficiencies that exist. It is important for the customer to ask the salesman about his design or installation background.

If you are experiencing a continual problem or have had a major failure on an HVAC system that is less than 12 years old, you may want to consider closely how the salesman handles this situation. If he simply comes in, looks at the model number on the unit and then tries to sell you a new unit, this could be a red flag. He should, at the very least, be looking for any obvious reasons on why this system failed in the first place at such a young age. If improper installation was a contributing factor, then just simply replacing the unit without addressing the cause of the problem will just set the stage for another early

age system failure. This is hardly the value that customer should expect.

Also, be wary of a service technician who responds with “this brand is known for problems”. Most (but not all) service techs are good at diagnosing why an HVAC system fails in the first place. If he tells you that it is time to replace the unit, and it very well may be time for that, ask him why he thinks it failed in the first place. Make a note of anything that he sees as a potential problem.

There are some brands that tailor towards the builder grade and cut some corners in regards to devices that are meant to protect vital components of the system. These brands may have a lot of components that are built in countries where the quality standard is not as high allowing for costs to be kept low. Often these lower cost brands will attract lower qualified installers too. Buyer beware.

Here is a list of important questions to ask your HVAC salesman which will help you make an informed decision when replacing or upgrading your system.



What is your diagnosis of the system failure of my current system?

Was there a problem with the system design or installation that can be remedied with the new system?

Did you perform a load calculation on my home?

What is the warranty on the system?

Do you include any complimentary maintenance with the new system?

Will you stand behind the workmanship of the system? If so, how long?

Do you have a dedicated service department? If so, do you have after hour’s service?

Do you use nitrogen to braze? (A good thing, it prevents scaling.)

Do your installers and service teams receive ongoing training?

Remember, you most often get what you pay for. It is well worth it to contract a company with an excellent design and install reputation. A higher-end equipment install can really save you money and headaches in the long run. A cheap install can cost you in additional service calls, higher fuel consumption and a shorter overall life span of the system.

For more information, give us a call at 717.335.2633 or email me at vince@vertex-mechanical.com.

R&A



Comfort Renovation

Your home should be as comfortable as it is beautiful.

- refreshingly cool in summer
- toasty warm in winter
- with clean, breathable air
- energy and cost efficient
- worry free maintenance



30% Federal Tax Credit
on Geothermal Systems
NO CAPS!

No Ductwork? No Problem!

We offer custom solutions for homes without existing ductwork.

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