

SED Frequently Asked Questions



**SCIENTIFIC
ENVIRONMENTAL
DESIGN™**

Efficient Energy Solutions

What is the SED Total Design® Approach?

The SED Total Design® approach is the most rigorous design process in the HVAC industry.

It's at the heart of our entire process, which ensures that your home's HVAC system will be the most efficient and comfortable possible.

It's what allows SED to guarantee the energy usage required to heat and cool your home — something no other company offers.

How can SED guarantee the cost of energy to heat and cool our home?

The SED Total Design™ approach is the most comprehensive and rigorous in the industry. With the use of computer-aided design, Building Information management software and 37 years of experience, SED is the only company that can precisely predict and guarantee the energy use to heat and cool your home.

The first part of the SED Total Design® approach is the Analysis. Our proprietary load analysis includes detailed, room-by-room calculations for heat gain and heat loss — providing SED the high degree of accuracy and reliability that results in predictable energy use. The precision and quality of SED's analysis has been consistently proven by our results. After designing HVAC systems for thousands of homes, SED has never failed to meet the guaranteed energy use.

Why does SED guarantee the cost of energy to heat and cool our home?

SED is committed to providing you with the most efficient, most comfortable and purest air quality possible. We follow a 37 year proven process that has never missed the mark of 100% customer satisfaction.

While most companies claim to provide high customer satisfaction, SED offers the industry's only FREE lifetime performance guarantee. And we stand behind it with our promise to pay the difference, allowing for worry-free enjoyment of your new HVAC system.

What is the SED Total Flow® Technology?

Our patent-pending SED Total Flow® Technology is unique in the HVAC industry. It incorporates ultra-filtration, air purification, remote system monitoring, and unsurpassed comfort with proper humidity control.

How does your design address indoor air quality?

The SED Total Flow Technology incorporates the industry's best air purification and ultra filtration system, which removes up to 98% of air born contaminants.

What happens if you don't meet the guaranteed energy usage?

During our 37 years serving thousands of customers, SED has never failed to meet our energy usage guarantee. We stand behind our "lowest cost" claim with a guarantee for the life of the home, and SED will pay the difference between the guaranteed energy use and the actual measured energy used to heat and cool your home.

Also, the SED Total Flow™ technology allows for real-time monitoring of the energy used to heat and cool your home — so you'll always know the guarantee is being met.

How will the SED system affect the value of my home?

The SED-designed HVAC system will increase the value of your home with a unique, differentiated benefit to buyers. No other HVAC design company guarantees performance for the life of the structure — and that's worth a lot!

Have you designed a system for a house similar to ours?

Yes, it's highly likely that we have. SED has thousands of success stories, and we can share examples of homes similar in size and geography. Also, we'll provide references upon request.

Will your design and system install impact our building schedule?

No, SED will work with your builder to coordinate the installation of the duct work. We'll work with the insulation and HVAC contractor to ensure your system is installed to all specifications and on time.

What is the main difference in what SED does and what our HVAC subcontractor provides?

SED is the only HVAC firm that follows all required design requirements, and thus we can accurately predict the heating and cooling cost for your home. SED guarantees it!

See the enclosed excerpts from the design requirements for HVAC contractors, including a list of the major requirements that must be followed, along with common problems that occur if they are not followed.

My builder said that the HVAC subcontractor does the same thing you do, and for a lower cost.

Our design will provide the lowest possible cost to heat and cool your home, and will ensure your comfort, air purity and ultimate satisfaction.

The SED designed HVAC system doesn't ultimately cost you more. In fact, your energy bill savings will far exceed any up-front cost difference between our solution and the alternatives you will be offered.

Will the HVAC contractor provide an energy use and system performance analysis with a guaranteed heating and cooling energy use for the life of the home?

It's important to remember that a load analysis is required by the mechanical code. SED's rigorous analysis is not only required by code, it is the most detailed and accurate in the industry.

Does your company do the install of the HVAC system?

No, but we work closely with the HVAC installer to ensure the total quality of the system.

Why do I need a system analysis?

It is required by the mechanical code!

What does the system analysis cost?

The analysis is 25 cents per sq. ft.

The analysis for a 3500 sq. ft. home would cost \$750

What is my obligation after you provide the system analysis?

There is no obligation to purchase Phase II duct design after the analysis. You are free to take our analysis to any HVAC contractor and have them use it to design your system.

After thousands of homes and a 100% success rate, we're confident that you'll want to use the SED design service.

What is the difference between the system analysis and system design?

A system load analysis is required by the building/mechanical codes. With SED, you'll get the most comprehensive, detailed report of the energy required to heat and cool your home. In advance of creating a custom HVAC system design, our analysis report will clearly show you the guaranteed energy usage of the SED system, your projected return on investment, and the best type of equipment recommended for your home.

Will your system design affect the design of my home?

The SED Total Design™ approach does not require any special construction materials that would affect your home's design. However, we'll certainly have a positive effect on the end result.

The SED Total Design™ approach will ensure no corners are cut. Our quality assurance program will give you assurance that your HVAC equipment, insulation, duct work, and all other system components will be installed to the manufacturer's specifications and SED's exact design. Once you design the home of your dreams, SED will make it the most efficient, comfortable home possible.

Will your system design increase the cost of construction?

No, SED will design an HVAC system that will work for your home the way you have designed it.

How much can we expect to save on our electric bill?

Over our 37 year history, we've provided an average savings up to 60% on the cost to heat and cool our homes in comparison to similar structures.

Does your approach cost more than our builder's HVAC?

SED will be happy to review any HVAC contractor's analysis FREE of charge to determine if their analysis provides the level of detail required to properly size the system for your home. If the analysis provided by any HVAC contractor provides the same level of design detail as SED, we will refund your money AND give you a \$1000 bonus!

Will SED inspect and ensure the quality of the HVAC install?

Absolutely! In fact, you will receive a trip report after each site visit by SED's quality assurance expert. In addition, a final report will be provided to confirm that the HVAC system test and balancing is complete.

Can you provide a list of references?

Yes, please see our website: www.SEDEfficiency.com.

What is the warranty of your design?

SED provides a lifetime guarantee for the energy used to heat and cool your home. Plus, all of the HVAC equipment included in our design will carry a manufacturer's warranty.

How long have you been in business?

SED has been in business for 37 years, and we've designed HVAC systems for thousands of homes.

What is different about your approach from what other HVAC companies provide?

The SED Total Design™ approach is unique in the HVAC industry. No other company provides the same level of detail and precision to ensure your system is done right.

Your design seems complex and expensive. How does it compare to what our builder is providing?

SED's Total Design™ approach follows what the mechanical code requires. Most importantly, our design delivers the efficient, healthy HVAC system that should be expected from all HVAC contractors to meet the needs of today's homeowner.

How do we maintain the HVAC system after installation?

The SED Total Flow® Technology includes remote monitoring of your HVAC system. This will provide automatic notifications when service is required, and alerts if a system fault is detected.

Why does the crawl space have to be sealed?

The crawl space is part of the home's thermal envelope, and sealing it is essential to ensure that the humidity, temperature and air purity meet SED's quality standards and your satisfaction.

Why are you recommending a heat pump? We would prefer natural gas.

Our analysis will give you the cost for all available fuel sources. You have the option to choose the lowest cost, or the fuel source you feel most comfortable with.

Will our house be too air tight with your insulation design?

No, to ensure proper ventilation, the SED Total Design® approach will include fresh air ventilation continuously passes through the ultra-filtration and air purification components of the SED Total Flow® Technology.