Designing Indoor Comfort





onsumers are seeking a place to relax and unwind from today's hectic life. As a result, more people are spending time at home, and looking to improve their home environment. It's no surprise that the

home entertainment and recreation industries have been on an upward growth pattern over the last few years. Spending more time at home also makes us all aware of the common indoor air problems we experience.



Temperature swings, hot spots, cold spots, energy costs are just a few of the things that a homeowner will most commonly recognize as problems they experience with their current indoor heating and cooling system. And even though tightly sealed homes have improved energy costs, they have created a new problem... poor indoor air quality. Allergens, such as, household cleaning chemicals, pet dander, and dust, are just a few of the airborne irritants that continue to circulate within our homes. The result is indoor air quality that is poorer then the air we breathe outdoors. Perhaps then it shouldn't surprise anyone that allergies are increasing among children and adults at a rate greater than ever before.

Westinghouse has a long history of providing products that improve the way we live.

- **1. GE ECMTM Blower Motor**
- 2. Two-Stage Variable Speed Furnace and/or Variable **Speed Air Handler**
- 3. Two-Stage Air Conditioner or Heat Pump
- 4. Indoor Coil

This is the indoor component to your air conditioner or heat pump. When you replace your outdoor system, you should always replace your indoor coil with a matched product for reliability and performance.

5. Energy Recovery Ventilator

An energy recovery ventilator brings fresh air in and takes stale air out. It transfers energy from the outgoing air to the incoming air so you save money while improving the quality of your indoor air.

Since most people are choosing their home as a place to relax and enjoy life, we have designed a product line to create your own haven...

...Westinghouse Indoor Comfort Systems.

6. HEPA Air Cleaner

A HEPA (high efficiency particulate air) is the most efficient air cleaner available. It helps remove smoke, odors, and microscopic airborne particles that can trigger allergies and asthma. It's filter captures 99.97% contaminates 0.3 micron and larger.

7. Humidifier

Dry air in winter irritates sinuses, causes static electricity and can damage furniture and woodwork. A whole house humidifier attached on your ductwork can raise indoor humidity to a comfortable level.

8. Zone Controls & Programmable Thermostats

Zone controls give you precise temperature control to every area of your home. For example, it can send more



air conditioning to the upstairs in summer or more heat to the cold north side in winter. Programmable thermostats can increase energy savings by programming system usage around your personal schedule.

9. Ultra-Violet Air Purifier

An In-duct Air Purifier treats the air as it circulates through the ventilation system, continually destroying bacteria, viruses, mold, chemicals and odors.

10. Electronic Air Cleaner

An electronic air cleaner can remove out 95% of contaminant's as small as 0.01 micron.

Comfort begins with your Heating and Cooling System

Depending on the climate region you live in, you may be accustomed to a furnace and air conditioner as your heating and cooling system, or perhaps a heat pump and air handler. A system that has an outdoor section (air conditioner or heat pump) and an indoor section (furnace with coil, or air handler) is commonly referred to as a Split System. A split system is the most common configuration for a heating and cooling system. The combination of indoor and outdoor product varies based on your climate,



your region and your home. Westinghouse heating and cooling provides products that meet a wide variety of application requirements, as well as those that can meet a variety of energy efficiency needs.



Heating and Cooling products such as furnaces, air conditioners and heat pumps are rated for their efficiencies. As efficiency ratings increase, so do energy savings, resulting in lower utility operating costs. SEER (Seasonal Energy Efficiency Rating) measures cooling efficiency of a heat pump and an air conditioner. HSPF (Heating Seasonal Performance Factor) measures the average number of Btu of heat delivered for every Watt-hour of electricity used by the heat pump over the heating season. AFUE (Annual Fuel Utilization Efficiency) measures gas and oil furnace efficiency performance.

Westinghouse offers a choice of heating and cooling products that begin with the

basic comfort need...reliability. Westinghouse heating and cooling products are designed utilizing proven components. On the average, every furnace is checked 234 times and every air conditioner is checked 144 times before leaving the factory. Also, each product is 100% computer-automated tested, as well as fired-up and run-tested on the manufacturing line. Because we are so sure about the product quality, we back it with an industry leading all parts warranty, and Westinghouse Quality Pledge on our furnaces, air conditioners and heat pumps.



+ Annual costs based on 36,000 Btu unit, 1500 cooling load hours, and .08/kwh. Actual costs may vary depending on climate conditions, energy rates and patterns of usage.

[†] Dollar amounts computed at \$.092 ccf, for 2500 full-load heating hours and a system rated at 60,000 Btuh. Actual costs may vary depending on climate conditions, fuel rates, and patterns of usage according to individual lifestyle.

Two-Stage & Variable Speed Technology

Features & Benefits -





Westinghouse products featuring GE ECM[™] blower motor are designed to improve temperature balances, improve air filtration and reduce hot and cold spots throughout the

home. The variable speed systems under normal operating conditions ensure constant comfort for the homeowner because the motor will automatically maintain its programmed level of airflow even if there are dynamic changes in static pressure. Dirty air filters, obstructed or poorly designed duct work, zoning changes, can affect the static pressure. This constant airflow capability provides a number of important benefits. Better indoor-air quality can be achieved quietly and inexpensively with the variable speed motor because it can be set to run continuously at reduced airflow levels, between heating or cooling cycles. This allows the air to be filtered without excessive drafts and without sacrificing efficiency. In fact GE's ECM motor set to run in continuous fan mode, will typically consume only 65 watts of power versus over 500 watts from a standard motor system.

Because variable speed products increase indoor air quality, reduce hot and cold spots and increase energy savings, all households, regardless of climate region, everyone can benefit from variable speed.

Two-Stage



Traditional heating and cooling systems are designed to heat or cool your home during coldest or hottest days in your climate. Therefore, when they are operating, they are heating or cooling at their full capacity. Two-stage products are designed to operate like two separate systems, maintaining more consistent comfort levels throughout the home. The first stage consists of the system running at about 68% of its heating or cooling capacity. For example, a two-stage furnace will always start in the first stage and attempt to meet the heating demand. This reduced capacity is enough to warm a home on mild winter days. When temperatures drop, the furnace adjusts itself and enters the second stage to meet the demand for heat within the home. The example is also true for two-stage cooling with split system air conditioners and heat pumps.

Two-Stage furnaces are ideal for areas of the country that experience a



combination of extreme cold and mild cold temperatures. Two-Stage air conditioners and heat pumps are ideal for areas of the country that experience a combination of extreme hot and mild summer days.

hoosing the right system to meet those comfort needs.

Improving your indoor comfort doesn't mean that your system has to be burdened with a lot of technology. Afterall, too much technology can lead to more system complications, and increase the risk of failure. That's why Westinghouse products are built using proven technology, and only have features that will make a difference in your indoor comfort. Two key design features that can make a difference in your home comfort system are two-stage and variable speed technology.

Depending on what your heating and cooling needs are, Westinghouse offers two-stage heating and cooling products, variable-speed indoor products, and a combination of both, for the ultimate indoor heating and cooling system. A home designed to experience the greatest comfort will also combine accessories designed to address specific problems.



DESIGNING AN INDOOR COMFORT SYSTEM:

The following questions and rating surveys help your Westinghouse Dealer identify your comfort needs and build a system that is right for your home and family.

Attic

Ventilation

Other?

Home Occupant(s) Inquiry for Needs Analysis

- How long have you lived in your home?
- How long do you plan on living here?
- Have you installed any other energy saving products in your home? New Insulation Doors Windows
- Are there some parts of your home that are not as comfortable as other parts? Upstairs? Downstairs? Bedrooms?
- What would you like to improve?
- Where does your family spend most of their time?
- Does the noise of the current heating/cooling system bother you?
- Are you happy with where your air conditioner/heat pump is located?
- Where would you like to relocate your air conditioner/heat pump?
- Do you feel like you have a lot of dust in your home?
- Does anyone in your family have allergies to mold, pollen, dust, pet dander?
- Are you concerned about airborne bacteria?
- Do you have a maintenance agreement on your current heating/cooling system?
- Do you feel that it is important to have your comfort system serviced over the years
 - ahead? Why?
- What temperature do you set the thermostat at in the Winter? Summer?
- Do you ever adjust the thermostat?

Indoor Environment Needs Analysis

On a Scale of 1 to 10, with 10 being the most important and 1 being the least, how important is . . .

Why is that?

- Even temperatures in your home?
- Automatic temperature control that matches your daily schedule?
- Removing up to 90% of the dust and pollen in your home (Indoor Air Quality)?
- Getting rid of excess moisture in your home?
- Eliminating dryness in the winter?
- Saving money on your utility bills?
- Quiet equipment operation?
- Temperature Control by room?

System & Service Reliability Needs Analysis

On a Scale of 1 to 10, with 10 being the most important and 1 being the least, how important is . . .

- Trouble-free reliability of your new equipment?
- Knowledgeable & well trained installers on equipment installation & air leak solutions?
- Preferential service if there ever is a problem?
- A heating & air conditioning system that will last a long time?
- Extended warranties after initial warranties expire?
- Proven state-of-the-art technology?
- Reputation of contractors that work in your home?
- Dependable same day service/emergency service after the sale?

Gas and Oil Furnaces Westinghouse 97+ AFUE Fully Modulating Gas Furnace Westinghouse 95.1 AFUE & 80 AFUE Two-Stage, Variable Speed Gas Furnace Westinghouse 95.1 & 80 AFUE Two-Stage, Fixed Speed Gas Furnace Westinghouse 92.1 AFUE Single-Stage, Fixed Speed Gas Furnace Westinghouse 80 AFUE Single-Stage Gas Furnace Westinghouse 80 AFUE Oil Furnace, Single-Stage with Variable Speed

Westinghouse Multi-Poised, Variable Speed Air Handler Westinghouse Multi Speed Air Handler Westinghouse Multi-Poised, Multi Speed, Modular Air Handler

Split System Air Conditioners and Heat Pumps Westinghouse 22-24.5 SEER iQ Drive® Air Conditioner or Heat Pump matched with variable indoor air handler or furnace/coil combination

Westinghouse 16 SEER Two-Stage Air Conditioner or Heat Pump matched with variable indoor air handler or furnace/coil combination

Single Packaged Systems Westinghouse Single Packaged 15 SEER Two-Stage Gas Electric Unit or Heat Pump with Variable Speed Westinghouse Single Packaged 15 SEER iHybrid[™] Dual Fuel Westinghouse Single Packaged 15 SEER Two-Stage Air Conditioner or Heat Pump

Westinghouse products offer an industry leading 10-year warranty on all parts. Our Westinghouse Quality Pledge which states that if your heat exchanger or compressor fail within the first 10 years of ownership, we will replace the entire unit. Split System air conditioners and heat pumps must be installed with a matched Westinghouse indoor coil or air handler. To learn more about our product warranties, ask your Westinghouse dealer, or visit us on the web at www.westinghousehvac.com for details.

Air Handlers









WARRANTY

You can be sure...if it's Westinghouse 🖤

For more information, call or write your Westinghouse dealer:

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