

Glossary of Terms

Efficiencies

AFUE - This is a percentage measurement of a heating system's heating efficiency. The U.S. Government's minimum efficiency level is 78%. The higher the AFUE, the more efficient the heating system. The initials stand for Annual Fuel Utilization Efficiency.

ENERGY STAR - Products/Homes/Buildings that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. To learn more, please visit www.energystar.gov.

SEER - This is a measurement of the efficiency of cooling products. The U.S. Government's minimum efficiency level is 10 SEER for split systems and 9.7 for packaged units. A higher SEER means the cooling product is more efficient. SEER stands for Seasonal Energy Efficiency Rating.

A Note About Efficiencies: When you're getting ready to replace an older heating or cooling system, it's very important for you to get a Load Calculation done by your dealer/contractor. The greater the difference between the efficiency of your old system to the new system, the greater the likelihood that the dealer will recommend a smaller sized unit. This should not cause alarm, as the dealer, by running a Load Calculation, will be able to accurately size the system to the load in your home. It can be quite detrimental to equipment if the units are too large for the load in your home - they can start to "short cycle" (they run often but for very short periods of time, because they are pumping out too much heat/cooling and reach the thermostat's setting too quickly), which can shorten the life of the unit dramatically.

Capacities

BTU - British Thermal Unit. This is the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit. You'll see this measurement when you look at heating and cooling capacities - for example, your dealer may recommend a 75,000 Btu furnace and a 24,000 Btu air conditioner for your home.

A Note About Capacities: Gas furnaces are generally rated by "input" in Btu's per hour (Btuh). A furnace rated at 100,000 Btuh that is 80% efficient (80% AFUE) will have an output of 80,000 Btuh. In other words, 80% of the total heat produced by burning the gas will be in the form of usable heat to warm your home. The other 20% is exhausted from your house along with the flue products.

By the same token, a 100,000 Btuh furnace that is 90% efficient only sends 10% of the total heat out the chimney - thus burning less gas to get the same results and reducing your gas heating costs.

Ton - You'll often see this as a measurement of the capacity of an air conditioning system. Don't panic, it doesn't measure weight! Just like gas and oil furnaces, air conditioners and heat pumps are rated in Btus. One ton of air conditioning is 12,000 Btus per hour. This means that a "one ton" air conditioning system has the capability of removing 12,000 Btus of heat per hour from your home.

A Note About Air Conditioning: You've heard the saying "It's not the heat, it's the humidity." Air conditioning systems do more than just cool your home - they remove moisture. The more humid it is outside, the harder an air conditioner has to work. But does that mean if you get a bigger unit, it will work better? NO. An air conditioning system that is too large will neither cool nor dehumidify properly, and the result will be an uncomfortable, clammy home.

Ambient Temperature - This is the air temperature (usually the outdoor air temperature) surrounding the equipment.

Equipment

HVAC - This stands for Heating, Ventilating and Air Conditioning and are the initials often used to describe the industry that produces the equipment that brings comfort to your home.

Split System - This describes an air conditioning or heat pump system that is split into two sections - an outdoor section and an indoor section. It won't work without the outdoor section plus an indoor section to move the air.

Condensing Unit - This is the outdoor section of a split system air conditioning system. You'll know it best as the air conditioner that sits outside your home.

Air Handler - This is the indoor section of a split system. It can be a dedicated air handler, or could be your furnace. Also known as a fan-coil.

Indoor/Evaporator Coil - If your furnace is the air handler section of your split system, then you'll need an indoor coil added to your furnace to complete the system. The coil transfers heat to give you cool air and also aids in dehumidification.

Packaged System - Packaged units provide both heating and cooling from one unit that is placed outside the home - on the ground, on the roof, or sometimes mounted through the walls of the building. Packaged units come in several combinations of fuel sources - gas heat/electric cooling; heat pump; electric heat/electric cooling; oil heat/electric cooling.