

## HVAC Terms:

Common terminology & definitions

### AFUE

Annual Fuel Utilization Efficiency. Indicated as a percentage, your furnace's AFUE tells you how much energy is being converted to heat. For example, an AFUE of 90 means that 90% of the fuel is being used to warm your home, while the other 10% escapes as exhaust with the combustion gases.

### Advanced Reciprocating Compressor

Type of compressor that uses a more efficient process for compressing refrigerant for better cooling efficiency.

### AeroQuiet System

Bryant's AeroQuiet™ System includes sound-deadening features in the cabinet, fan system and top for better air flow, lower noise and better efficiency.

### Air Handler

The portion of your air conditioner or heating system that forces air through your home's ductwork.

### BTU

British Thermal Unit. Used for both heating and cooling, BTU is a measure of the heat given off when fuel is combusted. Or for cooling, it's a measure of heat extracted from your home. (One BTU is approximately equal to the heat given off by a wooden kitchen match.)

### BTUH

A British Thermal Unit (BTU) is the unit of heat required to raise 1 pound of water by 1 degree Fahrenheit. BTUH is British Thermal Units per Hour.

### Beckett Burner

A burner assembly within your oil furnace, manufactured by Beckett to exact specifications of Bryant. This burner provides good combustion of heating oil.

### CFM

Stands for Cubic Feet per Minute. A measurement of airflow that indicates how many cubic feet of air pass by a stationary point in one minute. The higher the number, the more air is being forced through the system.

### Capacity

The ability of a heating or cooling system to heat or cool a given amount of space. For heating, this is usually expressed in BTUs. For cooling, it is usually given in tons.

#### Carbon Monoxide

A colorless, odorless, highly poisonous gas produced when carbon-based fuels, such as natural gas, burns without sufficient air nearby.

#### Check-Flo-Rater

The patented Check-Flo-Rater metering device accurately controls refrigerant flow to ensure precise system operation, efficiency and performance.

#### Compressor

Part of the heat pump or air conditioner unit that controls the pressure applied to the refrigerant, necessary for taking in heat to warm your home or getting rid of heat to keep your home cool.

#### Condenser Coil

Part of the outdoor portion of a split-system air conditioner or heat pump. By converting refrigerant that is in a gas form back to a liquid, the coil sends heat carried by the refrigerant to the outside. Also referred to as an Outdoor Coil.

#### Continuous Fan Switch

A feature on an oil furnace allowing the furnace's fan to blow continuously to improve system efficiency and maintain even temperatures.

#### Control System

Thermostat, Thermidstat™ or Evolution™ Control device used by homeowner to set temperature and other settings.

#### DB

Decibels (dB) are a unit measuring the intensity of noise.

#### Damper

A type of "valve" used in duct work that opens or closes to control airflow. Used in zoning to control the amount of warm or cool air entering certain areas of your home.

#### Downflow

A type of furnace that takes cool air from the top and blows warm air to the bottom-common where your furnace must be located in a second-floor closet or utility area.

#### Ductwork

Hollow pipes used to transfer air from the Air Handler to the air vents throughout your home. Ductwork is one of the most important components of a home heating and cooling system.

#### DuraGuard

DuraGuard™ is a Bryant innovation that protects outdoor units from weather and increases durability.

#### DuraGuard Plus

DuraGuard™ Plus is a Bryant innovation that protects outdoor units from weather and increases durability. DuraGuard Plus includes appliance-style fit and finish and a world-class patent pending design.

#### EER

Energy Efficiency Ratings (EER) measure the efficiency with which a product uses energy to function. It is calculated by dividing a product's BTU output by its wattage.

#### Electronic Air Cleaner (EAC)

An electronic device that filters out large particles and contaminants in indoor air. It then electronically pulls out tiny particles that have been magnetized, such as viruses and bacteria, drawing them to a collector plate.

#### Energy Saver Switch

An energy-saver switch causes the air conditioner's fan and compressor to cycle on and off together, reducing energy use.

#### Energy Star

Energy Star is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. Products with the Energy Star rating will be efficient and save cost on energy bills.

#### Evaporator Coil

Part of a split-system air conditioner or heat pump located indoors. The evaporator coil cools and dehumidifies the air by converting liquid refrigerant into a gas, which absorbs the heat from the air. The warmed refrigerant is then carried through a tube to the outdoor unit (condenser coil). Also referred to as an indoor coil.

#### Everlastic

Everlastic describes the Bryant-patented polypropylene coated secondary heat exchanger which provides enhanced durability over traditional heat exchangers.

#### Fan Coil

An indoor component of a heat pump system, used in place of a furnace, to provide additional heating on cold days when the heat pump does not provide adequate heating.

#### Freon

The trade name Freon™ is a registered trademark belonging to E.I. du Pont de Nemours & Company (DuPont). Production of Freon™ will cease in 2015 per the Montreal Protocol.

#### HSPF

The Heating Seasonal Performance Factor is a measure of the heating efficiency of a heat pump. The higher the HSPF number, the more efficiently the heat pump heats your home.

#### HVAC

Term used for Heating, Ventilation, and Air Conditioning.

#### Heat Exchanger

The part of a furnace that transfers heat to nearby air. That air is then distributed through the ductwork throughout your home.

#### Heat Pump

A heating and air conditioning unit that heats or cools by moving heat.

#### Horizontal Flow

A type of furnace, installed on its "side", that draws in air from one side, heats it and sends the warm air out the other side. Most often used for installations in attics or crawl spaces.

#### HumidiTrac

An automatic programmable control used to maintain humidity at a fixed point.

#### Humidifier

A piece of equipment that adds water vapor to heated air as it moves out of the furnace. This adds necessary moisture to protect your furnishings and reduce static electricity.

#### Humidistat

A control used to manually maintain humidity at a fixed point.

#### Hybrid Heat

Hybrid Heat systems deliver exceptional performance by using a heating source that provides the most energy-efficient comfort during moderate heating conditions.

#### IAQ

Indoor Air Quality (IAQ) refers to the cleanliness and health of the air in a home. [Click here to learn more about IAQ.](#)

#### Indoor Coil

see Evaporator Coil

#### Load Estimate

A series of studies performed to determine the heating or cooling requirements of your home. An energy load analysis uses information such as the square footage of your home, window or door areas, insulation quality and local climate to determine the heating and cooling capacity needed by your furnace, heat pump or air conditioner. When referring to heating, this is often known as a Heat Loss Analysis, since a home's heating requirements are determined by the amount of heat lost through the roof, entry ways and walls.

#### Low Boy

Low Boy is a type of furnace configuration in which the furnace is lower in height and occupies more floor space.

#### MERV

The Minimum Efficiency Reporting Value is the standard comparison of the efficiency of an air filter. The MERV scale ranges from 1 (least efficient) to 16 (most efficient), and measures a filter's ability remove particles from 3 to 10 microns in size.

#### Matched System

A heating and cooling system comprised of products that have been certified to perform at promised comfort and efficiency levels when used together, and used according to design and engineering specifications.

#### Multipoise

A multi-direction configuration that allows for both upflow and downflow installations.

#### Operating Cost

The day-to-day cost of running your home comfort equipment, based on energy use.

#### Outdoor Coil

see Condenser Coil

#### Payback Analysis

Overall measure of the efficiency and value of your home comfort system. By combining your purchase price and ongoing operating costs, a payback analysis determines the number of years required before monthly energy savings offset the purchase price.

#### PerfectHeat

PerfectHeat® provides two stages of heating to battle changing winter conditions. At start up, low stage heating gently circulates warm, heated air into your living space. As outdoor temperatures become more extreme, high stage heating provides the extra boost you need to remain comfortable.

#### PerfectHumidity

PerfectHumidity™ is Bryant's proprietary humidity management innovation for maintaining the perfect comfort in a home. [Click to learn more about PerfectHumidity.](#)

#### PerfectLight

PerfectLight is an advanced gas furnace ignition system that replaces standard pilot lights and improves upon traditional modern igniters used by other manufacturers.

#### Puron Refrigerant

Puron® Refrigerant is an environmentally sound refrigerant designed not to harm the earth's ozone layer. Federal law requires all manufacturers phase out ozone depleting refrigerants in the

next few years. Puron Refrigerant is approved by the US Environmental Protection Agency as a replacement from R-22. Click to learn more about Puron.

#### QuietTech

QuietTech™ is a noise reduction system that provides comfortable heat while generating very little noise in the process.

#### R-22 refrigerant

R-22 is a single component HCFC refrigerant with low ozone depletion potential. It has long been used in a variety of air-conditioning and refrigeration applications in a variety of markets. Production of R-22 will cease in 2015 per the Montreal Protocol. Also commonly known as Freon.

#### Reciprocating Compressor

A type of compressor used in air conditioners that compresses refrigerant by using a type of "piston" action.

#### Reclaiming

Involves returning used refrigerant to the manufacturer for disposal or reuse.

#### Recycling

Removing, cleaning and reusing refrigerant.

#### Refrigerant Lines

Two copper lines that connect the Condenser (Outdoor) Coil to the Evaporator (Indoor) Coil.

#### Riello Burner

A burner assembly within your oil furnace, manufactured by Riello to exact specifications of Bryant. This burner provides a cleaner, higher quality combustion of heating oil to increase energy efficiency.

#### SEER

The Seasonal Energy Efficiency Ratio is a measure of the cooling efficiency of your air conditioner or heat pump. The higher the SEER number, the more efficient the system is at converting electricity into cooling power.

#### Scroll Compressor

A specially designed compressor that works in a circular motion instead of an up-and-and-down piston action.

#### Serpentuff

Bryant's exclusive Serpentuff™ Heat Exchanger features a patented polypropylene laminate, so that it extracts nearly all of the heat from the system and makes the most of the energy used.

#### Setback Thermostat

A state-of-the-art electronic thermostat with a built-in memory that can be programmed for different temperature settings at different times of the day.

#### Single Package

One outdoor unit that contains both a heating and a cooling system.

#### SmartRecovery

Smart Recovery starts the system in advance to be sure that each zone reaches your selected temperature setting at the scheduled time.

#### Split System

Refers to an air conditioner or heat pump that has components in two locations. Usually, one part of the system is located inside (evaporator coil) and the other is located outside your home (condenser coil).

#### Thermidistat

The Thermidistat Control monitors temperatures both inside and outside, as well as indoor humidity and adjusts system operation to maintain the temperature and humidity levels set by the homeowner.

#### Thermostat

Unit that monitors and controls your HVAC system products.

#### Thermostatic Expansion Valve

A thermostatic expansion valve (TXV) is precision device used to meter the flow of liquid refrigerant entering the evaporator at a rate that matches the amount of refrigerant being boiled off in the evaporator.

#### Ton

A unit of measure for cooling capacity. One ton = 12,000 BTUs per hour.

#### Total Home Comfort System

The ultimate solution to providing you with consistent, customized home comfort, despite the ever-changing weather.

#### TrueSense Dirty Filter Detection

TrueSense™ dirty filter detection reminds you when it's time to change your media filter.

#### UL

UL is an objective, non-profit organization that tests and rates electrical products for public safety.

#### Upflow

A type of furnace that draws cool air from the bottom and blows the warmed air out the top into the duct work. This type of furnace is usually installed in a basement or an out-of-the-way closet.

#### Ventilator

A ventilator captures heating or cooling energy from stale indoor air and transfers it to fresh incoming air.



#### Zone Perfect™ Plus

Our exclusive zoning system, designed to work in conjunction with properly matched HVAC products to enhance energy efficiency by as much as 30%.

#### Zoning

A way to increase your home comfort and energy efficiency by controlling when and where heating and cooling occurs in a home. Programmable thermostats are used to control operating times of the equipment. Dampers are used to direct air flow to certain parts or "zones" of the home.

*All Definitions Provided By Bryant.com*