

Glossary of Terms

Precision Heating & Indoor Air Quality firmly believes that the best decision is an informed decision. So we are supplying you with a simple glossary of terms you may encounter from HVAC contractors. It is our hope you will allow us to install and service your system. But more importantly, it is our aim to help you make the best decision for your home. If you should encounter anything that is not on this list, please feel free to call us.

AC Alternating Current - A type of current where the polarity is perpetually reversing, causing the directional flow in a circuit to reverse at regular intervals.

ACCA - Air-conditioning Contractors of America.

Acoustical - Relating to sound, the science of sound, or a sense of hearing.

AFUE - Annual Fuel Utilization Efficiency. A measurement used to rate furnace efficiencies by dividing the ratio of heat output by heat input.

AGA - American Gas Association, Inc.

Air Conditioner - A device that changes humidity levels, temperature or quality of air.

Air Flow Volume - Measured in cubic feet per minute (cfm), this is the amount of air circulated in a space.

Air Handler - Parts of a system including the fan-blower, filter and housing.

ARI - Air-conditioning and Refrigeration Institute.

ASHRAE - American Society of Heating, Refrigeration and Air-conditioning Engineers.

BTU - British Thermal Unit. Measures the amount of heat required to raise or lower the temperature of one pound of water one degree Fahrenheit.

BTUh - British Thermal Units per hour.

Burner - The device that facilitates the combustion of air and gas.

Burner Orifice - The opening in the burner through which the gas or fuel passes prior to combustion.

Capacity - HVAC capacity is the output produced by the heating or cooling unit and is measured in BTUs per hour.

Celsius - A temperature scale that registers the freezing point of water as 0° and the boiling point as 100° under normal atmospheric pressure.

CFM - Cubic Feet per Minute. A measurement of airflow volume.

Charging a System - Adding coolant, or refrigerant, to an HVAC system.

Compressor - A pump that increases the pressure of gas.

Condensate - Vapor that is turned into a liquid as its temperature is lowered.

Condenser Coil - Also an outdoor coil. A device that removes heat from the refrigerant, allowing the refrigerant to be converted from vapor to liquid.

Condenser Fan - A fan that passes air over the condenser coil to facilitate the removal of heat from the refrigerant.

CSA - Canadian Standards Association.

DC - Direct Current. A type of electrical current that only flows in one direction.

Damper - Found at the exit point of ductwork, this plate usually contains grates that can be opened or closed to control the flow of air into a zone.

Degree-Day - Calculated by subtracting the average outdoor temperature for an area from 65° Fahrenheit. This measurement is used to estimate the amount of heating or cooling a home or building will need.

Dehumidifier - A device that removes humidity, or moisture, from the air.

Diffuser - A grille over an air supply duct with vanes that distribute the discharging air in a specific pattern or direction.

DOE - Department of Energy.

Downflow Furnace - A furnace with an intake on the top and an air discharge at the bottom.

Drain Pan - Also a condensate pan. As the refrigerant vapor is liquefied, the drain pan collects the condensate and funnels it to the drain line.

Dry Bulb Temperature - The temperature as measured without the consideration of humidity.

Ductwork - A network of metal, fiberboard or flexible material flowing throughout a space which delivers air from an HVAC unit to the respective zones of a home or office.

EER - Energy Efficiency Ratio.

EPA - Environmental Protection Agency.

ESA - Energy Saving Agreement – Our Preventative Maintenance Plan that saves you money, entitles you to priority service and special cash discounts, and most importantly, promotes a safer environment for your family by performing special safety checks.

Expansion Valve - A valve that meters the levels of refrigerant through a temperature or pressure control.

Evaporator Coil - Also an indoor coil. A device that is designed to absorb heat in the air in order to change the liquid refrigerant that flows through it into a vapor.

Fahrenheit - A temperature scale in which water freezes at 32 degrees and boils at 212 degrees at normal atmospheric pressure.

Fan - A device that creates air flow.

Filter - A device that acts like a strainer to remove dirt or undesired particles.

Flue - A vent that removes the byproducts of combustion from a furnace.

Furnace - The major component in heating a home. A device that facilitates the combustion of fuel and air to create heat.

Fuse - A delicate metal strip connecting two parts of an electrical circuit. This strip breaks, or melts, in the event of excess electrical charge, breaking the electrical circuit.

GAMA - Gas Appliance Manufacturers Association.

Heat Exchanger - A device through which heat is transferred to a cold area or surface.

Heat Gain - The amount of heat added or created in a designated area.

Heating Coil - A coil that acts as a heat source for a heating system.

Heat Loss - The amount of heat subtracted from a designated area.

Heat Pump - A device used for either the heating or cooling of a space by transferring heat between two reservoirs.

Heat Transfer - Moving heat from one location to another.

HSPF - Heating Seasonal Performance Factor. This factor rates the efficiency of the heating portion of the heat pump.

Humidifier - A device that adds humidity, or moisture, to the air.

Humidistat - The device that measures humidity and turns the humidifier on and off.

Humidity - Dampness in the air caused by water vapor.

HVAC - Heating, Ventilation and Air-Conditioning.

Ignition - Elevating the temperature of a substance to the point of causing a combustion reaction.

Kilowatt (kW) - 1,000 watts.

Latent Heat - A type of heat that when added to an area produces an effect other than an increase in temperature.

Media - The fine material of a filter that traps dirt, dust, mildew or bacteria.

NADCA – National Air Duct Cleaning Association

NEC - National Energy Council / National Electric Code.

NEMA - National Electrical Manufacturing Association.

Orifice - An opening or hole.

Package Unit - A heating and cooling system contained in one outdoor unit.

Pathogen - Viruses, bacteria, and organisms.

PCO - Photo Catalytic Oxidative. The use of ultraviolet light combined with titanium oxide to naturally sterilize and purify the air.

PSI - Pounds per square inch.

PSIA - Pounds per square inch, absolute.

PSIG - Pounds per square inch gauge.

PVC - Polyvinyl chloride; a type of plastic.

Reciprocating Compressor - A type of compressor used in cooling systems to compress refrigerant by using a piston action.

Refrigerant - A chemical that condenses from a vapor to liquid and, in the process, decreases in temperature.

Refrigerant Charge - The amount of refrigerant in a system.

SEER - Seasonal Energy Efficiency Ratio. A rating system developed by the U.S. Government to indicate the efficiency level of cooling equipment.

Self-Contained System - A package unit.

Sensible Heat - Heat added or subtracted that causes a change in temperature.

Sensor - A device that reacts to a change in conditions.

Split System - An outdoor unit combined with an indoor unit.

Stan Says – What Stan said!

Thermostat - Sensors that monitor and control the output of an HVAC system.

Thermostatic Expansion Valve - A device that creates a constant evaporator temperature.

Ton - One ton is 12,000 BTUs per hour.

Upflow Furnace - A furnace that pulls in air from the bottom and releases it through the top.

Vacuum - A space where the pressure is significantly below that of standard atmospheric pressure.

VOC - Volatile Organic Compound (e.g. odors, gases, and chemicals).

Volt - A unit of electro-motive force.

Voltage - The force pushing electrical current along wires and cables.

Watt - The unit of electrical power equal to the flow of one amp at a potential difference of one volt.

Wet Bulb Thermometer - A thermometer that measures the relative humidity in the air.

Zoning - A system that divides a home, office or space into different regions in order to better control the temperature and effectiveness of a heating and cooling system.