**HVAC System Components: 10 Basic Parts Found in HVAC**

Heating, Ventilation, and Air Condition systems, or HVAC as they are usually known as, are responsible for controlling a whole building’s temperature, ensuring it remains at a reasonable level at all times. They are found in both commercial and residential property and, while they do come in all different shapes and sizes, there are eight parts that are found in pretty much every [HVAC System](https://www.hvacapprenticeships.org/) ever created.

**Furnace**

Located in either the basement or attic, the Furnace is the part that pushes cold and warm air into the ducts, like a furnace. This controls whether the rooms are being heated or cooled, which makes in an important component in any HVAC System.

**Evaporator Coil**

Evaporator Coils are literally the exact opposite of Heat exchangers, serving to cool down any warm air that enters the system. Located within a metal enclosure inside the furnace, they allow for rooms to be cooled down when needed, just like a conventional Air Conditioning unit.

**Ducts**

When a building is being built, It will often have heating ducts installed in the ceiling or roof, connecting a network of rooms, pipes, and vents together. The ducts are pretty much the highway of the whole system, allowing air to travel to where it’s needed.

**Heat Exchanger**

The heat exchanger is the component inside the Furnace that does the actual heating, turning cool, cold air into warm air incredibly quickly, allowing it to then be blown throughout the building by the furnace. The actual heating is done very much like a hair dryer, using a metal coil that is heated up electrically, warming any air that goes over it.

**Refrigerant Lines**

As I’m sure you can figure out from the name, Refrigerant lines are tubes, constructed of metal, that carry the coolant liquid to the evaporator coil, and then return the gas back to the condensing unit. They are manufactured out of durable, weatherproof Aluminum or Copper that is designed to work under extreme temperature.

**Condensing Unit**

Unlike the past two components, the Condensing unit is not part of the Furnace and, instead, it is found on the outside of the building, utilizing a unique coolant gas that is cooled with the outside air, turning it into a liquid that is then run through the Evaporator Coil, causing warm air to be displaced.

**Thermostat**

Just like with most modern heating systems, the thermostat is the control hub of the whole thing, allowing you to easily change the temperature settings, as well as set up certain temperature profiles. If it’s a particularly warm day, all you have to do is press a conveniently placed button and you can relax in the cool breeze.

**Vents**

Vents connect to the ducts that we mentioned above and, while they are mainly found in the ceiling, it’s not uncommon to find them along the walls. As chilled or heated air travels along the ducts, the vents allow it to escape into the rooms where it is needed.

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