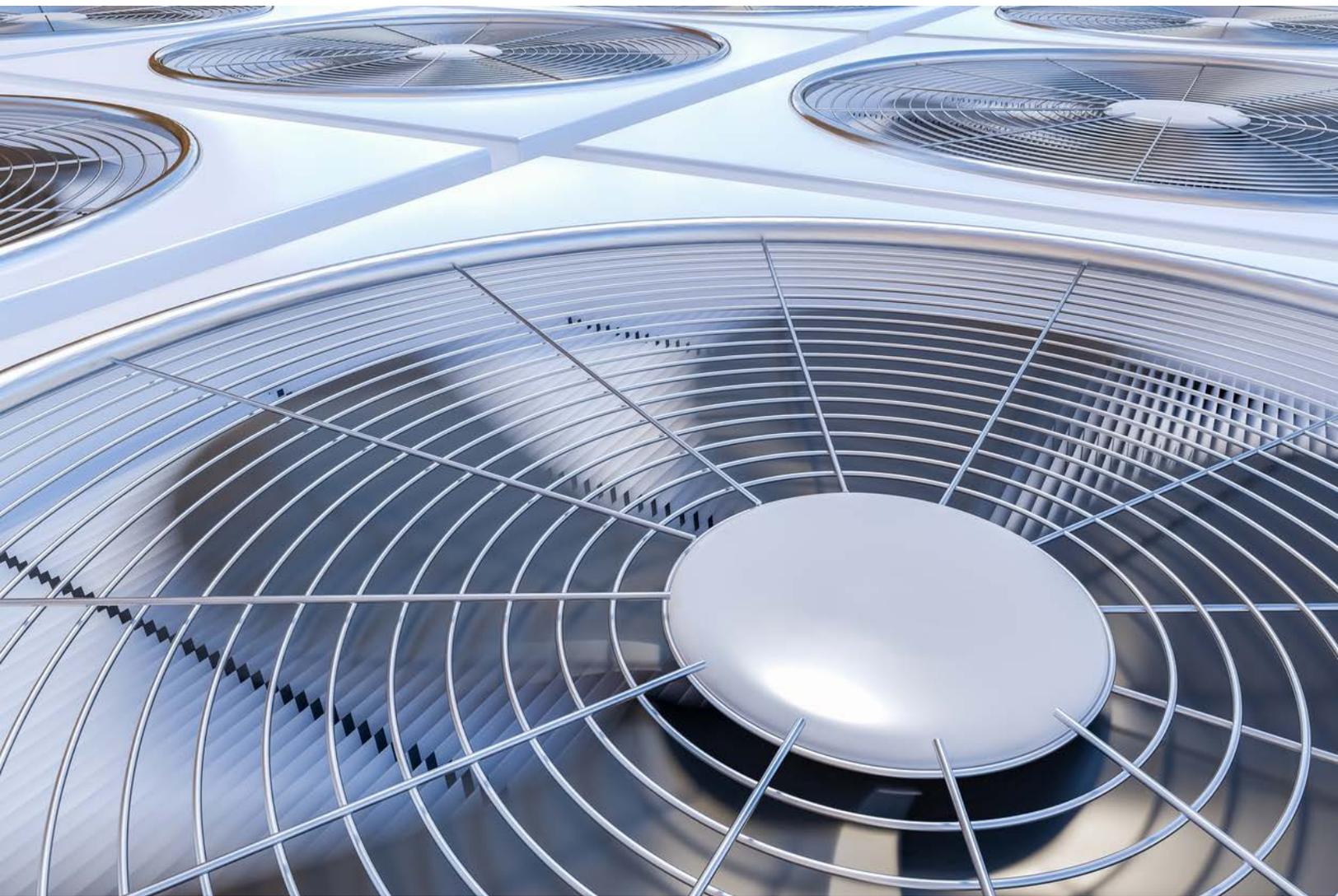


HVAC 101 - Understanding Your Home's Heating & Cooling System



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Heating, ventilation and air conditioning systems are essential for your comfort and help ensure your home is neither too hot nor too cold. However, as mechanical and electrical components, HVAC systems are bound to break down. Regular checks and maintenance can squeeze more life out of your unit, but eventually, you will need repair and replacement. When this happens, it is important to find credible, reputable HVAC contractors to fix your system. Below, we have provided an overview of the heating and cooling systems in your home, maintenance tips and how to go about finding reliable contractors.

What are HVAC Systems Made Of?

There are various HVAC models in the market and each has distinct features. However, a standard system comprises of three parts as follows:

The Heat Source

Most systems use a furnace to provide heat during cold days, but you can find models that rely on a boiler or heat pump. Furnaces are designed to heat air and circulate the warm air using ducts that lead to registers in a typical forced-air system. Boilers, on the other hand, heat water and supply using pipes. The radiators and baseboards then distribute the hot water to other faucets in the house. Lastly, heat pumps exchange hot and cold air between the inside and outside of your home.

The Distribution System (Air Conditioning)

The AC and all other types of refrigerants work by removing heat from the air and transferring it to other parts (outside the house). In a central AC, hot air is drawn through evaporator coils that remove the heat and the cold air is then blown back to the house. The hot air is transferred to a refrigerant that leads outside to the compressor and condenser units. Central ACs use similar ducts as forced-air heating systems and can also function as standalone units. They also come in ductless models, which we will look at shortly.



Thermostat Controls

Heating and cooling systems are controlled by a thermostat, usually located in the living room. Standard thermostats have one temperature setting, but you can find programmable units that allow you to set different temperatures. Programmable thermostats are energy efficient and ensure you only heat or cool rooms when there's a need. You can set the unit to start heating when you leave work, so the house is warm and ready when you get home.

What About Ductless Units?

As the name suggests, no ductwork is installed for these units. A typical ductless AC features indoor and outdoor components joined by a pipe that carries electrical connections and refrigerant lines. Ductless units suit rooms that aren't serviced by the existing HVAC system. They are useful for cooling one room, but you can find models capable of cooling up to 8 rooms. Most models are installed on walls and feature remote controls. Ductless systems are also designed for cooling with fewer models capable of heating.

HVAC Unit Maintenance

Proper maintenance is required for optimal HVAC system performance. From changing air filters to cleaning the ductwork and inspecting all components for faults and progressive wear, you should establish a maintenance schedule to ensure your system is working as intended. HVAC maintenance has two main parts, as follows:

DIY Tasks You Can Complete Without Help

It is recommended to call a professional for HVAC repairs and maintenance. However, you can change AC filters and check the system to ensure vents, radiators and baseboard heaters aren't blocked by other fixtures or furniture. You should also clean the area around your outdoor condenser and compressor, removing leaves, dust and other debris to make sure nothing obstructs the airflow.

Maintenance Work That Calls for Professional HVAC Technician

These include inspecting and tightening electrical components, checking hose and belt conditions, lubricating moving parts, measuring and correcting air pressure, checking for leaks and inspecting fuel connections, combustion and heat exchanges. The technician will also check the fan component and clean the evaporator and condenser coils.

When to Call an Expert

HVAC units are delicate and require knowledgeable technicians to repair and maintain. Manufacturers also advise homeowners to stick to professional technicians for all repairs and necessary maintenance. There are various signs for diagnosing issues with your heating and cooling systems, so you should regularly inspect it. Some of the things to watch out for include:

- Strange or increased noise and heat from your unit
- The AC no longer works as efficiently as before
- Increased energy bills
- Increased frequency of repairs
- Increased pollutants in your indoor air

As a rule of thumb, you should schedule professional maintenance at least twice a year. Make sure you choose licensed professionals that won't void your warranty. You should also replace old worn out systems or upgrade to an energy-efficient model.



Professional HVAC Services in Texas

Finding heating and cooling services in the sophisticated regions of Texas shouldn't be a daunting task. However, it is crucial to choose reliable companies with a growing reputation and positive reviews from customers. At P&M Air Conditioning and Heating, we are dedicated to providing premium quality services that cover all HVAC installations, repair and preventative maintenance, and indoor air quality. We also offer troubleshooting and consultancy services to ensure your systems are in excellent working conditions all year round. Contact us today at (713) 588-6249 to find out more about our HVAC services in Houston, Texas, including financing. Visit our website at <https://pmhvac.com/>.