



## HOW DO THE HOME AND COMMERCIAL INSTALLATIONS DIFFER?



HVAC systems are indispensable to real estate properties, whether they are commercial or residential.

Adequate heating, cooling, and ventilation are necessary for comfortable use of the space. There are many different types of HVAC systems but the major types are residential and commercial.

Residential HVAC systems are installed in homes and in small or medium sized residences while Commercial HVAC systems are needed for offices, large stores, hospitals, warehouses, and big sized buildings.

Both systems do the same job of heating or cooling a place but they differ in size, power, drainage, the way they are manufactured and other features.

HVAC system companies specialize in either one or both types of systems and so their service varies accordingly.

Following are the key aspects where the two systems differ.

- **Size**

This is an obvious and noticeable difference. Large buildings need bigger HVAC systems to be able to serve the large space.

Commercial HVAC systems are more complex as well in terms of thermostats and dampers. A bigger area needs a bigger unit so the power required to run the unit too is higher in case of commercial HVAC systems.

- **Location**

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This difference is very noticeable as well. If you look at a large office or a mall from outside, you will notice that the HVAC units are mostly placed on the roof; whereas residential HVAC units are installed on the exterior walls of a house.

Installing HVAC units on the roof has multiple benefits. It saves interior space. Large HVAC units may cause a lot of noise, so it is better to place them far from people.

Technicians can conduct regular maintenance and nobody will get in their way. Units on the roof are automatically protected from vandalism or damage of any kind.

- **Manufacturing**

Manufacturing of an HVAC unit mainly depends on where the unit is going to be installed. If it is a commercial unit, all the different components are put together on the roof and can be moved around as required.

A modular system is easy to transport or expand and includes the condenser, the condenser fan, compressor, evaporator, blower, and the drainage system.

A residential unit is the exact opposite of a commercial system because the components are split between the interior and the exterior of houses. This unit cannot be expanded or reduced and any changes in use will need installation of an altogether new unit.

- **Drainage**

A single drainage pan suffices for residential HVAC systems while commercial HVAC systems require multiple pans and pipes for draining and eliminating overflow.

- **Ownership**

You are the owner of your home HVAC system and the responsibility of cleaning and maintaining the unit is yours. There are certain maintenance tasks home owners can do on their own but the more complicated ones need certified technicians.

Commercial HVAC systems are the responsibility of property owners and HVAC technicians.

### **Capacity of HVAC**

Both types of HVAC systems have to take into consideration the size of the room, purpose of using the space, and the number of people or objects in it.