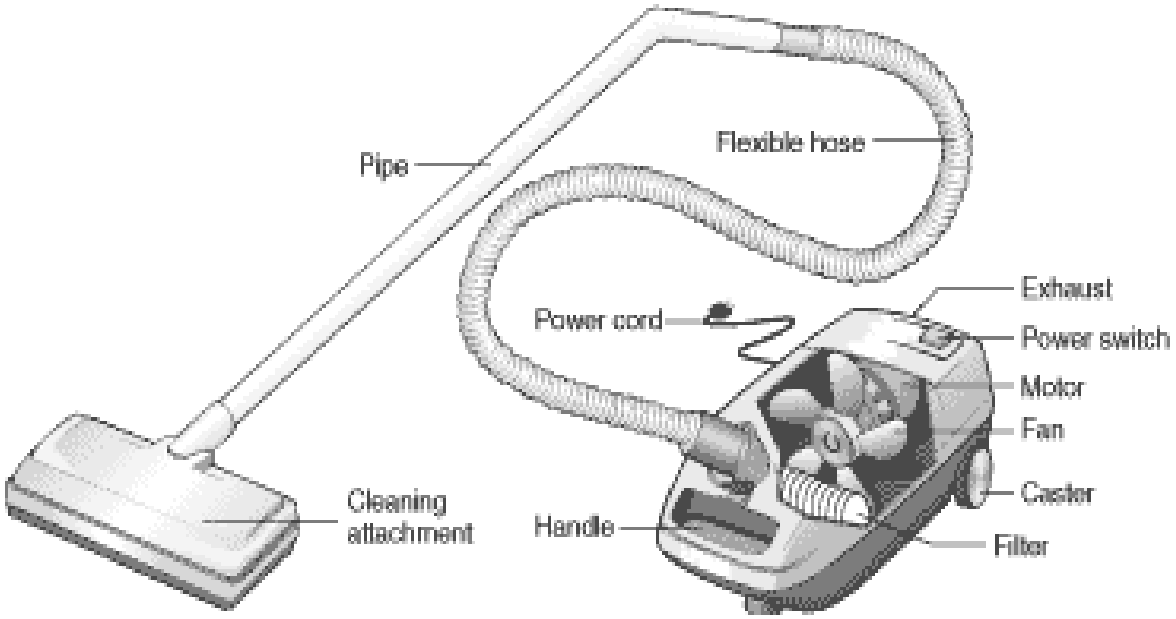
5 Significant Components Of A Vacuum Cleaner

If you have a vacuum cleaner, you should know everything about it especially about the components of a vacuum cleaner.

Vacuum cleaners are known to have undergone several modifications after the first vacuum cleaners were made in the 19th century by Hubert Cecil Booth and David T. Kenney. Today many sizes and models of them can be seen around the world. The modern and ancient vacuum cleaners still work on the same principle although modern vacuum cleaners are far enhanced and efficient.

Vacuum cleaners basically operate on Bernoulli's principle which states that as the speed of air increases, the pressure decreases. This creates the suction requiring the air flowing from a high-pressure area to a low-pressure area, in order to balance out the pressure. It also works on the principle of depression, meaning the pressure difference in the fan at the back of the vacuum creates a vacuum inside it, which allows suction at the brush in contact with the ground.

For your cleaning, it is best to understand the different components of a vacuum cleaner and how to use them properly. Knowing the components of a vacuum cleaner will assist in future repairs, maintenance, or mainly for personal culture.



MAJOR COMPONENTS OF A VACUUM CLEANER:

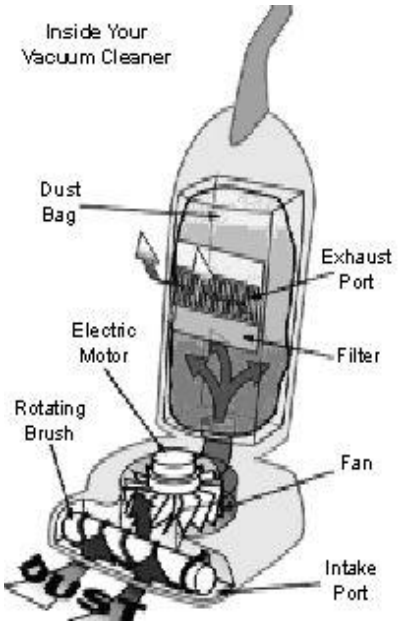
1. **HOSE**:
   This is made from polythene leather simply known as plastic, though it is tough when found in vacuum cleaners. The flexibility of this material aids access to the hardest and unreachable places. It is also known as a “tube” or “line” and comes in different sizes.
   It is safe to separate the hose and the hose and wand by pressing the button on the top of the wand in order to check for clogs.

2. **POWERHEAD OR NOZZLE:**
   The nozzle is one of the most complex components of a vacuum cleaner as its purpose is to pick up dust from all surfaces. The air flowing through the nozzle causes airspeed over the surface thereby creating a lifting force on the dust particles. The nozzle is either an active or passive nozzle combined with a static brush or rubber strips so as to enable sealing against the floor, therefore, achieving airspeed.
   The active nozzle comes with a revolving roller brush which can be driven by an airflow turbine or an electric motor.

3. **AIR FILTER:**
   Dirt or debris makes its way to the exhaust port and goes through the vacuum-cleaner bag. These bags, made of porous woven material (especially cloth or paper), act as the air filter. There are tiny holes in the bag large enough for air particles thereby trapping the dirt which are too big to pass through these tiny holes.

4. **THE ELECTRIC MOTOR AND FAN:**
   A motor is one of the most essential components of a vacuum cleaner. If a motor burns out, it spells the end of an entire machine. Just like the way of servicing a car regularly prolongs it, it is the same in vacuum motors. The motor runs the fan forming an airflow leading to pressure. This airflow leads to a tube, then to a nozzle.
   The largest power loss is in the motor and the fan as it carries out the most work. The motor power determines the suction power. High power motor proffers more sucking capabilities although it is best to consider other factors when looking for a vacuum cleaner. The fan works as a vacuum pump and it is the only power loss that is requested. The fan has angle blades almost the same as the blades in an aircraft propeller. When the fan spins, they suck in the air pushing it to the exhaust port. As the air is sucked up, pressure increases in front of the fan and decreases behind, generating a strong flow of air to create all that suction power.

5. **INTAKE AND EXHAUST PORT:**
   A vacuum cleaner would not function if an intake port is not present. This is because it uses a continuous flow of air towards ensuring suction is heightened. Air particles drawn through the intake port per unit is always constant as long as the speed of the fan stays the same. If narrowed with an attachment tool, it is possible to increase the suction power, in view of the fact that the same number of particles are needed to get through in the same amount of time. There is a saying that whatever goes in must surely come out, in this case, air. Without an exhaust port, pressure would build inside the vacuum cleaner exceeding the pressure created by the fan. This causes dirt to deposit back to your floor.



The rest components of a vacuum cleaner are the drive belt, switch, electric cord, all others are housed in the vacuum cleaner.

Check out the best steam cleaners of 2020 here!