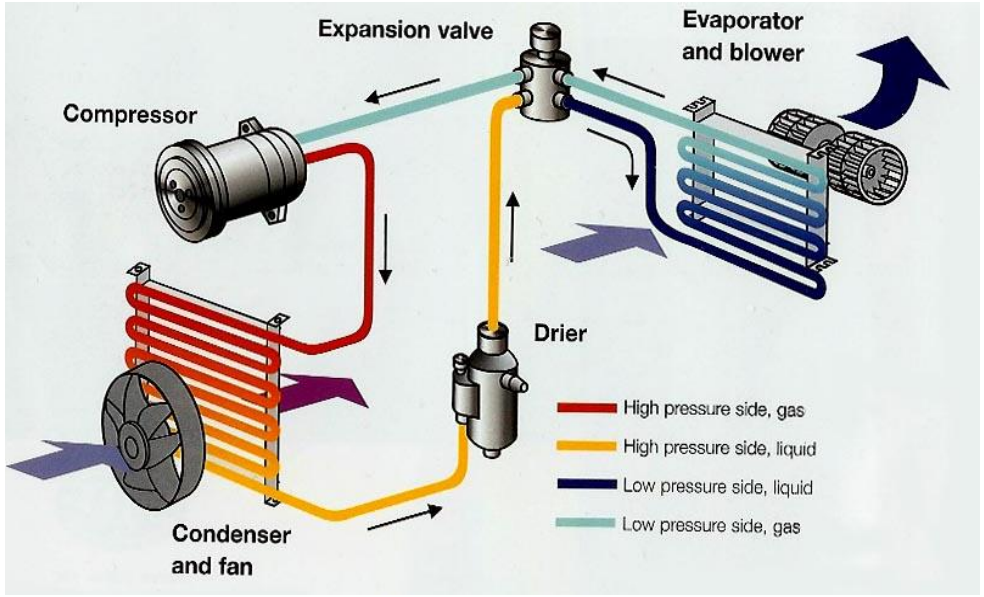
The compressor pumps the refrigerant vapour under high pressure to the condenser. The compressor is powered by the engine and this is why having the air conditioning switched on uses more fuel.

The high pressure liquid refrigerant flows from the Receiver-Drier to the **Expansion Valve**. The Valve removes pressure from the liquid refrigerant so that it can expand and become refrigerant vapour.



The Evaporator is usually mounted inside the passenger compartment, behind the fascia above the foot well. As the cold low pressure liquid refrigerant passes into the evaporator, it vaporises and absorbs heat from the passenger compartment. The blower fan inside the passenger compartment blows air over the outside of the evaporator, so cold air is circulated inside the car.

The condenser is a device used to change the high pressure refrigerant vapour to a liquid. The Vapour is condensed to a liquid because of the high pressure that is driving it in . As the vapour condenses a great deal of heat is generated, this is removed by air been blown by the fan through and around the outside of the condenser.

Receiver-Drier. The liquid refrigerant moves from the condenser to the Receiver-Drier. This is a small reservoir vessel which removes any moisture that may have leaked into the refrigerant. Moisture in the system is a major problem, as through the following cooling process, ice crystals may form, causing damage.