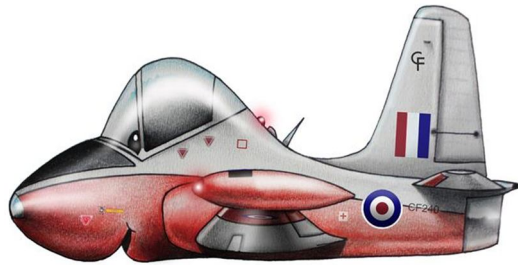


# How a Jet Engine Works



## Turbojet Engine

The basic idea of the turbojet engine is simple.

Air is sucked in from an opening at the front of the engine, the air is then squeezed through a compressor making the air 3 to 12 times more than its original pressure. This squeezing of the air is called compression. Fuel is added to the compressed air and burnt in a combustion chamber to raise the temperature of the fluid mixture to about 1,100°F to 1,300° F.

The hot air which is produced is then passed through a turbine, which drives the compressor. When the turbine and compressor work together efficiently, they produce pressure at the turbine discharge which is nearly twice the pressure of the air outside. This excess pressure is sent to the exhaust nozzle to produce a very powerful stream of gas which produces thrust. If the plane needs more power then more thrust can be produced by using the afterburner. The afterburner is a second combustion chamber which can increase the temperature of the gas by about 40 percent.

The turbojet engine is a reaction engine. A reaction engine expands gases which push hard against the front of the engine. The turbojet sucks in the air and compresses it. The gases then flow through the turbine and make it spin. These gases bounce back and shoot out of the rear of the exhaust nozzle, pushing the plane forward (thrust).

