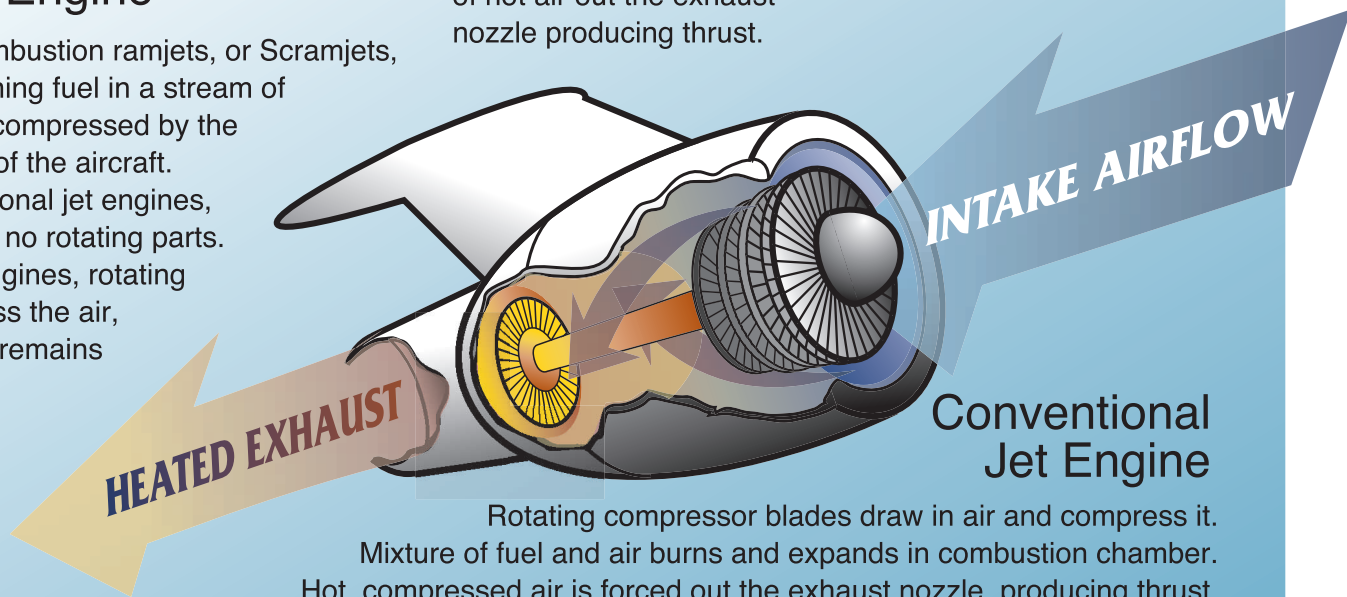


Scramjet Engine

Supersonic combustion ramjets, or Scramjets, operate by burning fuel in a stream of supersonic air compressed by the forward speed of the aircraft. Unlike conventional jet engines, scramjets have no rotating parts. In normal jet engines, rotating blades compress the air, and the airflow remains sub-sonic.

Hydrogen fuel is ignited in the supersonic airflow, with the rapid expansion of hot air out the exhaust nozzle producing thrust.

The supersonic airflow into the engine is compressed more as it enters the inlet and passes through the engine. This increases the air pressure higher than the surrounding air.



Conventional Jet Engine

Rotating compressor blades draw in air and compress it. Mixture of fuel and air burns and expands in combustion chamber. Hot, compressed air is forced out the exhaust nozzle, producing thrust.