

Distinguish, differentiate, compare and explain what is the Difference between Open and Closed Cycle Gas Turbine. Comparison and Differences.

## **Difference Between Open and Closed Cycle Gas Turbine**

1. In Open cycle gas turbine, mixing type is in combustion chamber whereas closed cycle gas turbine is a non-mixing type.
2. An open cycle has air and gas as a medium. A closed cycle has helium or liquid sodium medium.
3. The open cycle has aviation fuel as fuel whereas closed cycle can have any low-quality fuel.
4. Open cycle gas turbine is relatively cheap than closed loop gas turbine.
5. Open cycle gas turbine has high specific power. Closed loop gas turbine has low specific power.
6. Open cycle gas turbine is used in airplanes while closed loop gas turbine is used in power plant.
7. In open loop gas turbine, power cannot be increased whereas in closed loop gas turbine, power can be increased by increasing the pressure ratio.