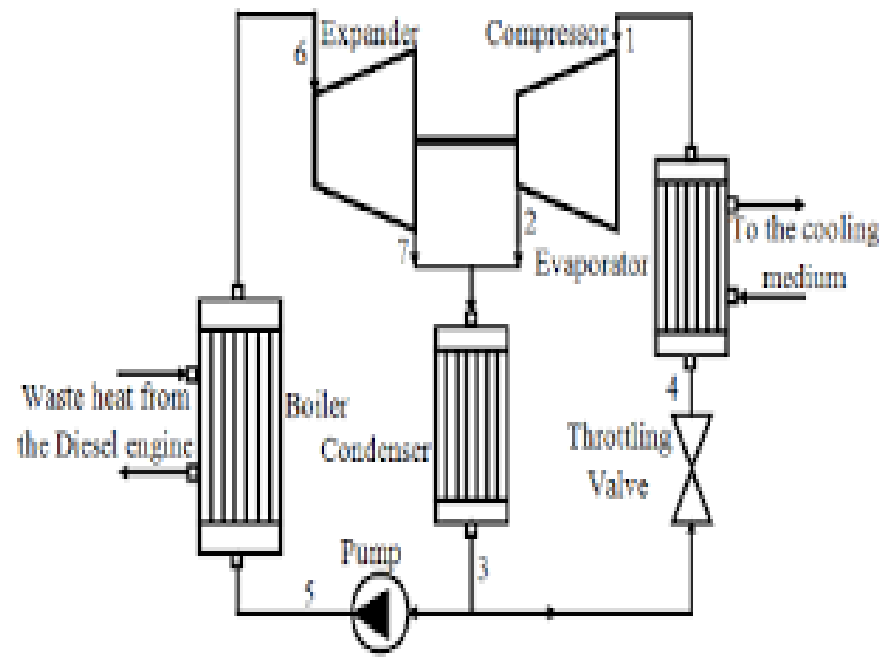


ORC- a new technology in power generation

What could be more benefitting to the environment than an eco-friendly, reliable, high efficient power generation process?

Well, it is definitely important to implement new energy conversion technologies to produces electricity without affecting the Mother Nature. Thanks to the advancement of science and technology, the field of thermodynamics have revolutionized with innovative ideas and strategies. The Organic Rankine Cycle (ORC) is a thermodynamic process which utilizes low power heat sources to drive the turbine to produce electricity.



Working principle of ORC

The Organic Rankine Cycle (ORC) uses the organic fluid as the working fluid, which has a lower boiling point and higher vapor pressures than water. In this process, the heat from lower temperatures sources such as industrial waste or geothermal heat is transferred to the liquid at a constant pressure. The organic fluid gets vaporized and is then expanded in vapor turbine which drives the generator to produce electricity. The vapor retrieved in the conversion process is cooled and condensed to the liquid, which is recycled back through the cycle.

The concept of ORC has exempted the use of fossil fuels which actually causes serious environmental problems such as global warming and pollution. It is popularly used in local and small scale power generation process.

Enerzea imbibes green technology in the power generation process

Enerzea, one of the leading companies in generating eco-friendly power generating equipment, has applied ORC technology to increase power generation efficiency. The ORC systems are effectually used for geothermal, biomass and solar applications. Enerzea, by implementing this technology has utilized the heat obtained from waste heat sources such as CHP systems, Biomass boilers, landfill gas etc. to evaporate the liquid to achieve high-pressure vapor that drives the generator to produce electricity.

The evolutionary ORC technology supports green technology and has improved the overall efficiency of the system through waste heat and eliminates pollution.