

Cutting edge
technology that
involves
thermodynamics or
thermodynamics
processes

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Cutting Edge Technology That Involves Thermodynamics or Thermodynamics Processes Introduction Cutting edge technologies de s to technological expedients, systems or achievements that employ contemporary high-level Information technology developments. This technology is embraced by diverse industries, among them automotive, engineering and medical. Developing and applying technologies needs creativity and dynamic processes, especially rapid heat cycle molding using cyclic process thermodynamics through specific projects mediums. Advanced environmental technologies are the heart of cutting-edge research, niching on alternative strategies in place of conventional concepts on environmental sustainability (<http://www.narecde.co.uk/technology/solar-thermodynamic-panels/>).

Discussion

Thermodynamic process is the energetic development of a thermodynamic system, proceeding from an initial state to a final state. Advances in hot water systems and solar is a combination of thermodynamic processes, employing cutting edge technology to deliver. A thermodynamic process is not an isolated one permitted to undergo spontaneous changes, because this will bring disorder.

A hot water and solar panels system employs thermodynamic law of equilibrium, and maintains temperatures in a state of equilibrium. In solar panels, the process happens infinitely, through a series of sequence. Hot water systems thermodynamics involve transfer of energy as work of heat, through which particles are insulated from the environment to maintain the particles in a constant impermeable state, by which thermodynamic heat is

generated before the system closes (<http://www.scienceclarified.com/everyday/Real-Life-Physics-Vol-2/Thermodynamics-Real-life-applications.html>).

Thermodynamic processes are an extension of thermodynamics cycles, through which heat collision in form of permeable particles produces energy. As observed in solar panel systems and hot water systems, thermodynamic molecular forces do not act in isolation in cutting-edge technology to produce result. They are supplemented with electrical currents and weak interactions with that determines thermodynamic properties.

Thermodynamics processes in cooling Machines

Laws of thermodynamics are an exploration of the relationship between heat and energy. Thermodynamics processes employ heat transfer in all its forms, that is, conduction, convection, and radiation. Cooling machines use heat in reverse process by which particles are heated. Through the radiation sequence in thermodynamics, refrigerator pulls heat from its inner compartments and transfers it to outer region. This is the science behind the warmth felt at the back of a refrigerator.

An evaporator situated inside the refrigerator allows flow of heat from the compartments. Refrigerated gas, like Freon that readily liquefies is released in the evaporator at low pressure, to ensure maintenance of steady state to ensure a balance. As a result, it evaporates through a process that cools it. The condenser located at the back of the refrigerator, is a series of pipe, through which the cooled gases from the evaporator are condensed at high pressure turning into liquid. As it goes through the condenser, this gas heats and the heat is released into the air around the refrigerator.

Observed in the above cooling process, are the principles of thermodynamics process, which states that moving heat in reverse condition necessitates external energy. Consequently, cooling machines takes in energy from an electric power supply, which enables it to extract heat. Accordingly, this process works so efficiently in accordance with the 2nd law of thermodynamics, through which cooling machines efficiently removes double or thrice amount of heat from their inner compartments in comparison to the amount of energy required to run it.

References

<http://www.narecde.co.uk/technology/solar-thermodynamic-panels/>

<http://www.scienceclarified.com/everyday/Real-Life-Physics-Vol-2/Thermodynamics-Real-life-applications.html>