

HISTORY, CLASSIFICATION AND APPLICATION OF GAS TURBINE

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Apstrakt: Gas turbines are machines that convert heat energy into kinetic energy of gas regulated electricity fluid adiabatic expansion process, then this energy into mechanical work, which is through the turbine shaft surrender driven machine. The main characteristics of the gas turbines, according to which differ from the steam, relatively little is available thermal pad and a slight increase in the flow rate of gas at the expansion in the flow part of the turbine and hence the smaller the number of degrees, and a more moderate increase in height of the blade from the first to the last step. To obtain mechanical power from heat, in addition to the steam turbine, there must be a heat source and a heat sink. In the heat source receives heat from the chemical or nuclear fuel, which is then forwarded to the working medium (gas), while in the heat sink takes the residual heat that could not be converted into mechanical work, and handover destination via the heat sink with associated piping, heat and pumps required to operate. The aim of this paper is to present the history, classification and application of gas turbines.

Keywords: gas turbines, power plants, propulsion.