ET 792 – ET 796
Gas turbines for experiments and demonstration

ET 792
Gas turbine

ET 794
Gas turbine with power turbine

ET 796
Gas turbine jet engine

ET 795
Simulation of a gas turbine

GUNT offers gas turbines for the following fields of application:

- ET 796 Single-shaft turbine: Jet engines
- ET 794 Two-shaft turbine: Power generation and drive systems
- ET 792 Two-shaft turbine: Combination of power generation and drive systems / jet engines

The trainers demonstrate the typical properties of gas turbines in a way that is easily understood by students.

The students become familiar with the typical properties of a gas turbine by manual start-up and operation of our two-shaft gas turbine. Safety devices ensure safe operation. Due to the operation of the two-shaft gas turbines with propane, they are protected against overspeed. The operation with gas as fuel also avoids dangerous hot starts occurring because of unburnt fuel remaining after a start-up abort. Another advantage is the good emission quality of the unit.

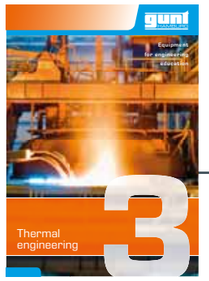
Relevant values are measured by sensors, displayed and processed by a PC in many cases. This enables comprehension of the cyclic process and determination of power, fuel consumption and efficiency values etc.

The two-shaft turbines are equipped with silencers and can be operated in suitable and well ventilated laboratories. Cooling water and an exhaust gas system is required for operation.

A real jet engine in laboratory scale is used as the gas turbine for the trainer ET 796. The jet engine is a single-shaft engine with radial compressor, annular combustion chamber and axial turbine. As in reality the turbine is operated with kerosene. An electronic control unit (ECU) facilitates automated start-up and monitors turbine functions.

Please find the data sheets of ET 794 and ET 796 in chapter 4.

The GUNT simulator for gas turbines (ET 795) helps students become familiar with the typical behaviour of a gas turbine with minimal effort. The simulation also permits the safe investigation of behaviour in critical situations. Contrary to real systems, parameters such as state of inlet air or compressor pressure ratio are adjustable. Concept and operational behaviour are matched to both two-shaft turbines (ET 792, ET 794). Using the simulator is the ideal way to prepare students for experiments with the real systems.



In **Catalogue 3** "Thermal engineering" you can find further information and more gas turbines