

Product Name :
Steam Turbine Power Plant Setup

Product Code :
ENGLABINGCAG340021



Description :

Steam Turbine Power Plant Setup

Technical Specification :

An oil-fired once-through steam boiler produces wet steam that is turned into superheated steam by means of a super heater.
The boiler's short heat-up time means rapid steam generation is possible.
Load is applied to the turbine with a generator.
The turbine output is determined by speed and torque.
The feed water circuit is fitted with a complete water treatment system, which consists of a regenerable ion exchanger and chemical dosing.
Downstream of the turbine, the steam is condensed and returned to the boiler.
Sensors record the temperature, pressure, speed, and flow rate at all relevant points.
The measured values can be read on digital displays.
At the same time, the measured values can also be transmitted directly to a PC via USB.
The data acquisition software is included.
The control panel includes a clear process schematic of the plant.
The system is monitored and controlled by a programmable logic controller (PLC).
The experimental plant is built in accordance with statutory safety regulations and includes the mandatory safety facilities.
The steam generator is type tested and does not require specific permissions.
The plant can optionally be operated with the cooling tower.

Steam power plant and its components
Start-up, operation and shut down of a steam power plant
Closed steam-water circuit with feed water treatment

Among others, determining:

Boiler efficiency

Mechanical/thermal efficiency of the turbine

Condenser efficiency

Specific fuel consumption of the plant



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