

ALTERNATIVE ENERGY SERIES



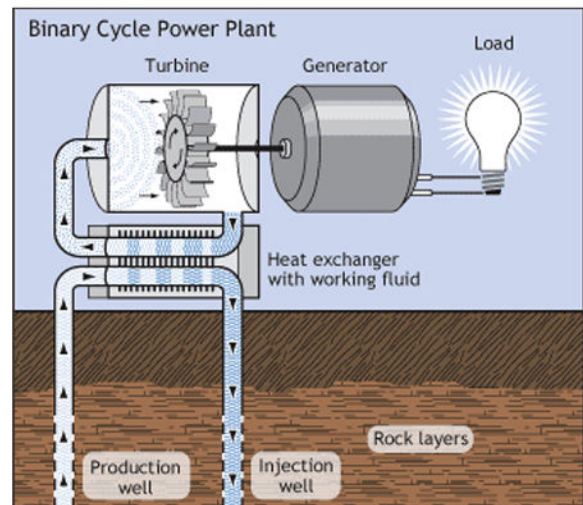
Geothermal Turbine Trainer

Model: MEG-GEO

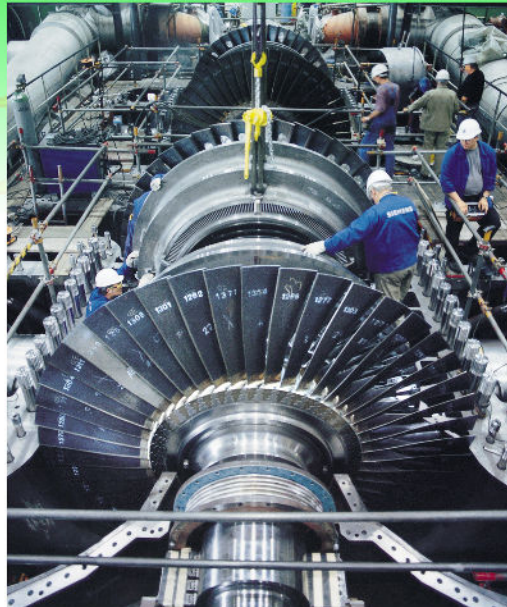
DESCRIPTION:

Geothermal energy is a renewable and sustainable power source that comes from heat generated by the earth. The Megatech geothermal trainer shows students how thermal energy is used to generate electricity via a turbine, just as production wells use this source in geothermal power plants.

The trainer has multiple gauges for DC power (voltage and current) and several outputs for harnessing the electricity produced. Pressure relief and controls are mounted for safety.



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This system simulates an electric power generating plant, which uses a steam turbine. The student will burn propane fuel or natural gas to generate steam, which is injected into a transparent turbine coupled to an electric generator, producing electricity. The amount of power generated is controlled by boiler pressure and/or the amount of fuel burned under the boiler.

The student will get the full benefit of operating this unit and observing all the functional components of how energy is converted from one form into another.

SPECIFICATIONS:

Trainer to include:

- a. Steam Turbine Generator
- b. Fischer Gas Burner
- c. Output Terminals
- d. Eight 1" Panel Lights
- e. 2 ½" Ammeter Field Current 0-3 Amps
- f. 2 ½" Voltmeter Output Voltage 0-25 Volts
- g. 2 ½" Ammeter Output Current 0-3 Amps
- h. 2 ½" Steam Pressure Gauge 1-100 PSI

Size: 34" H x 48" L x 16" W

Weight: 45 lbs.

Ordering Information: MEG-GEO

COURSE CONTENT:

1. Electrical Power Generation
2. Boilers, Fuels and Operating
3. Nozzles and Thermal Expansion
4. Design and Operation of Turbines
5. Turbine – Generators: Producing D.C. Power
6. Water Feed to the Boiler and Set-Up for Operation
7. Power Generation and Measurements
8. Power Generation and Loading Devices
9. Electrical Current and Voltage Measurements, Calculating Power Output
10. Electrical Power Generating Industry and Environmental Consideration.