

# MICRO HYDRO POWER GENERATION TRAINER

Model Number : GOTT-MHPG-01



## DESCRIPTION

By using this trainer, trainees can learn about micro hydro systems as a form of alternative energy power generation. Micro Hydro systems have become more popular recently as a form of mini power generation for homes and communities that are close to water sources like rivers and streams.

Through this lab, students will learn about micro hydro systems, how they operate, how to set one up, how they are controlled, storage and distribution of power and basic electrical power generation and protection systems.

The trainer consists of the micro hydro turbine system , piping and control valves, pressure gas and flow meter , water supply system and control panel.

## FEATURES

This trainer is designed for an easy use in different environment & is provided with:

- Real components micro hydro turbine system can be observed clearly.
- Water Supply Systems
- Power Generation Control Systems
- All connections are made with 4mm educational safety sockets and test leads

## TECHINCAL SPECIFICATIONS

### Micro Hydro Turbine

- Real Generator coupled to the Turbine Unit (approx. output 1 Kw)
- Piping and control valves for the Turbine water input/output
- Pressure gauges and flow meter for the water flow
- Input /Output Interface panel

### Water Supply Systems

- Water Storage Tank with drain and valves, approx 1 cubic meters for 1 kW system
- Mini tower for the Water Storage tank
- Pump Unit with control valves. Variable speed control to vary the water flow

### Power Generation Control Panel System

- Control Panel with Meters and Controls including AC Voltmeters or DC Voltmeters, AC Ammeters or DC Ammeters, AC Frequency meter, circuit breaker power protection system.
- Battery Storage System consisting of Lead Acid Batteries 12 Volt DC
- Inverter to convert DC power into AC power
- All connections are made with 4mm educational safety sockets and test leads

## EXPERIMENT TOPICS

- Energy conversion
- Study of hydroelectric power and micro-generation concepts
- Power management
- Typical applications: illumination, power supply of remote telecommunication equipment, Residential needs, charging batteries and more
- Generator electrical efficiency
- Turbine generator efficiency

### Manuals :

- (1) All manuals are written in English.
- (2) Model Answer
- (3) Teaching Manuals

### General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manual & Training will be provided where applicable.
- (3) Design & specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

### Warranty :

2 Years

## ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
MICRO HYDRO POWER GENERATION TRAINER	GOTT-MHPG-01	444-200

\*Proposed design only, subject to changes without any notice.