

# BIOMASS GASIFICATION POWER PLANT TRAINER

Model Number : GOTT-BGPP-01



## DESCRIPTION

By using this trainer, trainees can learn about biogas systems as a form of alternative energy. Biomass is organic material that comes from plants and animals, and it is a renewable source of energy. Biomass contains stored energy from the sun. Plants absorb the sun's energy in a process called photosynthesis. When biomass is burned, the chemical energy in biomass is released as heat. Through this lab, students will learn about biogas systems, how they operate, how to set one up, how they are controlled, storage and distribution.

## FEATURES

The trainer consists of a biomass gasification, ash remover, cooling gas section, filter, tar purifier, and separating gas section. The raw material like woodchips, sawdust will go to hopper feeder, go to gasifier plant, from here biomass that produced will go to dust remover then go to cooler section, go to tar purifier and filtering, then separating gas section, the gas will be out on the gas outlet valve.

## TECHNICAL SPECIFICATIONS

This trainer consists of:

- Bucket feeding machine motor
- Feeding port
- Cycloid reducer
- On electric butterfly valve
- Under electric butterfly valve
- Ash Hopper
- Ash removal machine screw
- Furnace
- Cool dust
- Cool precipitator dust port on
- Tar purifier
- Filter
- Electrical control box
- Soft connection
- Gas flow control valve(When closing the valve, it is the largest gas production, Open the valve, gas reflux, gas production relative reduction)
- Firearms trial(Trial to test the gas quality firearms, When the test firearm was ignited and combustion stability, indicating the gas to achieve the requirements)
- Shunt
- Exhaust valve(when the gas achieve requirements before, open and emission. When achieve ,close)
- Gas outlet valve(When the gas reaches the requirements previously closed, and then opened when the gas achieve the requirements.)

## EXPERIMENT TOPICS

- Familiarisation with operating principles of a biomass gasification system
- Biomass gasification setup
- Familiarisation with Filtering Section
- Familiarisation with Cooling Section
- Familiarisation with Electrical Control
- Familiarisation with Purifier and Separating Gas Section

### 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
BIOMASS GASIFICATION POWER PLANT TRAINER	GOTT-BGPP-01	445-020

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