



\*The pictures above are for reference only.  
The real products purchased should be considered as final.

AT-13101 Mini Turbine Engine Trainer was developed and manufactured in Taiwan, with more than 16KG of thrust. This Turbine Engine trainer is controlled by Electronic Control Unit (ECU), it can control the starting process, ignition, Revolution per Minuets (RPM) and fuel flow, with ECU it could prevent damages resulted from improper shut down. Automatic ignition system ensures stable start up by using DC motor linked to internal compressor.

## ● Features

AT-13101 Mini Turbine Engine Trainer comes with multiple temperatures, pressure sensor and thrust produced, RPM, fuel flow and manifold pressure, which could provide multiple surveillance and data analysis for Turbine engine. All the properties mentioned above could provide stable control platform and multiple data analysis; it is suitable for various industry, example aviation training schools, and engineering schools.

## ● Specification

1. 15 inch panel PC
2. Controller board
3. Master power switch on with a safety key
4. Turbine ignition switch is guarded by switch guard, to prevent unintentional activation or emergency shut down
5. Throttle control : Direct Current (DC) voltage control
6. LCD display
7. Fuel Tank : 50 Liters
8. Turbine design
  - Maximum thrust : 16 Kg/120000RPM
  - RPM : 3500-120000 RPM
  - Fuel : Jet-A, kerosene or diesel (must mixed with 5% of synthetic turbine oil)
  - Length : 35 cm
  - Diameter : 11 cm
9. ECU
  - Automatically control fuel pump, regulate fuel flow and safety limit
  - Monitor EGT, for starting and shut down
  - Monitor DC power supply, regulate DC supply for starter and ignitor
  - ECU will monitor start, run and shut down safety steps
10. Sensors for Turbine engine trainer
  - Intake air temperature sensor
  - Intake air pressure
  - After diffuser temperature sensor
  - After diffuser Pressure sensor, rear diffuser

- Turbine inlet temperature sensor
- Turbine inlet pressure sensor
- Turbine outlet temperature sensor
- Turbine outlet pressure sensor
- Fuel Nozzle temperature sensor
- Fuel Nozzle pressure sensor
- Thrust measure
- Fuel consumption
- Intake air volume
- RPM

11. Power : AC 110V 60Hz / 230V 50 Hz
12. Dimension : 85.5cm (W) X 70 cm (D) X 149 cm (H)
13. Weight : 40 Kg
14. Practical lessons
  - Turbine starting procedure
  - Turbine's temperature and pressure measurement, sensor familiarization
  - Comparison between Thrust and RPM
  - Comparison between Fuel consumption and RPM
  - Comparison between thrust and Fuel grade
  - Comparison between turbine's intake air temperature
  - Turbine steady and dynamic performance analysis
  - Comparison between fuel mixture and RPM
  - Thermodynamics and waste gas studies

## ● Accessories

1. Operation manual
2. Fuel pipe, for fuel top up
3. Ear muffler



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