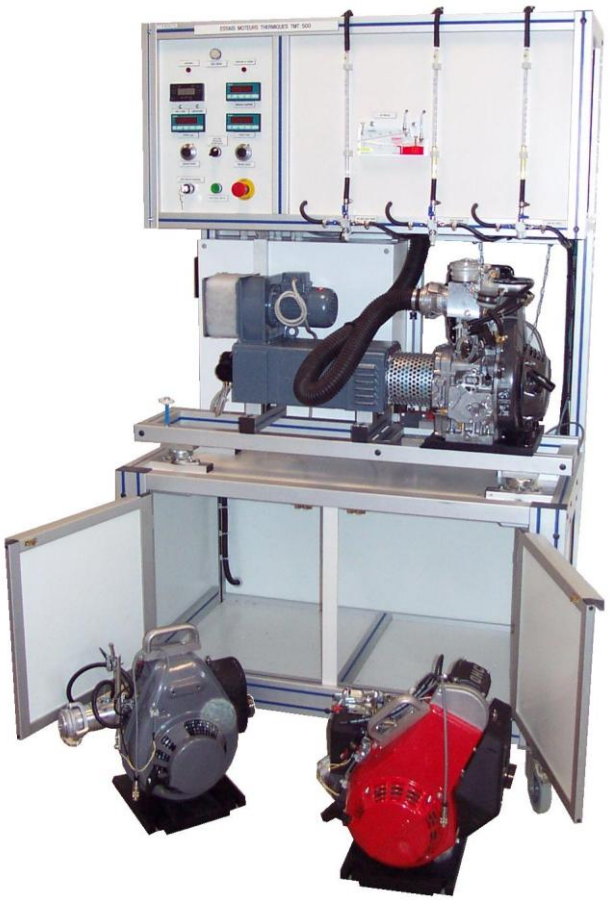
TMT 500

DIDATEC TECHNOLOGIE

Internal combustion engines test unit



- **The unit is delivered complete with instrumentation, technical documentation and instructions.**
- **Designed and manufactured to industrial standards.**
- **The low weight and centering slides make this unit easy to use.**

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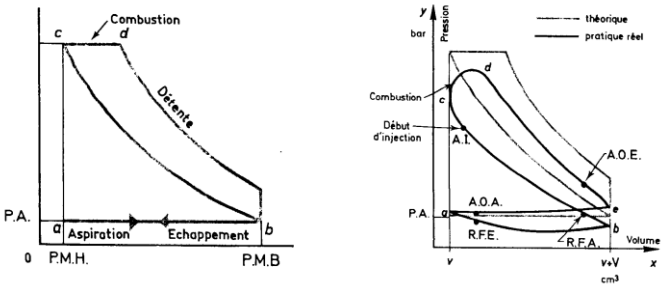
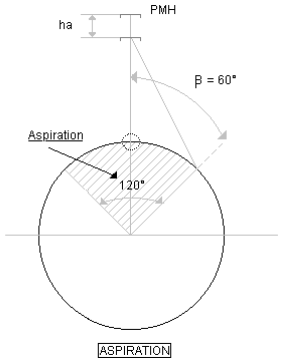
Suggested applications

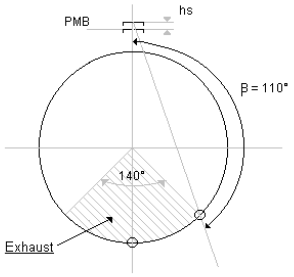
- Basic mechanics concepts : Work, energy, power.
- Diesel and controlled ignition engine
- Process for starting an internal combustion engine and safety rules.
- Two stroke / four stroke engines
- Determination of torque and power as a function of engine speed.
- Measurement of fluid flow (liquid or gas).
- Determination of torque and power at constant speed as a function of the load.
- Measurement of the volumetric and global efficiency of the engine.
- Determination of the quantity of heat dispersed by burning gases (optional).
- Kinematics and dynamics of the engine.
- Determination of the characteristics of the cooling system of an internal combustion engine.



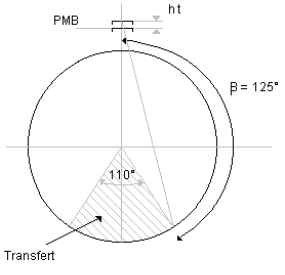
Practical diesel cycle



ASPIRATION



EXHAUST



TRANSFER

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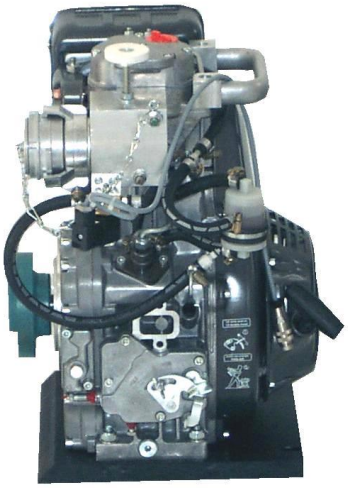
Description



Instrumentation

Supplied with fuel and air, the test engine is strong and flexible with Durit and quick error proof connectors,
Digital exhaust temperature indicators,
Angular torque and speed
Measurement of fuel consumption
One air flow meter
One chronometer on the front panel

Frame

Aluminum frame
Mounted on wheels
Engine and brakes mounted on silent blocks
Space for engine

Engines

Two stroke gasoline :
8.8 cv at the rotation velocity of 4 000 RPM
Four stroke gasoline :
9 cv at rotation velocity of 3 600 RPM
Four stroke diesel at compression ignition
6.8 cv at rotation velocity of 3 600 RPM
Mounted on a centering plate
Quick installation and coupling
Equipped with handles for transportation
Exhaust temperature sensor

Brake

7.2 kW type continuous current engine
Four sphere changer
Thermal engine ignition by a button
Coupling or velocity control
Adjustment of load by potentiometer
Electric protection and safety

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Specifications

The engine test unit operates independently. The only requirement is an electrical supply, and an exhaust fan for gas evacuation.
Engines are easily installed on centering slides and coupled with the D.C. current engine using a quick connect system. For each engine, the torque values, the speed of rotation, and the exhaust temperature can be read directly.
The speed or torque can be controlled and adjusted by using the 10 revolution potentiometer.
Engines can be started by pinion drive, but also by the direct current generator.
All the connections are quick : intake air, exhaust gas, fuel, exhaust temperature sensor, engine stop on console and mechanical coupling with the brake.

Options

This equipment can be computerized and equipped with only 1 or 2 engines on request.

Dimensions

Length	1 200 mm
Width	700 mm
Height	2 000 mm
Weight	250 kg

Utilities

Electricity : 380 V three phase
Other voltages can be provided on request

Shipping specifications

Packing case sizes :

Length	1 330 mm
Width	920 mm
Height	2 260 mm
Global weight	350 kg