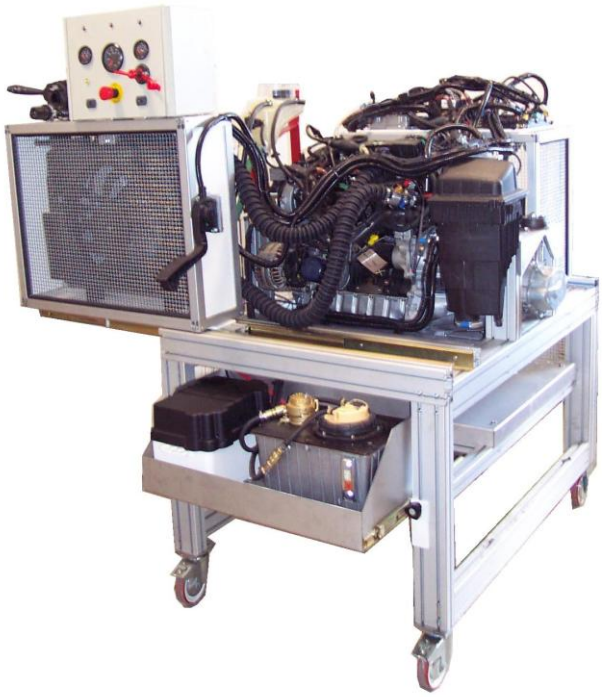
TMT 01

DIDATEC TECHNOLOGIE

Car engine test bench

DESCRIPTION

- **The car engine test bench is delivered complete with instrumentation and includes one experiment and technical manual.**
- **Designed and manufactured to industrial standards.**
- **This test bench has been designed to be safe, simple, effective, and easy to operate.**
- **The modular design allows for the adaptation of various types of car engines.**



SUGGESTED APPLICATIONS

- Basic experiments involving the engine :
  - ⇨ Draining and replacing oil (lubricating system) and water (cooling system).
  - ⇨ Control sealing of the cylinders, oil and coolant circuits.
  - ⇨ Control of temperatures and pressures
  - ⇨ Removal and replacement of worn parts such as : belts, joints, plugs ...
  - ⇨ Control of the ignition and injection systems and the adjustment of valves
- It is possible to entirely remove the engine
  - ⇨ Locating problems using functional analysis. (replacing worn parts, making adjustments)Simulation of failures on starting and charging (optional) circuits.

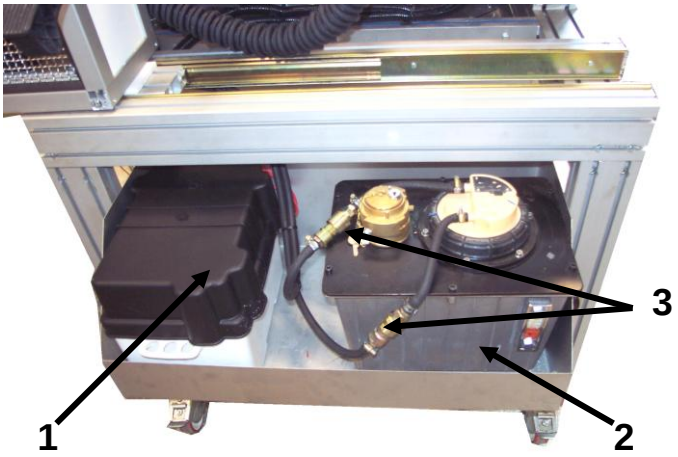
Here after some examples of units:

⇒ **Engine Peugeot 406 multipoint injection**

The engine is equipped with a failures box in order to simulate an engine defect.
The radiator is mounted on rails making it easy to gain access to the engine.

⇒ **Retention tank of the battery and the tank**

The battery (1) and the fuel tank (2) are mounted on sliding rails, making it easy to access them.
The fuel tank slides out for easy filling. A lock on the cap prevents unauthorized opening of the tank by students.



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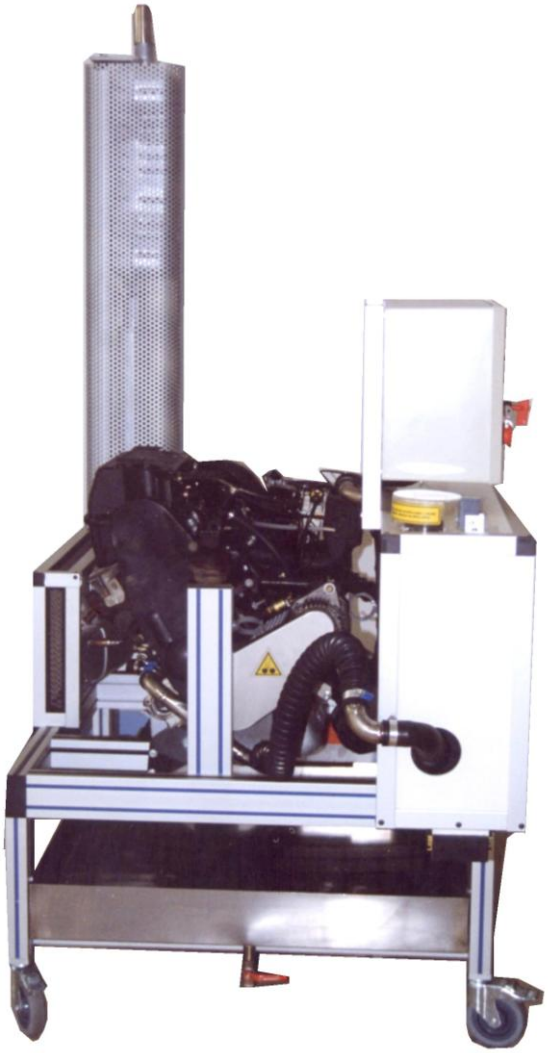
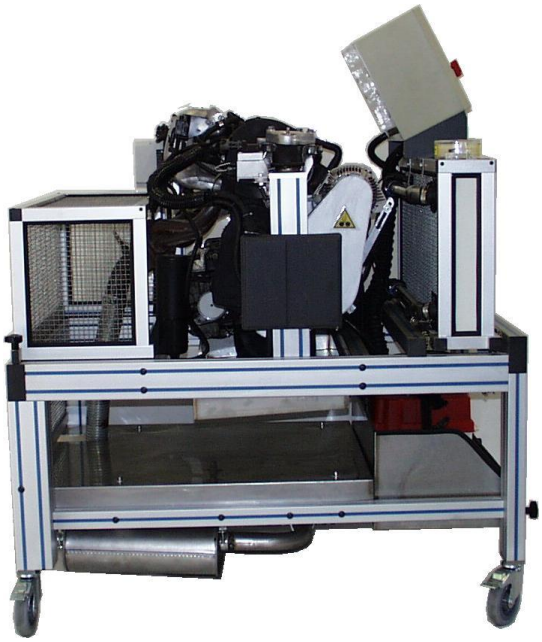


⇒ **Engine Citroen AX injection**

On this example, the exhaust is vertical and protected by a perforated sheet.



⇒ **Engine Laguna 2.0 L**

The alternator belt is covered by a shield for safety.
Graphic diagrams advise against prospective risks (battery, expansion tank, belt …)

SPECIFICATIONS

- **Frame :**
  - Aluminum section mounted on wheels equipped with brakes
  - Engine installed on silent blocks
  - Protective casing on the revolving parts subjected to high temperatures
  - Retention tank for oil, water, fuel…
  - Vat for the battery, vat for the fuel tank
- **Car type engine. A number of variations are possible (low, medium and high power, controlled or diesel ignition)**
- **The standard control and monitoring console consists of :**
  - A circuit breaker
  - Starting button with key
  - Throttle with lever (or original pedal for the motorized clappers)
  - Emergency stop
  - Charge warning light of the alternator
  - Oil pressure defect warning light
  - Water temperature defect warning
  - Rotating velocity indicator
  - Water temperature indicator
  - Oil pressure gauge
  - Fuse box
- **Related systems**
  - Electrical circuit : battery, alternator, starter, coils, computer, pumps, engines,…
  - Cooling circuit : radiator protected by a casing, fans, expansion tank…
- **Safety devices**
  - The equipment is in conformity with the European directives and industrial legislation
- **Optional extras**
  - The following systems can be added on the test bench:
  - The heating circuit of the passenger compartment
  - The air-conditioning circuit of the passenger compartment
  - Programming of the ignition system
  - Failures box

UTILITIES : The automotive engine test bench operates independently of external utilities.

DIMENSIONS :

Length : 1 300 mm
Height : 1 200 mm
Height : 2 040 mm
Weight : (according to the engine)